



Annual Report

2021

Market Development Facility

Impressum

This report is published by Market Development Facility (MDF) in April 2022. The writing, editing and design of the report was conducted by MDF staff, together with the following external contributors:

Graphic Design: Stella Pongsitanan

Editor: Heather Moore and Amelia Taylor

Market Development Facility (MDF)

Market Development Facility is an Australian Government funded multi-country initiative which promotes sustainable economic development, through higher incomes for women and men, in our partner countries.

We connect individuals, businesses, governments and NGOs with each other, and with markets at home and abroad. This enhances investment and coordination and allows partnerships to flourish, strengthening inclusive economic growth.

MDF is funded by the Australian Department of Foreign Affairs (DFAT). It is implemented by Palladium in partnership with Swisscontact.





ANNUAL REPORT 2021

Purpose of This Report



Objective

MDF supports the Australian Government's objectives of promoting sustainable economic growth, enhancing women's economic empowerment and reducing poverty.

The Annual Report 2021 is intended to provide insight into the program's key achievements between 1 January and 31 December 2021. It also describes the progress made towards MDF's end of program outcomes and high-level objectives.



Audience

This report is a public document designed for MDF stakeholders and/or members of the public with an interest in Market Systems Development. The report has been written specifically to address the information needs of DFAT's Agriculture, Infrastructure and Water Branch (IWB) team in Canberra, New Zealand's Ministry of Foreign Affairs and Trade (MFAT), for DFAT and MFAT staff at Post in MDF's countries of operation (Fiji, Pakistan, Papua New Guinea, Sri Lanka, Timor-Leste and Pacific Regional) and for MDF staff.



Reporting period

This Annual report covers the period between 1 January and 31 December 2021.

As such, it covers the activities and deliverables set out in Annual Strategic Plan 11 (1 January 2021 to 31 December 2021).

Former Reporting Structure Up to 2018			Reporting Structure 2019 Bridge Year			Reporting Structure 2020 Onwards		
Report	Period Covered	Due Date	Report	Period Covered	Due Date	Report	Period Covered	Due Date
Annual Aggregation of Results (AAR)	1 December 2016 to 30 November 2017	February 15 th	Annual Report (includes annual aggregation)	Previous calendar year (2018)	March 1 st	Annual Report (includes annual aggregation)	Previous calendar year (2019)	March 1 st
Annual Report (AR)	1 December 2016 to 30 November 2017	March 1 st	Bridge Annual Strategic Plan (ASP)	June to December 2019	May 15 th	Financial Report	Financial year 2019-20	August 30 th
Annual Strategic Plan (ASP)	Financial Year Coming (July 2018 – June 2019)	May 15 th	Financial Report (includes deliverables report)*	Financial year 2018-19	August 30 th	Annual Strategic Plan (ASP)	Calendar year 2021	November 30 th
Financial Report	Financial year 2017-18	August 30 th	Annual Strategic Plan (ASP)	Calendar year 2020	November 30 th			
Deliverables Report	Previous ASP	August 30 th						

* As an attachment to the financial report, MDF will report on its progress against deliverables in tabular format



Report structure

During 2019, MDF introduced the three-tiered 'market system' structure (MSS) to its reports (see *Systemic Change at MDF* for details).

Specifically designed to be implemented in a flexible manner, it is primarily intended to provide a consistent structure and format with which to communicate MDF's plans and results.

This structure and format were first applied to ASP 2020 and are mirrored here. They allow readers to compare the plans made in Annual Strategic Plans (ASPs) with progress made in Annual Reports, that is, to compare what MDF planned with what it achieved. A summary of the key changes made to the annual report is reproduced from *MDF Reporting Framework Update for DFAT* below.



Key aspects of the Annual Report

Market system hierarchy

The contents of the Annual Report record progress according to the market system hierarchy. This means that, like the ASP, each market system includes a market system hierarchy diagram and a narrative which explains progress against that.

Inclusion of the summary table from the ASP

A smaller version of the summary table from the ASP is included for each market system, to help readers remember what MDF had planned, and to avoid them having to refer to a different report at the same time.

Inclusion of outputs in summary table

MDF has added in figures for the value of additional market transactions (VAMT) and private sector investment leveraged to aid comparison between activities and outputs.

Inclusion of traffic lights for progress

Each table includes a traffic light to demonstrate how interventions are progressing. Green is used for on track, orange for some delays but broadly on track, red for delays or issues.

Inclusion of leading indicators

Leading indicators (access and usage) are featured as part of the explanation of the journey towards systemic change. The systemic change envisaged is articulated in the MSS hierarchies above.

Inclusion of Aggregate Development Results (ADRs)

Progress marked against DFAT ADRs is annexed to the report.

Highlights - graph updates

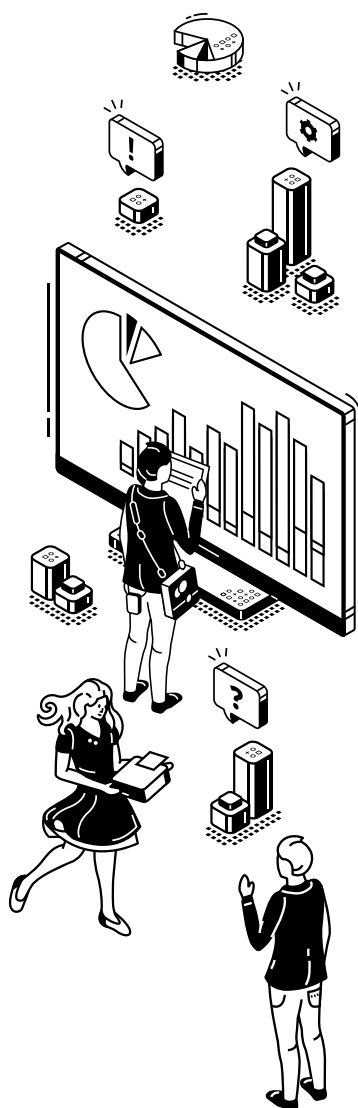
MDF will update its graphical representation of how interventions are progressing according to the headline and leading indicators. Estimates are no longer represented by a line, but by a single dot, to help readers understand that they are end of program outcomes. Effort has been made to make the cumulative nature of results clear.

Relevance of lessons learned to strategy

In addition to the lessons MDF teams learned from implementation, this report includes a short section on how the overall strategy was changed as a result of these lessons.

How to Read This Report

What are our numbers, and what do they mean?



Estimates

Estimates are similar to targets.

At the start of each phase, data and experience of country and market contexts are used to assess what can reasonably be achieved during that phase.

This evaluation takes time, budget and other design constraints (such as a particular focus on a population) into account. It is not based on specific interventions or partnerships.

The result of this assessment is an estimate – an ‘educated guess’ of what the whole country program can achieve during one phase.

Estimates are reviewed mid-phase.

Projections

Projections express an intervention's expected yield.

Before entering into any intervention, teams conduct rigorous assessments of deliverables and what can realistically be achieved within one year, under current circumstances.

The results for each intervention in a country's portfolio are then added together to give cumulative projections – an informed estimation of what is expected from a country's interventions.

Projections are used to understand the likely contribution of each intervention to reaching end of program outcomes (EOPs) and as a management tool to guide resource allocation within the country programs.

Projections are also used to help DFAT understand what the program is likely to achieve from a given group of interventions.

Actuals

Actuals are the measured and verified results of an intervention.

This data helps MDF to evaluate whether or not an intervention is on track, and whether expectations are being met.

As the name suggests, this measures the ‘actual’ impact that has been observed through our ongoing monitoring.

The current year's ‘actual’ results are added to previous years’ results to give us cumulative figures.

Why do we present cumulative results?

It is important to report on cumulative figures for both projections and actuals because market system development interventions do not bring immediate results: an investment made this year generates results in years to come. It also allows the program to:

- Capture and report a project's impact sustainability (whether or not a project continues to produce positive results even after MDF activities have been completed)
- Know whether or not our original estimates and projections were accurate
- Detect signs of systemic change based on the overall scale of change compared to the size of the sector.

Comparison of Indicators

	Estimates	Projections	Actuals
Meaning	Where we thought we'd be by the end of the phase	Where we thought we would be after an intervention is complete	Where we are
Calculated	At the start of the phase	At the start of an intervention	At the end of the year
Measures	Expectations of country and program achievement over the phase	Expectations of an intervention	Intervention results
Updated	Mid-term review only	Bi-annually	Annually
Timeframe	One phase	One year	One year

Reporting Indicators

Headline indicators



Effective outreach

- Total number of disadvantaged or economically marginalised working adults (smallholder farms, firms and workers) benefiting as a result of MDF interventions
- Gender disaggregated

Purpose:

- Measures scale of impact on poor, disadvantaged, economically marginalised women and men



Net additional income increase

- Net additional income earned by beneficiaries, attributable to MDF intervention
- Gender disaggregated

- Captures value of additional income

Leading indicators



Usage outreach

- The number or proportion of target beneficiaries (i.e. from those who have access) who are now using or applying the information, good or service
- Gender disaggregated

Purpose:

- Reflective of the feasibility/success of the model explored



Access outreach

- The number or proportion of beneficiaries that have information about, or access to, a specific good or service as a result of MDF's intervention
- Gender disaggregated

- Captures early signs of progress at an intervention, sector and portfolio level

Value for money indicators



Value of additional market transaction (VAMT)

Increased economic transactions triggered by MDF intervention. This captures the additional sales revenue generated by businesses that MDF has supported

Purpose:

- Allows us to check how our activities are resulting in additional end market sales for businesses

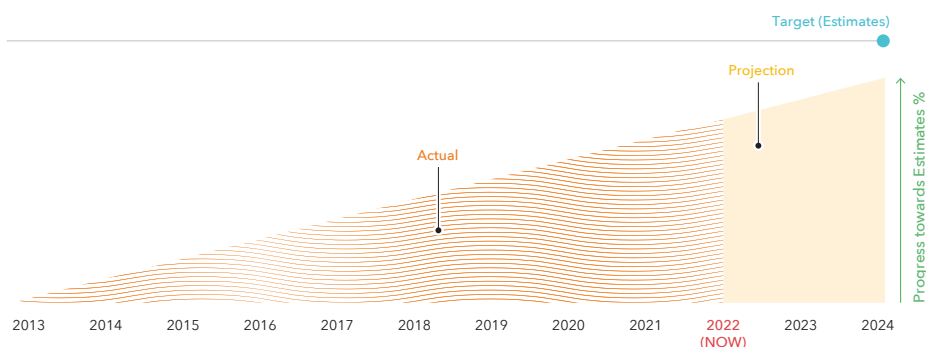
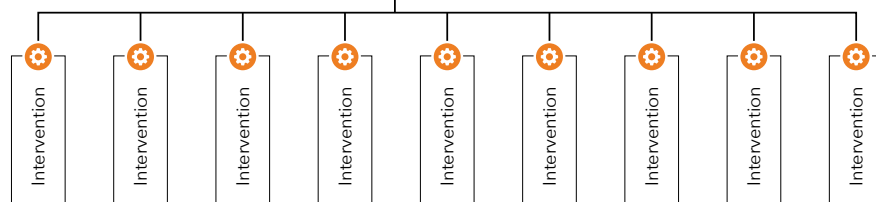


Private sector investment leveraged

Includes additional investments made to improve business models triggered by MDF intervention and investments made by other businesses that have 'crowded-in' in response to MDF intervention

- Reflects businesses' buy-in, risk appetite, indication of sustainability

Activities



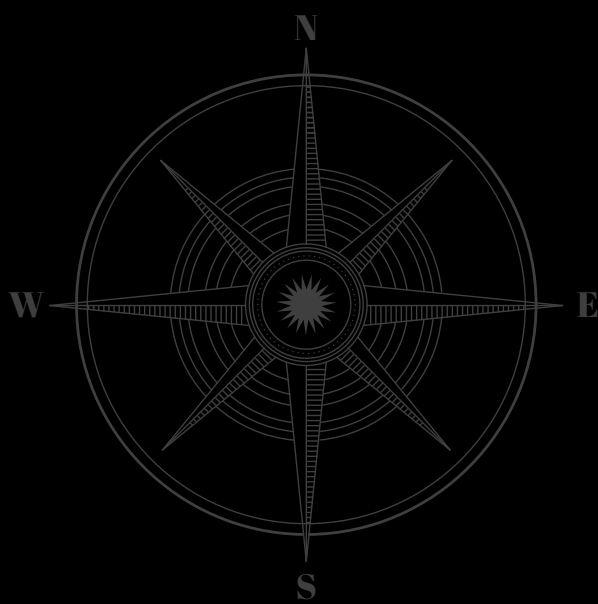
Abbreviations and Acronyms

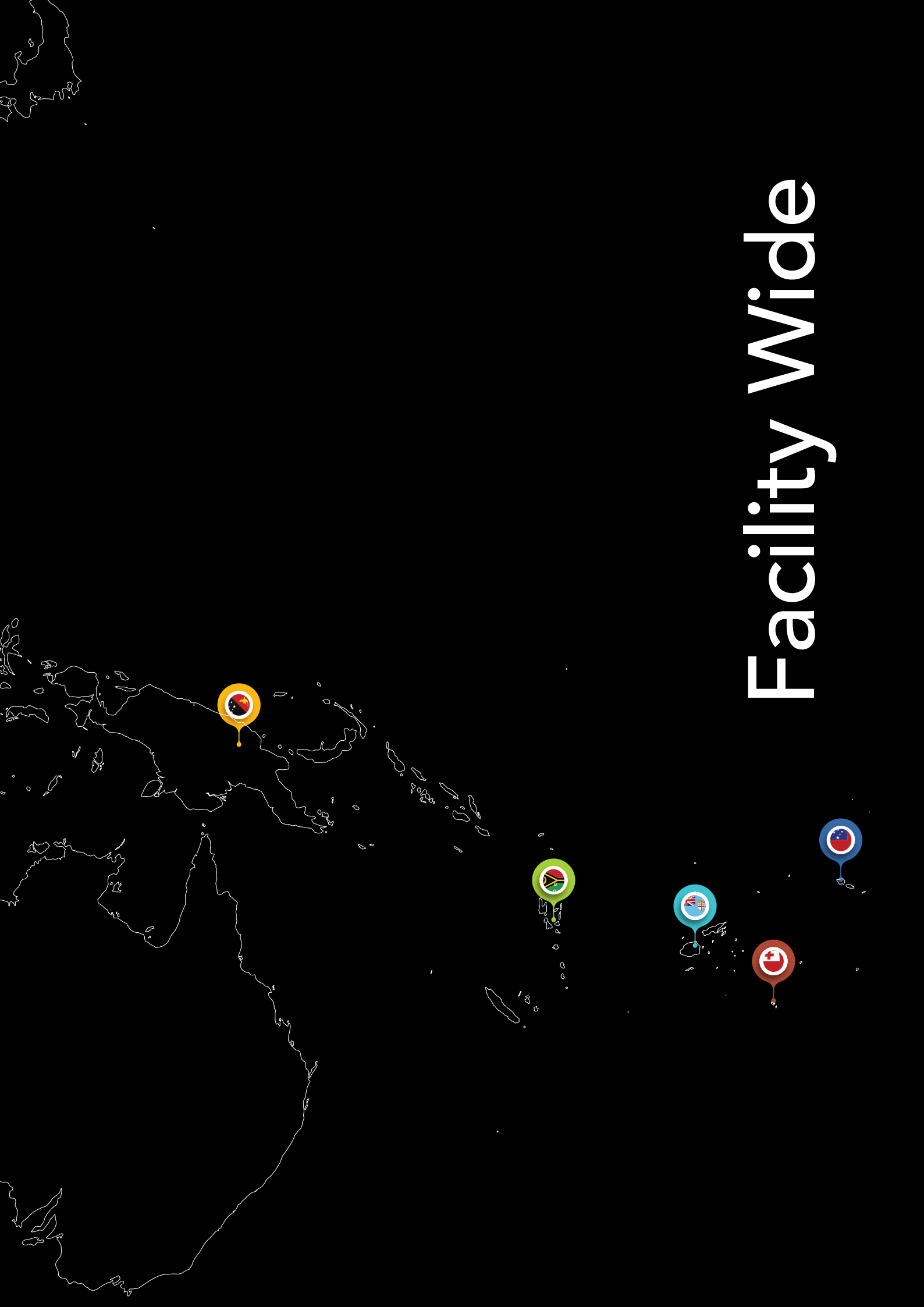
ACIAR	Australian Centre for International Agricultural Research	LKR	Sri Lankan Rupee
ADB	Asian Development Bank	MDF	Market Development Facility
AUD	Australian Dollars	FEE	Fiji Enterprise Engine
BA	Business Adviser	MFAT	New Zealand Ministry of Foreign Affairs and Trade
BMO	Business Membership Organisation	MIS	Management Information System
BPO	Business Process Outsourcing	MOU	Memorandum of Understanding
CLT	Core Leadership Team	MRM	Monitoring and Results Measurement
DFAT	Department of Foreign Affairs and Trade (Australia)	MSD	Market Systems Development
DMO	Destination Marketing Organisation	MSME	Micro, Small and Medium Enterprise
EI	Engagement and Influencing	OS	Outsourcing Services
EOPO	End of Program Outcomes	PGK	Papua New Guinean Kina
FAO	Food and Agriculture Organization of the United Nations	PHAMA	Plus Pacific Horticultural and Agricultural Market Access Program
FCEF	Fiji Commerce and Employers Federation	PKR	Pakistani Rupee
FEO	Field Extension Officers	QI	Quality and Inclusion
FJD	Fijian Dollar	SAT	Samoan Tala
FTE	Full-Time Equivalent	SME	Small and Medium-sized Enterprises
FY	Financial Year	UNCDF	United Nations Capital Development Fund
GDP	Gross Domestic Product	USD	United States Dollars
GFWP	Giant Freshwater Prawn	WEE	Women's Economic Empowerment
HACCP	Hazard Analysis and Critical Control Points	WHO	World Health Organization
ICT	Information Communications Technology		
IFC	International Finance Corporation		

Table of Contents

Purpose of This Report	2
How to Read This Report	4
Reporting Indicators.....	6
Abbreviations and Acronyms.....	7
FACILITY OVERVIEW	10
MDF's Progress in 2021	12
Highlights	14
Summary MDF Results as of December 2021	15
MDF Results 2021.....	16
Facility Overview.....	20
Quality and Inclusion	40
Operations.....	46
Communications	50
FIJI	52
Quick Facts	52
Highlights	54
The Results Story	58
Overview of Portfolio and Progress in 2021	61
Country Strategy and sector selection	63
Systemic change story	70
Sector Stories.....	72
COVID-19 Case study.....	114
Pro-poor Growth Story	118
Acknowledgements	120
PAKISTAN	122
Quick Facts	122
Highlights	124
The Results Story	128
Overview of Post-Implementation Monitoring	130
Systemic change story	132
Lessons from the country program.....	134
Sector Stories.....	137
Pro-poor Growth Story	148

PAPUA NEW GUINEA	152
Quick Facts	152
Highlights	154
The Results Story	158
Overview of Portfolio and Progress in 2021	160
Country Strategy and sector selection	163
Sector Stories.....	170
COVID-19 Recovery Story	194
Pro-poor Growth Story	196
Acknowledgements	198
 SRI LANKA.....	 200
Quick Facts	200
Highlights	202
The Results Story	206
Overview of Portfolio and Progress in 2021	208
Country Strategy and sector selection	210
Systemic Change Story.....	216
Sector Stories.....	220
COVID-19 Recovery Story	256
Pro-poor Growth Story	260
Acknowledgements	262
 TIMOR-LESTE.....	 264
Quick Facts	264
Highlights	267
The Results Story	269
Overview of Portfolio and Progress in 2021	270
Country Strategy and sector selection	273
Early signs of systemic change	278
Sector Stories.....	289
COVID-19 Response Story	322
Pro-poor Growth Story	324
Acknowledgements	326
 PACIFIC REGIONAL	 328
Quick Facts.....	328
Highlights	330
Overview of Progress in 2021	332
Scoping, Analysis and Strategy development.....	335
Interventions.....	340
Acknowledgements	342
 ANNEX 1	 344





Facility Wide

MDF's Progress in 2021

Graph key: **Actuals** / **Projections** / **Estimates**¹

Example:  50 75 100

Estimates are calculated at the start of each phase. They are not targets, but rather an informed, calculated guess at what the program can achieve during the phase.

Number of people positively impacted by MDF's work (Effective Outreach)

MDF's outreach surpassed estimates, fuelled by positive growth in Papua New Guinea and Timor-Leste

MDF exceeded its outreach estimates in 2021 as a result of various innovations in sectors across the portfolio. Coffee certification in Papua New Guinea, coffee processing and the pig sector in Timor-Leste and horticulture in Pakistan propelled this success, which offset prolonged COVID-19-related ramifications on the tourism portfolios of Sri Lanka and Fiji. There was also a significant impact on Fiji's outsourcing services sector, with over 300 full-time jobs generated through MDF support, mostly for women. In Pakistan, progress in the horticulture sector continued to evolve due to supplementary interventions, showcasing the sustainability of MDF's support nearly two years after

the program's closure. Sri Lanka contributed significantly to the increase in projections, due to portfolio adjustments and strengthening particularly in high value agriculture and agritech. The results from these interventions are expected to materialise in 2022. This reiterates that program outreach will only continue to grow. MDF attributes the favourable progress in outreach to the sharper strategic focus over the year, particularly in response to prolonged COVID-19 conditions. MDF also engaged with new partners and brokered new relationships, ensuring continuity of operations and supply chains, as well as fostering growth.

439,447
428,427 494,665

Additional income generated for adults across MDF countries (Net Additional Income)

Income grew slowly, but steadily, affected by COVID-19

As of December 2021, MDF had generated USD157 million in additional income, 71 per cent of End of Program Outcomes (estimates) and a five per cent increase compared to the previous year. The current portfolio is expected to contribute to USD172 million, or 78 per cent of estimates, until 2024.

MDF's new and upcoming interventions are anticipated to further narrow the gap between actuals, projections and estimates. This is particularly likely to occur considering the emerging work in climate-smart agriculture, such as climate change-resistant inputs and services, as well as through interventions in agricultural technology, which support

the reduction of transaction costs and higher liquidity, yield and price. While in 2020 and 2021, MDF opted to be conservative with projections relating to tourism, the gradual reopening of borders and subsequent travel opportunities have prompted greater optimism and marine and air tourism are expected to gain traction. MDF-supported interventions in using data for targeted marketing to attract new tourist segments, as well as rejuvenate the supply chains of key export items, such as blue swimmer crab and giant freshwater prawns are picking up in importance in partner countries. These are anticipated to yield increased income for those involved in these value chains.

172m
157m 220.7m

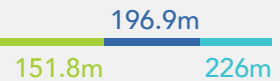
¹ The figures expressed here are rounded off to one decimal place to aid readability in infographic form. The exact figures can be found in the results tables on page xx. The figures are cumulative as of December 2021. For definitions of actuals, projections, and estimates, please refer to the page xx. i.e. whatever page we put the definitions on, last year was page 4. Details on the change in estimates due to the close of the Pakistan program and the addition of the Pacific Regional Expansion can be found in the Quality and Inclusion section on page xx.

Additional revenue generated for business partners (Value of Additional Market Transactions)

Despite the prolonged pandemic, businesses pushed forward, with many MDF innovations at the forefront of new deals and innovations

The current portfolio continued to reap benefits – in 2021, the value of additional market transactions surpassed End of Program Outcomes (estimates). Various interventions with diverse businesses generated these favourable results, but a common factor was visible: COVID-19 has been a boon for goods and services that are niche or premium. The Urban Industries sector in Fiji attracted new clients to its burgeoning Outsourcing Services market, while in Papua New Guinea, coffee fetched long-deserved premiums. The

strong portfolio results are particularly noteworthy given the fact that the past two years were characterised by economic downturn and fluctuating inflation. A few years of implementation and measurement remain under the current phase. However, overshooting estimates reflects that well-planned interventions and an agile mindset for support can lead to continued economic activity between consumers and the private sector, even under difficult conditions.



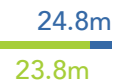
Amount of investment from the private sector (Private Sector Investment Leveraged)

Businesses are willing to partner and collaborate but the appetite for risk and ability to invest are low

Ratio of MDF to private sector investment
1:3.02

In 2021, for every dollar invested by MDF, the private sector invested 3.02 dollars. As of December 2020, MDF had generated USD24.8 million in private sector investment, exceeding End of Program Outcomes (estimates). Despite this achievement, 2021 was one of MDF's lowest years for private sector investment. Previously, the MDF to private sector investment ratio increased annually, from 3 in 2018 to 3.2 in 2019 and 3.6 in 2020, but this figure dropped to 3.02 in 2021. This is likely due to a liquidity crunch,

persistent since 2020; many businesses are willing to invest in innovation, but do not have the available cash beyond what is required to stay afloat. Moreover, with pandemic conditions continuing to fluctuate despite improved vaccination rates, the appetite for risk is low. Even when transactions continued or increased, businesses chose to reinvest in operational costs and maintaining their workforce. In many cases, MDF needed to cover a larger share of partnership investment. Nevertheless, most of MDF's partners are slowly resuming operations and MDF is optimistic about the results trajectory for this indicator.



Proportion of women positively impacted



MDF maintains its strong record on gender equality. Of the total number of people benefitting from MDF's work, 44 per cent were women in 2021. The overall percentage dropped by approximately 1 per cent from 2020, but there were no major changes in the share of female beneficiaries in the MDF countries. Income generated by women remained consistent with previous years, with 45 per cent of the total income in the Pacific generated by women and 36 per cent in South Asia.

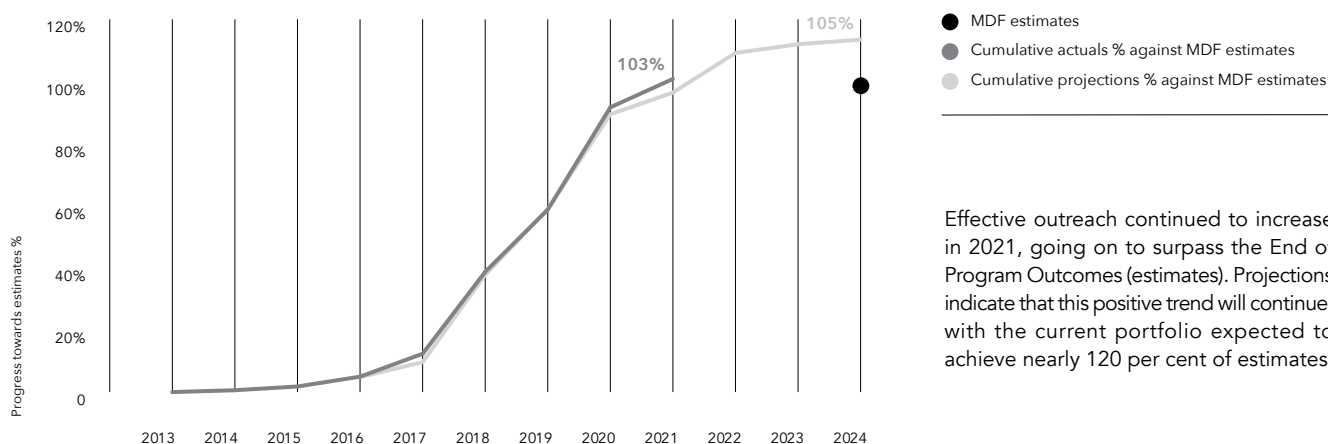
Outreach from employment

6,248 outreach from employment (24% female)

The COVID-19 pandemic prompted MDF to actively work with businesses to sustain and generate employment. In just one year, 499 jobs were sustained or created through MDF innovations, with one-third originating from Fiji's outsourcing services industry. Most of these positions were filled by women who previously worked in tourism. The new employment opportunity enables them to continue to contribute to household income and savings.

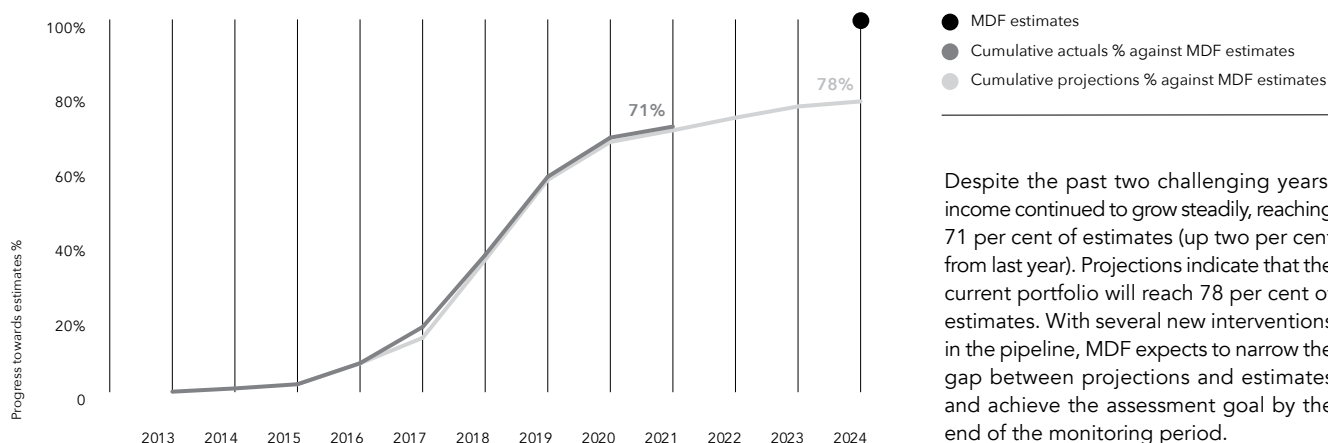
Highlights

EFFECTIVE OUTREACH



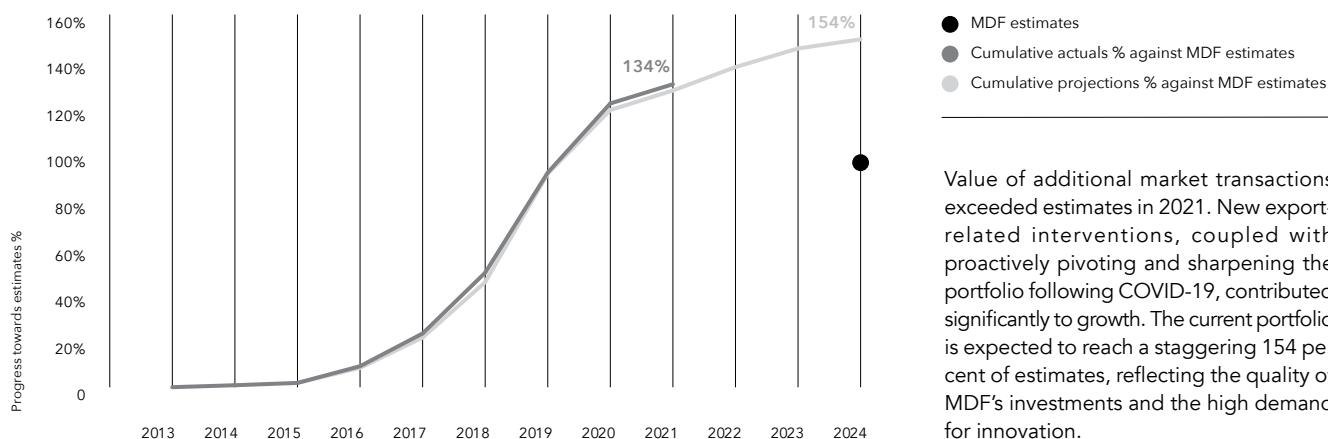
Effective outreach continued to increase in 2021, going on to surpass the End of Program Outcomes (estimates). Projections indicate that this positive trend will continue, with the current portfolio expected to achieve nearly 120 per cent of estimates.

NET ADDITIONAL INCOME (USD)



Despite the past two challenging years, income continued to grow steadily, reaching 71 per cent of estimates (up two per cent from last year). Projections indicate that the current portfolio will reach 78 per cent of estimates. With several new interventions in the pipeline, MDF expects to narrow the gap between projections and estimates and achieve the assessment goal by the end of the monitoring period.

VALUE OF ADDITIONAL MARKET TRANSACTIONS



Value of additional market transactions exceeded estimates in 2021. New export-related interventions, coupled with proactively pivoting and sharpening the portfolio following COVID-19, contributed significantly to growth. The current portfolio is expected to reach a staggering 154 per cent of estimates, reflecting the quality of MDF's investments and the high demand for innovation.

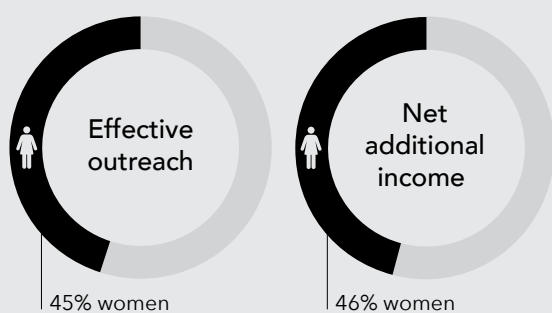
Summary of MDF Results as of December 2021*



Facility-wide

Effective outreach	Net additional income	Private sector investment leveraged	VAMT
439,447	USD \$157m	USD \$24.8m	USD \$196.9m

Pacific

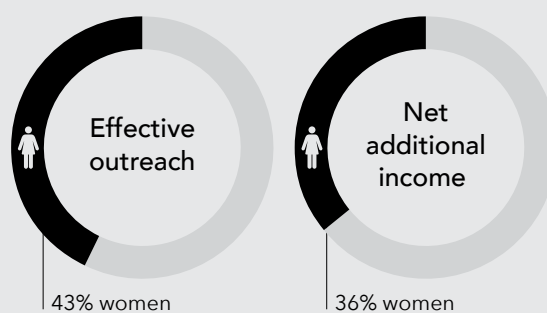


117,332 USD \$37.1m

Private sector investment leveraged USD \$18.5m

VAMT USD \$38.9m

South Asia



332,115 USD \$115.4m

Private sector investment leveraged USD \$6.3m

VAMT USD \$158m

* MDF generates results in country currencies. For currency conversion to USD/AUD values, MDF uses monthly averages from the *Financial Times* to calculate annual conversion rate.

MDF Results 2021



Indicator	Cumulative actuals (as of December 2021)			Cumulative projections (to the end of Phase II monitoring period)			Estimates
MDF investment (USD)	2,733,000			NA			NA
Private sector investment leveraged (USD)	12,621,000			NA			7,850,000
MDF to Private Sector Investment Leverage Ratio	4.62			NA			NA
Value of additional market transactions (USD)	29,121,000			39,973,000			43,000,000
	Female	Male	Total	Female	Male	Total	
Access outreach	10,727	10,480	21,207	11,922	11,670	23,592	NA
Usage outreach	10,415	10,206	20,621	11,601	11,388	22,989	NA
Effective outreach	10,329	10,138	20,467	11,450	11,260	22,710	40,000
Outreach from employment	378	362	740	504	490	994	NA
Net additional income (USD)	13,702,000	16,182,000	29,884,000	15,778,000	19,061,000	34,839,000	44,500,000



 Pakistan

Indicator	Cumulative actuals (as of December 2021)			Cumulative projections (to the end of Phase II monitoring period)			Estimates
MDF investment (USD)	1,864,320			NA			NA
Private sector investment leveraged (USD)	5,129,420			NA			5,161,905
MDF to Private Sector Investment Leverage Ratio	2.75			NA			NA
Value of additional market transaction (USD)	142,612,070			144,583,300			64,002,500
	Female	Male	Total	Female	Male	Total	
Access outreach	174,967	194,358	369,325	175,864	195,379	371,242	NA
Usage outreach	145,469	164,860	310,329	146,366	165,881	312,247	NA
Effective outreach	136,786	156,177	292,963	137,683	157,198	294,881	298,827
Outreach from employment	548	3780	4,329	617	3,867	4,485	NA
Net additional income (USD)	40,286,360	58,300,750	98,587,110	40,552,565	58,851,075	99,403,640	133,092,212

 Papua New Guinea

Indicator	Cumulative actuals (as of December 2021)			Cumulative projections (to the end of Phase II monitoring period)			Estimates
MDF investment (USD)	1,133,003			NA			NA
Private sector investment leveraged (USD)	1,699,344			NA			1,200,000
MDF to Private Sector Investment Leverage Ratio	1.49			NA			NA
Value of additional market transaction (USD)	3,584,971			9,037,352			4,050,000
	Female	Male	Total	Female	Male	Total	
Access outreach	5,762	28,463	34,225	8,343	36,827	45,170	NA
Usage outreach	3,090	19,289	22,378	5,474	26,710	32,174	NA
Effective outreach	2,401	13,346	15,747	4,949	20,657	25,606	9,000
Outreach from employment	30	74	104	39	199	238	NA
Net additional income (USD)	281,755	895,085	1,176,840	741,325	3,106,220	3,847,545	4,050,000

 Sri Lanka

Indicator	Cumulative actuals (as of December 2021)			Cumulative projections (to the end of Phase II monitoring period)			Estimates
MDF investment (USD)	1,064,400			NA			NA
Private sector investment leveraged (USD)	1,182,300			NA			4,180,000
MDF to Private Sector Investment Leverage Ratio	1.11			NA			NA
Value of additional market transaction (USD)	15,388,500			21,316,700			28,980,000
	Female	Male	Total	Female	Male	Total	
Access outreach	4,931	25,691	30,622	83,525	121,221	204,746	NA
Usage outreach	4,883	25,643	30,526	31,762	53,227	84,999	NA
Effective outreach	4,281	24,871	29,152	18,140	36,839	54,979	55,600
Outreach from employment	317	90	407	529	483	1,012	NA
Net additional income (USD)	2,268,265	14,570,840	16,839,105	3,904,210	16,920,110	20,824,320	31,807,000

 Timor-Leste

Indicator	Cumulative actuals (as of December 2021)			Cumulative projections (to the end of Phase II monitoring period)			Estimates
MDF investment (USD)	1,477,074			NA			NA
Private sector investment leveraged (USD)	4,186,360			NA			4,965,000
MDF to Private Sector Investment Leverage Ratio	2.83			NA			NA
Value of additional market transaction (USD)	6,244,056			11,364,055			6,443,000
	Female	Male	Total	Female	Male	Total	
Access outreach	113,111	113,203	226,314	129,490	129,832	259,321	NA
Usage outreach	71,450	71,514	142,964	85,629	85,786	171,415	NA
Effective outreach	40,533	40,585	81,118	48,389	48,497	96,886	19,000
Outreach from employment	252	416	668	253	465	718	NA
Net additional income (USD)	5,308,623	5,403,242	10,711,865	6,556,406	6,974,119	13,530,525	5,503,000



Pacific Regional

Indicator	Cumulative actuals (as of December 2021)			Cumulative projections (to the end of Phase II monitoring period)			Estimates
MDF investment (USD)	NA			NA			NA
Private sector investment leveraged (USD)	NA			NA			604,800
MDF to Private Sector Investment Leverage Ratio	NA			NA			NA
Value of additional market transaction (USD)	NA			781,210			4,375,000
	Female	Male	Total	Female	Male	Total	
Access outreach	0	0	0	30	30	60	NA
Usage outreach	0	0	0	30	30	60	NA
Effective outreach	0	0	0	30	30	60	6,000
Outreach from employment	0	0	0	0	0	0	NA
Net additional income (USD)	0	0	0	124,990	124,990	249,980	1,800,000

Facility Overview



The facility

The purpose of the Facility Overview chapter is to discuss the major themes, trends, opportunities and operational issues that emerged during the past year. It also captures some of the facility-wide initiatives that do not fit neatly within any single country chapter.

At this time last year, with vaccines making their way into arms around the world, it had been hoped that 2021 would be a year of recovery. Instead, the 12 months saw a deepening of the pandemic health crisis and a wave of economic shocks. MDF countries continued to suffer COVID-19 outbreaks and all were under strict lockdowns for significant periods of time. Shipping disruption, energy shocks and inflation have rocked the global economy and caused the price of food and agricultural inputs to spike alarmingly. While these disturbances have not yet reached the economic recession levels seen in 2008, the forces driving the price increases are structural and could persist for a long time.

It is against this backdrop of disruption and uncertainty that the 2021 Annual Report is written.



MDF's performance in 2021

The focus of MDF's work in 2021 progressed from dealing with the immediate impacts of the pandemic, to supporting private sector adaptation (e.g. agriculture), promoting industry realignment (e.g. tourism) and nurturing economic diversification (e.g. outsourcing services). MDF increasingly worked with partners to use data and emerging technologies to support them as they adapt to a rapidly changing world, and feed insights on economic conditions to DFAT, MFAT and other program stakeholders. These efforts align well with Partnerships for Recovery — Australia's COVID-19 Development Response and Australia's emphasis on supporting economic recovery and stability in the Indo-Pacific region.

Much like in 2021, this year MDF found that demand for its services had increased in all countries of operations as businesses struggled to survive and adapt to the various crises, but also, as new opportunities emerged. The country portfolios have continued to grow significantly in scope and potential impact as well as deepened strategic engagement. Despite travel restrictions hampering some aspects of the program's work, MDF's skilled and dedicated in-country teams increased the tempo of activity and continued to push the program into new areas. The Shared Resources-Core Leadership Team continued to provide support to country teams remotely, aided by routine processes and systems established previously (e.g. portfolio reviews, intervention peer reviews and the Management Information System).



The Mid-Term Review

In the first half of 2021, MDF had its mid-term review. The review found that MDF was an effective, efficient and relevant initiative and recommended extending the program for a further five-year period. The review made several recommendations on ways in which the program could adjust some of its portfolios and approaches. The recommendations, and MDF's responses to these, are annexed to this report.

Key steps taken in 2021 include:



Making climate change adaptation and mitigation a central pillar of the program's work, which included capacity building of teams to consider climate risks when designing interventions and inclusion of climate change indicators in activity documentation.



Identifying alternative delivery partners to reach more disadvantaged communities, such as discussions with the AAK Cooperative in PNG and Adventist Development and Relief Agency (ADRA) in Fiji.



Agreeing on a range of areas in which MDF could work collaboratively with other DFAT investments, with a specific focus on building a strong partnership with PHAMA Plus, a program with significant areas of commonality with MDF.



Deepening the program's focus on agricultural technology (agritech) as a means of supporting competitiveness in smallholder farming systems, including several strategic partnerships in Sri Lanka and PNG, focussed on supply chain digitisation.



Consolidating some of Timor-Leste's portfolio into a single, more coherent area of work.



Continuing to adapt MDF's results measurement framework, including initiatives to increase qualitative measures of performance, introduce climate-linked results and refine the systemic change monitoring and reporting framework.



Deepening and enhancing MDF's approach to inclusion, focussing increasingly on disability in addition to women's economic empowerment.



Ensuring appropriate resourcing for the Pacific expansion to ensure that it does not place an unmanageable strain on the facility as a whole.

The Mid-Term Review

Key activities for the upcoming year will include:



Establishing efforts to make activities climate-focussed, with a goal to have 30 per cent of the portfolio climate focussed by FY 2022-23.



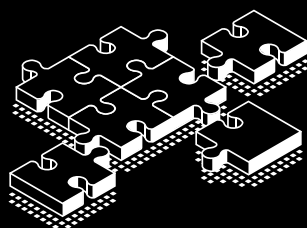
Developing country-specific plans for collaboration with PHAMA Plus and other relevant donor programs.



Identifying opportunities for working on hybrid versions of the MSD approach, in close consultation with DFAT.



Consulting with DFAT and MFAT to determine if there is a desire to establish an annual *private sector dialogue* in MDF countries, as per recommendation five.

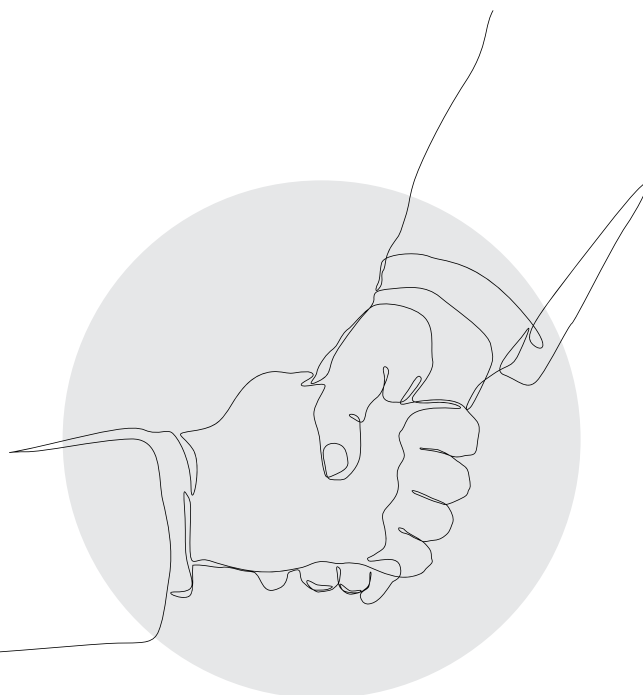


A new funder

In 2021, the New Zealand Ministry of Foreign Affairs and Trade (MFAT) provided an initial funding allocation for MDF Pacific expansion activities, implemented through a delegated cooperation agreement with DFAT. Based on performance and New Zealand budget process outcomes, additional funding may be made available for the period of 2022-23 to 2024-25.

Having MFAT contribute funding to MDF is a welcome development. It provides an opportunity to ensure that the Australian and New Zealand private sector development initiatives are even more joined up in the Pacific, and New Zealand's strong climate focus in the aid program will help MDF build a credible and concentrated portfolio addressing these concerns.

MDF is currently revising its branding and communications products to reflect the new funding arrangements. In this annual report, MDF's two supporting institutions are referred to as 'funders,' a term which covers both DFAT and MDF contributions. Where funding from one or another is earmarked for specific countries or outcomes, the facility will endeavour to reflect this in our reporting.





Key themes in 2021 that will shape the program's future

The theme of this year's annual report is 'planning for an asymmetric economic recovery.' The crises reported on in the 2020 Annual Report, COVID-19, climate change and the African Swine Fever, continued to wreak havoc for economies and livelihoods. Combined with emerging economic shocks, the outlook is as uncertain at the end of 2021 as it had been at any point in the past two years.

Even positive developments, such as the reopening of Fiji to tourists in December 2021, served to underline the huge challenge of restarting economies and industries.

The following section outlines the key themes that have influenced MDF's response to the ongoing pandemic and financial crisis.



COVID-19: Medium-term shock with long-term consequences

Much of the early discourse concerning COVID-19 characterised the crisis as a short-term shock that would be relatively short lived. Temporary pain, in the form of swingeing restrictions, would allow economies to return to normality quickly. This has not come to pass.

Instead, the pandemic has created several short-term economic shocks that, cumulatively, have created the ideal conditions for a volatile economic outlook in the medium to long-term.



Short-term shocks

The initial consequences of the pandemic have manifested in relatively unsurprising ways across MDF countries. The collapse in tourism has created acute crises in Fiji and Sri Lanka, both of which were reliant on tourism as a source of much needed foreign exchange and employment. Supply chain disruptions, predicted in 2020, have impacted MDF countries largely as expected.

At the same time commodity prices have surged to a degree that was not foreseen in earlier reporting. This has benefited smallholders in PNG and, to a lesser extent, Timor-Leste. However, it has harmed import dependent countries, leading to inflation levels not seen in decades. The cost of food escalated at the fastest rate since the 2008 food price crisis. Many of the drivers of these cost increases look more persistent than those at play in 2008, suggesting acute long-term consequences for many emerging economies.

Nevertheless, throughout 2021 MDF's private sector partners have steadfastly maintained a sense of optimism - optimism that movement restrictions and travel bans would soon end and that altered demand patterns would offer an opportunity to tap into new markets. Above all, they are hopeful that the prospect of greater stability lies ahead, offering a more predictable environment in which to make investment decisions.



Long-term consequences and an asymmetric recovery

Tempering this sense of optimism are the waves of disruption washing across the global economy. The past 12 months have witnessed the emergence of an asymmetric recovery. As some countries and industries grow rapidly, others stagnate or even contract.

The globalised supply chain is experiencing rapid change. The variously linked crises of supply chain disruption, inflation, soaring government debt, increasing protectionism, high energy prices and climate change-related risks seem to have ushered in a new economic reality. The slow but steady shift in the global economy will upturn economic models that have formed the status quo over the last three decades. This will create winners and losers, as is to be expected with large-scale economic change.

The World Bank has predicted a two-track economic recovery following the pandemic. Countries that were unable to soften the economic blow of the pandemic through fiscal or monetary policies are expected to have significantly worse long-term economic outcomes than those that could. The impact will be more severe in countries with low foreign exchange reserves and recovery may take years or even decades. This in turn may undermine the legitimacy of governments and democratic institutions in many emerging economies.

Inflation seems increasingly likely to be incorporated into future growth. Most observers expect current energy prices to abate slightly in 2022, after the initial instability brought on by Russia's invasion of Ukraine. However, costs are predicted to remain significantly elevated in the medium to long-term. In 2021, across the world, inflation outstripped growth by a considerable margin. Widely anticipated interest rate hikes, to combat inflation, will dampen investment.

Another driver of inflation, tight labour markets, will present opportunities for the services sectors in MDF countries. BPO operators in Australia, starved of low-cost workers (frequently sourced from the pool of international, short-term backpackers), are increasingly looking for business opportunities in near-shore regions, such as Fiji and Sri Lanka. Tight labour markets also severely impacted tourism dependent countries.

The same forces that disrupted global shipping are beginning to hit the aviation and tourism industries as people recommence travel. Service industries are struggling to attract skilled staff, driving up prices and dampening recovery. Rising commodity crop prices will, for example, help coffee and cocoa farmers in PNG but this severely harms import-dependent countries, such as Sri Lanka. As industries seek to reduce supply chain risks, they will diversify sourcing, providing opportunities for Pacific exporters of niche goods and outsourced services.

In sum, 2021 was a year that standard economic models were ill-equipped to explain. A series of events has been set in motion that are hard to predict, and which will play out over the upcoming decade. In such an environment, it is more important than ever to have an adaptive and flexible mechanism for working with the private sector as economic conditions change.



How did MDF respond to the asymmetric economic recovery?



PNG

Ongoing forex constraints limit foreign investment but encourage domestic investment.



Sri Lanka

The currency and balance of payments crisis led to a shortage of imports, but also made exports more competitive, guiding interventions to focus on high value agricultural goods with strong export potential.



Fiji

Although tourism recovery is slow, the country stands to gain from near-sourcing and the educated workforce.



Climate change firmly on the agenda

As the realities of climate change have become more tangible globally, regionally and locally, political and private sector commitment to finding solutions has grown. Climate change adds to the list of stressors that challenge MDF's ability to achieve the ecological, economic and social objectives that define sustainable development.

The past year saw a huge shift in global commitments to tackle climate change with most governments worldwide signing up to global targets for emissions reductions.

DFAT's Climate Change Action Strategy for 2020-2025 directs all Australian development assistance to support the goals of the Paris Agreement to address climate change and strengthen socially inclusive, gender-responsive sustainable development in the region. The strategy recognises the need to further integrate climate and disaster resilience as well as establish stronger private sector engagement to find effective solutions.

In 2021, MDF intensified and expanded work on climate and disaster resilience, reflecting the needs of local partners and the priorities of DFAT. The facility developed a climate change strategy working document. MDF will adhere to the following guiding principles:

- Incorporate climate and disaster resilience as fundamental elements of MDF's theory of change.
- Ensure climate and disaster resilience activities build competitiveness and are underpinned by a compelling business case. This is essential to guarantee that partners have the ownership to continue delivering climate change solutions after support ends.
- Strengthen climate and disaster resilience through intelligence sharing as well as knowledge and technology transfer to support adaptation and disaster risk reduction.
- Where feasible, support low-carbon development and mitigation opportunities for key sectors, supply chains and private sector stakeholders.
- Where feasible, support investment in innovative solutions to climate change, including identifying opportunities to roll-out Australian and New Zealand technologies to address climate challenges in the Indo-Pacific region.
- Work towards an inclusive approach to climate and disaster resilience to ensure that those most at risk benefit from MDF partners' activities.

In 2022, this work will, and must, accelerate. MDF will continue to review existing partnerships to ensure that they are addressing climate change whenever feasible. Where necessary, interventions will be amended to take advantage of opportunities that may not have been apparent when they were initially designed. All new partnerships will have climate change elements built in from the outset. Finally, each country program will scope and implement specific climate change strategies. This may require some adjustment to the ways in which country teams measure success. Updated assessments approaches will be discussed and agreed on with funders over the course of the 2022.



Growing role of intelligence, data and technology

MDF experienced several streams of activity in 2021, which have come together to form what may become a major work stream.



Over the course of 2020 and 2021, MDF pivoted to support bottom-up intelligence gathering to help stakeholders better understand how macro policy decisions and trends are impacting people and businesses on the ground. MDF provided early warnings to DFAT on multiple emerging trends, such as shipping disruptions, food price inflation and the effects of lockdowns on essential supply chains. This intelligence enabled real-time responses. The ability to understand how shifts in the global economy can be made real through bottom-up insights creates significant value for MDF's stakeholders.



MDF has started working with partner governments, industry bodies and firms to access and, more importantly, interpret big data sets to support policy and investment decisions. The facility supported the tourism sectors in Fiji and Sri Lanka to ready themselves for reopening by accessing the world's best consumer sentiment data. This has helped tourism organisations prepare strategies and target marketing to the most promising business segments. This helped Fiji Airways capture a large slice of the tourism demand that suddenly emerged after New South Wales announced an end to border closures.



MDF has deepened its relationships with agri-businesses to integrate agricultural technology into smallholder supply chains. The Internet of Things (that is, the ever-growing global network of objects that can connect to each other and exchange data), after a decade of unfulfilled expectations, finally looks to be nearing the point at which it can be deployed at scale within smallholder farming systems. The transition will take time but promises to enable improvements in productivity and quality, through traceability systems and digital extension. These technologies have the potential to increase incomes and make smallholder value chains more efficient, which can be the difference between a subsistence livelihood and a living wage.



In 2021, MDF started to work with telecom firms in the Pacific to promote the uptake of digital payment systems. To date, the lack of a digital banking has hampered the growth of low-cost remittances. Since the intervention began, Vodafone Fiji has seen a huge increase in the use of mobile wallets, something that it hopes to replicate elsewhere in the Pacific.

Taken together, this theme of intelligence, data and technology is expected to become increasingly important throughout MDF's portfolio over the next five years. MDF will deploy its Shared Resources to monitor and interpret emerging trends in the digital economy. This shift will drive digital integration into the portfolio, much like that of the climate change agenda. The facility anticipates that the bulk of feasible opportunities are likely to come from the demand side (e.g. the agricultural and service export sectors) but there might be some instances where digital solutions are treated as a standalone market system.



ANZ Business Engagement

The Australian and New Zealand (ANZ) business engagement work was challenging throughout 2021. Despite some early positive progress, staff turnover and continuing pandemic-related disruptions hampered activities. The bulk of the work in 2021 focussed on the Australian market as funding from New Zealand was only secured late in the year. Interventions included developing a strategic partnership with an Australia-based coffee importer drawn to emerging markets. This work will map demand from Australian roasters and match this with potential suppliers in MDF countries. MDF is also in discussions with an Australian BPO firm looking to establish a 40-60 seat branch in Fiji. MDF would support market entry and start-up.

MDF also conducted a series of demand-side studies, including agritech, high value agriculture, tourism, business process outsourcing and value-added kava goods. These studies provided a significant number of opportunities that will be followed up throughout 2022, and should lead to several new strategic partnerships.

With funding from MFAT secured, MDF has recently recruited a New Zealand Business Engagement Manager. This will enable replication of these demand-side studies in the New Zealand market throughout 2022.

This is an experimental area of work but it is already showing signs that it will deliver considerable value to the country programs, particularly in the Pacific where most of the early opportunities have been identified. MDF will liaise closely with DFAT and MFAT, along with other key stakeholders (e.g. AusTrade, NZTE, Pacific Trade Invest and Australia-Pacific business councils) as the work develops.



PHAMA Plus collaboration

MDF has worked closely with PHAMA Plus over the past year, including through a DFAT-facilitated workshop, to agree on concrete measures to ensure close cooperation between the two programs. PHAMA Plus underwent its mid-term review slightly later than MDF, the findings of which will directly influence the measures that will be implemented to operationalise collaboration. Once the PHAMA Plus contract extension has been formalised, both programs will commence work on country-level agreements that identify joint work programs and activities. These will be reviewed and updated on an annual basis, coinciding with the submission of MDF's Annual Strategic Plan every December.

With New Zealand, a core funder of PHAMA Plus, now also contributing to MDF, there are even more opportunities to ensure that coordination and collaboration are embedded within both programs, as well as with important New Zealand investments, such as Business Link Pacific, with which MDF has a long history of joint work.



Pacific Labour Facility (PLF) collaboration

MDF has proposed a range of potential areas for collaboration with PLF, two of which commenced in 2021. First, scoping and design work for a pilot project in Tonga to provide entrepreneurship training for returned seasonal workers and their families, to support productive investment of earnings. Implementation is proposed for the first half of 2022. The second is to work with businesses that wish to upskill their employees by taking advantage of the Pacific Labour Scheme. This support would see MDF offset the costs of hiring additional staff required to fill places by skilled workers taking up employment opportunities in Australia through the Pacific Labour Scheme. The first activity under this collaboration was with Madang Butchery in PNG. Under this partnership, 25 meat workers have been trained to Australian standards and are preparing to depart to Australia under the Pacific Australia Labour Mobility scheme (PALM) in the coming months. Further work will be pursued in 2022 as opportunities arise.



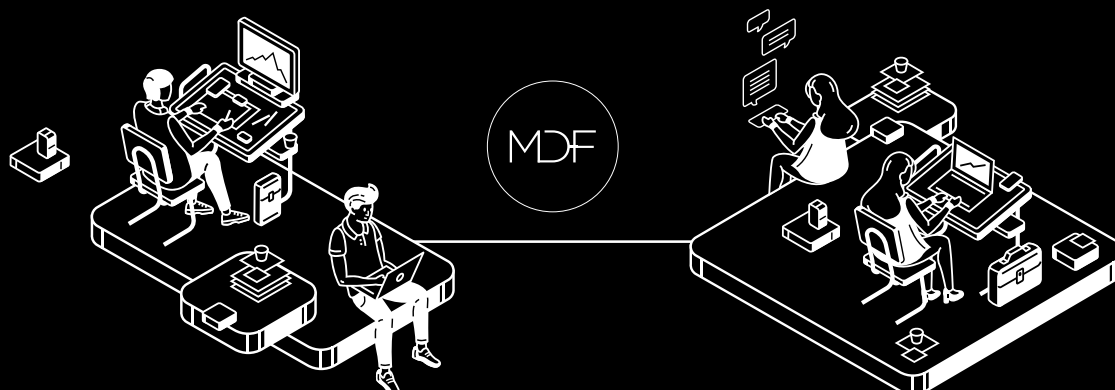
Staffing update

The facility continued to enjoy an enviable staffing position over the course of 2021 despite the challenges of movement restrictions. All CLT-Shared Resources (CLT-SR) and Country Director positions remain filled. While several staff members were forced to be away from their normal duty stations at various times of the year, MDF's well established remote working protocols allowed the program to continue operating with minimal disruption.

This year, two new positions were added to the CLT team. First is a New Zealand Business Engagement Manager to complement the Australian Business Engagement Manager, which helps expand this increasingly important area of work, as described above. Second, a Regional Director was recruited to oversee the expansion of the program into the three additional pacific countries.

The current CLT staffing profile consists of:

- Team Leader
- Chief Operating Officer and Deputy Team Leader (with a centrally located operations team)
- Senior Advisor
- Quality and Inclusion Director
- Communications Director
- Australian and New Zealand Business Engagement Managers
- Learning Manager
- Regional Director
- Country Directors (x 4)



Kadang Butchery



Market intelligence and the MDF learning agenda

The benefits of local insight

MDF has deeply embedded local teams, with extensive networks and long-term relationships with the private sector. This enables the teams to extract insights on the real-world impacts of the challenges posed by a prolonged pandemic and its associated economic , as well as climate change and other global shocks. MDF combines bottom-up data collection with an analysis of global macro-observations, generating understanding on how global trends are playing out in the Indo-Pacific. This market intelligence work, initiated in 2020 as a means of filling the information void created by the sudden onset of COVID-19, continued to generate timely and actionable insights for DFAT and partners in 2021.

MDF developed a facility-wide intelligence brief each quarter. Two key pieces of work were later published for wider circulation. The first revealed the impact of COVID-19 on the freight industry and the ramifications for importers and exporters in Pacific Island Countries. The second analysed how food price inflation was impacting households in MDF countries. Both pieces of intelligence were written long before these issues became front page news, underlining the value of reliable local networks to provide early warning on emerging economic challenges.

MDF also proactively responded to country-specific events and DFAT requests for market intelligence. This included examining the impact of travel bans on the airfreight industry in the Pacific for the Office of the Pacific, providing the Papua New Guinea Post with information on supply chain disruptions, and an analysis of the Government of Timor-Leste's stimulus measures. With tourism reopening in several countries towards the end of 2021, MDF was able to provide DFAT posts in Fiji and Sri Lanka with information into each market's tourism readiness. This advice informed the subsequent response from the Fiji support facility to improve testing capacity for international travellers.



Intelligence is shared broadly with the aim of reaching and influencing relevant stakeholders. Given the rapidly changing economic circumstances in partner countries and the region, MDF determined that concise analytical pieces are a powerful way to reach a wide audience with timely information. MDF proactively shared intelligence papers with DFAT staff, both those living in the countries of operation and in Canberra. The facility also held briefings to discuss findings, supporting DFAT's decision-making process. MDF also leveraged its social media platforms to further the reach of analytical papers with the large network of local and international business and government stakeholders who follow MDF's channels.

In 2022, MDF will continue to provide facility-wide market intelligence briefs to DFAT on relevant topics and follow-up on topics covered in 2021. The team will look to collaborate with advisory services programs, such as the Business Engagement Support Unit and Pacific Economic Recovery Support, as well as other private sector programs, such as PHAMA Plus, to gain additional insight and ensure that intelligence work supports optimal programming across DFAT's diverse portfolio.

Research demonstrated that each MDF country was facing food price inflation rates of between

24% and 44%

What's for Breakfast?

The COVID-19 crisis and rising food prices, a year on

In 2021, supply chain disruptions as a result of COVID-19 continued, leading to sky-rocketing food prices. Globally, cost increases affected some more than others. Even within the same country, expenditures varied between urban and rural locations due to a multitude of factors, including freight prices, import dependency and the availability of alternatives. In this environment, national inflation figures are not fully reflective of the challenges households and retailers were reportedly facing.

MDF surveyed staff, food retailers and consumers, and reviewed secondary data to identify trends in the cost of typical meals in each country of operation. While MDF's data is not perfect (no inflation measure ever is), it demonstrated that each MDF country was facing food price inflation rates of between 24 and 44 per cent. Several other trends emerged, including differing impacts between the rural and urban poor and the experience of large retailers absorbing some of the price increases, rather than passing them on to consumers.

Ensuring food security and access to affordable staples should be a concern for development partners and governments alike. The private sector will be vital to promote the availability of quality, affordable agricultural inputs to maintain production. Businesses are also critical for monitoring and addressing disruptions in key supply chains, for essential imports and to ensure that farmers' produce can continue to be harvested, processed and transported to urban centres.



What's for breakfast?

The COVID-19 crisis and rising food prices, a year on



MDF's analysis



On the Australian National University Development Policy Centre (devpolicy) blog

Some of MDF's countries reported that shipping prices became

2 to 4 times more expensive

Disruptions to global shipping

Regional impacts

COVID-19 has caused, or exposed, structural weaknesses in global freight systems. The pandemic disrupted the previously predictable demand for the movement of people and goods. In some places, demand for shipping has increased while in others, it has decreased. This has led to imbalances in the finely tuned global logistics system. In 2021, MDF examined how these global trends were impacting developing economies, particularly in the Pacific. Perhaps predictably, there were signs that these markets, including in the Pacific region, are being neglected as shipping companies focus on more lucrative routes.

Both delays and price spikes were beginning to impact countries in the Pacific and Asia, with lower volume routes being increasingly ignored, leading to significant delays for exporters. Increasing costs are exacerbating the impact of delays, with some of MDF's countries reporting that shipping prices became two to four times more expensive. The pandemic has also disrupted the balance between air freight and shipping because of exponential increases in air freight charges.

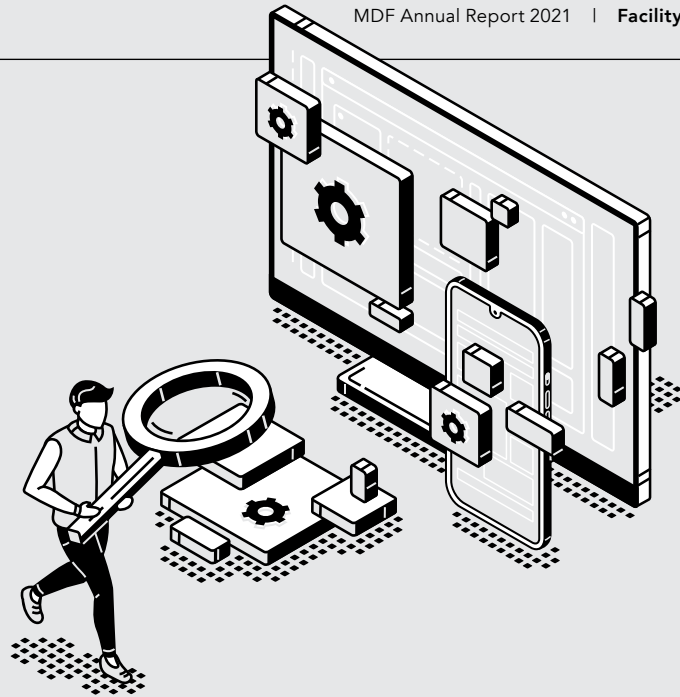
Since the time of writing this report, the global logistics crisis has worsened as predicted and remains one of the major drivers of inflation, which poses a severe risk to global economic stability.

The smooth and predictable flow of goods, which has underpinned much of the global decline in poverty over the past two decades, has been severely disrupted. It will face further challenges in the future, such as increasingly disruptive weather due to climate change, restrictive trade policies and geopolitical tensions. While the logistics system has proven relatively resilient, these challenges will continue to impact trade in developing economies in the future.



On the devpolicy blog

De-risking Big Data for decision- making



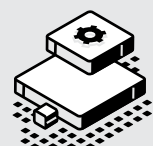
The potential for big data to drive industry transformation is not a new topic, and MDF is increasingly seeing the power of data in effective decision-making in sectors ranging from agriculture to tourism. With the plummeting cost of technology, data-driven business models have matured to a point where they are becoming increasingly feasible at any scale. There are opportunities for data to improve decision-making and drive value chain efficiency. For example, this evidence provides consumer sentiments insights which help inform tourism destination marketing strategies.

But adoption at-scale is hampered by the large upfront investments in time and capital that are required to embed data into decision-making processes. Working with these knowledge sets is also becoming increasingly complex as its sheer volume increases. Access to this information alone is not sufficient; businesses need to know how to use it effectively. Many of MDF's partners see the benefits of big data, but the adoption risks are significant.

MDF sharpened its focus on the role of data in industry growth during 2021. The facility invested in building the capacity of in-country teams to recognise the opportunities in big data, and how to embed it in both new and existing interventions. The work to date suggests that the best way to stimulate adoption at-scale is to work with larger companies that source from many small suppliers, such as a network of smallholder farmers. These larger actors typically have the resources and, more importantly, the incentive to invest in productive, engaging, data-driven business solutions. MDF's role is to help these stakeholders overcome the risk-return trade-offs. The area in which the facility has made the biggest gains has been in driving targeted behavioural changes.

In 2021, MDF worked with partner governments, industry bodies and firms to access and interpret large data sets to inform policy and investment decisions. The facility negotiated strategic agreements with stakeholders in the Fijian and Sri Lankan tourism sectors, helping them to access world's best consumer sentiment data ahead of planned reopening. This let tourism stakeholders target their marketing efforts to the most promising markets and design product offerings that cater to rapidly evolving preferences.

Early results included supporting the Government of Fiji to pivot its marketing strategy toward a 'travel-ready' North American market, informed by a data-driven consumer sentiment study. This research also supported Fiji Airways to amend its travel offerings to capture an important slice of the tourism demand that suddenly emerged after New South Wales announced an end to pandemic-related border closures. The intelligence proved accurate, with Australians and North Americans accounting for 92 per cent of arrivals in December 2021. The potential for data-driven business strategies will continue to grow as it becomes cheaper to collect and analyse information. This will generate opportunities not only in tourism, but throughout all sectors of the economy. Forward-looking development programs can support markets by de-risking investments in big data and building the capability of governments and the private sector to put it to best use.





The smallholder challenge

The challenges facing smallholders are well understood. As written in the MDF 2020 Annual Report, these farmers usually lack the capital to invest in productivity enhancing assets, inputs and techniques. This keeps them trapped in a cycle of low productivity and low income. Rather than earning a living wage, their livelihoods are in (near) subsistence. As a result, some of the world's most in-demand products, such as coffee and cocoa, are based on economically precarious supply chains. COVID-19 has made the situation worse, as movement restrictions reduced farmer incomes and further depleted their already meagre asset base.

Smallholders are also among the most vulnerable to the impact of climate change disruptions. Changing rainfall patterns, increased prevalence of natural disasters, pests and disease, and higher temperatures threaten crops and subsequently, key commodity supply chains globally. In 2021, MDF explored opportunities for agribusinesses to employ agri-tech-driven supply chain solutions that improve productivity and, thereby, increase farmer incomes.

Finance, mechanisation and information have significant potential to improve on-farm practices, drive efficiencies in supply chains and generate decent returns for all actors in the value chain. The challenge has remained because of a lack of incentives, such as economic returns, for businesses to bear the cost of rolling out new technologies to large numbers of smallholder farmers.

The pandemic, however, has pushed businesses working with smallholders to adapt. There has been an acceleration in the adoption of digital technologies, such as smartphone-based supply chain management, including the use of digital financial services. Agritech solutions to climate change have also become increasingly accessible in recent years and have the potential to support smallholder-based farming systems to adjust to the changing conditions. Remote sensing technologies, for example, can enable smallholders to monitor and forecast weather, improve water and soil management, treat disease and pests, and make informed decisions regarding fertiliser application. These tools also offer farmers the potential to validate certification requirements, such as 'organic,' or carbon sequestration outcomes, offering opportunities for diversified income opportunities.

But as history teaches us, technology alone is not the primary constraint. Market ready solutions exist. The main barrier now is the challenge of driving uptake, that is, the required technology investments and behaviour change at scale. Which actor in the system has the incentives and the means to do this? Smallholders, acting as individuals, do not have the means nor the incentives to invest in technology solutions. First movers are unlikely to ever recoup their investment. The technology providers, for their part, do have an incentive to drive the necessary uptake, but they face unsustainably high transaction costs (e.g. marketing and product support) to sell technology solutions to large numbers of individual smallholders. They can only turn a profit in low-cost technology if they are selling in bulk.

MDF believes that widespread adoption is more likely to be driven by larger, more established input suppliers or buyers/exporters. These actors usually have extensive networks of agents and aggregators who have pre-existing relationships with large numbers of smallholders. It is these actors who have the incentives, know-how and capacity to introduce far-reaching solutions.

Unfortunately, even with incentives and means, many of these actors still hesitate to invest at the farm level. This is because smallholder-dominated markets are complicated and fractured. Subsequently, they are costly to change. Put simply, investments can take a long time to recoup. As a result, large-scale agribusinesses will often choose to accept the status quo; unless, that is, their competitors are branching into a new business arena and they risk losing market share.

In 2021, MDF addressed these challenges by helping potential first mover agribusinesses that chose to integrate agritech into their smallholder supply chains, piloting technology driven models that give smallholders more timely information, offer mechanisation technologies and optimise the supply chain. With the right support, these technologies are mutually beneficial, leading to higher profits for businesses and a living wage for smallholders.

Strategic communication for development programming



Throughout the 10 years MDF has worked in the Indo-Pacific, several factors have been vital to its success. Among these is an understanding of the power of high quality communication in achieving program objectives. Traditionally, communication has been seen as a reporting function, churning out annual plans and reports; or as a public relations function, creating good news stories for the consumption of program stakeholders. While both these functions are integral elements of program implementation, MDF's experience has been that communications can be so much more. In a program like MDF there are multiple strategic outcomes to which our communications team is integral.



Communicating with diverse stakeholders

MDF connects with a wide spectrum of stakeholders, spanning the public (funding and partner governments) and private sectors (farmers, firms and industry associations) as well as the media and job seekers. The diversity of audiences makes sharing information on MDF's work a challenge. Businesses, for example, have very different needs and incentives compared to government stakeholders. MDF has, therefore, worked to adapt its 'pitch' to different audiences. This has meant that developing a suite of communications that are professional and accessible.



Actionable intelligence and a persuasive online brand

When MDF approaches the private sector, the group is presented as an investor that brings not just finance, but also credible market intelligence, backed by evidence. This has been a key element of the facility's 'value add' to its many different stakeholders.

The program started to formalise its market intelligence function during the early stages of the pandemic. As countries and economies started shutting down, there was a dearth of real data on what was happening in places that had, overnight, become inaccessible. Traditional economic data, with its long time lag, was nearly useless in the context of unprecedented speed, and scale, of change. These intelligence briefs became highly valued by stakeholders in the private sector, partner governments and funders.

But again, access to data is only one part of the puzzle. A more challenging component is communicating information in ways that stakeholders can quickly understand, and use to inform their decision-making. This is where smart communications strategies come into the picture.

MDF's intelligence briefs have been published as thought pieces in key development and industry forums as well as through MDF's platforms. The facility focuses on simple, accessible language, storytelling that links macro trends with relatable, real-world examples, and attractive designs that entice the audience to keep reading.

As the country teams capture market insights into business and household dynamics in the Indo-Pacific, MDF is regarded as a credible source of information that is relevant and actionable for businesses, industry bodies, think tanks and governments.

The audience is also increasingly online. MDF has leveraged its growing digital presence to strengthen its brand identity, building an online presence that is synonymous with credibility, creativity, reliability and dynamism. This branding is essential to deliver on program objectives. The first thing potential partners do, whether they be in the private or public sector, is research MDF's online presence. Proactive digital branding put the facility ahead of the curve and makes a solid impression on promising collaborators, even before a first meeting.



Changing behaviour and market systems

Outside of MDF, some classic communication campaigns make the grave error of prioritising what the sender wants to say, rather than what the listener needs to hear. Programs traditionally follow the communication-education-awareness model that concentrates more on broadcasting information and less on looking at whether the information is driving uptake and impact. MDF takes a different approach.

The facility prioritises using behavioural insights for intervention design paired with behaviour change communications campaigns. A key example is the Timor-Leste communications campaign to combat the spread of African Swine Fever. Using multiple platforms, such as TV, radio, social media and workshops, and diverse communication tools, such as posters, brochures, social media material, the campaign was able to measurably influence farmer behaviour at scale. This also supported other interventions in feed, breed, and husbandry practices. The approach will continue to be a cornerstone of communications work in 2022.

For an MSD program to be successful, communications must incentivise or ‘nudge’ market actors toward the desired outcome. Such tactics will be an important part of MDF’s approach to climate change, using behaviour change communication to steer market stakeholders to pursue adaptation and mitigation measures.



Generating widespread impact

MDF recognises that success stories need to be told. This is not to make the facility look good but rather, communicating successful innovations to a wide audience can accelerate adoption and promote comprehensive change. Sharing positive experiences can subtly tip the risk-return calculus of strategic market actors. To influence national-level stakeholders, MDF’s media engagement has helped shift the thinking of key decision-makers.

Using communications to prompt stakeholders’ behaviour has required investment in website and social media platforms, particularly in social media analytics for improved audience targeting. This investment has also included building team capacity in content creation, visual design and creative tools, such as videos and animation.



Communications and adaptive management

MDF has revamped its annual reporting cycle to improve its utility. The Annual Report usually sits in program staff drawers or gather dust on DFAT/MFAT shelves. Strategy documents often suffer the same fate. Instead, MDF has combined the two. The team writes this annual report with one objective in mind: if someone wants to know what MDF is doing and why it is doing it, they can find that information in this communique.

The Annual Report is designed to be a comprehensive - yet accessible - analysis of the MDF strategy in each country/sector/market. It explains why the facility has made the choices it has, what is working well and what isn’t, what has been achieved to date and what the future will hold. The Annual Report is also an opportunity for the program to tell stories and write informative, introspective pieces to help the reader better understand the thinking that underpins the MDF strategy.



Considerations for MSD programs

As the program enters into its new five-year phase in 2022, MDF has reflected on ways to maximise communications effectiveness:

- a. **Investing in social media and digital content is a win.** Strategic social media content goes beyond flooding a newsfeed with content. It should instead be viewed as a tool to build a brand around Australian support, attract potential partners and talent, and engage with a broad base of users who require very different information. Monitoring platform analytics and adjusting accordingly is key for the success of such a communications venture.
- b. **Reinventing legacy communication products requires a strategic rethink but also pays dividends.** Shifting from good news stories and routine reporting often entails a complete reframing of how communications are structured but the benefits are worth the investment.
- c. **Effective communication is a useful tool in a program arsenal.** Integrating communication with intervention design can come in many forms. It may be present in activities within larger interventions or as large-scale behaviour change communication campaigns. This requires communications and country teams to work together to understand the nature of change required and how working together may best achieve those objectives.
- d. **The future of content is short and visual.** Regardless of audience, the appetite for long-form material in print or online is dwindling. Programs that focus on jargon-free content, attractively visualised data, as well as short videos and animation, are more likely to win the attention war.



Quality and Inclusion



Monitoring and results measurement

The MDF Mid-Term Review

The team was engaged in intensive preparations for the Mid-Term Review (MTR) in the first two quarters of 2021, identifying areas for improvement regarding climate change response and capturing the impact of interventions on people with disabilities (PwD). Following the MTR, the key focus has been on reviewing and acting upon its recommendations. In line with this, the QI team supported the development of a facility-wide climate change strategy to guide future programming, as well as developed plans to support integration and measurement of impact on PwD.

MDF's monitoring and results measurement (MRM) system continued to operate smoothly in 2021, despite the inevitable challenges posed by the prolonged impact of COVID-19. The Quality and Inclusion (QI) team adapted to the changed circumstances, ensuring the quality and consistency of MDF's activities and outputs.

In 2021, MDF added a range of new indicators for measuring inclusion and climate change. This year's facility result highlights provide an overview of the impact of MDF's activities on people with disabilities and climate adaptation. These additional indicators were integrated into the Intervention Guide template, the Management Information System (MIS) and the Concept Note used for new interventions. An updated version of the MDF MRM manual was rolled out in the first quarter. The MDF Management Information System (MIS) system remained fairly unchanged during 2021. The major addition has been the integration of other inclusivity and climate change indicators and reports.

COVID-19 related lockdowns and travel restrictions disrupted QI activity to some extent. However, the team was able to adapt swiftly, conducting interviews via Zoom or by phone, recruiting field officers and enumerators to collect data, and when appropriate, using a hybrid model of field and remote assessments, leveraging the strengths of each method. While these adaptations are a good stop-gap solution, there are inevitably concerns about the quality of the data collected remotely (e.g. phone interviews are more prone to misinterpretation than face to face interviews). Over the coming years MDF will utilise a mixture of new and traditional data gathering methods. This will enable the program to take advantage of new technologies and approaches, while maintaining the quality and reliability of findings.

Monitoring in the time of COVID-19

Maintaining momentum throughout the packed schedule of several key scoping exercises and assessments often required going the extra mile. The QI team underwent regular COVID-19 tests, organised special inter-provincial travel passes complicated by lockdowns and conducted phone interviews outside of standard work hours in order build trust with respondents, such as farmers. In 2021, the QI team recognised that the pandemic has changed MRM processes and altered the way one must interact with respondents in the field. The new circumstances require maintaining adequate distance and wearing masks as required, cognisant of the outsized impact COVID-19 has had on vulnerable families. MDF QI learnings and recommendations from 2021 are summarised in a blog, *Monitoring in the time of COVID-19*. This offers insight on how to monitor the impact of interventions in these changed conditions and outlines the facility's view on the future of MRM. The blog will be published in the first quarter of 2022.



Update to program estimates

The Annual Report 2021 reflects two significant updates to facility-wide estimates. First is the addition of the preliminary estimates for Samoa, Vanuatu and Tonga, keeping with MDF's expansion plans for the Pacific. Second is the revision of Pakistan's country estimates, in line with the early close of the program in June 2019. MDF's MRM framework stipulates that estimates are calculated for three additional years following the end of program implementation. Given that the Pakistan program closed in June 2020 and most of the implementation activities were completed by 2019, the Pakistan country estimates have been adjusted and frozen at the 2021 curve to reflect the shorter implementation period. All other country estimates remain unchanged.



Capturing systemic change

MDF maintained its focus on measuring systemic change across the portfolio, despite COVID-19 related challenges, such as travel restrictions, the limited ability to conduct field visits and difficulties engaging short-term advisors.

In Fiji, a case study on systemic change in the sugar market – a key area of work since 2015 – was published. Capturing a longitudinal picture of the way in which the Fiji sugar industry has changed, the *Fiji's Sugar Journey* case study was well received by all stakeholders. MDF is also working on capturing systemic changes in other markets, such as nautical tourism (yachting) and Outsourcing Services in Fiji. In Papua New Guinea and Sri Lanka, the team is investigating signs of systemic change in the coffee sector, while in Timor-Leste, the focus is on the pig (livestock) and coffee markets. Early findings are presented within the country chapters of this report and dedicated case studies will be developed in 2022.

In 2022, the QI team conducted several country-specific systemic change refresher workshops. MDF's QI team also shared its experiences and best practices with PRISMA's Monitoring, Evaluation, Reporting and Learning (MERL) team in September.





Inclusion



Climate change and disability

In 2022 the QI team supported the implementation of the MDF climate change strategy and integration plan. This included conducting a stock-take of current interventions and identifying potential new interventions with a specific climate change adaptation/mitigation focus. The QI team supported country-specific climate change workshops, to help teams plan for, integrate and measure environmental outcomes as part of their routine monitoring.

MDF also focused on understanding the prevalence of disability among its target population as a key step in implementing disability-inclusive interventions. In countries where field assessments were possible, the team investigated the prevalence of disability among the aging farmer population. The results have been consistent across assessments, showing an average five per cent of the target group as having some sort of functional disability that prevents them from fully participating in economic activities.

Q1 year in review



Measuring impact

45

Monitoring
assignments
(field and remote)

1,650

Interviews
conducted

57

New
contracts
signed

80

Interventions
active or with
monitoring
ongoing



Inclusivity and climate

40

People with
disabilities
benefitting
from MDF
interventions

562

Farming households/
community members
gaining access to
climate-resilient
inputs and tools

15%

of portfolio env.
climate change
relevant
(Jan 2020-Dec 2021)

\$65,000

Additional revenue
generated or saved
by the private sector
through innovations
around climate change
adaptation and mitigation

90%

of portfolio WEE relevant
and in 42% of the
portfolio, WEE constraints
are present and partners
have the capacity to
address the constraints

COVID-19

18%

Portfolio
COVID-19
relevant
(Jan 2020-Dec 2021)

Team support

39

Portfolio review
sessions held

4

Climate change
workshops held
with the team



Reviewing the Portfolio Review process

As part of a system of self-assessment, MDF conducts quarterly portfolio reviews for each country program. These audits are key to understanding whether country portfolios are on track to meet end-of-program goals, and provide an opportunity for troubleshooting and refocusing interventions. In the third quarter, a staff survey was conducted to assess the usefulness of the process and seek recommendations for improvement. The feedback was encouraging, and a range of changes have been implemented to help improve the process, including:

Conduct more frequent portfolio reviews tied to a single market system.

A common concern was attempting to cover too much in each session. Teams felt that shorter, focussed and more regular reviews would be beneficial. This not only eases scheduling, but also provides the time and space to evaluate each market system, many of which include considerable complexity.

Share cross-facility learning.

Staff noted that they derive significant benefit from having access to examples of successful interventions from other countries. There are a range of measures to encourage more active collaboration across countries, which is particularly useful for market systems such as tourism, coffee and pigs, in which several countries have active portfolios.

Adjust for remote portfolio reviews.

All participants (reviewers/country teams) find online portfolio reviews more difficult than face to face sessions. This is particularly true for newer staff who may lack confidence. Going forward MDF will employ different techniques for online vs face to face reviews. Online sessions will involve smaller groups, shorter presentations and more discussions.





Women's Economic Empowerment (WEE)

MDF has been closely monitoring the gendered impacts of the pandemic and using this information to guide the design of interventions to maximise the potential to benefit women. MDF has found that, as economic opportunities shrink, households draw on savings/reserves which in normal times would be used for family nutrition, education and overall well-being. Add to this the fact that in many places women, who are overrepresented in informal/insecure employment, were the first to lose their jobs. With few formal protections in place (e.g. unemployment benefits) these families suffered disproportionately over the course of the pandemic.

The team ensured that new interventions responded to these challenges. In Fiji, the focus was on creating full-time employment in outsourcing services, which was particularly attractive for women who used to work in the tourism industry. MDF's support towards establishing coworking spaces and MSME advisory services focused on female entrepreneurs and role models. In Sri Lanka, new agritech and mechanisation interventions aimed to reduce the workload of female household members, enabling better control over the use of their time. Also in Sri Lanka, MDF noted employment generation through the coffee cherry purchase model: women backyard farmers were taking on new roles in coffee aggregation, sharing information about good cultivation and harvesting practices with more female coffee farmers. In Pakistan, supplementary activities in nutritious fodder (with Green Diamond and FDP) resulted in additional milk yields. Female heads of household shared their satisfaction with these positive developments, noting increased household milk consumption and overall improvements in household nutrition and children's wellbeing. Women also shared that they were converting the additional milk into value-added products such as butter, generating additional income. In Papua New Guinea, interventions supporting financial inclusion and extension services have reached over 900 female farmers, who have been trained on financial management and producing better-quality vanilla for export. In Timor-Leste, with MDF's assistance, women have started taking on new roles in the pig sector. While often taking the lead on pig rearing activities, better information enabled the women to understand the crucial roles they play in livestock health and information-sharing with extended family and household members. They also experienced greater recognition of their roles within the household and community.

Data gathering on WEE proved more challenging than ever. Collecting confidential, sensitive data on access and agency requires sensitivity and discretion during face-to-face interviews. It is virtually impossible via remote or socially distanced interviews. To overcome these challenges the QI team conducted interviews with women at every possible opportunity, drawing on established relationships and cross-investigating with households, extended family and communities. Some of these insights are captured in the Monitoring in the time of COVID-19 blog mentioned above.

The MDF QI team shared its WEE findings and lessons learned from previous and current interventions via a webinar series organised by Vietnam's GREAT program. The team delivered three well-attended learning sessions on tools and frameworks, inclusive business model development and gender-inclusive M&E systems.

Operations

As MDF teams continued to work virtually going into 2021, so too did the implementation of online clinics, townhall-style sessions, social activities and workshops. New software and online platforms were introduced across most areas of operations. In doing so, the team found opportunities to connect across datasets, work projects, systems, employees and country teams.

The team worked to improve financial management tools and data gathering to better synthesise and track monetary transactions across the country programs. The finance dashboards developed on MDF's Management Information System at the end of 2020, and were successfully utilised to inform facility-wide decision-making over the course of 2021. The operations team is continuing to evolve and enhance MDF's financial management systems.

Procurement and Contract dashboards developed on MDF's Management Information System at the end of 2020 were utilised to improve management oversight in these areas. The team also identified efficiencies in MDF's procurement and contracting processes. Regular capacity building sessions were organised for procurement and contracting focal points in each country, and user-friendly checklists were developed, which received consistently positive user feedback. Looking ahead, introductory procurement 101 sessions will be embedded into the employee onboarding processes, along with contract management training, using a train-the-trainer model.

Despite ongoing COVID-19 movement restrictions, operational aspects of the Pacific expansion continued. Key regional positions were filled including the Regional Director, Operations Manager and two Samoa Business Advisers. Work also commenced on in-country set-up such as legal entity structures, collaboration with payroll agencies and suppliers, the expansion of budget allocations and initial forecasting, and other important operational requirements.

The team developed a range of tools and conducted capacity building sessions to support the full implementation of the Combined Safeguard Screening and Rapid Risk Assessment Tool (CSRAT). The CSRAT covers a wide range of safeguarding matters, such as child protection, safeguard screening, local legal compliance assessment, and environmental and social impact assessments. Combined with the Activity Risk Register within MDF's Intervention Guides both tools continued to support robust due diligence for all new partnerships.

MDF is aware that many of its private sector partners are not well versed with DFAT safeguards requirements. To help overcome this challenge, during 2021 MDF developed an animated safeguarding video that explains these complex topics with the aid of simple language and pictures. This video will be shared with downstream partners, suppliers and their workers so they are aware of the expected minimum standards of behaviour and how to report breaches.

The strength and suitability of MDF's systems and procedures was put to the test during DFAT's Due Diligence Audit of Palladium in April 2021.

DFAT Due Diligence Audit

In March-April 2021, Palladium underwent a DFAT Due Diligence Audit and MDF was selected as the downstream project to be assessed. The auditors assessed Palladium, and therefore MDF, to be low risk overall and noted, *"fit-for-purpose systems and processes in place to establish and operate projects consistently and successfully"*; *"Palladium APAC maintains a range of robust fiduciary risk management policies and procedures to mitigate fiduciary risk... project funds are prudently managed, and assets and cash handling appear to have sufficient controls."* and *"Palladium APAC's commitment to operate transparently, effectively, with integrity and professionalism."*



Staffing update

During 2021, the CLT-Shared Resources staffing profile was unchanged, consisting of a Team Leader, Chief Operating Officer/Deputy Team Leader, Senior Technical Adviser, Quality and Inclusion Director and Communications Director. The shared operations and communication team also remained the same. A new Regional Director position was established (and filled) to support the additional pacific expansion work. This role was filled internally by the existing Timor-Leste Country Director. MDF back-filled the Timor-Leste Country Director at the end of 2021. All key CLT positions are currently filled.

One area which has been undergoing some change is the Australian and New Zealand business engagement units. A new Australian Business Engagement Manager and the first New Zealand Business Engagement Manager were recruited at the end of 2021. In addition, to support MDF's intelligence and learning work streams, a Strategy Learning and Relationships Manager was also hired.

With ongoing disruption from COVID-19 during 2021, MDF's strong remote working protocols across the Facility allowed programs to continue to operate with minimal disruption. However, travel restrictions did significantly impact face-to-face meetings with partners and beneficiaries, along with an inability to mobilise short-term technical expertise.



Human resources

While 2020 was a year of adaptation and response to the COVID-19 pandemic, the HR agenda for 2021 shifted to accommodate the aftermath of this high intensity disruption – and with it, mental health and wellbeing challenges. The length of the disruption meant employees felt more exhausted, less optimistic and remained socially isolated.

Working groups were established to deliver important internal messaging in new and impactful ways, and to receive real-time feedback on what was and wasn't working. New employee engagement initiatives were specifically designed to build upon the growing sense of community and to develop an organisational culture which promotes teamwork, mental wellbeing and inclusion.

As international travel restrictions eventually began to ease, increased staff mobility offered a new opportunity to build upon the momentum of connectedness. Although travel and logistics became much more complex, MDF was able to effectively begin mobilising talent to join their peers at assigned duty locations, providing much anticipated face-to-face capacity building, technical mentorship and participation in portfolio reviews.

Emerging from post-pandemic challenges, in 2022 HR must turn its focus toward the Great Resignation sweeping across global talent markets. MDF currently has an enviable staff retention rate. Nevertheless, MDF must anticipate that the coming years will see increased competition for scarce skilled resources. During the coming year, HR will proactively address retention challenges by recommencing MDF's placements program and other high value opportunities, and by overlaying feedback from multiple datasets to develop actionable insights. Early industry insights suggest that mid-career employees are the most likely to leave and that autonomy and self-leadership will become the most sought-after soft skills driving talent searches. Furthermore, MDF will address the anticipated skills shortages with strategic workforce planning, talent mapping facility-wide and at a country program level and proactively targeting recruitment activities in areas of critical need.

Developing robust HR amid a pandemic



As Phase II comes to a close and MDF's management team looks for new opportunities moving into Phase III, they reflect on the heart of the organisation - human resources.

Following a cumbersome transition from Phase I to Phase II, fresh leadership energy was devoted to developing MDF's organisational culture. Dedicated HR resources were introduced into MDF's Central Operational team and a continual improvement agenda was established. The HR lens initially focused on building stronger relationships at MDF, by improving middle management capacity and addressing employee engagement. Using

staff surveys and working groups, the team reviewed existing HR programs, such as performance excellence framework, leadership development program and salary scale review. New initiatives were also introduced, such as learning and development framework and onboarding programs. The results were promising and several surveys proved that MDF was on the right track. Employee satisfaction to pay and benefits and company leadership improved by 17 per cent and 18 per cent respectively, and satisfaction ratings across areas of collaboration, communication and diversity and inclusion all improved by 15 percentage points from the previous year.

It wasn't just anonymous surveys that told the story.

From 2019 to 2020:



Workforce turnover dramatically reduced by **45%**



HR case management issues **declined**



MDF staff exit survey data demonstrated improvements in all topics surveyed. Notably, ratings of 'average' and 'below average' decreased by **38%** and shifted into 'above average' and 'excellent' categories.

To sustain these improvements and address the ongoing impacts of COVID-19- related business disruptions, the HR team identified areas for improvement to create a promising organisational development and employee wellbeing program. Within staff surveys, employees responded 'undecided (rather than favourably) to the following topics': opportunities for career progression, learning and development and work-life balance. The neutral responses in these areas indicated employees hadn't received enough clear evidence to form an opinion. HR took this as a call for improved communication. The team established an internal communications working group to receive feedback and ideas from on-the-ground representatives and then quickly demonstrate clear evidence of implementation through the following initiatives:

-  'Meet the Team Leader' sessions and town Hall meetings opened up facility-wide dialogue directly with the leadership team;
-  Work on a mentoring circles pilot program commenced;
-  MDF's leadership development program was revitalised with two new cohorts;
-  Internal newsletters were rolled out;
-  New starter bio sheets and facility-wide introductory messages were introduced;
-  MDF operations refresher (capacity building) series continued;
-  New virtual spaces and events were facilitated to connect on a social, human level; and
-  Mental health and wellbeing sessions and actionable content was distributed weekly.

All of these initiatives received almost immediate feedback via the internal communications working group. This organisational feedback loop led the work and responsive adaptation became the norm.

Despite the huge HR challenges of the pandemic years, the latest 2021 round of MDF staff surveys showed continued positive improvements. Notably, all areas covered in the MDF survey had improved by 2021, not just marginally but by an average of 27 per cent overall improvement.

Strong working relationships at MDF are now a core part of MDF's success, with 96 per cent of employees agreeing or strongly agreeing with the statement "my co-workers and I have a good working relationship" and 94 per cent agreeing with the same statement about their own supervisor, reflecting the efforts of targeted management capacity building. Learning and professional development continues to be at the core of MDF's HR strategy with staff surveys showing an year-on-year increase of 32 per cent in employee satisfaction with opportunities for professional growth.

There is strong evidence to suggest MDF now has a more highly engaged workforce, with 91 per cent of employees reporting that they feel completely involved in their work, 94 per cent saying they feel their team can adapt quickly to difficult situations (a 33 per cent improvement from the previous year), and 89 per cent feeling inspired and motivated by their line manager to meet their goals. The commitment to employee feedback and to ongoing progress through the pandemic showed positively through all data sets.



Communications

Communications continued to be an integral part of MDF's program implementation in 2021. A reflection on how MDF seeks to go beyond the traditional functions of communication can be found in the section 'Strategic communication for development programming' in this report. Over the year, MDF communications aligned well with DFAT around Australia's sharpened focus on climate change and support to the Pacific. In the run-up to the COP26 meeting in Glasgow, MDF ran a facility-wide digital campaign on emerging work in supporting the private sector to invest in climate change adaptation and mitigation, as well as working with other market actors on sustainability and more climate-resilient livelihoods. Several MDF posts were re-shared by the Australian Ambassador for the Environment. MDF also contributed several stories to DFAT's climate change story bank and facilitated the funder's event communication requirements with MDF videos and other communication products.

Communications to support MDF's Pacific Regional work was set up in 2021. The communications team developed a suite of new branding for the regional work, in line with MDF's design ethic but also incorporating the characteristics of the three new Pacific countries. 'Introductory' products such as MDF explainers were designed for the Pacific Regional team to use when approaching businesses. The team also supported Central Operations to develop a video outlining MDF-Palladium safeguarding principles, focusing on portraying subjects such as preventing sexual abuse and child abuse in a sensitive manner.

Across the facility, MDF continued to engage effectively with the media, with close to 40 media releases published over 85 times in national newspapers and online news websites, in addition to organic mentions. MDF used its multiple social media platforms for regular information sharing around new partnership signings, interventions updates, and insights from fieldwork. Social media was leveraged to engage bigger audiences for partner events and MDF market intelligence publications. Facility wide digital campaigns were run for COP26, International Women's Day, International Rural Women's Day, MSME Day, International Coffee Day, World Health Day, World Environment Day and World Tourism Day, and International Day of Women and Girls in Science.

There was a greater focus on using platform analytics to improve audience targeting, particularly useful in recruiting quality talent. Analytics were also key to understanding content themes that resonate with the audience: relevant market intelligence, innovation that has the potential for large-scale change, partnerships with key local market actors, business models exploring new ways of using technology, and human impact stories. As a result, engagement spiked across platforms, recording a 226.6 per cent increase on Facebook, a 106.4 per cent increase on LinkedIn and a 29.9 per cent increase on Instagram, as of end-2021. Follower numbers increased by 90 per cent YoY on LinkedIn and 50 per cent YoY on Instagram.

Part of MDF's strategic use of communication has been integrating communication with the intervention tool-kit. In 2021, examples included leveraging a reputed Fijian agriculture TV show to provide information on quality seeds to a wider group of farmers; partnering with popular multimedia platform Roar Media to develop and disseminate Sri Lanka's first documentary on specialty coffee; and utilising TV, radio and social media, as well as non-traditional platforms including street theatre shows and a social media influencer-based competition, to reach Timorese pig farmers with key messages on improving biosecurity and pig health to prevent African Swine Fever. Social media-based marketing was used to drive participation in partner events such as a webinar on climate change adaptation for Sri Lankan agribusinesses, as well as an online photo competition to develop marketing collateral for the Timorese tour operators. These interventions are covered further in the country chapters of this report.

Click/scan through MDF's social media:



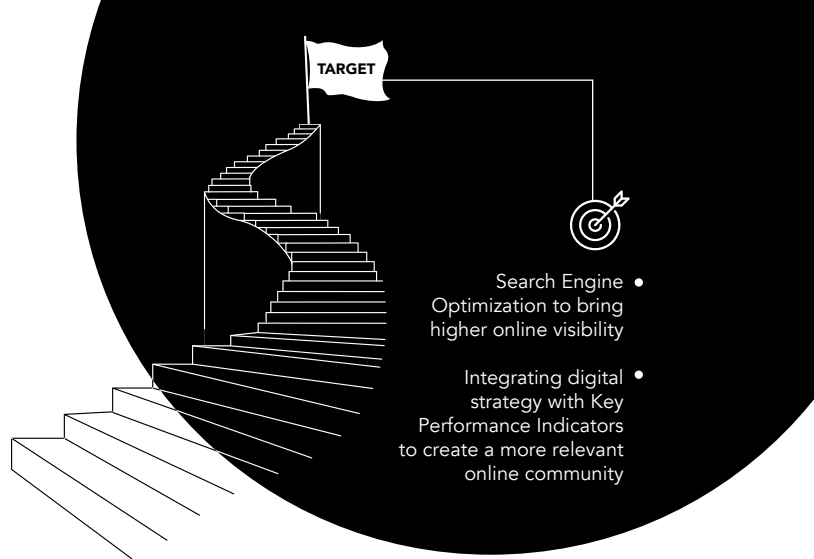
MDF in the media

2021 - 2022

The communications team designed and conducted eight major social media campaigns in 2021, generating strong media engagement. Statistics from some of the top campaigns are below.

Top campaigns (Impressions)

Number of times a page's content has been viewed during the selected period

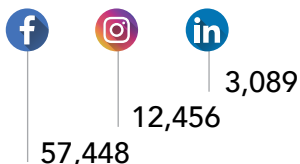


Search Engine Optimization to bring higher online visibility

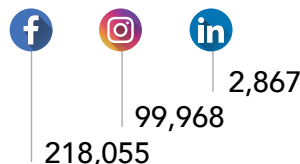
Integrating digital strategy with Key Performance Indicators to create a more relevant online community



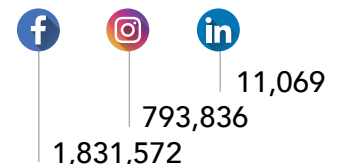
Coffee day campaign



MSME day



Annual Report 2020



Pacific Influencers



Featured **137** small business



Reached **58,538** social media users

Growth in social media engagement



Engagement
439k
↑ 226.6%



Impressions
14m
↑ 20101%



Followers
23k
↑ 7.4%



Engagement
3.1k
↑ 29.9%



Impressions
2.1m
↑ 68.3%



Followers
1.5k
↑ 50.6%



Engagement
16k
↑ 106.4%

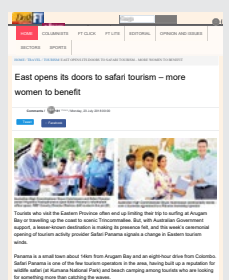
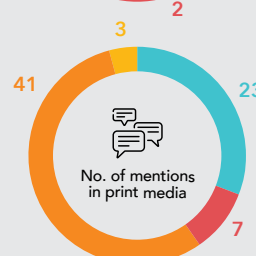
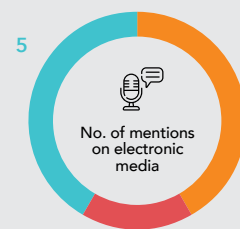
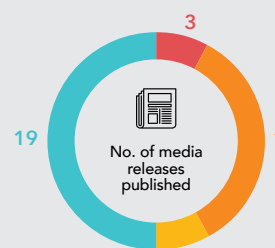


Impressions
235k
↑ 105.1%



Followers
4.6k
↑ 89.9%

Traditional media insights





Quick Facts

Fiji

Population

896,440



Urban

58.4%

Rural

41.6%



Female

49.4%

Male

50.6%

Capital city



Suva

Ethnicity



Indigenous
Fijian, Indo-
Fijian, other

Languages



English,
iTaukei,
Fiji Hindi

Independence



Fiji is a former British colony. Since independence in 1970, the country experienced military coups in 1987, 2000 and 2006.

GDP (USD)

4.4
billion



GDP
growth rate
-4.1%



GDP Per
Capita (USD)
6,152

Poverty rate
29.9%

Unemployment
7.4%

Key GDP contribution sectors



Services
71%



Industry
19%



Primary sector
including Agriculture,
Forestry and Fisheries
10%

Key focus areas

Tourism

MDF partnered with national stakeholders to collect comprehensive market intelligence to better understand shifting tourist demand, support international tourism recovery and grow domestic tourism. MDF also supported industry coordination for the Fiji Government's 'Blue Lanes' yacht tourism initiative.

Fiji welcomed **31,618** visitors in 2021, a **78.5%** decrease compared to visitor arrivals recorded in 2020. In December 2021, 23,226 visitors arrived when international borders reopened.

Total annual tourism earnings stood at **USD2.1 million**, a significant drop from just over USD147 million in 2020.

High value agriculture

MDF supports food security and exports through improved access to quality agricultural inputs. MDF works to develop a portfolio of premium branded agricultural products by improving sourcing logistics and distribution channels.

27% of Fijian households derive some form of income from agriculture.

In rural areas, this sector offers the main source of work to **83%** of households.

Agriculture contributes approximately **10%** of Fiji's GDP.

There is a growing export volume of high-quality niche agricultural commodities, including kava, turmeric and ginger.

Urban industries

MDF capitalises on nearshore market opportunities, such as outsourcing services, which emerged due to the COVID-19 crisis. Interventions support the sustainable recovery of Micro, Small and Medium Enterprises (MSMEs) through private sector-led business development and advisory support.

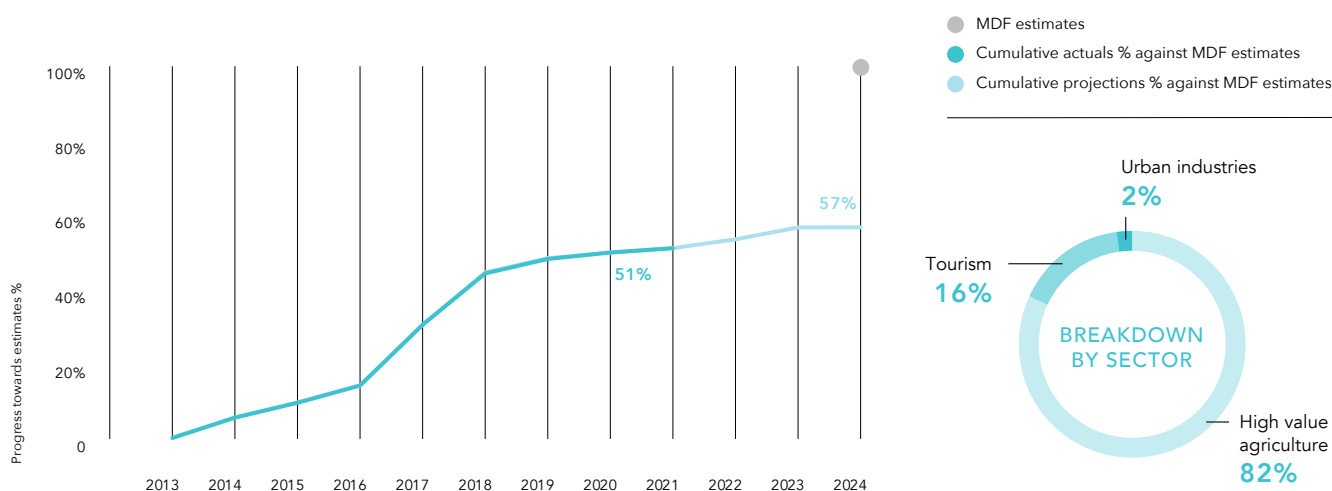
The urban population grew by **0.5%**.

Women's participation in the labour force is **37%**. However, women work an average of 15 hours more than men per week doing paid work, combined with unpaid domestic work.

There was a **300%** increase in the use of digital technology and online space by businesses during and post COVID-19.

Highlights

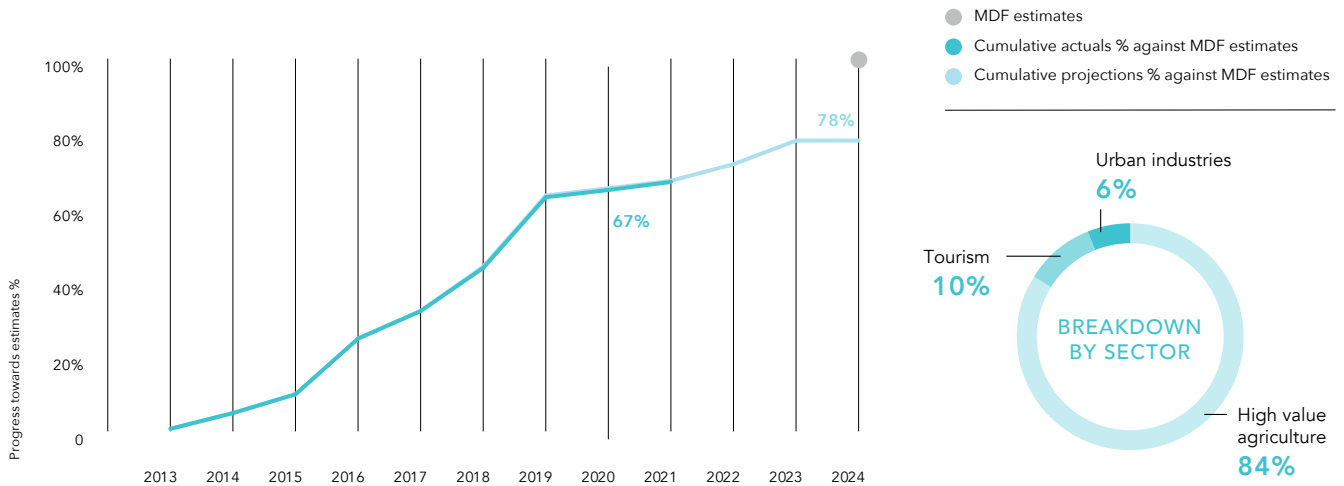
Effective outreach



Outsourcing service boom creates work opportunities and drives outreach growth

- MDF Fiji's effective outreach showed modest growth in 2021, with the portfolio achieving 51 per cent of estimates and on track to reach 57 per cent by 2024. The number of people benefitting from MDF Fiji's work increased by five per cent, reaching 20,467 adults as of December 2021. MDF increased its projections by two per cent based on the current portfolio, with 22,710 adults expected to benefit by the end of the monitoring period.
- High value agriculture continues to be the strongest contributor to outreach, both for actuals and projections, accounting for more than 80 per cent, while tourism contributed 15 per cent and urban industries three per cent. Importantly, Outsourcing Services saw a sharp increase in full-time employment, generated through new leads and contracts converted with MDF's assistance. This trend is expected to continue, with 338 jobs (outreach from employment) expected from the current portfolio alone.
- In 2021, effective outreach increased by 900 adults more than in 2020 – a modest increase compared to MDF Fiji's previous results trajectory. However, the quality of impact has been exceptional. Employment generation is largely from new contracts signed by Outsourcing Services companies that were able to hire workers furloughed from the tourism sector.
- Females represent 50 per cent of effective outreach to date. The urban industries and tourism sectors reflect the highest representation of women, with 64 per cent and 71 per cent of beneficiaries, respectively, compared to 46 per cent for high value agriculture.

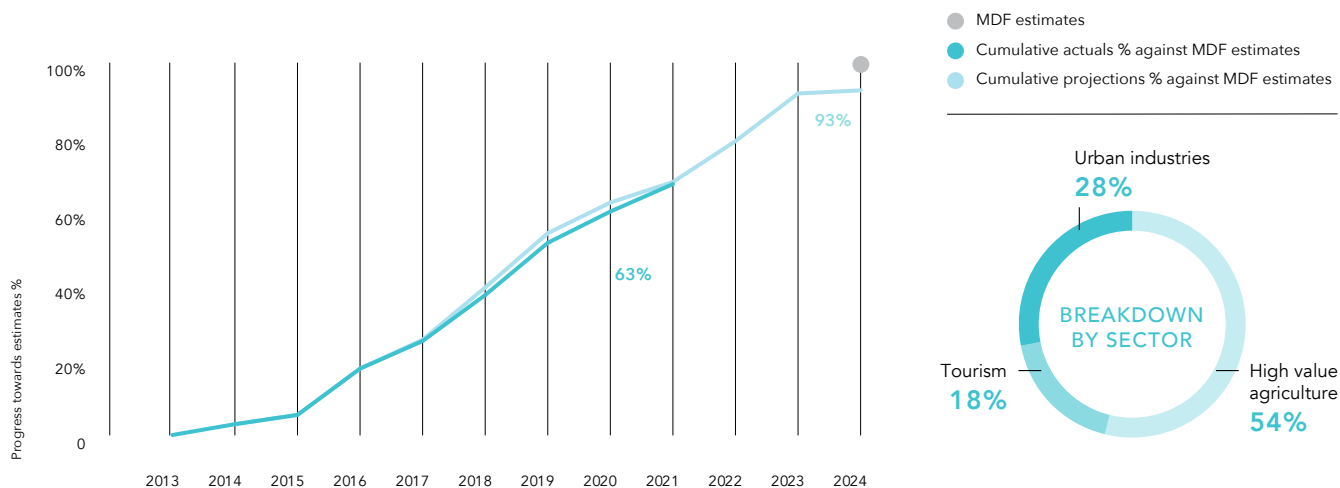
Net additional income



From tourism to outsourcing: The workforce shift to outsourcing services lifts incomes

- MDF's current portfolio has achieved 67 per cent of estimates and is projected to reach 78 per cent of estimates by 2024. Net additional income increased by five per cent, or an additional USD1.3 million (AUD1.78 million), compared to 2020.
- The Outsourcing Services market system was the highlight, growing to seven per cent of net additional income generated and 15 per cent of projections. With an average industry salary of more than USD5,000/annum, this market system is expected to contribute the most to sustainable incomes for Fiji.
- Quality agriculture inputs accounted for only 18 per cent of the increase in net additional income in 2021, contributing less than expected. However, with MDF-supported promotion and distribution of commercial grade poultry manure starting in 2022, this is projected to increase. Tourism remained slow. MDF supported domestic tourism and spending, resulting in sustained operations and income for workers. Due to uncertainty around the impact of Fiji's second wave of COVID-19 on local incomes, MDF revised down projections by 2 per cent in 2021.
- Women have generated 46 per cent of the net additional income to date. Urban industries show the highest representation for this indicator, with women generating 66 per cent of the total income generated within this market system. This represents the most gender equitable impact in incomes across the portfolio.

Value of additional market transactions



Market transactions continued, albeit slowly, due to lockdowns and restrictions

- MDF's current portfolio achieved 68 per cent of estimates, an increase of 11 per cent compared to 2020. More than 40 per cent of this increase was due to the sale of Fiji's rebranded sugar product in premium markets. Despite the general economic downturn and declining world sugar prices, the rebranded product generated satisfactory sales thanks to higher margins.
- The current portfolio is projected to reach 93 per cent of estimates, or USD39.97 million (AUD53.01 million) by 2024. High value agriculture, urban industries and tourism contributed to 54 per cent, 28 per cent and 18 per cent respectively to this indicator, across both actuals and projections.
- A significant 20 per cent of the increase in value added market transactions came from nautical tourism, where, despite the decline in tourism, the Blue Lanes initiative has been a notable source of revenue for marinas and other yacht industry stakeholders. Outsourcing Services have also been a significant contributor, with roughly 19 per cent of the increase coming from revenue generated by companies that were able to win clients through MDF support.
- MDF revised down VAMT projections by 18 per cent compared to 2020. When the projections were developed in 2020, there were indications and optimism that the impact of COVID-19 would abate in 2021. While there was some improvement through Fiji's successful vaccination drive, the impact of the second and third waves of COVID-19 on many industries, particularly tourism, continued and prompted the revision.
- Moving into the remainder of the phase, MDF expects the highest contribution to VAMT from the Premium Agriculture Products market system (over 40 per cent) and the Outsourcing Services market system (over 30 per cent).



The Results Story

Private
sector
investment
leveraged:

2.8m

MDF
investment
(USD)

12.6m

Private sector
investment
(USD)

1:4.5

Ratio of MDF to
private sector
investment

44%

Investment
through
private sector
crowd-in



MDF has reached 51 per cent of estimates for effective outreach, with the current portfolio expected to reach 57 per cent by 2024. The Quality Agriculture Inputs and Outsourcing Services market systems contributed the most to results. In 2021, despite numerous challenges, the MDF team conducted 11 field assessments to validate these findings.

In quality agriculture inputs, farmers who used new crop varieties from MDF partner KK's Hardware were able to increase their production by harvesting during the offseason as well as after natural disasters. Businesses promoting and selling these improved inputs discovered the untapped potential to raise farmers' awareness through new channels, such as social media. This in turn expanded the reach of this information to female farmers, who were not targeted through demo plots and other traditional promotional channels. Challenges remained in the market system, despite growth in agriculture across Fiji in 2021. Faced with tough economic conditions, farmers had limited cash to invest in new innovations, while COVID-19-induced movement restrictions hampered extension services and farmer visits.



In Outsourcing Services, the growth has been exponential. The private sector has been able to restructure their marketing and outreach, with MDF helping them convert new contracts and create employment beyond their natural growth. These additional jobs usually accommodated female workers furloughed from the tourism industry, showing the potential of transferrable skills from one sector to another.

Fiji reported significant growth in net additional income generated, with a USD1.3million (AUD1.8 million) increase compared to 2020, reaching 67 per cent of End of Program Outcomes (estimates). The current portfolio is expected to reach 78 per cent of estimates. Quality agriculture inputs was once again a strong contributor. A field assessment demonstrated the importance of income for farmers, particularly in light of the ever-present threat of climate change-induced disturbances. Farmers in remote areas of the Sigatoka valley, which often gets flooded during the period between November and April, were less impacted by weather-related damages thanks to more resilient seed varieties. They were able to plant and harvest during the off season, generating additional household income they usually would not have had otherwise. The resilient seed varieties they used also reduced their yield loss even after flooding.

Generating USD281,000 (AUD385,000) in net additional incomes in 2021, the Blue Lane initiative continued to be a major contributor in nautical tourism. This income supported marinas and yachting agents to retain staff, as well as invest in expansion and hire new staff. Due to government-instituted restrictions, yacht visitors could not disembark and interact with local communities after the second wave of COVID-19 (April – December). This affected potential impact. Before this restriction, yachts frequented the communities of at least three separate islands, contributing to the local economies by purchasing produce and handicrafts, as well as buying school textbooks to help families and supporting tropical cyclone Yasa repair efforts.

MDF Fiji's value-added market transactions (VAMT) reflected an economy in which crucial transactions continued despite challenging conditions. MDF reached 68 per cent of estimates for VAMT, compared to 61 per cent in 2020. MDF is on track to reach 93 per cent of estimates by 2024 with the current portfolio. Despite sugar fetching low prices on the global commodity market, MDF's interventions have shown that premium products are able to secure favourable margins, particularly in Asia Pacific. MDF partner Fiji Sugar Corporation (FSC) widened its distribution of rebranded sugar to more markets in 2021, invested in expanding with existing markets and explored opportunities to target diaspora communities.

The Blue Lanes initiative allowed the COVID-19-safe arrival of 143 yachts into Fiji in 2021, up from 100 yachts in 2020. With international borders closed to other forms of international tourism for most of the year, this represented significant sales revenue for the industry. Marinas, service providers and other stakeholders

generated close to USD665,000 (AUD911,000) in VAMT through the yacht arrivals.

Outsourcing Services also made significant contributions to VAMT. MDF's work with the BPO Council supported webinars, workshops and the promotion of Fiji as an attractive Outsourcing Services destination. This, coupled with direct marketing support for individual businesses, resulted in lead conversions, new clients and new foreign direct investment. This represented over USD600,000 (AUD822,000) in VAMT in 2021 alone.

MDF Fiji maintained its positive track record on inclusivity in 2021, particularly in women's economic empowerment. Women make up 50 per cent of MDF Fiji's beneficiaries to date and more than 70 per cent of the beneficiaries in outsourcing services work are female employees. This is particular promising given that Outsourcing Services are expected to become a major driver of full-time employment. MDF Fiji and Sri Lanka presented its work on mainstreaming gender inclusivity and women's economic empowerment into conceptualising, designing and implementing interventions at a series of webinars on 'Engaging Women in Markets,' organised by the Gender Responsive Equitable Agriculture and Tourism (GREAT) programme. In 2021 MDF also continued its efforts to enable greater inclusivity in outsourcing services, signing three partnerships with companies that incentivise firms to onboard and hire women and people with disabilities.



An aerial photograph of a tropical coastline. The top half of the image shows a dense forest of palm trees and lush greenery. A large, modern resort building with a blue swimming pool is visible in the upper left. A sandy beach runs along the coast, with a small boat and a few palm trees on it. The water is a vibrant turquoise color, with darker patches indicating coral reefs or rocks. The bottom half of the image shows the ocean with white waves crashing against dark rocks.

Overview of Portfolio and Progress in 2021

The Fijian economy was projected to grow in 2021 due to improved business confidence after almost a year without community transmission of COVID-19. This was a stark contrast to 2020, when Fiji experienced an unprecedented 15.2 per cent contraction in GDP.

Unfortunately, confidence was shattered by the arrival of the Delta variant of COVID-19 in April 2021, which caused a wave of inflections and resulted in stringent lockdowns, movement restrictions and mandatory 'COVID-19 Safe' protocols for business. This suppressed domestic economic activity and increased unemployment. Consequently, the Reserve Bank of Fiji (RBF) revised its previous forecast downwards, to a 5 per cent contraction in GDP in 2021.

Fiji's economy depends on tourism; in 2019, the sector accounted for 35 per cent of GDP, at approximately FJD2 billion (AUD1.31 million). The industry has since collapsed, with visitor numbers declining 98 per cent in 2021. Many tourism workers have been made redundant or put on reduced hours, and the ripple effect has been felt in almost all sectors of the economy.

The Fiji Government launched a national COVID-19 vaccination campaign in March 2021, making vaccination compulsory for all workers and for those receiving unemployment assistance. Vaccination numbers rose steadily, with 80 per cent coverage of the total adult population achieved by October 2021. In another positive development, international remittances remained strong, with a record USD352.67 million (AUD295.49 million) remitted in 2021 (January-November), an increase of 16.2 per cent over the previous record of USD304.97 million (AUD428.47 million) in 2020.

While the national economic recovery effort has been hampered by the decline of the tourism industry, it has also presented the opportunity to fast-track diversification into new growth sectors such as outsourcing services and yachting tourism. These emerging sectors have demonstrated resilient growth during the pandemic, with the potential to be future economic drivers.

The pandemic caused major disruptions and exposed underlying structural economic problems, but it also incentivised government and the private sector to work together on recovery.

In support of this effort, MDF has focused on:



Market intelligence

Using its in-country teams and relationships with the private sector and national stakeholders, MDF produced timely intelligence to inform the national tourism recovery effort and the growth of the outsourcing services sector.



Future growth drivers

MDF identified and scaled-up investments in industries that show potential to support economic diversification, specifically the outsourcing services and yachting tourism sectors.



Strategic partnerships

MDF prioritised collaboration with the government and key market actors involved in national economic recovery and diversification efforts. This included line ministries, private sector associations, development programs and non-government organisations (NGOs).

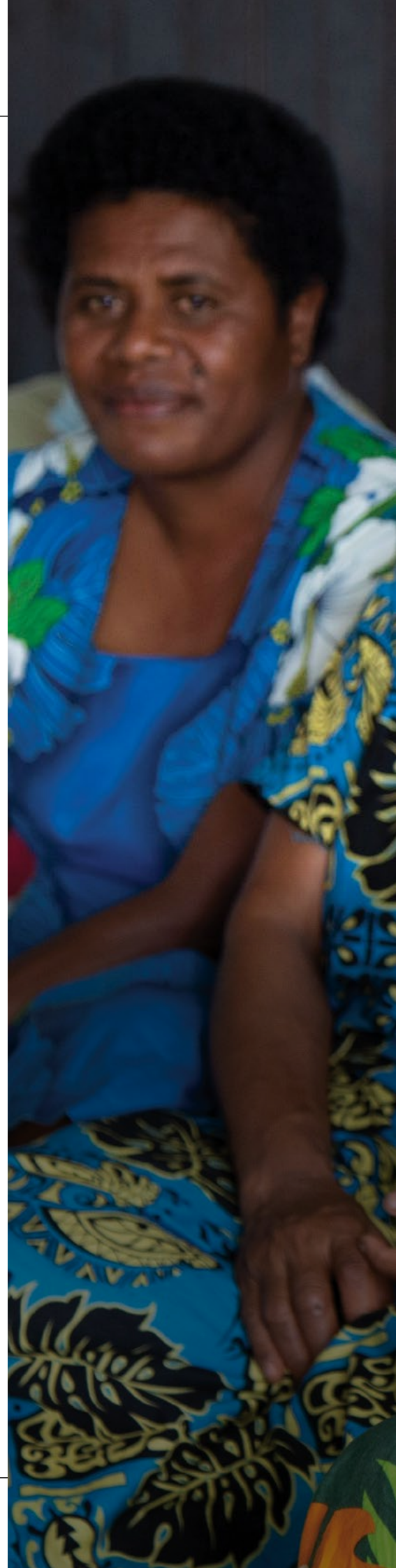
Country Strategy and Sector Selection

In 2021, MDF continued the pivot started in late 2020, shifting from an initial COVID-19 health response to refocus on growth sectors and emerging opportunities. The anticipated economic rebound did not happen, leaving many MDF tourism partners in survival mode, but existing and new partnerships progressed well in the High Value Agriculture and Urban Industries market systems.

MDF focused on supporting the government's new Blue Lane initiative for yachting tourism, as well as producing relevant market intelligence about domestic and international demand to inform re-opening strategies. The prospects for high-value agriculture, in contrast, remained promising, with some key crop exports experiencing double-digit growth. Many Fijians returned to farming, driving up demand for quality inputs such as seeds and soil conditioners as well as logistics services to connect produce to markets. MDF's work in outsourcing services accelerated, and was one of the few industries to expand and create jobs during the pandemic. Activities in Micro, Small and Medium Enterprise (MSME) business development services continued to focus on establishing effective advisory support and coworking spaces for entrepreneurs.

Women's economic empowerment (WEE) is a priority for MDF. Women made up 50 per cent of the people benefitting from MDF Fiji's work (10,329 women) and earned 46 per cent of the reported income generated. Almost half of the current portfolio of interventions addressed some form of constraint to WEE. MDF's WEE Framework and previous in-country partnerships on childcare, the creative arts, community engagement and rural sourcing continued to inform intervention design and partner business models.

In 2021, MDF continued to explore partnerships with non-traditional market actors including NGOs and the iTaukei (indigenous) Trust Fund in Fiji, as emphasised in the MDF Mid-Term Review. MDF also drew on its years of experience supporting sustainable business models in rural villages to publish Fiji's first Community Engagement Study and Guidebook, which was launched with the Ministry of iTaukei Affairs in August.





Click/scan to read Fiji Community
Engagement Study and Guidebook.



Sector selection and rationale



Tourism

MDF's vision for the tourism industry is a shift to higher-yielding tourism that is sustainable and resilient. Fiji had an overreliance on the high-volume, low-yield holiday market from Australia and New Zealand, which accounted for 64 per cent of total arrivals before the pandemic. In recent years, however, the country has struggled to compete with lower-cost and more diversified destinations like Bali. MDF's work in the tourism sector focussed on supporting the shift from volume-based enclave tourism to high-yield niche tourist segments that promote greater economic and geographic inclusion.

The pandemic-induced lull in tourism activity was unprecedented but created the opportunity for national stakeholders to take stock and plan their reopening strategies. It is not clear what the future demand will be for Fiji's traditional segment of family travellers from Australia and New Zealand. In the absence of tourism arrivals, MDF has shifted its efforts to support research and intelligence gathering to inform reopening strategies as well as the shift to high-yield tourism. This has seen MDF take on a much more active role with national stakeholders in generating, analysing and sharing the latest tourist demand data from key source markets. In the Nautical Tourism (sea travel) market system, MDF focussed on yachting, the only open channel for international tourism arrivals. MDF also commenced work on a new Low Season Tourism market system, building on domestic tourism initiatives taken on in 2020. This work focuses on building industry resilience through local tourism as well as international high-yielding tourism, especially outside of the peak season when occupancy levels are lowest.



High value agriculture

The agriculture sector remains an important source of livelihoods, with 28 per cent of the labour force formally employed in agriculture and 60 per cent engaged informally in semi-subsistence agriculture. The sector was an important means for food security and alternative income for many who had lost their jobs during COVID-19.

High value agriculture has emerged as a potential source of economic growth, with agricultural exports growing in value by 25.8 per cent in 2020 and 13.7 per cent in 2021. Ginger, kava and turmeric are some of the crops driving this growth. Key export markets for kava include Hawaii, Marshall Islands, New Zealand, the United States, and smaller Pacific Island Countries. Strong export growth of ginger and turmeric in countries like Australia, Canada, Germany, the Netherlands, United Arab Emirates and the United States highlights the massive potential of Fijian organic spices for the global food and beverage, pharmaceutical and health supplements market.

However, the sector is held back by a number of constraints. There is a lack of quality agricultural inputs, including seeds, soil conditioners, fertilisers and small farm equipment to support the growth of high-value crops. Agri-processors are also faced with increased competition in sourcing from traditional farming regions to meet growing export demand. Many Fijian-branded agri-exporters have also struggled to break into premium international markets due to a poor understanding of consumer preferences and knowledge of how to build effective distribution channels to get their product to market.

MDF's vision in the high-value agriculture sector is to support a shift to products that: a) can be processed into less perishable, more transportable and higher-value forms, b) are intrinsically of higher quality, and c) can leverage Fiji's strong brand image with mainstream consumers beyond the diaspora. In 2021, MDF continued to focus on expanding the awareness and availability of quality inputs, such as seeds and locally produced fertiliser, as well as scaling up agriculture logistics.

Agriculture is heavily affected by climate change, as evidenced by consecutive cyclones in December 2020 (tropical cyclone Yasa) and in January 2021 (tropical cyclone Ana). Combined, the cyclones caused FJD147 million (USD69 million) in agricultural damage and affected nearly 12,000 farmers. There are opportunities for MDF to support agricultural rehabilitation and introduce climate-smart agriculture inputs such as new seed varieties that are flood-tolerant or can be grown during the off-season. Agri-processors and exporters are also interested in expanding sourcing to more regions to strengthen supply chains in order to cope with future natural disasters.

Pandemic-hit tourism workers find new opportunity in farming

As international borders closed, tourism operators closed their doors and many in the industry lost their jobs. Demeniko was one of them. So, after a decade-long career in tourism, he shifted to farming.



Now, I am growing nearly 2,000 cassava and 2,000 dalo plants but my target (in 2022) is 10,000 dalo plants a year which is my main crop. But I'll do more than that.

Vakasei Demeniko

The former resort groundsman explained that the shift to farming was challenging because he was not from the coral coast, and he had limited knowledge of farming in the area and access to support. After a few false starts, he eventually found assistance from a farm in Veisari (two hours away) which supplied him with dalo tops (stems) to get started.

Demeniko is among the many Fijians who turned to farming as an alternative livelihood during the COVID-19 pandemic. While he acknowledged that former tourism workers are now returning to the industry following the reopening of international borders, he feels that many have seen the benefits of farming and have no plans to go back.

"My wife is working and my eldest son is working so I look after the farm. My main market in 2021 is the Agro Marketing Authority but I will also supply the resorts on the coral coast. Now (I am) targeting hotels and hotel workers."

MDF's work in high-value agriculture will seek to capitalise on the growing interest in agriculture and its ramification on sourcing networks and agricultural product supply.



Urban industries

The 2019-2020 Household Income and Expenditure Survey highlighted that the majority of the Fijian population live in urban areas and are highly concentrated in the Central (18.1 per cent) and Western (16 per cent) provinces. This increasingly young urban population (up to 57 per cent) includes a growing number of qualified job seekers and local entrepreneurs.

MDF's vision for the urban industries sector is to create improved formal and self-employment opportunities in urban centres, by supporting the growth of internationally competitive industries and improved business development services (BDS) for MSMEs.

Outsourcing services is a growing industry, which is capitalising on Fiji's well-educated labour pool, good internet connectivity and infrastructure, convenient time zone, and geographical proximity to Australia and New Zealand. Outsourcing service operators in Fiji have traditionally struggled to effectively engage with government and raise awareness of the industry's potential to be a growth engine.

To address these challenges, MDF has supported the Business Process Outsourcing Council (BPOC) of Fiji, now rebranded as "Outsource Fiji" and facilitated collaboration with Investment Fiji to promote the nation as a premier outsourcing services destination in the Pacific. MDF is also working with businesses to improve marketing strategies targeting clients in Australia and New Zealand.

The outsourcing services sector has become even more relevant post-pandemic. Buyers of outsourcing services in nearshore markets, such as Australia and New Zealand, are looking to reduce their exposure to traditional Asian providers, who experienced hard lockdowns and service disruptions. Currently, the sector is estimated to be worth USD34 million (AUD48 million) annually and employs approximately 4,000 people, with the potential to generate another 6,000 jobs (10,000 total jobs) in the next five years.

There are an estimated 24,000 formally registered MSMEs in Fiji; this figure is likely much higher if the informal sector is included. MSMEs contribute USD482 million (AUD629 million) annually to GDP (18 per cent) and account for 60 per cent of employment across most sectors. These local MSMEs drive innovation and new business creation within the sectors. A national MSME landscape study, conducted in 2018 by MDF and the Reserve Bank of Fiji, found that the growth of many small businesses stalled because they could not access affordable finance and effective BDS. These services have traditionally been provided for free by government and development agencies, with a tendency to be very supply-side driven and somewhat disconnected with the actual business development needs of local entrepreneurs. This has crowded-out private sector service providers and resulted in a very low value perception of MSME BDS in the local market.

To try and address this problem, MDF is supporting the private sector to develop sustainable and relevant BDS models for the MSME sector, with an initial focus on commercial business accelerators and coworking spaces to service urban MSMEs. In 2019, MDF helped establish the first MSME business accelerator in the country, Fiji Enterprise Engine. This facility is housed at the Fiji Commerce & Employers Federation (FCEF), which is Fiji's largest private sector association. In 2021, MDF also supported the development and piloting of Fiji's MSME virtual and in-person coworking space, Greenhouse Coworking.

The need for effective and affordable MSME BDS is now critical, with a 2020 International Labour Organization (ILO) report highlighting that the pandemic had forced 40 per cent of Fijian MSMEs to close. Those that remain open require advice and support to develop cost savings and new strategies to address reduced consumer income and changing buying patterns.

The MDF-FCEF Fiji Enterprise Engine

The Fiji Commerce and Employers Federation (FCEF) manages the Fiji Enterprise Engine (FEE), Fiji's first private sector-led business accelerator program, in partnership with MDF. FEE is based on an earlier MDF pilot to develop a business accelerator tailored to the Fiji context and the demands of local entrepreneurs. The FEE model uses innovative classroom teaching methods that incorporate storytelling and humour, along with a specialist panel of local business coaches in areas of strategic management, marketing, finance and human resources, who provide mentoring and coaching for six to nine months.

The fundamental difference between FEE and other MSME training programs in the local market, is the initial focus on relationship and trust building between the entrepreneurs and the local business coaches. The sense of community and support among the businesses in the accelerator, as well as the broader FEE alumni, has also been the critical success factor. This trust has helped to reduce the risk perception among MSMEs and increase the entrepreneurs' confidence in the accelerator in order to make changes to their existing business models.

The business accelerator has been in operation since 2019 and has generated good results, with most FEE graduates achieving double-

digit growth, despite the challenging economic conditions facing the country in 2019 and the COVID-19 outbreak in 2020. The FEE program has been recognised by many development partners, including the ILO, United Nations Capital Development Fund (UNCDF) and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), who contracted FEE local business coaches to support their national projects in 2021 on Inclusive Economic Recovery Through Sustainable Enterprises.

In 2020-21 the FEE program used a hybrid of virtual and online support, while also delivering webinars to provide increased access and guidance to help local entrepreneurs navigate the challenges of COVID-19. More information on FEE and the MSME businesses involved can be found in the following link.



Click/scan to watch.



Climate change

In line with MDF's climate change guidance, a workshop was held in September with the Australian Pacific Climate Partnership (APCP) to identify climate change strategies that could be integrated into the portfolio. The workshop examined the likely climate impacts on the sectors in which MDF works and identified opportunities to utilise climate information to assess business risks and opportunities. The workshop recommendations will help guide future work and collaboration between MDF and APCP.



Seeds of resilience

Conversations with farmers on climate change adaptation

Fiji's agriculture sector supports over 70,000 farming households and makes up more than 10 percent of the country's GDP, on average. In an industry highly susceptible to changes in climatic conditions, such as increasing temperatures, changing rainfall patterns and extreme weather events, better access to quality seed varieties is vital to support horticultural and off-season farming. More resilient seeds are a key tool of climate change adaptation for smallholder farmers – who otherwise risk losing their livelihoods.

To address this, MDF has partnered with local company KK's Hardware to import East-West seeds, an internationally renowned seed brand available in over 60 countries. The seeds have proven to be more climate-resilient than traditional varieties, helping farmers reap harvests and earn income despite adverse weather patterns. They are also high-yielding and off-season friendly.

When Joseph Hill decided to try East-West seeds on his farm, he was sceptical at first.

"I had heard about East-West seeds. So, I did a trial of 'Altruism' cucumber in January [2021] but because of the flooding and cyclones we get, we thought they would never grow," he confessed.

Hill lives at Nabitu in the Sigatoka valley, a region that supplies most of the country's fruits and vegetables. In the 14 years his family has called Nabitu settlement home, he has noticed climatic changes, which make farming in the area more challenging.

"There's heavy rain when I plant. You never expect the really heavy rain during that time. But nowadays, there's heavy rain and there's flooding and waterlog and it damages the plants," said the seasoned vegetable farmer.

As a result, he explains that farmers are hesitant to plant during the rainy season. In fact, when Hill conducted his trial, he was the only farmer on the east bank of the Sigatoka River to plant cucumbers during that time. The risk paid off.

The successful harvest has encouraged the 46-year-old to expand his investment into the use of East-West vegetable seed varieties. Going into the off-season for vegetables, Hill has planted long beans and has plans for more cucumber and 'Platinum' tomatoes. The MDF partner's seeds have also shown to be successful during what is traditionally a low period in terms of harvest and earnings for Fijian farmers. This led to an unexpected windfall.



I got 100 per cent of the harvest. I got 33 bags and made FJD3,300 (AUD2,112) by selling them for FJD100 (AUD64) a bag at the farm gate. Also, when I compared it to the other cucumber I was growing, there was a big difference. With the other cucumber, I got one harvest but with this East-West variety, it was a prolonged harvest. I never expect that kind of harvest in Fiji. I mean who is going to expect that kind of harvest during the heavy rain and cyclone season?!

Joseph Hill,
Farmer



Navnit Nitesh Chand, a farmer from Nasau in Nadi, also had a positive experience with more resilient seed varieties. Chand first heard about East-West seeds at the 2021 Agricultural Show in Nadi. He conducted a trial on his farm, planting six lines of the distributor's 'ridge' gourd seed variety alongside 12 lines of the gourd seed he had been planting before.



The gourd seeds I normally planted were not growing well. The leaves were getting brown. But with East-West ridge gourd- we can plant that during rainy season and during the dry season. I also tested it during the dry season, and I saw a big difference.

Navnit Nitesh Chand

Despite using the same inputs and planting on the same plot of land, the East-West 'ridge' gourd produced double that of the other seed variety. Chand filled six crates with harvest from the six lines of the more resilient seed, while the 12 lines of the other gourd variety also filled six crates. Additionally, the harvest period from East-West seeds lasted around four months - twice as long as the other gourd variety.

"So now, I'm planting the ridge gourd, Platinum tomatoes, watermelon, iceberg lettuce and capsicum - all East-West seeds," Chand said. "In six weeks, I get the East-West 'Platinum' tomatoes, but with the other tomatoes, it takes about two months or two and a half months to grow.

In addition to maturing faster than traditional varieties, the East-West seeds also yield higher harvest volumes, much more than Chand expected, "So now I will plant more," says Chand. "From my side, I'm 101 per cent sure. I can see East-West is the best."

Following successful trials in 2018 by the Ministry of Agriculture's Sigatoka Research Station, KK's Hardware began importing a variety of East-West seeds in October 2020. The company also established on-farm demonstrations with lead farmers to demonstrate the quality of the seeds. Interest quickly grew as farmers began reporting higher yields from using the more resilient seeds due to higher germination rates and the ability to grow several seed varieties in the off-season, which resulted in higher prices for their vegetable produce. In 2021, 164 farming households benefitted from using the improved seeds and many of these are recorded in farmer testimonials on the East-West social media platform.

Farmer testimonials

Click/scan to watch.



Varsha Vandhana



Ranjeet Singh



Systemic Change Story

Fiji Outsourcing Services

Emerging resilience and growth in a time of uncertainty

The outsourcing services sector holds immense economic promise for Fiji but has operated for many years without reaching its potential. To correct this gap, in 2017, the Business Process Outsourcing Council (BPOC) of Fiji was established by several key stakeholders with an initial grant from the Fiji Government. At the time, Outsourcing Services providers promoted their own businesses in overseas markets and primarily relied on the owners' personal networks and word-of-mouth to secure new clients.

Strengthening industry coordination

In its formative years, the BPOC struggled to build industry membership, coordination and high-level engagement with government. In late 2019, MDF partnered with the BPOC of Fiji to build the internal capacity and advocacy capability of the Council through the recruitment of an Executive Director and the establishment of a professional secretariat. Later, with support from MDF, the BPOC also became the 10th Council member of the Fiji Commerce and Employers Federation (FCEF), the country's largest private-sector organisation.

This strategic support proved timely. In 2020, the COVID-19 pandemic severely crippled many industries, resulting in business closures and significant job loss. However, the global pandemic also opened up a business opportunity for the sector. Australian and

New Zealand businesses that used outsourcing services began to re-evaluate their global outsource suppliers, as traditional Asian providers, such as India and the Philippines, experienced hard lockdowns and service disruptions. The Fijian outsourcing services sector, on the other hand, had zero shutdowns during the pandemic. Additionally, they provided comparable costs, convenient geographic proximity, good infrastructure and reliable connectivity. MDF was already working with the Council and Investment Fiji on a comprehensive marketing campaign to raise the profile of Fiji as the premier outsourcing services destination in the Pacific. The pandemic offered an opportune moment to adapt this previous work, promote the Fiji outsourcing services sector and find opportunities in these nearshore markets.

Marketing for success

To complement outsourcing services destination marketing efforts, MDF also engaged an Australia-based company specialising in business-to-business market linkages to facilitate a series of webinars. The series aimed to increase access to new networks and pique the interest of nearshore businesses that could potentially outsource a portion of their work to Fiji and entice outsourcing services businesses to set up business operations in-country. Backed with the participation of prominent public and private sector stakeholders, including Fiji's Attorney General and Minister for Economy, Investment Fiji and the Australia and New Zealand Banking Group Limited (ANZ Fiji), the webinars successfully generated a nearly 100 per cent increase in outsourcing services related enquiries and a 36 per cent lead conversion rate, directly resulting in new job creation during a time when all the other industries in Fiji were struggling to keep their staff employed.

In 2021, BPOC membership doubled to 14 and now includes prominent IT service providers, accounting and insurance companies. The stronger industry association, backed by a series of successful marketing initiatives, generated several positive outcomes at the national level. Prominent stakeholders, such as the Attorney General and Investment Fiji, have signalled interest in and recognition of the initiatives, adding to the council's credibility and standing within the business community.

The BPOC's submission to the 2021-22 national budget was well received and resulted in the government allocating FJD200,000 (USD100,000) to support the continued operations and marketing of the council. This amounted to an additional FJD175,000 (USD87,500), compared to the year before. In addition, several other incentives were announced in the same national budget address, including a 20-year tax holiday for investments in infrastructure to support the BPO industry, exceeding FJD10 million (USD5 million).

The council also recently partnered with Fiji National University (FNU) to develop and launch Fiji's first Basic Operation in a Centre Certificate III course. The course aligns with market demand and the needs of the industry. It also helps reskill or upskill those who are making a career transition into a different sector due to the pandemic.

MDF's support has equipped the BPOC with the necessary marketing, advocacy and capacity building tools to place Fiji on the global market as a premier outsourcing services destination. Fiji's OS industry now employs 4,000 Fijians, and BPOC membership has doubled in a very short period – signalling resilience in a challenging time. The Fiji Government now also recognises the immense potential of the industry to become a future economic driver for the country, capable of creating 100,000 new local jobs over the next decade with the right policies, development and incentives in place.



Sector

Tourism





Sector on a page

Tourism



38

Jobs saved through
COVID-19-related interventions



USD
\$235,293

Income sustained



143

Yachts arrive in Fiji under
the Blue Lanes initiative



USD
\$500,000

Additional market transaction
generated through Blue Lanes



VISION OF CHANGE

- As the local population is vaccinated against COVID-19, pandemic-related restrictions ease and borders reopen, Fiji welcomes back international visitors.
- Fiji attracts more yachts and superyachts under the Blue Lanes initiative, positively impacting suppliers, marinas and activity providers.
- Domestic tourism is promoted and grows during international border closure to support the tourism industry.
- Fijian tourism businesses and institutions have access to credible, timely market information concerning potential travelers, which leads to better package development, marketing and segmentation.



CONSTRAINTS

- Due to the COVID-19 pandemic, international travel and spending by international tourists has been greatly reduced.
- There is little up-to-date information available on the changing preferences of international tourists due to COVID-19, and what market segments and demographics will be relevant for Fiji to target.
- While access to timely information on the domestic market has improved, there is still limited technical expertise, especially among smaller tourism operators, to convert the information into effective marketing strategies.



International Tourism (Air Travel)

- Fiji Airways
- Ministry of Commerce, Trade, Tourism and Transport



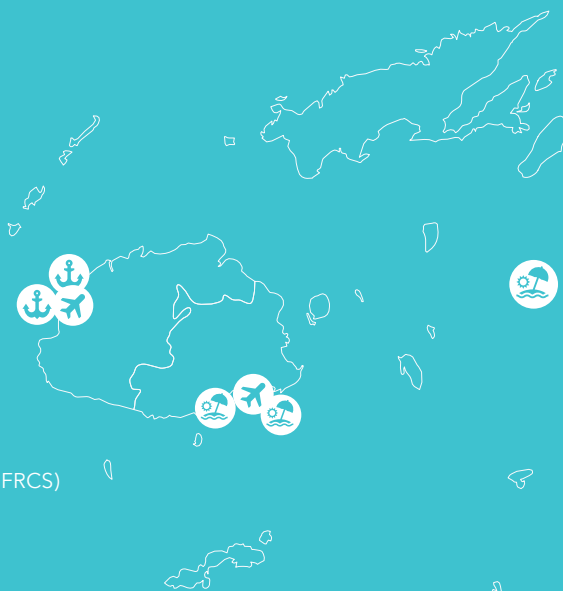
Nautical Tourism (Sea Travel)

- Port Denarau Marina
- Vuda Marina
- Fiji Revenue Customs Services (FRCS)
- Kenua Fiji



Low Season Tourism

- Tourism Fiji
- Fiji Hotels and Tourism Association
- Ministry of Commerce, Trade, Tourism and Transport



Market System 1

International Tourism (Air Travel)



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Emerging	International Market Intel Dashboard (Ministry of Commerce Trade Tourism and Transport [MCTTT]), Fiji Airways, Twenty31, Destination Think)	As Fiji remained closed to international tourism until December 2021, MDF focused on engaging with key tourism stakeholders to gather market intelligence. The objective was to demonstrate the value of relevant and timely data, such as information on potential source markets and customer preferences that could inform future strategy. The industry also recognised the need for a more targeted approach to marketing and tour package design in order to capitalise on the reopening. MDF supported the generation of monthly dashboard reports for the Tourism Statistics Taskforce (MDF, MCTTT, Tourism Fiji and Fiji Hotel and Tourism Association). Market research ranked Fiji well in terms of COVID-19 safety and traveler interest to visit in the next 12 months, resulting in the Fijian tourism authorities expanding research into the high-potential North American market. Throughout this process, MDF remained a crucial partner to the taskforce. Following border reopening, MDF continued to work with partners to act upon these key insights, particularly through designing and marketing targeted and integrated travel packages. The facility expects this market system to perform well as these potential interventions develop further.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
90	73	USD696,892 AUD913,225	USD467,993 AUD613,270	USD426,579 AUD558,999	USD426,579 AUD558,999	USD361,512 AUD473,734	○ ● ○

Market on a Page

International Tourism (Air Travel)



As international borders closed from March to December, there were no non-domestic tourist arrivals or spending.



The lockdown closed 93 per cent of all hotels and resorts, furloughing or permanently laying off 40,000 employees.



Information concerning the domestic tourism market, borders reopening and who will likely travel post-COVID-19, remains insufficient.



MDF is providing market research to advise the tourism industry on post-COVID-19 business and marketing strategies for both the domestic and international source markets



Market System 1**International Tourism (Air Travel)**

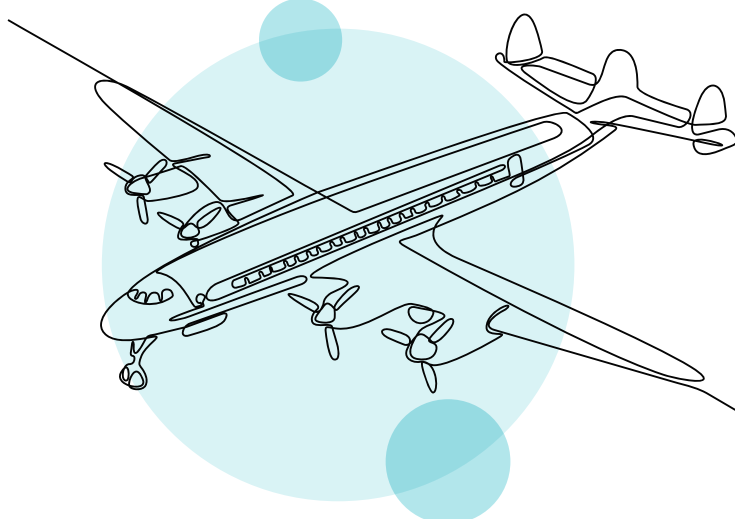
When Fiji closed its borders in March 2020, the tourism industry ground to a halt, with 93 per cent of all hotels and resorts closing and 40,000 tourism sector employees furloughed or laid off. The impact on businesses and the economy was catastrophic: a tourism snapshot by the Asian Development Bank (ADB) Private Sector Development Initiative in 2021 highlighted that up to 60 per cent of tourism businesses were expected to close or shift focus, with the Fiji Hotel & Tourism Association estimating that 80 per cent of tourism workers became unemployed.

The complete halt of international air travel also put MDF's marketing and product development work on hold. MDF assessed that it was an opportune time to help the industry to plan for a move away from volume-based, low-margin tourism toward higher yielding niche tourism. While industry stakeholders have understood the need to shift in this direction, inertia made it difficult. The shock of the pandemic provided an opportunity to rethink business models and plan for the future. Throughout 2020 and 2021, MDF focussed on research and market intelligence to help inform Fiji's tourism recovery efforts and development of a more sustainable long-term strategy.

A strong national vaccination campaign set the stage for the reopening of borders in December 2021. In preparation, MDF focused on building close working relationships with tourism industry stakeholders and emphasising the importance of market intelligence. This work provided timely market intelligence to better understand shifts in post-pandemic tourism demand, both domestically and in key international markets.

Given that all work under the marketing function remained on hold, the bulk of the results projected for this market system could not be realised. However, in 2021 MDF partnered with Fiji Airways to roll out new customer relationship management (CRM) software, which is expected to see results as early as 2022.

When Fiji reopened its borders in December 2021, 23,226 tourists arrived in that month alone, with the majority travelling from Australia and the US. The reopening had some teething problems, which highlighted the need for effective tourist communication around Fiji's new 'Care Fiji' travel protocols. MDF will expand the scope of its work to help address this problem in 2022. As international travel becomes the norm again, MDF is encouraging business to utilise intelligence on demand and travel trends to better cater to higher-yield tourists to address the long-standing need for Fiji to build a more competitive and sustainable sector.



Market functions

Information

To remain competitive in the post-COVID-19 travel landscape, Fiji will need to look beyond its traditional family traveller market and identify those most likely to resume travel and yield the highest returns. Understanding market trends and consumer preferences is the first step to achieving this goal.

In 2021, MDF supported the establishment of the national Tourism Statistics Taskforce (TST) under the Ministry of Commerce, Trade, Tourism & Transport (MCTTT). The TST is a national initiative that includes representatives from Tourism Fiji, Fiji Hotel & Tourism Association and Fiji Airways. MDF also established a live tourism dashboard to monitor tourist sentiment and provide real-time tourism analytics in key source markets. This work gained high-level visibility. TST members were trained on using the new dashboard and went on to produce 15 tourism sentiment reports for national stakeholders. At the government's request, the TST also conducted tactical in-depth research to inform Fiji's reopening strategy, including COVID-19 travel protocols and the Care Fiji Commitment.

While there has been limited uptake of the dashboard findings across the industry, stakeholders like MCTTT and Tourism Fiji have used specific findings of the North American Market Tactical Research report to validate various thoughts behind re-entry protocols. From the dashboard findings, Tourism Fiji has identified a new tourism experience to develop in 2022. A strong interest has also been recorded from market segments that existed pre-COVID but are fast-growing in numbers, suggesting a shift from Fiji being a family-oriented destination to one that caters to the adults/couple segment.

Marketing

Fiji's tourism marketing has primarily targeted the traditional budget holiday market, promoting sun, sand and sea. However, Southeast Asian competitors such as Bali and Thailand offer the same attractions at a significantly lower cost and, prior to the pandemic, Fiji was steadily losing market share to these destinations. Efforts to differentiate Fiji (for example, through promoting

the friendliness of the Fijian people with the tagline "where happiness finds you") have had some success, but the focus was still very much on traditional, low-yield market segments.

Since the onset of COVID-19 in March 2020, through to 2021, most of the planned interventions under the marketing function were put on hold because marketing budgets were deprioritised. A significant piece of work for MDF in 2021 was supporting Fiji Airways procure a state-of-the-art Customer Relationship Management (CRM) software system. The CRM system will improve the airline's digital targeting and marketing campaigns, with an anticipated increase of up to 12-15 per cent in booking conversions. The CRM system provides the airline with improved and ongoing traveller insights and profiling, which will also support more effective targeting of high-yield tourism segments.

With international tourism resuming in late 2021, MDF will fully reactivate work on marketing, utilising the market intelligence developed through the information function. MDF plans to work with government and industry partners to develop new targeted marketing campaigns that appeal to high-yield tourists.

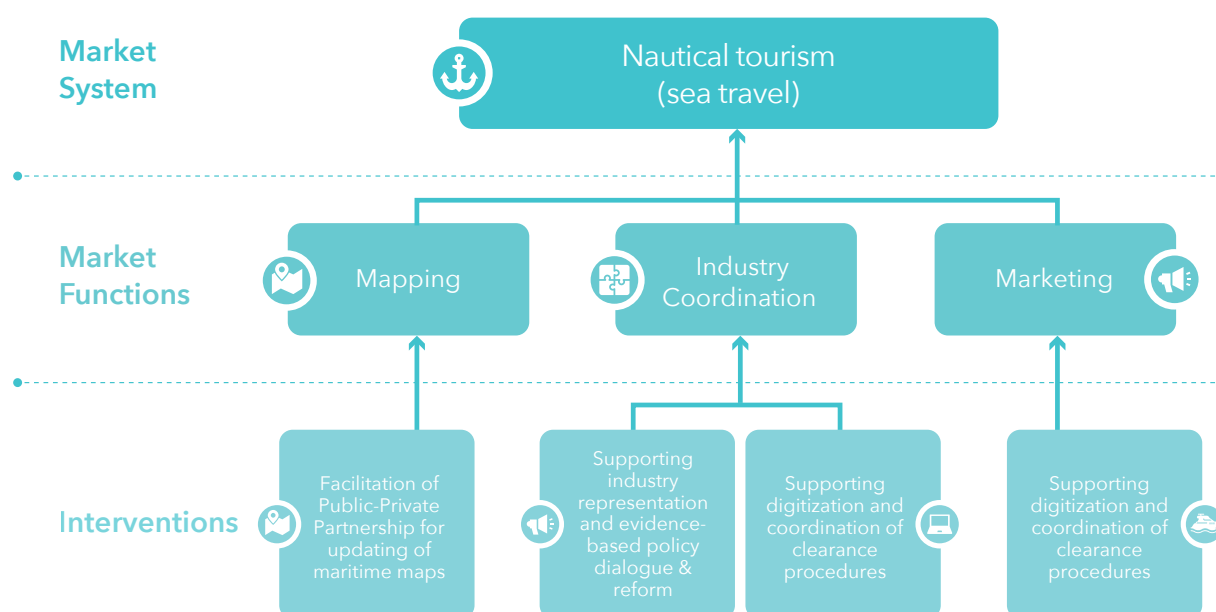
Product development

Many of the hoteliers in niche destinations, local activity providers and domestic airline/cruise operators have worked in isolation when developing their tourism offering. If Fiji is to effectively target and service high-yield market segments, there is a need for closer collaboration and packaging of accommodation, activities and transport to make it as simple as possible to book these holidays.

This is a new market function, added in 2021 with the goal of starting work in 2022. As part of this portfolio, MDF will support the private sector to develop tailored travel packages and local experiences targeted at existing or new high-yield tourism segments.

Market System 2

Nautical Tourism (Sea Travel)



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	1. Advocating for policy and infrastructure improvement (Denarau Marina, Vuda Marina) 2. Hydrographic mapping (Kenua) 3. Establishing an integrated online clearance system and an enabling environment for yachting tourism (FRCS, Tourism Fiji)	In 2021, the Fiji Government's Blue Lane initiative, initiated through the findings of a 2018 MDF-supported study of the economic impact of the yachting industry, continued to be the only means by which Fiji received international tourists – until borders opened in December. The initiative allowed the COVID-19-safe arrival of 143 yachts into Fiji, with a positive impact on the incomes of the communities at which they docked, before a second COVID-19 wave (April-December) restricted disembarkation. The government's recognition of the importance of yachting to the tourism sector during the economic downturn saw Tourism Fiji partner with MDF to market the Blue Lane initiative in Unique Jet Magazine, a private jet luxury lifestyle magazine based in the United Kingdom. Furthermore, the Fiji Revenue and Customs Service (FRCS) partnered with MDF to develop a fully integrated online immigration and clearance system for yachties that will be marketed to yachties through industry stakeholders, including Tourism Fiji, MCTTT, marinas and yachting agents. An industry consultation with border agencies commenced in late-2021. MDF's work with cruise ships remained halted by the pandemic. The hydrographic maps developed for remote regions could not be used for cruise ship visits to these communities. However, cruising could resume in 2022, expanding the impact of this market system over the next two years.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
336	86	USD714,114 AUD935,792	USD448,911 AUD588,265	USD1,429,708 AUD1,873,524	USD918,434 AUD1,203,538	USD75,327 AUD98,710	

Nautical Tourism (Sea Travel)



As Fiji suspended cruise tourism due to COVID-19, the economy lost over USD50 million.



In 2021, the 'Blue Lane' initiative facilitated the safe travel of 143 yachts, each of which stayed an average of 215 days, while superyachts usually stayed 85 days.



Remote island communities would financially benefit from increased yacht (and cruise) tourism.



If Fiji revises yacht policy and process regulations and updates its regional marketing strategy, more international yacht travellers will visit.



MDF is working with the Fiji Revenue and Customs Services to digitalise the online clearance process for yachting. With the digitisation of the clearance process, key stakeholders will have access to timely and accurate information in one place.



Market System 2

Nautical Tourism (Sea Travel)



Through MDF's Economic Impact of International Yachting in Fiji (December 2018) and the International Finance Corporation's cruise ship impact study (November 2019), nautical tourism was estimated to have a combined value of over FJD150 million annually, with superyachts and regular yachting visitors representing some of the highest yielding tourist segments in the country.

MDF supports the growth of nautical tourism (yachts and cruise ships) to promote increased travel to niche tourism regions. This will not only increase tourist numbers and spending outside of mainstream locations, but also enable tourists to travel to areas where there may be little or no hotel infrastructure.

Yachting tourism

Yachting tourism has strong potential to provide inclusive growth, as yachts tend to travel to remote islands that large cruise ships do not visit. Yachts often stay up to 137 days, with superyachts staying on average for 82 days. Longer stays translate to increased spend on provisioning, auxiliary industries and tourism experiences while the tourists are in the country. Visiting superyachts have dedicated crews that generate local spending while they are in port, while their owners and friends often fly into Fiji for charters, which also yields revenue for the airline and local logistics providers.

With air travel restricted, yachting tourism became an anchor for Fiji's tourism industry during the pandemic. Under the government's Blue Lanes initiative, 143 yacht arrivals were recorded in 2021, generating roughly FJD1 million (USD470,000) in tourism receipts in 2021. However, COVID-19 restrictions prohibited yacht visitors from disembarking while docked, limiting the economic benefit in remote island communities. Nevertheless, yachting marinas report bookings from yacht rallies from May 2022 when the new yachting season begins.

Fiji is aligning its regulations to maintain its competitive edge and reinforce its position as the premier yachting destination in the South Pacific. The Customs Tariff (Amendment) Bill 2021 allows visiting yachts five years of duty-free stay. The amended regulation will allow Fiji to market itself as a yachting-friendly destination to source markets, including Australia, France, Italy, the Netherlands, New Zealand, the United Kingdom and the United States.

While the yachting industry has potential to enhance Fiji's international reputation as a location for high-yield tourists and niche markets, it is not without its challenges. Prior to MDF's involvement in yachting and publishing of the yachting economic impact study, government engagement with the sector was limited, with private marinas driving the marketing and growth of the sector. Global insurers are increasingly withdrawing insurance cover for vessels in cyclone-prone areas, having suffered significant losses due to damage claims by yachts and pleasure craft during cyclone season (November–April). As a result, many yachts left Fiji during this time. The pandemic has brought its own challenges, with new health protocols adding to a long checklist of approvals required for yachts, which increases delays.

MDF has been supporting the industry to address these challenges through improved industry representation and engagement, including coordination between national stakeholders for digitisation of the yachting clearances system, while also encouraging collaboration on destination marketing efforts. MDF has also been working with marinas to explore new interventions around marine insurance and disaster-risk reduction.

The yachting sector also provides opportunities for MDF to develop new climate change adaptation and mitigation interventions. Given the increasing intensity of cyclones in Fiji and consequent withdrawal of global insurers, MDF will scope local insurance options, as well the use of man-made and natural cyclone shelters that could be offered through local marinas. With superyacht owners showing a preference towards environmentally-conscious marinas, MDF will explore support for local marinas to achieve international accreditations including 'Clean Marina' and 'Fish Friendly' status. Scoping for specific climate change activities such as the development of cyclone insurance for yachts and disaster mitigation solutions for marinas continued in 2021 and is likely to be added to the portfolio in 2022.

Cruise Tourism

Since the outbreak of COVID-19 in 2020, the Fijian Government suspended all port calls by cruise ships and are unlikely to recommence them before 2022. As a result, MDF interventions targeting cruise ship travel and spending in niche destinations were put on hold and did not yield results in 2021. However, cruise tourism will continue to feature prominently in MDF's nautical tourism work given its potential to contribute significantly to the Fijian economy once port calls resume.

A 2018 International Finance Corporation (IFC) economic impact report highlighted that the cruise tourism sector contributed USD21.4 million (AUD28.8 million) directly to the Fijian economy prior to the pandemic, with an indirect contribution of USD22.7 million (AUD30.6 million). Interestingly, the study found that there were "unmet spending opportunities," as 47 per cent of passengers expressed a keen interest in spending in Fiji but found that there were not many things to spend on. There was also demand for new island ports to travel to, however, nautical maps to these locations were old and outdated.

Prior to COVID-19, MDF was supporting the growth of cruise tourism through work in updating nautical or hydrographic maps to niche destinations. This was done to open a new anchorage and port of call for Carnival Cruises and to ensure safe access for cruise ships in and around the northern Yasawa group. MDF's interventions in cruise tourism did not yield results in 2021 due to the pandemic, but cruise ship visits to Yasawa-I-rara are expected to resume in late 2022 and become more regular from 2023. MDF will also carry out further research into high-value cruise ship vessels providing better yield opportunities for Fiji.

The functions and focus in this market system remained largely unchanged in 2021 but are likely to be reviewed once cruise tourism resumes and climate change scoping has been completed.

Market functions

Maritime mapping

There is an urgent need to update Fiji's nautical maps to ensure safe access for larger vessels, including cruise ships and superyachts, to remote island anchorages and destinations. Work under this function is on hold pending the return of global cruise tourism. However, earlier hydrographic charts developed to ensure safe travel to the Yasawa-i-rara island region have the potential to be used by superyachts, catamarans and other large boats in a digital format.

This function will be revisited in 2022, based on the return of cruise tourism and interest from government and cruise ship agents to continue public-private partnerships to map new destinations.

Industry coordination

Building on the existing economic impact studies, work within the industry coordination market function supports industry stakeholders to act on the studies' recommendations and improve their engagement with government.

In 2021, MDF signed a partnership with the Fiji Revenue & Customs Services to digitise Fiji's yachting clearance system. Digitisation will allow more efficient clearances, better coordination among Fiji's border agencies and the integration of new COVID-19 protocols under the Blue Lanes initiative. The clearance system is being developed in collaboration with the UNESCAP's Regional Automated System for Customs Data (ASYCUDA) Pacific Programme.

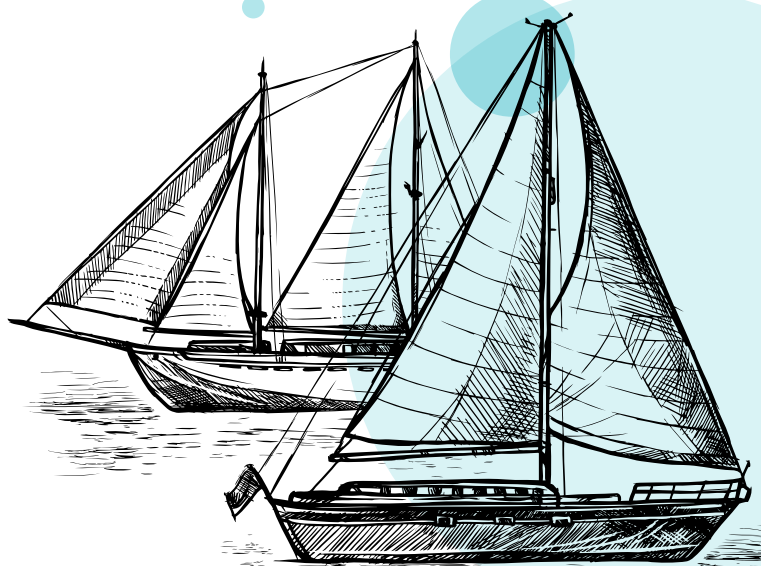
MDF also consulted with yachting stakeholders on establishing an independent yachting and marina association. Currently, industry stakeholders are only represented as part of the Marine & Yacht Operators sub-committee of the Fiji Hotel & Tourism Association, which is dominated by local shipping operators. The new association will aim to improve industry coordination, advocacy and government engagement and is expected to be established in 2022.

Marketing

Fiji has the potential to be a yachting and cruise ship hub in the Pacific, and MDF supported the destination marketing efforts of national and industry stakeholders aimed at promoting increased yachting and cruise ship visits to Fiji.

To support the government's Blue Lanes initiative, MDF partnered with Tourism Fiji to promote the Blue Lane VIP initiative for superyachts, targeting ultra-high net worth individuals via marketing in the Unique Private Jet luxury lifestyle magazine. MDF will continue to work with Tourism Fiji to identify other international marketing opportunities for the yachting industry.

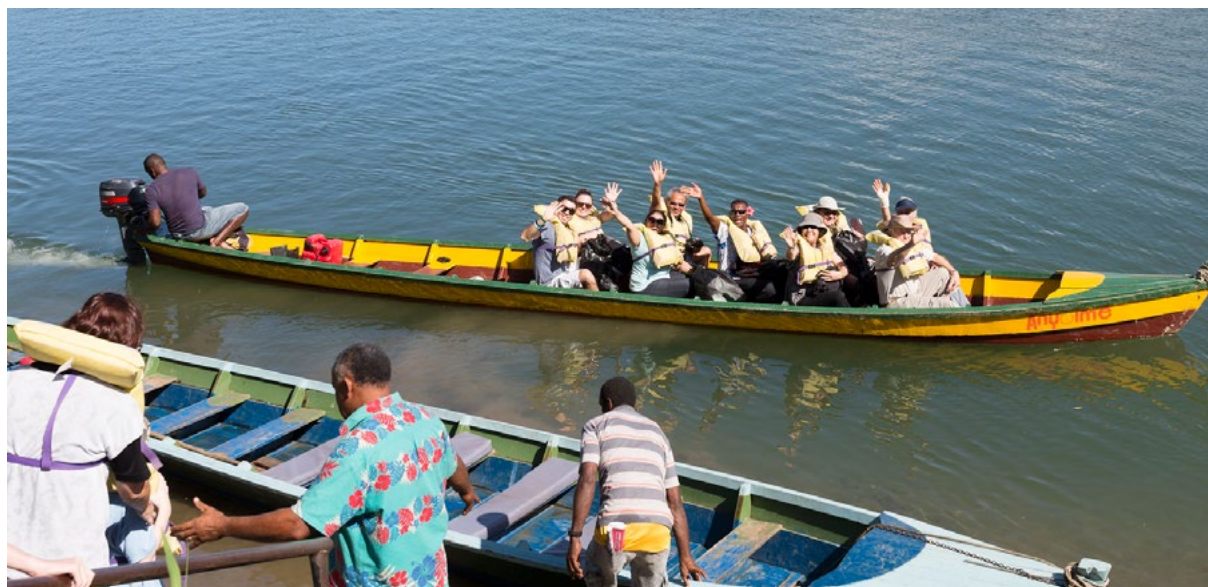
Once established, MDF will also work with the new yachting and marina association to identify how Fiji can be promoted as a premier yachting destination in the Pacific.





Market System 3

Low Season Tourism



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Emerging	Tourism recovery (Domestic Tourism Study, Love our Locals, Social media influencers, Local Event Fund)	In 2020, MDF pivoted to focus on domestic tourism spending to mitigate the loss of international tourism. MDF collaborated with Tourism Fiji to organise local events that established a space for micro and small businesses to provide entertainment, food and products. MDF also successfully connected destination marketing organisations with Tourism Fiji's Love our Locals campaign, providing a platform for the members to market their services to domestic tourists. Research undertaken in 2021 validated that these connections enabled members to sustain some of their operations and employment during the period of economic downturn. The partnership prompted a MDF and Fiji Hotel and Tourism Association (FHTA) demand study on domestic tourism, intended to inform local tourism operators of the preferences and spending patterns of domestic tourists. This would enable tourism providers to prepare and market targeted packages during lockdowns as well as during the traditional low season. At least two major tour operators had started implementing the study's findings by end-2021. MDF's work with local and international market intelligence is likely to yield greater results leading up to end of phase, as tourism operators increasingly use the findings.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
52	52	USD29,611 AUD38,803	USD29,611 AUD38,803	USD273,397 AUD358,266	USD273,397 AUD358,266	USD0 AUD0	

Market on a Page

Low Season Tourism



When Fiji's borders opened on 1 December 2021, the country welcomed 23,226 visitor arrivals in just the first month.



Many local tourism operators and tourism businesses have had to pivot and focus on the domestic market.



MDF produced Fiji's first Domestic Tourism Demand Study (DTDS) in 2021, launched by the Fiji Hotel Tourism Association.



With the market intel from the DTDS, many hoteliers and operators will be better positioned to develop targeted strategies and campaigns, rather than resorting to discounted pricing, which has long been the traditional approach.



Market System 3

Low Season Tourism

MDF has worked on low season tourism in niche destinations with limited success, as national stakeholders were more focussed on the mainstream tourism regions where the reduction in occupancy was less pronounced. However, MDF's work on domestic tourism to help industry survive during the pandemic was a major success. While it was initially a survival strategy, the broader industry, including those in mainstream tourism destinations, now realise that domestic tourism is a viable market segment that can help smooth demand fluctuations during the low season.

MDF intends to use this work on domestic tourism as an entry point to work in low season tourism in a more systematic way. Work in this evolving market system is expected to start in 2022. The vision is to increase off-season occupancy by attracting international travellers that holiday outside Fiji's normal peak season, as well as continuing to promote tailored products and services to the domestic market during the low season.

This is an evolving market system, built on earlier tourism interventions in niche destination travel and the recent work in promoting domestic tourism during COVID-19. Fiji has traditionally seen a 20 per cent drop in occupancy during the low season, usually from November to April (with the exception of the Christmas period). The tourism low season also coincides with cyclone season. Traditionally, hotel properties and tourism activity providers have used price discounting to attract domestic visitors during the low season.

In 2021, MDF produced Fiji's first domestic tourism demand study, which found significant gaps between low-season offers and the expectations of domestic tourists. For higher-yielding domestic tourists, the study found that price was not the key determining factor. Based on earlier MDF partnerships on niche destination travel, it was also found that many international high-yielding tourism segments prefer to travel in the low season to avoid crowds, and that events like Chinese New Year in the first quarter – which coincides with Fiji's low season – draw large numbers of Chinese tourists.

MDF's work in this market system has yet to yield beneficiary impact numbers as most of the effort in 2021 was focussed on preparatory work towards the resumption of international tourism, which was also the government's priority. However, responses to the domestic tourism demand study from larger properties indicate that a more strategic rethink is required to establish domestic tourism for the low season. The study has also revealed the limited technical expertise within industry to convert survey findings into effective strategies and plans. This is a challenge MDF will seek to address in 2022. MDF will also work with national tourism stakeholders to develop more targeted campaigns and packages for the local market during the low season, while drawing from international market intelligence to identify and market to high-value tourism segments looking to travel to Fiji during this time.

LOCAL TOURISM SNAPSHOT



Local Tourists

Typically travel with their families and stick to Viti Levu's top tourist destinations, whether to kick back and relax or enjoy the activities Fiji has on offer.

Typically Stay
2
nights

Often Take Holiday
3-4 times
a year

Friends & Family

56%

Usually Stay at

Paid Accommodation

44%



Main Holiday Times

Long Weekends

79%

Christmas Holidays

55%

School Holidays

50%



Top Yielding Segments

Expats

Premium Leisure

Adventure

Couples



Key Sources of Holiday Information

Social Media

52%

Word of Mouth

45%

Hotel Websites

31%



Average total spend for 2 nights: **\$985**



Accommodation
(incl. Breakfast)
\$348 (35%)



Activities
\$176 (18%)



F&B (Lunch/Dinner)
\$330 (34%)



Transport
\$131 (13%)

Typical Accommodation Spend:
\$150-200/night

Most Popular Activities

Packaged day cruises **67%**

Water-based activities **57%**
Diving, fishing, dolphin watching

Music & food festivals **51%**

Land-based activities **49%**
Hiking, historical site

Adventure **49%**
rafting, off-roading, sky diving

Most Visited Holiday Destinations

- 1 Nadi
- 2 Coral Coast
- 3 Suva

Most Sought After Niche Destinations

- 1 Savusavu
- 2 Mamanucas & Yasawas
- 3 Taveuni

Sector

High Value Agriculture





Sector on a Page

High Value Agriculture



16,892

Effective outreach



USD

\$24,969,735

Additional income



USD

\$1,478

Additional income per beneficiary



46%

Female participation



4

Interventions



VISION OF CHANGE

- Farmers have access to affordable, quality agriculture inputs, such as soil conditioners, seeds and small farm equipment, and information on how to use them. This allows them to increase yields, grow off-season crops and diversify into high value crops.
- More local agricultural processors develop premium, branded Fijian products that earn price premiums for their supplier farmers.
- Agricultural processors and farmers, especially from remote communities, can easily access affordable, reliable and efficient agricultural logistic services.



CONSTRAINTS

- There is an inadequate availability of quality agricultural inputs, such as soil conditioners, seed and farm equipment, and information regarding these inputs is limited.
- The knowledge and skills relating to input application and yield increase are insufficient among sector actors.
- Supply chains linking crops with local processors are inefficient and unreliable.
- Fiji agri-exporters struggle with market intelligence and quality controls to establish premium brands in international markets.
- There are few established agricultural logistics service providers dedicated to tailored transport and pricing for agri-businesses.



Quality Agriculture Inputs

- KKs Hardware
- AgChem Limited
- Ram Sami

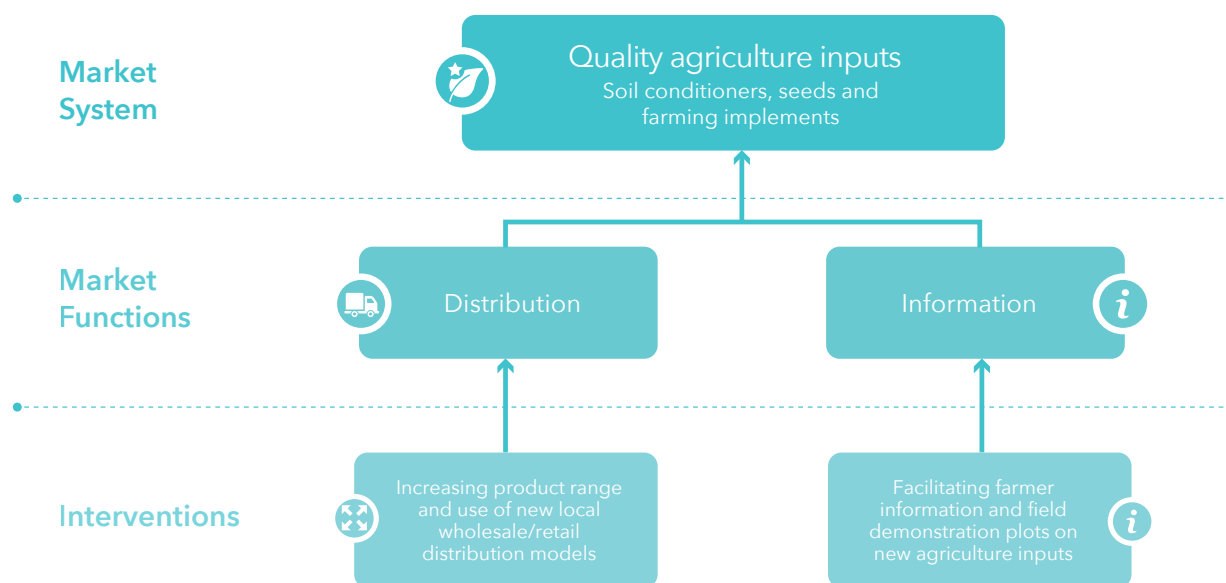


Premium Agriculture Products

- Fiji Sugar Corporation
- Lami Kava
- Flour Mills of Fiji
- CDP (Courier Documents and Parcels)

Market System 1

Quality Agriculture Inputs



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	Introducing soil and yield enhancing inputs (liquid lime, poultry manure) and high quality seeds to Fijian farmers (Agchem, Ram Sami, KK's Hardware)	This market system has historically produced most of MDF Fiji's results. Cumulative effective outreach, in particular, comes mainly from interventions for which monitoring has been completed. However, new partnerships signed in the past few years yielded positive results in 2021, particularly through MDF's work in introducing higher quality seeds and promoting improved, sustainable agricultural inputs, such as fertiliser. With more farmers utilising these inputs, there has been a noticeable increase in yields, translating to increased farmer incomes. Despite the slow year in terms of signing new partnerships, MDF initiated a partnership with Ram Sami, the country's largest commercial egg producer, for the commercial production of processed poultry manure. A study was conducted on potential demand for the product, and signs are positive that the distribution and awareness activities under the intervention will contribute to increased yields and potential cost savings. Product launch is expected in 2022.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
15,153	13,470	USD18,688,499 AU 24,489,868	USD17,887,203 AUD23,439,830	USD6,015,378 AUD7,882,699	USD5,755,319 AUD7,541,912	USD6,526,250 AUD8,552,158	○ ● ○

Market on a Page

Quality Agriculture Inputs



In Fiji, 83 per cent of farming is predominantly subsistence, with growers utilising less than one hectare of farmland.



Diminishing soil health, intensive monocropping, increasing labour costs, climate change and the limited availability of quality inputs continue to be obstacles for crop yields and income.



The sector is slowly shifting to sustainable farming practices and environmentally friendly inputs.



The COVID-19 border lockdown led to a renewed focus on farming and food security.



MDF is supporting existing and new market actors to introduce and improve the availability and affordability of quality agricultural inputs, such as soil conditioners, quality seeds and small farm equipment.



Market System 1

Quality Agriculture Inputs

The pandemic renewed Fijians' interest in agriculture, and key market actors are realising the potential of investing in better quality agriculture inputs. Quality agriculture inputs can increase the country's agricultural productivity by expanding farming of higher-value crops for domestic consumption and export, and supporting import substitution efforts.

Agriculture inputs have traditionally been heavily regulated, subsidised and dominated by a few large, inefficient firms with little incentive to change the status quo. This has resulted in relatively low-quality seeds enjoying a monopoly position in the market. Supply has also been constrained, with seeds often in short supply during the shoulder seasons. However, government is now more willing to open the market to competition, a stance that has been bolstered by COVID-19 and the associated demand for better quality inputs.

Over the years, MDF has worked with a variety of market actors to enable farmers to have better access to quality inputs. MDF's longstanding work on agricultural lime and mechanical harvesters has resulted in systemic change in the sugar industry, documented in the case study Fiji's Sugar Journey. MDF is building on this success to improve awareness of, and access to, quality agricultural inputs by improving information and distribution channels.

MDF's intervention with KK's Hardware to introduce high-quality seeds showed good results in 2021. Within the first year of the product launch, the partner expanded retail distribution to new farming regions. KK's Hardware also introduced value packs and new seed varieties to encourage product trials and cater to growing demand. MDF expects similar success from an intervention on the local production of poultry manure with Ram Sami, the largest egg producer in the country. The partner's new production facility was completed in 2021 and sales of the product are set to start in the second quarter of 2022.

In 2021, MDF collaborated with Adventist Development and Relief Agency (ADRA), the key implementation agency for Government's national Cash for Cultivation initiative, to promote the use of quality inputs in farming areas. As the intervention progresses, MDF will assist ADRA to build relationships with agriculture input suppliers and develop distribution channels into new farming regions.

The Quality Agriculture Inputs market system contributes the greatest number of beneficiaries to the MDF portfolio, accounting for approximately 70 per cent of outreach and 60 per cent of additional income generated. Agricultural input interventions in the sugar sector have benefited over 5,000 farming households. With new interventions on seeds and soil conditioners, MDF is expecting to reach farmers outside the traditional sugarcane growing areas to achieve wider impact.



Fiji's Sugar Journey

Approximately **10,000** Fijian farming households (15 per cent of the population) cultivate sugarcane, and over **200,000** people (20 per cent of the population) depend on the industry for their livelihoods.

The sugar industry has faced challenges over the past few years. Fiji's sugar producers were shielded from the fiercely competitive global sugar market while they enjoyed access to the European Union's preferential sugar market. When this access was removed in 2017, the preceding years of underinvestment left the industry exposed; low productivity, declining cultivation areas and inefficient farm practices made Fiji sugar uncompetitive with countries such as Brazil, India and Thailand. Farmers' income dropped, many left the land and production plummeted.

MDF has contributed to a wave of change in the sugar market system, through supporting improvements in agricultural inputs, mechanisation, quality and marketing.



Agriculture inputs

MDF supported the increased access and use of agricultural lime (aglime) to restore essential nutrients, doubling or tripling sugarcane yields. This improvement encouraged more farmers across Fiji to use aglime.



Mechanisation

Local businesses began importing mechanical harvesters suited to Fiji's agricultural conditions, which addressed the labour shortage and reduced harvesting cost and time.



Quality and marketing

The industry shifted from exporting raw sugar in bulk to developing and marketing sugar as a finished, branded product for high-value markets, with rapid uptake in New Zealand and several Pacific Island countries.

MDF's work has triggered further investment to revitalise the industry. Fiji Sugar Corporation, the Ministry of Sugar and the Fiji Development Bank have invested in cane replanting grants, advanced input systems for farmers, and harvesters for farmer cooperatives.

MDF published the *Fiji's Sugar Journey* case study and accompanying video to document the process by which this systemic change was achieved, as well as provide insights into shifting focus towards interventions and partnerships that stimulate system change.



Click/scan to watch *Fiji's Sugar Journey*.

Market functions

Distribution

The pandemic has shown that, with the right investments, agriculture can be a profitable business for domestic and export markets in Fiji. A more efficient and reliable horticulture market could also deliver significant gains in import substitution (for example, horticulture products for larger resorts). However, realising these opportunities requires overcoming several significant hurdles. The warehousing and retailing of agriculture inputs in Fiji is located in major cities and towns, meaning that farmers often have to travel long distances to purchase these products. Many agriculture input companies do not have extensive distribution or retail networks, which means farmers have limited awareness about quality inputs and cannot access them. In order to convince companies to invest in expanding their coverage, MDF is supporting them to link-sell with other agriculture input providers and work with national distribution partners, such as local supermarket and hardware chains, that have a presence in these farming regions.

MDF's interventions with input suppliers have contributed to better availability of quality inputs for farmers, enabling them to increase crop yields and incomes. Quality inputs, such as seeds and fertiliser, are gradually becoming more available in regional and local retail outlets due to increased input trials and better farmer awareness.

MDF's partnership with KK's Hardware to introduce high-quality seeds is showing promise, with an additional 328 adults benefitting in 2021 through better yields and additional income. The partner has now increased its distribution coverage to include 11 new retailers in key farming regions, some of which were severely underserved.

In 2021, MDF partnered with Ram Sami to support the local processing and distribution of dried poultry manure. The partnership will allow farmers to move from imported fertiliser to a more cost-effective local solution, while adopting more sustainable farming practices. The intervention also provides a long-term business opportunity for the partner: poultry manure was previously dumped into landfills, with negative environmental impacts. The partner is now converting the waste into a commercial product and plans to use its fleet of trucks and national distribution network to make the new fertilizer available throughout Fiji.

In 2021, MDF started to scope interventions to improve access to vertical farming systems and small-scale farm machinery to further improve on-farm efficiency and yield.

Information

For farmers to switch from cheaper, low-quality inputs and invest in better quality seeds and fertiliser, they must see a tangible benefit. Demonstration plots and farmer field days have proven to be effective tools for this purpose. In early 2021, MDF partners KK's Hardware and AgChem collaborated to set up demonstration plots and conduct farmer field days to promote their inputs. While the response was encouraging, Fiji's second COVID-19 wave and subsequent lockdown put field activities on hold.

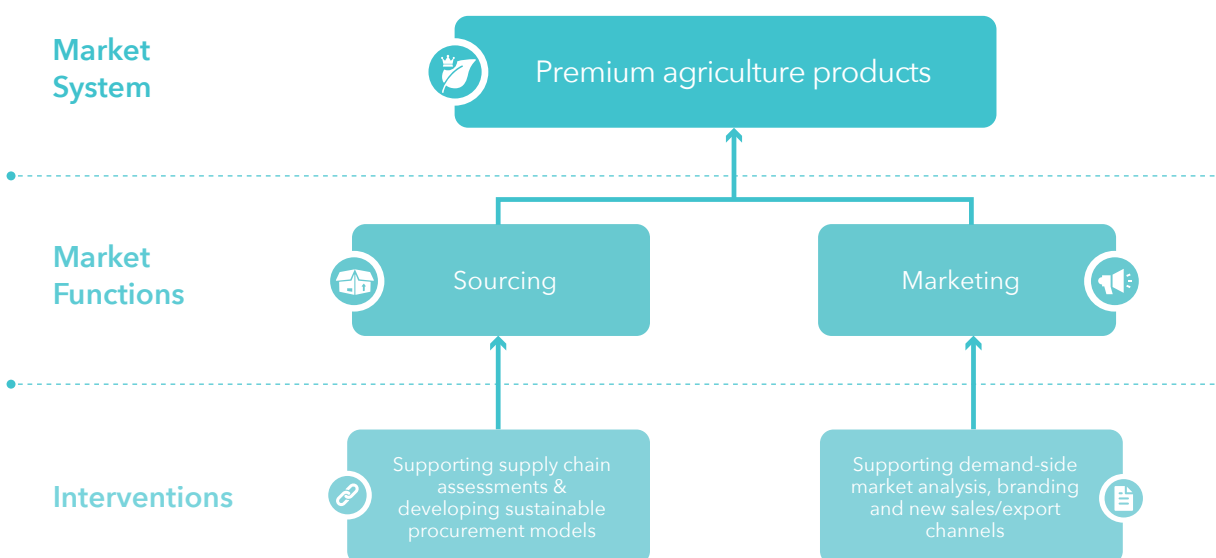
Consequently, input suppliers, supported by MDF, have been exploring alternative information platforms such as social media and television. KK's Hardware invested in digital marketing, including social media campaigns, videos and online product catalogues to continue supporting product awareness, marketing and sales efforts. AgChem shared information about quality fertiliser and husbandry practices on the Green Pillars television show, which generated interest in the partner's sustainable fertiliser product range and boosted sales by more than 20 per cent, benefitting approximately 400 households.





Market System 2

Premium Agriculture Products



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Emerging	1. Reaching higher value markets through marketing and online sales (Lami Kava) 2. Improving quality and branding of Fiji Sugar (FSC) 3. Inter-island sourcing and cold storage supply chain solutions (CDP) 4. Sourcing high value crops/commodities for processing (FMF)	MDF's work in rebranding Fijian sugar continued to yield impressive results in the value of additional market transactions generated as the rebranded product was distributed to a wide range of high value markets. The early results of the intervention with FMF have been encouraging, as the partner produced and sold new lines of crisps, using commodities the company had not previously sourced. MDF's COVID-19-based innovation on dedicated agri-logistics service has also produced promising results, as farmers and aggregators have begun benefiting from this cost-effective means of transporting produce to their main markets. Usage is expected to grow as demand for these high value crops begin to pick up. MDF's work in market intelligence assisted Lami Kava to develop a market-entry strategy for the Australian market following the change in regulation around the import of kava in December 2021. It is estimated that entry into Australia will generate significant partner revenue, as well as farmer incomes.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
3,484	3,422	USD7,420,641 AUD9,724,190	USD7,082,532 AUD9,281,124	USD15,245,977 AUD19,978,702	USD10,031,317 AUD13,145,285	USD2,431,201 AUD3,185,906	○ ● ○

Premium Agriculture Products



Processed and semi-processed agricultural products are not subject to the same quarantine regulations as fresh produce exports and have a longer shelf life.



Ineffective branding, packaging and distribution for niche premium markets, combined with ineffective and logistically challenging local supply chains, are obstacles to growing and processing high quality local crops.



According to the Fiji Ministry of Agriculture, by the end of 2022, agricultural exports are predicted to nearly double, reaching USD47 million, with high value products, such as kava and turmeric, continuing to achieve double-digit growth.



There is high potential for Fijian-sourced and branded products to be developed from endemic crops, such as spices, mineral water, sugar, and those used in nutraceuticals, such as kava.



MDF is supporting the development of more branded agricultural products intending to reach new premium export markets, leading to better margins for processors and local suppliers.



Market System 2

Premium Agriculture Products

Fiji's image as a tropical paradise with a pristine environment, and the success of prominent international brands such as Fiji Water and Pure Fiji, mean that premium Fijian agricultural commodities are well positioned in the global food and beverage, pharmaceutical, and health supplements markets. The export of high-value agriculture produce from Fiji continued to rise in 2021, with agriculture export volumes rising eight per cent in the first six months alone. Exports of ginger, kava and turmeric performed well and are projected to achieve annual double-digit growth in the near term.

However, export markets are notoriously difficult systems in which to enter and remain competitive. Many of Fiji's local processors are faced with inconsistent quality and volumes of produce, making it hard for them to secure stable long-term contracts. Limited access to consumer demand data to guide packaging, branding and distribution is also a challenge, especially in export markets.

MDF has worked with agricultural processors and exporters looking to strengthen their local sourcing models and logistics, and connect more effectively with export market opportunities. MDF's work with CDP Courier Services on third-party agriculture logistics gained traction in 2021. Using the courier service is changing the way crops, especially kava, are sourced from Vanua Levu; local kava processors found the CDP service more cost-effective than using their own trucks. MDF assessments confirmed that the service has helped reduce the processors' procurement lead time from two to three days to as little as one day or less.

With the announcement of the Fiji kava pilot and the prospect of the Australian market opening to commercial kava exports in late 2021, MDF will support partners with consumer demand research, similar to the support provided to the export of value-added ginger products. This research will help inform Fijian exporters about the potential market size, consumer segments, pricing and

preferences for kava. MDF trialled this approach with Lami Kava in 2021, conducting market research and helping to develop an Australian market entry strategy for 2022. This work enabled Lami Kava to gain valuable consumer insights and identify distribution partners to push their products in trade and retail markets. MDF plans to replicate this work with other interested kava exporters in 2022.

To identify new market opportunities for non-traditional export crops, in 2021 MDF partnered with Flour Mills of Fiji (FMF) to determine the feasibility of sourcing and processing kumula (sweet potato), uto (breadfruit) and vudi (plantain) into chips at FMF's facility. The new FMF crisps line entered the market in November 2021, with the partner sourcing a first batch of approximately 14 tonnes of kumula (sweet potato) from farmers.

As the exports industry expands there will be increased competition for quality produce. While this is good for farmer incomes in the short term, Fiji must also keep costs manageable to remain competitive. In 2021, MDF noted increased interest from processors and exporters to expand sourcing networks into new regions, including Fiji's outer islands. MDF is well placed to work with the private sector to expand sourcing in a way that benefits farmers and ensures sustainable practices. MDF's Community Engagement Study, published in 2021, provides guidance for businesses aiming to build sustainable links with rural communities and is a useful tool for firms and development organisations.

Market functions

Sourcing

MDF's intervention with CDP Courier Services improved efficiencies and achieved cost savings that attracted several prominent kava exporters to try the new agricultural logistics service from Vanua Levu. Based on the success of this initial work, there are plans to expand sourcing to new regions. The CDP intervention linked processors to suppliers and benefitted 153 adults. This work has the potential to be scaled up, provided there is sufficient interest from processors to establish consistent pricing and buying from new farming regions.

In 2021, FMF moved forward with commercial production of kumula, uto and vudi chips for its 'Thumbs Up' crisps line, setting the stage for MDF to explore sourcing opportunities. The three crops are currently only sold in municipal markets for local consumption. FMF's need for high volumes for value-adding processing to serve domestic and export markets is anticipated to promote livelihood opportunities for many Fijian farmers.

Marketing

Even with high-quality products, Fijian businesses struggle to break into highly competitive global markets. This is largely because they often lack a detailed understanding of consumer preferences and do not have the premium branding and marketing strategies essential for success in these target markets. MDF's support to firms within this market function is around reaching new premium markets through market research, branding, packaging and market-entry strategies. MDF has worked with Fiji Sugar Corporation (FSC) to launch 'Sugars of Fiji' and export Fijian sugar to New Zealand and Pacific Island countries at premium prices – FJD1.21/kg for the rebranded and packaged sugar compared to FJD0.52/kg for bulk commodity exports. FSC has continued to invest in its production facility to improve systems and processes and maintain quality.

In 2021, MDF partnered with Lami Kava to commission research into the Australian market for kava. The research looked to understand consumer preferences, brand strength, the competitive landscape and compliance standards. The findings were used to inform the company's market-entry strategy, and the first consignment of kava to Australia is expected in the first quarter of 2022. With the Australian market opening up, the company is set to double its production and sourcing over the next three years.



Sector

Urban Industries





Sector on a Page

Urban Industries



91

Jobs created



USD

\$502,310

Additional income



64%

Female participation



6

Active interventions



VISION OF CHANGE

- Fiji is recognised as an outsourcing services destination in key nearshore and offshore markets.
- Fijian outsourcing services companies take a proactive approach to marketing, which results in a successful, wide-ranging portfolio of services offered to the international market.
- The quality and skills of human resources continue to improve so that Fijian companies apply for and win international tenders.
- Medium, Small and Micro Enterprises (MSMEs) achieve sustained growth as proactive business advisory and support services become available and affordable, such as accelerators (FCEE FEE) and coworking spaces.



CONSTRAINTS

- There is minimal industry coordination to promote Fiji as an outsourcing services destination in key nearshore and offshore markets.
- Fijian outsourcing services companies lack strategic marketing because they are not aware of potential international client needs.
- Staff is not yet trained to cater to international markets.
- There is no holistic business support system or business enabling environment established in Fiji for MSMEs.
- There are no readily available, effective, affordable and commercially viable Business Development Services in Fiji.



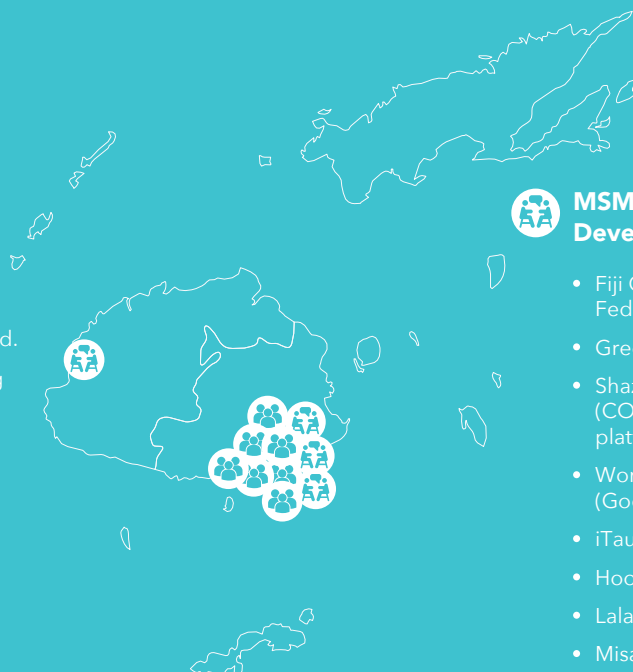
Outsourcing Services

- Greymouse Investments Ltd.
- Packleader Pacific Ltd.
- BTR (Fiji) PTE Ltd.
- ACTON Fiji Pte Limited.
- Pacific Centecom (Fiji) Limited.
- Business Process Outsourcing (Fiji) Ltd.
- Lyndhurst PTE Limited Group of Companies
- Investment Fiji
- TKW Research Group
- Matchboard



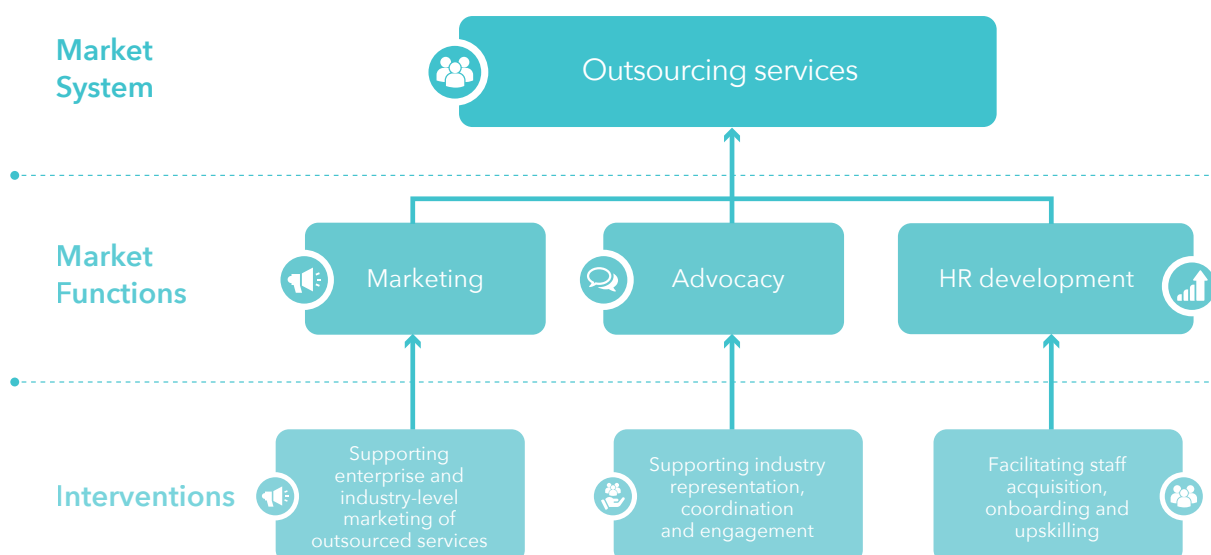
MSME Business Development Services

- Fiji Commerce and Employers Federation (Fiji Enterprise Engine)
- Greenhouse Studio PTE Limited
- Shazcom Technology (COVID-19: Electronic payment platforms and home delivery services)
- World Education Australia Ltd. (Good Return)
- iTaukei Trust Fund Board
- Hoo-sear (South Pacific) Enterprise
- Lalai and Sprout
- Misaele Management Services
- Wainuqa Farmers Co-operative Ltd.



Market System 1

Outsourcing Services



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	1. Direct marketing of Fiji OS providers (Greymouse, Packleader, BTR, Centrecom, Acton) 2. Marketing Fiji as an OS destination and facilitating industry advocacy (BPO Council, Investment Fiji, Lyndhurst, Matchboard) 3. Attracting foreign direct investment (TKW)	Over 2021, MDF's innovations in outsourcing started to yield results. The marketing work created new leads for companies, which have begun to translate into conversions, additional staff hires and increased business revenue. Webinars held by Matchboard resulted in a considerable number of inquiries, of which 40 companies were willing to consider Fiji as an outsourcing option. MDF supported the BPO Council to recruit a lead conversion specialist. Business development managers hired within MDF partnerships secured new clients in 2021 and subsequently, generated 24 additional jobs. MDF's workshops and awareness raising generated interest among foreign investors to open offices in Fiji. The events also generated government interest, resulting in the National Budget 2020/2021 providing specific incentives for OS companies. In 2021, MDF assisted one company (TKW) to formally register and set up business in Fiji. This has already created additional employment for 30 people. Additionally, MDF and Investment Fiji started to work on strategies to capitalise on investor interest in Fiji and attract more foreign direct investment.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
545	327	USD4,274,450 AUD5,601,344	USD1,372,950 AUD1,799,148	USD10,688,822 AUD14,006,894	USD6,468,095 AUD8,475,950	USD816,229 AUD1,069,606	○ ○ ●

Market on a Page

Outsourcing Services



The Outsourcing Services (OS) sector employs 4,000 people and generates USD50 million annually.



The Business Process Outsourcing Council of Fiji aims to employ over 100,000 people over the next ten years.



Fijian-based BPO enterprises have a 36 per cent conversion rate – nearly double the global average.



The OS sector is recognised as a 'developing sector' separate from ICT as per the new Investment and Trade Promotion Strategy draft for Fiji.



In 2022, Fiji will begin construction for a state-of-the-art USD146 million Technology Park with a capacity to accommodate 15,000 professionals



MDF is promoting Fijian BPO and knowledge process outsourcing (KPO) services to the nearshore markets of Australia and New Zealand.



There are new government incentives for infrastructure in the ICT sector, such as business parks and network cabling, and FDIs setting up in Fiji, including a USD100,000 grant for the BPO Council in the 2021-2022 Fiji National Budget, and a 20-year tax holiday for BPO companies that move to Fiji.



Market System 1

Outsourcing Services

Fiji's outsourcing services sector is estimated to be worth USD34 million (AUD48 million) annually and employs approximately 4,000 people. Although outsourcing services have grown steadily, most observers agree that industry growth remains below its potential. According to the president of the Business Process Outsourcing Council (BPOC), outsourcing services could generate up to 10,000 jobs over the next five years, and the Fiji Government has set an ambitious target of 100,000 jobs in the next 10 years.

Fijian outsourcing services operators have struggled to reach their potential for several reasons. Most business have a small client base relying on existing marketing networks and word-of-mouth. And, because there is limited awareness of Fiji as an outsourcing services destination, firms have struggled to break into the mainstream markets in the Asia Pacific and North American markets. A second challenge is that while Fiji has an abundance of raw talent with its well-educated, English-speaking population, the relative immaturity of the outsourcing services industry means that there are insufficient work-ready candidates to hire. In the absence of recognised training institutions, individual companies must train new employees from scratch. This adds cost, time and uncertainty when bidding for work, decreasing competitiveness in fast-paced global markets.

MDF's work in the sector started in 2019 and focused on supporting improved industry representation, coordination and government engagement through the BPOC. MDF also focused on supporting marketing efforts to improve global awareness of Fiji as an outsourcing services destination and increase lead generation and conversion.

The pandemic in 2020 created a window of opportunity for Fiji. With traditional outsourcing services destinations in Asia under hard lockdowns and experiencing service disruptions, outsourcing services clients realised the risks inherent in concentrating services in one country.

Companies in Australia and New Zealand began to rethink their outsourcing strategies, looking at viable options closer to home. Fiji is well placed to take advantage of this nearshore demand, with its proximity, favourable time zone, familiarity, well-educated labour force, internet connectivity and infrastructure.

In 2021, MDF's initial investments began to yield strong results. The BPOC, now rebranded as Outsource Fiji, is regarded as one of the most dynamic and effective industry councils in the country. It advocated for, and successfully secured, unprecedented government support for the sector in the 2021/2022 Fiji National Budget, including grants and tax incentives specifically for outsourcing services. An MDF-supported destination marketing campaign with Outsource Fiji and Investment Fiji included six webinars and a workshop attended by over 60 outsourcing services clients. Fiji is now on the radar of outsourcing clients and potential foreign investors in Australia and New Zealand.

The Outsourcing Services market system contributed USD4,274,450 (AUD5,741,313) in additional income (48 per cent of overall MDF Fiji results) in 2021 and USD10,688,822 (AUD14,356,905) to value-added market transactions (50 per cent of overall results). MDF expects outsourcing service partnerships to create an additional 219 jobs and generate USD2.9 million (AUD3.9 million) in employment income by 2025.

MDF is seeing early signs of systemic change in key functions of the market system in a surprisingly short timeframe, just two years after the first investment. This demonstrates that context and timing are crucial success factors. The Systemic Change Story in this country chapter provides more detail.

Market functions

Marketing

Previously, many outsourcing operators in Fiji were working in isolation and primarily generating clients through word-of-mouth recommendation via Australia-based partners. They lacked sophisticated marketing tools or the internal capacity required to generate and convert new leads. This was compounded by low awareness about Fiji as a potential outsourcing services destination.

MDF supported Outsource Fiji to do two main things: first, offer better destination marketing to raise the awareness of Fiji as an internationally competitive outsourcing services destination; and second, provide improved market intelligence and lead conversion services to its members. To do this, Outsource Fiji enlisted international service providers Matchboard and Derick Lafluer, with MDF support. Separately, MDF also engaged Matchboard to conduct a comprehensive outsourcing services demand study in Australia and New Zealand to provide the overall industry with better information on the opportunities in these nearshore markets. Matchboard, which is the leading regional outsourcing services matchmaking service provider, hosted a series of webinars to promote outsourcing opportunities in Fiji to firms in Australia and New Zealand. The webinars were supported by Investment Fiji and Outsource Fiji and attended by international clients and potential foreign direct investors (FDIs). The webinars generated 21 new enquiries and led to two FDIs setting up operations in Fiji.

Lead conversion support for Outsource Fiji members BTR, Greymouse and Pacific Centercom led to improvements in the firms' ability to secure contracts, as conversion rates rose from 12 per cent in 2020 to 36 per cent in 2021. These lead conversions alone have created 60 new jobs.

MDF also supported Outsource Fiji to revamp its website and rebrand itself from BPOC to Outsource Fiji. The new website will be a portal for clients and investors and will host photos, videos, infographics and blog posts about Fiji's emerging opportunities.

Infrastructure to support the growth of the industry will be critical. MDF's partnership with Lyndhurst supports the construction of Fiji's first dedicated 'plug and play'

IT/outsourcing services business park. This facility will accommodate existing and new outsourcing services FDIs to set up their office in Fiji. MDF supported the branding, promotional videos, financial remodelling and the development of an investment prospectus in 2021, to secure investment and finance for the construction of the business park.

Advocacy and coordination

Outsourcing services is a relatively new industry in Fiji. The BPOC (now Outsource Fiji) was established in 2017 with seven founding members but faced challenges in ensuring coordination among industry players and lobbying government for industry recognition and support.

MDF has supported the professionalisation and capacity building of Outsource Fiji since 2019, during which time it was established as the tenth industry council under the Fiji Commerce & Employers Federation in 2020; an Executive Director was recruited; and a dedicated secretariat function was created. Membership has now grown to 19, including outsourcing operators, telecoms companies, IT support service providers, and legal, accounting and insurance firms.

Outsource Fiji achieved a major policy advocacy success in the 2021/2022 Fiji National Budget: the council received a grant allocation of FJD200,000 (AUD130,782) to support operations and marketing. The budget also provided a 20-year tax holiday incentive for new IT/outsourcing services infrastructure investments exceeding FJD10 million (AUD6.5 million). This sets the stage for promoting Fiji as an outsourcing services destination, enticing FDIs to set up office in Fiji and expand existing outsourcing services companies. This growth will translate into higher incomes and more jobs.

A key focus for MDF in 2021 was brokering relationships between Outsource Fiji and national stakeholders, such as Investment Fiji, to promote foreign investment in outsourcing. The two organisations collaborated to develop: outsourcing services marketing webinars, which generated significant investor interest; eight new clients that translated into 60 new jobs; and two FDIs setting up operations in Fiji—TKW, a prominent Australian research company, and TMC. To support

future outsourcing services enquiries, MDF supported Investment Fiji to set up a hot desk for the Outsource Fiji Executive Director in the Investment Fiji office. This is aimed at strengthening closer collaboration on new trade opportunities and facilitating investment between these key stakeholders.

MDF is also supporting Investment Fiji to develop a new Trade and Investment Strategy for Fiji. Under its MoU with Investment Fiji, MDF contracted OCO Global, an established international trade and investment advisory firm, to support preparation of the strategy, which is expected to be finalised in 2022. The new strategy is anticipated to have a major impact on the national trade and investment climate, government coordination and resourcing across all priority growth sectors, including tourism and high-value agriculture.

Human resource development

The challenge of securing a pool of work-ready staff in order to bid for new work is an impediment to the growth of the outsourcing services industry. To address this, MDF is working with firms to minimise the risk of hiring and training a bigger pool of new staff to ensure that the business is better equipped to secure new clients. In 2021, MDF assisted three firms to recruit and train staff, enabling them to tender for larger international contracts and clients. One of the companies, ACTON, was successful in their tender and more firms are expected to win work in 2022. MDF is also working with national stakeholders to increase the availability of vocational education and work-ready skills training for the industry, as well as looking at ways to incentivise the hiring of more women and people with disabilities. Women currently make up close to 65 per cent of staff at outsourcing services companies.



Investing in relationship building

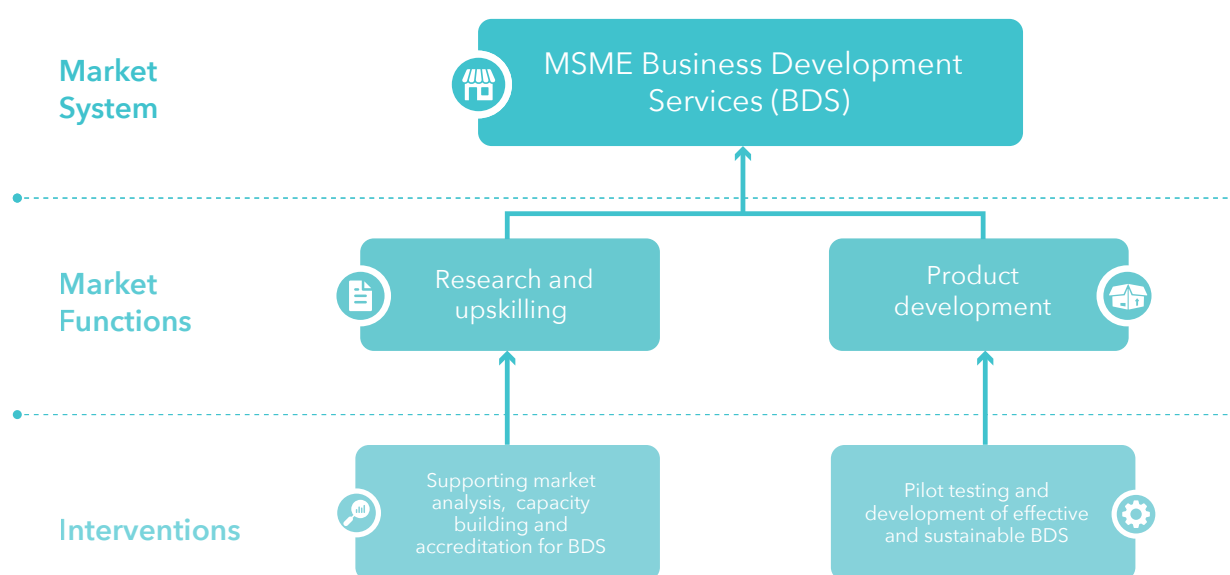
In 2020, MDF signed an MoU with Investment Fiji to support the development of an exporter's guide. In 2021, this support was expanded to outsourcing trade and promotion work, which led to a request to expand the current Investment Fiji-MDF MoU to support the development of a new trade and investment strategy for Fiji. Through its work in this market system and others, MDF has invested significant time and effort in building trust and credibility with key national stakeholders. The partnership approach to interventions—in which the team focuses on consistent relationship building and management, reinforced by delivering high-quality outputs—has been instrumental in securing and deepening this collaboration.





Market System 2

MSME Business Development Services



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	- Supporting sustainable private sector-led business acceleration, incubation programs and related webinars (FCEF, FEE) - Establishing a coworking space for creative industries (Greenhouse Studios) - Organising online payments and delivery models (Shazcom)	MSMEs continued to feel the impact of the pandemic in 2021. Even so, there were some modest results gleaned from interventions in this market system. Fiji Enterprise Engine (FEE) graduates implemented lessons learned from the program, positively impacting their revenues and enabling them to retain staff. MDF facilitated research that will enable the Fiji Commerce and Employers Federation (FCEF) to develop a sustainable business model for the FEE beyond MDF support. MDF worked with Greenhouse Studios to develop a business model, hire key personnel and market itself online, culminating in the October launch of Fiji's first coworking space for MSMEs. The intervention aimed to work with online payment delivery platform, Fiji Eats (through Shazcom), progressed in 2021. Sales and marketing consultants were hired to promote the platform to MSME restaurants, and the number of participating businesses grew from 53 in 2020 to 97 in 2021.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
231	219	USD1,092,735 AUD1,431,947	USD672,619 AUD881,416	USD2,238,995 AUD2,934,034	USD1,593,364 AUD2,087,983	USD492,377 AUD645,222	○ ● ○

Market on a Page

MSME Business Development Services



Micro, Small and Medium Enterprises (MSMEs) account for 18 per cent of Fiji's GDP (USD482 million) and employs 60 per cent of the workforce.



In 2021, 77 per cent of MSMEs had suffered more than a 50 per cent decline in revenue and 90 per cent were not able to diversify services.



MSMEs have struggled to sustain or increase growth because formal financing options and packaged business development support services are limited and expensive.



In response to the lockdowns and movement restrictions, MSMEs quickly adopted digital solutions, including social media marketing, online transactions, and home delivery services through mobile phone apps.



MDF supports this sector to establish commercially viable, private-sector-led MSME business development services, including business incubators, webinars and coworking spaces.



Market System 2

MSME Business Development Services

MSMEs were hit hard by the pandemic and attracted significant support from local government agencies and development programs. However, these have largely been temporary solutions. The government set up a FJD200 million (USD94 million) loan credit guarantee for concessionary loan packages to small businesses, and several development partners have introduced enterprise training schemes to support unemployed people to set up their own businesses.

Traditionally, business development services (BDS) for MSMEs have been driven by government and development programs. This has crowded-out private sector involvement and, in the absence of ongoing public funding, inhibited the development of financially sustainable models. Fijian MSMEs did not place much value on BDS before the pandemic and there is little demand-side data on what kind of BDS MSMEs actually want. Therefore, the key challenge in this market system is to create BDS via accelerators and coworking spaces that are effective, affordable and commercially sustainable.

MDF has achieved success in the delivery of relevant MSME BDS through the Fiji Enterprise Engine (FEE) business accelerator, which was piloted in 2019 and has been taken on by the Fiji Commerce & Employers Federation (FCEF) as a key member service for its Young Entrepreneurs Council and Women in Business Council. In 2021, MDF worked with Greenhouse Studio on a business case for a coworking space for local entrepreneurs in Suva, which led to the launch of Greenhouse Coworking in October.

MDF's work in MSME BDS has benefitted 219 people, the majority of whom are Fijian entrepreneurs, and generated net additional income of USD672,619 (AUD881,416). Even though FEE classes were hampered by lockdowns and meeting restrictions in 2021, the portfolio continues to grow, with MSME businesses in the portfolio generating USD1.6 million (AUD2.1 million) in additional market transactions by the end of 2021.



Market functions

Research and upskilling

MDF conducted the MSME Landscape Study for Fiji with the Reserve Bank of Fiji in 2018 and has since focused on researching and testing various models of BDS: business accelerators, coworking and digital solutions such as virtual business mentoring. MDF has conducted a range of in-house research initiatives to understand the sector and has used the findings to inform interventions in the portfolio, including: pilot testing business accelerator services in 2019; demand-side research for a home-delivery mobile app in 2020; and a business feasibility study for MSME coworking in 2021. This has enabled MDF to continue to innovate and support diverse private sector BDS models including FEE, the Fiji Eats home delivery app and, most recently, the Greenhouse Coworking space.

Both FEE and Greenhouse Coworking are now seen as effective BDS for MSMEs in Fiji and are being used by local entrepreneurs and development programs. Following the successful business coaching and mentoring offered through FEE, FCEF is now looking to establish an international accreditation program in Fiji with the Asian Pacific Alliance of Coaches. FCEF has also fielded requests from government and indigenous institutions to establish a FEE train-the-trainer program to improve the standard of local business coaches and mentors.

MDF's work in this portfolio will continue to focus on research, feasibility studies and training to support new commercial MSME BDS providers and best practices in Fiji.

Product development

MDF directly supports the private sector to take forward findings from research to develop new or improved BDS for MSMEs. The commercial sustainability of these models will now become a key focus of MDF's support.

In 2021, MDF focused on the commercial model for the new Greenhouse Coworking space, which was launched in October 2020. There has been positive response by local MSMEs since the launch and Greenhouse Coworking. The business is well on its way to breaking even within the first quarter of 2022.

MDF also worked with FEE to develop a sustainability strategy, to ensure the business accelerator can continue to run without MDF support. MDF and FEE are formulating a hybrid funding model that is likely to include a mix of private sector sponsorship, development scholarships and MSME subscription fees. The FEE model drew interest from the Tongan Ministry of Economic Development and Trade in 2021. The ministry requested MDF's technical support in 2022 for the design of a business accelerator for returning Tongans involved in the Pacific Labour Facility. This work will be managed by MDF's Pacific Regional team.

Observations and Lessons



Tourism

Fiji became a tourism leader in the Pacific without relying on market intelligence: the pandemic exposed this gap, but it also highlighted the opportunities.

Over the past 30 years, Fiji has become a major Pacific destination for the budget family market, primarily from Australia and New Zealand. National marketing strategies and tourism packages, refined iteratively over many years, focused on this market. However, the closure of borders and pivot to domestic tourism highlighted the lack of market intelligence about domestic tourism, with most hotels relying solely on price discounting to attract

customers. Moreover, COVID-19 exposed a pervasive lack of market intelligence—and research capability—about Fiji's source markets outside the conventional budget family segment. Fiji has struggled to identify the latest demand trends and the segments most likely to travel once borders reopen. This presented MDF with an opportunity to bring the private sector and government together to address the gap.

Big data has the potential to be a game-changer.

MDF's work setting up the live tourism dashboard and making big data analysis available to the Tourism Statistics Taskforce has transformed the tourism industry in ways that local stakeholders had not fully expected. MDF also learned that big data can be valuable to

multiple industries, including high-value agriculture and outsourcing services. Looking for opportunities to make use of big data across the portfolio, as well as introducing it as a tool for effective decision-making, will be a key focus for MDF going forward.





High value agriculture

Cultivating solid business relationships pays off in the long run.

The agriculture input market in Fiji is dominated by a few large, family-owned firms that have been involved in the sector for at least two generations. These business owners tend to be risk-averse and prefer traditional business models. It can be difficult to convince them to innovate. MDF has found that supporting change requires credibility, trust and patience. Even in the absence of formal agreements or activities, remaining interested

in their business dealings and maintaining a regular relationship is vital to effective future collaboration. MDF's work in seeds and soil conditioners has been years in the making. The program had to wait until the timing was right and incentives aligned, as a result of COVID-19, for these businesses to recognise the need or opportunity to try something new.



Urban industries

Digital solutions are here to stay.

Pre-pandemic, most MDF businesses partners—MSMEs and even larger outsourcing services firms—primarily used conventional forms of marketing, in-person meetings, word-of-mouth referrals and trade expos to generate new business. However, movement restrictions and border closures necessitated a rapid shift to digital

marketing. Faced with a huge external shock, MDF's partners rapidly adopted social media marketing, search engine optimisation and customer relationship management software to cope with the 'new normal.' MDF's experience in other sectors reflects the same trend in digitisation.

MSME business coaching and mentoring required nuanced methods.

Given the stress and anxiety caused by the pandemic, it was crucial that any form of business support started with empathy and understanding in order to be relevant and effective. Working through FCEF, MDF supported local business coaches to enhance their empathy skills and deliver counselling to supplement virtual and in-person business advisory support. MDF also found

that the virtual events and webinars provided a sense of community for many local MSMEs, particularly during a time of physical isolation. Hearing from other businesses who were experiencing similar challenges, but still surviving, provided much-needed inspiration to adapt and innovate.





COVID-19 Case Study

Awakening dormant demand

Domestic travellers reinvigorate Fiji's tourism industry

When COVID-19 froze international travel and caused Fiji's tourism industry to grind to a halt, it also exposed the sector's complete lack of information on another key market segment: domestic travellers. This business has now recognised the importance of internal tourism, not only during the pandemic, but also as a potentially viable source of revenue during the international low season.

MDF spoke to the popular Intercontinental Fiji Golf Resort and Spa to find out how the Domestic Tourism Demand Study, a market intelligence tool MDF developed in partnership with the Fiji Hotels and Tourism Association and Tourism Fiji, offered foundational support to its marketing plans and package offers.

Intercontinental Fiji Golf Resort and Spa is a popular choice for holidaymakers from all over the world. The hotel offers 266 rooms, exclusive Club InterContinental Suites, an award-winning day spa and a championship golf course. The Resort is also located on one of the most attractive beaches in the country.

However, the resort was not spared from the negative impact COVID-19 had on Fiji's tourism economy. The first wave of the virus brought a stream of cancellations and lost revenue. Like every other tourism establishment in Fiji, the property began to furlough its staff.



2020 was gearing up to be a very successful year for our resort. We had a healthy pipeline of bookings for both our Leisure and Groups business and were excited for the year that we were going to have. In a matter of a few short weeks, this all changed when bookings began to cancel, with a crippling effect on our business. We did not see this coming and COVID brought to life the stark reality of how a global pandemic can impact a business.

Hudson Mitchell,
Intercontinental Fiji Golf Resort and Spa's
Director of Sales and Marketing

To diversify revenue streams and create casual job opportunities for furloughed staff, the resort applied to become a government-approved private quarantine facility and converted the luxury Club InterContinental into a preferred private facility for travelers in need of a mandatory quarantine haven.

However, a more strategic reevaluation was required to sustain long-term operations. Domestic tourism was identified as a promising pivot. The resort worked to create alluring packages for the domestic tourism market, including significant discounts on their rack rates.



Now more than ever, the resort had to reassess our strategies and concentrate more on Fiji's domestic market. This meant that our commercial team had to reexamine our packages and communications to ensure that we were not only desirable but affordable for our domestic market. Fortunately, we already had a domestic strategy in place, but COVID-19 meant that we needed to amplify this approach to sustain ourselves as a business, given that the international market was no longer travelling.

Hudson Mitchell



Fiji's first domestic tourism demand study

Although many Fijian tourism establishments started turning to domestic tourism as a means of staying afloat amid the height of the pandemic, they did not have specific insights on the best methods of attracting Fijian travellers beyond employing heavy discounting strategies. To support the drive towards domestic tourism, MDF and the Fiji Hotel and Tourism Association (FHTA) undertook Fiji's first Domestic Tourism Demand Study, designed to provide detailed information on the local tourism segments, their preferences and characteristics, including spending patterns. The study was launched with the hope that this information would equip tourism stakeholders with a greater understanding of the local market to target and cater to their preferences more effectively. The research was informed by over 10,000 online survey responses and follow-up interviews, undertaken by FHTA and MDF, in collaboration with the Ministry of Commerce, Trade, Tourism and Transport (MCTTT) and Tourism Fiji. MDF Fiji's work on the study was well-timed, as it complemented the ministry's concurrent Love Our Locals (LOL) campaign, as highlighted by Hon. Faiyaz Koya, Minister for MCTTT, at the launch of the study.

The study is the first time that official information regarding the specific demand of the domestic market is readily available to tourism operators. While immediately useful to pivot business in the face of a pandemic, the information is also expected to support Fijian tourism businesses to effectively target locals during the country's traditional 'low season' for international visitors. While diversifying revenue, this also provides a buffer against seasonality and contributes to a more resilient tourism industry.



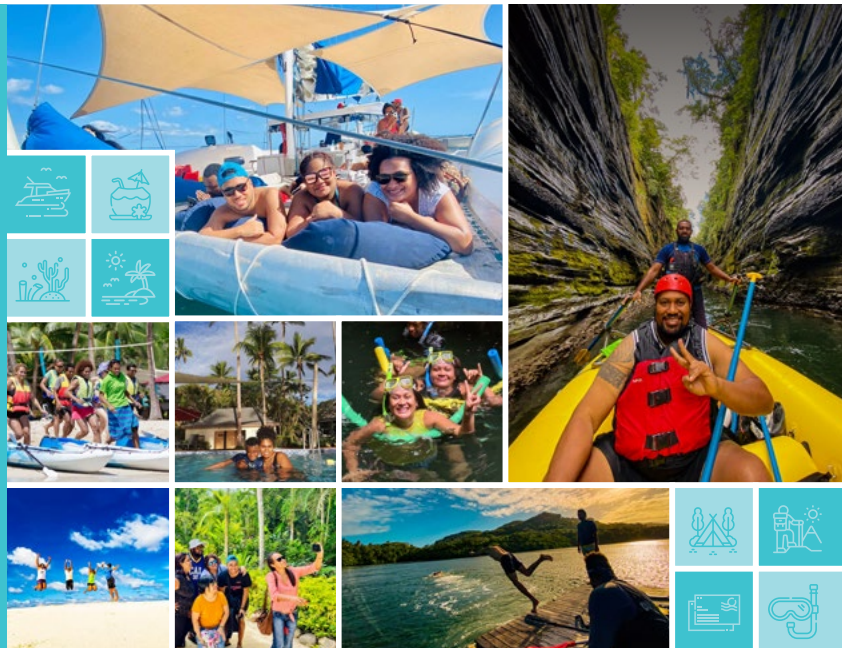
We have used this information to create high value packages for different domestic niches and are excited about the return on investment that we are projecting. Our packages are now more than ever providing more high value content for our domestic market. We definitely plan to use it as a guide to inform our 2022 marketing strategies.

Hudson Mitchell



Locals have been the greatest supporters of our tourism industry and economy. And we want this to remain. With the finding of this report, we want to ensure domestic tourism remains the foundation of the Fijian tourism industry and every other national agenda. In fact, domestic tourism will now take on a greater significance as part of our Tourism Fiji marketing strategy. This will add resilience to the Fijian tourism industry.

Hon. Faiyaz Koya,
Minister for MCTTT



Click/scan to read the **Domestic Tourism Demand Study** online.

Pro-Poor Growth Story

Outsourcing services

Opportunity in a pandemic

At the height of COVID-19, many businesses in Fiji struggled to sustain operations and keep their staff employed. At the same time, the pandemic presented Fiji's outsourcing services sector with an opportunity for growth. Businesses in nearshore markets, such as Australia and New Zealand, began re-evaluating their global outsource providers. Businesses started looking for providers geographically closer to mitigate future risk and build business resilience. This opportunity was a boon for Fijian households that had lost their source of income, especially those dependent on the tourism industry.

With MDF support for outsourcing services expanding between 2020 and 2021, there have been many stories of livelihoods regained. MDF Fiji spoke to Courtney Robinson, a former tourism employee who is now carving out a successful career in outsourcing services.

Courtney Robinson first found out about BTR (Fiji), an outsourcing services business based in Nadi and Suva, when she noticed their job advertisement for a medical practice administration position.

"This instantly piqued my interest. In particular, the role was for a psychology/psychiatry practice and, having studied psychology at University, it was a perfect fit for me. I knew that it would be challenging – I just had to try," Courtney said, explaining how she came to work for the company.

At the time, Courtney had been unemployed for several months. The 28-year-old had worked for a renowned international resort chain as a Reservation Sales Agent and was part of a dynamic, 15-member team. But when COVID-19 reached Fiji's shores, the tourism industry, which accounts for approximately 40 percent of national employment, suffered immensely.



My employer tried their utmost best to cater for its employees for as long as they could, but eventually they had to let people go. I was made redundant in February 2020 and instead of looking for work right away, I decided that I would stay home for a few months and take care of my daughter. By September 2020 however, I was placed in a position where I needed to find some form of employment; I needed to work again to look after my little girl.

Courtney

Courtney started working at BTR (Fiji) one month later. She works fulltime and is the sole breadwinner for her household of six – her retired parents, two brothers, daughter, and herself. The money she earns is more

than enough to cover their general expenses at home so she is also able to save in the process.



At the beginning of it all, I made the switch because I needed a job but as I progressed and learned more about the company, I became even more determined because I wanted to be part of everything Brad and Tracy Russell [Co-Founders and Directors of BTR Fiji] stood for.

Courtney

Her determination and commitment to the role has paid off and in just over one year, Courtney's responsibilities have grown tremendously, to include three different portfolios - Intake Officer, Administration Team Leader and 'As Campaign' Team Leader, where she oversees a team of nine members. To support her career aspirations, she intends to enrol in a Business Management course at the Fiji National University.



Since establishing operations in 2016, BTR (Fiji) has grown and now employs **130** Fijians. In 2021 alone, the company employed **51** new staff, of which **25** staff were employed as a direct result of MDF's work in the outsourcing services sector.



The outsourcing services industry now employs around **4,000** people and has the potential to employ over **100,000** people over the next decade with the right policies, infrastructure development and incentives in place.



To say that this role has been challenging is an understatement. Having to learn an entirely different culture, medical system and procedures of a company based in another country, has been some of the most difficult things I have ever had to do. I rose to the challenge because I chose to learn as much as I could to benefit myself and my clients.

Courtney Robinson,
BTR (Fiji) employee

Acknowledgements

MDF Fiji would like to thank the following organisations and individuals for their support and collaboration in 2021:

Adventist Development and Relief Agency (ADRA) Fiji	International Fund for Agricultural Development (IFAD)
Agricultural Marketing Authority	International Labour Organisation (ILO)
AgChem Fiji	International Trade Centre (ITC)
Asian Development Bank	Investment Fiji
Australian Centre for International Agricultural (ACIAR)	ITaukei Trust Fund Board
Business Process Outsourcing Council of Fiji (BPOC) and members	Jeff Liew - Consultant
Investment Fiji	Jennifer Granger - Consultant
CDP Courier Services Fiji	KK Hardware
Coconut Industry Development for the Pacific (CIDP)	Lalai & Sprout
Denarau Marina	Lami Kava
Destinations Marketing Organisations (DMOs):	Mereia Volavola - Consultant
• Savusavu Tourism Association	Ministry of Agriculture
• Tourism Suncoast	Ministry of Commerce, Trade, Tourism and Transport
Dr Andrew McGregor - Consultant	Ministry of Lands & Mineral Resources
Dr Richard Beyer - Consultant	Ministry of iTaukei Affairs
Face 2 Face Research Service Providers	Ministry of Sugar Industry
Fiji Airways	Misale Management Services PTE Ltd
Fiji Commerce and Employers Federation (FCEF)	Nanise Masau - Eagles Consultancy
Fiji Consulate & Trade Commission (Australia & New Zealand)	Pacific Horticultural & Agricultural Market Access Plus Program (PHAMA Plus)
Fiji Enterprise Engine Coaches:	Pacific Tourism Organisation (SPTO)
• Maria Ronna Luna Pastorizo-Sekiguchi	Pacific Trade and Invest
• Josua Mateiwai	Paula Rasinupate - Consultant
• Elizabeth Algar	Pacific Women Shaping Pacific Development Support Unit
• Tanya Nacagilevu	Pepe & Pepe
• Savenaca Baro	Provincial Offices of Nadroga and Navosa, Ba, Bua, Namosi and Ra
• Steve Cordeiro	Ram Sami & Sons
Fiji Enterprise Engine Alumni MSME Businesses	Scaling Frontier Innovation Program
Fiji National University	Shazcom Ltd.
Fiji Sugar Corporation	Tourism Fiji
Flour Mills of Fiji	Vuda Marina
Greenhouse Studio Ltd.	Wainuqa Farmers Co-operative Ltd.
Good Return	Young Generation Against Poverty (YGAP)
Hoo-sear (South Pacific)	
House of Mausio	
Insurance Holdings Pacific (IHP)	
International Finance Corporation (IFC)	

MDF would also like to extend its thanks to all of its partners in Fiji, without whom the team's achievements would not have been possible.



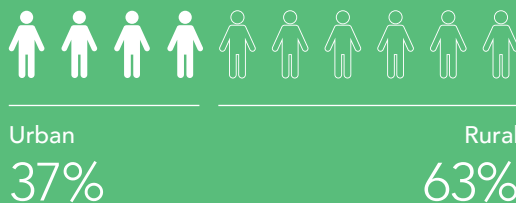


Quick
Facts

Pakistan

Population

215
million



Poverty Headcount Ratio
(at national poverty lines)



Female		Male
18.3%	Labour force participation rates	61.3%
	32% (total)	
46.5%	Literacy rates	69.3%
	58% (total)	
50%	Mobile phone ownership	81%
7%	Active bank account users	35%

GDP (USD)

277
billion

Key GDP
contribution
sectors



GDP growth
rate

3.9%



Industry

17.72%



Agriculture

23.13%



GDP per capita
(USD)

1,285



Services

53.84%

Official languages



English,
Urdu and
regional
languages

Telecommunication and connectivity



Cellular
subscribers
176 million



Tele-
density
82%

Financial inclusion



Digital
financial
inclusion
17.7%



Active
microfinance
borrowers
7.4 million

Exchange rate

USD/PKR
161.78
AUD/PKR
121.49

Key focus areas

Dairy and Meat

Improve access to quality inputs and information for best practice livestock management.

Develop supply chains to connect producers to markets.

Establish first-rate livestock management practices to increase local farmer incomes.

Horticulture

Improve access to quality inputs and so farmers can supply the right quality and quantity of high value agricultural produce for processing and exports.

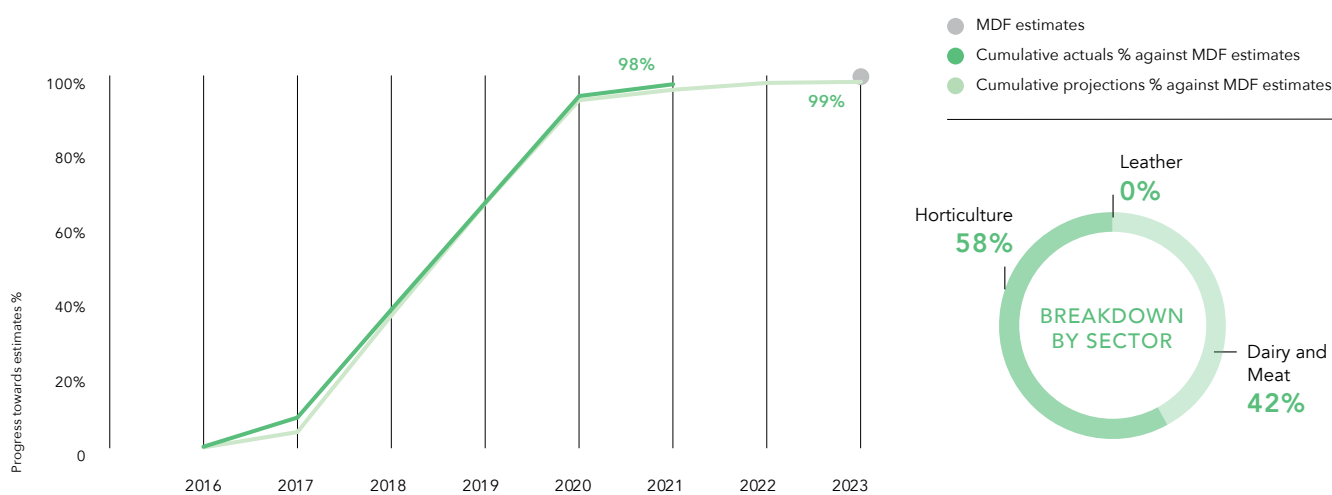
Leather

Improve access to quality inputs, services, skilled labour and foreign markets for a more competitive finished leather goods industry for export.

Expand work conditions in factories to employ more female workers.

Highlights

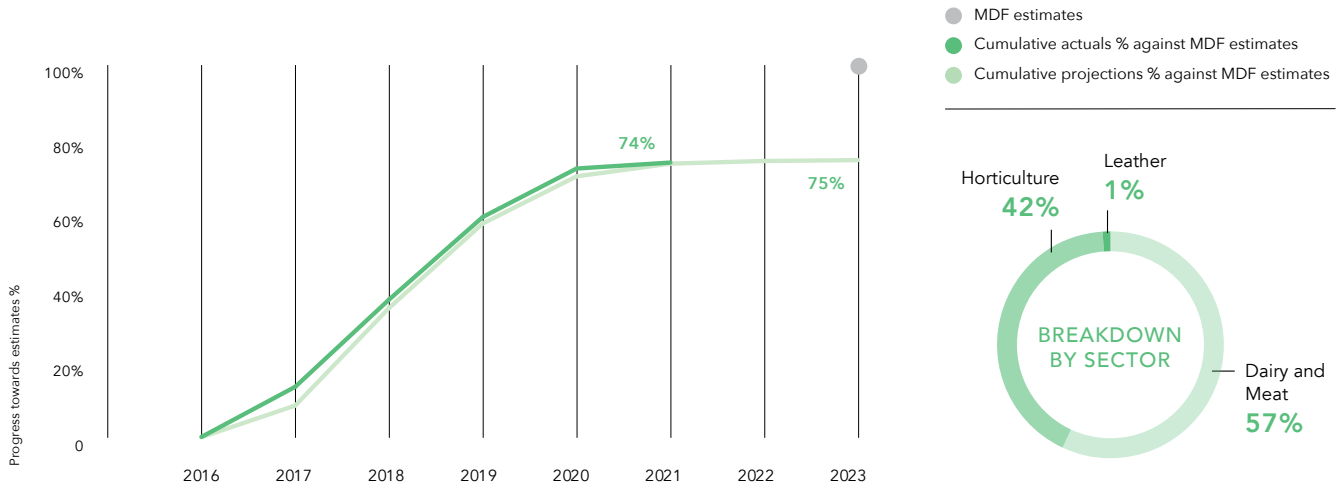
Effective outreach



Horticulture demand rises, fuelled by MDF interventions in Balochistan and Sindh

- The current portfolio has achieved 98 per cent of estimates. Despite COVID-19 lockdowns and travel restrictions, MDF monitored and verified the results from nine interventions in 2021.
- Horticulture interventions matured and significantly contributed to outreach, at 58 per cent.
- The dairy and meat sector accounts for 42 percent of total portfolio outreach. Supporting livestock farmers to gain access to finance and quality inputs has led more farmers to use loans to increase herd size, as well as generate more income through greater milk and meat yields. Access to low-cost nutritious fodder in Gilgit-Baltistan contributed to outreach in 2021.
- MDF Pakistan also supported supplemental activities around raising awareness of nutritious fodder in Punjab, Khyber Pakhtunkhwa and Gilgit-Baltistan. This is expected to benefit more than 700 farmers, starting in 2022.

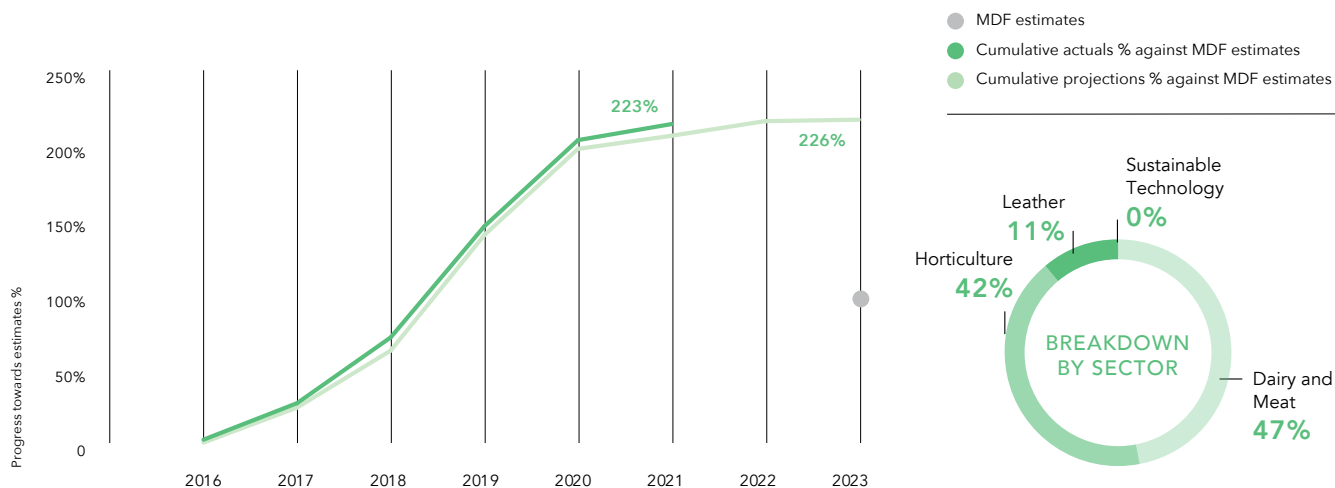
Net additional income



Inflation and currency depreciation diminish portfolio's ability to reach USD estimates

- The current portfolio has achieved 74 per cent of estimates. However, the steep depreciation of the Pakistani rupee against the US dollar, which MDF uses for its estimates, affected the portfolio's ability to meet the estimates. The rupee has depreciated by 38 percent over the past four years and 9.5 per cent in 2021 alone.
- The dairy and meat sector accounts for 57 per cent of the cumulative net additional income as of 2021. Improved access to finance enabled farmer to purchase livestock and inputs, resulting in higher income. Access to low-cost nutritious fodder also contributed to additional wages as farmers benefitted from higher milk yields and milk-based products. A similar impact was seen in silage interventions.
- Horticulture contributed 42 per cent of total additional income, primarily from input interventions.
- MDF's work to support inclusive workplaces in the leather sector also contributed to net additional income. MDF's intervention with JMS Tradewell has created 80 jobs for women, the majority of whom have not worked in the formal sector before.

Value of additional market transactions



High quality inputs drive transactions to overshoot estimates

- The current portfolio has achieved 215 percent of estimates. The dairy and meat sector contributed 47 percent, horticulture contributed 42 percent and leather contributed 11 percent of the total value of additional market transactions.
- The spike in 2021 came from the horticulture sector, where two interventions (Haji Sons and Ali Akbar Group 2) were monitored for the first time in 2021. They were not monitored previously due to movement restrictions and logistical challenges. The interventions, which support enhanced access to quality inputs for tomatoes in the border regions of Sindh and Balochistan, have matured and increased farmer yield and the value of market transactions.
- Interventions in dairy and meat continued to contribute to value of additional market transactions, particularly those in finance and fodder (Khushali and Green Diamond).
- MDF's support toward inclusive workplaces for women in the leather sector resulted in an increase in production and export for the partner, contributing to raised market transaction value.



The Results Story

Private
sector
investment
leveraged:

1.86m

MDF
investment
(USD)

5.129m

Private sector
investment
(USD)

5.162m

Estimate
(USD)

1:2.75

Ratio of MDF to
private sector
investment

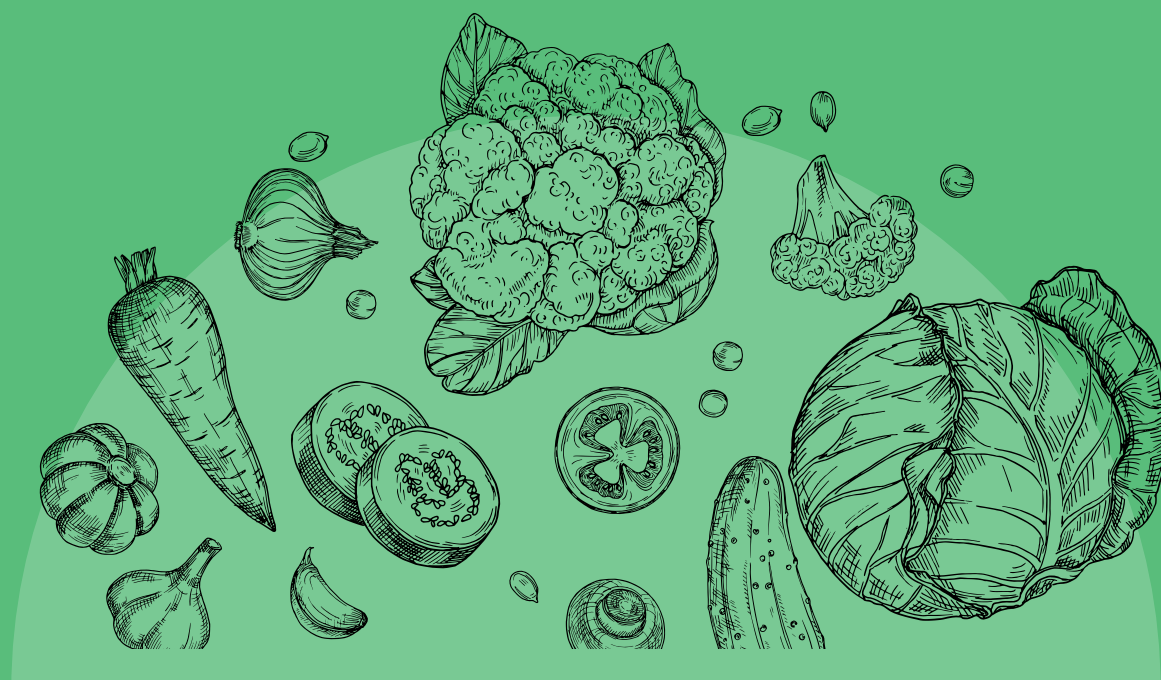
25%

Investment
came through
private sector
crowd-in



MDF Pakistan's effective outreach increased by 14 per cent in 2021, with all three sectors continuing to perform well despite the prolonged impact of the pandemic. The horticulture sector contributed the most, with the Haji Sons and Ali Akbar Group 2 interventions maturing to yield over 90 percent of 2021 results. MDF's two-person team in Pakistan continued to monitor all interventions, conducting nine field assessments in 2021.

The intervention with Haji Sons supported vertical farming and the use of higher quality seeds in interior Sindh. While farmers purchased and used the seeds as MDF had expected, it was mostly for traditional horizontal farming. MDF field assessments revealed that farmers were finding vertical farming challenging due to the high cost of the equipment required and strong winds in the region. Moreover, the sharecropping model prevalent in Sindh limits farmer decision-making; landowners will often decide what type of farming to employ. Nevertheless, farmers shared that they were satisfied with the information and inputs provided by the partner and commended the quality of the tomato seeds in particular. The higher quality seeds produce fruits with an extended shelf life, a critical factor since most of the produce goes to urban centers (Karachi and Lahore), which helps farmers safely transport their produce and sell at a higher price. Farmers also reported better crop quality (size, colour, shape) and quantity (fruits weighing close to 140-160g per piece versus 100-120g per piece).



Overview of Post- Implementation Monitoring

MDF Pakistan's small team continued to implement the program's *Post-Implementation Monitoring Plan* in 2021, completing the deliverables set out in the Annual Strategic Plan. The end of 2021 marked 18 months of post-implementation work since the Pakistan program's early closure in June 2020. The team completed nine field assessments with the assistance of a research firm.¹ The findings validated assumptions that MDF's investments would result in outcomes sustained beyond the life of the program and continue to yield results several years after implementation had ended.

¹ Tradewell, Silage Interior Sindh, RBDC, Cattlekit 2, Silage Media, Green Diamond, KMBL, Haji Sons and Ali Akbar II.





Over 2020 and 2021, the team produced a series² of analytical papers compiling program experiences and insights for donors and practitioners. The latest case study, *Competitiveness or inclusion? Balancing short-term results with deep-seated change* was published in 2021. A summary is included in this country chapter. This report used MDF's work in the leather industry to address crucial questions concerning how Market Systems Development programs grapple with the challenge of balancing competitiveness, inclusion and the timeframe needed to achieve change.

In 2021, MDF also began a process to update the silage systemic change case study, first published in 2017³, in collaboration with the Springfield Centre. This provided the team with an opportunity to verify the status and sustainability of outcomes from MDF's interventions, investigating the period between initial implementation (2014-2018) and program closure. The summary of the paper presented in this country chapter highlights findings related to systemic change, economic growth and poverty alleviation. Key impacts have been covered in 'The Results Story'. The fieldwork undertaken for the updated case study also set the baseline for a sustainability study that MDF plans to complete in the second quarter of 2022. Preparatory work for the analysis was completed in 2021, including collaborating with the Springfield Centre to develop a guidance note for the exploration. This research will be the first of its kind for MDF. It will investigate changes in a market system, and the sustainability and increase in scale of those changes, several years after the initial intervention.

MDF Pakistan commenced a supplementary activity with Farm Dynamics Pakistan (FDP) in August 2021, as an extension of an earlier intervention in the fodder market. MDF worked with FDP to organise a series of farmer awareness sessions to communicate the benefits of the partner's fodder products – Rhodes grass, ryegrass and alfa-alfa – in Punjab, Khyber Pakhtunkhwa and Gilgit-Baltistan. The sessions shared information with farmers about efficient, environment-friendly solutions for livestock production and the benefits of nutritious, quality fodder for reducing costs and improving animal health and increasing milk yields. Through these informative sessions, FDP reached over 1,000 farmers. The partner was also able to convert almost 80 per cent of these farmers into customers, recording sales of over 4,000 packets of Rhodes, rye and alfalfa grass through the sessions alone. With MDF support, FDP complemented the awareness sessions with an online campaign, for which the partner developed social media videos and messages. The benefit to farmers and their experiences are covered in the 'Pro-poor Growth Story' of this country chapter.

Inclusion remained an important aspect of the post-implementation period. The team investigated the prevalence and challenges of people with disability in Pakistan's dairy, meat and horticulture sectors. This supported MDF's wider efforts to understand and improve the inclusion of people with disabilities. Key findings are provided in the 'The Results Story' section of this country chapter.

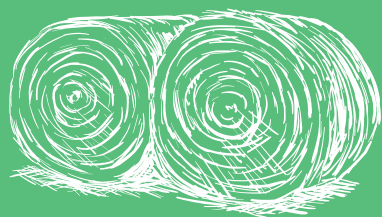
² Choosing effective private sector partners; Lessons from MDF's horticulture partner selection in Pakistan's borderlands; Financial inclusion in Pakistan; The business case for the financial inclusion of rural women; ICT and information dissemination: Should the numbers always do the talking?, Market Development Facility, 2021.

³ Systemic Change in the Fodder Market for Smallholder Farmers in Pakistan: A case study on triggering lasting systemic change in silage, Market Development Facility, September 2017.

Silage in Pakistan

A systemic change story

Pakistan has the seventh-largest livestock population in the world. However, the dairy and meat sector has yet to achieve its full potential.



Domestic demand for milk outstrips supply, presenting an opportunity for smallholder farmers to increase their incomes by supplying more milk to formal markets. Livestock rearing regions tend to be remote, with limited access to inputs and markets. MDF's analysis found that the principal challenges preventing farmers from selling more milk and meat were low yields resulting from the fact that local agriculturalists were not aware of animal husbandry best practices and they did not have access to affordable, nutritious fodder.

MDF focused on increasing smallholder and landless farmers' access to nutritious fodder, which was a particularly acute problem during the dry season. Smallholders allocate part of their land to growing green fodder, which provides sufficient animal feed for four to seven months. Landless farmers might be allowed to cut green fodder from other farms on which they laboured. For the remainder of the year, farmers had to rely on less nutritious fodder, such as rice and wheat straw, cottonseed cake and leftover bread, to feed their animals. Nutritional deficiencies and low yields were the inevitable outcome.

MDF identified silage, a nutritious and storable type of fermented fodder, as a possible solution. When MDF assessed the market, silage was only available in 300-1,000kg bales and only suitable for large-scale farmers. For the typical cattle farmer – that is, someone with fewer than five animals – large bales were costly, difficult to transport and wasteful, because a bale contains more silage than smallholders could use (once a bale has been opened, it must be consumed within three days).



MDF saw 60kg bales, produced using small-scale equipment, as a feasible option and supported the private sector to invest in the new business of small-bale silage. This process included several innovations in the market to make silage accessible, affordable and optimally packaged for smallholder farmers. The team also conducted an awareness campaign so local stakeholders learned about the new animal feed option. Demand for small bales of silage quickly outstripped supply. MDF worked with Corteva Agriscience (Pakistan's largest seller of silage maize seeds) to identify capable micro-entrepreneurs who could produce and sell silage to farmers. Initially, MDF and Corteva supported micro-entrepreneurs with the necessary machinery and technical advice.



Once the model proved successful, the next step was to scale it up across Pakistan. MDF collaborated with Cattlekit, a silage machinery provider, and Bank Alfalah, a financial service provider, to introduce an affordable equipment finance product. MDF also supported Cattlekit to host a series of awareness-raising events called 'Silage baithaks.' These sessions featured machinery and seed firms, financial service providers, local governments and successful silage entrepreneurs. Starting from South Punjab, the events extended to different areas of Pakistan, including Sindh and Khyber Pakhtunkhwa (KPK).



MDF found that adoption of the silage business model evolved at different rates in different regions. Over time, the model expanded from an initial 15 supported entrepreneurs to at least 57 new silage entrepreneurs starting businesses independently in Punjab, nine in Sindh and five in KPK. Other businesses responded to this expansion, such as manufacturers and suppliers of packaging, rope and machinery consumables, such as oil and blades, as well as seeds and inoculants. These supporting services generated improved regional economic opportunities.



Two years after the close of MDF Pakistan, the silage business model continues to perform well. Silage is increasingly available and used by small-scale and landless cattle farmers and more farmers are growing maize for silage production. MDF's assessments have shown significant milk and meat gains for farmers who fed silage to their animals, resulting in additional income.

Central to MDF's success in the silage market system was matching an unmet opportunity with a feasible solution, which offered long-term commercial incentives for all the market actors involved: cattle farmers, silage entrepreneurs, seed and machinery firms, financial service providers, and an array of ancillary service providers. The alignment of these financial motivations was vital to ensure the sustainability and expansion of a system that continues to work better for smallholder and landless farmers after MDF's exit.



MDF also found that an intervention's starting point can be instrumental to long-term success. MDF started its intervention in an area with a high probability of success (Punjab) and used this as a pilot to test, learn and demonstrate, before scaling up the model to penetrate more challenging areas, such as Sindh and KPK. This approach helped build evidence, credibility and trust with the private sector, who were then prepared to shoulder a greater proportion of the risk and cost of building up the silage sector.

Read the full case study [here](#). 

Lessons from the Country Program

As part of the program's close-out strategy, MDF Pakistan conducted a thorough analysis of its portfolio over the lifetime of the country program. Based on the findings, MDF produced a series of analytical papers that offers useful insights for DFAT, development practitioners and the private sector. This section provides a summary of a paper published in 2021, covering MDF's experience in the leather sector.

Practical consideration summary:

- 👍 Allow time and resources for analytical sector selection.
- 👍 Ground sector selection within the broader economic context.
- 👍 Anticipate a realistic trajectory for achievement.
- 👍 Emphasise different indicators and measurements of VFM through the program's life.
- 👍 Use a portfolio approach to balance different types of results.





Balancing short-term results with deep-seated change in the leather sector

The leather sector presents enormous opportunity for Pakistan, given the country's vast livestock population. Pakistan exports 95 per cent of its leather, 85 per cent of which is unfinished. MDF recognised an opportunity for Pakistan to add value to the sector by producing finished leather goods. The country had the chance to capture export market share given its abundant supply of leather and competitive labour costs. The industry had not pursued this opportunity because it struggled to meet customer requirements for designs, quick turnaround and certification. Ancillary components, such as moulds and lasts, as well as testing and marketing services, were not available domestically, hampering responsiveness to buyers' needs. Domestic manufacturers lacked product design expertise and any finished leather goods were sold in the domestic market.

MDF identified the footwear segment as having the highest potential for growth within the leather sector. Although this was the largest leather product industry, it was struggling to meet rising demand. In collaboration with the Pakistan Footwear Manufacturers Association, MDF investigated the constraints and potential solutions to increase the manufacture of finished leather footwear for export. MDF's theory of change was that converting more leather into finished goods would add value and increase export earnings, making a valuable contribution to the economy. Increasing the production of finished leather footwear would drive up the need for skilled labour and increase employment and earnings for workers. Developing domestic capacity to ensure vital inputs and services was key to increase the industry's responsiveness to the demands of international buyers.

MDF worked with several businesses to strengthen local inputs and services, and improve export-targeted product design and marketing. MDF also saw an opportunity to expand the (female) labour force by working with manufacturers to create more inclusive workspaces to attract and retain women for employment. The details of interventions can be found in the full case study (link below). The innovations supported by MDF contributed to the footwear industry's increased competitiveness and overall growth. Exports of leather footwear to Pakistan's top ten export destinations increased by nine per cent between 2015 to 2018. Not only were footwear manufacturers receiving more export orders, but there was a shift in the category of orders that they could now fulfil. The work in developing inclusive

workspaces generated 337 full-time jobs for women and over USD690,000 (AUD930,000) in additional income.

However, MDF recognised that these positive changes – other than inclusive workspaces – were not translating into impact that could be reported to its funder, in terms of large-scale income or employment generation. The increases in employment and income that MDF aimed to generate depended on a complex and lengthy change process, involving localised inputs and services, changes in shoe manufacturers and entering export markets. The slack in businesses' workforces made it clear that considerable further growth would be required to drive up employment and worker incomes. A lack of immediate impact made the value for money (VFM) of MDF's interventions look unfavourable: MDF was investing more in the leather sector than in other areas, such as dairy and meat and horticulture, for less impact on poor households.

Concerns about VFM and limited impact in the short term led MDF to focus solely on promoting inclusive workspaces and abandon work on inputs and services, even though the latter were successfully contributing to improved export competitiveness and growth in the sector.

This experience highlights a dilemma that MDF and similar programs often confront: choosing between pursuing measurable results that can be reported in the short term or stimulating the deep-seated changes required to transform a sector's competitiveness and growth trajectory, but which might only impact poor households in the long term. This dilemma can be mitigated, to some extent, by selecting sectors based on a more rigorous consideration of the feasibility of change and a more nuanced assessment of whether growth opportunities and relevance to poor households genuinely overlap. This would increase the prospect of identifying sectors in which inclusion can be achieved alongside increased competitiveness. This would also help anticipate tensions between short-term results and long-term impact, and inform how programs manage, measure and communicate the inevitable trade-offs.

Click/scan to read the full leather sector case study.



MDF's experience in Pakistan's leather sector suggests several practical considerations for program funders, designers and implementers:



Allow time and resources for analytical sector selection

The choice of sectors is often pre-defined or made after insufficient analysis. Understanding whether and how it might be possible to build competitiveness and increase inclusiveness requires thorough investigation.



Ground sector selection within the broader economic context

This means considering a sector not only in terms of a headcount of poor people involved but its current and future competitiveness, as well as its significance to the economy. Understanding a country's economic trajectory and the changing structure of the economy is also important.



Anticipate a realistic trajectory for achievement

Programs usually begin slowly and build momentum, as their market intelligence, networks and credibility increase, and as market actors respond and accomplish multiplier effects. Initiatives that pursue deep-seated changes take longer to build that momentum. It is important to anticipate this trajectory and recognise that different indicators are needed to judge a program at different stages.



Emphasise different indicators and measurements of VFM through the program's life

Activities that pursue deep-seated changes can look like poor value for money in the short term because they consume program resources from the outset, but only achieve headline results later. If costs are compared to benefits that are 'lagging' indicators, performance will appear unfavourable. This can be mitigated by emphasising 'leading' indicators, such as intermediate changes in behaviour, by considering the performance of market actors and changes in measures of competitiveness, and by using additional measures of VFM that compare costs to 'leading' indicators, such as private sector investment and market transactions stimulated.



Use a portfolio approach to balance different types of results

It is important to construct a portfolio of sectors, interventions, and partners to spread out risk and allow for a blend of activities, some of which might deliver results quickly, while others pursue more deep-seated changes.



Click/scan to access the Pakistan Learning Papers series.

Sector

Dairy and Meat



Market System 1

Access to Low-Cost Nutritious Fodder



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Mature	1. Increasing silage availability (Silage Interior Sindh) 2. Building awareness of the silage business model (Silage Media) 3. Increasing access to silage making machinery (Cattlekit 2) 4. Increasing smallholder farmers' access to alfalfa hay in Gilgit region (Green Diamond)	In 2021, MDF interventions in Interior Sindh continued to raise awareness on silage thanks to new entrepreneurs entering the market (crowding in) and a media campaign. Uptake of the silage machinery rental model has been slow due to COVID-19, as well as logistical and management difficulties which hindered Cattlekit's ability to rent out machinery to farmers. The partner experienced various challenges, such as needing to transport the machinery over long distances, non-payment by farmers renting out the machines, farmers requiring assistance from Cattlekit staff to operate the machinery, and maintenance expenses accrued due to mishandling of machines by untrained farmers. The partner is working to resolve these issues. The intervention with Green Diamond provided the Gilgit-Baltistan region with much-needed access to alfalfa hay, resulting in better milk and meat yields. This improved household nutrition and increased the incomes of farmers feeding hay to their animals.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
72,207	70,694	USD37,859,117 AUD50,212,487	USD37,486,750 AUD49,700,519	USD33,548,090 AUD44,084,928	USD 32,947,885 AUD43,259,705	USD1,835,638 AUD2,443,876	○ ● ●

Market System 2

Access to Finance for Livestock and Quality Inputs



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	Expanding access to finance (KMBL)	Field assessments conducted in 2021 revealed that Khushali Microfinance Bank (KMBL) used an MDF-supported van to scale up their geographical coverage and promote new financial products, including housing loans. KMBL confirms that using the van helped them provide the financial services as well as spread brand awareness in remote areas.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
45,975	45,975	USD7,109,122 AUD9,707,030	USD7,109,122 AUD9,707,030	USD11,901,988 AUD16,224,596	USD11,901,988 AUD16,224,596	USD76,901 AUD100,296	○ ● ●

Market System 3

Access to Aggregation Services and Other Inputs



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	Increasing the availability of quality healthcare products for farmers in Balochistan (UM Enterprises)	Plans to develop further interventions within this market system were terminated due to the close-out of the country program. All interventions were measured and concluded by 2019.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
7,421	7,016	USD11,699,077 AUD15,575,605	USD11,349,183 AUD15,094,535	USD21,922,336 AUD29,186,805	USD21,245,063 AUD28,255,622	USD983,998 AUD1,305,168	○ ○ ●

Sector

Horticulture



Market System 1

Access to Inputs



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Mature	1. Broadening access to quality seeds and cultivation information (Haji Sons) 2. Expanding access to quality pesticides and farming knowledge (Ali Akbar 2)	MDF had partnered with Haji Sons to promote vertical farming practices and the use of higher quality seeds in the interior of the Sindh province. The intervention slowed down due to climate conditions, such as strong winds, and so the vertical farming did not take off as expected. However, the use of seeds with improved quality continued, although they were used in more traditional farming practices (horizontal planting). MDF's intervention with Ali Akbar Group continued to yield strong results. In Balochistan, farmers benefitted from the use of quality inputs, complemented by information on cultivation best practices. As a result, harvests increased by 15 per cent. Assessment results have also demonstrated partner sustainability, as sales have continued to increase annually. The partner has diversified its product portfolio and expanded to new geographies within Balochistan.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
167,352	167,352	USD41,121,683 AUD55,020,955	USD41,121,683 AUD55,020,955	USD58,916,358 AUD79,721,033	USD58,916,358 AUD79,721,033	USD352,963 AUD469,748	○ ● ●

Market System 2

Offtake of Horticulture Produce



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	No interventions in this MSS were monitored or active in 2021	Plans to develop further interventions within this market system were terminated due to the close-out of the country program. All interventions were measured and closed by 2019.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
1,401	1,401	USD273,915 AUD362,645	USD273,915 AUD362,645	USD1,620,710 AUD2,164,286	USD1,620,710 AUD2,164,286	USD345,442 AUD462,187	○ ○ ●

Market System 3

Sustainable Technologies



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	Sourcing agri-waste from farmers (RBDC)	MDF's partnership with the Rural and Business Development Center (RBDC) supported the development of a biomass supply chain producing briquettes to be used in industrial boilers. The intervention was designed to benefit smallholder cotton farmers and labourers through increased income resulting from the sale of agri-waste. The partnership was monitored in 2021. RBDC was unable to sustain the model due to several challenges including its inability to find a buyer for the chopped cotton sticks. RBDC procured cotton sticks only once, and the farmers who sold those sticks benefitted through the sale and the additional income generated. However, this was a one-time benefit.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
0	0	USD0 AUD0	USD0 AUD0	USD0 AUD0	USD0 AUD0	USD68,270 AUD90,770	N/A

Sector

Leather



Market System 1

Access to Inputs and Markets



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Mature	No interventions active or being monitored in 2021	All interventions were measured and closed by the end of 2020; no further results were measured in 2021. MDF published a paper on intervention learnings in the leather sector. The paper explored sector selection in Market System Development (MSD) programs and the perceived trade-off between achieving results in the short term and building long-term competitiveness. It also suggested ways in which MSD programs could address the fundamental question of competitiveness and inclusion when selecting sectors and considering development priorities.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
188	188	USD555,832 AUD743,228	USD555,832 AUD743,228	USD6,129,170 AUD8,239,665	USD6,129,170 AUD8,239,665	USD1,050,587 AUD1,403,950	○ ○ ●

Market System 2

Inclusive Workplaces



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	Creating job opportunities and a female friendly work environment (JMS Tradewell)	MDF partnered with Tradewell to set up a women-only stitching and laser cutting/embroidery unit to connect women with employment and skills development opportunities. The field assessment showed that JMS Tradewell was able to hire, train and retain 80 women workers in the female-only unit. JMS also trained women for more advanced roles, such as laser cutting and embroidery, encouraging upskilling and career progression. However, the embroidery machines remained a challenge, due to the high level of physical strength required to operate the machine. MDF's assessments showed that women workers benefitted by working in a formal setting, with it being the first time in formal employment for almost 65 per cent of them. The women use the additional income earned for household and personal expenses. The pandemic slowed down the planned expansion of JMS Tradewell. Nonetheless, they hope to continue to train, hire and retain women workers once conditions improve.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
337	337	USD784,896 AUD1,057,215	USD690,628 AUD927,606	USD10,544,654 AUD14,092,029	USD9,850,897 AUD13,138,182	USD415,617 AUD557,078	○ ● ●

Pro-Poor Growth Story

Nutritious fodder

Feeding livestock and benefiting households

Improving the quality of fodder that farmers provide to their animals was a key focus area for the MDF Pakistan program. Following the highly successful intervention with Farm Dynamics Pakistan (FDP) between 2017 and 2019, in which MDF supported the partner to introduce 1kg bags of nutritious rye and Rhodes grass fodder to farmers in South Punjab and Gilgit-Baltistan, MDF set out to expand the work through a series of farmer awareness sessions in 2021.



L to R: Hussain Shah, Mir Din Shah, Asif Ali, Abdul Qayyum



Shared roles in agriculture

In Gilgit-Baltistan, both men and women are active participants in agricultural labour and rearing livestock. Generally, women are charged with feeding and milking animals while men are responsible for the market transactions of buying and selling livestock, inputs and dairy products. The income generated is generally shared among all the members of the household. As a result of MDF's initial intervention with FDP, farmers earned an average income of around USD680 (AUD953) per year. These earnings were primarily spent on household expenses and children's education. Nutritious fodder leads to healthier animals, increases milk and meat production, and improves household nutrition. Between 2017 and 2019, MDF assessed that 18,247 female and male farmers benefitted from the intervention with FDP. Many farmers also reported a reduced workload, as Rhodes and rye grass are multi-cut fodder, where one sowing can yield up to eight cuts of fodder.



Expanding impact through awareness

In 2021, MDF supplemented this initial intervention with a series of awareness sessions conducted for farmers in Punjab, Gilgit-Baltistan and Khyber Pakhtunkhwa. By hosting 20 events across the regions, Farm Dynamics Pakistan was able to reach 800 farmers, including both men and women. The educational meetings provided information on how to effectively grow the grass varieties, as well as the business and household benefits of using nutritious fodder. MDF supported FDP to develop a multi-channel strategy, using both standard text messaging and social media, to reach a broader audience. After the sessions, FDP sent SMS messages to participants to reinforce the information shared as well as created short promotional videos that were shared on Facebook.

In Gilgit-Baltistan, Local Support Organisations (LSOs) and farmer cooperatives are important community-based initiatives that assist farmers with accessing agricultural inputs and helpful information. In the informative meetings, FDP involved farmer cooperatives representatives so they could build the community's awareness of their services. The collaboration hoped to drive seed demand through the network of nearly 200 cooperatives existing in the regions. Women are active members and leaders of several cooperatives. The LSOs and cooperatives were also offered ryegrass and alfalfa seeds at a discounted rate so the benefit could be passed on directly to farmers, avoiding the additional expense of intermediaries.

Afshan Bibi is a livestock farmer who started using ryegrass when FDP, supported by MDF, introduced it in 2017. FDP invited her to the awareness sessions to share her real-world examples of how nutritious fodder can transform farm earnings.



Initially, I had one milking animal. After I started feeding it rye grass, its milk yield increased and I was able to save from the extra income I earned. I now have three cows and I feed them rye grass. I grow it on my own and I can even save the extra for the winter season.

Afshan Bibi,
Aliabad, Gilgit-Baltistan.

Some women, such as Gulfam Pari, are new to the initiative but are keen to implement the practices at their own farms.



I had heard about rye grass a little bit, but after attending the session, I am much more aware of its nutritional benefits. So I want to invest in rye grass to increase the milk yield of my animals and improve their health, which will also result in more income for me soon. I will also spread the word among my neighbours so they can also benefit from it.

Gulfam Pari,
Nomal, Gilgit-Baltistan.

Enhancing MDF's early intervention by implementing the awareness sessions not only helped local farmers but it was also a highly successful strategy for the partner. According to FDP, more than 80 per cent of the farmers who attended these events recognise the benefit of improved animal feed. The business sold over 4,000 packets of Rhodes and rye grass through the sessions alone. This translates to fodder grown on almost 4,000 additional kanals, or 500 acres, of land. Coupling the information about the fodder and its benefits with an established track-record of successful animal health and yields has proven successful for FDP's business.



Aliabad [Gilgit-Baltistan] has a significant number of large and small ruminants. However, there is a fodder shortage issue and hence the productivity of our animals is low. FDP's session on rye grass were useful, and I will grow it on some of my land. The thing I like the most about this fodder is that it can grow in extreme environments and without pesticides.

Ali Madad,
Vice President of Phamol Agriculture Society, Aliabad.

With farmers cooperatives and LSOs enabling enhanced fodder practices by sharing information widely and selling the fodder at an affordable price, FDP and MDF expect animal health and yields to continue improving, resulting in long-term benefits for more rural households.







Quick
Facts

Papua New Guinea

Population

9 million



Population
Growth Rate

1.9%

Urban

13.34%

Rural

86.66%

Capital



Port
Moresby

Languages



English, Tok Pisin
and Hiri Motu
(800+ unofficial
languages)

Currency



Papua New
Guinea Kina
(PGK)

Labour force participation rate



30.6%

GDP (USD), 2020

24.7
billion



GDP Per
Capita (USD)
2,757



Literacy
rate
67.6%



Unemployment
rate
2.7%

Key focus areas

Agriculture



Coffee

Increase the
supply of
certified coffee
for export.



Cocoa

Support the private sector by
enhancing value addition to tap
into regional domestic and export
markets, creating demand for
increased volumes of high quality
cocoa and promoting stronger
relationships between the private
sector and their supply chains.



Vanilla

Support the upskilling
of farmers to improve
product condition,
resulting in consistent,
high quality supply
to secure better
international markets.



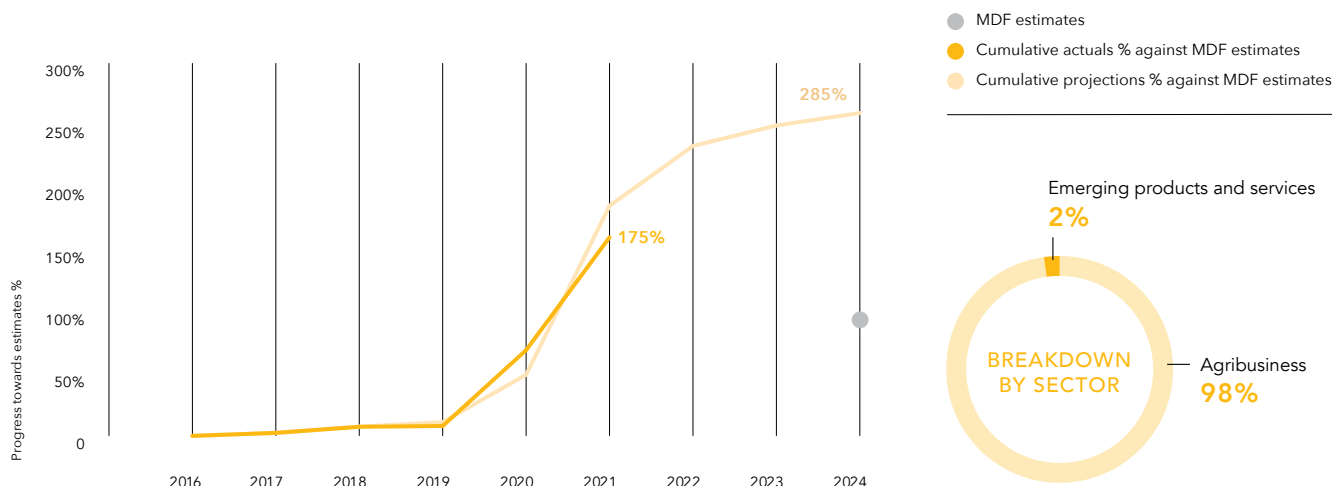
Livestock

Improve the
productivity of
smallholder piggeries
and mitigate the
spread of African
Swine Fever.



Highlights

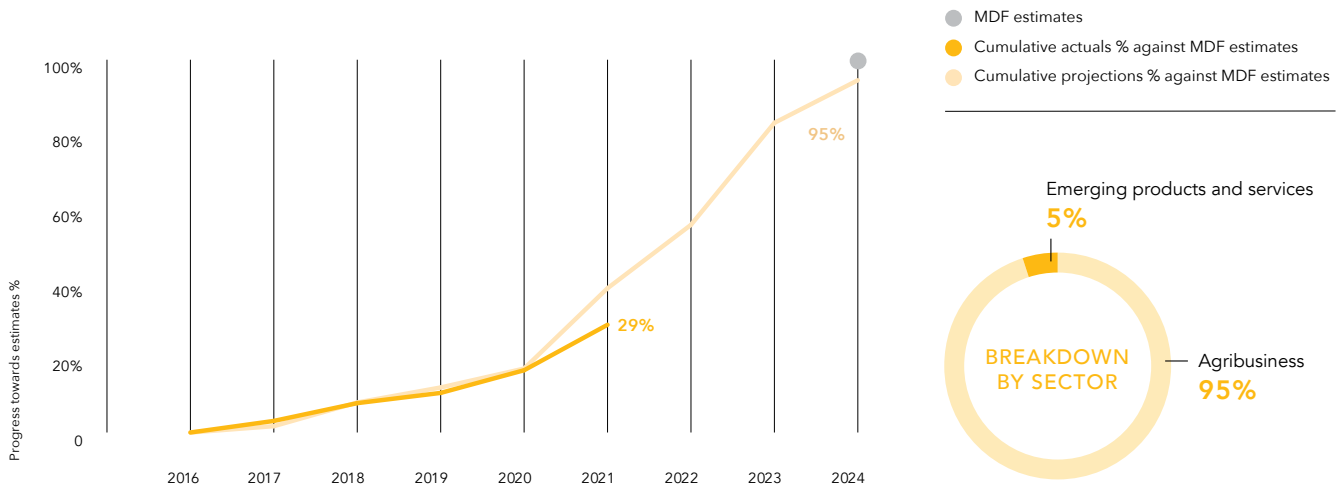
Effective outreach



Despite challenges, portfolio outreach is on the rise

- The current portfolio has achieved 175 per cent of estimates. Despite the challenges discussed in the country chapter, the agriculture sector has remained resilient and supply chains have been able to remain open. The coffee sector accounts for 152 per cent of cumulative effective outreach to date. Interventions in coffee have matured, with two out of the MDF PNG's partnerships performing well.
- Cocoa and vanilla added less than one per cent to outreach numbers. In 2021, a value-added cocoa partnership was completed and a partnership in high value cocoa was signed, projected to benefit an additional 4,615 individuals. In vanilla, the partner reported significant outreach numbers but MDF was not able to conduct field visits to confirm this due to COVID-19 travel restrictions. Hence, these figures are projected for 2022.
- Progress in the emerging livestock sector was slow, with two partnerships implemented in 2021. The partnership on biosecurity infrastructure to mitigate the spread of African Swine Fever does not have any additional outreach. A recently signed partnership to upskill the meat industry labour force is projected to benefit 109 workers by enabling them to enter the meat industries of PNG and Australia.
- Data-driven financial inclusion is an emerging area in which an intervention was signed in 2021 with a 100 percent overlap with MDF's partnership in vanilla with Kamapim.

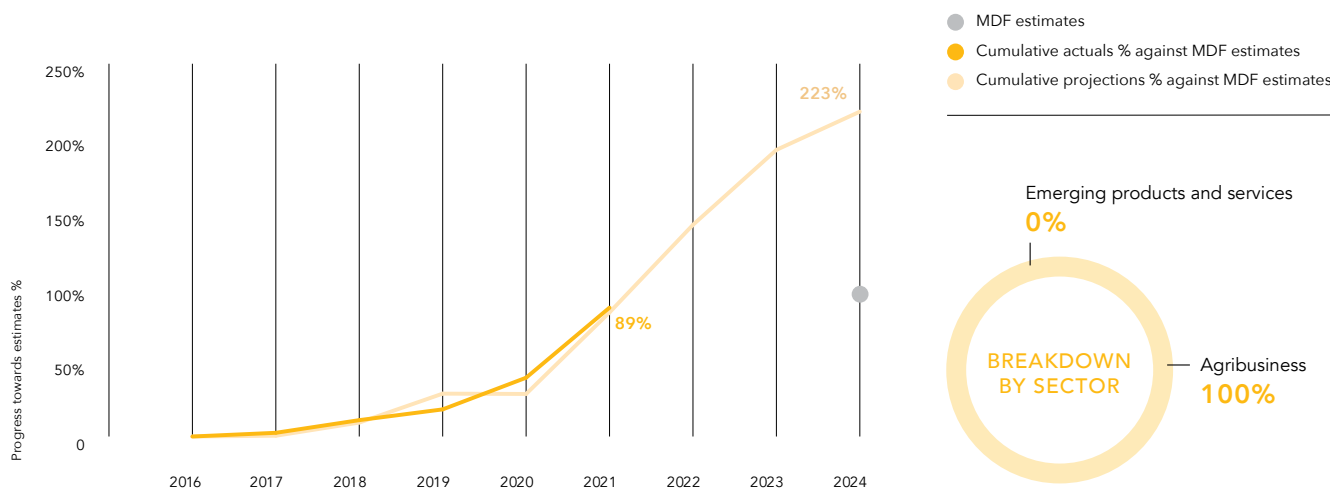
Net additional income



Additional income from coffee farming leads to expanding production and household savings

- The current portfolio has achieved over 29 per cent of estimates, driven by coffee interventions. In 2021, favourable global coffee prices achieved high returns to farmers.
- Cocoa's contribution was based on domestic market earnings from the value-added partnership. With the global cocoa price fluctuating in 2021, the income contribution to the portfolio comes from domestic processing of cocoa. The processor was able to offer higher prices for quality cocoa from its supply networks throughout the country, despite operating at 50 per cent of production capacity.
- Vanilla prices were lower in 2021 compared to 2020, but exporters paid a premium for quality vanilla, adding to farmers' net income.
- The emerging Livestock market system is projected to add results starting 2022.

Value of additional market transactions



The business community is buying PNG commodities despite COVID-19 challenges

- The current portfolio has achieved nearly 89 per cent of estimates and is projected to exceed estimates and reach over 200 per cent by the end of the monitoring period. Commodities contributed the most to value-added market transactions, with a significant share from coffee. PNG's shift from commodity grade coffee to high grade, sustainable coffee has increased demand. MDF's work in coffee certification and financing enabled exporters to procure additional volumes easily and export coffee at significantly higher prices.
- While local cocoa sales contributed some value, high grade vanilla fetched higher prices in the export market, mitigating the impact of the low global vanilla prices.
- MDF Papua New Guinea expects strong contributions to VAMT in 2022 as new partnerships in coffee continue to mature.



The Results Story

Private
sector
investment
leveraged:

1.13m

MDF
investment
(USD)

1.69m

Private sector
investment
(USD)

1.12m

Estimate
(USD)

1:5

Ratio of MDF to
private sector
investment



MDF Papua New Guinea exceeded End of Program Outcomes (estimates) for effective outreach and reached 170 per cent in 2021. MDF expects results to continue progressing well, with the current portfolio alone expected to reach over 208 per cent of estimates.

PNG's work in the coffee sector has been the key factor of this high impact. Outreach doubled in 2021 compared to 2020, with an additional 13,707 beneficiaries this year. Most of the coffee partnerships are in the Highlands region, which saw a surge of COVID-19 and lockdowns in the third and fourth quarters of 2021. This meant that several early-impact field assessments, meant to verify results reported by partners, could not go ahead. The COVID-19 outbreak also delayed the implementation of one partnership, which was then postponed to 2022. Four new partnerships were signed in 2021, projected to benefit an additional 6,000 by 2024. Most of the coffee partnerships will yield results in 2022.

MDF support to a revolving fund that enables aggregators to buy more coffee without liquidity constraints added 4,880 bags of coffee green bean to exports in 2021. Reflecting this win, the partner replicated the revolving fund with two other cooperatives. This highlights the sustainability of the intervention, as well as the potential for scale across PNG. MDF's work in

coffee certification, covered within this country chapter, has been well received by farmers. The feedback from MDF field visits has been that farmers find it convenient and time saving to sell to their preferred cooperatives and exporters, which provide them with higher prices compared to what they were previously getting from roadside buyers. While the issue of side selling continues, MDF is seeing positive changes in farmer behaviour.

In value added cocoa, MDF's activities with a local chocolate factory recorded a 50 per cent income saving for cocoa farmers and revenue saving for the business. The manufacturer's two 3,000L tanks, critical to cocoa mass storage, were rendered unusable by wear and tear. There is no alternative storage method, which meant that the partner could not source cocoa from smallholders. MDF supported the processor to purchase two 1,000L tanks, ensuring operational continuity. Assessments confirmed that without MDF, both the partner and the farmers would have lost much-needed revenue in 2021 as they would have been forced to halt operations.

MDF's work in the vanilla market system continued to improve product quality and provide farmers with opportunities. This access has in turn motivated farmers to consistently pursue higher quality and volumes. MDF-supported farmer training and land rehabilitation resulted in an increase in production at two growing sites, from 100kg of vanilla in 2019 to 1,000kg. MDF will assess and validate the findings around the extent of land that has been rehabilitated in 2022. Improving vanilla exporters' extension capacity has been critical in ensuring quality. This improvement in quality has attracted opportunistic buyers into the Madang region. These buyers often have cash in hand to purchase quality vanilla whenever the opportunity arises in the market. They are largely based in Sepik, known as the vanilla hub of the country, but MDF activities prompted several to shift into Madang in 2021. These market movements show the early indications of scalable and sustainable change – which MDF will continue to track.

Women are active participants of PNG's agricultural value chains but are often unpaid domestic labour. MDF's work in coffee and vanilla has advocated for women's economic empowerment, through the inclusion and participation of female farmers, as well as through encouraging businesses to employ female extension officers to cater to these farmers. In 2021, six new female officers were hired. In addition, interventions benefitted 1,165 female-headed farming households through training on best practices and financial literacy.

In 2021, MDF partnered with coffee exporter Sucafina on an innovative business model that calculates carbon emissions across the various stages of the supply chain – farming, post-harvest processing, transport and export. Coffee, particularly arabica, is highly climate-sensitive. The intervention will support the exporter and farmers to work towards producing carbon-neutral coffee that appeals to a growing base of environment-conscious customers.

Despite movement restriction and spikes in COVID-19, MDF continued field assessments. The team found that farmers remained resilient, as there was minimum disruption to supply chain activities. Since farmers continued to grow their own produce, they were not particularly affected by import supply or prices. MDF continued to observe changes in the honey industry, which was significantly disrupted in 2021 due to COVID-19, unpredictable weather patterns, and high bee mortality due to erratic flowering. MDF's emerging work in livestock also faced several challenges in 2021. The opportunity to work on farm biosecurity as part of a drive to prevent the spread of African Swine Fever has provided an entry into the pig sector, on which MDF will look to capitalise.



Overview of Portfolio and Progress in 2021

As the world began to emerge from the pandemic and lockdowns towards the end of 2021, Papua New Guinea (PNG) found itself amid a COVID-19 surge. Medical authorities estimated that actual cases were far higher than reported, but low levels of testing made it impossible to ascertain the extent of the spread of the virus. Resistance to vaccination and limited medical services and resources compounded PNG's challenges. While COVID-19 remained the most severe disruption to business in 2021, PNG's economy faced several other obstacles to growth, including African Swine Fever (ASF) and pest attacks on cash crops like coffee, cocoa and maize. The honey sector experienced low productivity due to bad weather.



Despite this, the agriculture sector proved resilient. Supply chains coped with health and logistical disruptions to maintain a largely unhampered flow of goods from small producers to domestic markets, processors and exporters. PNG's limited integration into the global trading systems cushioned the impact of demand and supply shocks that caused disruptions elsewhere. Smallholder farmers continued to produce most of the food they needed, with limited reliance on imported agriculture inputs.

PNG is likely to continue to benefit from higher commodity prices in the short term, but a global price correction in the medium term should be anticipated as a result of increasing supply. If this correction were to occur, the country would find it challenging to maintain its windfall gains because of the structural issues that continue to hamper its competitiveness in key crops. For smallholder farmers to maintain higher incomes, investment in supply chain quality and resilience will be crucial.

In 2021, MDF PNG focused on supporting agribusinesses to invest in improving critical market functions in their supply chains: extension, certification, traceability, processing and finance. These investments enabled the quality improvements that support smallholders to continue selling to premium markets and agribusinesses to maintain their supplies of high-quality cocoa, vanilla, coffee and livestock. MDF also drew on its networks to respond to a Post request for a briefing on the impact of COVID-19 on business operations. This market intelligence was linked with the impact on the food and nutritional security of rural households in PNG. The brief provided insights into the real-life economic effects of COVID-19 restrictions and government support.

COVID-19 and supply chains

MDF contributed significantly to PNG's initial COVID-19 response, particularly through a health awareness campaign in 2020, and continued to deploy Australia's support to the recovery of the business community in 2021.

Following a dramatic spike in infections in April 2021, many agribusinesses were operating at significantly reduced capacity by October, as staff were sick, caring for sick family members or observing funeral obligations.

The coffee crop had largely been gathered prior to the outbreak, so the industry was largely unaffected. However, fresh produce transport was hampered by movement restrictions. The PNG Government announced a freight subsidy for fresh produce suppliers mid 2021 that supported businesses to supply fresh produce to Port Moresby at reduced logistical costs. Subsidies, along with higher commodity prices at year end, ensured that rural families had sufficient cash to support their households, although rising prices are expected to reduce consumption in 2022.

Domestic food processors were affected by global shipping disruptions and surging prices of imports such as fertiliser and packaging material. MDF partner Paradise Foods Ltd reported that the price of imported material had increased by 3-5 per cent. Livestock producers also experienced significant price rises for inputs such as animal feed.

Overall, the costs of doing business in PNG increased due to the inflationary impact of global supply chain shocks. However, rural communities remained shielded from these external shocks due to resilient traditional farming systems that provided subsistence livelihoods. If a new outbreak of COVID-19 is accompanied by extended movement restrictions, agricultural supply chains might be disrupted.



Country Strategy and Sector Selection

According to the Asian Development Bank, PNG's economy is estimated to have grown by 1.3 per cent in 2021. Economic prospects for the resource and non-resource sectors are driving optimism and growth. The outlook for the mining and LNG sectors remained positive in the medium term, although to achieve PNG's climate change commitments a shift away from fossil fuel production will be required in the long term. Agriculture has proved resilient, buoyed by high commodity prices and supply chains that have continued to supply coffee, cocoa and fresh produce to markets.

PNG's agriculture sector suffers from several structural weaknesses including the prevalence of a subsistence mindset among farmers, outdated infrastructure, a precarious law and order situation, limited social services, and a paucity of the goods and services essential to modern agriculture. Consequently, the sector has slid into a low-input, low-volume, low-value trap, with exports largely consisting of low-quality commodities at margins that offer little incentive to smallholder farmers or businesses. The pandemic has the potential to exacerbate these constraints but so far has had only a limited direct bearing on agricultural value chains. Disease poses a more severe threat: African Swine Fever (ASF) affecting livestock, Fall Army Worm affecting maize, and Coffee Berry Borer impacting coffee.

MDF's strategy is to facilitate a transition to a high value agricultural commodity sector in PNG, focusing on specialty coffee, honey, cocoa, vanilla and livestock. In 2021, MDF worked towards this by partnering with businesses to develop critical market functions such as extension, certification and traceability, processing, and marketing. Strengthening these functions has enabled businesses and farmers to improve quality and ensure that exporters can source high grade and value-added commodities. In the long term, MDF anticipates that PNG's agribusinesses will migrate from low value to high value agricultural exports.

MDF expanded its work in the livestock sector in 2021, continuing to focus on pigs. Although domestic demand is strong and increasing, the sector is inefficient and adds limited value. The spread of ASF resulted in widespread sickness and mortality, causing a supply shock. MDF is collaborating with The National Agriculture and Quarantine Inspection Authority (NAQIA), PHAMA Plus and the FAO on mitigating the spread of the disease. PHAMA Plus is taking the lead on implementing a biosecurity regime, and MDF's strategy is to engage small and medium producers to improve biosecurity, breeds and inputs. These combined efforts are expected to help control the spread of ASF and raise herd productivity and quality. MDF currently has two interventions in pursuit of this strategy.

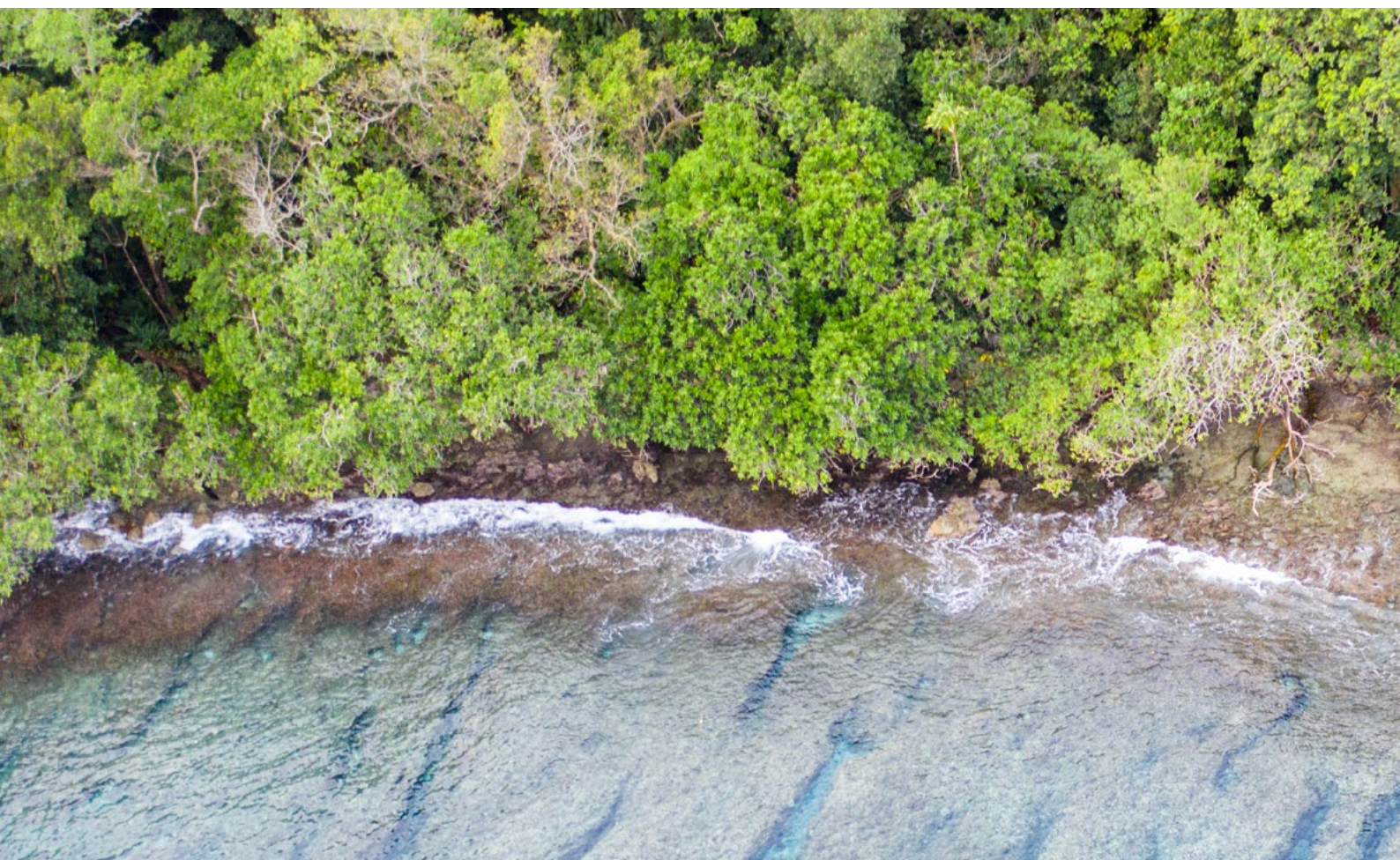


MDF's work in honey was hampered in 2021 by inconsistent flowering in Eastern Highlands Province, which led to less honey from beehives and a reduction in smallholder earnings. This may create an opportunity to expand honey supply from other provinces but in 2021 the impact from MDF's honey interventions was limited.

Elections in 2022 could impact implementation and monitoring of MDF's interventions. MDF will continue to assess the effects of this and other major events on PNG's economy in 2022 and, as in 2021, use this intelligence to inform its portfolio of interventions and brief key stakeholders.

MDF's focus on enabling smallholder farmers to produce and sell high grade, value added commodity crops is relevant to overcoming the immediate challenges of COVID-19, as well as addressing long-term structural issues that have held back PNG's agriculture sector. MDF has learned that engagement with the private sector in PNG is a long-term endeavour, requiring sustained efforts in building trusting relationships with strategic agribusinesses. MDF sees opportunities to continue to partner with agribusinesses to co-invest in supply chain functions to drive improvements in productivity, quality and resilience.

Innovative solutions are emerging that will improve the way businesses interact with smallholders. For example, digitising functions such as extension, traceability, sourcing and finance will generate opportunities in the sector. MDF sees potential to scale up the digital finance intervention with GSMA to other commodity value chains where alternative sources of data can improve access to finance for smallholders. MDF expects to expand its portfolio of interventions in 2022, with the livestock and cocoa value chains offering potential due to the prevailing gap between supply and demand.





Climate change

Climate change is a growing risk for PNG's agriculture sector, with changing temperatures, rainfall patterns and natural disasters impacting crop output. Smallholder farmers in PNG have been long-term stewards of significant carbon sinks, particularly forests, that have been managed with traditional indigenous knowledge and multi-cropping techniques that add to the resilience of agroforestry systems. Climate change will increasingly stress these systems and, if not managed carefully, could lead to the loss of these carbon sinks and a less resilient food system. The threat of climate change practically informs MDF's work with smallholder farmers, necessitating greater emphasis on embedding information about climate change and sustainable farming practices in extension services and the application of climate-smart agricultural solutions.

MDF worked with partners to confront various aspects of the climate change challenge, from advocating for more sustainable agricultural practices to supporting investment in adaptation. Developing certified supply chains is a major element of this strategy. Certification, such as Rainforest Alliance and Organic, verifies whether farmers are complying with sustainable practices. The authentication process includes evaluating whether producers are conserving soil and water, growing coffee under tree canopy, protecting rainforests, avoiding the use of harmful chemicals, and safely disposing of farm waste. MDF signed a partnership to support a partner to map the carbon footprint of its supply chains; this practice may pave the way for carbon credit trading in the future. In the long run, participating in the carbon credits market, paired with certification premiums, would financially incentivise farmers to protect the environment.





Brewing climate resilience in the coffee sector

Farmers are highly vulnerable to changes in the climate because they rely on the land and environment for their livelihoods – compounding the challenges faced by smallholders. Papua New Guinea's rural population are the custodians of their land and still practise traditional farming methods passed down through generations. These practices are built around sustainable land management and environmental protection. However, farming communities have started to notice unpredictable changes in weather patterns, which threaten their traditional gardening practices - 'gardening' is a term commonly used for smallholders producing backyard agriculture. The rainy seasons are more erratic, disrupting cropping calendars. Although smallholder farmers are not responsible for the overarching causes of climate change, they are experiencing the negative impacts first-hand.

Farmers must take steps to adapt to these new conditions and take measures to ensure the negative impacts are not exacerbated locally. To build awareness, MDF PNG is working with its partners in the coffee industry to educate farmers on climate change and sustainable farming practices. This is embedded into the partners' coffee certification program, supported by MDF, which seeks to assist smallholders as they become certified specialty coffee producers.

Norman is from Gepalakah village in Eastern Highlands Province. He was one of the farmers that attended MDF partner PNG Coffee Export's trainings on sustainable farming practices. Norman farms coffee and other garden produce, as many others in his village. The sustainable farming training included information on managing soil erosion, agroforestry and safe weeding methods, all of

which increased Norman's awareness of how his farming practices affect the environment around him and how to mitigate that impact.

Promoting sustainable agriculture practices also plays an important role in actively engaging farmers in preserving and restoring critical habitats for local biodiversity. This in turn enhances the quality of produce.



When I stopped burning bush and chopping down trees unnecessarily around my coffee garden, I noticed more birds and insects and more flowers on my coffee trees. As a result, I harvest more good coffee beans! I know these trainings are important and very helpful for us now, especially for our future and our children.

Norman

In partnership with Morobe Mountain Coffee Limited, Monpi Coffee and PNG Coffee Export, through the coffee certification program, MDF PNG has trained over 5,000 farmers in Morobe and Eastern Highlands Provinces.

Information on how farmers can practise sustainable farming and protect the environment is a critical part of the training necessary to achieve certification. Coffee which has been certified as 'sustainably sourced' can sell in premium markets – with higher export earnings to businesses and better prices for farmers. MDF is supporting its partners to expand their ability to provide certification to more farmers in PNG. As a result, more farmers can farm responsibly to establish an ecological balance that prevents harm to the environment and brings in essential income to farming households.



I have noticed changes in the temperature. It is now hotter and more humid during the day than it used to be. I have seen its effects on the environment and my garden, but I did not understand what caused these changes. After attending the training, I am now more careful and farm more responsibly. We ensure rivers near coffee gardens are not polluted and I also educate my family and community on looking after the environment.

Nekemeh Norman,
Coffee farmer



Click/scan to watch a Papua New Guinean coffee farmer's feedback on sustainable farming training.

The resilience of PNG's agricultural systems

Soaring prices for food and agricultural inputs caused massive economic challenges across the world in 2021, but PNG's agriculture sector managed to weather the storm, for two main reasons:



Subsistence agriculture

Farmers in PNG grow most of what they need for their own consumption and are not reliant on imported foods or inputs. This subsistence agriculture is reinforced by PNG's geographical and logistical challenges. Imports cannot be easily transported to remote areas. Consequently, smallholder farmers have been sheltered from global price increases.



Commodity market structure

PNG's commodity market is structured around large exporters that are well connected with global markets, with limited involvement of small intermediaries in the supply chain. As global demand changed, exporters were able to adjust rapidly and, due to their direct connection to farmers, pass on price increases, resulting in higher incomes for farmers.





In 2021, there was evidence that farmers and agribusinesses changed their behaviour in response to the prolonged pandemic. Businesses were better prepared for supply and demand shocks and adapted their operations when restrictions were introduced, ensuring supply chains remained open. Farmers responded to pricier imported food items by increasingly intercropping fresh vegetables among cash crops such as coffee in order to spread risk.

The agriculture sector's orientation to key commodity crops has contributed to resilience. Prices of commodities have risen due to the pandemic and supply shocks in crops like coffee. In PNG, up to 70 per cent of the Free on Board (FOB) price of coffee goes to the farmer, compared to an average 40-50 per cent elsewhere. The price hike meant that when coffee prices almost doubled in 2021, from around USD1.20 per pound to USD2.40 per pound, farmers received a windfall. Even a slight correction in the coffee price would still represent a significant gain to farmers.

MDF expects prices to remain high in the medium term because of supply issues in Vietnam and Brazil. However, commodity prices, especially of coffee, will not remain high for longer. Price hikes will trigger a response from producers, who will increase production to capture the better margins. In agriculture, markets take a few years to correct price imbalances. Prices will eventually fall, exposing farmers to the supply chain inefficiencies that have arrested the growth of the agricultural commodity crop sector in PNG.

Climate change is also a major threat. Rising temperatures are expected to alter rainfall patterns, increase the prevalence of pest outbreaks and natural disasters, and require coffee to be cultivated at higher altitudes. These changes could affect the volume of commodities produced in PNG and their global competitiveness.

So, what solutions might sustain the gains made in 2021 into the longer term? Continued investment is needed to maintain quality so that PNG competes on quality rather than price, therefore securing decent returns to agribusiness and remaining competitive in global markets. To achieve this, MDF has been building the capacity of agribusinesses to offer extension, information, certification and financing support to smallholders. These market functions are essential for a high-quality export market, without which smallholders cannot improve their margins or enhance their resilience.

Sector

Agriculture





Sector on a page

Agriculture



15,747

Effective outreach



\$1.2m

Additional income



91

Jobs created



8

Interventions



VISION OF CHANGE

- Exporters strengthen smallholder supply chains, enabling them to export more, high grade coffee.
- The certification process for exporters and smallholders is improved, resulting in an increase of export commodities.
- Processors improve their ability to add value, which leads to more exports of better quality vanilla and cocoa.
- Aggregators provide market information, inputs and market access to smallholders, leading to higher returns for aggregators and smallholders.



CONSTRAINTS

- Access to inputs remains limited.
- Information and production channels are inadequate.
- Formal markets are inaccessible.
- Financial services are underdeveloped.



Value-added cocoa

- Paradise Food Ltd.



Certified, high grade coffee

- Niugini Highlands Coffee
- Sukufina
- PNG Coffee Export



High-quality vanilla

- Kamapim



Dual certification for exporters and smallholders

- Fairtrade



African Swine Fever

- Kale Piggery Limited

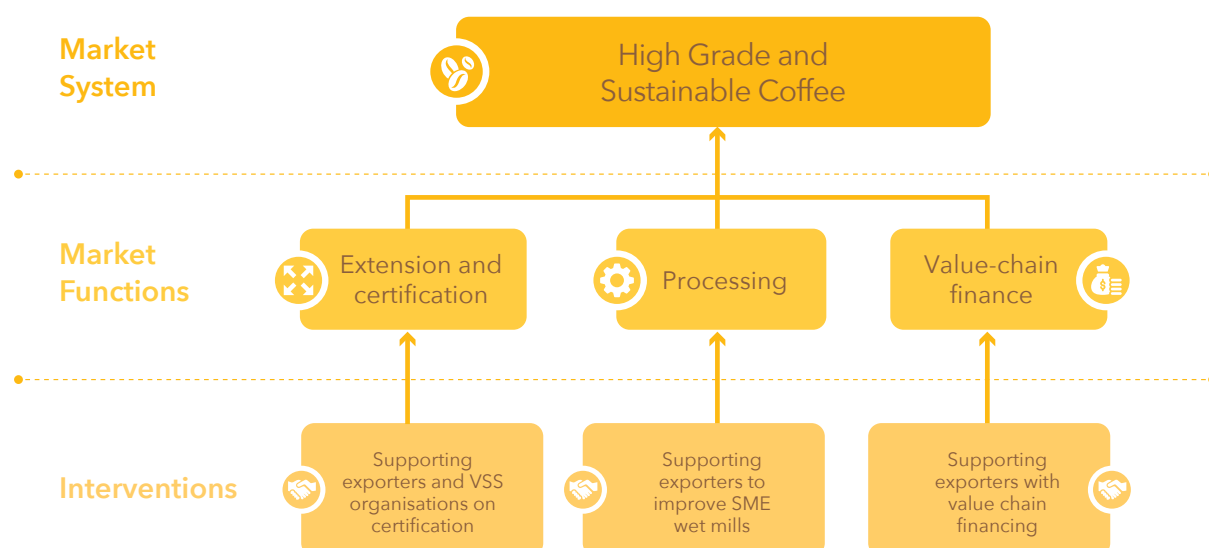


Financial services for smallholder farmers

- Kamapim
- GSMA
- MiBank

Market System 1

High Grade and Sustainable Coffee



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing/ Mature	- Growing extension and sustainability teams, developing training content, and training and certification of smallholder farmers (Morobe Mountain Coffee Export Ltd., PNG Coffee Export, Niugini Highlands Coffee, Sustainable Management Services, Fairtrade, NAASA, Kenta, Riverside, Sucafina, Niugini Coffee Tea & Spice) - Improving partner capacity to source higher volumes of sustainable, high quality coffee (Niugini Coffee Tea & Spice, Morobe Mountain Coffee Export Ltd.)	MDF's work in the coffee sector has matured over the past few years, demonstrated by the results in 2021. Three partnerships provide the bulk of the coffee results, with five new partnerships signed and in the implementation phase. Two of these new partnerships focus on centralised wet mills, continuing the strategic focus on quality improvement. MDF continued to support Niugini Coffee Tea & Spice to source higher volumes of sustainable high grade coffee using a revolving fund. As a result, an additional 4,880 bags of green bean coffee were exported. The partner also added USD45,000 (AUD62,000) to the revolving fund and expanded the finance pool to serve two new cooperatives. COVID-19 disruption to farming was minimal, given that the initial outbreak occurred outside of the coffee harvesting season. This allowed farmers and businesses to continue trading. However, the outbreak did impact farmer trainings and external audits planned for the off season. A few trainings and certification audits were also delayed in the last quarter of 2021.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
19,533	14,426	USD2,356,272 AUD3,087,718	USD699,684 AUD916,586	USD6,525,846 AUD8,548,858	USD2,157,839 AUD2,826,769	USD622,830 AUD815,907	

Market on a Page

High Grade and Sustainable Coffee



Coffee is an important household crop in PNG and supports over 3.3 million people with an export value of USD143.9m (AUD193.5m).



MDF is working to improve aggregation of high grade coffee and linking smallholder farmers to high grade coffee markets.



MDF has partnered with three coffee exporters to improve production and supply of consistent high grade coffee.



Although the country's overall coffee exports have decreased, the certified coffee trade has increased by 22% over the past five years.



There are 22 coffee exporters in the country, but seven firms dominate 78% of the trade – four are partners of global commodity conglomerates and three are owned by Papua New Guineans.



Market System 1

High Grade and Sustainable Coffee

MDF has been working with exporters and voluntary sustainable standard (VSS) organisations to develop the market for sustainable and high grade coffee in PNG. MDF is building the capacity of market actors to provide information, extension services, certification and financial support to their smallholder producers. Information and extension services will share best practices with farmers to improve coffee quality; access to finance will give aggregators the liquidity they need during the buying season to keep sourcing high grade coffee from smallholders; affordable certification processes will allow exporters and producer groups to access markets for sustainable and high-quality coffee, at higher margins.

PNG is not competitive in low-grade commodity coffee because its smallholder structure inhibits economies of scale. Market conditions for high grade and sustainable coffee are more favourable, with higher margins enabling and rewarding more investment along the value chain. MDF aims to increase exports of specialty coffee from PNG by improving quality and sustainability.

‘Sustainable’ coffee refers to coffee grown in a way that conserves nature and provides better livelihoods to smallholders. Coffee is certified as sustainable by international bodies such as Fairtrade, Organic, UTZ, Rainforest Alliance and 4C. ‘High grade’ coffee is a categorisation above ‘Y grade.’ It includes Premium Smallholder Coffee (PSC), Plantation Grade (A and AX) and specialty coffee (which also includes single-origin and micro-lots). MDF works with certifiers (e.g. Fairtrade, NASAA Organic, Rainforest Alliance), exporters (Morobe Mountain Coffee, Monpi Coffee Export, New Guinea Highland Coffee Exports, PNG Coffee Exports) and smallholders.

Global coffee prices hit record highs in 2021, driven by a fall in output in Brazil and Vietnam. Domestic prices were also bolstered by price support from the government. While the promise of better returns triggered farmer interest in coffee, the higher prices also meant that aggregators and exporters needed more working capital to buy more coffee from farmers. Small and medium enterprises (SMEs) lacked the liquidity to cope with this challenge and many of their farmers sold coffee in the

open market. MDF’s partners have weathered this, as they are established exporters with sufficient liquidity and are linked to premium markets and were able to secure good prices and pass them on to their farmers, preventing side-selling.

The threat of disease emerged in 2021, with a Coffee Berry Borer (CBB) infestation identified in Jiwaka Province, which spread to other coffee-growing provinces. The damage caused by the CBB varies, but exporters and the Coffee Industry Cooperation believe that, if left unaddressed, the pest may present a mortal threat to PNG’s coffee sector.

Climate change has the potential to significantly affect the sector. Coffee and other commodities like cocoa and vanilla will be affected by fluctuations in rainfall and higher temperatures. The frost damage to coffee in Brazil, rain damage to cocoa in Ivory Coast and drought damage to vanilla in Madagascar demonstrate the impact of climate change on production and prices. In PNG, rising temperatures are likely to shift coffee towards higher altitudes. Farmers in Karamui, Chimbu – the heartland of arabica coffee – are already growing cocoa. This trend is likely to continue.



Developing the supply chain for high grade and certified coffee

PNG's coffee exports are declining. A decade ago, the country exported around one million bags per year. In 2021, 750,000 bags of coffee were exported, most of which was commodity grade coffee. Shrinking volumes are altering the structure of the market. Exporters want to shift away from exporting high-volume, low-margin commodity coffee to exporting high value coffee because it offers better margins. Higher coffee prices have also increased the importance of quality: consumers expect a better-quality cup of coffee if they are paying higher prices.

To export quality coffee to premium markets requires specialised, certified supply chains, which in turn need smoothly operating market functions such as extension services, certification, accessible finance, transportation, storage and processing facilities. MDF has been working with PNG's exporters to build and strengthen these functions. MDF has partnered with five leading exporters to train smallholders to produce high grade and certified coffee, while also supporting the businesses to establish revolving funds that provide the liquidity necessary to purchase the certified coffee produced during the buying season. MDF has also worked with exporters to enable smallholder clusters to process specialty coffee.

To strengthen this coffee supply chain and ensure its long-term sustainability, MDF will work towards supporting third-party service providers to perform some of the critical market functions such as extension and certification. The revolving fund model will be scaled up to improve exporters' ability to source quality coffee and minimise the risk of side-selling by farmers. MDF anticipates its investments will strengthen supply chains in the long run and facilitate PNG's transition to high grade and certified coffee, paving the way for a more resilient sector.



These interventions have resulted in **13,000** farmers selling quality coffee to exporters at a premium and the export of approximately **50,000** additional bags of high grade and certified coffee.



Market functions

Extension and certification

MDF supports exporters to provide extension, certification, finance, equipment and technical support to SME suppliers and aggregators, and smallholders. In 2021, MDF worked with exporters and certifiers to expand their sustainability and extension teams and enhance their ability to audit supply chains in-country, reducing dependence on foreign auditors and the inevitable delays caused by movement restrictions. This enabled more smallholders to be trained and audited in order to sell their products into high value markets.

MDF has six interventions in the extension and certification market functions, two of which reported results in 2021. New Guinea Highland Coffee Exports and PNG Coffee Exports increased their networks of certified farmers in 2021, driving effective outreach for the Coffee market system, with 12,668 farmers benefiting from extension and certification in 2021, up from 5,975 in 2020.

MDF has five active interventions with coffee exporters. Three interventions are building exporters' capacity to offer extension and certification support to smallholders. With MDF's assistance, exporters have developed curricula, trained their extension teams, and provided training to smallholders on best practices and certifications. Partners are now in the final stages of obtaining certification status for their supply chains. This will enable them to buy quality coffee from smallholders at a premium. MDF is also supporting exporters to improve the ability of smallholder clusters to produce specialty coffee. With MDF's support, smallholders are learning better harvesting techniques and SME processors are acquiring the ability to produce specialty coffee.

Processing

There are few centrally located wet mills in PNG that can process cherries into good quality parchment. To increase specialty coffee exports, the coffee sector requires more wet milling capacity that achieves a standard capable of producing high quality parchment. In 2021, MDF supported Kenta and Riverside to establish wet mills that will allow coffee to be processed centrally and ensure more stringent quality control for a greater number of farmers, which should improve farmer returns. The mills will start work in 2022.

Value-chain finance

A shortage of working capital has been a longstanding challenge for the sector, due to a lack of trust between exporters and aggregators. While commercial banks are willing to meet the financial needs of large exporters, SMEs find it difficult and prohibitively expensive to secure lending. This has paralysed the growth of the agriculture sector, as even capable SMEs struggle to obtain capital for expansion.

In 2020, MDF co-invested with Niugini Coffee Tea and Spice Company Ltd. to establish and expand revolving funds for the company's coffee aggregators, working with the Unen Choit cooperative to inject additional working capital into the supply chain. The fund enabled the cooperative to buy more coffee from farmers using the increased liquidity available. In 2021, this benefitted 1,039 farmers, with a net additional income of USD25,626 (AUD35,172), and generated additional market transactions of USD368,500 (AUD 512,685). Work on the revolving fund model will continue, with MDF looking for opportunities to scale it up, enabling exporters to use the facility to lend capital to cooperatives and suppliers to buy certified and good grade coffee from smallholders.



Emerging Signs of Systemic Change

Triggering a shift in PNG's coffee market

MDF's strategy is to facilitate a shift in the PNG coffee market from commodity grade to high grade and certified coffee. For this to happen, critical market functions like extension, finance, transportation and certification have needed to be established and expanded.

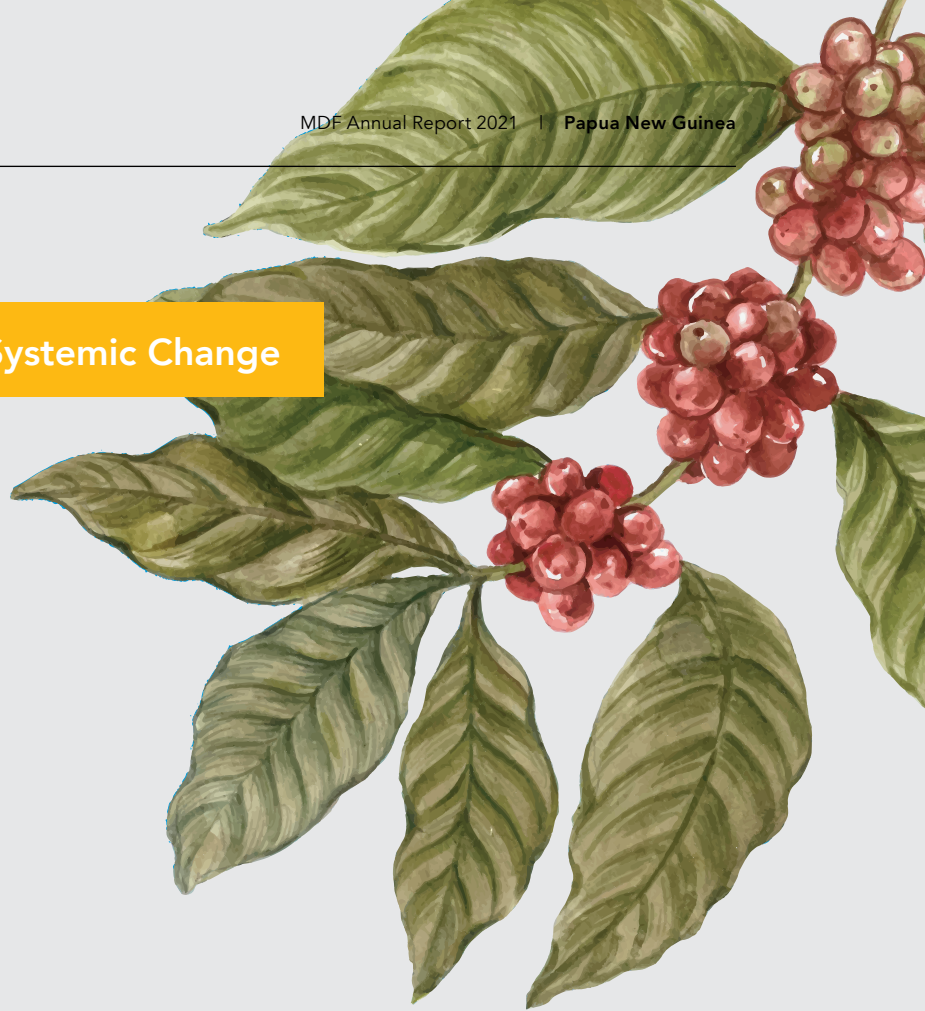
MDF's foundational work in this market system was in supporting extension services. Since 2018, MDF has worked with coffee exporters to build the capacity of their extension teams, who in turn train smallholder farmers on: international market requirements, certification standards, cultivation practices, and processing techniques. Better information has enabled smallholders to raise quality and comply with certification requirements, enabling them access to premium markets and higher prices.

Training was a necessary step, but it was not sufficient to drive transformation in the sector. Aggregators perform a vital function in the supply chain, as they source smallholder coffee from across PNG for coffee exporters. MDF identified that aggregators often run short of cash during the buying season, limiting the volume of coffee they can buy from farmers. As a result smallholders, who have immediate cash needs, are forced to sell their certified coffee to roadside buyers at lower prices. This is a lose-lose situation for the smallholder, who is denied a fair price for quality coffee, and for the exporter, who is unable to source the required volumes of high grade, sustainable coffee.

In 2021, MDF began supporting exporters to establish revolving funds in order to solve this liquidity problem. Exporters give their aggregators access to the fund, which in turn enables the aggregators to buy larger volumes of premium coffee from a farmer network that is incentivised by the better price.

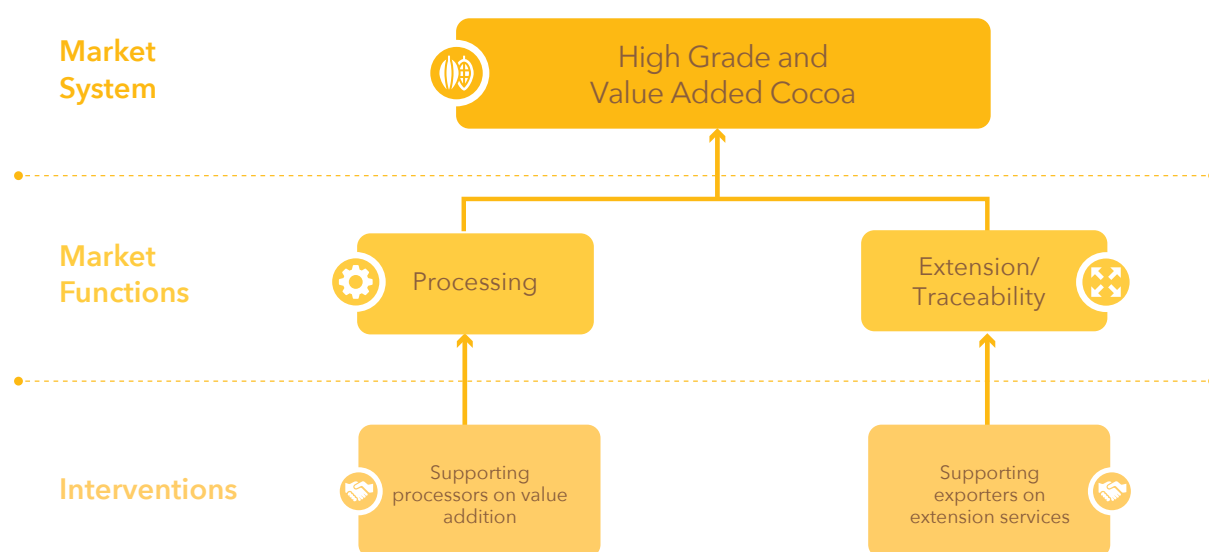
These innovative practices are being taken up within the sector. MDF partners Niugini Coffee Tea and Spice (NCTS), Sustainable Management Services and PNG Coffee Exports have expanded their extension services and liquidity support, resulting in an increase in export volumes. NCTS intends to invest more in its revolving fund and certify additional farmers, working through its three affiliated cooperatives. It is ready to buy certified coffee from the cooperatives at a premium. As exports of certified coffee have increased, traders are paying higher prices to their farmers and sourcing more coffee. This demonstrates that once extension, finance and certifications are in place, quality-focused exporters are able to attain a larger share of the coffee trade, increasing their suppliers' incomes.

MDF's three partners are expected to export 50,000 bags of quality coffee by the end of 2022. In 2021, more farmers joined certified supply chains, motivated by the price incentive, and exporters expanded their extension teams to support these farmers. While the changes in the system are still nascent, the signs are promising.



Market System 2

High Grade and Value Added Cocoa



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Emerging	Upgrading processing equipment, improving marketing, extension services and traceability (PFL, Elliven, Outspan)	MDF wrapped up activity on its first intervention in value-added cocoa, adding numbers to the overall portfolio. The sector continues to face several challenges, including a limited number of market actors, few grades and standards, and the limited capacity for investment in value addition. The general slowdown in domestic business, due to the pandemic impact, posed a further challenge. Nonetheless, MDF's current focus is on high grade cocoa, with an intervention signed in 2021 focusing on sustainable farming practices.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
4,615	1,215	USD158,557 AUD207,709	USD7,173 AUD9,396	USD1,120,014 AUD1,467,218	USD345,014 AUD451,968	USD89,459 AUD117,191	○ ● ○

Market on a Page



High Grade and Value Added Cocoa



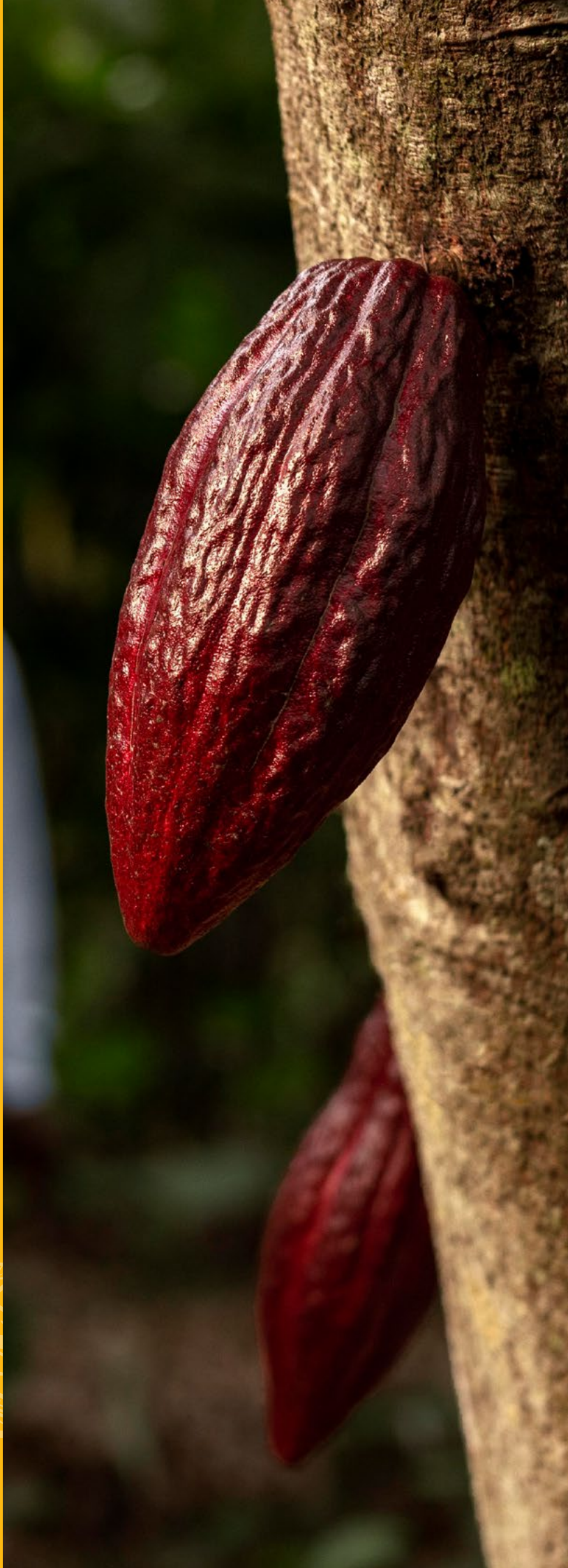
PNG is the largest cocoa producer in the Pacific, producing 30,000-45,000 tonnes annually.



Cocoa production has declined since the Cocoa Pod Borer pest emerged in 2016.



MDF is working with partners to produce quality, value-added cocoa products and improve bean traceability.



Market System 2

High Grade and Value Added Cocoa

PNG is one of 23 countries that produce cocoa characterised by a fine flavour. Despite its sought-after taste profile, PNG traditionally has exported low-quality, commodity grade cocoa to Asian markets like Indonesia, where the cocoa is mixed with similar quality cocoa from other destinations. Three factors impinge on the quality of PNG's cocoa production. First, food processors lack the equipment and expertise to add value beyond primary drying. Second, fermentary operators lack a financial incentive to maintain their fermentaries, resulting in inconsistent fermented bean quality. Third, PNG's fermentary regulations are unevenly monitored, allowing operators (in most cases, smallholders) to mix cocoa from registered and unregistered fermenters, affecting quality and traceability.

Historically, cocoa did not offer the same price incentives for different quality grades as other crops, like coffee do. Consequently, exporters lacked the motivation to invest in supply chain improvements. However, this is changing: global demand is rising for both single-origin cocoa, for which traceability of supply is essential, and value-added cocoa products. High grade cocoa can be exported as cocoa mass or powder instead of cocoa beans. Prices for cocoa mass tend to be more stable than raw cocoa prices, giving firms an incentive to invest in value addition. MDF aims to improve the quality and positioning of PNG cocoa in high grade and value-added market niches and works with agribusinesses to achieve this through strengthening processing capacity, extension services and traceability.

The cocoa market was volatile in 2021, as prices oscillated between USD2,233/tonne and USD2,544/tonne. Stalled economic growth, logistical disruptions and climatic factors were responsible for this volatility. In late 2020, fearing lockdowns, trading houses began buying and stockpiling cocoa, sending prices above USD3,000/tonne. Favourable rainfall led to a bumper crop in West Africa, with production 18 per cent higher in 2021 than in 2020, causing global prices to drop. Despite this increase in supply, international agribusinesses continued to seek other sources of reliable, high-quality supply, because West African cocoa is associated with unsustainable practices, child labour and government subsidies.

In 2021, PNG's cocoa production and exports remained steady, at around 3,500 tonnes. Some cocoa-producing provinces produced less than before, but overall output remained stable as cocoa poured in from new growing regions such as East Sepik. Climate change is expanding the geographical spread of cocoa – traditionally, the altitudinal limit of cocoa was 800m above sea level, but cocoa is now being produced in highland valleys between 800m and 1,500m, where previously arabica coffee was produced. Cocoa pests and diseases, particularly the Cocoa Pod Borer, continued to beset the industry in 2021.



Market functions

Processing

MDF invested with cocoa exporters in processing equipment to enable the export of value-added products such as cocoa mass or powder, which have more stable prices than dried cocoa beans. MDF entered into a partnership with Paradise Foods Limited (PFL) in 2020 to improve its processing capability. PFL is now using new equipment to process cocoa mass and powder. Unfortunately, production has been adversely affected by reduced demand for chocolate, technical difficulties and cocoa quality problems. This meant that the results of this intervention were not clear in 2021. MDF is now waiting for PFL to appoint a new CEO, who will reassess the company's commitment and strategy for its value-added business. Once PFL's future direction is clear, MDF will decide on further engagement.

Traceability and extension

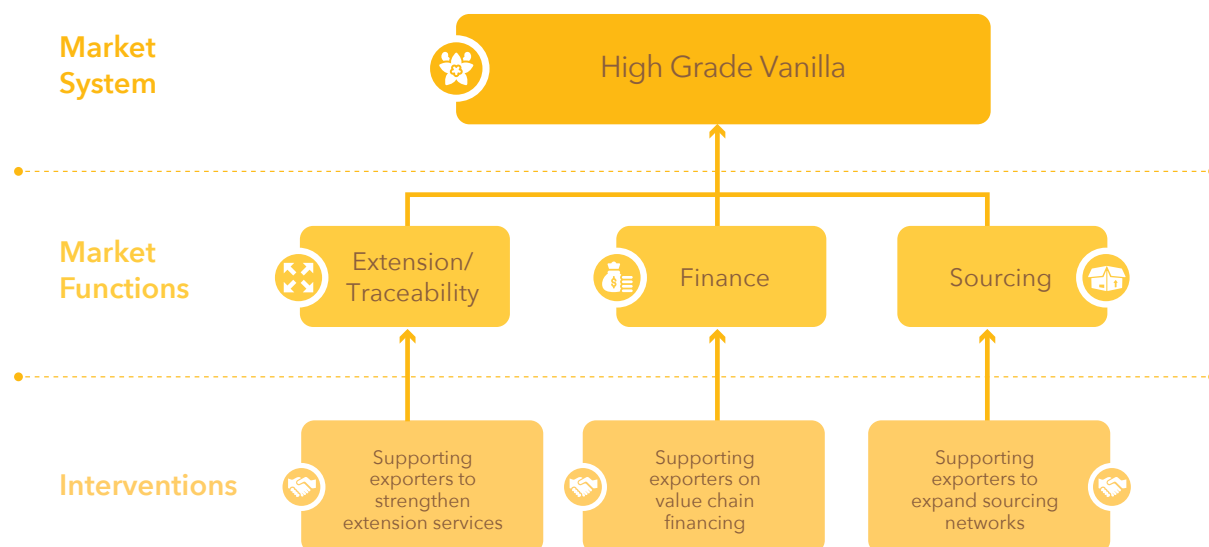
In 2021, MDF partnered with Outspan to help it develop a single-origin cocoa sourcing and exporting supply chain in Karamui. The region has the potential to produce the finest cocoa in the country: Karamui cocoa was the recipient of the 2019 Cocoa Excellence Show award. This intervention builds Outspan's capability to provide extension support to smallholders and to develop traceable cocoa supply chain in Karimui and in the region. This intervention is projected to achieve results from 2022 and MDF will continue to look for opportunities to scale up work with Outspan.



Click/scan to watch.

Market System 2

High Grade Vanilla



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Emerging	Improving marketing and extension services, traceability and credit access (Kamapim, GSMA)	MDF's work in vanilla during 2021 focused on extension, traceability and access to finance. The outreach from work in the sector is showing promise as farmers gain access to training on farm practices, COVID-19 prevention, first aid and financial literacy. MDF partnered with a consortium led by Global System Mobile Association (GSMA) in 2021 to develop data-driven micro-loans for vanilla farmers in Madang. The consortium consists of Kamapim (MDF's partner and a vanilla exporter), MiBank (a microbank) and GSMA, an agritech provider. The collaboration is piloting the use of digital farm information to determine smallholder farmers' credit worthiness. This provides a solution to the usual challenges of credit access, such as lacking a credit history and/or collateral. If MDF identifies potential for growth, it plans to further expand this work into other commodity sectors and establish a new market system that focuses specifically on traceability and finance/credit access.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
530	5	USD569,909 AUD746,580	USD18,531 AUD24,275	USD437,580 AUD573,230	USD128,205 AUD167,950	USD49,937 AUD65,417	

High Grade Vanilla



MDF is working with a vanilla exporter to trial a digital loan product to address financial inclusion for smallholder farmers.



Smallholders are not able to access credit assistance from financial institutions due to a lack of collateral and a digital record of savings.



70% of the country's population is unbanked. Most citizens are employed in the informal sector and from low-income households.



Adequate access to credit can support smallholder farmers to invest in improving production and quality.



The agriculture sector accounts for the smallest share of commercial lending, receiving only a meagre 2% of loans.



Smallholders in PNG are by and large marginalised by the banking sector. Capital constraints limit their means of production, undermining their ability to improve quality and quantity of agricultural produce.



Market System 3**High Grade Vanilla**

Madagascar is the world's largest producer of vanilla. Its crops were heavily damaged by a cyclone in 2016. By 2021, Madagascar's production had recovered, increasing global supply and pushing prices down. In PNG, farmers had a bountiful vanilla harvest, but many struggled to sell their crops. The vanilla market in PNG is characterised by inconsistent quality and access to the market. When prices are high, traders from East Sepik and other coastal provinces frequent provincial towns to buy vanilla beans. When prices fall, traders' margins are squeezed. Traders stop buying as the price no longer justifies the cost of aggregation. Farmers are left without a reliable market or incentives to improve quality. MDF aims to break this vicious cycle.

PNG's vanilla market is rudimentary and unregulated. There is no grading system, no traceability, limited extension support for smallholder farmers and no premium pricing. MDF is supporting exporters to develop the market functions essential to establishing a gourmet vanilla market in PNG: extension, information, finance and sourcing. MDF is also supporting partners Kamapim and MiBank to offer microloans to vanilla farmers through an innovative digital loan product. Through accessing these services, over 9,000 smallholders in a remote district in Madang Province are producing better quality vanilla that the exporter is selling to niche markets in Europe.



Market functions

Extension and traceability

In 2021, MDF supported the extension service capacity of Kamapim, the exporting partner of a European business operating in traceable, high-quality vanilla. Kamapim had long struggled to consistently source quality vanilla in PNG. MDF supported the partner to improve and expand its extension services and train 2,000 farmers on good vanilla production practices. MDF also supported the partner to export traceable vanilla, with Kamapim buying 5 tonnes of vanilla from smallholders for export in 2021. In addition, MDF has identified the potential to expand its work on organic certification in other value chains into the vanilla sector in 2022. Extension services began to reach a significant number of farmers in 2021: the number of farmers trained tripled from 2,500 to 9,500 farmers. The intervention also generated USD128,205 (AUD171,600) in additional market transactions in 2021.

Finance

In 2021, MDF partnered with a consortium led by Global System Mobile Association (GSMA) to develop data-driven microloans for vanilla farmers in Madang Province. The consortium consists of MDF's partner vanilla exporter, Kamapim Ltd, as well as MiBank, a microbank, and GSMA, an agritech provider. The innovation uses exporter-collected farmer information to determine the creditworthiness of smallholders who are without a formal credit history. Creditworthy farmers will then receive loans from MiBank. MDF is assisting Kamapim to raise awareness of the lending requirements and register smallholders to access banking services.

The pilot had a slow start and ran into challenges with smallholders not getting debit cards. Logistical issues also posed problems for registering smallholders. At the time of writing this report, Kamapim and MiBank had disbursed 40 loans and were ironing out issues in order to accelerate disbursement for the new vanilla season. Currently, there is complete overlap between the beneficiaries of this initiative and the traceability and extension initiative with Kamapim. If the pilot proves successful, MDF anticipates scaling up the initiative to replicate it in other commodity value chains.

Market System 4

Value Added Honey



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Emerging	Supporting processors to improve inputs, extension, processing equipment, marketing and food safety standards (NGF Company)	The honey sector slowed down in 2021 due to the pandemic and unfavourable weather patterns. There was a debilitating outbreak of COVID-19 in the largest honey-producing region, causing disruptions to business operations. Unpredictable weather patterns affected honey flow season and farmers reported low honey flow/supply as well as high mortality among bee colonies. A similar trend may take place in the upcoming season.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
517	517	USD239,185 AUD313,330	USD239,185 AUD313,330	USD697,486 AUD913,705	USD697,486 AUD913,705	USD206,921 AUD271,065	○ ● ○

Market on a Page



Value Added Honey



Although beekeeping is a promising sector, it is not a traditional farming practice in PNG. Technical training, such as pest and disease management, is essential for the industry's future.



Almost all bee farming inputs are imported to PNG and access to essential items, such as hives and veils, is complicated and beyond the budget of an average village farmer.



MDF is working with a local processor to improve honey quality and product marketing as well as offer inputs and extension services to smallholder beekeepers. This intervention includes upgrading processing equipment, adopting food safety standards and developing new products, such as beeswax.

PNG's honey sector is small. MDF estimates that processors and importers sell around 120 tonnes of honey per annum in the domestic market. There is no data available to estimate how much honey is produced and consumed informally at the village level. A benefit of producing honey is that it provides smallholders with the opportunity to diversify their income in addition to cultivating commodity crops. MDF's portfolio consists of Niugini Fruits Company (NGF), a large honey processor, and several small processors including Mountain Honey, Maori Honey, Vitis Industries and PNG Beekeepers.

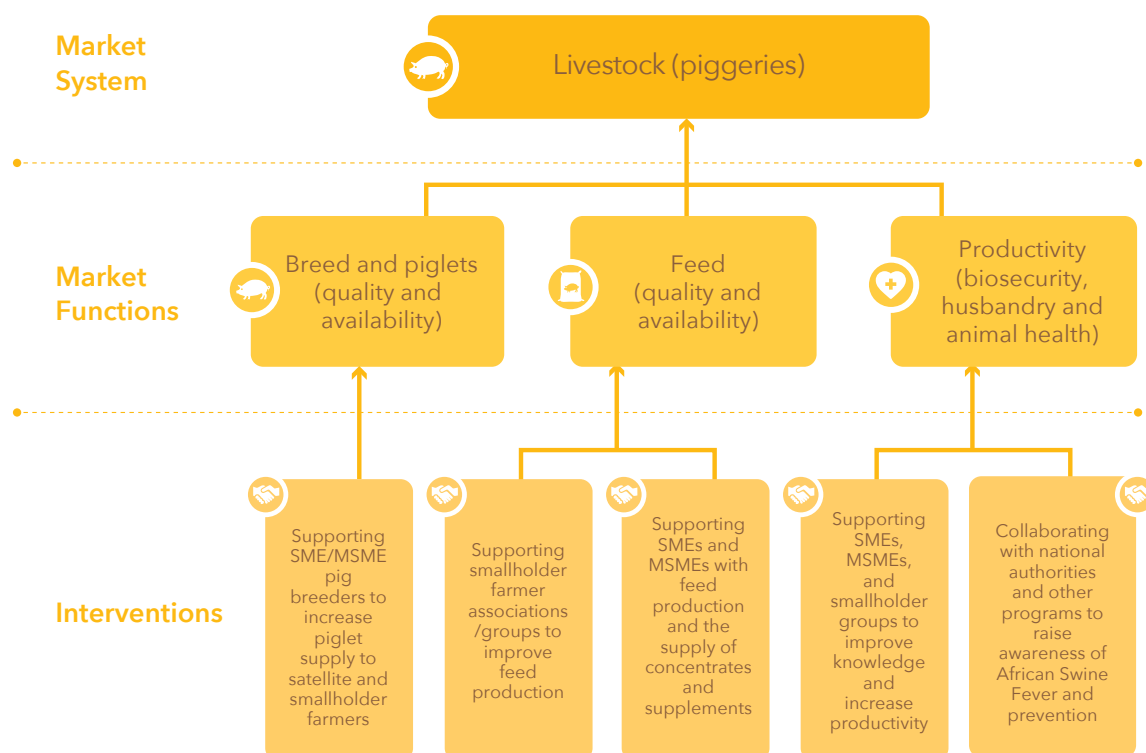
Like coffee, cocoa and vanilla, PNG honey has a unique value proposition, stemming from the way bees are kept in the country. Smallholders place their beehives next to coffee plots and near forests. The honey is produced from the bee feeding on the rich nectar of flowering coffee plants or wildflowers, giving PNG honey its uniquely rich texture, taste and colour. The potential of PNG honey is currently underexploited because of limited branding for premium markets. Coupled with high production costs, the lack of branding means that PNG honey is undifferentiated on retail shelves, which lowers its competitiveness against imported honey. Exports have failed to develop because most processors do not follow quality assurance standards, making it difficult to break into markets such as Australia, where quality requirements for foodstuffs are stringent. PNG honey is an expensive commodity with generic brand attributes, inhibiting the sector's growth.

To address this, MDF works with a honey processor to build its supply chain, upgrade its honey processing equipment and implement health and hygiene standards. The processor has increased its sourcing but has yet to develop a durable market position because the branding remains ambiguous.

After a glut of honey in 2020, 2021 was a difficult year for the sector. Most honey in PNG is processed by SMEs, which suffered from logistical disruptions, cashflow issues and stagnant demand because of COVID-19. Moreover, yields were low in 2021, likely due to flowering issues of coffee and wild trees. This left honey processors reticent about investing in their supply chains and future expansion opportunities. Some firms managed to maintain sales, such as NGF and Mountain Honey, despite cash flow and logistical problems. Others shelved their plans and concentrated resources on other business lines, such as Lae Biscuit, a large snack manufacturer with a small honey processing business. Honey is a nascent sector and MDF is also still observing and learning about it. MDF will look for opportunities to work with NGF and other processors to develop supply chains for sourcing quality honey and meeting domestic demand.

Market System 5

Livestock (pigs)



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Emerging	- Supporting biosecurity and piglet production (Kale Piggery) - Upskilling the meat industry in collaboration with PLM (Madang Butchery)	Livestock (pigs) is an emerging area of work for MDF. The interventions in this sector worked to improve on-farm biosecurity infrastructure to protect breeding stock from the fast-spreading African Swine Fever (ASF). While MDF does not report any additional impact from this work in 2021, the team strengthened its understanding of SME piggery operations as well as informal meat markets. The formal pig sector consists of a few large, vertically integrated commercial piggeries, which compete against imports. MDF is providing one-off support to Madang Butchery on training and skills improvement, in collaboration with Pacific Labour Mobility. The joint initiative aims to upskill workers to participate in the meat labour industries of PNG and Australia.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
109	-	USD311,356 AUD407,875	-	-	-	USD3,943 AUD5,165	○ ● ○

Market on a Page



Livestock (pigs)



In PNG, about 600,000 households in the Highlands region rear nearly 1.8 million pigs.



African Swine Fever was detected in Papua New Guinea in 2020 and is a threat to pig herds and smallholder incomes.



MDF is supporting butchery training to address the skill gap in PNG's livestock value chain and improve the meat processing industry.



MDF is supporting the increased use of improved feed, which supports pig growth, and is working to improve the supply of a fast-growing, healthy piglet breed variety.



Market System 5

Livestock (pigs)

The pig is the most important animal in PNG, with an estimated 2 million domesticated animals, reared by 600,000 households (47 per cent of rural households). More than 60 per cent of pigs are raised by smallholders in the populous Highlands Region. Wild pigs are common in the lowlands and intermediate zones, and the population has increased over the past 30 years due to a reduction in hunting.

MDF's analysis showed that there is massive demand for pigs in PNG that is not currently being met by the low-input, low-productivity smallholder pig producers that make up the bulk of the sector. This supply gap has been compounded by African Swine Fever (ASF), which entered the country in 2020. MDF sees an opportunity for SME pig producers to formalise their operations and improve their supply chains to meet the unmet demand for pigs, whilst improving biosecurity to mitigate the risks of ASF.

The formal market comprises four large pig farms that have vertically integrated supply chains. They produce their own feed (feed accounts for 75 per cent of the cost of rearing pigs), using imported wheat and barley, combined with local fish meal and other ingredients. One, Boroma Piggery, sells small quantities of its feed. The informal market is dominated by smallholders that rear a few animals at a time and use rudimentary and inefficient husbandry and feeding practices, which result in sub-optimal weight gain and herd growth. MDF has identified significant market potential for smallholders if they can increase their productivity through innovations in inputs and husbandry.

The livestock sector faced numerous challenges in 2021. Demand for all livestock products – meat, dairy and eggs – stagnated as economic growth slowed and consumer spending contracted due to the pandemic. Speciality, high-end niche demand from the hospitality sector was depressed because of travel restrictions. Local manufacturers of key inputs, such as stock feed, struggled to buy imported inputs, because of foreign exchange shortages and disruptions to international shipping. Vertically integrated domestic producers faced challenges acquiring inputs, such as feed, and installing equipment, such as flour milling and abattoir equipment. Inflation drove up the cost of some livestock inputs, such as formulated stock feed, and locally sourced products

from the human food chain, such as Highlands-sourced sweet potato. These price rises are associated with COVID-19-related domestic supply chain disruptions.

The stagnant demand and high input prices most significantly affected small-scale livestock producers. In 2021, MDF focused on scoping this sector to identify opportunities in challenging conditions. MDF developed a comprehensive package of support for SMEs, centred on key market functions that raise productivity: biosecurity, animal breeding and feed. MDF has two active interventions in the sector. The first is with Kale Piggery, supporting upgrading of biosecurity infrastructure, supply of high-quality piglets and extension services for their network of outgrowers. Since the intervention started, Kale Piggery has a total of 238 pigs (5 boars, 31 sows, 58 weaners, 70 fatteners, 10 finishers and 64 piglets) from an initial 203 pigs.

MDF has signed a second partnership with Madang Butchery to develop a livestock supply chain in Madang, linking informal pig producers with formal markets. The intervention will improve the butchery's capability to process meat through training workers, who are anticipated to go to Australia as part of the Pacific Labour Mobility program. On returning, Madang Butchery will employ the workers. Using skilled labour will boost Madang Butchery's productivity and provide an opportunity for the butchery to create downstream linkages with local piggeries. MDF will work with Madang Butchery and other local businesses to upskill the local piggeries in order to supply this demand.

MDF has also built relationships with other large players in the livestock sector in PNG including AAK Cooperative, Farmedset and Mainland Holdings. As the spread of ASF slows down, MDF expects to pursue interventions with these partners to improve breed, feed and productivity.

Market functions

Biosecurity

In 2021, ASF was the key issue facing the sector. MDF focused on improving the biosecurity of its partner, Kale Piggery, co-investing in improved infrastructure to protect against ASF so that the piggery could increase its supply of disease-free piglets. This support included upgrading fencing and establishing penning practices for the breeding stock. MDF will continue to work with Kale Piggery to expand its extension services and provide selected satellite farmers with practical and actionable information on pig management, feeding regimes, para-vet training and farm biosecurity.



Observations and Lessons



Investing time and resources in stakeholder engagement has been the bedrock of delivering outcomes

In PNG, MDF partners with a range of businesses, spanning multinational corporations, medium-scale enterprises, and micro enterprises. The country team engages with key personnel within these organisations – a mix of local and expat stakeholders, by virtue of PNG's diverse business and cultural setting. While maintaining a good rapport with multiple individuals and ensuring cooperation can be challenging, the dividends are significant. This was reflected in the success of a key financial inclusion intervention in the Vanilla market system, in which MDF partnered with four different businesses. In order to ensure effective collaboration that would deliver the desired outcome, the MDF team set about understanding the incentives driving each partner and utilised different means of communicating with each. The team also adopted good stakeholder engagement strategies such as transparency and maintaining a cohesive narrative of the end objective. The multi-partner intervention promises to be a game-changer for digital finance in rural PNG.



The threat of African Swine Fever motivated a multistakeholder collaboration against the disease

African Swine Fever compounded the impacts of COVID-19 and continued to pose a significant threat to PNG's national pig stock, agri-businesses and community nutrition. To combat the spread of the disease, a multistakeholder taskforce was created including MDF, PHAMA Plus, NAQIA, FAO, DAL, World Bank and several businesses. Each stakeholder took on mitigation activities in line with resources and capabilities. While other members continued to maintain surveillance and mounted a containment program, MDF consolidated its investments in the SME pig value chain, targeting better biosecurity and replenishing the pig population. Collaboration allowed the members to share critical pig data to inform future projects, which would otherwise have required individual investments in surveys and assessments.



Remote assessments of interventions are challenging, but possible

Due to travel restrictions, field assessments had to be conducted remotely. The team had to make telephone calls to farmers in remote areas, made difficult by network issues and poor connectivity. Nevertheless, the team developed strong rapport and learned the skill of conducting remote assessments through investing time in building trust and relationships.





COVID-19 Recovery Story

Pandemic prevention leads to healthier lifestyles

Misak Topi, a coffee farmer from Kofikah in Eastern Highlands Province (EHP) was scared when he first heard about COVID-19 and how fatal it was.



News spread in my village that the disease was killing so many people in other countries. These countries have good health care systems and people still died! That made me very scared, because we don't even have a health worker in my village.

Misak Topi

Misak with his wife Mary own two and a half hectares of coffee cultivation. Misak spends most of his days in the coffee 'garden,' as it is referred to in PNG, and does odd jobs to provide for his family, while Mary manages all the household purchases. Mary weaves bilums – local bags – and travels to Goroka town frequently to sell the bilums and fresh vegetables to support her husband and their four children.

When COVID-19 was first detected in PNG in early March 2020, most people in rural PNG were able to sustain themselves in terms of food supply. However, following several COVID-19 outbreaks, most farmers lost their income stream because travel and gathering restrictions made it impossible for them to sell their produce in the town markets. Lockdowns happened twice in EHP, first from March to April 2020 and again from October to November 2021, as PNG battled with a deadly wave of the virus.

"The towns and markets were shut down and we were told to stay in our villages. We had enough to eat because we had gardens but we could not sell our vegetables and coffee in town, and we were not able to buy basic goods from the stores," Mary said.

Most smallholder farming families in PNG earmark their savings for children's school fees. For Misak and Mary, their main concern was not food but that they would not make enough money during the lockdown period to send their children to school when the time came.

As part of a coffee certification program supported by MDF, in partnership with PNG Coffee Export and CARE International, a training session on COVID-19 prevention was incorporated into the certification training schedule for farmers. By providing factual information on the virus, the meeting aimed to stem the spread of misinformation and help rural farmers safely produce their crops and transport them to markets. Farmers learned ways to

protect themselves and their families from falling ill and how to farm and trade responsibly in the face of the pandemic. The certification training continued to focus on sustainable coffee farming practices that would help farmers meet international market requirements. In combination, the training was vital to ensure uninterrupted farming and sale of quality coffee.



Lifestyle changes

Lifestyle and cultures in PNG may vary from one province to the next but they also share many commonalities. Families and communities are close and rely on each other. Sharing food and responsibilities is the normal way of life. Misak was worried that the highly transmissible COVID-19 would spread fast and affect everyone because of the way people interact with each other.



The way we live in the villages in PNG is very different from some countries. We help each other every day. In the gardens, we share tools. Food is shared. The old people are cared for by the family. Personal and household hygiene are a big concern in our communities. So, I thought everyone was going to get sick.

Misak.

Adding to the high risk of spreading COVID-19 was the lack of adequate water and sanitation facilities in most rural villages. Locals walk from their homes to

the nearest water source for drinking, cooking and washing. Misak, Mary and their children walk for about half a kilometre to retrieve clean water. As part of the COVID-19 awareness training, farmers were taught to use the resources around them to protect themselves from the virus. One such solution is the 'tippy tap,' a simple device constructed with local materials and used to wash hands with running water. The tippy taps were set up next to toilets to improve hygiene and sanitation. Farmers were also encouraged to build small tool sheds to keep their tools clean in a safe and secure location.

Misak and other farmers in Kofikah were part of 12 villages in EHP that completed the coffee certification training. Today, he and his family are well and conduct their normal life in a safe way. Misak says he has observed a big difference in his coffee garden and in his home.

"I did not give much attention to my coffee trees before and only checked my garden during coffee season. Now, after the training, I spend more time pruning and working in my garden. I harvest more and I get more money. My home also looks clean, our village is clean, and I'm able to farm and sell safely to protect myself and my family from this disease," Misak said.

The coffee certification program aims to help smallholder farmers become speciality coffee suppliers so they can earn a premium price for their produce. The COVID-19 prevention and precautionary component of the coffee certification training has helped farmers better understand the virus and has led to healthier lifestyle practices. Misak, his family and other farmers in Kofikah continue to put into practice what they learned in these sessions.



We would not bother to regularly clean our garden tools, even after someone borrowed it. We did not understand that disease can also spread from dirty tools. My husband recently built a small tool shed where we now keep our tools clean and safe.

Mary.

Pro-Poor Growth Story

Digital lending breaks barriers in smallholder agriculture finance

In October 2021, 48-year-old Kesul Setul opened a bank account for the first time.

Kesul is from Embor village in the Sumkar area north of Madang Province. Like many Papua New Guineans living in rural communities, Kesul is a subsistence farmer for whom access to essential services is minimal, including banking services. The farmer applied for a small loan of PGK500 (AUD200), enabled by a partnership between MDF, Kamapim Limited, MiBank and Global Systems Mobile Association (GSMA). Through this partnership, MDF supported GSMA to develop a data-driven digital credit product – the first of its kind in PNG.

‘Rural Loan’ is an agriculture loan that does not require savings or assets as collateral, both of which are a challenge to smallholder farmers. The inability to provide collateral or show credit history is a key barrier to smallholders’ financial inclusion. Instead, Rural Loan uses a digital scoring mechanism based on farmer profile data (e.g. number of vanilla vines), procurement data (e.g. transaction data) and crop survey data (e.g. land extent). With this information, smallholder farmers can apply for small loans, to be repaid over three to six months at an interest rate of 10 per cent.

MDF and Kamapim, with whom MDF already has another intervention, trialled a pilot of this financial offering in Madang Province in 2021. Over 500 smallholder vanilla farmers accessed the new service. Kesul was one of the successful applicants.



When I first opened a new bank account, I was so excited. I also applied for a bank loan, and I got PGK500 (AUD200) from MiBank. I have borrowed small amounts of money from friends and family but not from banks. This is something new to me and I am happy to try it out to see if it will help me and my family.

Kesul Setul,
Farmer



Vanilla farming is more tedious and labour-intensive than coffee and cocoa, especially during pollination season. Kesul invested his PGK500 well by hiring labourers to work in his vanilla garden to help with pollination and other tasks. As a result, he could use his earnings from vanilla sales to repay his bank loan even earlier than the due date.

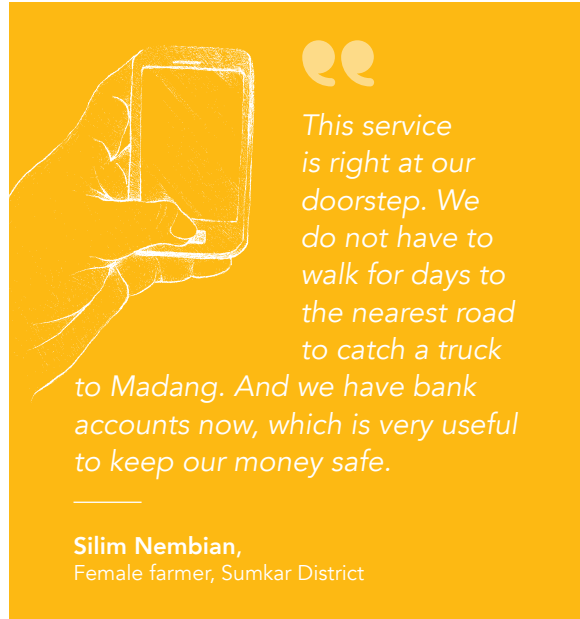


I saw that I can save my money, pay my children's school fees and fund my family's needs. So, I plan to work some more and try to apply for another loan again.

Kesul

Access to the appropriate market for their produce is also a challenge to farmers in remote areas. It takes one to two days to reach markets in the town of Madang. Apart from poor road conditions and limited transport services, most families hesitate to go into town to sell their crops as they do not have family members there to accommodate them and they cannot afford to stay at a guest house. As a result, vanilla beans and other harvests often never make it to the formal market or are sold for a pittance of their worth.

MDF's intervention with Kamapim improved market access for farmers as the partner purchases vanilla beans in the communities and provides training on vanilla farming for quality production.



For Kesul, he sees these new financial services as an opportunity for hope and a better future - not just for him and his family but for his whole community.

MDF will conduct a final evaluation of this intervention in 2022. If this intervention succeeds, MDF plans to link the digital loans approach with other sectors, such as coffee, cocoa, fresh produce and livestock, to help farmers across PNG access financial services that can improve supply and increase their income.

According to Kamapim and MiBank:



26

loans have been successfully approved since October 2021.



7

farmers have already repaid the loans.



PGK200-PGK600

(AUD75-230)

is the average range of the loans taken.

Acknowledgements

MDF Papua New Guinea would like to thank the following organisations and individuals for their support and collaboration in 2021.

Australia Centre for International Agriculture Research (ACIAR)

Australia Consulate-General, Lae

Australia National University

Business Council of PNG

Care International

Coffee Industry Cooperation

East Sepik Chamber of Commerce

FM 100 Talk Back Show

Sepik Agricultural Show Committee

Eastern Highlands Provincial Authority

EM TECH Ltd.

Food and Agriculture Organisation (FAO)

National Agriculture and Quarantine Inspection Authority (NAQIA)

Pacific Trade Invest

PHAMA Plus

PNG Chamber of Commerce

PNG Department of Agriculture and Livestock

STREIT Programme, FAO

SME Magazine

MDF would like to extend its thanks to all its partners in Papua New Guinea without whom the team's achievements would not have been possible.



Quick
Facts

Sri Lanka

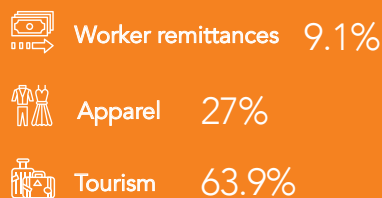
Population

21.9
million

Labour force participation rate



Main source of foreign exchange earnings



GDP (USD)

80.68
billion



Key GDP contribution sectors



Employment by key sectors

Key focus areas

Tourism

MDF is supporting the industry to understand post-COVID-19 travel consumer patterns and take evidence-based action to increase tourism arrivals without diluting value.

Tourist arrivals:

- **104,989** (January – November 2021).
- **1,682** - January 2021.
- **89,506** - December 2021.
- Arrivals in 2021 showed a drop of 61.7% compared to January – December 2020.
- However, arrivals gradually rose throughout 2021, showing a 53-fold increase from January 2021 to December 2021.

Agritech

About 1.65 million smallholder farmers operate less than 2 hectares (on average) and contribute 80% of total annual food production.

Sri Lanka can use agritech to improve agricultural productivity, market access and value addition thanks to the country's high literacy rate, mobile connectivity and a relatively sophisticated IT service industry.

Specialty coffee

Average Arabica green bean prices increased from LKR450/kg (low-medium quality) and LKR1,000 (high quality) to LKR1,200 (low quality) and LKR 2,500 (high quality) - an average price increase of 167% and 150%, respectively.

A 100% tax on imported coffee created an opportunity for local sourcing.

Extensive investments from plantations and emerging roasteries.

Smallholder farmers are buying seedlings, showcasing smallholder benefit.

Giant Freshwater Prawns

MDF support increased productivity, improved supply chains, higher quality, and better market linkages for export-oriented value chains, including seafood, specialty coffee, and high value agriculture, leading to more jobs and higher incomes for farming and fishing households.

With the largest wild catch in the world, Sri Lanka has a competitive advantage in the GFWP market.

The average size of a male Sri Lankan Giant Freshwater Prawn:

- Weight: 750g
- Length: 60.96cm

Blue Swimming Crab

Sri Lanka is the only Indian Ocean country certified as a 'Good Alternative' by the sustainable seafood advisor, Seafood Watch.

Landing site prices increased 104% from January 2021 to December 2021, indicating recovery from the COVID-19 slowdown.

- Grade A BSC prices avg. January 2021 = LKR938/kg (USD4.6/kg).
- Grade A BSC prices avg. December 2021 = LKR1,911/kg (USD9.41/kg).

High value agriculture

Sri Lanka is the ninth-largest global exporter of spices. 70% of spices are grown by smallholder farmers, 30% in plantations.

Fertiliser demand for agriculture is estimated at LKR80 billion (USD400 million) per year.

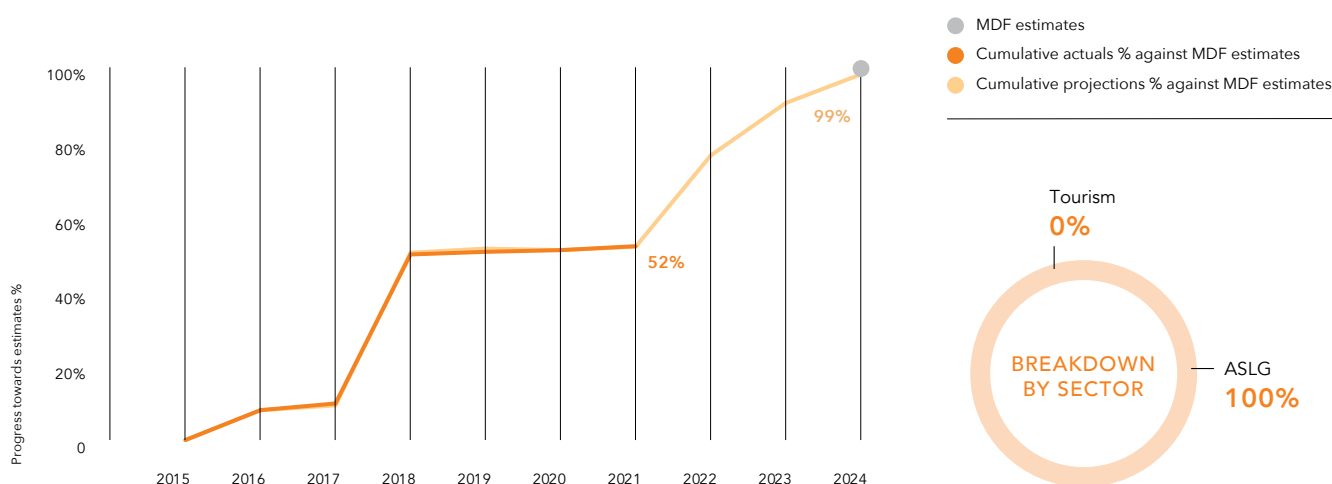
91% of farmers use chemical fertiliser and only 9% use organic.

Although 80% of farmers have access to agri mechanisation (i.e. agri vehicles), less than 5% have access to agri tools (e.g. planters) and accessories (e.g. drip irrigation systems)

In 2021, the Sri Lankan Government initiated a 100% organic agriculture transition, which remains a government priority.

Highlights

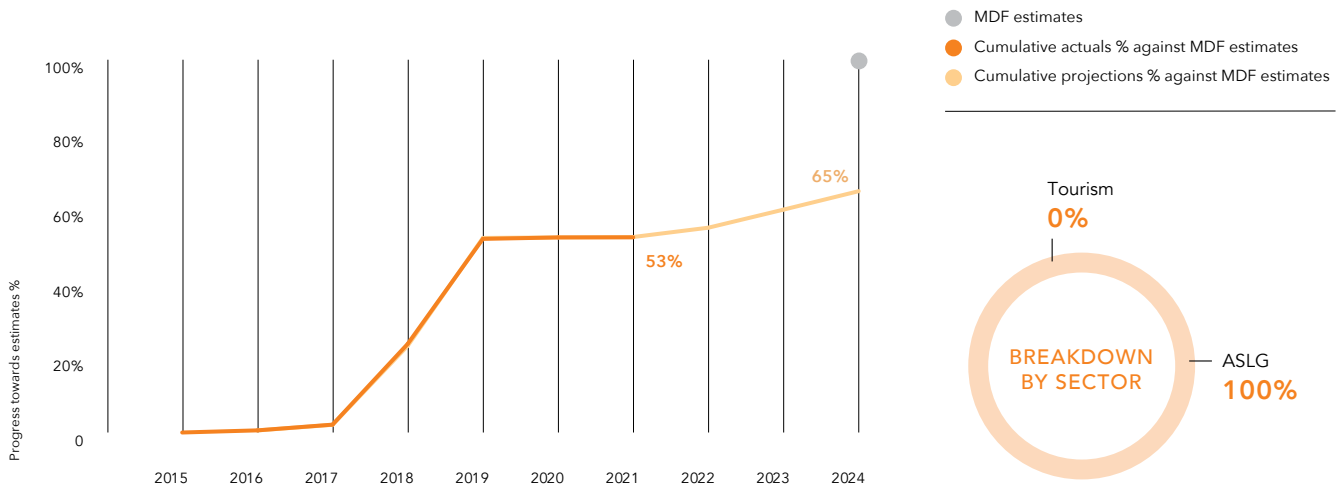
Effective outreach



With 17 new partnerships in 2021, the portfolio aims to reach 99 per cent of outreach estimates by 2024

- The current portfolio has achieved 52 per cent of estimates, and MDF Sri Lanka expects to reach 99 per cent by 2024. The current economic climate in Sri Lanka, with a foreign exchange shortage and energy crisis unfolding in 2022, is likely to be challenging in the long run. However, MDF is confident in the innovations introduced to the market, as they focus on leveraging emerging opportunities and minimising economic downturn impacts, such as import substitution, agritech adoption and niche high value export and tourism.
- The 'Authentic Sri Lankan Goods' sector accounts for 100 per cent of cumulative effective outreach to date. Interventions in the Coffee and High-Value Agriculture market systems contributed to outreach in 2021. Persistent lockdown and interprovincial travel restrictions throughout 2021 disrupted monitoring efforts and thus impacted the feedback loop and hindered the ability of MDF to actively advise partners. Moreover, escalating freight rates destabilised Sri Lanka's Giant Freshwater Prawn (GFWP) market, affecting MDF results for 2021.
- Despite the challenges, MDF Sri Lanka signed new interventions in coffee, agritech, tourism and high value agriculture that are expected to benefit close to 25,000 people over the course of the next three years.
- COVID-19 continued to restrict the ability to create grassroots-level impacts in the tourism sector 2021. As a result, tourism did not contribute toward outreach. However, a stronger than anticipated post-COVID-19 recovery in international arrivals to Sri Lanka, coupled with the economy's reliance on tourism for a foreign exchange recovery, is driving momentum within the sector. MDF Sri Lanka will continue to seek new avenues of growth in high value tourism.

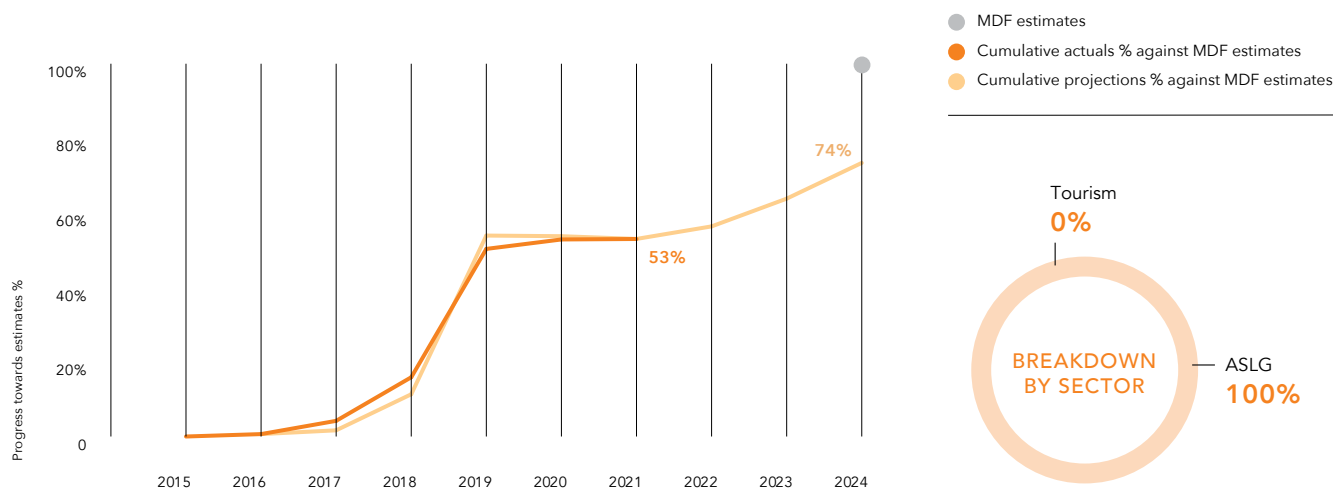
Net additional income



Specialty coffee contributed the most to income generation, while agritech is poised to grow

- The current portfolio has achieved 53 per cent of estimates and is projected to achieve 65 per cent of estimates by 2024. Authentic Sri Lankan Goods continued to contribute 100 per cent of additional income, particularly work in coffee. Despite import restrictions leading to distortions to the coffee value chain, MDF saw early signs of coffee cherry model adoptions in 2021. MDF expects to see a significant shift in the system during the current monitoring period, leading to scalable and sustainable impacts for beneficiaries.
- The sustained depreciation of the Sri Lankan rupee has made it challenging to reach MDF's income estimates, which are valued in USD. However, new interventions in agritech and high value agriculture that were rolled out in late 2021 have the potential to generate significant impacts and narrow the gap between projections and estimates in 2022. Although MDF has remained conservative when projecting the net additional income of these new interventions, the facility identifies agritech as an emerging body of work.
- MDF Sri Lanka's interventions in the tourism sector focus on industry collaboration, advocacy and improving high value tourism. Through these initiatives, MDF has influenced the Sri Lanka tourism promotion strategy to focus on value and experience-based promotion. The facility also provided strategic support to the Sri Lankan Tourism Development Authority (SLTDA).
- MDF has observed market actors increasingly incorporating data-driven decision-making, which is expected to be a key driver of attracting high value tourism post pandemic.

Value of additional market transactions



Leveraging on agri-mechanisation and organic input production, the portfolio is projected to reach 74 per cent of estimates by 2024

- The current portfolio has achieved 53 per cent of estimates and is projected to reach 74 per cent by 2024. Coffee was the only contributor to the value of additional market transactions in 2021.
- A pilot intervention on the commercial sale of seedlings generated an additional revenue of USD24,000 for the partner nursery operator.
- With the interest in coffee farming on the rise, MDF expects seedling demand from plantations and other buyers to drive the sale of commercial nurseries in the future. This would contribute to projections alongside a strong portfolio in high value agriculture and agritech.



The Results Story

Private
sector
investment
leveraged:

1.06m

MDF
investment
(USD)

1.1m

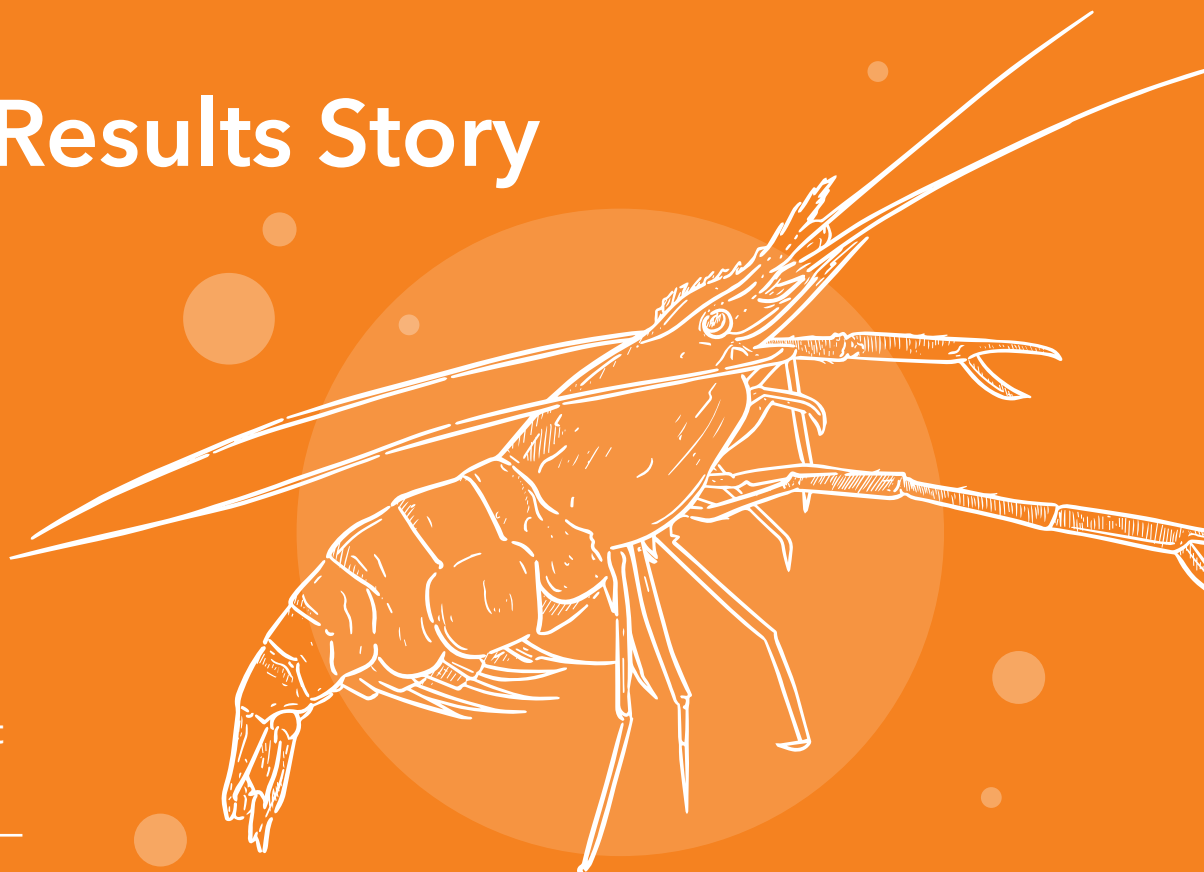
Private sector
investment
(USD)

4.1m

Estimate
(USD)

1:1.1

Ratio of MDF to
private sector
investment



Cumulatively, MDF Sri Lanka has achieved 52 per cent of its End of Program Outcomes (estimates) for outreach and 53 per cent of estimates for income. Work in coffee and high value agriculture in 2021 contributed to an outreach increase of 595 individuals, coming in below expectations as prolonged COVID-19 disruptions impacted the roll-out of some key MDF partnership activities in the Giant Freshwater Prawn (GFWP) market system and in work surrounding climate change adaptation and mitigation. However, in an encouraging sign of an increasingly inclusive portfolio, most of the results achieved in 2021 were those with female farmers, focusing on backyard farming of spices and other crops for subsistence. Despite the challenges, the team also successfully completed four field assessments and signed 17 new contracts in coffee, agritech and agri mechanisation, and expanded the backyard farming model in high value agriculture. Based on the current portfolio, MDF Sri Lanka has projected that it will reach 99 per cent of its outreach estimates by 2024.

Extended travel restrictions, lockdowns and interprovincial travel bans delayed monitoring and affected activity progress in 2021. Nevertheless, MDF's work with English Team Shop (ETS) in a training-of-trainers program added 450 people to outreach in 2021, reflecting the potential of the intervention. The training included guidance on how to produce fertiliser at home, valuable information in the context of Sri Lanka's policy decision to ban the import of chemical fertiliser. MDF's field assessment confirmed a significant uptake of the ETS-facilitated backyard farming model for turmeric, predominantly among tea farmers in Deniyaya. While the import ban and subsequent shortages were an incentive for farmers to expand into turmeric, they shared that the planting material provided by the partner, as well as the techniques learned through the training, had helped expand their subsistence cultivation to reach

a commercially viable level. Furthermore, a women's group shared that the information had enabled them to produce turmeric beyond household consumption and sell the excess for processing or replanting. The income generated from additional harvests will be validated in the next measurement cycle. However, MDF learned that most of the women have already planned how the cash will be used – to settle family debt and supplement household expenses, which spiked due to high inflation in 2021.

The training-of-trainer model was not without its challenges. The partner's extension staff and primary processors found it difficult to stay connected during lockdowns. This was compounded by MDF's inability to conduct regular monitoring and follow-up visits. Although MDF's innovation is with ETS, the farmer network is tied to the aggregators or intermediary processors, leading to change in farmer behaviour dependent on aggregators/processors. Both MDF and the partner initially found it challenging to reach farmers but were able to reconnect once movement restrictions eased and realign expectations among all stakeholders. However, MDF mitigated the risk and learned that the incentives are fully aligned between ETS, processors and farmers developed an output-based contract targeting delivery of all the stakeholders.

ETS saw a significant increase in volumes of ginger, turmeric, moringa and lemongrass sourced from its smallholder network in 2021. However, MDF was unable to attribute this increase in value added market transactions to the intervention. This was because the produce was from harvests completed before MDF's support and also as MDF's field assessments found that lemongrass and moringa volumes had increased due farmers expanding area cultivated and not necessarily from yield improvements generated through better farming practices.

MDF's work in specialty coffee benefitted an additional 145 coffee farmers in 2021, generating additional income of USD6,000 (AUD8,230). An import ban on coffee led domestic coffee prices to pick up drastically. While this was good for farmer incomes overall, the price distortion impacted the uptake of the coffee cherry model among new farmers, who looked to sell green bean opportunistically at the higher price. Nevertheless, MDF partners maintained their focus on sourcing quality red cherries, offering competitive prices to farmers, and the model remained resilient among the existing farmer base. Moreover, women continued to take the lead in coffee cultivation and sales, while the male members of a household focused on main-income crops or salaried

jobs. MDF's assessments found that, in addition to generating income, the MDF-supported cherry sourcing model increases women's time and labour saving. MDF's pilot intervention to support nurseries for coffee sapling cultivation and sales created 11 additional jobs (9 of which were filled by women), generating substantial income during an economic downturn. The sharp revival of tourism in 2021 revitalised Sri Lanka café culture, with the southern coastal belt reporting an influx of new businesses and new demand.

The Fisheries Improvement Project (FIP) in Sri Lanka's Northern and Northwestern Provinces saw progress in 2021, with positive behavioural changes. Following MDF and partner collaboration on capacity building, MDF saw Fishery Officers move beyond their role of data collector to become active data users. This is enabling fishery authorities to make evidence-based decisions regarding wild crab stock management, a significant win for the sustainability of Sri Lanka's Blue Swimmer Crabs.

MDF's work in tourism continued to build a more resilient sector through the promotion of high value tourism and data-based decision-making for a post-COVID-19 tourism revival. Tourist arrivals had picked up well as at the end of 2021, driven by new airline routes to East Europe and the Indian market. Supporting this recovery is the groundwork laid by SLTDA on establishing clear COVID-19 safety protocols for accommodation and service providers. MDF gave strategic capacity to SLTDA for this work. New investments and developments within the sector are showing a marked shift away from the large room inventory resort model to experiential and theme-based, indicative of a strong uptake of high value tourism within the sector. In 2021, MDF conducted a survey among the Sri Lanka Tourism Alliance (SLTA) and SLTDA members on the supported initiatives. The feedback was promising and SLTA members requested more forward-looking insights.

Going into 2022, MDF is far more optimistic of the portfolio's ability to achieve estimates. While the pandemic continues, high vaccination rates, reopening of tourism and the removal of interprovincial bans will allow MDF to revisit interventions and complete field assessments. The unfolding foreign exchange crisis, fertiliser shortage and currency depreciation all pose a new set of challenges for 2022 but are also creating interesting opportunities for MDF's results outlook.

Overview of Portfolio and Progress in 2021

The background image shows a serene sunset scene over the ocean. Several tall, dark wooden poles are planted in the water. Two people are silhouetted against the bright sky, sitting on the poles. The sun is low on the horizon, creating a warm, golden glow that reflects on the water. The sky is a mix of deep blue and light yellow. The overall mood is peaceful and contemplative.

MDF Sri Lanka expanded its portfolio and networks and strengthened its relevance despite a turbulent year. In 2021, the economy continued to be assailed by the fallout from the pandemic, the space for business and investment became narrower and operating conditions became more challenging.



MDF's ability to expand under such conditions is indicative of a program that has found its footing. The efforts made to reset the portfolio in 2018 are yielding results, as the team continues to find opportunities despite businesses constraints caused by supply and demand shocks and a muddled policy environment. MDF Sri Lanka is increasingly recognised by the private sector as a respected and trusted partner. This is evidenced by MDF's ability to attract investment from some of the most important industries in Sri Lanka in innovative and inclusive business models.

MDF strengthened its outward orientation in 2021 to stay abreast of global trends relevant to its portfolio. Through the Australian Business Engagement Unit and Facility-wide resources and working groups, MDF Sri Lanka contributed to and benefitted from intelligence on topics, such as tourism research and recovery forecasts, market and pricing trends in coffee, logistics and supply chain disruptions as well as climate change-related compliance requirements. MDF's ability to combine this globalised orientation with an informed, engaged country team adds value for local partners beyond monetary investment.

MDF Sri Lanka commenced several strategic initiatives in 2021. Climate change adaptation and mitigation activities were embedded across the portfolio following a scoping exercise. A new market system strategy for agricultural technology – 'agritech' – was developed and is being implemented, with partnerships with two technology service providers and two large agribusinesses. The team deepened work on intelligence gathering, providing insights on critical topics. MDF Sri Lanka also introduced a disability inclusion strategy identifying entry points for greater inclusion within the sectors in which it works.

Work in tourism as well as agriculture and fisheries also expanded. The intervention to implement a Research Roadmap continues, in collaboration with the Sri Lanka Tourism Development Authority (SLTDA), with the aim of fostering an evidence-driven tourism recovery. MDF supported SLTDA in critical initiatives, such as a consumer website redesign, a membership campaign targeting informal businesses and the rollout of the digital global campaign. While the fishery sector was slow to recover from COVID-19 shocks, MDF Sri Lanka identified opportunities to build resilience in finance, sustainability, and information functions and designed new activities accordingly. In coffee, MDF targeted production increase alongside coordination and marketing improvement. In high value agriculture, the team developed a new intervention area that aims to introduce farm mechanisation to improve productivity and reduce costs.

Country Strategy and Sector Selection



Country strategy

The final months of 2021 saw COVID-19 vaccination rates picking up, virulence dropping and borders gradually opening, signalling that the end of the pandemic is in sight. This will not mean that MDF can go back to implementing its 2020 pre-COVID-19 strategy once the pandemic is over. To be successful, the team's strategy will need to reckon with the many ways, some still unfolding, this crisis (and its associated long-term effects) has fundamentally rearranged economies, governments and societies. MDF Sri Lanka will need to understand how incentives and attitudes have changed to devise context-appropriate strategies.

The following global trends are particularly relevant to Sri Lanka's economic growth and MDF's strategy:



Supply chain challenges, while easing from the 2021 peak, will continue to manifest in the form of shortages, delays and increased costs. This will squeeze margins for manufacturing and exporting businesses, with the most efficient businesses gaining an edge.



Global inflation is expected to accelerate into 2022, with Russia's war in Ukraine exacerbating energy shocks, supply chain disruptions and dampening the global growth outlook. The cost of food, fuel and key commodities has ballooned, depressing investment and reducing wages. While this presents opportunities as well as risks, the overall uncertainty and volatility of the global economy will act as an anchor for the Sri Lankan private sector.



The tourism sector, following reopening in late-2021, is expected to gradually rebound. However, it is not anticipated to look the same as it did prior to the pandemic. Consumer data shows that travellers are more inclined towards domestic and short-haul trips and are increasingly drawn to experiential, wellness and nature-based activities. Pre-pandemic, online travel planning and booking tools were eroding the market share of travel agents. This trend will slow as travellers will rely on travel agents to help them manoeuvre the complex and ever-changing requirements set by different destinations and airlines. Rising inflation and lost wages will chip at purchasing power, making travel consumers cost-conscious. New segments, such as digital nomads, will continue to grow in some destinations. MDF expects an influx of these kinds of workers from Russia and Ukraine.



The pandemic accelerated the adoption of digital technology, with more people relying on digital tools for services. This will enable the scaling up of technology-based solutions across all sectors.



Worker shortages will endure, particularly in tourism where skills are highly transferable. Low wages will deter workers from taking up vacancies, particularly when migration opportunities are available.



Governments and businesses will find it difficult to raise capital as global economic growth slows, and inflation drives up interest rates. As a result, developing economies will take longer to recover from the pandemic. Sri Lanka was in a vulnerable position going into the pandemic with its twin deficits – the budget and current account deficit – together with high debt levels (80 per cent of GDP pre-pandemic). Now, Sri Lanka finds itself in desperate need of sourcing external finance, but the country lacks the stability to easily raise capital.

Sri Lanka's economy was constrained by global and homegrown factors over 2020-21. The GDP was forecast to increase by a modest 3.4 per cent in 2021 and 2022, from a low base. The country faces a foreign reserves crisis caused by diminished tourism inflows and remittances while requiring USD4-5 billion annually for debt servicing. Sri Lanka's reserves fell to USD1.6 billion in November 2021, earning it a 'currently vulnerable' CCC rating with a negative outlook from S&P Global. The World Bank reported 6 per cent inflation in August 2021 and 11.5 per cent food price inflation. The Bank estimates the USD3.20 poverty prevalence rate will increase from 9.2 per cent of the population in 2019 to 11.7 per cent in 2022. Slowing growth combined with food price inflation is likely to exacerbate this trend.

In 2021, the government responded to the foreign exchange crisis with a series of extreme measures ranging from bans on imports of necessities, such as chemical fertiliser to indirect restrictions on letters of credit for importers. These ad hoc actions led to an uncertain environment for businesses and raised prices and reduced standards of living for consumers.

The private sector faced a confusing and debilitating policy environment at a time when business-led economic growth is imperative to meet the country's financial commitments and create prosperity for its citizens. MDF's strategy of supporting pro-poor growth of outward-looking sectors and competitive business models is even more relevant in the present context. In 2021, the team continued to carefully scrutinise the feasibility of business models and ensured that MDF was not swayed by short-term incentives created by unestablished policies. MDF identified partners that shared an orientation towards the long-term. Going forward, it will be critical to remain focused on the fundamentals of demand and competitiveness and ignore the 'noise' created by policy volatility.



Sector selection and rationale

In 2021, MDF continued to work in tourism, agriculture and fisheries. These sectors offer opportunities for inclusive economic growth.



High value tourism

The tourism sector, as it rebounds, will be a key source of foreign exchange while creating employment across the island. Despite a slow 2020 and 2021, MDF sees value in working in high value tourism given its potential to contribute significantly to economic recovery. MDF expanded its work in high value tourism, with a focus on assisting the industry in first understanding post-COVID-19 travel consumer patterns, and then taking action to increase arrivals from high-yielding market segments.



Authentic Sri Lankan goods

The fisheries sector, covered by the Blue Swimming Crab and Giant Freshwater Prawn market systems, continues to offer the opportunity of increasing incomes for fishing households through connections with lucrative export and domestic markets. MDF remains focused on the resilience of the Blue Swimming Crab market system to ensure the employment and inclusivity gains made through earlier interventions are sustained. The team anticipates that the export market for Giant Freshwater Prawn will progressively recover in 2022, opening opportunities for new private sector investment.

MDF's work in agriculture is spread over three market systems: high value agriculture, specialty coffee and agritech. The agriculture sector is the largest employer in Sri Lanka, and many rural agricultural households are poor and vulnerable. MDF's work in improving productivity and promoting the cultivation of in-demand produce will contribute to increased food security and improved resilience at the household level while improving the export competitiveness of Sri Lanka's agribusinesses. The new agritech market system strategy is driven by increased demand for traceability and sustainability from key markets, particularly from Europe. Supporting agritech is timely, given favourable market conditions, that is, an increasing appetite for digitised services, good connectivity infrastructure and business appetite.

Across these sectors, MDF will continue to push forward climate change adaptation and mitigation strategies so that business models, as well as households, are more resilient to adverse weather and climate-induced shocks.



Climate change

Sri Lankan communities and businesses are vulnerable to a multitude of climate-related risks. Many rural households rely on rain-fed farming and fishing, which are affected by unpredictable weather, diminished resource availability and declining productivity. Rural incomes and food security are threatened. Consequently, businesses that source from farming and fishing communities face supply chain security risks. Climate change adaptation and water management strategies will be essential to make livelihoods and business models more resilient.

MDF has identified several market-driven entry points for climate change adaptation and mitigation across its portfolio. Within each market system strategy, particularly within the agriculture and fishery sectors, MDF is designing activities that assist partners as they adopt measures that will contribute to greater resilience within the system. The team is also identifying opportunities to invest in new climate change adaptation and mitigation business models beyond the existing market systems, exploring opportunities in renewables, nature-based solutions, as well as weather advisory and insurance services.



Making the business case for climate change

In 2021, MDF collaborated with the Ceylon Chamber of Commerce (CCC) to conduct a series of events themed 'The Business Case for Climate Change Adaptation for Agribusinesses.' The inaugural webinar of the series, 'Experience from the Industry Leaders,' attracted 377 unique participants from 126 businesses, signalling strong interest. This is an excerpt from an interview for the Echelon magazine with MDF Sri Lanka Country Director, Momina Saqib, and CCC CEO, Manjula De Silva. The selection shares MDF's insights, highlighting the investment case for business, the potential of climate-smart technology and MDF's growing body of work in this area.



Why is MDF working with agribusinesses to encourage climate change adaptation and mitigation?

There are two important aspects. First, why does MDF engage with the agriculture sector in the first place? And second, why invest in climate change adaptation and mitigation? For the first question, we see an opportunity for Sri Lankan agriculture to be more efficient and competitive, and in that process, create opportunities for the men and women that engage with the sector. Around a quarter of all Sri Lankans depend on the agriculture sector. This means growth of agriculture is critical to sustain livelihoods and improve standards of living. However, not all agriculture has the potential to be competitive. Therefore, we have to be realistic

and clear-eyed about where the opportunity lies in the increasingly competitive market. Within this context, we see climate change adaptation and mitigation as a smart business strategy. On one hand, it is essential for businesses to be prepared and manage the risks posed by changing climate and increased frequency of adverse weather. On the other hand, good environmental practices and sustainability are no longer just buzzwords, but the price of entry to high value markets. This is the bar that Sri Lankan businesses need to surpass if they are to stay competitive.

? What kind of climate-smart initiatives could agribusinesses pursue?

There are two important aspects. First, why does MDF engage with the agriculture sector in the first place? And second, why invest in climate change adaptation and mitigation? For the first question, we see an opportunity for Sri Lankan agriculture to be more efficient and competitive, and in that process, create opportunities for the men and women that engage with the sector. Around a quarter of all Sri Lankans depend on the agriculture sector. This means growth of agriculture is critical to sustain livelihoods and improve standards of living. However, not all agriculture has the potential to be competitive. Therefore, we have to be realistic

and clear-eyed about where the opportunity lies in the increasingly competitive market. Within this context, we see climate change adaptation and mitigation as a smart business strategy. On one hand, it is essential for businesses to be prepared and manage the risks posed by changing climate and increased frequency of adverse weather. On the other hand, good environmental practices and sustainability are no longer just buzzwords, but the price of entry to high value markets. This is the bar that Sri Lankan businesses need to surpass if they are to stay competitive.

? What companies are you working with in Sri Lanka?

We have more than 30 investments in Sri Lanka. A few stand out to be particularly relevant. We are working with Keells, one of Sri Lanka's largest supermarket chains, on improving knowledge of their farmer clusters and to help them understand consumer demand, so that farmer produce could better cater to the requirements. We prioritize working with firms that are interested in long-term, value-adding relationships with their network of farmers.

We are also working with technology companies to make precision farming possible. This will enable more optimal use of agricultural resources. An example is the agritech company, SenzAgro. They are a Sri Lankan firm that offers sensors to obtain data on soil conditions, weather patterns and agrochemical inputs. Based on information collected by these sensors, advisory is delivered to farmers on crop management. They have a well-tested solution that has delivered results for plantations. Our work with them is to take the benefits of their technology to smallholder farmers.



Scan/click to read the full interview.



Systemic Change Story

Developing resilience and sustainability in Sri Lanka's Blue Swimming Crab system



The Change

The Blue Swimmer Crab (BSC) sector in Sri Lanka is showing signs of systemic change, having transformed from a locally caught and consumed seafood to a certified export commodity in the last decade. MDF has documented this collaborative success in a 2018 case study. More recently, MDF increased the resilience of the market system by enabling government departments to actively participate in responsible wild BSC stock management. The move ensures the sector's ongoing sustainability. A well-managed fishery (the only one of its kind on the island) has emerged from what began as an effort to stimulate market linkages and employment in the northern BSC sector.

In 2021, MDF organised a training and workshop series for Fishery Officers as part of the Fishery Improvement Project (FIP) in the northern districts of Mannar, Kilinochchi and Jaffna. The trained Fishery Officers are now helping communities understand the importance of adopting sustainable practices for the long-term resilience of their incomes.



Context

Post-conflict, the Northern Province experienced high rates of poverty, particularly for those engaged in farming and fishing, along with a high proportion of female-headed households. Generating entrepreneurial opportunities and jobs was crucial to address these challenges. In 2015, MDF started investing in expanding the seafood processing sector in the region with the aim of creating new jobs for women. At that time, only a fraction of seafood caught in northern waters was processed locally despite the catch being reliable, high quality and of sufficient volume for export.

As existing processors expanded and new processors were established in the region, business dynamics changed significantly. The new work increased demand for BSC, which made sourcing crab more competitive and drove up the price from 2017 onwards. This financially benefitted 21,000 fishing households.

However, MDF's monitoring exercises indicated that the increased demand for crab meat was putting pressure on the wild crab stocks. Lucrative prices and increased demand from canned meat companies incentivised fishermen to catch immature BSC, threatening the sustainability of the catch.



Constraint

The primary constraint in the BSC system was limited local processing. Fresh seafood transported long distances deteriorated in quality while incurring greater cost, making export infeasible. When MDF started intervening in the BSC market, only one large processor-exporter existed in the North. Without significant competition, the price of crab remained low and the opportunity to increase exports and create new jobs remained unrealised.



Adopt/Adapt

MDF and other programs invested in the Northern Province, setting up new processing facilities, training workers and establishing sourcing networks that could maintain high quality. An export market for canned crab opened, creating intense demand for fresh crab among processors. With this demand, landing-site prices rose, benefitting thousands of fishing households.

MDF's initial partnership supported the second-mover seafood processor-exporter in the North in training their workers and establishing sourcing networks. With MDF's support, the partner was able to operationalise a defunct seafood processing facility. This indicated that the partner had adopted the intervention activities.

Although the intervention with Coolman initially focussed on sardines instead of BSC, the MDF partner adapted as sardine fishing became restricted. Coolman diversified into crabs, establishing links with a canned crab-meat buyer. This indicated that the partner was committed to the intervention beyond MDF's support and was continuing to innovate and invest.

Expand

MDF replicated this model with another partner to operationalise an additional seafood processing facility. By the time this intervention was up and running, the crab market was booming with intense competition between exporters. As crabs are a wild-caught commodity, growth in the sector needed to be managed in a way that stock levels were not threatened.

MDF's analysis found that if there was price transparency across landing sites, strong international demand and competition among domestic processors, fishers would continue to receive high prices for their BSC catch. MDF planned to monitor these factors and not intervene unless a part of the system showed gaps.

Respond

The Seafood Exporters Association of Sri Lanka (SEASL) and the National Fisheries Institute's Crab Council began the FIP in 2013 to assess and bolster wild BSC stocks. The FIP successfully achieved a sustainability rating of 'good alternative,' becoming the only BSC fishery in the Asia Pacific with this certification.

However, MDF and other observers were concerned that the increasingly common practice of catching juvenile crabs would threaten long-term stock sustainability. The export market continued to grow, incentivising local processors to source as much as they could. The nature of the product – crab meat – offered few guardrails against irresponsible practices.

MDF assessed that the system, having increased incomes for thousands of households, lacked resilience. If juvenile crab continued to be caught, Sri Lanka not only risked losing its 'good alternative' certification but also the future availability of crab stocks to sustain the livelihoods of fishing households. This prompted MDF to understand gaps in the fishery management and design an intervention to strengthen the FIP.

MDF recognised the disconnect between the work done under FIP and government authorities tasked with fishery management. The Fishery Officers were not systematically monitoring catching practices at landing sites and as a result, were not preventing the collection of juvenile crabs for sale. The private-sector-led FIP, at that point, lacked practical mechanisms to monitor and manage the fishery.

MDF diagnosed this as a capacity gap and invested in expanding the FIP. MDF supported capacity and skill building activities for the FIP, Fishery Officials and other public officials working for the Department of Fisheries and Aquatic Resources (DFAR) as well as the National Aquatic Resources Research and Development Agency. Individuals were trained on crab handling, crab carapace width measurement, crab identification, stock assessment and proper data management and analysis techniques. Thanks to these informative sessions, Fishery Officers were better able to draft and enforce relevant, effective regulations.



Current status

Fishery Officers in the North actively contributed to the annual BSC stock assessment in 2021, which also enabled authorities to make evidence-based decisions about fishery management. MDF witnessed Fishery Officers actively using the newly learned data analysis tools and stock identification skills. The insights gained were shared with fishermen and fishing communities to create awareness and educate them on the best size of crab to catch. Fishery Officers based in DFAR Jaffna have acknowledged that they are able to identify male and female crabs, analyse their breeding seasons and understand the technical reasons that result in stock depletion. MDF field visits indicate that sustainable practices are gradually being adopted as reports from Fishery Officers have confirmed that by the end of 2021, they observed less immature crab catch in landing sites.

On the regulatory front, DFAR drafted a regulation for BSC fishing in March 2021, which has been approved by the Minister of Fisheries and Aquatic Resources and submitted to the Attorney General's (AG) department in April. The new regulation proposes a minimum mesh size of 4.5 inches and a maximum six ply for BSC fishing and a minimum purchase weight (100g) for seafood exporters and their agents.

Despite a dip in prices due to COVID-19 in 2020, the sector recovered and gained momentum in 2021. Today, prices are above the 2016 baseline level statistics. Trading operations are back to the pre-pandemic level with continuous competition among processors to source crab.

MDF's work in BSC has been a journey, from creating market access to delivering improved fishery management. The work highlights that systemic change can be achieved through continuous monitoring and interventions that focus on behavioural change at grassroots level.

Sector

Tourism





Sector on a page

Tourism



210

Informal sector operators
newly registered with SLTDA



140

Stakeholders attended the
'Brand and Consumer Insights for
Tourism Reopening in Sri Lanka' webinar



1,600+

Members of Sri Lanka
Tourism Alliance



VISION OF CHANGE

- Sri Lanka builds a post-pandemic tourism sector that is resilient to external shocks; the country strategically implements COVID-19 recovery business models to target high value tourism, using smart promotion and data to target market recovery.
- The Government implements policies and strategies to attract new tourist segments and works with the industry to offer high quality products and services, and more authentic and diversified offers.
- Business membership organisations become more inclusive, provide relevant services to their members, and are willing and able to advocate for a more resilient tourism industry.
- Industry players explore avenues to turn tourism research and findings into actionable insights for businesses, including SMEs.



CONSTRAINTS

- The severe impact of COVID-19 and related setbacks to the tourism sector is predicted to slowly recover through 2024.
- There is a risk that businesses and the government, starved of revenue, will target mass, low value tourism.
- Data analytics are underutilised for evidence-based decision-making.
- Collaboration within the industry is limited.
- SMEs possess limited capacity and digital savviness.



Data and Promotion

- Improving tourism data collection, research and analytics for evidence-based decisions
 - Sri Lanka Tourism Development Authority (SLTDA)
- Forming high-level strategic partnerships and strengthening institutions and global communications for post COVID-19 recovery
 - Sri Lanka Tourism Promotion Bureau (SLTPB)

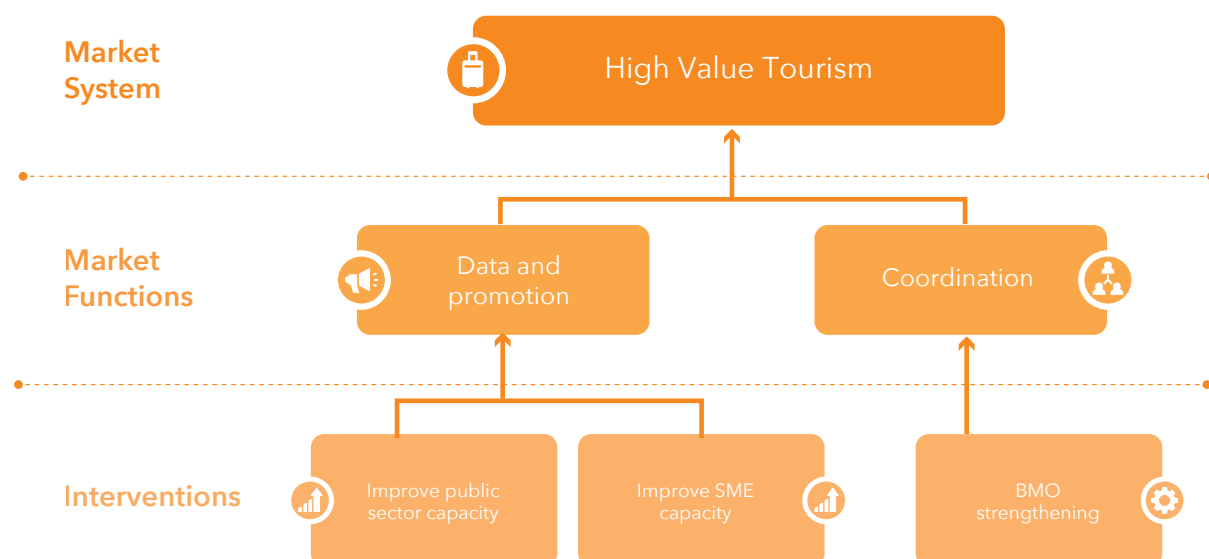


Coordination

- Improving private sector associations
 - Sri Lanka Tourism Alliance (SLTA)
- Motivating the informal sector to be formalised for shared industry benefits (SLTDA)

Market System 1

High Value Tourism



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Emerging	1. Launching a promotion campaign to increase SLTDA membership 2. Developing capacity within the SLTDA research team 3. Providing technical support and capacity development at Sri Lanka Tourism Alliance (SLTA) 4. Implementation of the Strategic Action Plan for Sri Lanka Promotions (SLTPB)	Sri Lanka's tourism sector ended 2021 on a strong note, with cumulative tourist arrivals reaching 30 per cent of pre-COVID-19 levels. MDF's work in tourism continues to influence the direction of recovery. The Sri Lanka Tourism Alliance (SLTA) continues to be a key advocate of high value tourism in the country. The Alliance launched a career portal to connect job seekers with vacancies in the tourism industry. It also set up a mentoring program that will help establish a succession plan for the Alliance's future. The MDF-supported Sri Lanka Tourism Development Authority (SLTDA) membership drive gained early social media traction, although its ability to convert more leads into applicants was limited by COVID-19. Nevertheless, SLTDA organised numerous virtual workshops and webinars and highlighted MDF-supported campaign videos. MDF's early anecdotal evidence shows a reach of over 2,000 businesses, generating 212 applications as of November 2021. Implementation of the SLTPB's Global Communications Campaign, developed with MDF support, is in progress. The SLTPB has opened tenders for application to hire digital marketing agencies for Sri Lanka's key source markets. With the support of the campaign, MDF expects the SLTPB to progressively shift away from its dependency on discount and volume based promotional activity, to focus on brand image and value-driven strategies.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
41	41	USD27,700 AUD36,735	USD27,700 AUD36,735	USD141,700 AUD187,435	USD141,700 AUD187,435	USD336,800 AUD445,920	○ ● ○

High Value Tourism

Data and Promotion



Globally, tourism experienced a four per cent upturn in 2021, compared to 2020 (415 million versus 400 million), according to the UN World Tourism Organization.



International arrivals to Sri Lanka increased 53-fold from January to December 2021 (SLTDA).



Post-COVID-19 tourism will be fiercely competitive and accurate tourism data and analysis, and data-driven decisions will be vital to the industry's recovery.



An evidence-based, traveller-focused strategy to target high value tourists is a key feature of Sri Lanka Tourism's vision for the next few years.



A *Global Communications Campaign 2021-2025* worth USD56 million is currently being rolled out by the Sri Lanka Tourism Promotional Bureau (SLTPB), targeting eight key source markets.



Building the capacity of tourism SMEs to access and understand key metrics and increasing digital capability will be crucial in ensuring access to an international clientele.

Coordination



The lengthy and largely unplanned post-war tourism boom between 2009-2019 led to an industry with a minimal appetite for innovation and coordination.



Sri Lanka's tourism industry is highly fragmented – made up of several public and private sector bodies representing small segments of the overall market.



SMEs and businesses from diverse geographical regions are underrepresented in Business Member Organisations (BMOs).



In light of the twin crises, the 2019 Easter Sunday terrorist attacks and the COVID-19 pandemic, the need for coordination emerged as a crucial function to ensure the industry's survival.



Barrier-free advocacy within BMOs and coordinated advocacy efforts with the government are key for resilient and value-oriented growth.

Market System 1

High Value Tourism

While the tourism industry remained stagnant at the start of 2021, it gradually opened to international arrivals in the second half of the year. The trends since then have been promising, with a steady increase of tourism arrivals from September 2021 onwards, peaking in December. Arrival figures for December 2021 reached 35 per cent of pre-COVID-19 levels compared to December 2018, from just three per cent of arrivals in August 2021 compared to August 2018. These figures may seem low compared to regional peers, such as the Maldives, which reached 80 per cent of pre-COVID-19 arrivals cumulatively in 2021. However, Sri Lanka's direct competitor destination in the region, Thailand, reached only three per cent of its pre-COVID-19 arrivals in December 2021. The rebound in international arrivals bodes well for 2022, despite concerns regarding new virus variants. The tourist arrivals figure for the first three weeks of January 2022 was equal to 30 per cent of the total arrivals for 2021.

Although the economic impacts of COVID-19 have resulted in long-term challenges for Sri Lanka, the structure of the economy is such that in the short-term, there is no other sector that could replace the foreign exchange or employment that tourism generates. As Sri Lanka grapples with its external debt crisis, tourism is an essential sector that needs to recover as soon as possible. Representing an opportunity amid the crisis, the rapid depreciation of the Sri Lankan rupee experienced in 2021 could help Sri Lankan tourism become more cost-competitive, which may work in its favour as globally strained economic conditions leave travellers more budget conscious. With global travel patterns changing post-pandemic, Sri Lanka will need to identify which travel segments are likely to travel and ensure that its tourism products are catering to this changing demand to remain competitive.

In 2021, MDF continued to implement a high value tourism strategy that advocates for higher, more sustainable returns from high-quality products and services, and more authentic and diversified offers. This will allow Sri Lanka to focus on increasing tourism yields, as opposed to its traditional high-volume, low-margin strategy. High value tourism is expected to safeguard Sri Lanka's natural resources and support the development of an inclusive and sustainable sector. On a positive note, MDF has seen a shift in thinking by tourism authorities, Sri Lanka Tourism and the government, whose strategic vision for the next five years echoes MDF's and emphasises value

over volume. Diligent implementation of this vision will remain key.

MDF's focus in 2021 remained on two key functions: data and promotion and coordination, with the aim of supporting industry recovery. MDF achieved many of its planned objectives in 2021, successfully strengthening relationships with governmental and industry bodies and working closely with key private and public sector stakeholders.

Earlier investments made in supporting industry bodies to align themselves better towards recovery have been successful, with business member organisations (BMOs), such as the Sri Lanka Tourism Alliance (SLTA), responding well to the crisis and improving services. Certain BMOs are not yet willing to make the shift towards targeting high value tourism; primarily those who previously relied heavily on more traditional, mass tourism. However, MDF's continued support to the SLTA has brought about an industry platform that supports this vision. This was absent in the pre-2019 tourism landscape.

MDF continued to support the SLTDA's efforts to achieve an evidence-driven tourism recovery, with ongoing efforts to implement the Research Roadmap developed in 2020. MDF also worked with SLTDA to roll out a membership campaign encouraging informal businesses to formally register with the regulator. Importantly, MDF saw increased interest in digital promotion and marketing. Initiatives with the Sri Lanka Tourism Promotions Bureau, such as a consumer website redesign and the rollout of the bureau's digital global campaign, had good buy-in.

Despite the increase in arrivals, challenges remain. There are concerns about new variants of the virus, intense competition among destinations and a possible skilled labour shortages as demand increases. The industry will need to stay up to date of consumer preferences and tailor products accordingly. Businesses will need to quickly recruit and train staff to deliver quality experiences.

MDF's overarching assessment of the global tourism industry is that it is highly volatile but enormously resilient. Tourism will recover, likely faster than many observers have predicted, and it is important for Sri Lanka to be ready to capitalise when it does. Already towards the end of 2021, there were signs of a stronger than expected recovery.



High value tourism

High value tourism is characterised by several factors.



Experiences should be authentic and enriching, engage the local community and be operated under socially and environmentally responsible business practices.



Tour products should resonate with a wide range of consumers and include emerging destinations.



The quality of tourism products takes precedence over price.

High value tourists are not necessarily the ones who spend the most money, but those who disperse spending most widely (e.g. to vast geographies and a larger number of participants) without overly taxing Sri Lanka's environmental and ecological resources.

Market functions

Data and promotion

MDF's vision in this market function is to help the industry understand post-COVID-19 travel consumer patterns better and prepare for changing demand. It is anticipated that MDF's support will generate improvements in research capacity that will lead to better, more timely analysis and presentation of tourism data and interpretation of trends. This will in turn enable public and private sector decision-making on tourism product development, investment and promotion to be informed by consistently collected and analysed data.

The national tourism authority remained a key partner. In 2021, MDF continued to support the SLTDA to implement the five-year Research Roadmap, building the SLTDA Research team's capacity to align the department's research activities with global best practices. The SLTDA revamped its monthly tourism arrivals reports, with the first published in October 2021. Industry feedback has been positive. The SLTDA has begun to develop a more accurate exit survey methodology, potentially serving as a basis for tourism satellite accounting in the future. Another key focus of MDF's support was enhancing the research team's ability to access and analyse international datasets, to generate insights and procure the services of external data providers. This will be particularly useful when seeking to outsource consumer and brand perception surveys.

MDF adds further value by helping the industry to understand and utilise better data and turn those findings into actionable insights. In 2020, MDF worked with the SLTDA to release a research report on consumer insights about Sri Lanka's competitive brand standing and consumer travel perceptions, covering 10 key market segments. The findings were presented to the industry through a jointly organised webinar. This type of market research helps tourism stakeholders better understand consumer segments and design targeted offers. The information can also be used to determine how best to connect with these segments and develop more effective marketing strategies to drive high value tourism to Sri Lanka. The research is timely, as Sri Lanka Tourism is in the process of rolling out its global digital promotional and communications campaigns, and this research will feed into their design.

In 2021, MDF began an initiative that will give the industry access to data on the Australian travel market through the facility-wide Australian demand analysis study. This study was designed in 2021, with surveys being conducted in 2022, just as Australia has reopened its borders. This will enable tourism businesses to develop products to target this potentially lucrative market as travel resumes.

MDF provided technical assistance to the Sri Lanka Tourism Promotion Bureau (SLTPB) to manage high-level initiatives for industry recovery following COVID-19. This included developing a Strategic Action Plan aligned with the national policy framework and identifying a series of initiatives for the next five years. MDF also supported the development and design of the Global Communications Campaign for key international markets, which will roll out in 2022. This is the first time in many years a campaign of this scale is taking place. MDF will support campaign implementation throughout 2022.

Other initiatives included helping the SLTPB to spearhead promotion for Sri Lanka at the World EXPO in Dubai, an activity which is expected to generate international media coverage worth LKR30 million (USD93,600). MDF supported the development of a new organisational structure for the SLTPB and the design, implementation and oversight of a domestic tourism campaign.

MDF also facilitated Australian expertise to design Sri Lanka Tourism's new consumer website, which will be launched in 2022. MDF continued to connect Sri Lankan tourism stakeholders with Australian tourism knowledge to improve strategy and local capacity.

Consumer behaviour is changing in response to the pandemic. More tourists are now researching destinations online and therefore, it is even more important that smaller businesses are digitally active. MDF continued to explore the potential to help tourism businesses, specifically SMEs, use digital tools to connect with consumers, understand demand and market themselves better. In 2021, MDF signed a partnership with an online booking service to digitise and aggregate information on tourism SMEs, while upskilling SME operators on digital listing and bookings. This is challenging because smaller businesses are still in survival mode and hesitant

to invest. MDF Sri Lanka is optimistic that, as arrivals pick up through 2022, opportunities to reengage will arise.

The emergence of new travel segments, such as 'digital nomads,' was an interesting development in 2021. Sri Lanka, with its open visa regime, has the potential to capture a share of this market. The team anticipates that the war in Ukraine and repression in Russia could drive significant demand from that region, a trend that is already gathering pace. Despite Sri Lanka's potential to cater to this growing market, a disparity still exists between the expectations and the infrastructure and services available.

Sri Lanka Tourism and the government are exploring ways of cultivating this demand through, for instance, a new type of visa. MDF will consider the potential to support viable initiatives and to raise awareness of the potential downsides to this market segment.

Coordination

Coordination in the Sri Lankan tourism industry has always been problematic. Industry fragmentation and vested interests have resulted in ineffective advocacy, preventing the emergence of a coherent policy framework and undermining cohesive industry-wide action. However, with many businesses shutting down or pivoting to survive the pandemic slump, a somewhat more consolidated industry has emerged post-COVID-19. Combined with greater awareness of the need for reform in the tourism industry, there is an opportunity to build more effective coordination mechanisms.

MDF's vision for this market function is that improved coordination will lead to better advocacy and, therefore, policy outcomes. It will help create the conditions for better destination marketing and management, both of which are essential if Sri Lanka is to compete in higher-yielding tourism market segments.

MDF continued to support existing initiatives and sustainable networks in the industry. These activities included further strengthening the Sri Lanka Tourism Alliance (SLTA) through technical assistance, as well as increasing industry engagement to increase membership. The SLTA has grown its membership to over 1,700 businesses since its inception in 2019 and it continues to advocate for value over volume. In 2021, the SLTA focused on building the industry's familiarity of ecological

conservation and sustainable tourism, highlighting new products and business models suited to consumers who increasingly care about travelling responsibly. The Alliance's consumer portal (lovesrilanka.org), supported by MDF, focused on establishing itself as a platform for tourists, providing travel advice, updates about reopening and health and safety protocols.

As tourism reopens, there are signs that workforce pressures that existed before the pandemic are emerging again, with accommodation providers unable to rapidly expand their workforce as arrivals increase. The SLTA launched a tourism job portal in 2021, where members can advertise vacancies. The service is currently free but the Alliance plans to charge businesses in the future. Coupled with membership fees, which will be introduced subsequently, this will contribute towards revenue generation. MDF worked with the SLTA to design a Women in Tourism campaign with the goal of increasing women's participation in the industry – a longstanding problem. This will include a series of activities, such as advocacy and mentoring. The campaign will commence in 2022 and aims to encourage inclusive business practices that would attract female workers and influence them to consider tourism as an employment option.

To encourage more small and informal tourism operators to register with SLTDA, MDF worked with SLTDA, in conjunction with ILO, on a membership campaign. SLTDA registration helps firms access benefits, such as loan deferments offered to tourism businesses. The SLTDA has introduced a new app for incoming tourists in response to COVID-19 and growing consumer safety consciousness. Currently, this only features registered businesses, so it incentivises more small or informal firms to register. The membership campaign used a trilingual video series, social media, online workshops and webinars and SLTDA networks to spread awareness and encourage more actors in the tourism industry to join. The MDF Sri Lanka team also supported SLTDA to set up a hotline to assist business registration and ensure conversion. MDF will continue to support this initiative to encourage a shift towards a more inclusive and formalised industry, where smaller actors are better represented and served.



Sector

Authentic Sri Lankan Goods



Sector on a Page

Authentic Sri Lankan Goods



29,111

Effective outreach

USD



\$16.8m

Additional income

USD



\$577

Additional income per beneficiary



407

Jobs created



14.7%

Female participation



VISION OF CHANGE

- Farmers grow and sell high value crops with improved productivity to meet international and domestic demand for high quality, high value products.
- Agribusinesses and input companies improve their supply chain management, quality standards and market linkages, leading to enhanced productivity, greater value for farming households and much-needed foreign exchange for Sri Lanka.
- Improve farmers' access to mechanisation, information and extension services, enabling smallholder farmers to become more efficient in high value segments.
- Private sector leads scale-up strategy for specialty coffee, investing in increasing production, improving quality and building links with international markets.
- Fisher communities and businesses follow sustainable fishing practices, adapt to climate change, invest in productive assets to encourage longevity and access to, and benefit from, premium export markets for local seafood.
- Drive innovation and support technological adaptations in agriculture to increase productivity, develop export competitiveness, support climate change adaptation and improve resilience in the farming communities.



CONSTRAINTS

- The impact of COVID-19-related movement restrictions and regulatory measures impacted business activity and the ability to access export markets.
- Widespread knowledge on suitable and sustainable fishing practices remains limited.
- Local coffee cannot compete in specialty coffee export markets because of low output quality and quantity.
- Limited access to quality inputs and machinery results in sub optimal productivity and higher cost of production.
- Low productivity levels and the absence of new market entrants in Giant Freshwater Prawns.



High Value Agriculture

- Productivity enhancing inputs and services
 - Sasrika Lanka
- Adaptation of agri-mechanisation
 - Three Star
 - Onesh Agri
- Improving extension services
 - English Tea Shop (ETS)



Agri-technology

- Improving climate smart agriculture
 - Keells
 - Agrithmics
 - SenzAgro
 - Ceylon Biscuits Limited (CBL)



Giant Freshwater Prawns

No Interventions for 2021



Specialty Coffee

- Cherry purchase model
 - Ella Coffee Cooperative (ECC)
- Industry Coordination
 - Lanka Coffee Association (LCA)
- Improve processing
 - Helanta Coffee
 - Up-Country Brothers (UCB)
- Plant nurseries
 - Kothmale Nursery



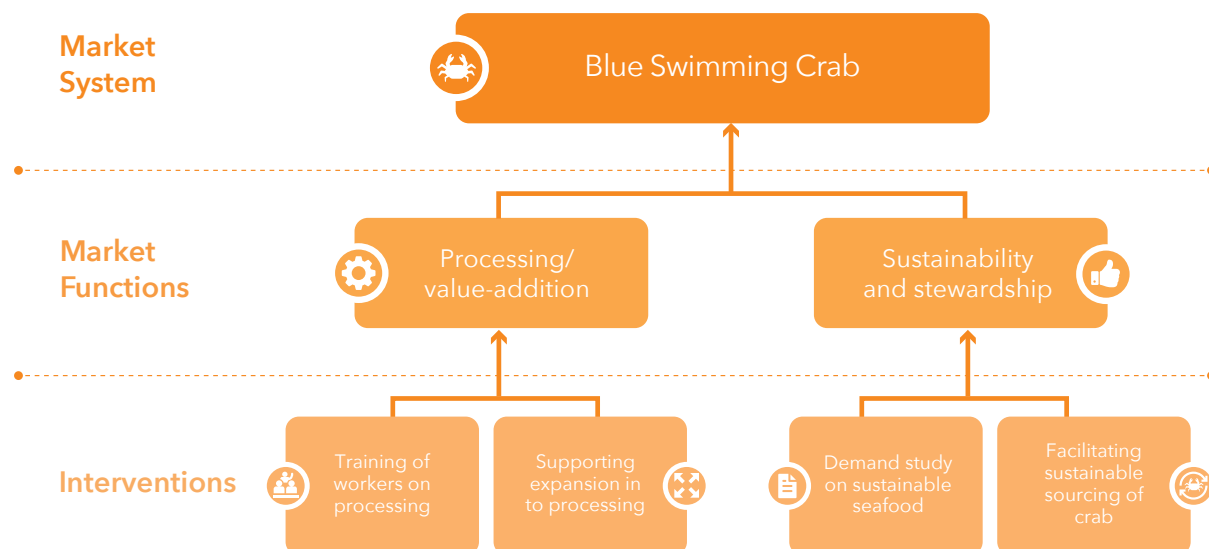
Blue Swimming Crab

- Sustainability and resilience
 - Fisheries Improvement Project (FIP)
- Improving financial access
 - Rukula



Market System 1

Blue Swimming Crab



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Mature	1. Developing the Fishery Improvement Project (FIP) 2. Providing fishermen access to finance for buying compliant fishing nets	In 2021, MDF focused on increasing the resilience and sustainability of Blue Swimming Crab. The MDF-supported Fishery Improvement Projects (FIP) conducted workshops for Fishery Officers in the northern and northwestern provinces, training them on crab identification, stock assessment and data analysis. The Fishery Officers are now actively using these skills to educate fisher communities on the importance of protecting wild stocks. MDF does not expect a significant short-term quantitative impact from this initiative. However, the team does expect a qualitative impact in the form of bio-diversity protection and healthy crab stocks. Progress will be tracked. MDF commenced an intervention with Rukula, a financial services provider, to give fishers access to regulation-compliant fishing nets. The work with Rukula is expected to support fishing communities by providing with them an affordable means to own an appropriate net, as they were previously only available through high-interest loans.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
23,477	23,477	USD14,025,200 AUD18,545,560	USD14,025,200 AUD18,545,560	USD8,097,900 AUD10,552,170	USD8,010,970 AUD10,552,170	USD52,820 AUD69,950	

Market on a Page



Blue Swimming Crab



Crab fishing employs around 30,000 Sri Lankan households.



Crab processing facilities have emerged as a viable working space for women in the North.



This industry is in recovery mode. Jobs and prices are on their way to reach pre-COVID-19 levels.



The distinctive Blue Swimming Crab species can be found primarily along Sri Lanka's northern and northwestern coasts.



Sri Lanka is the only South/Southeast Asian country rated a 'Good Alternative' by Monterey Bay Aquarium's Seafood Watch sustainable seafood advisory list.



COVID-19-induced lockdowns locally, and restrictions globally, brought the industry to a halt in early 2021 and created logistical challenges in penetrating the export markets.



The Fishery Improvement Project (FIP) is supporting Sri Lanka's Blue Swimming Crab industry to access premium international markets with a strong sustainability focus and engaging the community to understand the importance of long-term sustainability for livelihoods.



Market System 1

Blue Swimming Crab

Sri Lanka's Northern Province is home to seafood resources that present an opportunity to capture a slice of the global processed crab market. Crab fishing employs around 30,000 households that stand to gain from access to international markets. Earlier work that supported investment in seafood processing resulted in higher crab prices, benefitting fishers and providing jobs for women in processing facilities.

MDF's vision for this sector is that processors continue to export crab from the Northern Province while sourcing sustainably to cater to premium, eco-conscious markets. MDF expects the Government, particularly the Department of Fisheries (DoF), to develop and enforce regulations that ensure catch sustainability. MDF envisages that the private sector and DoF also invest in improving community awareness about sustainable practices so that fishermen continue to enjoy the benefits of selling Blue Swimming Crab (BSC).

In 2018, Sri Lanka's Blue BSC sector achieved a 'Good Alternative' recommendation from Monterey Bay Aquarium's Seafood Watch, unlocking an eco-label for crab meat exports. Consequently, rising demand for crab meat for exports threatened wild crab stocks in 2020. In 2021, MDF focused on the Fishery Improvement Project (FIP) to introduce sustainable resource management and ensure the resilience of fishing households' livelihoods.

After an initial dip in prices due to COVID-19, the sector regained momentum in 2021. Operations are back to pre-pandemic levels, with multiple processors resuming purchases at landing sites. MDF's partner and other firms re-established export links and sold 'sustainably sourced BSC' to North American markets.

Changed behaviour and positive outcomes

The role of Fishery Officers in a well-managed fishery

In 2021, the FIP successfully influenced behaviours among Fishery Officers in Mannar, Kilinochchi and Jaffna in the Northern Province, and in Puttalam, in the Northwestern Province.

The technical workshops conducted by the FIP with MDF support in each of these districts trained Fishery Officers on Blue Swimming Crab identification techniques, data analysis and how to best conduct stock assessments. In 2021, for the first time on record, Fishery Officers contributed to the annual Blue Swimming Crab stock assessment, the data from which enabled the Department of Fisheries and Aquatic Resources to make evidence-based decisions about managing wild stocks. MDF saw Fishery Officers shift from their traditional role of data collector to become active data users. Fishery Officers used their new skills to collect and analyse data and educate fishermen about the importance of protecting immature crabs.

MDF will continue to support government regulators in 2022 to create awareness among fishing communities about sustainable catching practices, by facilitating a series of District Fishery Management meetings. By working with the FIP, the Department of Fisheries and Aquatic Resources, and The National Aquatic Resources Research and Development Agency, MDF hopes to build a resilient crab sector where fishing households continue to reap the benefits of increased prices through a well-managed fishery.

The success of the FIP has generated interest among other donors, such as the World Bank, in similar projects to achieve sustainable resource management and better revenue for fishing households.

Market functions

Processing and value addition

MDF's support for private investment in seafood processing resulted in higher prices for crabs, benefitting fishers and providing employment opportunities for women in processing facilities. MDF's last intervention in this market function was in 2018. Currently, MDF does not have plans for new activities under this function and is not reporting any new outreach from the BSC market system for 2021.

In MDF's analysis, this system functions effectively if there is international demand, competition between processors and price transparency at landing sites. If these three elements are present, fishing households continue to benefit from high incomes. MDF continues to monitor the market and the status of processing activity, competition and landing site prices.

Processing facility employees that were affected by the COVID-19 slowdown returned to full-time employment. It is promising to witness the business model regaining momentum, indicating that it is resilient and able to withstand severe shocks without further aid intervention.

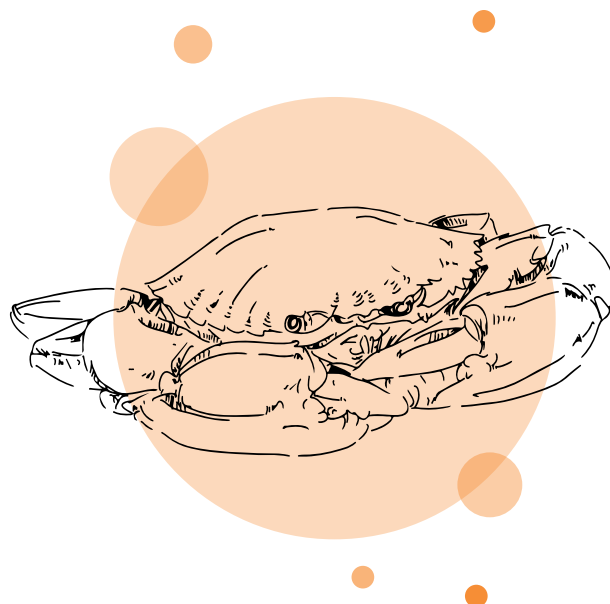
To be effective, the FIP requires vigilant oversight from the government regulators that monitor landing sites. MDF has identified some disconnection between the FIP and regulators due to resource and staff capacity limitations. In 2021, MDF worked to build technical capacity through a series of workshops for government Fishery Officers, on conducting stock assessments, recording findings and spotting instances of catching juvenile crabs. MDF's support for the FIP will continue into 2022.

High indebtedness, particularly to informal traders, prevents choice and the ability of a fishing household to sell its catch at the best price and reap benefits of higher landing site rates. In 2021, MDF designed a new intervention to improve fishing households' access to finance. MDF's partner, Rukula, will offer bundled solutions on credit for fishing households that will include recommended nets, smartphone access and insurance schemes at fixed interest rates. This will commence in 2022 and is expected to generate a net additional income of USD61,312 (AUD84,611) for 540 crab fishing households through savings from lower interest expenses by 2024.

Sustainability and stewardship

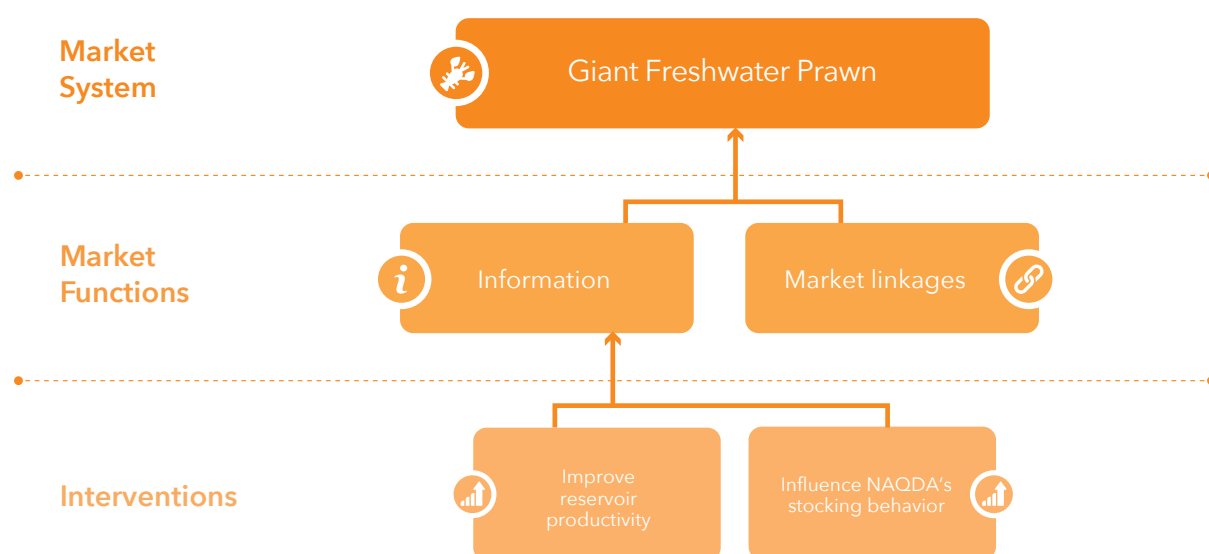
Sri Lanka has gained access to the premium, sustainable Blue Swimming Crab market through the implementation of the Fisheries Improvement Project (FIP), an industry-led initiative supported by the Government to ensure sustainable practices in the industry. However, a highly competitive market risks overfishing and loss of crab stocks, which the FIP will need to manage in the long run. MDF has supported the FIP since 2020.

Natural habitats on the Northern coast are threatened by overfishing, pollution and climate change. Protecting habitats and natural ecosystems is essential to ensure the livelihoods of the fishing households that depend on wild catch. In line with MDF's strategy of building climate resilience, the FIP focuses on wild stock management for sustainable crab fishing, to ensure the long-term conservation of the species and marine ecosystems.



Market System 2

Giant Freshwater Prawn (GFWP)



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	Conducting action research and increasing knowledge about best practices	Sri Lanka's seafood export market has largely recovered from pandemic-induced lows, but Giant Freshwater Prawn (GFWP) exports remained slow as they are highly dependent on the recovery of the tourism market in southeast Asia (which started to pick up in late-2021). Weak demand resulted in low private sector investment appetite, as businesses opted to wait for the market to recover before investing in backward linkages or increasing fisher capacity. MDF is in the process of developing an MOU with NAQDA to undertake action research to identify the factors impacting reservoir productivity.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
3,721	3,511	USD2,365,000 AUD3,106,740	USD2,299,100 AUD3,016,150	USD4,909,700 AUD6,438,875	USD4,808,300 AUD6,299,500	USD216,890 AUD285,220	

Market on a Page



Giant Freshwater Prawn (GFWP)



Sri Lanka is home to approximately 10,000 freshwater reservoirs, of which around 300 are viable for GFWP.



GFWP thrives in inland water bodies across the island, where the prawns naturally grow to twice the size of the global average.



The GFWP market has strong potential for inclusive growth as close to 65,000 fishing households depend on inland fisheries.



Sri Lankan GFWP is in high demand in Southeast Asia, particularly in the Thai seafood market.



The GFWP market was significantly affected by COVID-19. However, new opportunities have emerged in frozen prawn sales, encouraging new entrants into the market.



Private sector investment remains low due to high entry barriers.



Despite the available opportunities, the GFWP sector is currently underperforming due to low productivity, weak linkages between fishers and exporters and lack of market opportunity awareness.



Market System 2

Giant Freshwater Prawn

Southeast Asia has been a source of growing demand for Giant Freshwater Prawns (GFWP), prompting MDF to invest in expanding production in Sri Lanka. GFWP are considered a delicacy, particularly in Thailand, and are consumed across the region. Sri Lanka operated in the premium segment of the Southeast Asian market, exporting fresh prawns within 24 hours of being caught. Though lockdowns in Thailand, Taiwan and Singapore and the concurrent restrictions on tourism decimated the demand for GFWP, as tourism reopens and resumes, indicators show that demand will soon recover.

Sri Lanka's Giant Freshwater Prawns are world-renowned for their size and quality. The large expanse of inland reservoirs in the country enables GFWP to be grown across the cascading tank system, benefitting inland fishing communities. Catch from the inland reservoirs grow to 350-450 grams due to natural feed availability, compared to 100-150 grams per farmed or river-caught prawn. Therefore, due to their large size, Sri Lankan GFWP fetch a premium price in Southeast Asian markets. Prior to the pandemic, Sri Lanka's one exporter of GFWP was fulfilling only a fraction of the volume demanded by their Thai buyers.

The inland reservoir system offers an opportunity to expand supply to tap into this demand. Challenges include the unavailability of larvae, low productivity of reservoirs and the private sector's limited presence to manage a complex supply chain. National Aquaculture Development Authority (NAQDA) is the main regulator and is currently in charge of stocking reservoirs with GFWP larvae.

MDF's vision for the GFWP market system is that NAQDA and the private sector identify the productivity gaps in the system and work with fisher communities to improve stocking, catching and post-harvest handling practices to increase total production and export. There are close to 10,000 reservoirs in Sri Lanka, with around 60,000 inland fishermen dependent on these for a livelihood. Currently, well-organised stocking and fishing of GFWP occur in only 10 per cent of these reservoirs. GFWP is a profitable species, and if reservoirs are stocked adequately and fishing households are aware of proper stocking, catching, and handling practices, incomes can increase substantially.

MDF's initial work in the sector with Divron Bioventures to vertically integrate and expand its supply chain increased the demand for the species across the country. As a result of Divron's initial expansion and the growing demand for GFWP from Thailand and North America pre-pandemic, most inland reservoirs are now stocked with GFWP larvae by the National Aquaculture Development Authority.

Pandemic-induced shocks to global logistics have affected GFWP exporters. The low frequency of passenger flights has seen air freight capacity shrink. This has caused freight costs to increase three- or fourfold over pre-pandemic costs. As a result, the GFWP market is currently operating at lower volumes and lower margins.

MDF's work in the sector so far has benefitted 3,511 inland fishing households and increased the annual income of households by nine per cent.

Fishing households supplement their GFWP daily income by catching other species of inland fish, such as tilapia and carp. Therefore, inland reservoir communities benefit from catching GFWP even at prices in 2021 that are lower than before the pandemic.

MDF is monitoring the recovery of demand, how exporters respond to global and domestic shocks, and how prices are being affected at landing sites. Prices do appear to be recovering despite ad hoc buying arrangements at landing sites.



Market functions

Market linkages

In 2020, global GFWP prices plummeted when markets in Thailand closed and freight charges skyrocketed. Sri Lanka's sector experienced further turbulence in 2021, as some firms closed, and others stepped in to fill the void. The shuttering of the country was disruptive but seems to have created space for new entrants, which could ultimately expand the market. Exports remained low through most of 2021, but trading activity began to pick up towards the end of the year. MDF did not sign any new interventions to support this function in 2021. However, the resumption of trading and entry of new businesses allowed MDF to re-engage with the industry and offers scope to work more broadly to improve productivity and quality.

The sector relies on exports. While prices at landing sites gradually recovered in 2021, as noted above, sales remained inconsistent and below pre-pandemic levels.

Information

MDF's experience in this sector indicates that there is a productivity gap, which if improved, could increase volumes and incomes for fishing households and businesses. Stocked reservoirs operate at a productivity level of one per cent compared to a global benchmark of around four per cent. Information on stocking practices, volumes and timing, along with building fishing communities' capacity on proper catching and handling practices, can address this productivity gap.

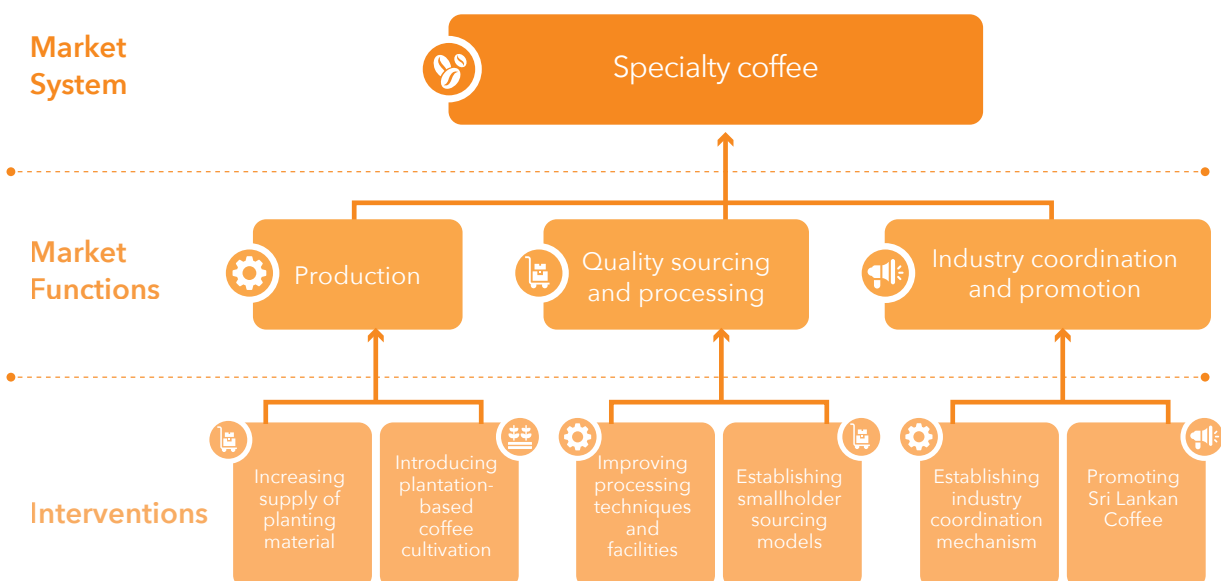
In 2021, MDF had limited opportunities to strengthen this market function. A drop in demand from Southeast Asia, the most profitable export market, as well as local market disruptions, limited MDF's options to engage with capable partners.

However, MDF identified an opportunity to work with NAQDA, and has begun the process of designing an intervention to understand the existing gaps in fishers' knowledge and improve reservoir stocking practices. MDF aims to finalise this gap analysis in 2022 and use the findings to build capacity and improve productivity in selected reservoirs.



Market System 3

Specialty Coffee



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	1. Establishing smallholder sourcing models (market linkages and cherry collection centres) 2. Improving processing techniques and facilities 3. Increasing the supply of planting material 4. Establishing an industry coordination mechanism 5. Introducing plantation-based coffee cultivation 6. Promoting Sri Lankan Coffee	MDF has effectively scaled up its work in the Specialty Coffee market system despite COVID-19-related obstacles and the pandemic-induced economic downturn. In 2021, MDF signed four new interventions in different areas of the coffee value chain, such as the expansion of sapling production, processing capacity improvement and industry coordination. With the establishment of the Sri Lanka Coffee Association in 2021, MDF initiated organisation of the country's first-ever coffee festival, planned for January 2022. Even amid the market disruptions stimulated by the current coffee bean supply shortage, existing and new interventions yielded results to a satisfactory level by creating both income and employment opportunities for the poor. MDF anticipates continued positive results from the coffee portfolio.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
1,010	582	USD100,300 AUD135,890	USD58,985 AUD79,100	USD631,450 AUD847,800	USD523,400 AUD699,265	USD118,830 AUD159,015	

Market on a Page

Specialty Coffee



Coffee was the 'original' crop of the Central Highlands, preceding the now-famous tea.



Nearly 80 per cent of specialty coffee produced in Sri Lanka originates from smallholder farmers and backyard farmers, most of who are women.



Sri Lanka is well-positioned geographically and climatically to produce high quality specialty coffee.



As it currently stands, Sri Lanka cannot produce enough coffee to meet international demand, which is five times higher than current production.



A surge in local processing and roasting has developed the 'authentic Ceylon coffee' brand.



Upgrading infrastructure, equipment, farmers' knowledge, and processing techniques are vital to maintain a high quality product and increasing supply.



COVID-19 had a mixed impact on the specialty coffee market. The decline in tourist arrivals reduced demand for roasted coffee as a tourism product, but a COVID-19 induced ban on illegal green bean imports increased demand and price for locally sourced beans.

MDF and Roar Media Sri Lanka produced a first-of-its kind documentary on specialty coffee. Scan/click to watch **Specialty Coffee: Inside the Revival of Sri Lanka's coffee industry**.



Market System 3

Specialty Coffee

Demand for high quality Arabica beans has been growing in the global market, fetching record prices. Climate change is expected to render large swathes of the world's coffee growing regions marginal, further raising prices. Sri Lanka's central highlands are the right altitude and geography to grow Arabica beans to fulfil this demand. Furthermore, Sri Lankan bean samples have revealed flavour notes similar to highly regarded Colombian and Rwandan coffees. As tea demand stagnates globally, and Sri Lankan tea estates become less viable, coffee cultivation presents a diversification opportunity. While current production levels are low, coffee plants are found in many smallholder home gardens.

However, there are several challenges preventing Sri Lankan firms and farmers from penetrating global markets. Farmers lack best practice know-how on the topics of correct cultivation, maintenance, harvest and post-harvest activities. Coffee makes up a small fraction of farmers' incomes, giving them little motivation to invest time and effort in changing behaviour and practices to improve quality.

Several new coffee roasters and aspiring exporters have started operations in the past five years. Unfortunately, they struggle to source their desired bean volumes of quality standards. Inefficient supply of coffee saplings discourages the expansion of coffee cultivation to meet demand. Roasters are investing in integrated supply chains and direct sourcing, but aggregation is costly and farmgate prices are high. Processing machinery and techniques also need upgrading to deliver beans of consistent quality.

MDF's vision is that Sri Lanka's speciality Arabica coffee market will grow, driven by private investment and enabled by smart government policies. This will require plantations to increase the scale of coffee cultivation, collectors to invest in efficient supply chains, processors to improve quality control and consistency, and government policies that incentivise production of key inputs, such as coffee saplings. MDF sees potential for inclusive growth in this market because coffee can be cultivated by large numbers of poor smallholder farmers and can potentially diversify and protect incomes for estate workers.

In 2021, MDF adopted a three-track strategy to address these challenges. Work in the 'production' function focuses on increasing the availability of coffee saplings and encouraging large-scale coffee cultivation to make export feasible. The 'sourcing and processing' function invests in supply chains that improve on-farm practices through training, establishing aggregation systems in which quality is incentivised and process coffee to meet global specialty standards. Under the third 'industry coordination and promotion' function, MDF invests in the common goods of the system, which includes establishing an industry association, supporting research, testing and cupping samples of green bean, as well as developing the investment case for presenting Sri Lankan coffee internationally.

In 2021, MDF's work in the specialty coffee sector benefitted 582 farmers with additional income of USD58,984 (AUD78,645). MDF projects that up to 1,010 farmers will benefit over the next three years, with an additional income of USD100,301 (AUD133,375).



Market functions

Production

MDF expanded its work to this function in 2021 following indications that Sri Lankan coffee had intrinsic quality characteristics when harvested and processed properly. But Sri Lanka's current harvest volumes are not sufficient to make export of specialty coffee viable. Hence, the industry requires quality improvements and scale-up to happen simultaneously.

The unavailability of seedlings is a major constraint to increased production. Typically, seedlings are subsidised by either district authorities or the Department of Export Agriculture (DoEA), and nurseries produce saplings only when the government places forward orders. Therefore, expansion of cultivation for the most part is capped by sapling availability. As coffee becomes more lucrative, the governmental production quotas are unable to keep up with demand.

MDF signed a pilot intervention with a nursery in 2021 to test the viability of commercially produced non-subsidised coffee saplings. The intervention was successful, and the partner easily sold their entire inventory of saplings to small, medium and large-scale farmers, proving that there is strong demand for non-subsidised saplings. This has given MDF the evidence and confidence to invest in expanding the nursery business model. MDF is designing the expansion of the nursery model with the DoEA, where capable nurseries will be provided support to expand cultivation of coffee saplings. Seeing the growing demand, DoEA has also increased its seedling production and cultivation targets. In a promising sign, industry planting targets for 2021-2022 are 30 per cent higher than 2020-2021 targets.

Tea plantations are a key source of this demand and are increasingly interested in diversifying to include coffee by intercropping the plant with tea in underproductive lands. As Sri Lanka becomes less competitive in tea, the attractiveness of coffee will continue to grow.

Sourcing and processing

MDF has been working in this function since 2017 with partners Soul Coffee, Helanta Coffee, Ella Coffee Collective and Colombo Coffee Company. This work created additional market transactions worth USD523,396 (AUD697,861) in 2021.

In 2021, MDF started working with another primary processor, Upcountry Brothers, to establish Sri Lanka's first international specialty grade coffee processing wet mill and drying operation. The partner sources coffee cherries from over 500 smallholders in the Central Highlands. In 2021, the partner purchased coffee cherries from farmers at an all-time high price of LKR220/kg (USD0.69) compared to LKR120/kg (USD0.37) in 2019. MDF plans to use the learning from previous farmer training to improve information dissemination and retention when farmer training is conducted through this partnership in 2022.

When MDF conducted an impact assessment in 2021 for two interventions under this market function – in partnership with Helanta Coffee and Ella Coffee Collective – several insights emerged. A farmer's average landholding came in under 1.2 acres, with 5-20 coffee trees. However, a few farmers had more than 200 trees, indicating the potential for increased specialty coffee production. Farmers cultivated local Catimor varieties, such as S9 and Lak Parakum, and expressed interest in expanding cultivation. This further validates the MDF team's assessment that there is demand for coffee saplings and how coffee cultivation can be increased if the right farmers can access the appropriate inputs, paired with the best guidance.

Side-selling remains a challenge faced by partners, with the recent price increase for coffee cherries undermining exclusive buying relationships. However, the primary processors who had invested in building effective relationships with their farmer networks by, for instance, offering training and equipment, were rewarded. Their networks remained solid. In addition, those adopting the cherry-sourcing model facilitated by MDF reported gains in Women's Economic Empowerment, with significant savings in women's time and reduced workloads due to the labour-saving that the model promotes. This indicates

that there is a reasonable business case for processors to expand their sourcing networks by developing strong relationships with smallholders. These connections can be strengthened by providing farmers with information and support to best harvest their coffee cherries.

MDF's assessments also found that the price escalation in coffee cherries and green beans had influenced some farmers to save dried coffee as an asset to be sold when they are cash strapped. However, given the time and effort it takes to dry cherries, once the price normalises, MDF and processors expect the coffee cherry model to gain further traction.

Industry coordination and promotion

For this function, MDF envisages that by fostering industry coordination, advocacy and promotion, then Sri Lankan coffee will be recognised in domestic and export markets and investment in the sector will increase.

Work in this area started in 2021, when MDF facilitated the establishment of the Lanka Coffee Association (LCA). This group brought together all specialty and commodity coffee firms to collaborate and advocate for increased availability of inputs, support in extension and a favourable trade policy to support sector growth. In its first year of operations, the LCA is still building its program, but it is now collectively representing its members' interests to government agencies. MDF will continue to engage with LCA and leverage it as a platform to grow innovations, such as the cherry purchasing model, improved processing techniques and links to export buyers. MDF and LCA will host the first National Coffee Festival in January 2022, with the expectation that this will become an annual event contributing to the evolution of a 'coffee culture' in Sri Lanka.

MDF invested in research to generate information for potential investors and buyers. Through World Coffee Research (WCR), MDF is investigating the genetic profiles of Sri Lankan coffee varieties. The results will be shared with the industry in 2022 and will be valuable information that producers can use when selecting varieties for cultivation and marketing Sri Lankan coffee to international buyers that seek specific details. MDF will continue to collaborate with WCR to develop a climate and pest/disease-resilient coffee varietal suitable for Sri Lanka.

In 2021, MDF began a process to develop an investment prospectus to attract new investment in coffee production and processing in Sri Lanka. The global coffee industry is searching for new coffee growing regions to help diversify supply risks. The frosts in Brazil in early 2021 caused harvests to fail and reminded the industry that it is too reliant on a small number of large suppliers. Arabica coffee cultivation is also vulnerable to shifting climate patterns. MDF intelligence suggests that Sri Lanka would be an attractive destination for investment, but there is insufficient information available to attract this investment. The investment prospectus is designed to fill this gap and will be published in 2022.

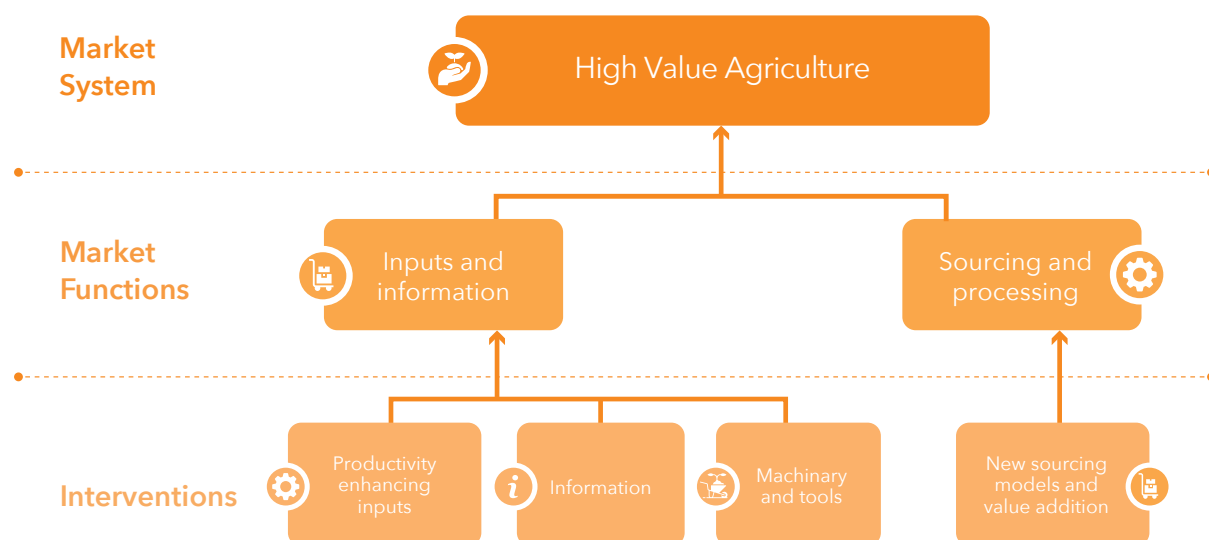




Batch 5
Nestlé
Café

Market System 4

High Value Agriculture



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Emerging	1. Increasing farmers' access to organic fertiliser and knowledge of organic farming practices 2. Providing farmers access to agri-machinery and tools, along with advisory on best practices 3. Supporting agribusinesses to expand sourcing networks	MDF has successfully expanded its work in high value agriculture to a broader portfolio that focuses on improving farmers' access to inputs, machinery and quality advisory services. Despite disruptions due to COVID-19, macroeconomic challenges, such as the foreign exchange shortage and an uncertain policy direction, MDF successfully commenced three new interventions in the input, mechanisation and processing intervention areas with four partners. Impact has been slow. Macroeconomic factors caused the private sector to face liquidity issues, resulting in a limited ability to invest despite immense willingness. Moreover, restrictions were exacerbated by interprovincial travel bans that prevented the private sector and MDF from visiting the field. New farmers could not be onboarded or trained, and existing ones could not be interviewed on progress. Nonetheless, MDF and partners have devised ways to navigate these issues and complete the activities in 2022, ensuring confidence in positive results going forward.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
9,288	1,348	USD3,173,620 AUD4,357,740	USD210,510 AUD284,760	USD5,273,500 AUD7,848,100	USD517,100 AUD691,500	USD402,395 AUD527,940	

Market on a Page

High Value Agriculture



There is a growing demand for a broader range of high value agriculture from export and domestic markets, coupled with private sector investment.



Farm productivity in Sri Lanka is below international benchmarks.



There are approximately 200 organic spice exporters currently in the market.



COVID-19-related movement restrictions have triggered a rapid shift to digital extension services to ensure business continuity and improved magnified reach.



Better inputs and machinery are vital for higher yields and lower costs for farmers



Agribusinesses face challenges in sourcing quality produce from a fragmented farmer base.



Market System 4

High Value Agriculture

Sri Lanka is not competitive in commodity agricultural production, such as rice, due to small plot sizes, fragmented farmer base, sub-optimal practices, high-cost structures, and low margins. However, the country does produce a range of valuable fruits, vegetables and spices that have strong demand in domestic and export markets. This high value agricultural production faces its own inefficiencies that make it uncompetitive. Farmers are ill-informed about crop management and post-harvest practices due to weak extension services. Use of inputs, tools and implements is low due to patchy access and awareness, exacerbated by ad hoc subsidies. Firms incur high transaction costs, collecting small volumes from a fragmented farmer base. This manifests in below-benchmark productivity, high post-harvest losses and poor produce quality. If firms and farmers could overcome these issues, they could benefit from strong market demand.

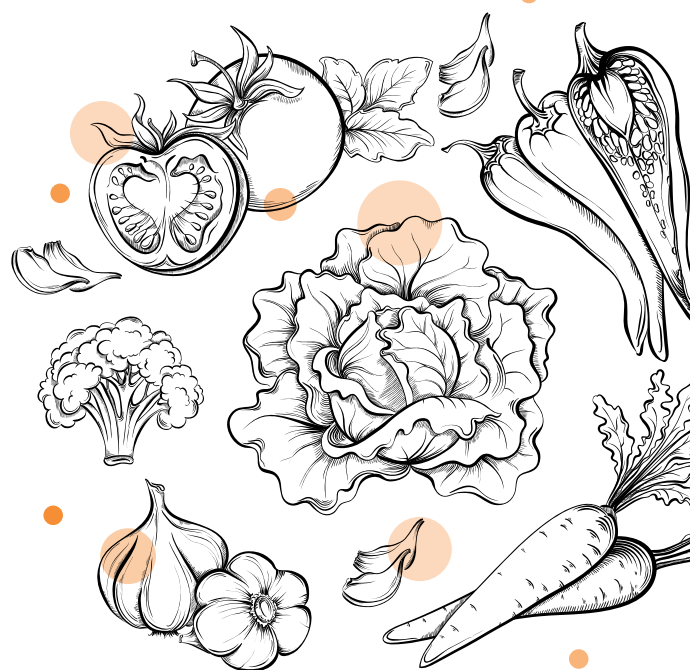
MDF Sri Lanka is investing in high value agriculture because niche and specialty crops offer Sri Lanka better returns than commodity production. MDF's vision in this market system is that farmers become better connected to buyers, and buyers invest in sharing information with farmers about which crops to grow and how best to grow them. This relationship would be enabled by a dynamic support industry that offers farmers access to inputs and equipment to improve productivity, packaged to lessen the upfront financial burden on farmers.

MDF's work in the high value agriculture market system focuses on two functions. First, 'inputs and information' tackles access and the proper usage of agri-inputs (fertilisers, seeds, pesticides), machinery and tools (seeders, tillers, mulch, insect nets) and information required by farmers to maximise productivity and minimise diseases and crop losses. The second function, 'sourcing and processing,' is concerned with the supply chains needed to source high-quality produce from farmers and add value to this produce to serve lucrative export and domestic markets.

The year 2021 was a challenging one for agribusinesses and the farming community. Repeated lockdowns and a ban on interprovincial movement halted operations and created shortages of many essential goods. Firms were not able to conduct extension activities, hampering relationship building with farmer networks.

The Government's decision to ban the import and application of chemical fertiliser and pesticides further destabilised the sector. This was compounded by further ad-hoc bans on the import of agricultural products, such as turmeric and coffee, in a bid to promote self-sufficiency. However, this led to shortages as imports ran out. Producers responded to this signalling by increasing the production of crops, such as turmeric, with the risk that upcoming seasons will experience gluts. Turmeric, and other products like it, can be easily and cost-effectively be imported from India. Instead, Sri Lankan consumers are paying more for domestically produced turmeric, while farmers are losing by shifting production away from more valuable and competitive crops and running the risk of oversupply down the road.

Despite these challenges, MDF successfully expanded its work by designing four new interventions, partnering with the agribusinesses Three Star Organic Farm and Ellawala Horticulture, and input and machinery suppliers Sasrika Lanka and Onesh Agriculture. This work is expected to cumulatively benefit an additional 7,000 smallholder farmers over the next few years. MDF's existing work in the sector continued to yield results, though at a slower pace due to delays caused by COVID-19-related restrictions. Around 1,300 farmers have benefitted from MDF activities so far, earning additional income of around USD210,000 (AUD279,300).



Market functions

Inputs and information

Smallholder farmers producing high value crops often lack access to quality inputs, machinery, and timely and relevant agronomic advisory services. Farmers depend on unreliably available, subsidised, imported chemical fertiliser and they lack adequate knowledge on optimal fertiliser and pesticides application methods. The subsidised availability of fertiliser disincentivises input firms from investing in expanding supply and embedding farmer education. This results in lower yields and higher costs of production for farmers, leaving Sri Lankan products non-competitive in international markets.

The government's abrupt decision to ban the import of chemical inputs increased the demand for organic inputs and guidance on how to use them. MDF was ahead of the curve as it had scoped this market in 2019 and identified that there was latent demand for organic fertiliser that manufacturers were hesitant to address. Manufacturers felt that consumers used to buying subsidised chemical fertiliser would balk at the price of organic fertiliser. The ban re-opened this area of work, giving MDF an opportunity to partner with organic fertiliser supplier Sasrika Lanka to improve its capacity to train farmers and government extension officers on quality organic agriculture practices. The intervention also supports Sasrika Lanka to expand its distribution network so that more farmers can access quality organic fertiliser. Learning from mobility challenges faced by agribusinesses and input suppliers during the height of the COVID-19 crisis, the intervention is based on a hybrid model of digital and in-person training for extension workers. In 2021, Sasrika Lanka developed an online training platform, with MDF support, which will be deployed for training farmers and government agriculture officers on organic farming practices.

Using equipment improves farm productivity, reduces farmers' physical effort and saves time. In addition to benefitting the wider farmer base, MDF's interventions will also support aging farmers, women with high workloads and people with disabilities. In 2021, MDF signed an intervention with Onesh Agri, a supplier of irrigation and mulching equipment, insect and fly trap nets, and other agri-tools. MDF and Onesh developed learning and marketing material that will be used to educate retailers and farmers on the benefits of tools and mechanisation.

Farmers are often unable to obtain the finance needed to buy productivity-enhancing equipment. To tackle this constraint, MDF partnered with Three Star Organic Farm in 2021, a buyer of organic vegetables. With MDF support, the partner has designed a financial product where it will provide mulching equipment and fly trap nets to its farmer cluster, with the cost recovered from farmers in installments as they sell their produce to Three Star. The partner was completing its demo farm at the end of 2021.

Improving efficient agri-mechanisation is also expected to have a positive environmental impact. These tools help reduce resource use and prevents soil and ground-water contamination from excess inputs.

MDF's work in Sri Lanka and across the Facility has shown that while information and extension services are critical to farmers, very few firms have incentives to consistently provide them on a for-fee basis. MDF's experience indicates that information and extension services must be offered as 'embedded' services, that is, as part of other routine transactions. Extension services can be provided by either input and machinery suppliers, or by aggregators and processors of agriculture produce. MDF's prior experience with processors Pasanka and English Tea shop demonstrated this and the team used this insight when designing the current interventions.

The bulk of MDF's support in the three interventions signed in 2021 is for improving the quality and delivery of information and advisory services to farmers. MDF is encouraging firms to provide information via multiple mediums to improve the farmers' ability to retain and act on information. MDF expects these interventions to benefit around 7,000 farmers over the next three years, earning additional income of around USD2.6 million (AUD3.4 million).

Sourcing and processing

Apart from accessing inputs, equipment and information, smallholder farmers also face challenges in selling their produce and making connections to aggregators and processors. Agribusinesses sourcing high value crops also struggle to procure the desired quantity and quality of products due to a host of inefficiencies, such as low farm productivity, input unavailability, poor logistics and

storage as well as a fragmented farmer base. In MDF's experience, agribusinesses often underestimate the difficulty of changing the behaviour of their supplier farmers, which can cause a business model to fail.

These challenges are compounded for agribusinesses working in organic products, as they must expand their farmer base whilst meeting growing demand for certified produce. This requires significant investment in both time and money, which restricts an agribusiness's capacity to reach more farmers. The already costly and time-consuming process of reaching farmers with the right information about what to grow and how to grow it, has been further impacted by COVID-19-related restrictions. The consequence is straightforward, if farmers lack the right information, they can't sell their produce.

MDF's prior investments in this market function with organic processors, Pasanka and English Tea House, provided insight into how complicated and lengthy this process can be. MDF supported the partners to increase their processing and sourcing capacity. The investments yielded positive results, although at a slower pace than expected. More than 1,300 farmers are now part of a sourcing network that gives them access to quality advice. More than 800 farmers have benefitted from these connections. The relationship with a steady buyer ensured resilience in farming household incomes by providing reliable access to market, despite lockdowns.

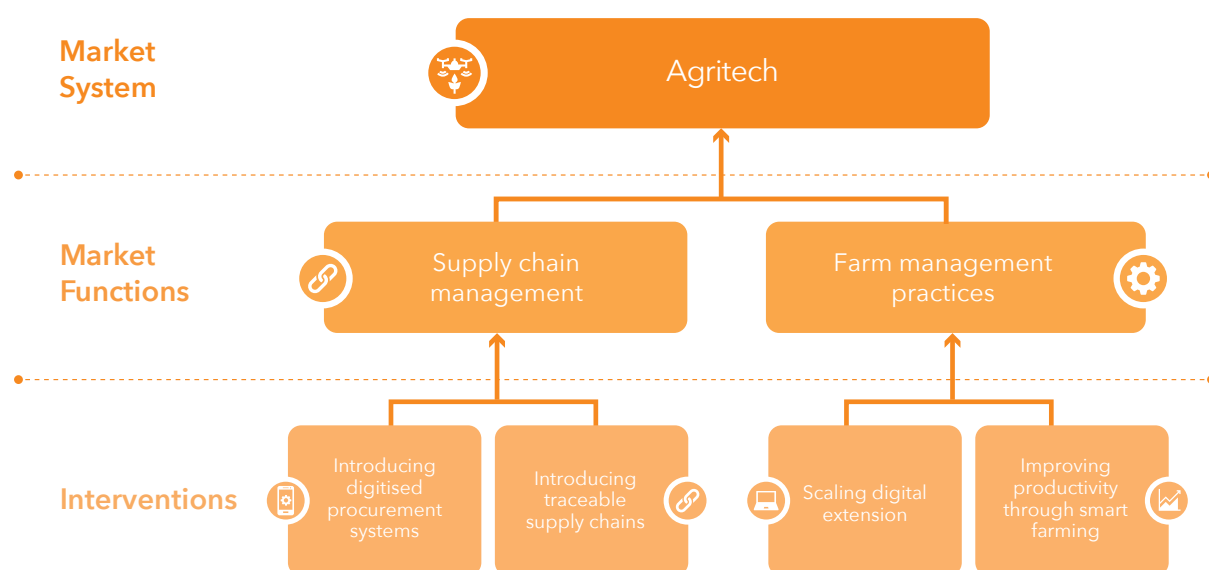
MDF's strategy is to replicate these effective sourcing networks with other agribusinesses. MDF worked on a new intervention with Ellawala Horticulture Farms to introduce a new commercial backyard farming model designed to increase sourcing of over 20 organic crops, such as pineapple, papaya, tomato, ginger and pepper, from dry zone farmers in Sri Lanka.

MDF is also in the process of designing three new interventions with agribusinesses, including Royal Cashew, David Gram and Star Mushroom, to improve supply chains and sourcing models. These interventions will integrate processing, information and sourcing models in a way that allows farmers to benefit from quality improvements and consistent buyers, and firms to benefit from improved volumes, reduced costs and higher quality products.



Market System 5

Agriculture Technology (Agritech)



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	1. Increasing farmers' access to accurate and quality advisory services 2. Improving the traceability of agribusiness procurement systems through digitisation	MDF identified the potential that agritech holds to improve smallholder producers' access to quality information, inputs and markets. The market system strategy for agritech was developed in 2021 and two interventions have already commenced with four partners - Keells, Agrithmics, Senz Agro and CBL – reflecting the untapped potential of technology in agriculture. MDF is supporting agribusinesses to adopt new technology that will improve connection with farmers, increase product traceability and enable them to provide relevant climate-smart advisory services to their farmer base. Implementation activities for these interventions are underway and MDF expects around 17,000 farmers to benefit over the next three years.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
17,249	-	USD853,500 AUD1,173,300	-	USD425,440 AUD584,800	-	USD23,635 AUD31,460	○ ○ ●

Market on a Page



Agritech



About 1.65 million smallholder farmers operate less than two hectares (on average) and contribute 80 per cent of the total annual food production.



Using technology, Sri Lanka has an opportunity to improve agriculture productivity, market access, and value addition through smallholder farmers and agribusinesses.



Agri-tech is quickly becoming a new wave of innovation in the agriculture sector as firms work to build efficiencies and incorporate traceability in their supply chains.



The demand for agri-tech is driven by increased interest in traceability and sustainability from key markets, particularly Europe.



The Sri Lankan context is ripe for agri-tech adoption due to high literacy, mobile connectivity, and relative sophistication of the IT service industry to develop homegrown solutions.



Market System 5

Agriculture Technology (Agritech)

MDF's Annual Report 2020 described the 'smallholder challenge,' as a situation where gains from agriculture accrue to capital and skill-intensive production, leaving smallholder farmers with low returns, disincentivising further investment, and thus sustaining a vicious cycle of low investment and productivity. Appropriate technology can be one solution that enables smallholder farmers to stay competitive.

The Sri Lankan context is ripe for agritech to flourish. Smallholder farmers with less than five acres of land dominate the production of commodities, such as tea and spices. An aging farming population, rural-urban migration and rising labour costs all necessitate investment in time-saving machinery and technology. Europe, which is Sri Lanka's most valuable market for spices and tea, is increasingly demanding supply chain traceability.

Sri Lanka has a vibrant IT industry with a slew of new services entering the market every year, many of them homegrown. Successful solutions have emerged in diverse sectors - from ride-hailing and food delivery to bookkeeping and digital marketing. Increasingly, IT firms have started eyeing the agricultural sector and developing targeted solutions.

Recognising this opportunity, MDF began scoping the sector in the second half of 2020, developed a new strategy in the first few months of 2021 and had commenced four interventions, as of November 2021. The timing was opportune, as the pandemic and ensuing movement restrictions accelerated the adoption of digital technologies. The area of work leveraged MDF's existing knowledge and networks in the agriculture sector.

Smallholder farmers cannot afford to carry the financial burden of agri-tech adoption as they operate on thin margins and carry high risk. Benefits from adoption often accrue to aggregators, decreasing the incentive for smallholder farmers to invest in technology. Technology firms and their employees are not always equipped to reach smallholders and win their trust. For these reasons, MDF considered business-to-consumer (B2C) technology models challenging to popularise amongst smallholders. Instead, the team focussed on business-to-business (B2B) models where technology firms offer

products and services to agribusinesses. Agribusinesses then onboard smallholder farmers to new technology, building their capacity over time.

MDF's vision for agritech is to enable agribusinesses to deploy technological solutions that enable them to communicate more cost-effectively with their fragmented farmer bases. MDF also expects technology firms to offer innovative solutions that will enable affordable traceability in smallholder-dominated supply chains. As agribusinesses adopt technological solutions and promote them to their farmer bases, it is expected that farmers will start acting on the array of new information available to them and optimise their farming practices, reducing their costs and increasing productivity.

Agribusinesses face their own challenges when it comes to technology adoption. Digitisation in the sector has been slow because successful examples are limited, finance for investment has been hit by COVID-19, and adoption often entails more complex organisational change. MDF's work, in two functions – supply chain management and farm management practices – aims to help agribusinesses overcome these challenges.

Within these two functions, MDF's initial strategy is to work with agritech firms with proven B2B solutions and help them market their products better to agribusinesses. MDF is assisting partner firms to design product and service trials as well as demonstrations to increase their sales in the agriculture sector. Simultaneously, the team is working directly with large agribusinesses to implement complex organisational changes and develop effective ways to introduce farmers to new systems. Climate change adaptation and mitigation activities are embedded in this strategy, aiming to popularise traceability, smart input use and weather detection and forecasting.

In 2021, MDF implemented its agritech strategy and achieved the goals set out in the Annual Strategic Plan for 2021. MDF explored 15 collaborations and converted four into partnerships, which are set to increase incomes for 17,000 smallholder farmer households. MDF complemented its network of agribusinesses by forming relationships with key agritech companies catering to this segment.

Market functions

Supply chain management

MDF identified two drivers for technology investments to improve supply chain management. First, source markets are increasingly demanding end-to-end traceability, requiring firms to embed technology throughout their supply chains. Second, reducing high off-farm losses requires improved logistics services and optimised networks. MDF introduced three interventions to work on these drivers of change.

MDF began working with Keells, one of Sri Lanka's leading supermarket chains, to address the challenge of sourcing fresh produce at required volumes and quality. Keells is developing a forecasting system, enabling it to signal demand to farmers. In conjunction, the partner is developing digital extension modules, which it will use to train farmers in crop management. The system development and validation activities were conducted in 2021 and roll-out to farmers will commence in 2022.

MDF also signed a partnership with Agrithmics, which provides a digital procurement solution to firms sourcing from smallholder farmers via collectors. The solution is designed to reduce pilferage and increase transparency and trust between farmers and firms by digitally recording transactions. The solution bundles a digital scale with software. When a farmer sells produce to a collector, the parameters are instantly recorded, triggering instant payment to farmers through mobile money, if desired. This solution has been adopted by leading firms in the bought-tea sector, but wider adoption has been a challenge for Agrithmics. MDF plans to work with the partner to increase adoption by creating successful demonstrations with agribusinesses of different sizes, as well as onboarding collectors and introducing incentives for them to shift to this service. The intervention was designed in 2021 and activities will be implemented in 2022.

Towards the end of 2021, MDF started working with CBL, the country's largest biscuit company, which also specialises in the export of organic produce. CBL is implementing an end-to-end digital traceability solution, with MDF assisting the firm to embed Internet of Things (IoT) technology at the smallholder level to provide insights, instructions and record parameters. In 2021, MDF and CBL began planning the deployment of on-farm sensors among smallholder farmers, as well as training farmers on the technology's applications and benefits.

Farm management practices

In this market function, MDF is introducing technology on farms to address smallholder constraints, such as access to farming knowledge, low productivity and high produce losses.

MDF initiated a partnership with SenzAgro, an agritech firm that offers farmers a smart irrigation system with advanced soil sensor technology and cloud-based analytics that helps to increase crop yield and reducing water, fertilisation and energy costs. This technology has been successfully adopted by plantations and corporate farms. MDF is collaborating with SenzAgro to market the product to agribusinesses sourcing from farmer clusters and incentivise the agribusinesses to install the technology on their suppliers' farms. The first few technology deployments occurred at the beginning of 2022 and MDF expects this intervention to benefit approximately 5,000 farmers.



Observations and Lessons



The wrong partner can derail a well-designed intervention

MDF and an agri-exporter partner recognised an opportunity to deliver digital extension services to the partner's farmer network. These farmers were organised into a formal, well-functioning association with which MDF partnered to develop a digital extension delivery system. Activities progressed smoothly, until the onset of COVID-19. The association was beset with new challenges: their bylaws prevented decision-making without participative general meetings, which were impossible to organise during lockdowns, and they lost senior leadership. The new leadership did not own the digital extension project and, as a result, did not prioritise its implementation. On reflection, the association simply lacked incentives to tackle a complex project in a challenging time. Partnering with the exporting firm would have yielded a different result, since they have more incentives to increase volumes and deliver quality produce to their buyers.



Protection and subsidies can leave farmers worse-off despite short-term gains

MDF scoped the organic fertiliser market in 2019 and concluded that firms were not willing to risk investment despite growing demand. Farmers were reluctant to pay high prices for organic fertiliser when highly subsidised chemical fertiliser was available. This was an example of subsidies prohibiting a functioning, efficient market from emerging. Conventional farmers also faced difficulties in sourcing fertilizer as needed and when needed. As a result, fertiliser usage was based on when a farmer was able to source the subsidized product, rather than on crop needs.

In 2020, Sri Lanka stopped the import of green coffee, which increased demand for locally grown coffee and pushed up prices. The combination of high prices and demand is disincentivising farmers from making the effort to produce a high-quality crop because they know that they can sell their cherries for a high price, regardless of quality. While the protection has undoubtedly made higher prices possible for now, it has also thwarted investments in quality. The risk is that Sri Lankan specialty coffee will fall behind other producers in quality, adding a further layer of challenge to export development.





The extension paradox

There is ample evidence and experience that both firms and farmers benefit from investing in extension. However, few firms go down this path for several reasons. First, the benefits from a well-functioning extension system are diffuse, such as supplier loyalty, reduced rejections, fewer pest outbreaks and cost savings, and the benefits are not always recognised. Competitors, even if they recognise the improved performance of a firm that has invested in extension, are unlikely to attribute it to investments in extension services. Firms hesitate to invest in extension, as farmers can choose to sell to other buyers, preventing them from earning a return on their investment.

This raises a challenge for creating wider change – how do we convince more firms to invest in extension?

Possible solutions that MDF has explored include engaging influencers within the agriculture market and building experience-sharing aspects into partnerships. Tapping into industry and farmer associations for advocacy is another pathway. Close value chains where there is a tight connection between suppliers and farmers, such as organic and traceable value chains, also are likely a more feasible entry point for MDF to convince firms to deepen their extension work. Another avenue for MDF is to explore digital extension so that firms and farmers can enjoy the benefits of better extension but with less investment and management costs.



MDF's monitoring is a key service to partners and critical to intervention success

MDF often uses the findings from its routine monitoring to adapt the workings of interventions. This is an ongoing process over the intervention life cycle. However, due to intermittent lockdowns, MDF's schedule of timely monitoring and adaptation was disrupted.

A high value agriculture intervention was designed to help an agri-exporter build its collectors' capacity to function as a trainer of their extension officers, so that they might deliver important information to farmers. During an impact assessment, MDF found that the system was working much better for one collector than for the others. Typically, issues of this nature are identified and investigated during more routine monitoring visits by the MDF team and discussed with the partner to adjust the design of activities or divert more resources towards a particularly challenging area. Since MDF's fast-learning cycle was disrupted, the team was not able to provide this insight to the partner in a timely manner. This ultimately affected the success of the intervention and resulted in unrealised value for the partner. Monitoring of interventions at different stages is a key service that MDF provides to partners, and it is a critical activity to ensure the quality of all interventions



COVID-19 Recovery Story

Navigating unchartered waters

Supporting a holistic recovery for Sri Lanka Tourism

Pristine coastlines, incredible wildlife and a vibrant culture are some of the unique offerings that keep Sri Lanka at the top of traveller wish-lists. Before COVID-19, tourism was a driving force of economic prosperity and employed close to 200,000 workers directly and some 200,000 workers indirectly in the country. An estimated 80 per cent of industry staff lost work due to the pandemic. Tourism destinations globally recorded one billion fewer international arrivals in 2020 than in 2019; Sri Lanka suffered a similar fate. Nevertheless, tourism remains essential to moving beyond the pandemic.



By the end of 2021, Sri Lanka tourism showed positive signs of recovery. Between January and December 2021, international tourists arrivals increased 53 times over. How is Sri Lanka navigating the uncharted waters of the pandemic and staying afloat amid one of the biggest storms in recent history?

Four strategies have been key



Understanding
data



Transforming
promotion



Strengthening
industry
coordination



Building a
more inclusive
tourism

MDF worked with national stakeholders to support these factors and drive recovery.



Understanding insights



Data plays a vital role in the post COVID-19 tourism revival.

Ms. Dhammika Wijeyasinghe,
Director General, SLTDA.

In the uncharted territory that is the COVID-19 pandemic, understanding changes in traveller behaviour and tracking new trends and preferences is vital to map long-term sector recovery.

In 2021, MDF signed an MoU with Sri Lanka Tourism Development Authority (SLTDA) to transform the authority's research capabilities by implementing a five-year Research Roadmap that MDF helped develop in 2020. MDF supported this strategy, along with a year-long capacity building program, to help align the Authority's research activities with global best practices. Supported by MDF and the international tourism consultancy Twenty31, SLTDA published a revamped version of its Monthly Tourist Arrivals Report in August 2021, with improved, timely analysis and upgraded presentation of immigration data, international trends, and brand and consumer surveys.

MDF also supported market research on Sri Lanka's brand health and consumer behaviour insights. Based on a survey of 10,000 travel consumers across 10 key market segments, the SLTDA-MDF report, Sri Lanka's Competitive Brand Standing and Consumer Travel Perceptions to Drive Smart, Sustainable Tourism Recovery, provided decision-makers and businesses with valuable traveller insights to inform marketing and promotion.



Transforming promotion

The one surety about the post-COVID travel landscape is that competition will be fierce among destinations in their bid to attract visitors to recover lost revenue. Destinations will race to re-design existing offerings to appeal to emerging traveller segments, such as high value travellers, eco-conscious travellers and digital nomads. MDF worked with SLTDA to diversify tourism promotion and to connect the authority with Australian marketing, promotion, and experience development expertise.

In November 2021, MDF and SLTDA hosted a webinar, "Brand and Consumer Insights for Tourism Reopening in Sri Lanka," based on the MDF-supported brand health survey and targeting key tourism stakeholders. The findings indicate ideal consumer segments to target, products and experiences that would resonate well, and the means of connecting with these high-value segments.



As much as we want to say that Sri Lanka is a discounted destination appealing to the lower-end mass tourism market, I can tell you that the data here is not saying that. Sri Lanka appeals to that immersive learner, the authentic travel consumer that is looking for a travel experience.

Oliver Martin,
Partner, Twenty 31 Consulting Inc.



MDF also worked with the Sri Lanka Tourism Promotion Bureau (SLTPB) to negotiate and manage high-level initiatives and shift government focus to technology-based tourism for destination promotion. The collaboration led to MDF support on a wide range of initiatives. From assisting SLTPB to broadcast the Pereheras (a Buddhist parade of dancers, acrobats, singers and a variety of performers to pay homage to relics of the Buddha) and helping to promote Sri Lankan wildlife ('Couch Safaris'), MDF's support to the brand building process was a key driver of change for Sri Lanka tourism in 2021. The facility also helped revamp the SLTPB social media channels and assisted the development of the 'Hello Again' microsite, Sri Lanka's new consumer website designed in consultation with Australian expertise, to support the tourism application 'Visit Sri Lanka.'



Industry coordination

In any destination, the tourism industry relies heavily on the private sector, which is responsible for running most tourism establishments. Until recently, the Sri Lankan tourism industry was missing a cohesive voice and common platform. This has been the basis of MDF's work with Sri Lanka Tourism Alliance (SLTA), whose platform now has close to 1,700 such businesses.

In 2021, with strategic guidance from Australian tourism consultancy Droga & Co. and MDF, SLTA continued to lead and engage the business community to see the value of pursuing a renewed strategy for attracting high value tourists. Engaging over 500 businesses in the digital space and creating over 100,000 impressions on social media, SLTA's tourism conservation series focused on preserving Sri Lanka's natural resources that are directly linked to the survival of the tourism industry. With MDF and Australian support, SLTA also strengthened their consumer portal, lovesrilanka.org, and launched 'Love Sri Lanka Jobs,' Sri Lanka's first dedicated tourism employment portal.



Inclusion of the informal sector

No recovery is sustainable unless all stakeholders are included in the recovery process. Over 80 per cent of Sri Lanka's tourism workforce operate in the informal sector but they are crucial to the local hospitality industry. MDF worked with SLTDA to carry out a membership drive to help the informal sector gain access to government services and benefits.

The 'Register with SLTDA' video series featuring Sri Lankan cricket legend Kumar Sangakkara was developed to encourage registration, highlighting the benefits to business. As Sri Lanka re-opened for tourism, this served as an avenue to ensure that all stakeholders can share the benefits of tourism. Since its launch, close to 210 service providers have registered with the SLTDA. MDF will continue to support this initiative to encourage a shift towards a more inclusive and formalised industry, where smaller actors are better represented and served.



It has opened a golden door for anybody, any Sri Lankan who wishes to be recognised.

Riza Badurdeen,

Elephant Watch Hut on registering with SLTDA.

While there is a long way to go, Sri Lanka's holistic approach to recovery is on the right track. The island currently has an ambitious goal of recovering 1.1 million visitors in 2022. Through strategic support and working with key stakeholders, MDF will continue to collaborate with the Sri Lankan tourism industry to build the industry back better.



Click/scan these to access the files/sites.

lovesrilanka



Couch Safaris



Monthly Tourist Arrivals Report



SLTPB social media channels



'Register with SLTDA' video series



Webinar:
Brand and Consumer
Insights for Tourism
Reopening in
Sri Lanka



Pro-Poor Growth Story

Improving Productivity

The silver lining for Sri Lanka's organic farming industry



Piyarathne is a lead organic farmer in his town of Dambulla, located in the North of Matale District in Sri Lanka's Central Province. He grows organic moringa, lemongrass, passion fruit and marigold. Piyarathne is one of a small group of farmers in Sri Lanka who have transitioned to certified organic crops. As chemical fertiliser imports were restricted, this choice helped him maintain a stable income in a period of turbulent policy direction that shifted to fully organic agriculture.



I have been growing moringa for over 12 years and selling to a company (MDF partner English Tea Shop - ETS). I switched to organic five years ago.

Piyarathne

Organic agriculture is a fundamental pillar of biodynamic farming. If executed correctly, this practice can improve soil properties and if catered precisely to the target market, organic certifications can fetch higher prices for farmers. Sri Lanka's organic farming industry is nascent, largely targeting export spices and some tea. The industry accounted for less than 2.5 per cent of total agricultural land in 2021. Knowledge of organic farming techniques and best practice is not widespread, leading to high post-harvest losses. As a result, Sri Lanka's organic farming yields tend to be substandard compared to other countries. However, farmers like Piyarathne are changing the game. Piyarathne owns

seven acres of land, of which four acres are dedicated to organic cultivation. He also employs between two to four farm labourers at any given time, providing income opportunities for his community.

Organic agriculture was thrown into the spotlight in 2021, but MDF recognised the need for improved organic farming techniques as early as 2019, as a way of improving the farmgate productivity of MDF partner, English Tea Shop (ETS). ETS's organic certified farmer cluster, which included Piyarathne, were experiencing low productivity levels. This led MDF and ETS to develop a Training of Trainer (ToT) manual for farmers growing ginger, moringa, turmeric, cardamom, vanilla and lemongrass in the regions of Deniyaya, Beliatta and Matale, based on a gap analysis conducted in 2020 at all training locations. Building on the gap analysis, MDF and ETS proceeded to train farmer groups associated with all three ETS primary processors, along with extension officers, in 2021. The coaching sessions provided information on organic farming practices to reduce soil erosion, improve soil nutrition and biodiversity, pest management techniques, and advice on compost and liquid fertiliser production.

Not long after the training workshops, the government announced the decision to restrict the import of agro-chemicals in April 2021. This sudden announcement resulted in fertiliser shortages and steep price increases for both synthetic and organic agri-inputs. Farmers,

whose organic certification status depended on the procurement of quality fertiliser, suffered heavily. After much lobbying and protests, the import of agri-inputs was reinstated in late 2021. However, shortages persist.

Piyarathne received the MDF training from one of ETS' main processors, Maarji. He used the information from the workshop to start producing his own compost, liquid fertiliser and organic pesticide.



I have seen the process of making organic fertiliser before on television. Then, I attended the workshop, which taught me how to do it. I make 15kg [of fertiliser] from four different plant varieties. I ferment it and spray the fertiliser on the crops within three to four days of making it. It has really been successful.

Piyarathne.

Piyarathne admits, casually demonstrating his fertiliser making process to the MDF team. Piyarathne is now producing sufficient fertiliser and pesticide for his almost four acres of crop land at little to no cost.

Natural pest repellents are a key part of organic farming. Based on the recommendations of the workshops and Maarji on pest management techniques, Piyarathne grows marigold on his land as well. In addition to repelling harmful pest infestations, the plant is an additional source of income as MDF's partner purchases the flowers weekly.

With rising labour and organic input costs, farmers who engage in organic farming like Piyarathne seek low maintenance crops to diversify incomes. Strong organic

crops, such as marigold, moringa and lemongrass, have proven to be highly profitable additions, improving the resilience of farmer livelihoods.

For Piyarathne, he was able to successfully increase his knowledge of organic farming and holistic management practices, such as liquid fertiliser and pesticides, thanks to the information he learned during workshops. Paired with his existing knowledge and experience, this has led to increased yields and access to a new market via new crop additions.

Despite the trainings to improve farmgate productivity, MDF notes that not all farmers have been as proactive as Piyarathne. This was mainly due to COVID-19 restrictions disrupting the workshops. MDF expects to increase future uptake through more frequent follow-up trainings, local farmers taking a leadership role in the organic model roll-out and regular visits from extension officers, incentivised by ETS's primary processors. This will improve the productivity of existing organic farmlands, leading to higher incomes and making it a profitable farming model that could be replicated.

The transition to organic is difficult, not only for Sri Lankan farmers but globally. Nevertheless, positive results experienced by certified organic farmers, such as Piyarathne, shows that there is potential to generate stable organic farming livelihoods if proper training is delivered on optimal farming techniques. With MDF's intervention in its first year of monitoring, the team will continue to work with ETS and interested businesses to scale up the knowledge transfer from the workshops and increase organic farming productivity to benefit agribusinesses and Sri Lankan farming households.



I get LKR200/kg for marigold, while I only get LKR70/kg for moringa and lemongrass. I can sell 10-15kg of marigold a week to the company [Maarji]. I didn't have many marigold plants last year. I planted about 10,000-15,000 marigold trees this year.

Piyarathne,
Lead organic farmer

Acknowledgements

MDF Sri Lanka would like to thank the following organisations and individuals for their support and collaboration in 2021.

The Ceylon Chamber of Commerce	Mr. Julian Hawkins, Chief Executive Officer, VeriCatch
Department of Export Agriculture (DEA), Sri Lanka	Mr. Malik Fernando, Co-chair, Sri Lanka Tourism Alliance (SLTA)
Department of Fisheries and Aquatic Resources (DFAR), Sri Lanka	Mr. Matthew Strickland, Senior Market Engagement Manager, GSMA AgriTech Programme
DFAR, Jaffna and Mannar District Offices, Sri Lanka	Mr. Muditha Katuwawala, Coordinator, The Pearl Protectors
Dialog Axiata PLC	Mr. Nilushana Sooriyaarachchi, SAPP
Dr. Ananda Subasinghe, Director, Department of Export Agriculture (DEA), Sri Lanka	Mr. Nishan Perera, Marine Biologist and Co-founder Blue Resources Trust
Dr. Anojan Selvarathnam, Colombo Chamber of Commerce	Mr. Nisthar Cassim, Editor, Daily Financial Times, Wijeya Newspapers Ltd.
Dr. A. P. Heenkende, Director General, DEA, Sri Lanka	Mr. Revan Fernando, Tropic Fishery Private Limited
Dr. Steve Creech, Coordinator, Fishery Improvement Project	Mr. Rizvi Zaheed, Vidul Lanka PVT Ltd.
Dr. Yasantha Mapatuna, Small Agribusiness Partnerships Programme (SAPP)	Mr. Rohan Fernando, Managing Director, Aitken Spence Plantation Management PLC
Executive Committee, Lanka Coffee Association	Mr. Timothy O'Reilly, Taprobane Seafoods
Sri Lanka Export Development Board	Mr. Wicky Wickramathunga, AgriWorld PVT Ltd.
International Labour Organization, Local Empowerment through Economic Development Programme (LEED)	Ms. Dhammika Wijesinghe, Director General, Sri Lanka Tourism Development Authority (SLTDA)
International Water Management Institute	Ms. Kimarli Fernando, Chairperson, SLTDA
Ministry of Agriculture, Sri Lanka	Ms. Madubhani Perera, Acting Managing Director, Sri Lanka Tourism Promotion Bureau (SLTPB)
Ministry of Tourism, Sri Lanka	Ms. Shea Wickramasinghe, Group Managing Director, CBL Group
Mr. Andrew Hetzel, Coffee and Specialty Crops	Ms. Shiromal Cooray, Co-chair, SLTA
Mr. Charitha Subasinghe, President of Retail, John Keells Holdings PLC	Ms. Tharanga Rupasinghe, Director, Standards and Quality Assurance, SLTDA
Mr. David Ablett, Team Leader, Skills for Inclusive Growth	National Aquaculture Development Authority
Mr. Dilhan Fernando, CEO, Dilmah Ceylon Tea Company PLC	Dr. Charitha Pattiaratchi, Professor of Coastal Oceanography, University of Western Australia
Mr. Hiran Cooray, Chairman, Jetwing Symphony PLC	Sri Lanka Tourism Development Authority
Mr. Jayantha Wijeratne, Chairman, National Aquaculture Development Authority (NAQDA)	Sri Lanka Tourism Promotion Bureau
Mr. Jeewan Gnanam, Hatch Works	Tourism Advisory Group, SLTA

MDF would also like to extend its thanks to all its partners in Sri Lanka, without whom the team's achievements would not have been possible.





Quick
Facts

Timor-Leste

Population

1.3
million



Population
growth rate

1.9%

Labour force participation rate



Official languages



Working language



GDP (USD)

1.9
billion



Key GDP contribution sectors



Key focus areas

Agriculture

To meet domestic and export agricultural demand, MDF supports increasing production and improving processing in the following industries: coffee, pigs, cattle, konjac, freshwater aquaculture, early-stage export commodities (cocoa, coconut and seaweed) and agriculture inputs.

Crops

Around **two-thirds** of Timorese household incomes depend on agriculture.

Approximately **78%** of poor households engage in farming.

COVID-19 and natural disasters have negatively impacted the local agriculture sector.

Since Fall Army Worm was reported in Timor-Leste in March 2020, **33%** of maize crops have been infected by the invasive pest.

Pigs

82% of rural households raise pigs.

Since the African Swine Fever outbreak in 2019, more than 100,000 pigs have died from the disease.

Tourism

If Timor-Leste is marketed as an attractive tourist destination and develops tour products and services, the tourism sector can grow. MDF partner collaborations work to improve policy discussions and coordination between the private and public sectors.

Before COVID-19, the tourism sector accounted for 0.5% of GDP and employed approximately 5,000 people, of which 68% were women

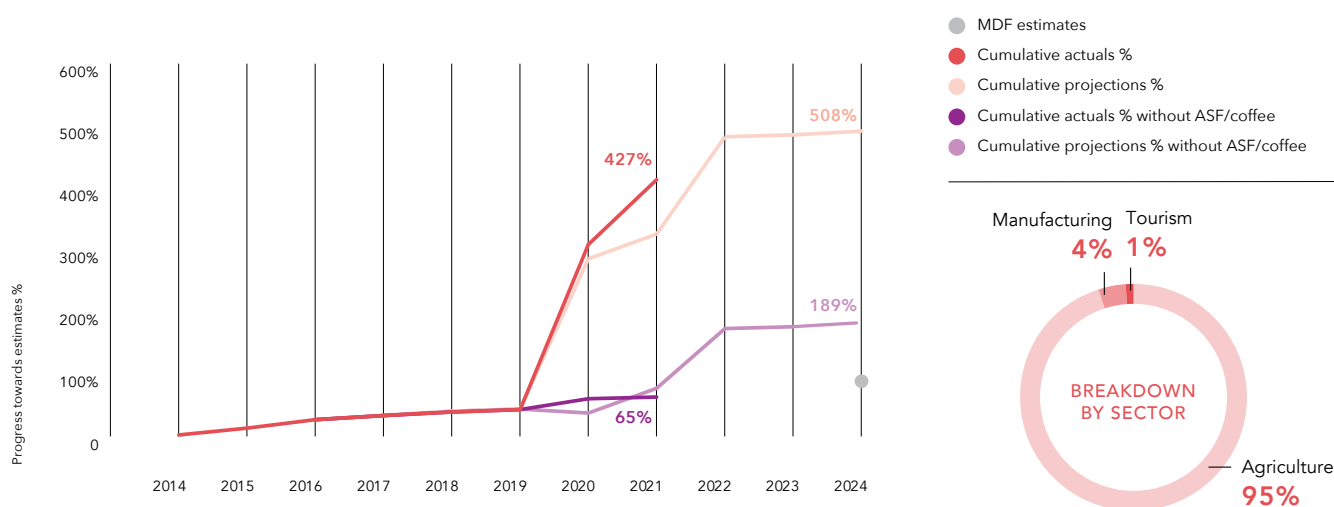
The pandemic caused an 80-90% decline in the tourism and hospitality sector.

Timor-Leste remained closed to international arrivals throughout 2021.

40% of the total population is fully vaccinated.

Highlights

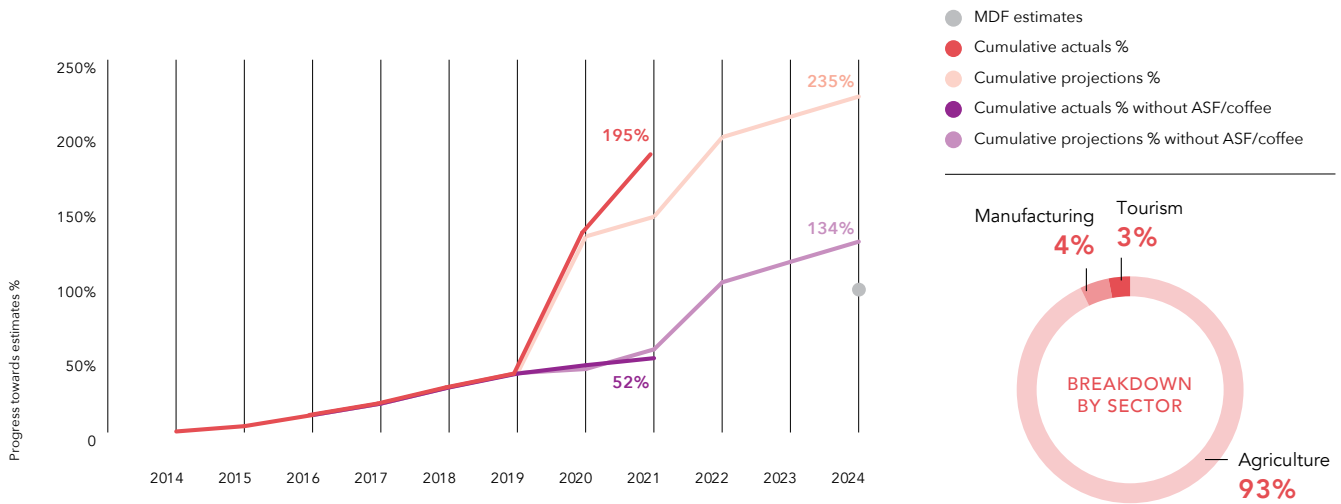
Effective outreach



A significant increase in outreach, with a 49 per cent share of female beneficiaries

- MDF's work benefitted an additional 20,500 people in 2021, increasing total outreach to 96,400 people and exceeding the End of Program Outcome (estimate) of 19,000. The nationwide African Swine Fever (ASF) communication campaign accounts for approximately 80 per cent of total outreach.
- In 2021, while interventions in ASF accounted for most additional outreach, work in coffee and agri-inputs continued to reach existing and new farmers, benefitting 340 more people over the year. Interventions in agriculture also helped create full-time and season jobs for 156 people (53 women). The outreach number is a conservative estimate that does not count beneficiaries from previous years and discounts beneficiaries who are involved in multiple interventions. Even without ASF, MDF would be well positioned to exceed the estimates by the end of 2022.
- The results growth has been steady and significant in Timor-Leste. However, in addition to quantifiable benefits, several qualitative benefits, including improved well-being, have been observed. Additional employment has been generated in fruit, coconuts, and coffee interventions, and beneficiaries have shared the importance of their employment, which has provided much needed household income during the economic downturn caused by COVID-19 and flooding. Furthermore, the continuation of coffee procurement and export due to MDF interventions provided the target group with additional income, reducing the burden on their household expenses.

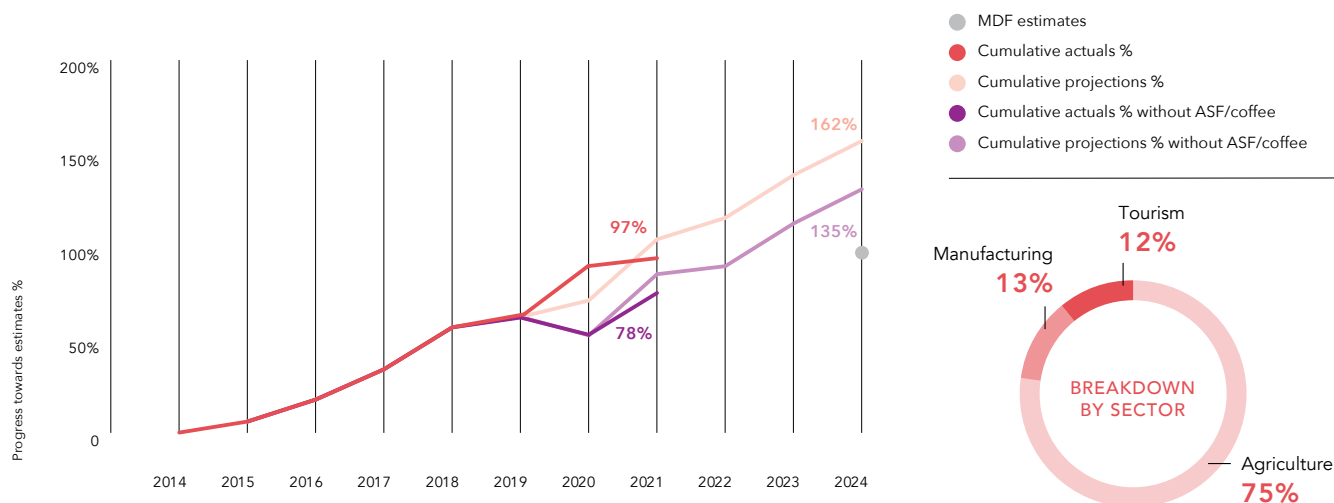
Net additional income



Fewer pig deaths led to less uncertainty and farmers could start saving again

- Net additional income increased to USD10.7 million (AUD15 million), exceeding the estimate of USD5.5 million (AUD7.8 million). This reflects an increase of USD3 million (AUD4.2 million), or 28 per cent, from 2020. Based on conservative calculations, the ASF communication campaign provided an income benefit of USD2.7 million (AUD3.8 million) as farmers avoided losses. Understanding the cultural importance of pigs in Timor-Leste, the impact goes beyond additional income. Many beneficiaries reflected on the crucial stability each sustained pig provides, both in terms of general household savings as well as the ability to invest in family matters, such as weddings and funerals.
- Virgin coconut oil, coffee, fruit and cocoa interventions also contributed to income generation. Even without ASF and the coffee industry, MDF interventions created additional income of over USD270,000 (AUD) and is expected to achieve estimates by 2022. This money provides farming households with cash for household expenses, including food, education and health.

Value of additional market transactions



Despite floods and pandemic, the private sector shows modest growth

- MDF interventions led to a modest increase of USD282,000 (AUD376,000) in the value of additional market transactions (VAMT). In total, MDF has increased VAMT to USD6.2 million (AUD8.7 million) which is approaching the estimate of USD6.4 million (AUD9 million). The growth in VAMT in 2021 is lower than the growth in outreach and income. One of the main reasons is that majority of the pig farmers, who saved prevented pig deaths due to MDF interventions, have not sold pigs and hence market transactions are not yet materialised. People are still transacting, albeit at a slower pace. Moreover, while interventions in coffee, coconuts and inputs generated additional VAMT in 2021, sales in aquaculture and konjac did not materialise as planned, resulting in lower-than-expected VAMT growth in 2021.
- MDF expects ongoing interventions in konjac, coffee rehabilitation, pig feeding and pig breeding to provide a substantial boost to VAMT uplift over the next couple of years.

The Results Story

Private sector investment leveraged:

1.48m

MDF investment (USD)

4.18m

Private sector investment (USD)

4.9m

Estimate (USD)

1:2.82

Ratio of MDF to private sector investment

1%

Investment came through private sector crowd-in

Despite COVID-19 challenges and travel restrictions, MDF conducted monitoring for nearly all active interventions. In addition to fieldwork, the team also utilised remote data collection tools including telephone interviews and online surveys. Annual results show excellent progress against End of Program Outcomes (estimates). MDF has already exceeded nearly all estimates while projections show a healthy trajectory.

In 2021, MDF interventions emphasising coffee quality continued to produce impact, with 181 farmers benefitting from two wet mills constructed in 2020 and seven processing facilities (wet mills and pulping stations) established by three partners in 2021. These wet mills will begin operating for the 2022 harvest. Following local travel restrictions, MDF facilitated an in-country flight for a coffee partner that allowed them to start working closely with a new group of farmers and provide continuous support throughout the coffee season. The partner confirmed that this enabled them to buy coffee from Timor-Leste, whereas otherwise they would not have been able to. MDF supported farmer trainings with partner KARST and assessment results showed that farmers were selling to KARST as they paid higher prices for the higher quality coffee. Farmers also reported a significant reduction in their time spent pulping coffee manually after KARST established a wet mill with MDF support. The farmers used the time saved to do more selective picking and sell additional volumes of superior-quality coffee cherry to KARST.

African Swine Fever (ASF) continued to threaten the pigs market system. However, Timorese smallholder remained committed to the pig business, indicating the market system's potential for growth. Demand for piglets to re-stock herds devastated by ASF had several farmers and businesses entering the breeding business. MDF also found that some farmers without pigs had invested in upgrading farms and building pens, anticipating buying piglets in the near future. MDF's ASF awareness campaign with the Ministry of Agriculture and Fisheries continued to be effective in reducing pig deaths. There are nascent signs that the pig system will expand significantly. Farmers and input retailers are showing increased interest in pigs, expanding into commercial pig feed and breeding. This makes for a positive market outlook for 2022 and beyond.

MDF maintained its strong record on inclusivity. The portfolio's share of female beneficiaries was 50 per cent for 2021. Furthermore, starting in 2021, all MDF surveys now contain questions on disability, guided by the Washington Group Short Set. Field assessments in 2021 found that 23 people with disabilities had benefitted from MDF's interventions. However, continued effort is needed to better incorporate disability inclusion into intervention design.

MDF supported partner KARST to use solar panels to run its pulping machine and power lamps to allow workers to do coffee bean sorting at night. For Karst, using solar panels is particularly useful in areas outside Dili, where electricity is not available or unreliable. MDF also supported a coffee company to establish a nursery to produce seedlings for fruit trees and shade trees, which are expected to increase farm biodiversity and mitigate the impact of adverse weather, such as winds and floods.

The Annual Investment Monitoring Report continues to award high marks to MDF. MDF earned a top score (5) in all categories except Disability Q1 where it received a 4.

Overview of Portfolio and Progress in 2021

COVID-19 continued to be the defining issue for MDF Timor-Leste in 2021. As a small island nation heavily dependent on the import and transport of goods, services and people, pandemic-related disruptions had an outsized effect on the economy. The government's response, including a rapid vaccination campaign reaching 71 per cent of the population, restricted the impact on people's health. However, economic fallout was severe. The World Bank predicts the country will experience a non-oil GDP growth rate of only 1.6 per cent in 2021, following an eight per cent decline in 2020.



MDF's partners dealt with manifold challenges throughout the year. Economic instability and uncertainty dampened investment. Local and international travel restrictions, in place since 2020, continued to curtail the movement of people. Tourism, a small but strategic sector, has been on hold, prompting many businesses to close or reduce operations. Supply chain difficulties increased costs and caused delays, hindering business operations across sectors. Nearly all MDF interventions were affected in some way.

MDF and its partners persevered by adapting and capitalising on emerging opportunities. In tourism, partners set the scene for an early-stage recovery by preparing marketing material and exploring new dive sites that could add to the marine tourism product portfolio. In agriculture, interventions in the pig sector helped to safely repopulate herds after the devastation of African Swine Fever (ASF) in 2020. In the coffee sector, high commodity prices encouraged partners and farmers to make further investments in high-quality processing and rehabilitation activities.

The diversity of the Timor-Leste portfolio supported a flexible response to the turbulent economic conditions. With a wide network of partners across a range of market systems, MDF was able to step in with additional interventions in some areas – the pig sector, for example – while slowing down in others until conditions improved,

such as the konjac sector, due to trade disruptions. Market system strategies continued to guide MDF investments while allowing for flexibility to take advantage of opportunities as they arose. Strategies were regularly updated in response to market changes.

Behind the COVID-19 crisis, Timor-Leste's economy still has deep, structural issues. The country has made tremendous strides since independence but diversification is needed to offset the reliance on natural resources. Government revenue is declining while budgets are increasing. Heavily reliant on imports, global inflationary pressures loom on the horizon. With revenue from natural resources steadily decreasing, the urgency to diversify and grow the economy is intensifying.

MDF continues to be highly relevant for Timor-Leste and its COVID-19 recovery. The facility also supports DFAT's Partnership for Recovery framework through its work on trade and food security. Activities in 2021 aligned with the government's economic growth, diversification and sectoral priorities (i.e. agriculture, tourism and manufacturing), outlined in the Timor-Leste Strategic Development Plan 2011-2030. The program sits squarely within the Economic Recovery Plan's second stage, "recovery with transformation." As a market-driven program, MDF is uniquely positioned to support Timor-Leste as this critical juncture.



The impact of COVID-19 in Timor-Leste

Timor-Leste did not experience its first wave of COVID-19 until February 2021. Reported numbers remained relatively low, recording 122 deaths since the start of the pandemic, as of end-2021.

Like most countries, Timor-Leste's COVID-19 restrictions have varied over time. The government initiated a State of Emergency in 2020 which lasted until November 2021. Restrictions were placed on domestic movements, gatherings and business operations. At the time of writing this report, prohibitions on international travel (except for select charter flights), introduced in early 2020, remain in place.

The economic impact of these restrictions, combined with global supply chain disruptions, has been significant. The tourism sector has been decimated. Agriculture, which employs about three-quarters of the population, experienced market disruptions due to travel and transport limitations as well as chaos in the global supply chain. Vulnerable households were the hardest hit.

Nevertheless, Timor-Leste has coped with these immense challenges and its people have demonstrated remarkable resilience. Close to 90 per cent of people who lost a job due to COVID-19 were reemployed by March 2021. Household incomes have been nearly restored to pre-pandemic levels. Despite uncertainty concerning new variants of the virus, there is a sense of optimism heading into 2022.

The Timor-Leste Government's response has mitigated the health impact of the pandemic. A rapid vaccination campaign, supported by the international community, has reached 71 per cent of the population with at least one dose. The Cesta Basica (Food Basket) initiative provided USD50 (AUD70) worth of food items to every adult in late 2020 and early 2021. This program also helped stimulate local agriculture, as many of the provided items were produced in Timor-Leste.

Many sector-specific challenges were caused by COVID-19. International travel, which has been prohibited since 2020, has curtailed tourism. The cost of importing agriculture inputs has increased—by up to 500 per cent in some cases. International investors and experts have been unable to visit, slowing progress on new ventures. MDF will continue to address these issues through responsive and flexible interventions.

While COVID-19 has had a serious impact in Timor-Leste, it would be wise to not lose sight of other fundamental challenges. Timor-Leste remains vulnerable to shocks, such as the debilitating floods of April 2021, and diseases that threaten agricultural livelihoods, such as African Swine Fever and Fall Army Worm. Stresses, including nutritional deficiencies and political instability, remain. MDF therefore continues to pursue the long-term goal of economic growth and diversification, beyond the immediate challenges of COVID-19.

Country Strategy and Sector Selection



Country strategy

In the 20 years since its independence, Timor-Leste has been transformed. It began its sovereign existence with few institutions, limited infrastructure and the trauma of long-running conflict. Yet, in less than a generation, Timor-Leste has reduced its poverty rates, improved security, increased school attendance and invested heavily in infrastructure.

To fund these developments, Timor-Leste has relied on the economic rents of natural resource extractions. Rents from natural resources account for most of the government's revenue and approximately 45 per cent of GDP. Government spending on infrastructure, public sector wages and social transfer programs has driven economic growth. However, oil revenues are declining so the government's reliance on natural resources receipts is not viable as a long-term economic strategy.

Economic diversification is vital to sustainably increase living standards. Employment opportunities will need to grow to meet the 'youth bulge,' as 37 per cent of the working age population is between 15 and 24. This young, energetic workforce has the potential to drive economic recovery. The COVID-19 pandemic has further strained the economy while also drawing attention away from structural issues. Economic transformation requires a shift away from government-driven initiatives towards a more vibrant private sector.

To support economic diversification and a larger, more active private sector, MDF's approach in Timor-Leste includes:

1. Working across a variety of economic sectors while strongly focusing on agriculture, where most of the population earn their living
2. Building upon existing business activity as well as driving the start-up of new industries
3. Prioritising collaboration with the private sector and seeking opportunities to improve business and human capacity within firms.

The business and economic impacts of COVID-19 are still evolving in Timor-Leste. In 2020, MDF adjusted its Country Strategy but did not stray from the key principles of its existing plans. This modification reconfigured the balance of internal resources devoted to priority sectors (agriculture, tourism and manufacturing) and adjusted strategies within most market systems and interventions. MDF has continued to position itself in a way that supports economic stability and recovery, in line with the priorities outlined by the Australian and Timor-Leste governments.



Sector selection and rationale

Most commentators suggest, and the Government of Timor-Leste's strategic plan mandates, that economic development should focus on agriculture, tourism and manufacturing. In 2021, MDF's portfolio continued to align with these three priority sectors. The pandemic severely limited tourism, and agriculture became even more important because of its links to food security, as an absorber of labour and because of the distribution of food through the Cesta Basica initiative. Accordingly, MDF focused largely on interventions in the agriculture sector in 2021, complemented by relatively smaller contributions in manufacturing and tourism.



Agriculture

Around three-quarters of Timorese households are involved in agriculture. Most practise subsistence farming, largely producing food crops for personal consumption. The agriculture sector presents opportunities to achieve MDF's goal of increased income and employment in Timor-Leste. Agriculture accounts for nearly 90 per cent of the country's non-oil exports and there is scope to increase productivity.

In 2021, MDF invested most of its resources into the agriculture sector, as 17 of the 23 new interventions were dedicated to that area. Priority market systems included: agriculture inputs, aquaculture, cocoa, coffee, konjac, pigs and virgin coconut oil. There was also work completed on mitigating disease and evaluating the cattle, chicken and spice market systems. For each of these work areas, MDF's strategy focused on key opportunities and constraints. Aside from coffee and inputs, MDF has been active in these agricultural market systems only since 2019 or 2020, which means that the bulk of the current work in agriculture is at the 'emerging' end of the spectrum.

COVID-19 had an impact on the entire agriculture intervention portfolio, usually taking the form of delays to partner investments or activities. In some cases, these postponements were prolonged and had significant repercussions on interventions. In other cases, delays were more temporary or were less serious. Disruptions to international travel and trade continue to hamper the sector, including to the import of inputs, export of commodities and access to international investors, partners, certifiers and experts. On the positive side, there is anecdotal evidence that these challenges may lead to new agricultural investments as Timorese businesses experiment with new operations as they could no longer rely on external products or expertise.



Tourism

Timor-Leste's tourism sector accounts for only 0.5 per cent of GDP but it has the potential to make a significant contribution to economic development. In 2017, Timor-Leste welcomed 11,000 tourists, mainly from Australia (46 per cent) and Indonesia (24 per cent).

Much needs to happen to encourage tourism sector growth and little public investment has been made to date. The tourism private sector is small, fragmented and has limited capacity. Challenges in the tourism sector are complex and many are beyond the scope of MDF, such as air connectivity, the US dollar economy and infrastructure. MDF therefore focuses on market systems and functions that present plausible opportunities to unlock growth.

Since 2020, MDF has paused most of its work on tourism, as strict travel restrictions posed an insurmountable obstacle. In 2021, MDF and its partners prepared for the early stages of post-pandemic recovery by focusing on demand creation, particularly through destination marketing and marine tourism product development.



Climate change

Climate change is a growing threat to Timor-Leste. Limited attention has been given to the issue due to the pressing economic agenda of developing a non-oil economy and addressing other structural challenges. There is a paucity of country-level climate data, although the creation of a National Adaptation Plan in 2020 has been a positive development.

The country faces a high risk of climate-related events, such as cyclones, droughts, floods, landslides and soil erosion. Modelling suggests that climate change will exacerbate the risk as rainfall becomes more erratic and ocean temperatures rise, increasing the frequency and speed of storms.

A combination of political, geographic and social factors make Timor-Leste particularly vulnerable to these changes. The country has always struggled with unpredictable weather patterns and the reliance on rainfall-fed, low-input agriculture leaves the sector exposed to risk. The agriculture sector employs three-quarters of the population, many of who live near or below the poverty line. The ability to cope with these changes are low due the limited knowledge of modern production methods and the extremely low use of inputs.

Although MDF did not have explicit climate change-related objectives in the past, changing weather patterns and natural disasters were often identified as risks to specific market systems and interventions. Thorough safeguards and risk assessment checks are conducted before signing any partner agreement. As of 2021, an assessment of climate change risks and possible mitigating actions have been incorporated in these checks. Risks and mitigating actions are included in each intervention's monitoring documentation, so they can be followed up throughout implementation. During 2021, the team worked to identify salient climate-related risks and understand how MDF could, if necessary, support partners to invest in adaptation and/or mitigation measures.

All agriculture and tourism interventions are impacted, in various degrees, by the interconnected nature of climate change. For example, rising temperatures will reduce the yields of specialty coffee, which prefer high altitude, temperate conditions. Severe weather events, such as droughts and floods, can destroy crops for food and animal feed. Timor-Leste's tourism sector relies on delicate marine ecosystems to attract visitors. The foundation of the biodiverse underwater environment depends on corals, which are susceptible to bleaching caused by warmer sea temperatures.

Looking ahead, the MDF Timor-Leste country team, with leadership from the facility-wide team, will continue to incorporate climate change and disaster resilience as a central part of the theory of change. An environmental aspect will be included in the interventions where feasible opportunities are identified. MDF will focus on climate change adaptation, underpinned by a compelling business case, which is essential to ensure sustainability.



Coffee tree rehabilitation and climate change adaptation



When Cyclone Seroja hit Timor-Leste on 4 April 2021, it devastated the small island nation and coffee farmers were among those affected. With a maximum wind speed of 130 km/h, the cyclone felled the coffee trees in its path, particularly the taller and older ones. A cyclone wreaking havoc in the country is a rare occurrence but likely to become more common, as climate change is expected to exacerbate extreme weather. Coffee is particularly vulnerable to global warming, as coffee trees grow best in cooler temperatures and as global temperatures gradually rise, the areas suitable for coffee farming are expected to decrease by up to 50 per cent by 2050.

As Timor-Leste's top agricultural export, coffee is an important commodity that provides livelihoods for 75,000 households. However, the Timorese crop has some of the lowest yields in the world, at an average 195 kg/ha of green beans, compared with the global average of 2,000 kg/ha. MDF has identified that productivity can be improved by rehabilitation, that is, by stumping and pruning trees. This practice will lead to more, higher quality cherries and shorter trees for easier, selective cherry picking.

Coffee tree rehabilitation has other benefits as well. It is a climate change adaptation measure for coffee farmers. Shorter trees are less vulnerable to strong winds and use water and sunlight more effectively. Coffee trees that are correctly stumped and pruned also provide space for intercropping with other trees that can act as windbreakers and protect the coffee trees from intense sunlight and high temperature. A crop that is more climate-adaptive and resilient will provide farmers with better yields, and more stable incomes.

MDF, working with industry partners, created Timor-Leste's first report on coffee rehabilitation, *Rehabilitation of Coffee Trees in Timor-Leste*. The report aggregates information on rehabilitation in the context of Timor-Leste and proposes best practices. It is a public document that all coffee stakeholders can access and use to make effective investments. Further information on the report can be found in the Coffee Market System section in this country chapter.

MDF's work in coffee rehabilitation includes supporting coffee businesses to establish nurseries to grow coffee seedlings, as well as non-coffee seedlings that can serve as intercropped trees. With MDF support, Café Brisa Serena, the country's first specialty coffee exporter, is expanding its rehabilitation work and plans to plant an additional 5,832 casuarina trees in early 2022, intercropped with its coffee trees. These trees are estimated to offset 243,194 tonnes of CO₂ and act as windbreakers and shade trees to reduce the impact of adverse weather on the coffee trees. Mara Mresa Café, another major specialty coffee exporter, is also considering implementing intercropping with MDF support.







Early Signs of Systemic Change

Recovery and resilience

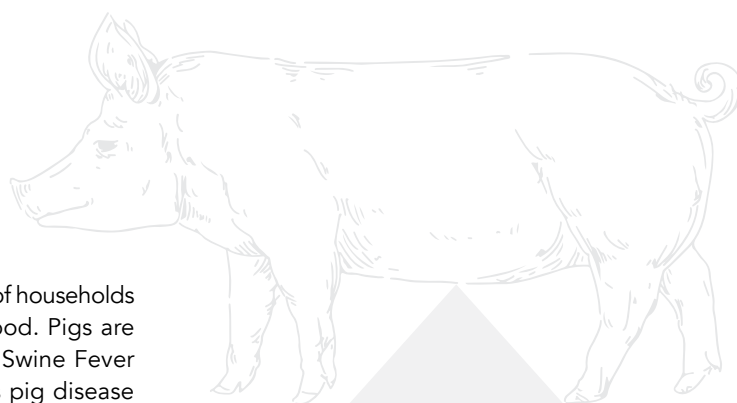
Changing Timor-Leste's pig market system

Pigs are vitally important to Timorese farmers - 80 per cent of households own pigs. They are a source of savings, income, and food. Pigs are also used in cultural ceremonies. The arrival of African Swine Fever (ASF) threatened all of this. (ASF is a highly contagious pig disease first detected in Timor-Leste in September 2019 that has since killed close to 25 per cent of the national herd. The fatality rate is high and there is no treatment or vaccine currently available.

Building awareness among pig farmers about the disease, its potential impact and prevention is vital. In early 2020, in partnership with the Timorese Ministry of Agriculture and Fisheries (MAF), MDF supported the design of a communications campaign for this purpose. Utilising high quality reading material and video content, the innovative campaign was launched nationwide in July 2020. The objective was to build awareness about ASF and encourage improved biosecurity practices to reduce pig deaths. The intervention was highly effective in changing farmer behaviour, with MDF estimating that over 200,000 farmers received information from the ASF campaign through various channels, which improved the capacity of 64,000 farming adults to prevent disease in livestock.

Even before the arrival of ASF, Timor-Leste's pig sector faced challenges. Farmers had limited access to improved breeds and implemented only basic rearing practices. Pig supply was low. Farmers could not find pigs and butchers could not purchase the animals for slaughter. With devastating effects, ASF exacerbated the existing issues while adding an urgent need for enhanced biosecurity.

MDF signed multiple interventions in 2020 and 2021 to address these challenges and opportunities. The main emphasis was to improve the availability of commercial pig feed, promote more productive pig rearing practices and increase the availability of piglets in several districts through improved breeding operations. Combined, these interventions are now starting to show signs of accomplishing system-wide changes in Timor-Leste's pig sector, although much remains to be done.



MDF systemic change pathway

Resilient
and scaled
system-wide
impact
(Respond)

Sustained
functional
impact at
scale
(Expand)

Sustained
small-scale
functional
change
(Adopt → Adapt)

Adopt/Adapt

MDF's assessments have identified increased adoption of commercial pig feed by farmers, with two input partners recording over USD31,000 (AUD43,000) in turnover from pig feed sales. Farmers are also adopting the better husbandry practices advocated by the MDF-MAF awareness drive, including building pig pens, regularly cleaning the pens, barring people from entering the pens and stopping the feeding of meat scraps to the animals. To cater to the piglet shortage, more farmers have entered the pig breeding business, as MDF signed four new interventions in pig breeding in 2021.

Expand

There are encouraging early signs of farmers and agri-input retailers expanding into the pig feed and breed markets on the back of higher demand. Several demo-plot farmers supported by MDF have become, or have shown an interest in becoming, pig feed retailers. Similarly, seeing the market opportunity in the piglet shortage, several farmers and agri-input retailers supported by MDF interventions are exploring a move into pig breeding. However, many farmers have as yet only expressed an interest in shifting into the new areas and are likely to require support. Given the challenges posed by ASF and the limited information available among farmers concerning commercial models for pig breeding and feed, MDF may need to support these market actors until they can independently go forward with operations.

Examples of expansion include:

- Saknuka Unipessoal Lda: one of the demo-plots set up by MDF under Casa Agricultura. In 2021, Saknuka expanded into breeding pigs and sold more than 100 piglets in various municipalities.
- Tito dos Santos Costa: an MDF-supported demo plot farmer. Tito established his own commercial pig feed and breeding company, Maucali Metin Unipessoal Lda. MDF is supporting the business's expansion.
- Gregorio da Silva: an MDF-supported demo-plot farmer. Gregorio successfully expanded his farm from two pigs to more than 50 pigs. He has now expanded his operation to sell piglets and commercial feed and share information on ideal rearing practices with farmers.

Respond

There are a few nascent signs of other market actors in the system responding to MDF's innovations – MAF being key. MDF and MAF worked closely together on the various aspects of the ASF campaign, such as developing key messages, designing content and collaborating on media. While developing MAF capacity was not a priority, MDF has since observed positive changes in the Ministry's online platforms, in terms of both content and digital presence. This was particularly evident during the second collaboration with MAF on a communications campaign on Fall Army Worm, with MAF taking a proactive role in online engagement. With a second wave of ASF taking hold in late 2021, MAF has expressed interest in replicating MDF's biosecurity trainings and taking on a bigger role. MDF will build the capacity of MAF's extension officers to conduct the training themselves. Given MAF's vast scope of operation and authority, this change has the potential to result in better information-sharing in the agriculture sector, particularly on the topics of crop and livestock diseases.

Pigs are an important economic and social commodity in Timor-Leste. While the continued threat of ASF looms, there are positive signs of change on farms, in businesses and in government offices. MDF's interventions are expected to continue to benefit pig farmers in 2022 and beyond by reducing the spread of the virus, improving productivity and increasing the availability of piglets.



Sector

Agriculture





Sector on a page

Agriculture



77,213

Effective
outreach



USD

\$9,954,945

Additional income



USD

\$4,701,339

Value of additional
market transactions



50%

Female
participation



55

Interventions



VISION OF CHANGE

- Coffee quality continues to improve and Timor-Leste increasingly focuses on the specialty coffee market.
- Smallholder pig farmers improve productivity by using commercial pig feed, improved breeds and enhanced farming practices.
- Konjac is increasingly sourced through deliberate cultivation, rather than wild harvesting, enabled by increased seed availability and improved farmer knowledge.
- Improved information and access to inputs, such as fingerlings and feed, allow higher freshwater aquaculture productivity.
- Strengthening export opportunities of early-stage export commodities, such as Virgin Coconut Oil, Seaweed, and Cocoa.
- There is an increase in the amount of proactive agricultural input suppliers and retailers, particularly outside of Dili.



CONSTRAINTS

- Lack of access to agriculture inputs, such as seeds, fertiliser, pesticides and equipment.
- Limited knowledge and skills in productive farming techniques.
- Limited access and connections to domestic and export markets.
- Reduced availability of agri-inputs and technical experts due to transport and travel restrictions.

Fruit

- Agropro Corporation Lda
- WFour Unipessoal Lda



Agriculture inputs

- Vinod Patel Investments Timor S.A
- Saknuka Unipessoal Lda



Coffee

- Mara Mresa Café Lda
- Assosiasaun Café Timor-Leste (ACT) (rehabilitation, cupping training, cupping laboratory)
- Timor Global, Lda
- Café Brisa Serena Unipessoal Lda
- Raw Material
- Outspan Agrotimor Unipessoal Lda
- KARST Organics Lda
- and Timor Global Lda



Konjac

- Manu Fahi Lui Unipessoal Lda
- Esmelia Unipessoal Lda
- Ministry of Agriculture and Fisheries
- SGA Superior Construction & Trading, S.A
- Coffee companies (various)
- Seedling nurseries (various)



Aquaculture

- WorldFish/Nautetu Unipessoal Lda
- Manbari Catuq Unipessoal Lda
- Moredoc Unipessoal Lda



Pigs

- Casa Agricultor Unipessoal Lda
- Reyivita Unipessoal Lda
- RN AGRI Unipessoal Lda
- Ministry of Agriculture and Fisheries (African Swine Fever)
- oDedania Farm
- Maukali Metin Unipessoal Lda
- Hadomi Agricultor Timor-Leste (HATL)
- Mara Mresa Café Lda
- WFour



Cocoa

- Pods d'Amor Unipessoal Lda
- Pro-EMA
- Trainer (consultant)



Coconut

- LOSCO SS Lda (Los Palos Coconut Oil)
- HAFOTI

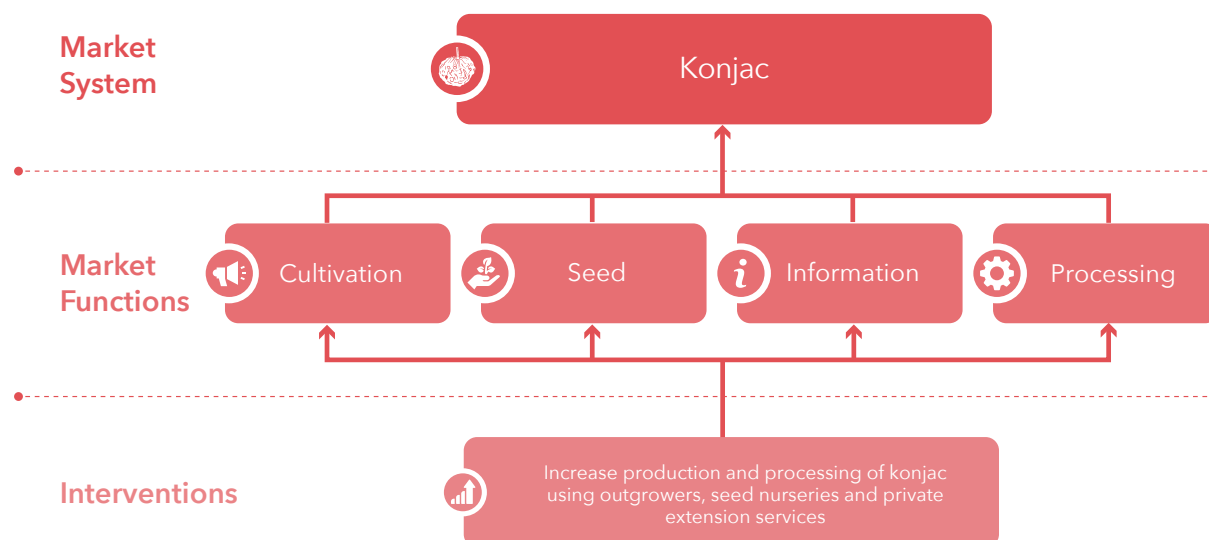


Others

- To'os ba Moris Di'ak (TOMAK)
- Ministry of Agriculture and Fisheries (Fall Army Worm)
- Coffee rehabilitation paper (internal)
- Commodities X-Change Lda.
- Peoples Trade Company, Unipessoal Lda.
- Bucoli Green

Market System 1

Konjac



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Emerging	Increasing the production and processing of konjac using outgrowers, seed nurseries and private extension services	COVID-19 caused delays in intervention activity but a Chinese ban on the import of Timorese konjac remained the biggest market system threat, resulting in limited 2021 results in the sector. Despite the ban, MDF's konjac interventions with coffee companies, started in 2020, showed some progress in 2021. More results are expected in 2022. MDF developed and aired an instructional video and konjac guide to draw attention to the potential for deliberate cultivation. The results from these activities will be monitored in 2022. Despite the challenges of COVID-19, trade restrictions, and declining wild stocks, interest in and the potential for konjac remains strong and MDF is optimistic about the market's long-term potential.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
901	71	USD985,000 AUD1,350,000	USD21,000 AUD29,000	USD1,436,000 AUD1,967,000	USD7,000 AUD10,000	USD15,000 AUD20,000	○ ● ○

Market on a Page



Konjac

Konjac is a hardy crop that grows wild in Timor-Leste.



There is international demand for this tuber with the processed konjac corm used for niche beauty and dietary products.



In recent years, konjac export became the second largest agriculture export after coffee.



Farmers are now aware that the plant has high income earning potential for rural Timorese households and some have started cultivating it. However, there is currently little to no understanding of konjac farming best practices and a lack of access to konjac seeds.



To support growth, MDF is working with local market actors to develop local sources of konjac seeds and share information on farming techniques.



Click/scan to watch MDF-MAF video on Konjac.

Market System 1

Konjac



Konjac is a new, export-focused industry for Timor-Leste. Growing demand, especially from China, is driving buyers to source from new locations, such as Timor-Leste. Konjac grows wild in the country and until recently, it had not been harvested except as an occasional livestock feed. MDF is interested in this market system because it offers an opportunity to build on one of Timor-Leste's few existing agricultural exports. In 2018, konjac was the second largest agricultural export after coffee. It is a complementary crop to coffee, requires few inputs, is relatively simple to cultivate and has the potential to generate business for many poor farmers, including women.

The novelty of the konjac sector offers an exciting opportunity to develop a new export good. However, there are several challenges. The supply continues to be a limiting factor and volumes are volatile as farmers switch from wild harvesting to deliberate cultivation. Buyers, of which there are few, enter and exit the market based on the supply swings, although high demand for the product in East Asia suggests demand will remain strong. Market linkages are still being developed and are not yet resilient to shocks.

MDF's vision for the konjac sector in Timor-Leste is to help the industry shift from wild harvesting to deliberate cultivation by smallholder farming households, thereby increasing supply reliability. To maximise incomes, MDF also wants to see the quality of processed konjac chips improve. To support this, MDF is working to make konjac seeds or seedlings available for purchase and helping farmers improve their knowledge about farming and processing techniques.

Trade disruptions continued to affect this market in 2021, particularly a Chinese import ban on Timorese konjac. In effect since 2020, the ban was triggered by a consignment of fungus-affected imported konjac from Timor-Leste. Some konjac exporters stockpiled konjac chips while waiting for the respective governments to resolve the issue. Other exporters continued to sell at lower prices to Indonesian and Thai buyers.

This market uncertainty led konjac buyers to scale back buying from farmers in 2021. As a result, many farmers postponed their harvest, waiting for market conditions to improve. This is unfortunate for smallholder farmer incomes but the situation is not catastrophic. Konjac can be left in the ground and harvested when prices improve. This market pause also gives wild stocks an opportunity to recover. While these challenges slowed industry momentum, MDF remains optimistic about the potential for konjac.

Market functions

The market system strategy for konjac targets four market functions:

Cultivation

MDF envisages a shift from wild harvesting to deliberate cultivation, especially due to the decline of wild stocks. This change should lead to increased productivity and higher volumes, prices and quality.

Seed

There are no dedicated konjac seed nurseries in Timor-Leste and the possibility of sourcing seeds from overseas is limited. MDF is seeking to change this situation by working to expand the supply of seeds available for cultivation.

Information

Since konjac has largely been wild harvested, information on cultivation is limited. MDF's strategy is to work with konjac buyers to create and grow business models that improve the provision of information to farmers.

Processing

Konjac is largely cut and dried on farms, which can lead to inconsistent drying and fungus growth. Whether through centralised processing or improved on-farm processing, ensuring consistent quality is critical for sector growth.

In 2021, MDF continued to implement three interventions in the Konjac market system. Most interventions touch on multiple market functions. COVID-19 and export constraints forestalled additional interventions.

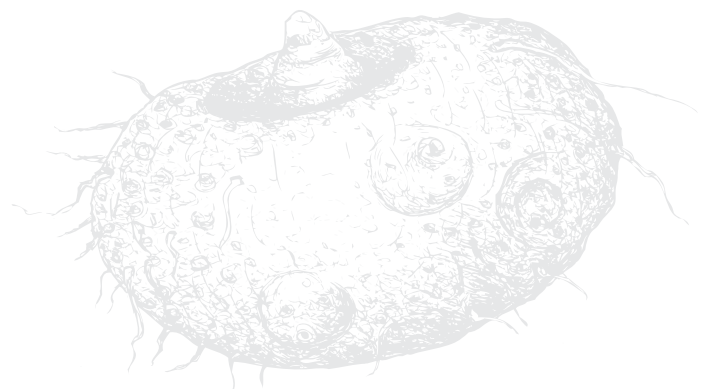
All three ongoing interventions focus on deliberate farming, using seeds. MDF has worked with two major konjac buyers to establish a new business model based on cultivation, seed nurseries, farmer groups and private extension services. Both partners slowed their purchase of konjac from farmers due to the Chinese import ban.

Despite this, demand for konjac seeds and seedlings continues to be strong, as farmers expect the market to recover by the time newly planted konjac is ready to be harvested, which will take up to three years.

MDF developed a video and a konjac growing guide to draw attention to the plant's farming potential. Launched with the Ministry of Agriculture and Forestry, the video and guide provide short and practical instructions on cultivation and processing. MDF typically embeds information into all its interventions and having this material is a major step forward for an industry that is essentially unknown. MDF also shared the material with other development partners working with farmers on konjac.

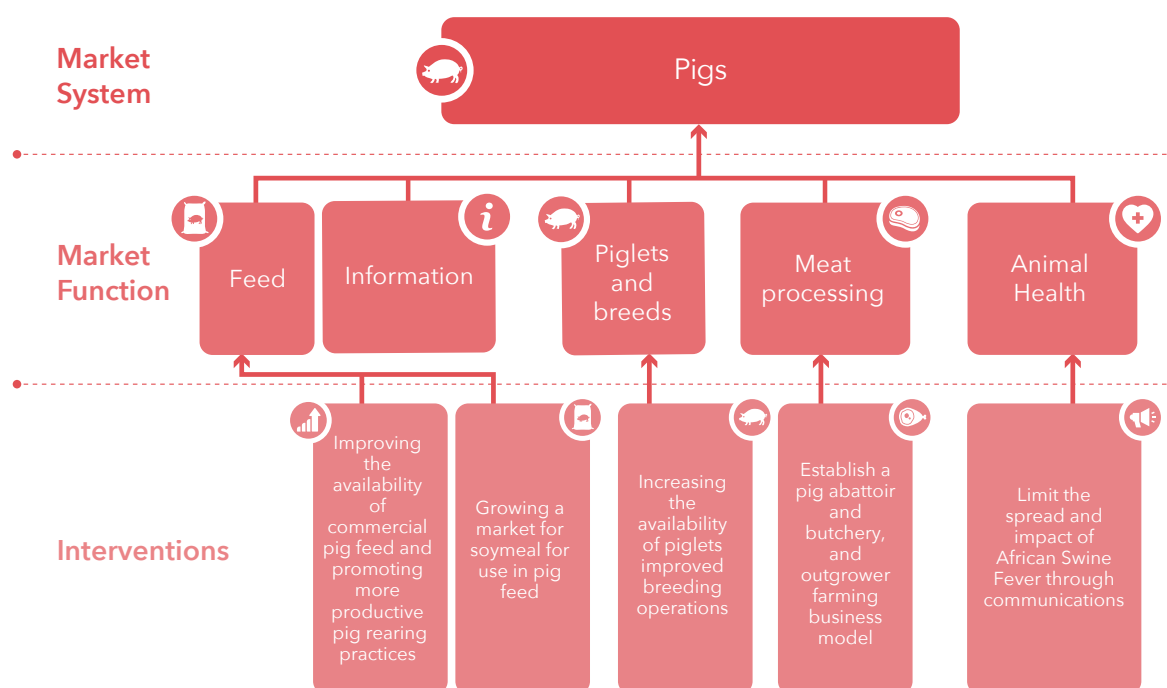
Low quality processing led to a fungal growth in a container of konjac shipped to China. This subsequently disrupted the market for companies selling to China – Timor-Leste's biggest buyer of konjac – and underscores the importance of improving processing to avoid future contamination issues. Other markets, such as Indonesia and Thailand, remain open but sellers are eager to reopen the Chinese trade corridor, which offers higher prices. MDF is coordinating with the Ministry of Agriculture and Fisheries, which is leading the resolution of this issue.

Despite the challenges of COVID-19, trade restrictions and declining wild stocks, interest in and the potential for konjac remains strong. Interventions slowed in 2021 but MDF is optimistic about the long-term potential of this new market. The Chinese import ban and scarce availability of seeds continue to be key constraints, which MDF aims to tackle in 2022.



Market System 2

Pigs



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	- Improving the availability of commercial pig feed and promoting more productive pig rearing practices - Growing a market for soymeal for use in pig feed - Increasing the availability of piglets in several districts through improved breeding operations - Establishing a pig abattoir and butchery, and an outgrower farming business model - Limiting the spread and impact of African Swine Fever (ASF) through a communications campaign	While COVID-19 has had some negative impacts on the pig sector, ASF remained the biggest threat, killing over 150,000 pigs as of 2021. Despite the challenges, Timorese smallholder farmers are committed to the pig business. The ASF communication campaign, in partnership with the Ministry of Agriculture and Fisheries, continues to be effective in reducing pig deaths, while several market actors supported by MDF interventions have started to adapt and respond to changes in the market. Farmers, input retailers and other businesses are showing increased interest in the pig market system despite the threat of ASF. The resilience shown by pig farmers in 2021 points toward a rosier market outlook than expected. MDF's interventions in 2020 and 2021 are expected to continue to benefit pig farmers throughout the monitoring period by minimising the spread of the virus, improving productivity and increasing the availability of piglets.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
64,844	64,679	USD7,893,000 AUD10,805,000	USD7,689,000 AUD10,526,000	USD1,077,000 AUD1,473,000	USD81,000 AUD108,000	USD91,000 AUD123,000	○ ● ●

Market on a Page

Pigs

Pigs are an important asset for Timorese households. They are traded informally in cultural ceremonies and act as a financial savings investment.



Pigs are currently reared using local forage techniques and fed home-made feed, practices which are time-consuming and costly.



Inefficiencies in these farming practices place a disproportionate burden on women, who are traditionally responsible for the livestock's welfare.



Systems for slaughter and butchery are insufficient to bring local meat into the formal supply system (e.g. supermarkets).



African Swine Fever (ASF) hit Timor-Leste in 2019 and has killed a significant proportion of the country's pig population, resulting in a low animal supply.



MDF is seeking to encourage improved pig rearing practice, commercial feed utilisation and the use of more productive breeds to help boost farmers' income.



Click/scan to watch instructional videos biosecurity and pig health, developed for the MDF-MAF African Swine Fever awareness campaign.

Market System 2

Pigs

Pigs are ubiquitous in Timor-Leste, raised by about 80 per cent of rural households. They are commonly reared to be used in cultural ceremonies, as a store of wealth and, less frequently, to earn a cash income. Yet the domestic price of pigs and piglets is very high and the country imports over USD2 million (AUD2.8 million) of pork annually. MDF works in the pig sector because the market system offers an opportunity to increase supply to meet rising demand, most farmers are familiar with the livestock and there is high potential to impact women's economic empowerment. The arrival of African Swine Fever (ASF) in late 2019 poses a threat but also creates a disruptive opportunity to modernise the sector.

While COVID-19 negatively impacted the pig sector, ASF has wreaked havoc. Although MDF interventions have helped farmers save a conservative estimate of 60,000 pigs, an estimated 150,000 pigs have died, as of 2021. Tens of thousands of smallholder farmers lost income streams and wealth stores. The price for pigs nearly doubled, climbing from USD3 per kg (AUD4.2) to USD5 per kg (AUD7). The uncertainty of continued outbreaks has dampened business investment. Meanwhile, transport restrictions due to COVID-19 have also disrupted trade and pig feed supply.

MDF's vision for the pig sector is to see more smallholder farmers shift to dedicated, more productive pig rearing, rather than the basic, foraging-based production

practised now. This would include incorporating pig pens, increasing access to healthy piglets and productive breeds, commercial feed and good animal husbandry. These practices not only improve productivity, but when combined with simple biosecurity measures, they can greatly reduce the chances of ASF infection. MDF also envisages incorporating some of these pigs into the formal meat supply chain, substituting frozen pork imports.

Despite the constant spectre of ASF, Timorese smallholder farmers are committed to the pig business. In an MDF survey, only two per cent of farmers indicated that they do not want to restock their pigs. Farmer interest is driven by pigs' cultural importance as well as economic factors — the prices for piglets and mature pigs were high in 2021. Higher prices are both a barrier, as some farmers cannot afford piglets, and an opportunity for farmers to invest.

The resilience shown by pig farmers in 2021 points toward a rosier market outlook than expected. The sector is showing signs of shifting from farmers seeing pigs as savings to seeing pigs as a business opportunity. Smallholders are beginning to purchase improved breeds, use better rearing and husbandry practices, and supply their pigs with nutritious feed. More entrepreneurial farmers are expanding their pig businesses beyond pre-ASF levels.



Market functions

MDF operates in four target market functions within the pigs market system:

Feed

Prior to the arrival of ASF, MDF found that insufficient availability and use of commercial pig feed represented the biggest constraint to productivity.

Information

Improved knowledge and practices about pig rearing are critical for enabling increasing productivity, as well as reducing the spread of ASF.

Piglets and breeds

The unavailability of 'improved' pig breeds is also a factor in current low productivity. This is closely linked with piglet availability.

Meat processing

More domestic processing would not only substitute imports but would also add value and drive up returns and incentives to invest across the value chain.

Animal health

The arrival of ASF has been devastating for many pig owners in Timor-Leste. Adoption of biosecurity practices and veterinary services are crucial for the transition to commercial pig farming.

MDF signed five new interventions in 2021, building from the first pig intervention that commenced in late 2019. Despite COVID-19 delays and the ASF outbreak, MDF's pig interventions are making significant progress. Most interventions touch on multiple market functions, with biosecurity to contain ASF, part of the animal health market function, as foundational.

The market for commercial pig feed is rapidly increasing, albeit from a low starting point. One MDF-supported business reported a 300 per cent increase in feed sales driven by the increase in rural distribution points. Perhaps

more promising, new companies are also experimenting with pig feed import and distribution after observing those sales. Given that Timor-Leste relies on imported feed, supply chain issues continue to cause delays. Although the full substitution of imported feed is unlikely, an MDF intervention that supports a local manufacturer of feed did record its first sales in 2021.

Interventions to improve breeding are helping to restock healthy, resilient pigs and spur commercial feed sales. Biosecurity training is integrated into all breeding interventions due to the ongoing risk of ASF. In 2021, MDF signed three new intervention agreements with local pig breeders, some of whom are also retailers of pig feed, thereby creating a reinforcing mechanism across market functions.

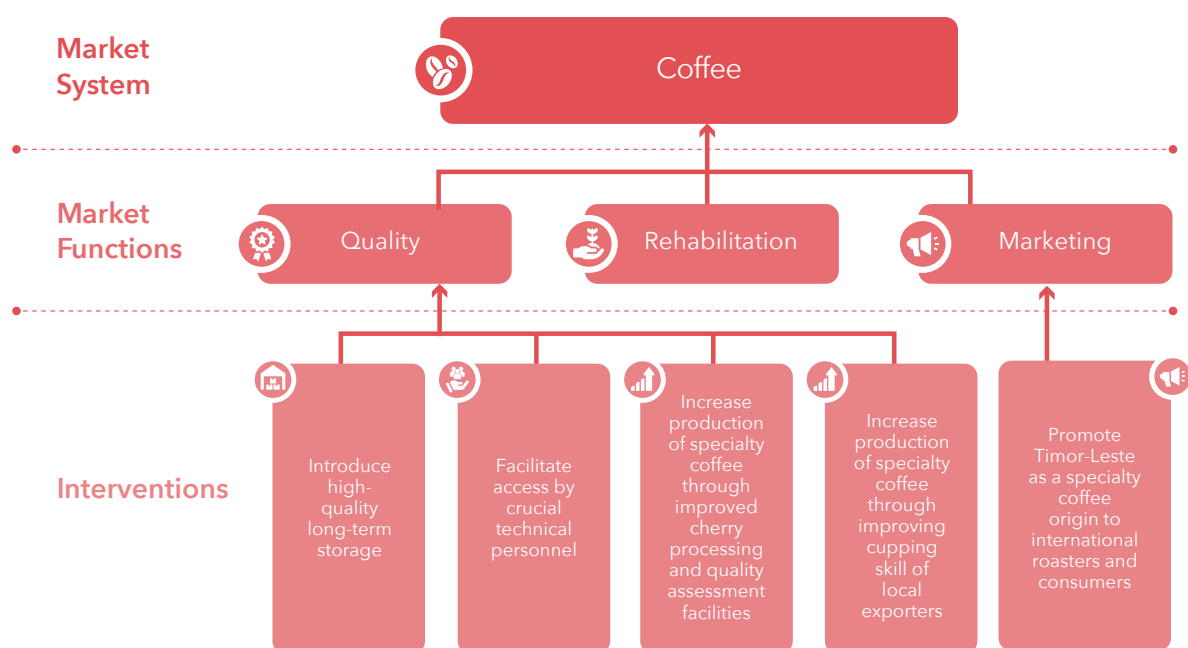
MDF's work on meat processing is moving at a relatively slower pace. Timor-Leste's first formal meat processing business, supported by an MDF intervention, is beset by cash flow issues and struggles to maintain a high-quality supply of pigs. The business only reached 10 per cent of its forecast volume in 2021. However, there continues to be market interest in meat processing and MDF added an additional intervention, a partnership with a supermarket, to the portfolio. It is still too early to report results from this intervention.

Given that ASF remains the biggest threat to the pig sector, MDF elected to continue its work on animal health. MDF extended its innovative communication campaign to raise awareness and promote ASF prevention mechanisms. As part of the informative program, 1,552 farmers (45 per cent women) received biosecurity best-practice instructions from an MDF trainer. Since the start of the campaign in 2020, more than 64,000 farmers have benefited from the program, as their losses from ASF were reduced. This outreach number is attributable to direct interventions implemented by MDF, supported by the Ministry of Agriculture and Fisheries (MAF). However, MAF has indicated that it intends to play a more central role in animal health measures in the future – a positive step towards sustainability.

Although MDF had misgivings about the pig market system in 2020 due to ASF, the decision to proceed has, so far, paid off. Risks will remain high, but MDF has encountered substantial market interest and there are plenty of opportunities to help soften the impact of the virus and promote higher productivity and incomes in pig farming.

Market System 3

Coffee



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Mature	- Introducing high quality, long-term storage to maintain coffee quality - Facilitating the access of crucial technical personnel to support the 2020/2021 coffee harvest - Increasing the production of specialty coffee through improved cherry processing and quality assessment facilities - Increasing the production of specialty coffee by improving local exporters' cupping skills - Improving productivity through coffee tree rehabilitation	In 2021, global coffee demand continued to outstrip supply, causing coffee prices to reach a 10-year high. Anecdotal evidence suggests a bumper year for Timorese producers, with the largest volumes in more than 25 years. COVID-19 impacted MDF's interventions in some ways, including by delaying cupping training and cancelling the Melbourne International Coffee Expo. However, the emphasis on quality, including processing coffee through wet mills, continued to benefit local coffee farmers in 2021. MDF's marketing intervention also engaged six of the more active roasters in Australia to promote Timorese coffee on social media through a campaign that reached over 200,000 people. MDF expanded work on coffee tree rehabilitation in 2021 to increase yields and promote climate change adaption. More than 3,000 farmers received rehabilitation training and 885 farmers pruned their trees, with more farmers expected to adopt rehabilitation practices in 2022.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
8,744	6,447	USD1,596,000 AUD2,183,000	USD682,000 AUD931,000	USD4,606,000 AUD6,273,000	USD3,144,000 AUD4,271,000	USD124,000 AUD166,000	○ ○ ●

Market on a Page

Coffee

Coffee is Timor-Leste's largest agricultural export, generating **USD25 million** annually.



Demand currently outstrips supply and prices are high in the global coffee market, creating an opportune moment for exporters.



Approximately 37 per cent of Timorese households earn income from the coffee sector.



Coffee productivity is in decline and overall quality remains low.



Low productivity and the resulting low prices keep coffee farmers entrenched in long-term poverty.



Improving coffee production and handling techniques are key steps to shift the market from commodity grade coffee to more lucrative specialty coffee.



Market System 3**Coffee**

Coffee is Timor-Leste's most important non-oil industry. It is the biggest non-oil export, earning USD15-25 million (AUD21-35 million) annually, and contributes to the livelihoods of approximately 35 per cent of the population. However, Timor-Leste is only a tiny player in the multibillion-dollar global coffee industry.

The Timorese coffee industry is dynamic but faces many challenges. Productivity is among the lowest in the world. The quality is generally low overall, despite a few emerging champions. Climate change threatens local yields. On the other hand, global coffee prices are at record highs and the transition from commodity grade (low quality) to specialty grade (high quality) coffee has injected energy into the industry. New buyers are purchasing from farmers, investing in processing capabilities and supporting rehabilitation, which will increase yields. More importantly, producing specialty coffee brings higher economic returns: Timorese farmers receive up to a 40 per cent premium for higher quality.

MDF's vision for coffee is centred around promoting a shift from commodity to specialty grade coffee. MDF seeks to improve quality management practices and thereby increase the volume of specialty coffee. Interventions also aim to create awareness of Timorese specialty coffee and support the rehabilitation of existing coffee plantations.

In 2021, global coffee demand continued to outstrip coffee supply as prices rose to a 10-year high. Pandemic-related supply chain issues, inclement weather, such as drought and frost in major coffee growing nations, such as Brazil, and a general increase in demand contributed to the price increases. The threat of climate change looms as rising temperatures reduce coffee yields. While official data is not yet available, anecdotal evidence suggests a bumper year for Timorese producers, with the largest buyer reporting its highest export value in more than 25 years.

MDF started intensive work in the coffee sector in 2020, largely focused on improving quality. More exporters have now adopted improved processing and quality management techniques, and there are emerging businesses working closely with producers focused on high grade specialty coffee. The Asosiasaun Café Timor-Leste (ACTL), the Timor-Leste Coffee Association, is respected and trusted by businesses and government, although it is still a fledgling body. The annual national coffee competition, which started in 2016 through MDF's work with ACTL, continued its successful run in 2021. Reflecting the industry's progress, coffee quality scores at the festival are on the rise.

Market functions

MDF targets three market functions in the coffee market system:

Quality

To ensure coffee is specialty grade, producers must promote quality during picking, processing, storing and cupping. MDF supports individual companies and the ACTL as they set up infrastructure to ensure high quality processing and track quality. Partnerships also aim to create a pool of skilled staff to improve quality management.

Marketing

Timor-Leste is not well known as an origin for specialty coffee, and those that do know it often regard it as low quality. MDF is helping to improve awareness about Timorese specialty coffee in selected markets, with a focus on Australia and New Zealand, to generate greater demand from trade partners and end-customers.

Rehabilitation

Coffee productivity in Timor-Leste is one of the lowest in the world, largely due to the advanced age of the country's coffee trees and limited coffee tree and plantation management. MDF is supporting the rejuvenation of local coffee trees.

MDF began its coffee work in 2020 and was extremely active in 2021, starting seven new interventions. In less than two years, MDF has developed 15 interventions that address all three market functions with 11 different companies and ACTL.

In 2021, MDF worked with three businesses to improve coffee quality through the construction and operation of seven additional processing facilities (wet mill and pulping stations). These wet mills will be ready to process the 2022 harvest. MDF also supported farmers by conducting training sessions on selective picking, storage, pulping and milling activities. The processing improvements went on to benefit 181 farmers, including 11 people with disabilities.

Developing cupping capacity is integral to achieving high quality coffee. COVID-19 delayed the follow-up cupping training planned for 2021, although this may have been timely as the cupping lab in Dili was damaged during the April 2021 floods. MDF supported ACTL to repair the lab as well as build another lab with a partner in Timor-Leste's main coffee growing area. MDF shipped coffee samples to three international judges for the Festival Kafe Timor (the national coffee festival). The top ten of the festival all received scores of 80 or more, the starting point for specialty coffee.

MDF had planned to attend the Melbourne International Coffee Expo in 2021 to showcase Timor-Leste as specialty coffee destination, but the event was postponed. MDF continued its efforts to support marketing and began an intervention to promote Timor-Leste's coffee with Australian roasters, supporting partners to send small samples of the best coffees from Festival Kafe Timor to 50 roasters in Australia. Although MDF's intention was to raise awareness of Timorese coffee rather than generate sales, eight roasters reportedly purchased Timorese coffee for the first time after tasting the samples. MDF's marketing intervention also engaged six of the more active roasters to promote Timorese coffee on social media through a campaign that reached more than 200,000 people.

MDF expanded work on coffee tree rehabilitation in 2021 as a way to increase yields and promote climate change adaptation, such as through improved farm maintenance for soil and plant health. The launch of *Rehabilitation of Coffee Trees in Timor-Leste: Practices, Learning, Recommendations*, a coffee rehabilitation white paper, developed with industry leaders and development partners, such as Quinta Portugal, established a common understanding of rehabilitation needs and benefits. MDF supported two firms to invest in rehabilitation tools and training. More than 3,000 farmers received rehabilitation training and 885 farmers, that we know of, pruned 80 hectares using these new skills. MDF interventions on rehabilitation also developed seedling nurseries to grow replacement coffee trees as well as other trees that can shade and windbreak the coffee plants.



Rehabilitating Timor-Leste's aging coffee trees

Coffee from Timor-Leste cannot be globally competitive without improving the consistency and volume of production. The main causes of low coffee yields are ageing plantations and a lack of tree maintenance. Rejuvenating coffee plantations is the highest priority.

Ageing coffee plantations, inconsistent production and declining yields are global challenges for the coffee industry. Different rejuvenation strategies are being trialled worldwide to improve coffee harvests in a sustained manner, with rehabilitation and renovation (R&R) techniques at the heart of all coffee rejuvenation strategies. Rehabilitation includes pruning and stumping low-productivity coffee trees, while renovation includes uprooting or removing old trees. Despite its importance, information on these R&R practices is not readily available.

In 2021, MDF launched the report *Rehabilitation of Coffee Trees in Timor-Leste*, the first of its kind in Timor-Leste, collating information and recommendations on coffee rehabilitation and renovation techniques for Timorese coffee farmers and businesses. The study is based on sound agronomic principles and global coffee rehabilitation best practices. MDF and its partners in the coffee sector also created an instructional video explaining best practices in coffee tree rehabilitation, focusing on a pragmatic approach that farmers can easily adopt.

MDF's vision is to build a specialty coffee sector that provides price premiums to farmers and firms. There are initial signs of progress but still much to do. Most of Timor-Leste's coffee trees are old, unproductive and produce coffee of an inferior quality. Going forward, MDF will continue work on coffee quality, marketing and rehabilitation to demonstrate the benefits and potential of specialty coffee.

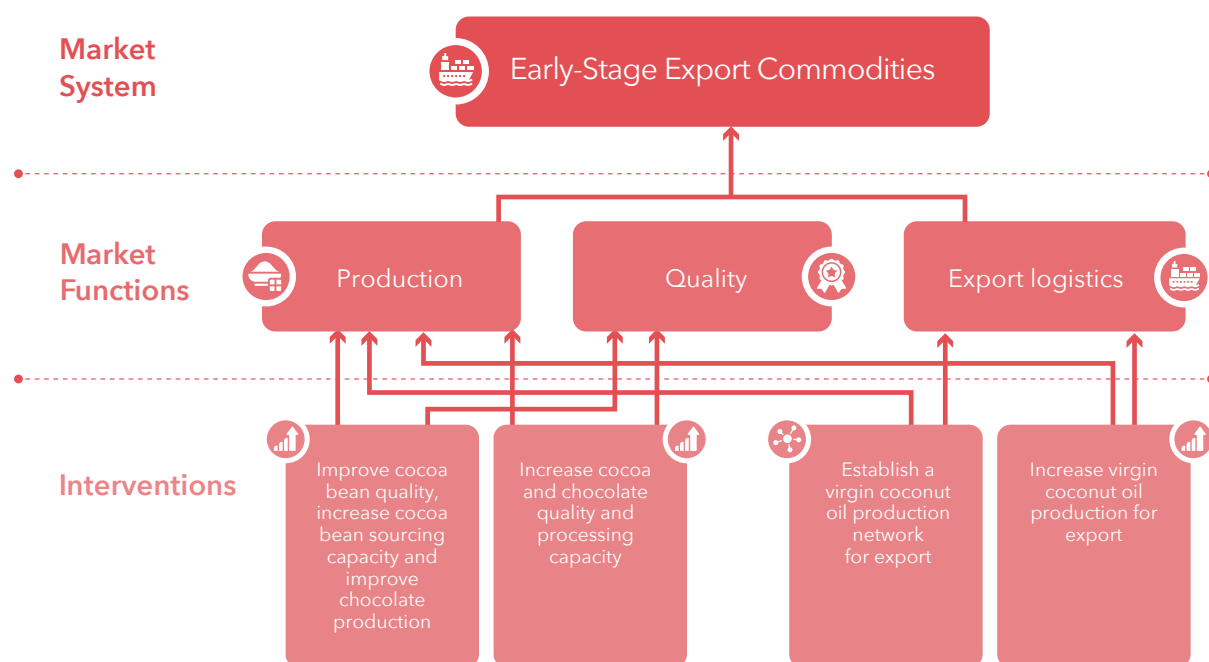




Click/scan to read
Rehabilitation of
coffee trees in
Timor-Leste.

Market System 4

Early-Stage Export Commodities



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Emerging	1. Establishing a virgin coconut oil production network for export 2. Increasing virgin coconut oil production for export 3. Improving cocoa bean quality, increasing cocoa bean sourcing capacity, and improving chocolate production 4. Increasing cocoa and chocolate quality and processing capacity 5. Scaling up commercial dragon fruit farming and providing advisory support to other dragon fruit farmers	In 2021, MDF consolidated emerging market systems sharing common challenges: coconut/virgin coconut oil (VCO), cocoa, fruit, seaweed and spices. The prolonged pandemic prevented experts from entering the country and supply chain logistics disrupted trade. MDF supported a VCO producer and exporter with shipment insights and costs, resulting in the export of 6.5 tonnes to Australia in late 2021. MDF also supported a partner to train eight women to manufacture chocolate to meet short-term local demand. The training improved the partner's manufacturing quality and diversified their products, leading to additional sales of USD4,000 (AUD5,512). MDF remains committed to building out the Early-Stage Export market system while work will remain opportunistic.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
8,744	6,447	USD1,596,000 AUD2,183,000	USD682,000 AUD931,000	USD4,606,000 AUD6,273,000	USD3,144,000 AUD4,271,000	USD124,000 AUD166,000	○ ● ○

Market on a Page



Early-Stage Export Commodities

Timor-Leste has a significant, negative trade balance outside the extractives industry.



Coffee and konjac have ready export markets, but this is not the case for other smaller export commodities such as VCO, spices, nuts, and seaweed.



These commodities face supply-side challenges in the form of low production capacity and inconsistent quality.



This, in turn, creates demand-side issues where buyers generally want both, that is large volumes of quality produce, or specialty products for niche, high value markets.



MDF will continue to support partners that have the potential to expand production and quality for export while maintaining flexibility in operation and opportunity response.



Market System 4

Early-Stage Export Commodities



Cesta Basica

Government stimulus raises demand for virgin coconut oil

To mitigate the impacts of the pandemic, the Government of Timor-Leste initiated the distribution program, Cesta Basica ('basket of goods' in Tetun), at the end of 2020, with a second round in early 2021. The initiative provided every Timorese household with a package of mostly food items amounting to a total value of USD50 (AUD70).

The social welfare initiative was an effort to offset lost income and support the domestic economy through the inclusion of local goods: rice, coffee, salt and virgin coconut oil, among others. While providing some relief to distressed households, the strategy also boosted domestic demand for several export products affected by COVID-19-related disruptions to supply chains. For virgin coconut oil in particular, Cesta Basica stimulated new demand as each family received 300ml. Some Timorese households use virgin coconut oil for cooking.

The Cesta Basica program had its challenges, including the limited availability of goods and concerns about the equity of distribution. Additionally, the project had an inflationary effect: the domestic price of virgin coconut oil jumped from USD11.50 per litre (AUD16) to USD20 per litre (AUD28), as sellers took advantage of the government-created demand.

Aside from extractive industry profits, Timor-Leste has a significantly negative trade balance. To diversify its economy, the country needs to boost non-oil exports. MDF's support for early-stage export commodities is opportunistic and likely to remain so in the medium term. Better-established agricultural commodities, such as coffee (76 per cent of non-oil exports) and konjac (15 per cent) have ready export markets, but this is not the case for other export commodities, such as cocoa, coconut oil, fruit and seaweed.

These commodities face supply-side challenges in the form of low production capacity and inconsistent conditions. Buyers who want dependable quality and quantity have low confidence in supply from Timor-Leste. As these early-stage export commodities are new exports, there are few established processes and little in-market knowledge.

MDF's vision is to grow the production and export of early-stage commodities on an exploratory basis. As such, MDF consolidated several market systems that share common challenges: coconut/virgin coconut oil, cocoa, fruit, seaweed and spices. MDF will explore options to support these nascent systems and, if feasible, expand work to develop full-fledged market system strategies.

The commodities in this market system may have different characteristics but they also have similar challenges relating to supply quality and quantity. All indications show that with improvements in quality and quantity, demand will grow for these products, all of which have strong global markets. Virgin coconut oil and fruit are widely available in the domestic market but the quality has been too low for export purposes. Cocoa is new to Timor-Leste, with a commodity value chain created by donor-funded projects that distributed seedlings without any consideration of demand, a major omission given the complexity and razor thin margins that characterise the global market. Candlenut and peanuts, for which MDF completed scoping in 2021, share similar quality and market challenges.

The prolonged pandemic slowed Timor-Leste's progress on early-stage export commodities. International experts could not easily enter the country and supply chain and logistics disruptions curtailed trade. Globally, however, markets remain strong, coconut oil prices increased by 30 per cent. MDF is focusing on production, quality and export logistics, as these are the current inhibitors. As a commodity progresses, MDF will consider adding demand-side interventions, as done with the coffee market system.

Market functions

MDF targets three market functions in the early-stage export commodities market system:

Production

Low and inconsistent volumes of produce limit export possibilities. MDF supports correcting production deficiencies through improved practices and technology.

Quality

With low volumes, the best chance to enter new export markets is to produce high quality products for niche/specialty markets. MDF works on better post-harvest handling practices and, crucially, better processing, such as improved cocoa fermentation, seaweed drying and virgin coconut oil pressing.

Export logistics

Low production volumes reduce the availability and increase the cost of export logistics. Therefore, produce currently exported from Timor-Leste often flows to Indonesia into low quality, low value markets. MDF provides technical assistance and provides direct linkages to high value markets.

MDF focused its efforts on existing interventions, rather than starting new ones, due to COVID-19 constraints. Businesses put activities on hold or pivoted to domestic markets, because they were more accessible or lucrative. Virgin coconut oil exporters began supplying a government-supported social distribution program, Cesta Basica. Timorese chocolate producers switched to selling to domestic markets, rather than selling to international tourists or exploring cocoa bean exports.

On the production side, MDF continued to provide support for a commercial dragon fruit farm targeting international markets for export. The intervention helped to install irrigation and purchase equipment long delayed due to shipping bottlenecks. The commercial farm expects to have its first exports in 2022. In the cocoa market, MDF explored a partnership with a farmer

cooperative interested in producing high quality cocoa for domestic and international markets. MDF expects to sign the intervention agreement in 2022.

Quality continues to be a challenge for Timorese agricultural exports. MDF sent local cocoa samples to a Japanese chocolate manufacturer for testing purposes. The manufacturer provided negative feedback and elected not to move forward with purchase. More analysis and detailed recommendations are needed for early-stage export commodities. MDF also trained eight women in chocolate manufacturing to meet domestic demand in the short-term. The training helped to improve manufacturing quality and diversified the products, leading to a sales increase of USD4,000 (AUD5,600).

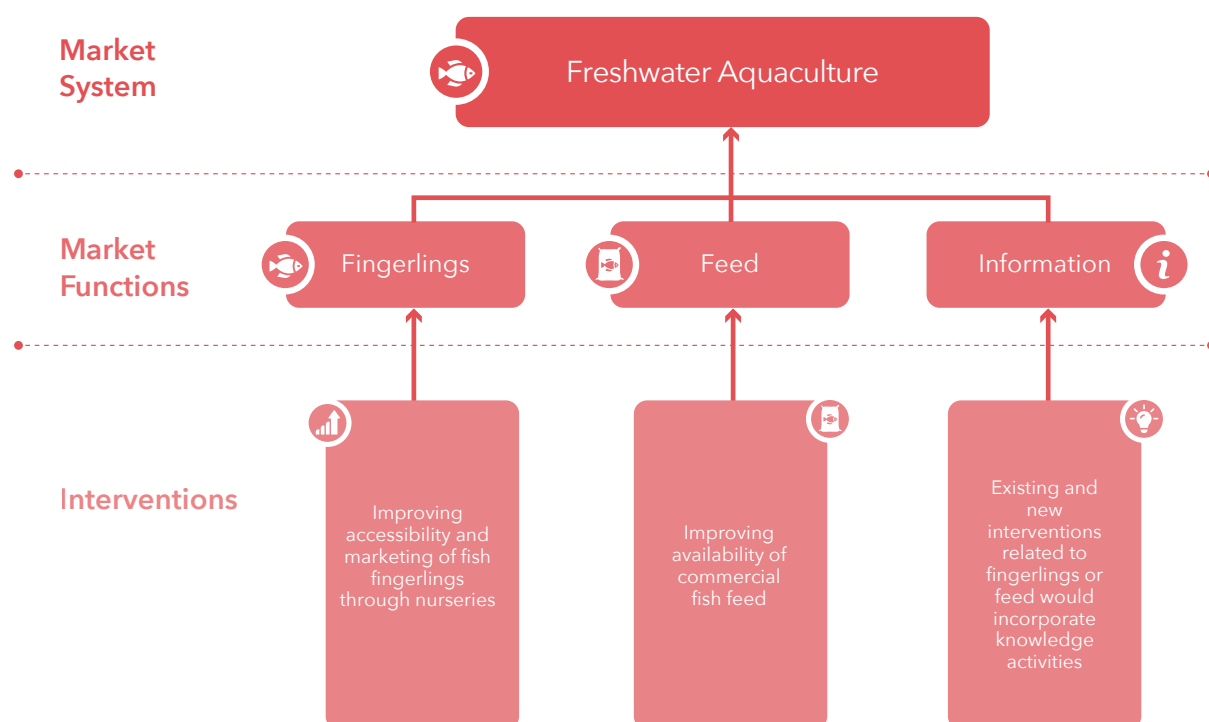
COVID-19 made export logistics even more complicated, so MDF stepped in to assist where possible. MDF support to a virgin coconut oil producer and exporter resulted in the export of 6.5 tonnes to Australia in late 2021. MDF also continued its partnership with TradeInvest, the government agency responsible for export and investment promotion. TradeInvest and MDF developed and launched the Digital Exporters Guide, a tool to assist businesses' export journey and encourage more exports.

MDF remains committed to building up the early-stage export market system, as it is crucial for economic diversification. Few donor-supported projects are considering these commodities. MDF is ideally positioned to explore these market systems through risk-sharing interventions. Work remains opportunistic as systemic change is not yet feasible given the size and nascency of the sectors.



Market System 5

Freshwater Aquaculture



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Emerging	1. Establishing a commercial fish fingerling hatchery 2. Improving the accessibility and marketing of fish fingerlings through nurseries 3. Scaling up catfish fingerling production	In 2021, MDF broadened the scope of this market system from tilapia to freshwater aquaculture, in an effort to support alternative fish sources and reduce overreliance on one species. MDF has two active interventions on fingerlings and added one intervention on catfish in 2021. MDF's intervention with a tilapia hatchery has established three outgrower nurseries, but the partner was only able to start operations at one of these due to COVID-19 delays and the scarcity of fingerlings in the market. The intervention is progressing, albeit slowly, and the first nursery recorded strong sales in 2021. Fish feed interventions are still under negotiation with partner businesses and are expected to be signed in 2022.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
129	4	USD46,000 AUD62,000	USD3,000 AUD4,000	USD48,000 AUD65,000	USD2,000 AUD2,000	USD9,000 AUD12,000	○ ● ○

Market on a Page

Freshwater Aquaculture

As of 2014, only about **2%** of fish consumed came from aquaculture, with the other 98% sourced from marine catch.



Around 4,543 households in Timor-Leste are engaged in fish farming.



Tilapia fish aquaculture productivity stands at three tonnes per hectare per year which is much lower than other countries.



For many rural districts which do not have access to coastal fisheries, freshwater aquaculture is a valuable opportunity to increase protein in local diets and reduce malnutrition.



To increase aquaculture growth rates and income, farmers need to access appropriate inputs, such as fingerlings and commercial fish feed.



Market System 5

Freshwater Aquaculture



Over the past decade, several development partners have promoted smallholder aquaculture, particularly of tilapia fish. Aquaculture is seen as a pathway to expand smallholder farmer incomes and address of malnutrition. WorldFish estimates that around 3,000 Timorese households have an average pond size of approximately 100m².

Aquaculture is a difficult industry. There are numerous constraints to optimising pond use. Achieving a level of productivity that would enable farmers to earn a reasonable income from aquaculture is very challenging. Margins are razor thin, making it difficult to compete against imported fish. However, there are opportunities for domestic production and consumption in inland areas or where there is no cold chain infrastructure.

MDF's vision is to have a larger number of smallholder farmers practising aquaculture with increasingly higher productivity. This can be achieved through three avenues: fingerlings, feed and farmer information. MDF's vision for fingerlings is aligned to the policy of the government, whereby it stops providing free/subsidised fingerlings and instead this role is taken over by private hatcheries. MDF's vision for feed is that farmers increasingly use commercial feed in addition to, or instead of, other less productive feeding practices.

The sector at present is characterised by modest smallholder production, often in collaboration with NGOs or other external support. There are few commercial actors. Consequently, the pandemic's impact on the sector has been limited because aquaculture is heavily subsidised by development programs. However, one MDF partnership to establish nursery operators faced many delays due to movement restrictions in 2021. As travel constraints ease, the intervention is expected to progress in 2022.

In 2021, MDF broadened the scope of this market system from tilapia aquaculture to freshwater aquaculture in general. This will allow MDF the flexibility to work in more lucrative freshwater aquaculture species, such as catfish. The market functions for the redefined market system remain the same: fingerlings, feed and information.

Market functions

The market system strategy for freshwater aquaculture has three target market functions:

Fingerlings

Until recently, a government-run hatchery was the only large domestic supplier of tilapia fingerlings, but it does not meet demand. Key stakeholders are working towards a system where privately-run hatcheries take over the responsibility of supplying fingerlings.

Feed

Fish are typically fed: (a) phytoplankton, which is grown in fishponds through the application of fertilisers; (b) home-made fish feed using local ingredients; and (c) commercially-produced, complete fish feed. While fish can certainly grow using the first two methods, growth rates are typically much slower. Formulated fish food provides a much better result.

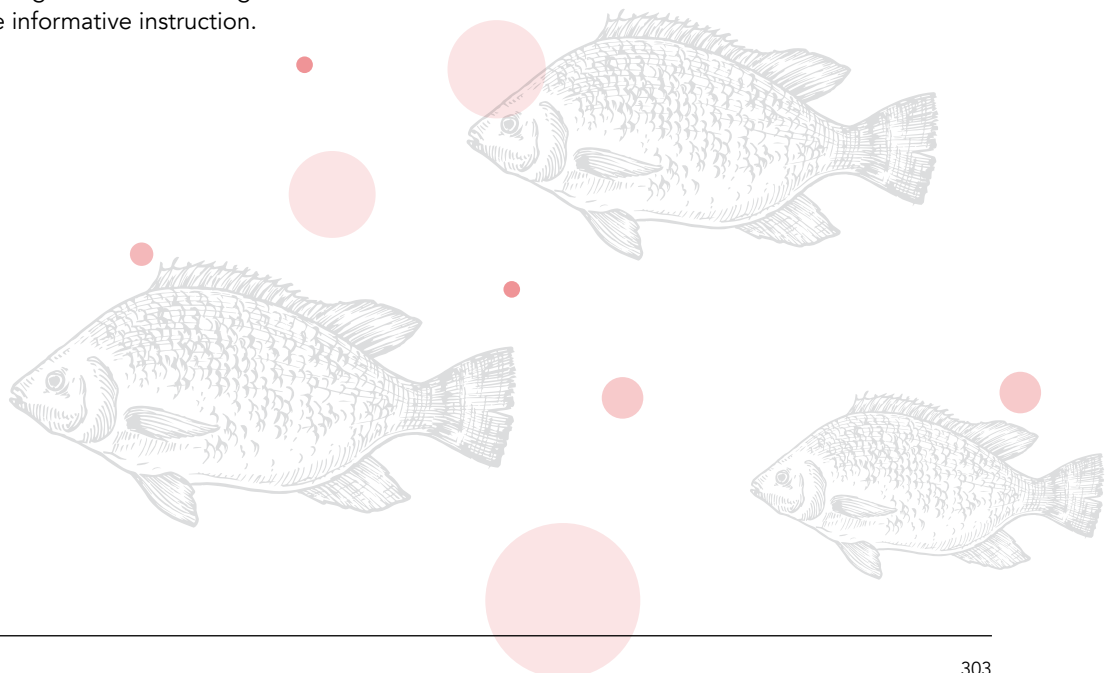
Information

Most Timorese households practising aquaculture began doing so with the help of development partners. Many farmers lack sufficient knowledge to achieve productivity levels that provide a good return on investment. Pond planning and construction, fingerling care, water quality control, feeding, cleaning and disease management are key skills that require informative instruction.

MDF has two active interventions in fingerlings, and added one intervention on catfish in 2021. MDF's work with a tilapia hatchery, starting in May 2020, has been slow to develop. The hatchery has established three outgrower nurseries but only one started operations due to COVID-19 delays and the limited number of fingerlings in the market, as a large development project is purchasing most fingerlings. While slow, the intervention is moving ahead, with the first nursery recording strong sales in 2021. MDF helped a partner double production of catfish fingerlings in 2021. The intervention provided technical assistance to improve productivity and build additional breeding ponds. MDF is reassessing market demand and may support additional catfish farming expansion in 2022.

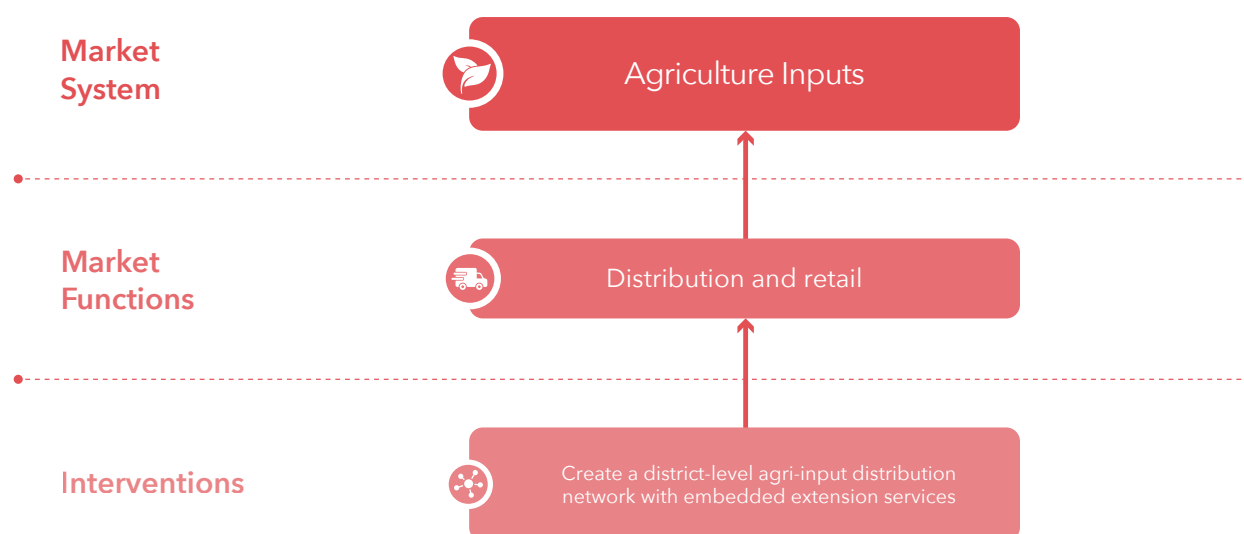
Fish feed interventions are still under negotiation with partner businesses. In 2021, MDF scoped this market function and shared information on demand and distribution, resulting in one business importing fish feed for the first time. The scoping also included an analysis of fish feed retailers, a group MDF plans to target with another intervention in 2022.

Aquaculture continues to be a challenging market for private sector-driven development. Donor subsidies and COVID-19 have negatively affected MDF's intervention. In the next year, MDF will continue with existing activities in commercial feed and catfish fingerlings.



Market System 6

Agriculture Inputs



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Emerging	Creating a district-level agri-input distribution network with embedded extension services	The closure of the land border with Indonesia as a result of the pandemic continued to take a heavy toll on Timor-Leste's agri-input market as well as MDF's work. Interventions with agri-input suppliers and retailers progressed slowly as a result. However, the situation is easing, and a 2020 intervention with a dedicated agri-input dealer showed promising results, benefitting 119 farmers through the local availability of agri-inputs.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
1,221	805	USD307,000 AUD409,000	USD264,000 AUD350,000	USD160,000 AUD215,000	USD102,000 AUD136,000	USD39,000 AUD51,000	○ ● ○

Market on a Page

Agriculture Inputs

In Timor-Leste, around two-thirds of households are engaged in agriculture.



Agriculture production faces a wide range of challenges, such as weather, soil fertility and inconsistent water sources.



Market limitations include insufficient access to seeds, fertiliser, pest control and equipment.



Agriculture inputs are only available in select districts, which leads farmers to rely on poor quality, informal sources or go without.



MDF encourages new input market entrants and supports the district-level presence of agri-input retailers to increase productivity.



Market System 6

Agriculture Inputs



Whether it be seeds, fertiliser, pest control or equipment, inputs are a critical market function in almost all agricultural market systems. Using appropriate inputs improves productivity and resilience to pest and disease outbreaks, such as Fall Army Worm, as well as extreme weather exacerbated by climate change.

Agriculture input use in Timor-Leste is extremely low and the market system is underdeveloped. Farmers rely on government and donor projects to provide free or subsidised inputs. The small number of importers, manufacturers, distributors and retailers survive on the margin and in the gaps between public distribution cycles. While subsidies have their place, long-term distortions are holding back the emergence of an agriculture inputs market that sustainably meets farmers' needs.

MDF's vision is for Timor-Leste to establish more input suppliers and retailers in order to increase the accessibility of inputs, particularly outside Dili. This will significantly boost the use of improved inputs by farmers, leading to higher productivity across a range of agricultural products.

To date, MDF has addressed agriculture input issues within specific market systems. Most interventions in agriculture include an element related to inputs and their use. For instance, two of the three market functions addressed in freshwater aquaculture interventions concern inputs – fingerlings and fish feed. However, MDF now sees an opportunity to more strategically support the improved functioning of the wider agricultural input market system. In part, this is because of the centrality of inputs to agricultural productivity. But it is also because the small size of agricultural markets in Timor-Leste requires input supply business models that are diversified across multiple crops or food types in order to be viable.

The COVID-19 pandemic has had, and continues to have, a substantially negative impact on the input market in Timor-Leste. The closure of the land border with Indonesia has meant that many importers have been unable to secure sufficient supplies from regular sources. There have also been supply chain issues caused by sea freight disruptions and internal movement restrictions.

Market functions

The market system strategy for agricultural inputs has one target market function:

Distribution and retail

There are a lack of market actors and those that do exist frequently have passive sales models, and do not use agents, extension officers or other methods to reach farmers in rural areas.

MDF's primary partner is a Dili-based hardware and homeware retailer branching into agricultural input supply, particularly for vegetables. In partnership with an Indonesia-based seed supplier and with MDF's support, the partner will work with retailers in rural areas. To diversify and expand, the partner also established relationships with two other seed suppliers, one established brand and one brand that is new to Timor-Leste. Technical staff from the partner started to establish two demonstration plots but progress was hampered by travel restrictions and the expected support from Indonesia had to be moved online as the border remained closed. Five additional plots are planned for 2022.

MDF also continued to work with a dedicated agricultural input dealer that was established in 2020. Through MDF support, the retailer's turnover has grown to an average of USD1,500 (AUD2,100) per month - an impressive result in the country's small market. MDF's newest intervention with the partner will support the organisation as they hire a technical extension staff with expertise in aquaculture, horticulture and pigs, to be deployed among farmers. Although COVID-19 delayed the hiring process, 32 farmers receiving training in 2021. In 2022, the technical staff will establish nine demo plots as hubs to draw in more farmers.

As inputs are a key component of commercial agriculture, MDF aims to do more in this market system in the future. Movement restrictions have impeded interventions for the last two years, but the situation is easing. Free government and donor distribution will continue to distort the market. MDF will continue to expand input access and use by working with Dili-based distributors and rural retailers.



Sector

Tourism





Sector on a Page

Tourism



991

Effective outreach



USD

\$284,016

Additional income



USD

\$719,426

Value of additional market transactions



69%

Female participation



13

Interventions



VISION OF CHANGE

- Tourism businesses in Timor-Leste understand the best places and people for product marketing, which they then use for improved advertisement.
- Tourism operators in Australia actively promote Timor-Leste as a destination and more Australians decide to holiday in Timor-Leste.
- Timor-Leste builds a global reputation for outstanding diving and whale-watching. Marine tourism operators actively collaborate to grow tourist numbers while conserving marine resources.



CONSTRAINTS

- Highly restricted entry of travellers into Timor-Leste due to COVID-19.
- Limited air and land connectivity, making the destination inaccessible and expensive.
- Lack of destination marketing efforts to promote the country for tourism.
- Limited local capacity to provide high quality tourism products and services.
- Transactions are overwhelmingly cash-based (only one bank provides online banking).



Destination Marketing

- Beachside Hotel Lda.
- Hotel Owners Association Timor Lorosa'e (HOTL)
- Ministry of Tourism, Commerce and Industry
- The Asia Foundation
- Planet Marketing



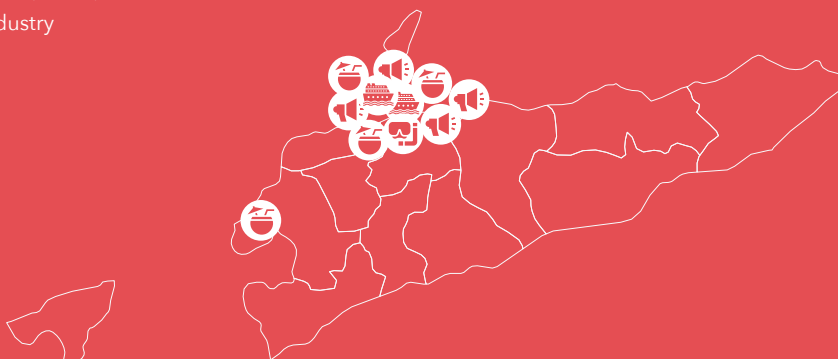
Marine Tourism

- Dive Operators Working Group



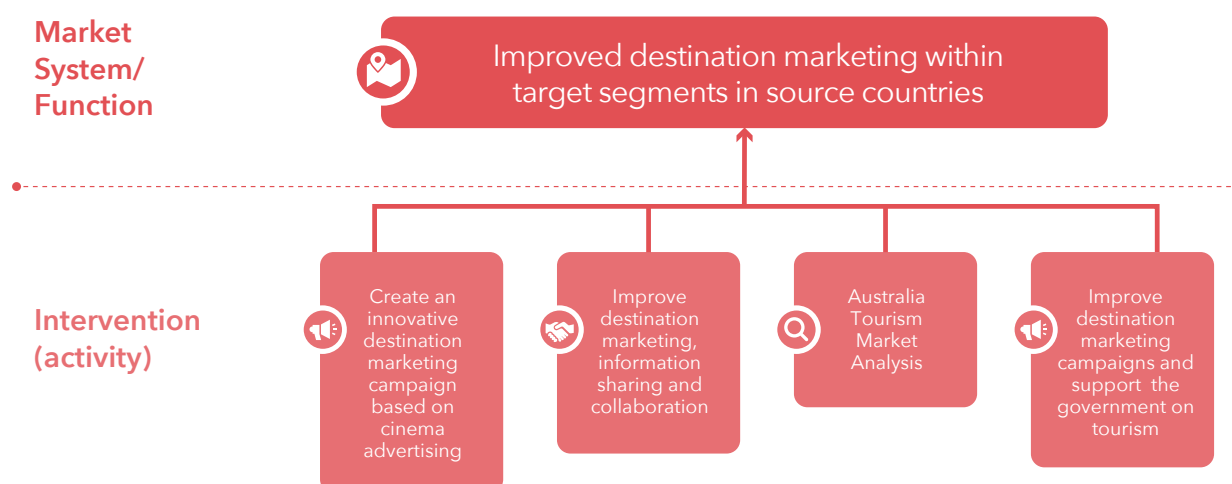
Other

- Timor Adventures, Lda.
- Balibo House Trust (veteran's museum)



Market System 1

Destination Marketing



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	1. Facilitating marketing and links between Australian and Timorese tourism operators 2. Collaborating on Timor-Leste tourism sector development 3. Promoting public-private tourism collaboration and destination marketing	The pandemic continued to impact this market system and MDF's work within it. With the bulk of the interventions still on hold, MDF's work in 2021 focused on the post-pandemic readiness of the private sector. MDF signed an MoU with the Ministry of Tourism, Commerce and Industry in 2021 for destination marketing, digital marketing and private sector coordination. Along with other activities, the intervention provided training to local operators in the form of webinars on topics related to being travel-ready when conditions improve. Overall, tour operators found the online forums useful and are likely to recommend it to their colleagues. MDF also launched a photo competition to create a shared photobank that can be used to market Timor-Leste.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
-	-	-	-	-	-	USD8,000 AUD10,000	○ ● ○

Destination Marketing

An estimated **12,552** holiday makers visited Timor-Leste in 2017.



MDF is supporting the promotion of the country as a unique destination for diving and whale-watching.



COVID-19-related restrictions in 2021 prohibited international travel to the country.



A photography competition was held to develop a photobank available to trade partners to promote Timor-Leste marketing.



Timor-Leste became a sovereign state in 2002 and is, therefore, one of the newest countries in the world.



A Facebook group was created and a series of webinars on travel and trade were conducted as a part of the Marketing Action Plan.



Market research into tourists and collaborative destination marketing involving the Government, hotels, airlines, and travel agents, are key to developing the country's tourism industry.



There is very little information available for visitors, and the country does not yet have an established reputation for tourism.



MDF completed an Australia/Timor-Leste Tourism Market Analysis in September 2020. The purpose of the analysis was to conduct consumer and trade market research to identify the 'most likely' target segments and activate a Marketing Action Plan to benefit the local tourism industry.



Market System 1

Destination Marketing



Most public and private efforts to develop tourism in Timor-Leste have been focused on supply. Demand creation has not been a priority. But Timor-Leste does not have a reputation as a tourism destination. Many people have never even heard of the country. Consequently, despite having some unique tourism attractions, the number of international tourists visiting primarily for leisure is extremely low, around 11,000 per year before the pandemic.

As one of the newest countries in the world, there is very little information available about Timor-Leste. Marketing is needed to boost the country's profile in target segments in key source countries, such as dive tourists, who tend to be more 'determined' travellers. Post-COVID-19 tourism recovery will need to combine marketing with COVID-19 safety messaging to convince source markets that Timor-Leste is a safe place to visit.

MDF's vision for destination marketing is that tourism businesses will understand the ideal places and people to market their products to, then use this information to promote Timor-Leste more effectively. In time, this will entice more people to visit Timor-Leste. To drive this vision forward, MDF is supporting a variety of public and private stakeholders so that they increasingly see the benefits of investing in destination marketing and learn ways of doing so.

MDF put significant effort into preparing several major new tourism interventions before the COVID-19 pandemic, including concepts with a destination marketing focus. These could not be implemented because of the pandemic. However, MDF has maintained conversations with potential partners, pending the resumption of tourism.

In 2021, MDF collaborated with government and development partners to create shared destination marketing assets that can be used to drive a consistent narrative about Timor-Leste. MDF and the Ministry of Tourism, Commerce and Industry (MTC) signed an MoU in 2021 for destination marketing, digital marketing and private sector coordination. The Asia Foundation and MDF signed an MoU in 2021 for data sharing, destination marketing and coffee tourism.

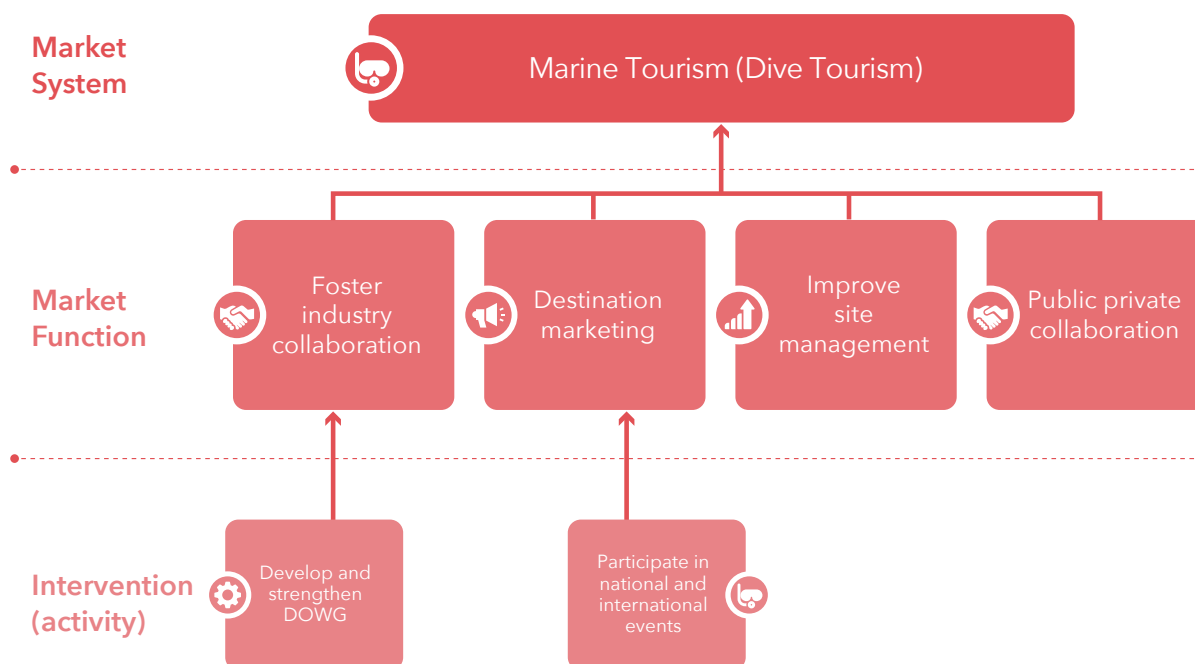
Looking ahead to a time when the pandemic subsides, MDF launched one new intervention to create digital marketing assets and establish connections between Timorese and Australian tourism operators. The intervention provided training to local operators in the form of six webinars on topics related to being 'travel ready' when conditions improve; 52 people participated in the webinars. A Facebook group was set up for easy engagement and idea sharing between operators.

MDF and Planet Marketing launched a photo competition with the aim of creating a shared photobank with high quality images that could be used as part of marketing efforts. The online competition drew significant attention, with more than 250 photos submitted across five categories. Tour operators will be able to use the images for future destination marketing activities.



Market System 2

Marine Tourism



Status of the market system	Interventions (active and/or monitored in 2021)	Summary of performance
Developing	Growing marine tourism by supporting collaboration among dive operators	With no commercial flights, 2021 was another difficult year for Timor-Leste's tourism sector. However, marine tourism is likely to resume more quickly than other segments when tourism starts to recover. Divers and 'experience' tourists tend to be more flexible and determined. Marine tourism will therefore be key for recovery. Given the contracting economic situation, it remained challenging to make any progress in this market system. However, MDF and the Dive Operators Working Group commenced a dive exploration intervention to identify two new sites in 2021. Three more sites will be added in 2022. Assuming improving conditions, MDF plans to implement additional interventions in 2022.

EO Projected (cumulative)	EO Actuals (cumulative)	Income Projected (cumulative)	Income Actuals (cumulative)	VAMT Projected (cumulative)	VAMT Actuals (cumulative)	PSI Expensed	Progress (Traffic Light)
-	-	-	-	-	-	USD6,000 AUD8,000	○ ● ○

Market on a Page

Marine Tourism

Timor-Leste is located in the Coral Triangle, which has more coral reef fish diversity than anywhere else in the world. However, this information is not widely known among divers.



Leveraging Timor-Leste's unique dive and whale-watching offering is a key part of marketing activities.



Since the number of tourists plummeted due to COVID-19, local dive operators competed to attract the few divers based in the country.



MDF supported the exploration of five new dive sites to expand opportunities in the sector.



Dive operators actively post about Timor-Leste marine life on social media platforms to improve visibility.



Market System 2**Marine Tourism**

Marine tourism is Timor-Leste's most established tourism segment and its greatest tourist attraction. Prior to COVID-19, the number of tourists had increased an average of 16 per cent per year from 2011 to 2017. One study found that the coral reefs in Timor-Leste are the most biodiverse in the world. Timor-Leste's waters are part of a major whale migration route, which affords the country an opportunity to allow accessible cetacean tourism. Developing the marine tourism sector will place a value on the conservation of fragile marine habitats.

With no commercial flights, 2021 was another difficult year for Timor-Leste's tourism sector. However, marine tourism is likely to resume more quickly than other segments when tourism starts to recover. Divers and 'experience' tourists tend to be more flexible and determined. Marine tourism will therefore be key for recovery. It is important to make sure that operators have the tools and support to recover from COVID-19 and continue to grow.

MDF's vision is to establish Timor-Leste as a well-known destination for snorkelling, diving and whale watching in selected markets, starting with Australia and Europe. The ambition is that awareness within this segment in these regions increases sufficiently so that Timor-Leste becomes a recognised destination.

Achieving this vision will require well-established tour products and relationships with wholesalers in target markets. MDF is supporting and encouraging marine tour operators in Timor-Leste to collaborate among themselves and with other tourism stakeholders, both private and public.

Market functions

The market system strategy for marine tourism has four target market functions:

Industry collaboration

More cooperation among marine tour operators would help to 'grow the pie' of marine tourism. Experience from other markets shows the power of industry coordination in environmental conservation, safety, standards and destination marketing.

Destination marketing

Timor-Leste's marine assets are not well known, except among a select group of more adventurous divers and whale watchers.

Product and capacity development

Tourism products are combinations of unique experiences. Building from the marine assets, MDF will support tour operators to strengthen their product offering alongside targeted capacity development.

Public-private collaboration

Tourism is one of the pillars of the government of Timor-Leste's strategic development plan but there is little coordination between the public and private sectors.

Prior to COVID-19, tourist number had been increasing slowly but steadily, with approximately 11,000 travellers visiting primarily for leisure in 2019. Like all tourism destinations, the pandemic put a stop to this. No international tourists were able to visit Timor-Leste during the State of Emergency, which was finally lifted at the end of 2021. However, most dive operators managed to eke out a living in 2021, mainly because foreign residents continued to dive.

Progress in this market system remained challenging in 2021. Businesses in the Dive Operators Working Group (DOWG), MDF's main partner, were struggling to survive and lacked the motivation or resources to invest in new initiatives during the downtime due to uncertainty about reopening. MDF supports collaboration among dive operators but also recognises that there was some stress in the sector as competition for the few remaining foreign resident divers became fierce.

Despite the challenges, MDF supported DOWG to commence a dive exploration to identify new dive sites that would add to Timor-Leste's marine tourism offering. The DOWG mapped two new sites in 2021 and will add three more sites in 2022. In addition to encouraging collaboration on shared tourism products, the intervention will also develop a video that can be used for destination marketing purposes.

Assuming travel conditions will improve, MDF plans to implement additional interventions in the tourism sector in 2022. While minimal progress has been made since COVID-19, MDF has stayed engaged with the sector's market actors through small interventions and regular communications. MDF will continue to be opportunistic in 2022 as conditions permit.



Other Work

In 2020, MDF assisted the Australian Government to support Balibo House on the construction of a Veteran's Museum. Significant effort was put into negotiating grant support, including specifications for planning, demolition, construction, safety and supervision. Construction started in the second half of 2020 and MDF supported DFAT and the Australian Department of Defence with a ground-breaking ceremony.

The construction work was close to completion at the end of 2021. MDF facilitated the review of informational material related to the museum by connecting the developers to the Defence Cooperation Program. MDF also linked the developers with the Timorese Resistance Archive and Museum for the exchange of high quality photography. The new museum is expected to open on ANZAC Day 2022.

Based on the success of the African Swine Fever communication campaign, MAF requested MDF support for a similar campaign for Fall Army Worm (FAW). FAW is a pest that destroys crops, especially maize, a staple food grown widely by Timorese households. The FAW communication campaign used multiple platforms, including television and social media, to share information on identifying the pest and treating affected crops. To widen outreach, MDF contracted a local street theatre group to develop a short play using key messages from the campaign and perform it in every municipality. The overall campaign was well received and MDF will conduct an impact assessment in the first half of 2022.

Manufacturing and Other Sectors

Manufacturing

Manufacturing is one of the economic development pillars outlined in Timor-Leste's strategic development plan. At present, the sector contributes less than 0.4 per cent to GDP. There are fundamental obstacles to the competitiveness of local manufacturing, such as limited economies of scale, skills and access to finance. MDF anticipates that interventions in manufacturing will continue to be opportunistic.

The impact of COVID-19 on the manufacturing sector has been mixed. For example, there was a decline in the manufacture of high-value processed foods because of lower demand, particularly from consumers in Dili. However, demand for essential food items, such as

locally manufactured salt, remained steady. Supply chain disruptions caused by the pandemic have also created opportunities for the domestic manufacture of some products, such as hand sanitiser and masks, that proved difficult to import.

MDF's vision in manufacturing is modest: to grow the number of local manufacturing enterprises from its low base. MDF does not approach manufacturing as a market system but instead provides support to specific businesses as they set up new manufacturing operations or grow existing businesses. MDF's investments are opportunistic in nature and aim to demonstrate commercial potential to encourage further investment.

MDF continued to work with the Nazareth Foundation on the manufacture and export of bike racks for the Australian market. This partnership provides job opportunities for workers with disabilities. Lockdowns in Australia slowed the prototype testing of three new bike racks that Nazareth manufactured in Timor-Leste. Nevertheless, MDF supported the partner to complete a factory expansion in anticipation of the new manufacturing lines. Nazareth's retail partner continues to report that bike sales are strong as Australians avoid public transportation due to the ongoing pandemic. In 2022 and once prototype testing is complete, Nazareth plans to purchase equipment and begin manufacturing the new racks.

In response to the COVID-19 pandemic, MDF co-designed an intervention with Distillery Lokal to manufacture hand sanitiser domestically. Progress has been slow due to the opaque licensing requirements for producing the product in Timor-Leste. In 2021, the company sourced the ingredients from Australia but did not begin manufacturing as it had not obtained approval from the required three ministries.

Other sectors

MDF strives to be agile, a feature that involves responding to emerging and strategic opportunities, as well as external shocks, even if they do not fit neatly under the priority markets in agriculture, tourism and manufacturing.

In April 2021, the floods caused by Cyclone Seroja necessitated a swift response from development partners. The cyclone caused 41 deaths and cost USD285 million (AUD400 million) in damage to infrastructure and crops. MDF conducted a rapid assessment on behalf of DFAT to understand the availability and prices of key goods with 11 retailers and importers. In parallel, MDF also engaged with its partner network to assess their needs and propose responses. No major changes to interventions were required. However, MDF integrated flood resilience into some interventions through various measures, such as raising shelves for storage.

MDF continued its collaboration with TradeInvest, the government agency responsible for export and investment promotion. TradeInvest and MDF launched the Exporters Guide, a comprehensive document that outlines the process and steps to export goods. This was a major step forward and both entities will continue to improve the guide. TradeInvest plans to resume its signature annual awards event, with MDF support, in 2022.

MDF has completed several policy-focused collaborations with Monash University over the past few years, whose work in Timor-Leste is funded by another DFAT-funded project. The lead professor was asked to assist with some economic analysis connected with the COVID-19 pandemic. MDF assisted the professor with this analysis, with MDF contributing insights from the field and businesses. This collaboration is ongoing and will likely result in further contributions to a Timor-Leste economic recovery strategy with a focus on agriculture.

Observations and Lessons



Agriculture

Konjac

Public-private coordination on deliberate cultivation is the need of the hour.

MDF previously predicted that there was a risk to export volumes in the short-term, with supplies of konjac dwindling due to the overharvesting of wild stocks. This came to pass and export volumes have dropped sharply from their 2018 highs. This validated MDF's strategy to support a switch to cultivation. During 2021, China's import ban on Timorese konjac pushed export volumes down further. Like many agricultural exports from Timor-Leste, the konjac market is based on a shaky foundation with inconsistent supply and quality. Addressing these issues requires a systemic response private and public sector.

Freshwater Aquaculture

MDF will continue to pilot interventions despite challenging market conditions.

Freshwater aquaculture is an extremely challenging market. Farmers' margins are razor thin and well-meaning donor investment has distorted incentive structures. MDF's switch to catfish farming, which has received less focus from development programs than tilapia farming, shows promise. However, gains have been slow and hard won. MDF does not know if the market is viable for farmers over the long-run but plans to continue piloting interventions due to the high-levels of investment and need to address protein deficiencies in Timor-Leste.

Pigs

Despite the threat of ASF, Timorese farmers see value in investing in pigs.

In an MDF survey, only two per cent of farmers indicated that they do not want to restock their pigs if they can acquire piglets. The economic losses from ASF have been severe, but there are positive signs: two-thirds of surveyed farmers reported that they had altered their pig rearing practices to avoid or contain ASF. This is an early sign of change in a market system that previously viewed pigs as wealth stores, rather than commercial assets.

Cocoa

Accurate market information remains a challenge.

The lack of publicly available information on Timor-Leste's cocoa production and processing may be holding back what could be a niche export for Timor-Leste. The agricultural census does not report on cocoa and there is no export data available. However, large seedling distribution campaigns by two development programs may have established a small production base. Even local chocolate producers are struggling to find information and high quality fermented cocoa for their products. Timor-Leste cocoa is not established so MDF will investigate further and share information in the coming year.

Coffee

Farmer buy-in for rehabilitation will be essential for long-term benefits.

The need to rehabilitate Timor-Leste's coffee trees has been well documented for many years. Previous efforts have been inconsistent and not embedded in a commercial model. In some cases, pay-to-rehab incentives have worked against rehabilitation efforts as farmers have waited for the next government program before acting. A more sustainable model requires a long-term focus where farmers slowly rehabilitate their trees and manage regrowth. By doing so, farmers maintain income over time while gaining valuable knowledge. Coffee exports, through their business models, are incentivised to invest in rehabilitation by supporting farmers' rehabilitation.

Virgin Coconut Oil

Government subsidies create demand, although unlikely to be sustained.

The Government of Timor-Leste's Cesta Basica program nearly doubled the price of virgin coconut oil in the market. This had positive effects for producers and businesses in 2021 but should not be considered a long-term source of demand. The government will likely distribute one more time in early 2022. MDF's export-oriented interventions remain relevant as local market demand is insufficient without government purchasing.

Other work

Movement restrictions necessitated new ways of data collection.

Online and telephone surveys proved useful for data collection as field travel was impossible for much of 2021. Data collected through these tools has limitations, such as sampling bias. However, based on this experience MDF plans to do more digital data collection as a cost-effective method for gathering basic information.



Tourism

There is a strong need to develop the demand side of Timor-Leste tourism. Australian tourists, accounting for nearly 50 per cent of arrivals in 2019, should be the primary target. Research by MDF showed that 1.6M Australians want to visit Timor-Leste but agents cannot adequately sell packages due to a lack of information. MDF is addressing this issue through the development of marketing materials and building connections between local and Australian operators. Coming out of the pandemic, there is a window of opportunity to address the tourism demand issues holding back potential Australian tourists.



Manufacturing

MDF's work with Mahanaim, Timor-Leste's first garment factory is a reminder of the uneven pace of development. MDF supported Mahanaim over 2016-2018 to establish its first factory employing women tailors. The business had been progressing slowly, hindered by the COVID-19 lockdowns and travel restrictions. However, 2021 was a different year for Mahanaim as the business was able to open a retail boutique and won a government contract to supply uniforms. Mahanaim achieved these two milestones without additional MDF support, showing that development doesn't happen according to planning cycles.





COVID-19 Response Story

Recovery and resilience

Supporting market linkages for Timorese tourism operators

"Unprecedented times" was the cliché of 2020, wiggling its way into every company email and news report. In 2021, people shifted to "the new normal" or "weathering the storm." With no international flight or cruise arrivals in 2021, Timor-Leste's tourism sector has been on hold since mid-2020. Relying on a trickle of domestic tourists or the occasional business traveler arriving via a charter flight, the sector reported an 80 per cent profit decline. There is no "new normal" for Timor-Leste, but tourism businesses are keen to be ready.

Given that the pandemic impact will eventually abate, MDF focused on supporting the tourism industry, especially through information sharing and preparatory work, as businesses set up operations in anticipation of economic recovery. Large-scale initiatives were not pursued due to the uncertainty posed by prolonged travel restrictions and the weak appetite for co-investment in business resources. Instead, the MDF team had discussions concerning partner interests and responded with feasible activities to lay the foundations for future work.



Building marketing assets and connections

According to MDF market research, an estimated 1.6 million Australians express interest in visiting Timor-Leste. However, this enthusiasm has not yet converted to arrivals. MDF identified the reason for this to primarily be because agents do not "sell" Timor-Leste since they lack knowledge about the destination.

To grow the industry's awareness of Timor-Leste as an attractive travel destination, MDF worked with Planet Marketing, an Australian boutique marketing business. Planet Marketing established connections between Timorese and Australian tour operators by building a contact list of more than 30 companies and establishing a Facebook group for easy engagement and idea sharing. To help Timorese operators understand the requirements of Australian travel agents, Planet Marketing conducted a webinar series on how to be "travel trade ready", with marketing and product development tips as well as other related travel trade topics. Timorese webinar participants reported that the most useful information they learned concerned the Australian travel agent requirements and information on developing effective marketing collateral that would appeal to Australian audiences. More than 90 per cent of webinar participants rated the webinars as excellent or good.

Despite the country's natural beauty, tourism operators' marketing efforts are also limited by a scarcity of high-quality communications material, such as attractive photos, that could be used in tourism marketing campaigns. Planet Marketing and MDF addressed this by launching a Timor-Leste-wide photography

competition, in which contributions were collected in a shared content bank. MDF also collaborated with the Ministry of Tourism and the Asia Foundation to create an online library of photos and videos suitable for promoting travel to Timor-Leste. These visual elements were then made accessible to tourism operators for unlimited use. By establishing strong connections with a key market, the Australian tourism sector, and initiating the process of creating high-quality market collateral, tourism operators are well positioned to expand destination marketing once tourism resumes.



Strengthening product offer and collaboration

Timor-Leste is one of the few countries in the world geographically positioned on a migratory route for blue whales and dolphins. Located in the coral triangle and famed for its extraordinary beauty, developing the country's marine tourism sector offers a special opportunity. Timor-Leste's dive operators were working to expand their tour services but were impeded by the COVID-19 pandemic.

With no international tourists, MDF and its partner, the Dive Operators Working Group (DOWG), consisting of seven dive operators, shifted their focus to dive site exploration. The DOWG explored two relatively unknown dive sites in 2021 and will survey three more in 2022. The exploration work includes mapping the sites and collecting underwater videography to produce a promotional video showcasing local biodiversity.

Additional dive sites expand the tourism product offerings while generating new interest from divers. Ivan Samra, the co-owner of Dreamers Dive Academy said, "probably 90 to 95 per cent of our customers mention that they've seen the [dive] exploration on social media. It incentivises them to try something new!" While increasing the number of dive locations is essential, the site surveys also strengthen collaboration across the dive operators, the key to industry growth and recovery. In 2022, MDF will continue to work with the DOWG to expand dive site exploration and marketing.



What's next for Timor-Leste's diving scene?

As some international flights resume, MDF and the Timor-Leste tourism sector are optimistic for 2022. MDF will continue to work with the DOWG to develop marine tourism products while also supporting destination marketing to build connections between Australian and Timorese operators. As travel conditions improve, MDF and its partners will promote Timor-Leste as an attractive destination, capitalising on latent tourism demands. Although travel restrictions will continue to pose a challenge under the "new normal," MDF and its partners are committed to forging ahead with optimism, focusing on the sector's potential.



It is positive to see a united industry for common goals, such as safety and conservation. They [tourists] are more inclined to say, 'Oh, this is an organised and professional industry moving in the right direction.' This brings tourism.

Ivan.



Improving communication and uniting the sector was our main interest. Of course, as divers, we all have in our blood this desire to explore new sites.

Ivan,
Dreamers Dive Academy, DOWG Member.



Pro-Poor Growth Story

The power of processing

Coffee milling saves farmers' time and effort

The transition from manual to wet mills has increased coffee quality and production in Timor-Leste.

Coffee is a critical industry for Timor-Leste. The sector generates USD25 million (AUD35 million) annually, making it the largest non-oil export. Additionally, around 37 per cent of Timor-Leste's population depend on this sector for at least part of their earnings. For many households, coffee farming is the only opportunity to bring in a cash income. In 2020, due to COVID-19 travel restrictions, MDF secured inbound flights for several key specialty coffee buying personnel who were able to successfully procure the 2020 harvest. This connection immediately boosted coffee cherry prices and established a sales channel for coffee farmers. MDF replicated the activity in 2021, as travel restrictions continued in Timor-Leste due to the pandemic. This venture offered an opportunity for suppliers and farmers to build a direct connection.

Timorese farmers continue to manually process coffee beans. This poses a challenge to meet international demand. Many coffee producers use manual pulpers, a method which requires spending hours removing the skin of the coffee cherry and spinning the pulpers by hand. The task is time consuming, labour-intensive and leads to low productivity and insufficient quality and quantity.

Keeping this challenge in mind, MDF worked with Karst Organics to organise a new wet mill to upgrade local coffee cherry processing. MDF also supported Karst Organics to conduct training sessions for farmers on selective harvesting and picking techniques. Both initiatives will cut down time and labour costs for farmers. Karst Organics is a specialty green bean supplier, sourcing Arabica green beans from smallholder farmers in Timor-Leste. Over the last three years, the business has worked with farmers in Letefoho and Ermera.

Francisco de Deus is a coffee farmer who owns a six hectare coffee farm in the village of Rotuto. Francisco has been processing his coffee manually for many years but wanted to increase his production volumes. He saw the opportunity to expand his knowledge and chose to attend the Karst Organics training on selective picking, fermentation and drying.



Previously, after pulping and washing, we needed at least seven hours to remove the remaining cherry skin. But now we spend less than an hour to do the work.

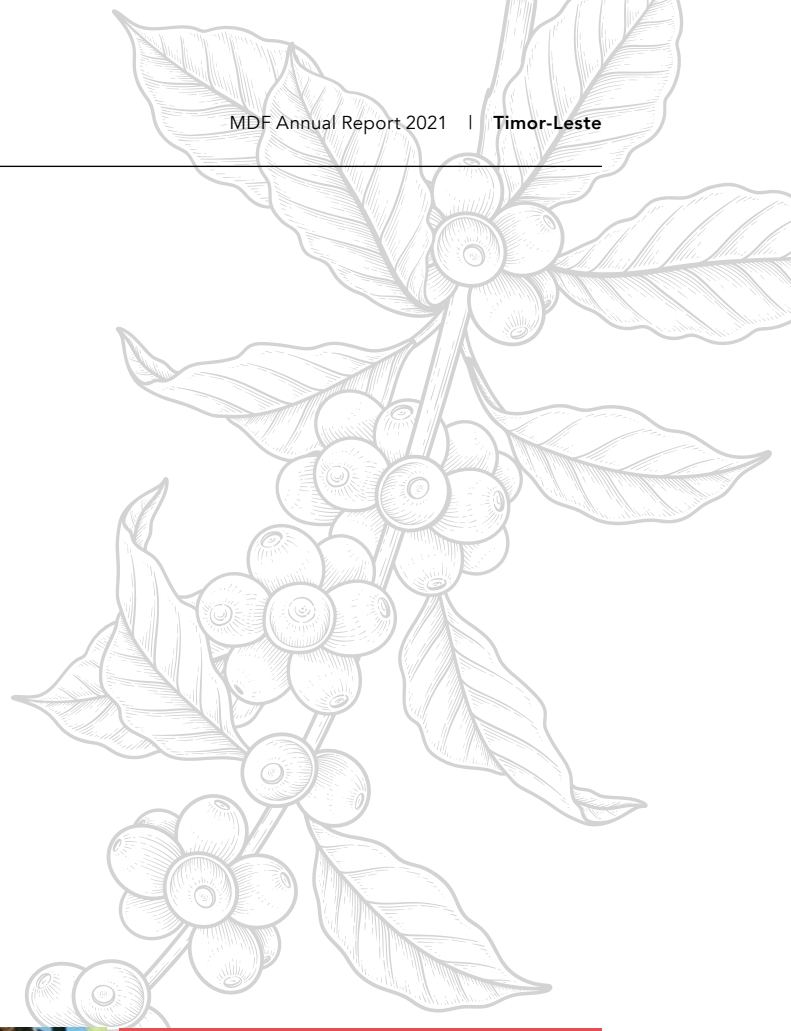
Francisco de Deus,
Coffee farmer.



Francisco now leads the Rotuto Group, comprising of 10 farmers, and is responsible for wet mill operation and coffee cherries quality inspection before the farmers sell their haul to Karst Organics. Francisco and his group members sold coffee cherries at a price 15 per cent higher than the previous year thanks to the improved crop quality.

Francisco and his fellow farmers in the group use the saved time for fermentation and to pick more cherries to sell. The price premium for quality coffee also motivated the farmers to do more selective picking. Consequently, these farmers were able to sell four tonnes of coffee cherries in 2021, a significant increase from three tonnes the previous year.

Meet another coffee farmer, Filomena dos Santos, who benefitted from using a wet mill for pulping coffee. With the wet mill, farmers don't need to spend seven hours removing the coffee cherry skin after washing because the entire skin is washed away with water.



In the past few years, I pulped coffee manually. In a day, I could only pulp around three to four sacks [70 kg sacks], which caused me chest pain. But in 2021, with the wet mill, pulping coffee is so easy! I could pulp five to six sacks of coffee and there is no more chest pain.

Filomena dos Santos,
Coffee farmer.

As the farmers' production quantities increased, so has their coffee cherry quality. The Karst Organics training covered a wide range of topics, including best practice harvesting and processing techniques. Farmers also learned how to better identify coffee beans. All participants who adopted these practices told MDF that they noticed changes in the quality of their coffee and were able to sell their crops at higher prices. As a result, 80 farmers benefitted from the intervention,

which generated an additional income of USD12,825 (AUD17,980) for the growers, including five persons with disabilities.

With better processing facilities in place and more farmers adopting efficient practices, coffee quality is on the rise in Timor-Leste. For farmers like Francisco and Filomena, these improvements have enhanced their quality of life.

Acknowledgements

MDF Timor-Leste would like to thank the following organisations and individuals for their support and collaboration in 2021:

The Ministry of Agriculture and Fisheries (MAF), Timor-Leste

The Ministry of Tourism, Trade and Industry, Timor-Leste

General Directorate of Forest, Coffee and Industrial Plants, MAF Timor-Leste

The United Nations Development Programme (UNDP)

World Food Programme (WFP)

Food and Agriculture Organization (FAO)

United States Agency for International Development (USAID)

To'os ba Moris Di'ak or Farming for Prosperity (TOMAK)

The Asia Foundation

Turizumu Ba Ema Hotu or Tourism for All

TradeInvest Timor-Leste

Dive Operation Working Group (DOWG)

WorldFish

Coffee Quality Institute (CQI)

MDF would like to extend its thanks to all its partners in Timor-Leste, without whom the team's achievements would not have been possible.





Quick
Facts

Pacific Regional

Samoa

Population

198,410



Urban 18% Rural 82%

Population growth rate 0.7%

Official languages

 Samoan, English

Labour force total

53,478

 Female 34.7%  Male 65.3%

GDP (USD)

810 million

Key GDP contribution sectors

 Industry 23.6%
 Agriculture 10.4%
 Services 66%

Vanuatu

Population

307,150



Urban 22% Rural 78%

Population growth rate 2.4%

Official languages

 Bislama, English, French

Labour force total

129,865

 Female 43.3%  Male 56.7%

GDP (USD)

880 million

Key GDP contribution sectors

 Industry 9.1%
 Agriculture 27%
 Services 63.9%

Kingdom of Tonga

Population

105,697



Urban 23% Rural 77%

Population growth rate 1.1%

Official languages

 Tongan, English

Labour force total

31,897

 Female 41.2%  Male 58.8%

GDP (USD)

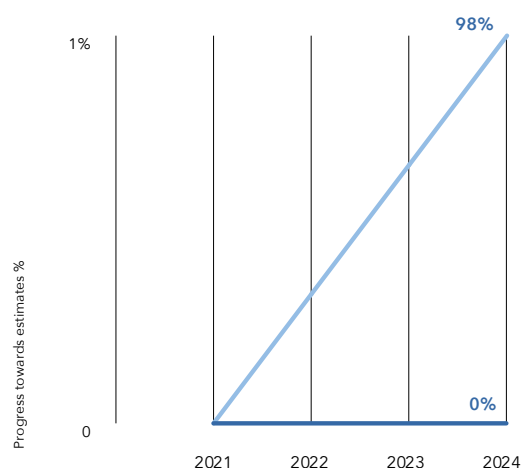
490 million

Key GDP contribution sectors

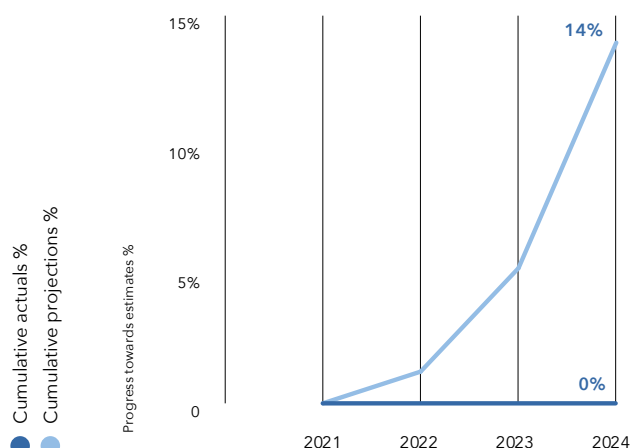
 Industry 20.8%
 Agriculture 19.5%
 Services 59.8%

Highlights

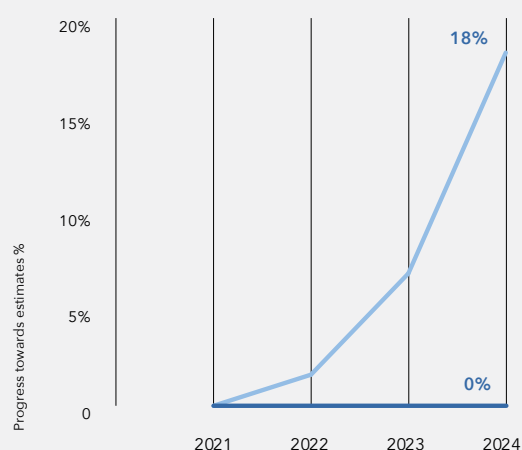
Effective outreach



Net additional income



Value of additional market transactions



As Pacific Regional interventions have just commenced, MDF anticipates results to start materialising in early 2022. Nevertheless, even with the current limited portfolio, growth is expected along the standard J-curve trajectory of Market Systems Development programs, yielding maximum results two to three years after interventions have begun. The first few interventions are currently generating projected results, with progress towards End of Program Outcomes (estimates) for income and VAMT at 14 and 18 per cent, respectively, until 2024. This indicates that the several new interventions planned for 2022 are likely to generate projections fairly soon, positioning the portfolio on a healthy trajectory to achieve estimates.



Overview of Progress in 2021

Following DFAT's request that MDF expands its activities in the Pacific in late 2020, substantive activities commenced in 2021. The objective of this expansion was to deliver, 'regional investment opportunities'. Later it was agreed that MDF would initially focus on three new Pacific countries – Samoa, Tonga, and Vanuatu. Later in the year, New Zealand's Ministry of Foreign Affairs and Trade (MFAT) agreed to become a donor to MDF, specifically to support the Pacific Regional work.

In the concept note for the expansion, MDF emphasised the importance of building on the work and staff of MDF Fiji. MDF ultimately established a small 'Pacific Regional' team based in Fiji. This consisted of three core staff assisted at times by two Fiji-based short-term advisers. In 2021 this team focused on: (1) identifying potential target sectors and markets, and (2) establishing networks with businesses and other stakeholders.

Progress on the expansion, especially the start-up of in-country operations and the creation of interventions, was hampered by pandemic-related travel restrictions throughout the Pacific and Fiji's second wave of COVID-19. However, significant scoping work was completed, and a selective number of interventions were either signed or under development by the end of 2021.



Key progress in 2021 included:



Sector mapping activities for agriculture in the three countries to identify potential target markets, opportunities and challenges.



Completing an agriculture inputs landscape study to understand opportunities in Samoa (e.g. affordable, high quality seeds and machinery).



Research activities to identify Australia and New Zealand-based businesses with trade interests in the region (completed with Delta Pearl and IbisWorld).



Establishing relationships with the chambers of commerce and other business organisations, and building an internal database of organisations



Creating a small pipeline of potential opportunities in a range of sectors.



Signing partnership agreements with Fiji Airways and Tonga's Ministry of Trade and Economic Development.



Developing concepts for interventions with KK's Hardware (regional distribution of high-quality seeds and agri-inputs), Vodafone Vanuatu (increasing uptake and use of mobile wallets) and Living Koko (improving cocoa processing in Samoa).



Staffing

A small, Fiji-based Pacific Regional team was created in early 2021. For much of the year, this comprised two Fijian Business Advisers and the MDF Learning Manager (on placement in Fiji). Two Fiji-based short-term advisers were hired to assist the core staff for part of the year. Additionally, a newly recruited Fijian Business Adviser joined the team in late 2021.

For much of the year, oversight of the Pacific Regional team was handled by the existing MDF management team (principally the Team Leader and Senior Adviser). However, to provide dedicated leadership and management of the expansion work, a Regional Director was recruited and started work in late 2021. The candidate selected for the role previously worked as the Country Director for MDF Timor-Leste.

Late in 2021, two Business Advisers were recruited in Samoa. The first was able to participate in Market Systems Development training with MDF Fiji staff in December. Preparations were made for the recruitment of Business Advisers in Tonga and Vanuatu, but the hiring process did not begin, as approval was still pending from DFAT and host governments at the end of the year. In late 2021, recruitment commenced for a Pacific Media Adviser, as well as Fiji-based interns to support the Pacific Regional team.

For most of the year, the Pacific Regional team did not have its own operations support staff and instead relied on support from MDF Fiji and the MDF Central Operations team. However, in late 2021, a Palladium staff member based in Brisbane was seconded to assist with the set-up of Pacific Regional operations. Likewise, Quality and Inclusion support was provided through existing staff resources. A Fiji-based Recruitment Coordinator position was created, in part to support the anticipated hiring activities for the Pacific Regional team.

Major changes will be made to the size and composition of the Pacific Regional team in 2022, subject to approvals, funding, opportunities and operational needs.

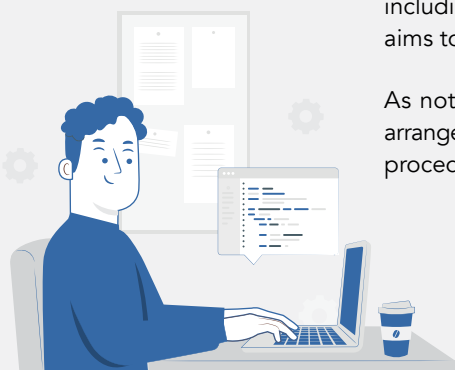


Operations

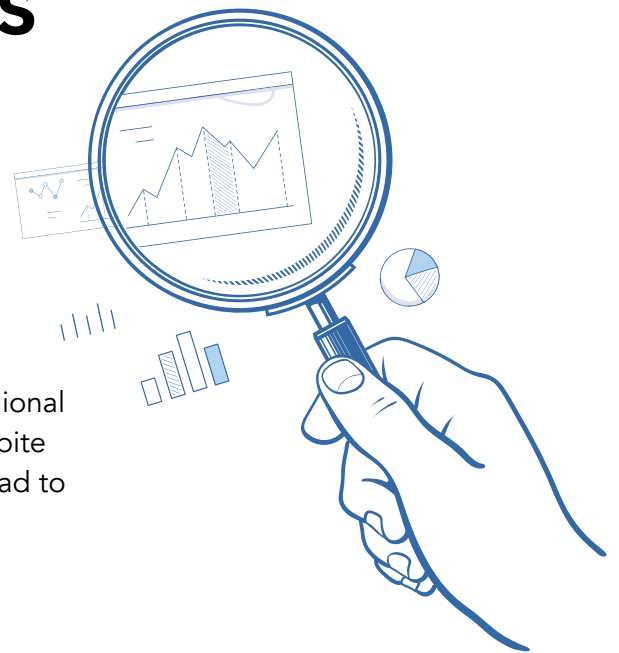
During the year, the process of setting up operations to enable intervention implementation in the new countries began. Office space adjacent to the existing MDF Fiji headquarters was leased for the Fiji-based members of the Pacific Regional team. Fit-out of this working space will continue in 2022.

In Samoa, MDF engaged an agent to assist with selected operations activities, including staff contracting and payroll. MDF also began a negotiation process that aims to share office space with a local business support organisation.

As noted above, a Palladium staff member based in Brisbane assisted with the arrangements of Pacific Regional operations. Initial work to establish select operational procedures, particularly as they pertain to Samoa, was completed.



Scoping, Analysis and Strategy Development



Scoping and analysis were a priority for the Pacific Regional team in 2021, and meaningful progress was made despite the limitations of travel restrictions, which meant this had to be done remotely.

This work was completed by the Pacific Regional team and external research providers. Scoping largely concentrated on agriculture, information and communication technology (ICT), transport and logistics, and business development services. Attention was given to integrating climate change and inclusion considerations into this scoping. The remote scoping will be deepened by in-country scoping as MDF hires staff in the new countries and international travel resumes.

MDF completed several scoping exercises related to regional trade. One study was commissioned to better understand trade between Australia, New Zealand and the MDF Pacific countries, with a focus on Fiji and the three expansion countries. This process examined the major products traded as well as notable trade patterns and trends. The Pacific Regional team also gathered more details on aggregate imports and exports from the three new countries, as well as related information on trade procedures and key organisations.

Another study completed in 2021, with the support of a research provider and the Australian Business Engagement Manager, looked at the business potential for international trade between Australia, New Zealand and the Pacific region, particularly Samoa, Tonga and Vanuatu. This included a survey of businesses from Australia and New Zealand with links or possible interest in the Pacific. MDF followed up with most of the companies identified through this exercise in late 2021.

A study on tourism commenced in 2021 and will continue in 2022. MDF is working with an external research provider to understand Australian consumer demand, particularly in light of changes related to COVID-19. This analysis is exploring motivations, behaviours, willingness to travel, decision-making and information sources for different Pacific locations.

Key to MDF's approach is the building of networks, particularly within the business community, and the gathering of first-hand business and economic information. In 2021, the Pacific Regional team began the process of expanding MDF's network in the Pacific by speaking with business associations and chambers, and subsequently, with a selection of their members.

Without an in-country presence or a completed scoping process in the new countries, MDF felt it was premature to create formal country, sector or market-level strategies in 2021. However, the facility did put effort into preliminary strategy development. Although some initial focus sectors and markets are noted below, granting the flexibility to adjust will be important, as much will depend on intelligence gathered by the in-country teams.



General findings

The economic crisis of COVID-19 has been more prolonged than many anticipated in early 2021, especially in the Pacific. Tourism remains largely on hold in the region and recovery has been severely impacted by the 2021 COVID-19 outbreak in Fiji. While the other Pacific Island Countries (PICs) had avoided outbreaks at the time of writing this report, strict border closures continue to impact the movement of people and goods.

While Fiji opened for tourists again in late 2021, Samoa, Tonga and Vanuatu are likely to take a slower approach, either due to low vaccine coverage or general caution. Tonga's economic recovery will depend on its ability to rebuild following the devastating volcanic eruption and tsunami in January 2022. Given this, while MDF will begin scoping the tourism sector in 2022, it is unlikely to be an early priority sector. Predictable and affordable freight remains a challenge for many businesses in PICs and this is likely to be a sector explored further under the umbrella of 'transport and logistics.'



Agriculture

As in all current MDF implementation countries, agriculture is likely to be a sector of focus in the Pacific Regional countries. However, agricultural development is a crowded space, so to avoid duplication, MDF is likely to narrow its focus to unmet support needs or constraints, such as the limited availability of agricultural inputs and scarcity of high value/value-added forms of production.

Many PICs have seen a return to farming as other industries have contracted while agricultural production has remained strong. However, for many crops there are significant export and market access challenges. The Pacific Regional team conducted initial scoping activities to identify opportunities, carried out stakeholder mapping and research into agricultural inputs. The team intends to capitalise on this intelligence in 2022.

The Pacific Regional team began scoping opportunities to improve the availability of affordable, high quality inputs in 2021. This included research into the availability of seeds and other inputs in Samoa. Although not yet finalised, the research revealed several potential areas of interest, including challenges in accessing affordable farm machinery and high quality seeds. The team will likely use these findings to develop a range of interventions, potentially building on successful partnerships with agricultural input suppliers in Fiji.

Through initial scoping, cocoa, coconuts, kava, vanilla and turmeric have been identified as potential high value crops of interest in the three PICs. In cocoa, an intervention concept was developed with Living Koko, an Australian-based chocolate maker, to improve its processing capabilities in Samoa. This intervention will only proceed once international travel is more open. In coconut, the team initiated discussions with an Australia-based horticulture supplier to assess the feasibility of importing coir (coconut husk) from the Pacific to use in potting mix.





Information and communication technology

Scoping on information and communication technology (ICT) was conducted with a focus on digital financial services. MDF found that remittance flows to the region have grown since the start of the pandemic. In Fiji in particular, this has prompted the rapid uptake of digital finance solutions, following many years of slow progress. Digital finance tools, such as mobile wallets, are a cheaper way to receive remittances than traditional money transfer methods and can also be an important savings tool for unbanked populations. These services remain underutilised in the Pacific despite the high cost of remittances. Therefore, MDF is considering interventions on both the receiving and sending sides to drive uptake.

An intervention is under development with Vodafone Vanuatu to improve the acceptance and use of its mobile wallet, mVatu, by both consumers and vendors. There have also been early stage discussions with Digicel for a potential partnership. MDF is scoping interventions to market remittance products to senders in Australia and New Zealand. Additionally, MDF is in discussions with the United Nations Capital Development Fund to support a fintech challenge fund it will be running in 2022.

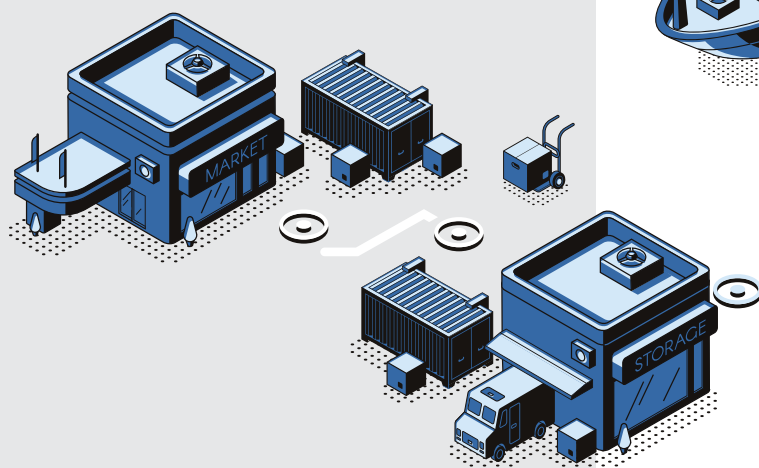




Transport and logistics

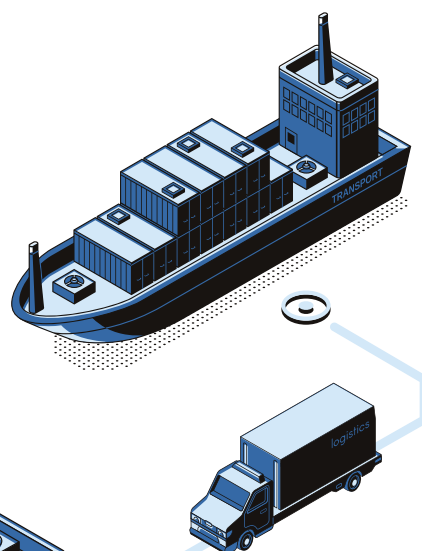
Transport and logistics are a challenge in the Pacific, for the movement of both people and goods. In mid-2021, MDF signed a partnership with Fiji Airways to improve its Customer Relationship Management (CRM) capabilities and support the eventual expansion to other PICs, with the aim of increasing connectivity between Fiji and the region for tourism. Development of the CRM is on track and MDF will revisit the expansion activities with Fiji Airways in 2022 as regional borders open. As reopening plans for the other countries become more clear, MDF will also begin scoping potential opportunities in the Samoa, Tonga and Vanuatu tourism sectors. The analysis activities will be informed by ongoing tourism data analytics and research work MDF is conducting in partnership with Destination Think and Kantar.

Freight in the Pacific is expensive and often unreliable. This has worsened since the start of the pandemic. MDF gathered market intelligence on freight challenges in the PICs throughout 2021. The facility will continue to do so for both DFAT and for partner businesses in 2022 and will pursue any intervention ideas that may arise from the new information.



Business development services

Building on the success of the Fiji Enterprise Engine, the regional team is working with the Pacific Labour Facility (PLF), the Tongan Ministry of Trade and Economic Development (MTED) and the Fiji Commerce and Employers Federation (FCEF) to design and implement a business accelerator program for Micro, Small and Medium Enterprises (MSMEs) in Tonga. This forms part of a reintegration pilot for returning labour mobility workers and their families but is open to any operating business that is ready to scale up. The program launched in December 2021 and classes will likely run from January to May 2022.





Cashing in on Pacific remittances



The Pacific is one of the most remittance-dependent regions in the world. Pacific Island Countries (PICs) have a large diaspora, particularly in Australia and New Zealand. Just under 130,000 Samoans live overseas, compared to a domestic population of around 200,000. Remittances are an outsized component of many families' incomes and an important source of foreign exchange. In Tonga, they make up 43 per cent of GDP and in Samoa, 21 per cent. Samoa recorded remittances reaching SAT164.4 million (AUD87.1 million) in Q3 2021, up 18.4 per cent compared to the same quarter in pre-COVID 2019. In both countries, around 80 per cent of households received remittances. With a growing number of Pacific Islanders participating in labour mobility schemes, and with other sources of foreign exchange, such as tourism, limited due to the pandemic, capitalising on remittance flows is essential for economic growth in the Pacific.

A key barrier for making the most of the remittances in the Pacific is the high cost. On average, the cost of sending money to the Pacific is over 10 per cent of the transaction value, compared to a global average of around 6.5 per cent. It is significantly higher than the UN Sustainable Development Goal (SDG) of an average remittance cost of only three per cent. This is because despite being a highly remittance-dependent region, overall volumes being sent in the Pacific are low, so financial institutions and money transfer organisations are unable to achieve economies of scale. Moreover, traditional methods of sending remittances remain dominant, that is, via money transfer organisations, banks or travelling with cash.

Mobile money is an increasingly popular lower-cost alternative to traditional transfer methods. It is the only channel that comes close to meeting the SDG target, with an average global cost of 3.5 per cent. In the Pacific, mobile money transfers cost around six per cent on average, compared to 13 per cent to send remittances between bank accounts. Beyond being low cost, mobile money has several advantages. The money is received in real time and there's increased transparency for senders, receivers and governments.

Despite the positives, there are several challenges to overcome. Cash remains king in the Pacific and trust in other methods for storing and sending money is generally low. Along with poor telecommunications infrastructure, financial and digital literacy among consumers is one of the barriers to the growth of mobile money.

Despite the challenges, the benefits are clear. Cheaper channels for sending remittances means more money in the pockets of receivers. Given many Pacific Islanders remain unbanked, a mobile wallet can be a useful introductory tool to start saving and then access other formal financial services. At the same time, increased uptake of digital financial services will help each PIC grow its e-commerce and digital economy potential, facilitating growth and trade. MDF sees supporting mobile money providers to increase usage as one of the key early steps in the wider digital transformation of Pacific economies.



Interventions

Although scoping and strategy work is ongoing, and many staff are yet to be recruited, the Pacific Regional team started to design and implement interventions in 2021. Two interventions began during the year and a third was negotiated.

MDF commenced this work, although the scoping is not yet completed, in order to capitalise on immediate opportunities that emerged during the preliminary analysis. This will also help test feasibility and refine the understanding of certain opportunities and constraints.



Fiji Airways

An intervention began in 2021 to improve the company's CRM capabilities and support the eventual expansion to other PICs, with the aim of increasing connectivity between Fiji and the region for tourism. The Fiji-based elements of this intervention commenced successfully, while the regional element will be discussed further in 2022.



Tonga Enterprise Engine

MDF started a collaboration between the Pacific Labour Facility (PLF), the Tongan Ministry of Trade and Economic Development (MTED) and the Fiji Commerce and Employers Federation (FCEF) to design and implement a business accelerator program for MSMEs in Tonga. The early stages of this collaboration have been completed, including the selection of trainers and participant businesses.



Vodafone Vanuatu

An intervention was developed with Vodafone Vanuatu to improve the uptake and use of its mobile wallet, mVatu, by both consumers and vendors. Negotiations on the details of this collaboration were finalised in 2021.

Quality and inclusion

In 2021, Quality and Inclusion staff from MDF Fiji supported the Pacific Regional team. This work included assisting initial intervention concept development and scoping exercises. A key scoping exercise was the agricultural inputs landscape study in Samoa, which mapped major commercial crops and identified the constraints farmers face when accessing relevant production inputs, including availability, quality and price.

Due to the disproportionate impact of climate change in the Pacific, this topic has and will receive extra consideration by the Pacific Regional team. Members of the team were involved in MDF Fiji climate change workshops. Climate change risks, mitigation, adaptation and resilience have been considered in the early stages of the intervention concept development, including on the kava and sandalwood sectors.

Communications, engagement and influencing

Although limited, communications work commenced in 2021, including the development of branding for the new Pacific countries consistent with MDF's branding theme. Recruitment also commenced for a Pacific Media Consultant, who is expected to begin work in early 2022.



Coordination and collaboration

MDF is expanding in-country operations to three new countries, all of which are relatively small, and already host multiple economic development programs and organisations. Coordination and collaboration with these programs and organisations will therefore be important, to avoid duplication of efforts and to capitalise on the respective strengths. In 2021, the Pacific Regional team began discussions with relevant economic development programs and organisations to understand their ongoing work and key priorities.

With MFAT joining as a donor to MDF for this regional work, and MDF's planned entry into three new countries, donor coordination is also a priority. In 2021, MDF began establishing relationships with DFAT and MFAT Posts in all additional countries.

Acknowledgements

MDF Pacific Regional would like to thank the following organisations for their support and collaboration over the past year:

United Nations Capital Development Fund

Tonga Ministry of Trade and Economic Development

Pacific Labour Facility

PHAMA+

Samoa Business Hub

MDF Pacific Regional would also like to extend its thanks to all its partners, without whom the team's achievements would not have been possible.



Annex

Annex 1

ADR results

Along with headline program impact indicators, MDF records relevant DFAT Aggregate Development Indicators (ADR). These are: value of additional agricultural and fisheries production (USD), value of private sector investment leveraged (AUD), value of exports (including new exports) facilitated (AUD), number of poor women and men who adopt innovative agricultural and fisheries practices, and number of poor women and men with increased incomes. It is important to note that these values are reported for the given year. This differs from MDF's impact indicator reporting, which presents achievements cumulatively for the entire program implementation to date.

Actuals as of 31 December 2021			
DFAT Aggregate Development Indicators	Female	Male	Total
Number of poor women and men who adopt innovative agricultural and fisheries practices	33,098	34,803	67,901
Number of poor women and men with increased incomes	62,664	81,807	144,471
Value of additional agricultural and fisheries production (USD)	2.20 million		
Value of exports (including new exports) facilitated (AUD)	2.97 million		
Value of private sector investment leveraged (AUD)	1.59 million		

THANK YOU

MDF would like to thank the Australian Department of Foreign Affairs and Trade, the New Zealand Ministry of Foreign Affairs and Trade, Palladium, Swisscontact and all of their partners, suppliers and contractors for their hard work and support in 2021.

Last but not least, thanks should go to MDF's staff across the facility for their dedication and commitment.



**Australian
Aid** 

- Fiji: Garden City Business Park, Grantham Road, Suva, Fiji
- Pakistan: 22-N, Block N, Phase 2, Johar Town, Lahore, Punjab, Pakistan
- Timor-Leste: 2nd Street, Palm Business & Trade Centre, Surik Mas, Dili
- Sri Lanka: No. 349, 6/1, Lee Hedges Tower, Galle Road, Colombo 03, Sri Lanka
- Papua New Guinea: Level 10, MRDC Haus, Musgrave St, Port Moresby, Papua New Guinea

This publication has been funded by the Australian Government through the Department of Foreign Affairs and Trade. The views expressed in this publication are the author's alone and are not necessarily the views of the Australian Government.



www.marketdevelopmentfacility.org



[@marketdevelopmentfacility](https://www.facebook.com/marketdevelopmentfacility)



[@MDFGlobal](https://twitter.com/MDFGlobal)



[@MDFGlobal](https://www.instagram.com/MDFGlobal)



[Market Development Facility](https://www.linkedin.com/company/market-development-facility)



Palladium
MAKE IT POSSIBLE



swisscontact

MDF is funded by the Australian government. It is implemented by Palladium, in partnership with Swisscontact