



## EXPLORING AN INGROWER/ OUTGROWER MODEL WITH GRUPO MADAL IN ZAMBEZIA, MOZAMBIQUE

## ACTIVITIES, RESULTS & LESSONS LEARNED

INTEGRATED LAND AND RESOURCE GOVERNANCE TASK ORDER UNDER THE STRENGTHENING TENURE AND RESOURCE RIGHTS II (STARR II) IDIQ

Contract Number: 7200AA18D00003/7200AA18F00015 COR: Stephen Brooks USAID Land and Resource Governance Divsion Contractor Name: Tetra Tech Author: Terra Firma

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Tetra Tech Contact(s):	Amy Regas, Project Manager 159 Bank Street, Suite 300 Burlington, VT 05402 Tel: (802) 495-0282 Fax: (802) 658-4247 Email: amy.regas@tetratech.com
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Submission Date: 14 December 2023 Submitted by: Amy Regas, Project Manager Tetra Tech

Tetra Tech 159 Bank Street, Burlington VT 05401, USA Tel: (802) 495-0282 Fax: (802) 658-4247

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## LIST OF ACRONYMS

CaVaTeCo	Community Land Value Chain Project
IDIQ	Indefinite Delivery/Indefinite Quantity
ILRG	Integrated Land and Resource Governance
NANA	Associação de Apoio ao Desenvolvimento
STARR II	Strengthening Tenure and Resource Rights II
USAID	United States Agency for International Development

## I.0 CONTEXT

To protect its territories from other colonial powers in the aftermath of the Berlin Conference, the Portuguese government decided to lease two-thirds of Mozambique to foreign companies, while keeping control over the remaining area comprising the south of the Save river (currently Inhambane, Gaza and Maputo provinces). One of these companies was the French-owned Société du Madal, which was founded over 100 years ago. Over time, it acquired the rights to over 30,000 hectares in several coastal districts of Mozambique's northern province of Zambezia.

The company grew coconut as the principal crop on most of this land, using a model of large-scale estate production with hundreds of workers. The company gradually transformed local land tenure to fit the tenet of copra production. Local inhabitants secured their livelihoods either through ownership of palm trees (they planted or purchased from other holders) or through seasonal labor working for Madal. Households grew food crops only in a limited fashion, and subsistence agriculture was never more than a supplement to income generated through coconut production and trade and wage labor.

Through the expansion of the original prazo<sup>1</sup> allocation from the Portuguese state, Madal gradually became one of the largest coconut producers in the world by the 1960s. The company used a system of coastal shipping to move its product from small private ports up and down the Zambezia coast to Quelimane, where it processed the coconut for export around the world. Key products included copra (the dried meat), coconut oil pressed from the copra, and coir (the fibrous outside part of the husk).

By the 2000s, the company was in decline. One of the major blows was from the lethal yellowing disease, which killed tens of thousands of hybrid coconut trees that the company had planted with the intent of renewing its base. Gradually, large areas of the company's land lost productivity and eventually were largely fallow.

At the same time, the growing population and a lack of available farmland led thousands of people, mostly women, to start to informally grow their own crops on unused areas of many of the company's farms. By 2021, Madal estimated that over 50,000 people were informally using company land. Those using the land know that Madal holds the rights to the farms, so while they have grown crops for their own use, they have not built permanent structures.

The company was purchased by new owners in 2016. The new Madal management took a strategic decision to shift away from a model reliant entirely on estate-based production, to a more inclusive business model that is designed to intentionally integrate and benefit neighboring communities, including aggregation and resale of commodities produced by local farmers. One of the most innovative features of the new approach is to recognize and respond to the land hunger of those who were informally using company land. Rather than trying to forcibly remove these smallholders, Madal designed an approach to bring them into the system. This combines three elements:

- Core estate production: crop production by the company on some central areas of its farms, as well as use of company land for test plots and experimentation;
- Outgrowers: Madal contracting members of neighboring communities to grow crops on their own land, which they sell to Madal; and

<sup>&</sup>lt;sup>1</sup> The Prazos was an institution established in Mozambique along the Zambezi River valley by the Portuguese Crown in the 16th century and provided land grants for three generations with the mandatory or preferential succession in the female line. The Crown retained ownership rights, but it ceded to others the use rights for payment of a lease fee.

Ingrowers: Madal introduced an innovative approach designed to turn thousands of people who
were informally using company land into formally accepted farmers, called "ingrowers" because
they worked within the company farms. This is a modified version of the outgrower scheme,
Madal agreed that many families who noted that they had insufficient land of their own,
especially women-headed households, could use some company land based on long-term
contracts to grow food and cash crops that the company would purchase.

This combination of outgrowers with the innovation of "ingrowers" was designed to enable community members to have reliable sources of food and income in ways that provide a reliable supply of commodities for Madal.

Documentation of land rights is a foundational activity underpinning improvements in agricultural productivity. Under Mozambican law, land belongs to the state, but communities and citizens may acquire the right to use and improve land in perpetuity. The Land Law notes that these rights are valid even if not documented or registered. However, the lack of documentation combined with the fact that few citizens understand their rights can leave communities in vulnerable situations. In many cases, people or companies, both Mozambican and foreign, have been able to take over land in ways that have prejudiced the community.

The United States Agency for International Development (USAID) Integrated Land and Resource Governance (ILRG) project's approach to land rights fits well community desires to confirm their own rights, and with Madal's interest in working with communities to make more productive use of both community and company land. The approach starts by training community members, including elected leadership of land associations, in people's rights based on the land law. This is followed by documentation of community boundaries, and then by documentation of individual parcels of land that have been allocated to families or for communal uses, such as sacred forests. In the context of Madal, this process also served to clearly and publicly confirm which land was controlled by which community and which land was controlled by the company. Within the company land, it identified parcels farmed by 'ingrowers.' This clarity provides a basis for subsequent agricultural development work within the community areas and on the Madal farms.

Based on this, ILRG developed what became a series of activities with Madal and 19 communities that are adjacent to the company's farms in rural areas of Quelimane District. These included documentation of the overall boundaries of the 19 neighboring communities and of Madal farms; clarification of land rights already allocated to community members; delimitation of parcels for 'ingrowers;' and development of a new gender-sensitive extension system through which Madal would provide technical support to smallholders with ingrower and outgrower contracts. The approach is applicable to Madal's broader estate, as well as other companies that have large landholdings and that wish to improve relationships with communities encroaching on company lands.

This final report provides a summary of activities, results and lessons learned.

## 2.0 KEY OBJECTIVES OF THE MADAL ACTIVITIES

The overall objective of the ILRG partnership with Grupo Madal was to identify and support the scaling up of models of land-based investment that empower women and benefit local communities, while also being profitable for the investors. The three ILRG activities were developed over time, with the objectives of the second and third designed to complement and build upon the first. Taken together, the specific objectives included:

- To clarify and document existing land rights in 19 communities adjacent to Grupo Madal company farms through delimitation of community and household land;
- To enable Grupo Madal to partner with smallholders through the development of genderresponsive ingrower and outgrower schemes focused on coconut, annual commercial crops and food crops in areas in and around the company's farms;
- To strengthen the gender-responsive natural resource management capacities of communities adjacent to farms of Grupo Madal in Quelimane District, Zambezia Province, Mozambique;
- To develop Grupo Madal's internal capacity to develop and implement inclusive and genderresponsive models of engagement with smallholder farmers that clarify land rights and are mutually beneficial for the company and communities; and
- To provide smallholder farmers involved in the outgrower and ingrower schemes with genderresponsive extension services that increase economic viability of the model for both smallholder farmers and Grupo Madal.

## 3.0 PROJECT AREA

The work with Grupo Madal and its neighboring communities took place in the coastal area of Quelimane District in Zambezia Province.

#### FIGURE 1& 2. MOZAMBIQUE PROVINCES; ZAMBEZIA PROVINCE AND LOCATION OF MADAL FARMS (IN ORANGE)

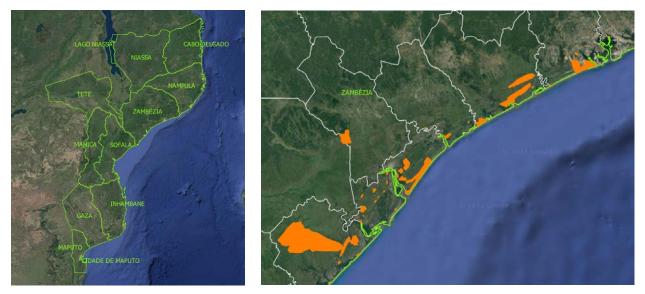


FIGURE 3. LOCATION OF GRUPO MADAL FARMERS INVOLVED IN ILRG PROJECT (ORANGE) AND NEIGHBORING CITY OF QUELIMANE (BLUE)



# 4.0 PROGRESS: IMPLEMENTATION OF ACTIVITIES

This set of activities with Grupo Madal was implemented between October 2020 and August 2023. Two of the activities focused on clarifying land tenure and improving sustainable land use in the 19 communities adjacent to Madal's four farms in Quelimane District, as well as helping to formalize access to newly delimited parcels for 'ingrowers' on these farms. The first set of 14 communities was supported by the local NGO Associação de Apoio ao Desenvolvimento (NANA); the second set of five was supported by Cooperativa Avante. The third activity emphasized more sustainable and productive use of this land, through development of Madal's capacity to provide gender-sensitive agricultural extension services to farmers (especially ingrowers).

All activities were implemented in coordination with a range of stakeholders, including Grupo Madal, community leaders and community members, the district government, farmers, and farmer clubs and the ILRG team.

#### 4.1 COMMUNITIES STRATEGY AND MATERIALS; GENDER, YOUTH, AND INCLUSION ASSESSMENT; POLICIES AND OPERATIONAL PROCEDURES FOR GRUPO MADAL

**Gender, youth, and social inclusion assessment:** ILRG conducted an initial assessment on gender, youth, and social inclusion in the area to better understand barriers and opportunities for land tenure security and economic empowerment of women and youth. This addressed perceived land rights of women, men, and youth; engendered patterns of land holding; access to and control of farming productive resources; and decision-making power over land use or the products and benefits derived from work on the land at the family and community levels. The findings informed the subsequent development of training methodologies and materials for use in all ILRG Mozambique activities. The study found that 84 percent of the families interviewed live largely from smallholder farming, with most farmland controlled by men. Women do much of the farm labor and engage in a series of income generating activities such as small-scale trading, such as sale of tomatoes alongside the road.

**Communications materials**: NANA developed a communications strategy and simple communications materials. Chief among these were the plan and materials for introducing the project to government authorities and communities, including explicit ways to encourage the inclusion of women smallholders as individuals or as groups.

**Company Policies**: NANA worked with Madal to review and develop a set of policies and procedures to guide the company's investments to support women farmers. These included the design features of the ingrower and outgrower schemes, an explanation of the coconut-based agro-forestry system used by the company, and aspects emphasizing gender equality and sustainable production. This package also included a model contract for use with ingrowers and another for outgrowers.

#### 4.2 REGISTRATION OF INGROWERS AND DELIMITATION OF INGROWER PARCELS

During phase one of the activity, the first service provider NANA worked with Madal to identify people interested in signing contracts as 'ingrowers.' This focused on those who were already informally using company land; these were primarily "land-poor" women who couldn't find enough land for themselves within their communities. It was far less common to find men using Madal land, in large part because men are more likely to seek work outside the community; when they do farm, they control most of the

available farmland within the communities. NANA was able to record personal details of 2,112 people, including 1,822 women (86 percent of the total) and 290 men (14 percent). These participants subsequently formed the first 75 farmer clubs to work with the support of Madal extension.

The company made over 1,000 hectares on four farms available for the use of ingrowers. These areas are predominantly along roads that form the boundaries between the farms and the communities, covering the same areas where community members were already working. (See map below.) This means that the farmers already know the land, and that it is close to where they live.

By the end of the first activity, NANA and Madal delimited 940 hectares of these border areas into 1,800 parcels of about 0.5 hectares, each roughly  $50 \times 100$  meters. The half-hectare parcels sound small; however, many of the women who signed ingrower contracts noted that they were larger and more efficiently laid out than the informal plots they had previously been using on Madal lands.

The plots were arranged in a grid pattern that will allow access by tractors for land preparation along the rows. This pattern was designed to allow for rows of coconut saplings planted on a spacing of a bit more than  $12 \times 9$  meters. This is a larger than standard spacing selected for the purpose of allowing ingrowers to grow crops in between the rows of trees and reflects Madal's long-term commitment to working with these community members. Each plot has five rows of trees with five strips between rows for intercropping, where farmers can plant alternate strips with cash crops for sale to Madal and with food crops for home consumption.

#### FIGURE 4 & 5. INGROWER PARCELS (PINK DOTS) ON GRUPO MADAL FARMERS (BLUE); EXAMPLE OF INGROWER PLOTS ON BAGONE FARM



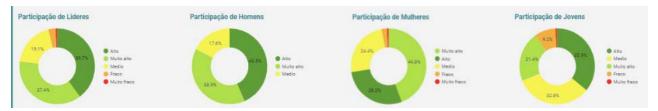
#### 4.3 ESTABLISHMENT OF COMMUNITY LAND ASSOCIATIONS

The two land activities jointly facilitated the establishment and training of 19 community land associations, each using the Law 2/2006 for Agricultural Associations. This law allows communities to establish legal entities that represent the entire community, including in the management of land. Global best practice indicates that for systematic land tenure regularization at household level, there are two key pre-conditions: a clear identification of the community area to be regularized, and oversight from a locally legitimate body that represents the community. Unlike informal community groups in Mozambique, these associations have legal personality. They can represent the entire community in negotiations, can open bank accounts and can sign contracts on behalf of the broader community. These associations were established in the initial phase of work in each community so that they can assume a

central role starting with delimitation, both at community and household level, and continue to represent the community in future. Their bylaws were drafted to enable them to represent the community in management of land and natural resources, as well as in the processes of community land delimitation, zoning and land use planning.

The 19 communities selected a total of 200 founder members, who initiated the processes of establishing their associations; 52.5 percent of the founders were women. In these 19 associations, the service providers ran 131 training meetings providing extensive training in key themes, including establishment and management of associations, gender and social inclusion, the land law and land rights, and processes of delimiting land according to the Technical Annex of the Land Law. More data on the associations is available on the Community Land Value Chain project (CaVaTeCo) Monitoring Portal.

#### FIGURE 6. PARTICIPATION IN ASSOCIATION FORMATION



The activity also involved adaptation and development of training materials for use with Madal extension staff and with small-scale farmers. These addressed topics including manuals for field staff on Coconut Production, Agro-Forestry Systems, Rural Agricultural Extension and a guide on literacy and numeracy training.

#### 4.4 COMMUNITY LAND DELIMITATION

At the start of the first delimitation activity, a total of 14 communities immediately adjacent to Madal's four farms were identified as high priorities. The second delimitation activity built upon these 14 and added five more, for a total of 19 communities. By the end of the project, all 19 communities had been successfully delimited, securing the collective land rights of more than 39,000 people over 13,457 hectares.

Community	Name of Association	Project	Male	Female	Total	Area (hectare)	Density
Gumira	Associação dos Camponeses de Gumira	NANA	1567	1386	2953	791	3.7
Inhangulue	Associação Municuluvela	NANA	1431	1283	2714	293	9.3
Machimano	Associação Nigumana	NANA	942	835	1777	546	3.3
Magala de Inhangulue	Associação Olima Murobue	NANA	515	449	964	227	4.2
Magala de Machimbue	Associação Zeze	NANA	673	578	1251	346	3.6
Marracua	Associação Anamarracua	NANA	1124	1002	2126	368	5.8
Milato	Associação Wiwanana de Milato	NANA	970	85 I	1821	614	3.0
Muiamo	Associação Hovedha Honodfanha	NANA	1495	1286	2781	842	3.3
Murtane	Associação Ossapa Ntidi	NANA	1028	904	1932	338	5.7
Mussuluga	Associação Esperanca	NANA	817	708	1525	472	3.2
Naivere	Associação Hoziveliwa	NANA	542	478	1020	309	3.3

#### TABLE I. DELIMITED COMMUNITIES, POPULATION & AREA

Pindane	Associação Wiwanana Wampindane	NANA	1009	900	1909	207	9.2
Salinhane	Associação Ovede o Nofanha	NANA	1032	892	1924	616	3.1
Sareva	Associação Munilele	NANA	1475	1282	2757	788	3.5
Massangano	Associação Munivune	Avante	1990	1825	3815	1008	3.8
Mingano	Associação Munivune de Mingano	Avante	1391	1279	2670	1801	١.5
Mucoia	Associação Omodha wa Mucoia	Avante	437	402	839	351	2.4
Nacuecha	Associação None de Nacuecha	Avante	1024	941	1965	999	2.0
Varela	Associação Varela Onuwe	Avante	1256	1155	2411	2540	0.9
TOTAL			20718	18436	39154	13457	2.9

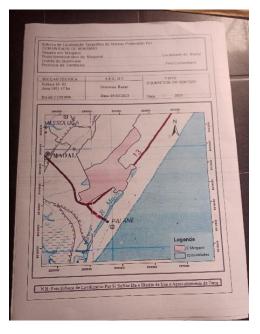
## FIGURE 7. MAP OF DELIMITED COMMUNITIES NEXT TO MADAL FARMS AND INGROWER PARCELS



Upon completion of the community delimitation and following public confirmation of the process with neighboring communities and with the participation of government representatives, the service providers helped all 19 of the communities to request formal Certificates of Delimitation from the provincial authorities, including official maps using the coordinates captured during georeferencing.

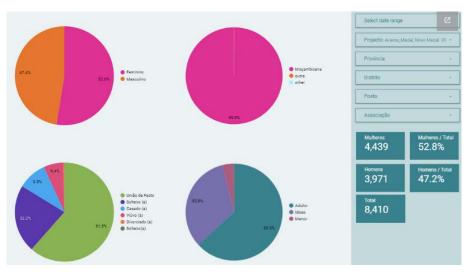
#### FIGURE 8 & 9. OFFICIAL CERTIFICATE OF DELIMITATION AND MAP FOR THE COMMUNITY OF MINGANO





#### 4.5 DELIMITATION OF EXISTING LAND USES INCLUDING FAMILY PARCELS

The land associations worked closely with the service providers to identify over two dozen community members, mostly under the age of 30, who were training in the technical process of land delimitation. These community members were hired by NANA and by Avante in the use of digital forms for recording alphanumeric and geospatial information and submitting this to a central server. They also trained to use paper maps based on satellite imagery, which they used with their neighbors in the process of delimitation. The auxiliaries undertook the process of registering 8,410 land claimants, 52.8 percent of whom were women. These represent a subset of the 39,000 inhabitants, or roughly 8,000 families, that live in the 19 participating communities. In some families, two or more people may have registered; in others, no one registered.



#### FIGURE 10. REGISTRATION OF LAND CLAIMANTS

Following registration, the community para-surveyors were divided into pairs that worked their way systematically across each community, recording details and geospatial location of 8,121 parcels covering a total area of 3,031 hectares. In the first delimitation activity, NANA was able to document just under half of these parcels in the first 14 communities. This activity ended with substantial areas of these first communities undelimited for two main reasons. First, the activity took longer than originally planned; there were larger numbers of very small parcels than originally estimated and it took longer to delimit them than had been planned. Second, many of the titleholders live outside of the community and their families were reluctant to document land in their absence.

ILRG decided to implement a second phase of delimitation work, expanding to a further five communities while providing a second chance for those members of the first 14 communities who didn't participate to engage. Cooperativa Avante, which implemented this second phase, was able to cover additional areas. The map below shows the location of delimited parcels inside the communities (yellow), and in relationship to their location near Madal's farms (blue lines) and the ingrower parcels (pink dots).

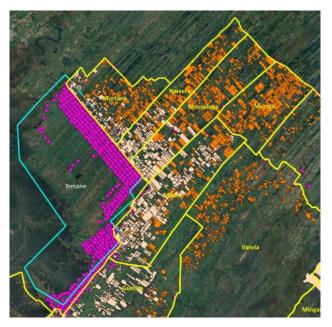


#### FIGURE 11. MAP OF DELIMITED PARCELS IN PARTICIPATING COMMUNITIES

By the end of the activities, there were still some undocumented areas in all communities. Some titleholders were absent during the delimitations processes or chose not to participate for various reasons. The titleholders could decide to delimit their land in any subsequent initiatives, including future government efforts; in the final analysis, whether people are able to do so or not will be a function of the quality of land administration services made available by the state. In addition, large tracts of Varela, Nacuecha and Mingano communities are lagoons, so these are not allocated to anyone.

The map below shows a more detailed view of the spatial relationships. The Madal farms (in blue) include the new ingrower parcels (pink) around the border with the communities, providing easy access. The communities (in yellow) show that NANA began the process of delimiting parcels (shown in pink) in the areas adjacent to Madal's farms; Avante continued this process further into the interior of the communities (shown in orange).

#### FIGURE 12. DETAILED VIEW OF MAP OF DELIMITED PARCELS IN PARTICIPATING COMMUNITIES



At the end of the delimitation processes, households received documentation of their parcels, issued by the land associations with technical support from ILRG. For the first phase implemented by NANA, these documents were called "Declarations of Land Rights." The district government was very supportive of the process, with the District Administrator playing a central role in distribution of the documents for the 3,967 parcels documented by NANA.



Celia Novo from Marracua community shows off her Declaration of Land Rights. CREDIT: TERRA FIRMA

However, the National Directorate of Land verbally expressed concerns about these documents. They argued that, while community members may provide verbal confirmation of land rights, they lack the legal authority to put this confirmation into writing. To avoid conflict, the ILRG project modified the language of the documents for the second phase. The final 4,108 documents that were distributed in the second phase with the support of Avante were changed to highlight their role in providing details of community members who could confirm that the holders had properly acquired land rights according to the law. Most of the content is the same, with details of the rights holders, association leaders, community leaders, a satellite image of the parcel and its location within the community. The back of the document provides references to the new national Land Policy and to relevant articles of Land Law that underpin the process. The District Administrator and the Head of the Provincial Land Office both understood that these documents were not intended to replace formal titling by government and agreed that they are useful within the communities to clarify rights and to reduce conflict over land. The National Directorate of Land continues to informally object; while the

Directorate has never provided any written explanation, a senior staff member insists that communities may provide verbal confirmation of rights but do not have the authority to issue written documentation confirming rights.

#### FIGURE 13. THE NEW VERSION OF THE DOCUMENTATION OF LAND RIGHTS



#### 4.6 LAND AND NATURAL RESOURCES MANAGEMENT PLANS

Following the delimitation of parcels, the service providers worked with the land associations to develop land use plans. Although they are not a legal requirement, community land use plans are commonly produced after community level delimitation across Mozambique. In the ILRG activity, attempts were made to make these more useful and relevant to communities; they were based on maps using satellite imagery overlaid with the newly documented community boundaries and the locations of family parcels and other land uses, such as schools, health centers, cemeteries, and marketplaces. Based on analysis of these current uses of land, community members discuss how they would like to see their land used in future. These used a format significantly more simplified than that normally used in Mozambique, involving a map showing current land use, a simple set of rules for governing land use, and a map showing desired future land use patterns. To ensure it is useful to community members, a plan of this type uses visuals and limited text; they are often less than 10 pages in length, compared to the plans of over 50 pages of dense technical text produced in many projects. The participatory process involves multiple meetings in diverse locations across the community, ensuring that the concerns and ideas of women, youth, the elderly and other marginalized people are heard and incorporated into the plans.

The maps provide a visual representation of how community members would like to see their community look in 10 years; the rules are used to guide future decisions on how to allocate and use land in order to achieve the vision in the map. If done well, including the active participation of women and youth, this process should help create a more consistent understanding across the community of how to shape their future development. This effort to produce a joint vision on how to use land and natural resources to guide decisions towards an agreed goal would be a major move away from the current situation of land governance, which generally addresses individual decisions in isolation.

#### 4.7 ESTABLISHMENT OF MADAL'S GENDER-RESPONSIVE AGRICULTURAL EXTENSION SYSTEM

In addition to the delimitation work within communities, ILRG supported Grupo Madal to strengthen its capacity for inclusive engagement with smallholder farmers. This initiative ran from May 2022 through June 2023, involved extending and deepening the company's extension services for ingrowers and outgrowers, focused on agroforestry systems based on coconut and intercropping with food and cash crops.

One of the most interesting innovations in this work involved efforts to help Madal develop its concept of 'ingrowers,' through which land-poor farmers, mostly women, were provided with plots and contracts that enhanced their security of tenure. Most of these women have access to little or no land within their home communities; this land hunger moved them to gradually start to informally use some of Madal's land. These informal parcels tend to be close to their homes, around the outside of farms; they are predominantly very small plots, often no more than 20 x 20 meters, used mostly to grow food for home consumption.

The ingrower system enables the farmers to expand their area under production, growing produce both food for home consumption and cash crops, with Madal providing inputs, technical support and a guaranteed market. This approach is designed to enable women to improve family food security while also increasing their cash income, all while enjoying more secure tenure based on a contractual relationship with the company.

Madal in turn benefits by being able to make better use of formerly underutilized land, while the farmers provide an important source of commodities that can be used to increase Madal's own production on other areas of its farms. Both with ingrowers on company land and with outgrowers using their own family lands within the delimited communities, Madal's approach is to help neighboring farmers to form producer clubs of 25 or so members each. This is a standard approach in agricultural extension. It would be cost-prohibitive to visit each farmer individually, especially given the very small size of fields for each farmer; one extension agent can easily visit two or more clubs in a day, reaching hundreds of farmers per week. Further, the clubs facilitate distribution of inputs and aggregation of commodities after harvest. Finally, the clubs provide opportunities for farmers and extension staff to share ideas and lessons.

The activity involved extensive efforts to train Madal's extension staff as well as farmer clubs in gender issues. The ILRG global gender specialist and the ILRG Mozambique gender specialist provided material and training in addressing community gender norms and women's empowerment and leadership. Each club selected a gender focal point. As part of the weekly training, in addition to technical topic, the focal points facilitate discussions on topics related to gender and social inclusion. ILRG's technical staff

provided a series of Training of Trainers activities on gender and inclusion for staff and lead farmers. These focused on creative ways to explore how issues of gender and inclusion influence specific technical horticultural practices, such as decision-making over what to plant or how to use produce, and on who in the family undertakes which activities.

Madal focused on establishing agroforestry based on coconut, intercropped with various cash crops and food crops. Seventeen farmer clubs were provided with seed coconuts and technical support in establishing nurseries to produce their own saplings; Madal also provided ingrowers with 9,800 coconut saplings for planting on ½ hectare parcels, along with sesame seed and cowpeas as cash crops. The company signed 1,436 contracts with ingrowers covering nearly 1,000 hectares, providing an important sense of tenure security to those ingrowers (over 80 percent of whom are women).

During 2022, the company registered 2,816 members (84 percent women) from 113 farmer clubs as ingrowers, all of whom are using portions of Madal's land on four farms in Quelimane District. However, as the project developed, Madal realized that its initial efforts were too ambitious for a first-year initiative with inexperienced staff.

After Cyclone Freddy destroyed homes and crops in early March 2022, the company made two changes in its system. First, because many of the annual field crops had been destroyed, Madal provided farmers with vegetable seeds and technical support in order to help them quickly produce food and have a source of income. Second, Madal used this pivot from field crops to vegetables to temporarily narrow its focus to the best 18 ingrower clubs as a way of strengthening the quality of the system at a smaller scale, with the plan to rebuild numbers later. This resulted in a consolidation to a core system with 400 farmers for a couple of months. This number started to expand slowly, with several of the other clubs asking to rejoin the extension network by the end of the activity in June 2023.

Madal, with technical assistance from the government's national agricultural research body IIAM and the University of Zambeze, updated several technical manuals and trained the company's extension staff in their use during 10 Training of Trainer workshops. These covered, among others, gender-aware agricultural extension systems; agro-forestry systems based on coconut agricultural marketing; commodity-specific training on cowpea, sesame, sunflower, guar bean and horticulture; and processing involving solar drying and construction of improved crop storage.

Cyclone Freddy brought significant destruction to Madal's infrastructure and wiped out most of the sesame. The Madal team reviewed the situation and shifted to vegetables as a crop that provides nutritious food and income. Farmers welcomed this rapid shift and began to benefit in as few as 10 weeks for leaf crops and cowpea leaves. Madal also used its own resources to replace over three tons of cowpea seed that had been flooded.

As part of the recovery from Freddy, Madal helped the clubs to re-establish coconut sapling nurseries for transplanting during the December 2023 – March 2024 rainy season, which will enable about 150 hectares of new plantings. The plan for the next season is to focus on intercropping using cowpea and sesame in between half of the rows of coconut, with ingrowers planting food crops for home consumption between the remaining rows.

The Madal extension approach uses the Training and Visit system, designed for close supervision and inservice training of extension staff. This involves weekly in-service training for staff, then visiting each club at least once per week. This included sessions on a range of technical agriculture themes as well as GESI.

Madal's extension approach is still being worked out and there are challenges. However, the ILRG support to delimitation of ingrower parcels, establishment of farmer clubs and development of Madal's internal agricultural extension system has provided several lessons for the company. The company plans to expand this ingrower system to some of its other farms in other districts.

Madal noted that the process has helped them to work through what were initially just ideas, to identify problems with the design and the initial implementation and start to make changes that will lead to a system that provides mutual benefits for communities and for the company. It is clear that ingrowers can use company land to grow food for themselves and that they can be a source of commodities for Madal to purchase, aggregate and resell. However, the company needs to continue to tweak its model to ensure that the costs of annual land taxes and all costs of running the agricultural extension system are more than covered by the value of commodities that can be purchased and resold.

## 5.0 CHALLENGES ENCOUNTERED

During the implementation of the activities, various challenges arose. Some of these were:

- Differences of opinion between the company and one of the service providers, NANA, based largely on concerns expressed by Madal about the quality of work and the company's perception that the service provider did not really understand the realities faced by private sector engagement with communities. NANA managers expressed their frustrations, feeling that they were providing the required support but that the company was not clear in how it wanted things to be done differently. ILRG facilitated discussions and tried to clarify expectations on all sides, but Madal and NANA never truly aligned their visions. For the second phase of work, ILRG recruited a different service provider.
- Uneven skills and inexperience of both service providers, with repeated difficulties in following agreed-upon methodologies for land delimitation and uploading of data to the CaVaTeCo system. As teams seek to rapidly mobilize and train community members to work on technical land documentation processes, as well as civil society service providers to manage these processes, it is not surprising that such challenges emerge and highlights the importance of continuous backstopping and mentoring support.
- The quality of Certificates of Community Delimitation, and the accompanying maps, provided by the provincial authorities were poor. During delimitation, community members and service providers captured dozens of carefully georeferenced points to identify the exact boundaries of each community and submitted these in digital form, along with printed maps using these points, to the authorities. Many boundaries are based on local features such as rivers, resulting in somewhat odd shapes. However, the authorities ignored the data points they received and produced official maps with unrealistic straight lines that connected 4 or 5 points, resulting in incorrect maps with overlaps or gaps between neighboring communities. ILRG and the service providers met with authorities to convince them to produce more accurate maps.
- Challenges by national government to the authority of communities over the latter's legal competency to produce documented evidence of land rights in the form of Declarations of Land Rights. As noted above, disagreements with national government over this authority led to revisions in the declarations and slowdowns in the work.
- A lack of inexperience within Madal team in working with communities, starting from field management to the extension staff. For example, ILRG had to invest far more time and effort than originally planned in helping guide the implementation of the Training and Visit extension system.
- Destruction of homes, roads, Madal offices and other infrastructure by Cyclone Freddy, which left terrible impacts on community members and some staff, delayed work and resulted in a need to modify Madal's efforts.

## 6.0 LESSONS LEARNED

- **Documentation of land rights is attractive to farmers**: In line with other experiences, communities and district governments are very supportive of and actively engage in documentation of existing land rights. Community leaders and government officials were uniformly happy with the documentation of community boundaries. While the National Directorate of Land continues to cast doubts on the authority of communities to confirm land rights of residents in written form, families universally appreciated the documents they received with details of their parcels.
- **The innovative "ingrower" system is feasible**: Although Madal is still working out details of the methodology, the innovation of the 'ingrower' scheme offers an intriguing model. It can provide an important source of food and income to land-poor farmers, especially women. The ingrowers are generally willing to produce commodities desired by Madal, such as coconuts, cowpeas, sesame and sunflower, providing a reliable source of commodities that the company can aggregate and resell. Finally, this mutually beneficial approach seems to have helped develop good working relationships between the communities and the company, reducing conflicts/disputes.
- Management of extension system: It is critical to get the right individual to help manage the system. This manager must understand a complex set of issues, from production of the key commodities to running the agricultural extension with farmers, all while keeping an eye on the commercial imperatives of ensuring sufficient production to cover the company's costs. The manager must also ensure social engagement with communities, and on-going good relations with government. It proved difficult to find this collection of skills in a single person, resulting in management turnover Madal had three different managers during the short life of this activity, making it harder to gain the tempo required. Madal has tried to build a combination of two or three people in a leadership team with this collective set of skills but continues to find it a challenge.
- **Costs vs. returns of extension**: While the farmers are willing to produce the commodities that Madal wants, they are new to commercial production of coconuts, cowpeas, sesame and sunflower so they need significant support. Further, the company is trying to work with a large number of people, each of whom is farming a very small area, resulting in a small amount of the desired commodities per farmer. The extension system must be designed to reduce the costs of one-to-one interaction with thousands of farmers, aiming instead at targeting groups. Madal needs to see a large increase in productivity by the growers so that it can buy significant quantities of commodities, aggregate them, and sell at a profit including covering all costs of the extension network. This was not achieved in the first year of piloting the extension system, so Madal will continue to tweak the model to provide the best support to farmers at an affordable cost to the company.
- **Commercialization and cash flow**: While Madal did buy some commodities from participating farmers, the quantities were less than originally planned due to the company's cash flow shortage during the buying season. In line with the previous point, a financially viable private sector extension system must enable purchase of large enough quantities for the company to aggregate and resell for a profit, covering the costs of extension support while stimulating growers to participate in the subsequent season.
- **Inexperienced extension staff**: In addition to the difficulties of building a strong management team, Madal is working with inexperienced field staff who themselves need a lot of in-service

training and supervision. The company chose to use the Training and Visit System exactly for this reason: it entails frequent meetings with the field for review of work, training in timely technical themes, and planning. Staff then go out to support the farmer groups. While this process can work, it is expensive. Further, Madal tried to provide very frequent fortnightly visits to each group. In some cases, private sector extension systems conduct as few as four visits per year, each targeting a major event in the growing season (such as land preparation and planting, post-emergence care such as weeding, control of pests and diseases, and preparation for harvest). A system with fewer visits means that a smaller number of extension staff can visit a larger number of groups; Madal is still trying to determine how to shape its team and how to frame the system.

- Essential vs. nice to have: Related to the number of visits and the number of staff, there was some tension between the "must have" vs "nice to have" issues to be addressed. A bare-bones agricultural extension system could be successful while addressing only the most vital themes, such as the four mentioned above. Madal tried to incorporate some of the same elements that are often included in NGO-implemented extension systems that rely on donor support. A key example included the introduction of the REFLECT approach to literacy and numeracy as a way of addressing social issues, with particular emphasis on gender equality and social inclusion. Although a proven and valuable approach, it is time-consuming and costly in terms of staff time, while contributing little to the production of additional agricultural commodities in the first year of a new extension system. Madal senior management clearly understands the importance of power dynamics, gender equality, and social inclusion, and is trying to determine how to help to address these issues after the external financial support for the extension system has ended.
- Initial targets were too ambitious: Given this new approach, with difficulties in finding a strong manager and with inexperienced field staff, Madal's initial targets were high. Madal started with large targets of 4,300 farmers and within a year had over 2,600 farmers in 115 clubs. However, the extension team was initially unable to provide the quality of support needed; by mid-2023, the scope was intentionally reduced to about 400 farmers in the best 18 clubs, allowing the team to concentrate on learning through repletion. Towards the end of the activity, several groups started to re-join the scheme and the outreach should grow in the coming years.

Despite these challenges, the ILRG initiative has resulted in hundreds of farmers, over 80 percent of them resource-poor women, with contracts that provide secure access to land and the opportunity to produce both food and cash crops. At the same time, Madal has been working through these issues, identifying and addressing problems, and gradually shaping its new system in a way that will bring additional profits while improving relationships with surrounding communities. The company plans to expand the footprint of this extension system with community members around its four pilot farms in Quelimane District and wants to replicate the system in farms in other districts, such as Maganja da Costa.

### **U.S.** Agency for International Development

I 300 Pennsylvania Avenue, NW Washington, DC 20523 Tel: (202) 712-0000 Fax: (202) 216-3524 www.usaid.gov