

Project Evaluation Series
[28/2023](#)

Terminal evaluation of the project “Integrated Land and Agroecosystem Management Systems (ILAMS) for Tonga”

Project code: GCP/TON/001/GFF
GEF ID: 5578

Annex 1. Results matrix

Outcomes	Indicators	Start of project baseline	Mid-term levels assessed	End of project target	End of project levels assessed	Levels of achievement	Comments and justification to rating	Assumptions
Project objective: To strengthen the resilience of communities by enhancing land tenure systems, improving forest management, and piloting an integrated agroecosystem approach to rehabilitate degraded landscapes								
Component 1: Improving the enabling environment for integrated land and agroecosystem management.								
1.1: Increased acknowledgement and incorporation of integrated land and agroecosystem management principles in national policies, laws, and regulations	Number of ILAM Policy Intention Papers cited in sectoral policies, strategies and plans	No Policies specifically indicate intention to promote ILAM.	At least one (1) Policy Intention Paper developed, related to a key sector in ILAM approach.	At least 3 ILAMS Policy Intention Papers cited in sectoral policies, strategies and plans.	4 policy intention papers developed No national land Use policy document developed yet		Short documents developed referring to different sectors relevant for partners as planned – policies still to come	High level commitment from MAFF to influencing sectoral policies and plans
	<i>Output 1.1.1: Policy intention papers to inform sectoral policy and planning processes</i> <i>Output 1.1.2: National Land Use Policy document</i>							
1.2: Reliable information on land tenure is available to guide land use planning and facilitate the application of sustainable land management nationwide	Number of 'complete watershed' areas with up to date cadastral maps used for GIS-based applications for land use planning and for monitoring land use changes over time.	None of the 'complete watershed' areas i.e., project locations have up-to-date allotment cadastre layer of map data available for developing mapping products.	Up-to-date allotment cadastre layer of map data available for developing mapping products.	4 'complete watershed' areas, with completed up to date cadastral maps used for GIS-based applications for land use planning and for monitoring land use changes over time.			Review of GIS-based applications	Staff stability in MLSNR
	Degree of completion of allotment map data capture and quality improvement work	Less than 10% of both the tax and town allotments in the right	Allotment map data capture and quality improvement work	Allotment map data capture and quality improvement work 100% completed.			MLSNR reports	

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		allotment map data quality for digital capture	at least 70% completed					
	Level of in house capacity in MLSNR for data capture and input	Tonga SOLA system not able to utilize spatial functionality of SOLA to deal with the cadastral mapping due to significant gaps in capacity for data capture and data quality.	Tools required for data improvement work in place and local staff received training on these tools.	By project end MLSNR staff have assumed all responsibility for data capture and input			MLSNR reports	
	Capacity of MLSNR to streamline business processes and accept applications and new survey plan data digitally through the internet.	Land administrative processes and services predominantly paper-based		MLSNR is actively accepting applications and new survey plan data digitally through the internet.			MLSNR reports	
	<i>Output 1.2.1: National System of Land Administration enhanced, and operational with spatial functionality of SOLA utilized to recommend allowable land uses, monitor land use changes over time and clarify tenure.</i>							
1.3 Improved strategic planning of forest resources	Extent of application of National Strategic Forest Development Plan by Central and local government bodies and civil society organizations	No National Strategic Forest Development Plan (NSFDP) exists to implement the 2009 Tonga Forest Policy.	A draft NSFDP prepared, with participation of local government and civil society organizations.	Central and local government bodies and civil society organizations have reflected the provisions of the Plan in their own operational plans			Review of operational plans	Buy-in to the NSFDP among key stakeholder institutions
	Degree to which National Forest Monitoring System	No Forest Monitoring System in place	Conceptual design and workplan for establishing the	A fully functional FMS is in place and its data outputs are	** TBD **		Review of FMS	

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	(FMS) is utilized in planning		FMS developed; implementation at least 15% completed.	being used in planning by key entities of central and local Government and civil society organizations.			Interviews with members of user entities Review of planning documents using FMS data	
<i>Output 1.3.1: National Strategic Forestry Development Plan developed</i> <i>Output 1.3.2: National Forest Monitoring system</i>								
Component 2: Site-based capacities for evidence-based negotiation of land use planning, management and tenure rights								
2.1: Capacities for evidence-based and negotiated formulation of resource management plans at landscape and village levels, clarification of farmers' tenure rights and obligations	Frequency of meeting of multi-stakeholder mechanisms in target locations	N/A	Multi-stakeholder mechanisms are active at least twice per year in target locations	Multi-stakeholder mechanisms are active at least twice per year in target locations			Minutes of meetings of multi-stakeholder mechanisms	Recognition by members of target communities of the need to enter into negotiation and resolve issues
	Representativeness of participation in multi-stakeholder mechanisms in target locations	N/A	All key stakeholder groups (commoners and nobles, men and women) participate actively in the mechanisms	All key stakeholder groups (commoners and nobles, men and women) participate actively in the mechanisms			Minutes of meetings of multi-stakeholder mechanisms	Social and cultural acceptance of multi-stakeholder negotiation
	Percentage of participants in multi-stakeholder mechanisms consider that the mechanism contributes significantly to resolving issues that impede equitable and sustainable approaches to land management	N.A	50%	80%			Questionnaires, interviews and focus groups with participants	
	Degree of initial implementation of 'Eua	Inter-sectoral Committee	Draft Plan developed,	Operational plan developed for the			Review of operational plan	

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	Watershed Management Plan (WMP)	established with GIZ support, to coordinate work on a Catchment Area Management Plan.	including identification of alternatives for farmers to reduce encroachment, and rehabilitation plans for degraded forest areas.	implementation of the 'Eua WMP over at least the project period, and corresponding activities implemented in accordance with the plan.			Interviews with entities and communities involved in plan implementation	
	Effectiveness of the Plan in reducing encroachment on forests in the watershed	75 ha of farmed land within the catchment areas (45 registered tax allotments) relocated and rehabilitated with forest as a conservation area	90 ha of farmed land rehabilitated with forest as part of the expanded 'Eua Watershed Catchment area under the WMP	No new instances of clearance of forests in the watershed for agriculture			Interviews with community members, direct observations	
<p><i>Output 2.1.1: Multi-stakeholder mechanisms for the negotiation of resource management and tenure</i> <i>Output 2.1.2: Negotiated and evidence-based plans for land use and integrated agroecosystem management at landscape and village levels</i> <i>Output 2.1.3: 'Eua Watershed Area Management Plan developed, and implemented</i></p>								
Component 3: Strengthening of capacities for the formulation and implementation of sustainable land management practices with an integrated R2R approach								
3.1: Increased capacities in Government institutions and NGOs for identifying and	Numbers of staff members in Government institutions and NGOs who have received effective training through the modules	None	8 members of Government institutions ¹ and 14 members of NGOs ² have received training	20 members of Government institutions and 28 members of NGOs have received training through the			Records of training events, KAP surveys.	Stability of staff members Receptivity of members of target

¹ 4 Field Project Officers + 4 4 MAFF Extension Officers (1 per island group)

² 4 from Tonga Rural Innovation Project (1 in each island group) + 4 Langafonua'a Fafine Tonga (1 rep per island group) + 4 Tonga Livestock Farmers Council (1 per island Group) + 2 Agriculture Schools (1 Hango, 1 Tupou)

Outcomes	Indicators	Start of project baseline	Mid-term levels assessed	End of project target	End of project levels assessed	Levels of achievement	Comments and justification to rating	Assumptions
supporting Sustainable Land Management practices			through the modules and show improved knowledge, attitudes and practices (KAP) as a result	modules and show improved knowledge, attitudes and practices (KAP) as a result				institutions (at technical and strategic levels) to integrated, participatory approaches to Sustainable Land Management
	Number of members in Government institutions and NGOs making regular use of the training manuals	None	8 members of Government institutions and 14 NGOs report using the training manuals as regular guides for their work.	20 members of Government institutions and 28 members of NGOs report using the training manuals as regular guides for their work.			Staff interviews.	
<i>Output 3.1.1: Training modules for extension agents</i> <i>Output 3.1.2: Manuals for use by extension agents</i>								
3.2: Increased capacities in local communities to develop, apply and adapt Sustainable Land Management practices	Number of tax allotments (' <i>api tukuhau</i> ') in target localities on which integrated agroecosystem management practices are applied, including more than one of the following: <ul style="list-style-type: none"> - Use of piggery digestate as fertilizer - Use of cover crops - Enrichment of fallows - Integrated pest management - Increased use of agroforestry trees for animal feed, household or commercial tree 		75 'api tukuhau (tax allotments) covering 250ha, with at least 12 'api tukuhau covering 40ha in each of the target localities	225 'api tukuhau covering 750ha, with at least 30 'api tukuhau covering 100ha in each of the target localities			Direct inspections of target localities	Community members continue to consider benefits of integrated systems to justify investments, and that they are compatible with social and cultural norms

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	products and/or nutrient cycling							
	Reduction in the amounts of firewood collected from vulnerable forest areas (in the target localities where such forest areas exist).	Baseline to be established at project start	25% reduction over baseline levels (baseline to be established at project start)	75% reduction over baseline levels			Interviews, questionnaires or focus groups	
	Percentage increase in water harvesting and storage capacity in target communities (m ³ /month).	Baseline to be established at project start	At least 20% increase in water storage capacity in whole area where piggeries and intercropping systems will be covered under each ILAMP.	At least 50% increase in water storage capacity in whole area where piggeries and intercropping systems will be covered under each ILAMP.			Household surveys, focus groups and field inspections	
	Availability of water to local communities in target localities	Baseline to be established at project start	No net reduction in water availability for domestic uses in pilot communities, despite the establishment of piggeries.	No net reduction in water availability for domestic uses in pilot communities, despite the establishment of piggeries.			Household surveys and focus groups	
	Percentage reduction in crop damage and loss from roaming pigs in pilot communities and demonstration sites.	Baseline to be established at project start	On average farmers in the pilot communities report a 25% reduction in the areas of crops damaged by roaming pigs.	On average farmers in the pilot communities report a 75% reduction in the areas of crops damaged by roaming pigs. The total area benefitting from reduced degradation over			Household surveys, focus groups and field inspections	

Outcomes	Indicators	Start of project baseline	Mid-term levels assessed	End of project target	End of project levels assessed	Levels of achievement	Comments and justification to rating	Assumptions
				the life of the project will be 245ha.				
	Numbers of farmers in target localities with increased crop yields	Baseline to be established at project start	12 farmers in each target locality with 15% increases in crop yields over 40ha.	30 farmers in each target locality with 15% increases in crop yields over 100ha.			Household surveys, focus groups and field inspections	
	Numbers of farmers in target localities who report an increase of at least 20% in the numbers of established (live after 1 year) trees on their farms	Baseline to be established at project start	75 farmers report an increase of at least 20% in the numbers of established (live after 1 year) trees on their farms	225 farmers report an increase of at least 20% in the numbers of established (live after 1 year) trees on their farms			Farmer interviews corroborated by selective ground truthing	
	Avoidance of CH ₄ emissions as a result of the use of piggery waste as biogas fuel	N/A	247tCO ₂ eq/year	247tCO ₂ eq/year (988t total by project end)			Inspections of numbers of pigs managed, biodigester volumes and effectiveness, and numbers of households using biogas as fuel	
	Numbers of households benefiting from biogas produced from piggery biodigesters	No households use biogas and 70% use bottled gas	70, with a corresponding 7% reduction in the amounts of bottled gas used	130, with a corresponding 14% reduction in the amounts of bottled gas used			Household interviews/questionnaires	
	Numbers of people in target villages where pig management practices have been modified who report no reduction in their abilities to meet	Baseline to be established at project start	100% of interviewees in villages where pig management practices have been modified	100% of interviewees in villages where pig management practices have been modified report that			Participatory retrospective time line exercises with community members	

Outcomes	Indicators	Start of project baseline	Mid-term levels assessed	End of project target	End of project levels assessed	Levels of achievement	Comments and justification to rating	Assumptions
	social and cultural obligations		report that there has been no reduction in their abilities to meet social and cultural obligations	there has been no reduction in their abilities to meet social and cultural obligations				
<i>Output 3.2.1: Demonstration modules for integrated agroecosystem management systems</i> <i>Output 3.2.2: Farmer field schools for participatory problem analysis and development of Sustainable Land Management practices</i> <i>Output 3.2.3: Extension modules applied in target communities</i>								
3.3. Increased capacities for the formulation and implementation of forest restoration plans, and for supporting improved management of forests, mangroves, and trees outside forests	Area in target localities covered by operational plans and Sustainable Forest Management Agreements (SFMA) that are under effective implementation	No areas under SFMA		Forestry Division and communities concerned agree that the provisions of operational plans and SFMA covering 150ha ³ are being met			Review of plans and SFMA, interviews with Forestry Division staff and community members	Continued commitment of community members to reforestation and forest protection
	Numbers of tree nurseries nationwide able to meet their seed supply requirements	No nurseries currently meet seed supply requirement	30% of tree nurseries nationwide are able to meet at least 90% of their seed supply requirements	80% of tree nurseries nationwide are able to meet at least 90% of their seed supply requirements			Forestry Division records based on nursery reports	
	Number of tree nurseries nationwide with long term funding needs ensured	No nursery has secure long term funding	30% of tree nurseries nationwide with long term funding needs ensured (from sources other than short term project-based support)	80% of tree nurseries nationwide with long term funding needs ensured (from sources other than short term project-based support)			Interviews with Forestry Division and nursery managers	

³ Assuming 20% of each tax allotment = 225 total covering 750ha to be trees/forest.

Outcomes	Indicators	Start of project baseline	Mid-term levels assessed	End of project target	End of project levels assessed	Levels of achievement	Comments and justification to rating	Assumptions
	Area of agricultural land returned to forest use in the target localities (where land managers express intention to maintain the area under forest and there are at least XX trees/ha already present alive after 1 year)	Baseline to be established at project start	30ha	100ha			Interviews with land managers, and selective surveys	
<i>Output 3.3.1: Operational plans for forest restoration, including mangroves, formulated and implemented</i> <i>Output 3.3.2: Systematization of traditional tree management systems</i> <i>Output 3.3.3: Sustainable Forestry Management Agreements</i> <i>Output 3.3.4: Improved mechanisms for supply of tree seed and planting materials</i> <i>Output 3.3.5: Training modules on forest restoration and management, for Forestry Division staff and community members</i>								
Outcome 4.1: Project implementation is based on results-based management and application of lessons learned and good practices in current and future interventions.								
4.1 Project implementation is based on results-based management and application of lessons learned and good practices in current and future interventions.	Number of ILAMS reports presented at R2R regional meetings or shared with R2R regional networks	N/A	At least 2 technical reports presented at R2R regional meetings or disseminated through R2R regional networks	At least 2 technical reports presented at R2R regional meetings or disseminated through R2R regional networks			Review of reports	Stability of staff
	Number of Technical or Policy reports published on MAFF website and ECC Portal	N/A	At least 4 Technical or Policy reports published on MAFF website and ECC Portal	At least 10 Technical or Policy reports published on MAFF website and ECC Portal			Review of reports	
<i>Output 4.1.1: Monitoring and evaluation system established, supporting adaptive project management</i> <i>Output 4.1.2: Mechanisms for effective management and dissemination of knowledge within Tonga and the region</i>								

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