



FAO-GEF Project Implementation Report

Period covered: 1 July 2021 to 30 June 2022

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1. Basic Project Data

General Information

Region:	Pacific Islands					
Country (ies):	Tonga					
Project Title:	Integrated Land and Agro-ecosystem Management Systems					
	(ILAMS) in Tonga					
FAO Project Symbol:	GCP/TON/001/GFF					
GEF ID:	5578					
GEF Focal Area(s):	Biodiversity, Land Degradation					
Project Executing Partners:	Ministry of Agriculture, Food, Forests and Fisheries					
	(MAFF,) Ministry of Meteorology, Energy, Information, Disaster					
	Management, Environment, Climate Change and					
	Communications (MEIDECC), Ministry of Lands, Survey, Natural					
	Resources (MLSNR), Ministry of Internal Affairs					
	(MIA), Mainstreaming of Rural Development Innovation					
	(MORDI), Tonga Trust					
Project Duration (years):	4 years, plus 22 months extension					
Project coordinates:	S 21 ^o 20'20.53" W 174 ^o 57'05.57"					
	S 21 ⁰ 11'54.58" W 175 ⁰ 06'36.49"					
	S 19 ⁰ 40'40.88" W 174 ⁰ 16'52.34"					
	S 18 ⁰ 38'12.88" W 173 ⁰ 56'18.96"					

Project Dates

GEF CEO Endorsement Date:	20 September 2016
Project Implementation Start	15 February 2017
Date/EOD:	
Project Implementation End	31 August 2020
Date/NTE¹:	
Revised project	30-Sep-2022
implementation end date (if	
approved) ²	

Funding

GEF Grant Amount (USD):	\$2,344,954
Total Co-financing amount as	\$7,170,000
included in GEF CEO	

¹ As per FPMIS

 $^{^{\}rm 2}$ If NTE extension has been requested and approved by the FAO-GEF CU.

Endorsement	
Request/ProDoc ³ :	
Total GEF grant disbursement	\$2,291,220
as of June 30, 2022 (USD) ⁴ :	
Total estimated co-financing	\$4,381,273
materialized as of June 30,	
20225	

³ This is the total amount of co-financing as included in the CEO document/Project Document.

⁴ For DEX projects, the GEF Coordination Unit will confirm the final amount with the Finance Division in HQ. For OPIM projects, the disbursement amount should be provided by Execution Partners.

⁵ Please refer to the section 12 of this report where updated co-financing estimates are requested and indicate the total co-financing amount materialized.

M&E Milestones

Date of Most Recent Project	15 February 2022
Steering Committee (PSC)	
Meeting:	
Expected Mid-term Review date ⁶ :	completed
Actual Mid-term review date	MTR Report finalised 9 February 2020
(when it is done):	
Expected Terminal Evaluation	Delayed due to Hunga Tonga-Hunga Ha'apai Volcano eruption in
Date ⁷ :	January 2022. Revised date is July 2022
Tracking tools/Core indicators	YES
updated before MTR or TE stage	
(provide as Annex)	

Overall ratings

Overall rating of progress towards	Moderately Satisfactory
achieving objectives/ outcomes	
(cumulative):	
Overall implementation progress	Moderately Satisfactory
rating:	
Overall risk rating:	Moderate

ESS risk classification

Current ESS Risk classification:	Low
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Status

Implementation Status	Final PIR
(1 st PIR, 2 nd PIR, etc. Final PIR):	

Project Contacts

Contact	Name, Title, Division/Institution	E-mail	
Project Manager / Coordinator	Taniela Hoponoa, Project Manager, SAP	taniela.hopona@fao.org	
Budget Holder	Xiangjun Yao, SRC for Pacific, SAP	xiangjun.yao@fao.org	
Lead Technical Officer	Raushan Kumar, Forestry Officer, SAP	Raushan.kumar@fao.org	
GEF Funding Liaison Officer	Lianchawii Chhakchhuak, Technical Advisor, GEF Coordination Unit, FAO	Lianchawii.Chhakchhuak@fao.org	

⁶ The Mid-Term Review (MTR) should take place after the 2nd PIR, around half-point between EOD and NTE. The MTR report in English should be submitted to the GEF Secretariat within 4 years of the CEO Endorsement date.

⁷ The Terminal Evaluation date should be discussed with OED 6 months before the project's NTE date.

2. Progress towards Achieving Project Objective(s) (Development Objective)

(All inputs in this section should be cumulative from project start, not annual)

Please indicate the project's main progress towards achieving its objective(s) and the cumulative level of achievement of each outcome since the start of project implementation.

Project or Development Objective	Outcomes	Outcome indicators ⁸	Baseline	Mid-term Target ⁹	End-of-project Target	Cumulative progress ¹⁰ since project start Level at 30 June 2022	Progress rating ¹¹
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⁸ This is taken from the approved results framework of the project.

⁹ Some indicators may not identify mid-term targets at the design stage (refer to approved results framework) therefore this column should only be filled when relevant.

¹⁰ Please report on results obtained in terms of Global Environmental Benefits and Socio-economic Co-benefits as well.

¹¹ Use GEF Secretariat required six-point scale system: **Highly Satisfactory** (HS), **Satisfactory** (S), **Moderately Satisfactory** (MS), **Moderately Unsatisfactory** (MU), **Unsatisfactory** (HU).

To strengthen the resilience of communities by enhancing land tenure systems, improving forest management, and piloting an integrated agroecosystem approach to rehabilitate	Outcome 1.1: Increased acknowledgem ent and incorporation of integrated land and agro- ecosystem management principles in national policies, laws, and regulations.	1. Integrated land and agro-ecosystem management principles and approaches mainstreamed in national policies, laws, and regulations	No Policies specifically indicate intention to promote ILAMS.	3 ILAMS Policy Intention Papers developed	At least 3 ILAMS Policy Intention Papers developed and published to inform national policies, strategies and plans. National Land Use Policy Document adopted by Government.	Four (4) key Ministries have drafts of Ministry-specific ILAMS Policy Intention Papers (PIP) drafted, namely: Ministry of Agriculture, Food and Forestry (MAFF) Ministry of Meteorology, Energy, Information, Disaster Management, Environment, Climate Change and Communications (MEIDECC) Ministry of Lands, Survey and Natural Resources (MLSNR) Ministry of Internal Affairs (MIA). The draft ILAMS PIPs have not been finalised by end of the reporting period and NTE. The LUP remains in draft form and has not been formally adopted by the Government.	MU
degraded landscapes.	Outcome 1.2: Reliable information on land tenure is available to guide land use planning and facilitate the application of sustainable land	2. 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	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.	By end of the project, the use of the SOLA database for GIS applications would be possible but the technical capacity to do so was outside the scope of project and the local programmer intended to lead this work was carrying out post graduate studies overseas for most of the project duration and was not able to prioritise this into his heavy workload on	S

anagement ationwide.		mapping products.			return. The GIS Unit of MLSNR prioritized its limited capacity to the use of QField. The project nevertheless improved the availability of cadastral data in digital form to make this possible when MLSNR is ready to do so in the future. By end of the project, all cadastral maps for the 4 target localities defined as watersheds in the project document have been digitized and uploaded to the SOLA database. Around 30% of Registration Records nationally have been digitized.	
	3. 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 quality for digital capture	Allotment map data capture and quality improvement work at least 70% completed	Allotment map data capture and quality improvement work 100% completed.	A total of 11,966 Survey Plans have been digitized and uploaded to the database. % of Township Maps completed: Tongatapu – 98% 'Eua – 100% Ha'apai – 100% Vava'u – 100% Niuafo'ou – 0% Niuatoputapu – 100% % of Township Plans completed: Tongatapu – 99% 'Eua – 77% Ha'apai – 100%	S

	4. 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	Vava'u – 100% Niuafo'ou – 0% Niuatoputapu – 0% By end of the project, the capacity of MLSNR was significantly strengthened to assume responsibilities for data capture and input. The project supplied a 42in scanner which helped with the digitization of data. The project also supported the development of 11 Standard Operating Procedures (SOP) for data capture and provided training of MLSNR on the use of these SOPs, which enabled them to make good progress in the digitization of cadastral data for the SOLA database.	S
	streamline business processes and	Land administrative processes and services predominantly paper-based		MLSNR is actively accepting applications and new survey plan data digitally through the internet.	Since the mid-term, progress towards improving cadastral data capture and data quality in the SOLA database to a standard that would allow the use of spatial functionalities of SOLA for land administration processes was slow and it became obvious this indicator was unrealistic. By end of the project the capacity of MLSNR for cadastral data capture and maintenance has improved significantly as reported above and is a significant contribution towards a digitized/	MS

	1		,		
				computerized system to	
				streamline land administration	l
				processes in the future.	l
				Since mid-term, the project	
				refocused its support from	
				SOLA-Registry (the main part of	
				the FAO suite of SOLA open-	
				source software for formal land	
				registration) to SOLA-Open	
				Tenure & Community Server	
				(SOLA OT/CS is part of the FAO	
				SOLA suite for community use	
				to record 'informal' land tenure	
				such as in customary tenure	l
				and can be configured for land	
				use).	
					l
				A proof of concept was	
				developed and available as	
				tongalands.org, and training of	
				the Project Manager and local	
				programmer in the MLSNR/GIS	
				Unit was delivered.	
					l
				The travel restrictions however	
				did not allow the international	
				SOLA Specialist to travel and	
				while many efforts were made	
				to organize virtual training, this	
				proved too difficult for many	
				reasons, including several covid	l
				lockdowns that limited ability	
				for groups to get together and	
				individual internet access	
				proved unreliable.	
				1	

In st pl fo	Outcome 1.3: mproved trategic planning of orest esources.	6. 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 exists to implement the 2009 Tonga Forest Policy.	Management Plan for Forestry and Trees Resources in Tonga, 2017 published	The Management Plan for Forestry and Trees Resources in Tonga, 2017 published and key priorities implemented by Central and Local Government bodies and Civil Society Organizations	The term "National Strategic Forest Development Plan" is replaced by "Management Plan for Forestry and Trees Resources in Tonga" (MPFTR), which was published in 2017. Key priorities in the 2017 MPFTR implemented include: Guidelines for the propagation of 5 main timber trees (kauri pine, mahogany, pinus caribea, red cedar and teak) have been completed. Training module for the propagation of timber trees. A monitoring and reporting framework for the state of the forests and tree resources has been completed for use by the Forestry Division.	S
		7. Degree to which National Forest Monitoring System (FMS) is utilised in planning	No Forest Monitoring System in place	Conceptual design and workplan for establishing the FMS developed; implementation at least 15% completed.	A fully functional FMS is in place and its data outputs are being used in planning by key entities of central and local Government and civil society organisations.	 A conceptual design completed and computer equipment including mobile tablets for field data collections have been delivered to the Forestry Division of MAFF A Discussion Paper on the design of National Forestry Inventory (NFI) in Tonga has been completed. Training Workshop delivered in partnership with and under FAO co-financing TCP (TCP/TON/3702) on National Forest Monitoring System & 	MU

				Training on Land Cover and Land Use Assessment/Inventory.	
8. 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	The various Village Committees participated in ILAMS Plans consultations and are involved in coordinating project activities within their communities. Rather than establishing separate mechanisms in the target locations only, the project facilitated the establishment of a national coordination mechanism for extension services and FFS events under the umbrella of a National Extension Advisory Committee. The stakeholders agreed that this Committee's roles be expanded to cover the national coordination of the FFS activities. The project also strengthened its partnership with Mainstreaming of Rural Development Innovation (MORDI) Tonga Trust, working together in coordination of	S
				support to agricultural development in communities in the context of their Village	
9. Representativeness	N/A	All key stakeholder	All key stakeholder groups (commoners	Community Development Plans. Supported and facilitated the establishment of a National	MS

of participation in multi-stakeholder mechanisms in target locations.		groups (commoners and nobles, men and women) participate actively in the mechanisms	and nobles, men and women) participate actively in the mechanisms	Extension Advisory Committee as a national coordination mechanism to work with the various Village Committees already in place within the context of the Village Community Development Plans.	
10. Percentage of participants in multistakeholder mechanisms consider that the mechanism contributes significantly to resolving issues that impede equitable and sustainable approaches to land management [Note: Project team propose to revise this indicator to refocus on "Measure of the effectiveness of the ILAMS Plans in supporting the adoption of ILAMS practices."]	N.A	50%	80%	No specific mechanism was established so no assessment was done on effectiveness.	U
11. Degree of initial implementation of 'Eua Watershed Management Plan (EWMP)	Inter-sectoral Committee established with GIZ support, to coordinate	Draft Plan developed, including identification of alternatives for farmers to	Operational plan developed for the implementation of the 'Eua WMP over at least the project period, and	The Inter-sectoral Committee established with GIZ support has long ceased to exist after key members have either retired or have moved to new jobs. As there were no documentation of	MS

		work on a Catchment Area Management Plan.	reduce encroachment, and rehabilitation plans for degraded forest areas.	corresponding activities implemented in accordance with the plan.	work carried out in terms of a draft EWMP, the project had to start from scratch with a new Draft drafted. Rehabilitation work has nevertheless begun in areas where the farmers have been relocated, using seedlings of native trees supplied from the nursery installed at 'Eua Forestry Division by the project. Three Operational Plans have been developed for all of Tonga, including 'Eua Water Catchment: (i) rehabilitation of degraded land with forest and trees; (ii) enhancement of regrowth forest; and (iii) tree seedling nurseries.	
	12. 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	While the Plan itself is only in its first draft and no consultations has been carried out, a Monitoring protocols for the Code of Harvesting Practice for the 'Eua forestry plantations has been completed. A significant area of the water catchment is forest plantation. Fences and signs have been installed as well as rehabilitation to native forest where farmers have been relocated from, is resulting in no new encroachment reported.	S

	staff members in Government institutions and NGOs who have received effective training through the modules [Note: Project team propose to revise this indicator, as follow-up to the MTR recommendation to revise the RF, to combine with indicator 14 below on making regular use of the modules. The indicators to read, "Numbers of staff members in Government institutions and NGOs who received effective training through the modules and making regular use of the modules."]			Government institutions and 28 members of NGOs have received training through the modules and 'how to' manuals, and show improved knowledge, attitudes and practices (KAP) as a result	develop modules and coordinate training and strengthening of multistakeholder mechanisms and partnerships in the delivery of extension services to support and promote the adoption of ILAMS practices by village communities: - 30 staff from MAFF Research, Extension and Women, Livestock and Forestry Divisions and staff from MORDI received training on the use of PRA tools. - Training was also provided on Vulnerability Analysis to Climate Change. - Training workshops were also held in the 4 main island groups on Soil Health and Water management; pests and diseases; Diagnostic skills (plant health clinic and soil health card). - A total of 99 participants attended FFS training in the 4 island groups. Under a LOA with TCDT: - A total of 93 women from 7 Women Village Groups participated in conservation of plants with high cultural and medicinal values. Other trainings by the project	
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				established and implemented in the use of mucuna as ground cover to protect soil moisture and for soil conditioning. A 100 square meters plot was planted with mucuna seeds. Mucuna plants have been planted in bigger areas and some intercroppings with Colocasia and Xanthosoma taro. - Beyond Hango, the Project Manager carried out training of Project Field Officers and MAFF staff as trainers and of communities in the use of mucuna.	
	Number of members in Government institutions and NGOs making regular use of the training manuals [Note: Project team propose to delete and combine with above indicator on training on the manuals. The revision is follow-up to the MTR recommendation oi revise the RF]			[indicator combined with 13 above]	
Outcon Increas capacit	allotments ('api	75 'api tukuhau (tax allotments) covering 250ha,	225 'api tukuhau covering 750ha, with at least 30 'api	The estimated total area covered is more than 1321ha	S

1 1	lia a trata a managaran da		Lautorian	1	ı
local	localities on which	with at least 12	tukuhau covering	covering 408 'api tukuhau,	
communities in	integrated	ʻapi tukuhau	100ha in each of the	comprising:	
the target	agroecosystem	covering 40ha in	target localities	• 253ha (625 acres) of land	
localities to	management	each of the		covered by the volcanic ashfall	
develop, apply	practices are	target localities		from the Hunga Tonga- Hunga	
and adopt SLM	applied, including			Ha'apai (HTHH) volcanic	
practices	more than one of			eruption rehabilitated soil	
	the following:			health by using tillage to turn	
	- Use of piggery			the ash into the soil profile. The	
	digestate as			Project Steering Committee	
	fertiliser			proposed a 4 month extension	
	- Use of cover			in response to the January 2022	
	crops			HTHH natural disaster and	
	- Enrichment of			agreed to a reprioritisation of	
	fallows			project funds to the HTHH	
	- Integrated pest			Emergency Response to protect	
	management			the significant achievements	
	- Increased use of			made under the project that	
	agroforestry			have been damaged. The	
	trees for animal			rehabilitation work was carried	
	feed, household			out in partnership with MORDI.	
	or commercial			• 412ha arable land available	
	tree products			including 49 'api tukuhau (tax	
	and/or nutrient			allotments) in the 4 pilot villages	
	cycling			benefited from integrated	
	'			agroecosystem management	
				practices in the forms of	
				reduced crop damages from	
				better management of roaming	
				pigs and expanding the	
				agricultural biodiversity of	
				agroecosystems through	
				provision of seedlings and	
				planting of a wider range of	
				trees and crops. About another	
				20 tax allotments (area estimate	
				not included) in surrounding	
				villages benefited from	

,	
	protection of crops from
	roaming and wild pigs as a result
	of pig fencing along villages
	boundaries and installation of
	both 'a-puaka Tonga fences and
	ʻa-puaka palangi pens.
	• more than 400ha in 4 extra
	villages (Houma, Pea, Popua,
	Lapaha) involved in
	conservation and revival of
	plants with high cultural and
	medicinal value by Women's
	Groups, in partnership with
	TCDT.
	about 256ha of more than 92
	toutu'u systems (traditional
	communal management) in
	partnership with MORDI: 32 in
	Tongatapu, 16 in 'Eua, 24 in
	Vava'u and 20 in Ha'apai, which
	strengthened the agroforestry
	aspects of the systems.
	Other areas not estimated
	include those beyond the pilot
	villages that benefited from:
	- supply of seedlings and
	planting materials planted at tax
	allotments have been supported
	by upgrading the nurseries,
	through supplies of nursery
	shade cloth and structures at:
	- MAFF-Forestry Division
	nurseries in; Tokomololo
	(Tongatapu), Pangai (Ha'apai)
	and Fatai (Vava'u) and 'Eua.
	- Hango College nursery and
	Seed Centre in 'Eua

					- Supplies of seedlings and planting materials through strengthened partnership with MORDI.	
	15. 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	No biodigesters installed yet as replacement to firewood. The project's M&E database recorded 13,782 fuel wood trees within the 49 tax allotments ('api tukuhau) and 91 town allotments ('api kolo). More than 3,000 of these trees were planted with support of the project. While it is difficult to estimate the %reduction, the increase in the number of trees will ensure future supply to avoid firewood being sourced from vulnerable forest areas.	MS
	Percentage increase in water harvesting and storage capacity in target communities (m³/month). [Note: Project team propose to delete this indicator as the validation of baseline data through household surveys by the project team indicates water	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.	Validation of baseline data through household surveys by the project team during first year of the project indicates water supplies for all pilot villages are considered adequate and no longer a priority issue. The indicator is therefore considered irrelevant.	n/a

supplies for all pilot villages are considered adequate and no longer a priority issue. The revision is follow-up to the MTR recommendation to revise the RF]					
16. Availability of water to local communities in target localities. [Note: Project team propose to revise this indicator to "No change in availability of water to local communities in target localities as a result of adopting new piggery management practices. The revision is follow-up to the MTR recommendation to revise the RF]	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.	There has not been any water shortage reported as result of installation of piggeries under the project.	S

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	17. Percentage reduction in crop damage and loss from roaming pigs in pilot communities and demonstration sites.	Baseline to be established at project start	farmers in the pilot communities	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 the life of the project will be 245ha.	At the beginning of the project less than 50% of pigs were confined in all pilot villages. At the end of the project, the % of pigs confined in pig pens increased to 65% in Haveluliku, 70% in Mangia, 99% in Pukotala, 60% in Taanga. In addition, fencing were installed along village boundaries which stopped crop damage from roaming pigs and pigs from neighbouring villages.	S
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	18. 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.	Yield data were not available or collected in the beginning to be able to calculate % increases. The project however carried out several activities that anecdotally would meet the target of 30 farmers in each of the target localities covering areas well above 100ha, including: - More than 180 households participating in tou'tu'u farming systems (over 90ha) - At least 49 farmers with 'api tukuhau (tax allotments) increased yields if reduction in crop damages from roaming pigs is taken into account. The % of pigs now confined in pig pens in pilot villages are: Haveluliku - 65%; Mangia - 70%, Pukotala – 99%; Ta'anga – 60%. The anecdotal baseline was less than 50% in each pilot village. - More than 50 farmers with increased yields from adoption of mucuna cover cropping covering 25ha - More than 50 women farmers with increased yields in their home gardens from adopting organic farming practices involving composting, covering 28ha	MS
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19. Numbers of	Baseline to be	75 farmers	225 farmers report	The project M&E database	S
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	established at project start	report an increase of at least 20% in the numbers of established (live after 1 year) trees on their farms	an increase of at least 20% in the numbers of established (live after 1 year) trees on their farms	contains records of 22,168 standing/live trees in the pilot villages, including fruit trees (breadfruits, citrus, pometia, and mango) and fuelwood trees (sialemohe) that are predominantly used in boundary planting patterns, of which more than >6,000 (>27%) were planted as seedlings. Beyond the pilot villages, 12,900 trees were planted in the more than 92 toutu'u systems (traditional communal management) designed and established to strengthen the agroforestry aspects of the whole systems. A significant number were planted over a year and are considered established trees.	
20. 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)	No progress as no biodigesters were installed due to unsuccessful procurement of services.	U
21. 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	No progress. The project went through 3 RFP processes for installation of biodigesters that were not successful at securing technical support services to design biodigesters. The project team is now in the process of procuring off the	U

				shelf pre-fabricated model to be customized to the piggery pens already installed. 15 pig pens ('a puaka palangi) have been installed in pilot villages, with cement floor and drainage for channeling wastewater to the biodigesters, when installed.	
22. Number of people in target villages where pig management practices have been modified who report no reduction in their abilities to meet social and cultural obligations	Baseline to be established at project start	100% of interviewees in villages where pig management practices have been modified report that there has been no reduction in their abilities to meet social and cultural obligations	100% of interviewees in villages where pig management practices have been modified report that there has been no reduction in their abilities to meet social and cultural obligations	There has been no reduction in the ability of communities to meet their social cultural obligations. The 16 pigs with superior genetics provided to communities in the target villages have produced at least 3 generations (more than 600) of pigs which have improved pig genetics pool. In addition, the target villages have reported at least 40% increase of local pig feed supplements produced by households including cassava, sweet potato, moringa and Leucaena that are now available at satisfactory levels for the local pig owners.	S

	23. Area in target	No areas		Forestry Division and	A draft 'Eua Water Catchment	MS
Increased	localities covered by	under SFMAs		communities	Area Management Plan has	
capacities for	operational plans			concerned agree that	been drafted. Due to a covid	
the formulation	and Sustainable			the provisions of	lockdown, a workshop to	
and F	Forest Management			operational plans and	discuss the draft had to be	
implementation /	Agreements (SFMAs)			SFMAs covering	cancelled and was not possible	
of forest t	that are under			150ha ¹² are being	to reschedule.	
restoration	effective			met		
plans, and for	implementation.				The project has also developed	
supporting					Guidelines for the development	
improved	[Note: Project team				of Operational Plans for the key	
management of	propose to revise				areas of:	
forests,	this indicator to				 Agro-forestry plantings 	
mangroves, and	replace SFMAs with				2. Rehabilitation of	
trees outside	"Management				degraded land	
forests.	Plans (MPs) for				Enhancement of forest	
	forests and tree				regrowth	
	resources at the				Small-scale nurseries for	
	individual forest				the local production of tree	
	reserve or property				seedlings.	
	level". The SFMA				These Guidelines form the basis	
	concepts do not fit				for the Forestry Division and	
	Tonga's regulatory				stakeholders to develop Plans	
	environment and				for specific areas.	
	context. The					
	revision is follow-up					
	to the MTR					
	recommendation to					
	revise the RF]					
	24. Numbers of	No nurseries	30% of tree	80% of tree nurseries	The nurseries established or	S
	tree nurseries	currently	nurseries	nationwide are able	upgraded by the project are	
	nationwide able to	meet seed	nationwide are	to meet at least 90%	now meeting requirements for	
	meet their seed	supply	able to meet at	of their seed supply	some trees such as mei,	
		requirement	least 90% of	requirements	coconuts, timber trees for	

 $^{^{\}rm 12}$ Assuming 20% of each tax allotment = 225 total covering 750ha to be trees/forest

Launalu	their seed	boundaries and natives for
supply		
requirements	supply	ecosystem rehabilitation. The
	requirements	demand for 'ahi however is very
		high across the country and
		supplies are often reported as
		short of demand.
		A private owned community
		nursery was established in
		Ha'atua in 'Eua that was
		designed based on an
		Operational Plan for
		establishing a small-scale
		nursery for the local production
		of tree seedlings, prepared
		from the Guidelines developed
		under the project. The main
		tree species identified in the
		Operational Plan are
		sandalwood ('ahi), cedar and
		kauri.
		6 community nurseries have
		been installed or upgraded in
		partnership with village Women
		Groups under TCDT.
		Community nursery at
		Haveluliku upgraded.
		Nursery at 'Eua Forestry is
		specifically for native trees to
		rehabilitate the water
		catchment area.
		The project provided training
		on composting techniques for
		improving soils at nurseries and
		also supplied shredders at each
		island to support the compost
		activities.
		Nurseries upgraded at MAFF-
		Forestry Division nurseries:

					 Tokomololo (Tongatapu); Pangai (Ha'apai); Fatai (Vava'u); and Mata'aho ('Eua). Hango College nursery and Seed Centre in 'Eua. 	
	25. 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)	Guidelines for developing Operational Plans for nurseries have been developed, which covers financial sustainability. Only one nursery has prepared an Operational Plan using the Guidelines	ми
	26. 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	More than 50has in the 'Eua water catchment area where farmers have been relocated has been rehabilitated and planted with more than 8,000 native tree seedlings produced at the Forestry Division nursery established under the project in 'Eua. A further 12,900 tree seedlings were planted in agro-forestry systems of more than 100ha at farm level. These however are not specific 'forest use', except for boundaries.	S

Outcome 4.1: Project implementation based on results-based management and application of lessons learned and good practices in current and future interventions, facilitated	27. Number of ILAMS reports presented at R2R regional meetings or shared with R2R regional networks.	zero	n/a	At least 2 technical reports presented at R2R regional meetings or disseminated through R2R regional networks	No progress since previous PIR. The project presented on the ILAMS practices as case study of R2R approach at a Pacific R2R event at the 9 th IW Conference. The project also attended and presented the experiences and lessons learned at regional R2R meetings. No Technical Reports have been shared yet on the regional R2R platform.	U
	28. Number of Technical or Policy reports published online, including on MAFFF website and ECC Portal. [Note: The Project Team proposes this indicator should be revised, beyond Technical and Policy Reports. To better align with sharing of knowledge, the indicator should include all online presence, such as media coverage and presence on social media.]	zero	n/a	At least 10 Technical or Policy reports published on MAFFF website and ECC Portal	No Reports have been published online yet. A Communications Specialist was recruited to support knowledge management and communications but did not deliver and her contract was terminated.	U

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Action Plan to address MS, MU, U and HU ratings

Outcome	Action(s) to be taken	By whom?	By when?
Outcome 1.1: Increased acknowledgement and incorporation of integrated land and agroecosystem management principles in national policies, laws, and regulations.	The Project Terminal Report to recommend the 4 key Ministries take ownership of their draft Ministry-specific ILAMS Policy Intention Papers (PIP) and to decide how they use them in policy formulation.	Senior Technical Adviser (STA)	Sept
Outcome 1.3: Improved strategic planning of forest resources.	No actions possible on the MU rating for the National Forest Monitoring System as the project has reached its NTE.	n/a	n/a
Outcome 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	Finalise the ILAMS Plans, based on village mapping layouts from SOLA platform. No actions possible as SOLA Specialist was not able to travel due to covid restrictions and arranging virtual trainings proved too difficult and the project has reached its NTE	n/a	n/a
Outcome 3.1: Increased capacities in Government institutions and NGOs for identifying	No actions possible as the last efforts to procurement of biodigesters were not successful with the Service Provider selected from a competitive process pulled out and the project has reached its NTE. The biodigesters were	n/a	n/a

and arrangeting CLDA			
and supporting SLM	proposed to decrease the need for		
practice	firewood.		
Outcome 3.2:	No actions possible as the last efforts to	n/a	n/a
Increased capacities	procurement of biodigesters were not		
in local communities	successful with the Service Provider		
in the target	selected from a competitive process		
localities to develop,	pulled out and the project has reached		
apply and adopt SLM	its NTE. The biodigesters were		
practices	proposed as a key component of		
	integrated livestock-crop farming		
	systems, a key form of SLM practice.		
Outcome 3.3.	No actions possible as the planned	n/a	n/a
Increased capacities	multi-sector and key stakeholder		
for the formulation	meeting to finalise the 'Eua Water		
and implementation	Catchment Area Management Plan got		
of forest restoration	cancelled due to the covid lockdown		
plans, and for	when the Hunga Tonga-Hunga Ha'apai		
supporting improved	emergency response personnel		
management of	introduced an outbreak and the		
forests, mangroves,	project has reached its NTE		
and trees outside			
forests.			
Outcome 4.1: Project	No actions possible as the recruitment	n/a	n/a
implementation	of a new Communications Specialist to		
based on results-	replace the under-performed Comms		
based management	Specialist proved too difficult with		
and application of	limited time left to NTE		
lessons learned and			
good practices in			
current and future			
interventions,			
facilitated			

3. Implementation Progress (IP) (Please indicate progress achieved during this FY as per the Implementation Plan/Annual Workplan)

Outcomes and Outputs ¹³	Indicators (as per the Logical Framework)	Annual Target (as per the annual Work Plan)	Main achievements ¹⁴ (please avoid repeating results reported in previous year PIR)	Describe any variance ¹⁵ in delivering outputs
Outcome 1.1				
Output 1.1.1 Policy intention papers to inform sectoral policy and planning processes	At least 3 ILAMS Policy Intention Papers (PIP) developed and published to inform national policies, strategies and plans.	4 sectoral/Ministry- specific PIPs reviewed and finalized by the 4 key-Ministries	4 sectoral/Ministry-specific PIPs have been drafted and available as drafts.	The 4 Ministries (MAFF, MEIDECC, MLSNR, MIA) remain as drafts as the Ministries have not been able to carry out their reviews due to work overloads and other priorities, including commitments to urgent responses to natural disasters and covid 19
Output 1.1.2: National Land Use Policy (NLUP) document	National Land Use Policy (LUP).	LUP Document adopted by Government.	The LUP remain in draft form	The LUP remains in draft form and has not been formally adopted by the Government. The reviews by Government Ministries, in particular by MEIDECC to strengthen the climate change aspects could not be completed, again due to other priorities. Another factor for the LUP review dropping in the list of priorities by Ministries is the numerous changes in Governments that has affected its ability to move forward

 $^{^{\}rm 13}$ Outputs as described in the project Logframe or in any approved project revision.

¹⁴ Please use the same unit of measurement of the project indicators as per the approved Implementation Plan or Annual Workplan. Please be concise (max one or two short sentence with main achievements)

¹⁵ Variance refers to the difference between the expected and actual progress at the time of reporting.

Output 1.2.1: Enhanced National System of Land Administration, and operational with spatial functionality of SOLA utilized to recommend allowable land uses, monitor land	Capacity of MLSNR to streamline business processes and accept applications and new survey plan data digitally through the internet	MLSNR actively accepting applications and new survey plan data digitally through the internet.	The MLSNR has strengthened its capacity with upgraded equipment and staff trained on cadastral data capture and data quality management. Significant progress has been made in the digitization and upload of cadastral data into the SOLA database. The cadastral data capture however remain incomplete and overall quality of cadastral data in the SOLA database has not reached the required standard to fully utilize the spatial functionalities of SOLA-Registry for Tonga.	in its public reforms, including to decide which Ministry to be responsible under legislation for the Planning and Urban Management Authority (PUMA) proposed to be strengthened in the LUP. The expected output to have the whole National System of Land Administration fully digitized/computerized and operational by the end of the project was unrealistic. Changed to a more realistic output in the annual Work Plan to complete cadastral data capture and ensure data quality in SOLA database.
Output 1.3.1: National Strategic Forestry Development Plan (NSFP) developed	A NFSP (entitled MPFTR) published and key priorities implemented by Central and Local Government bodies and Civil Society Organizations	MPFTR key priorities implemented including training on the Modules and Guidelines for Propagation and for Operational Plans, prepared.	The MPFTR was published in 2017. Key priorities implemented include: • 7 Training Modules developed: Module 1: Selection of Tree Species Module 2: Small-scale nursery Module 3: Planting and care of tree seedlings Module 4: Rehabilitation of degraded sites	The NFSP title was changed to Management Plan for Forestry and Trees Resources (MPFTR) in Tonga to better reflect the context of 'forestry' in Tonga, which is predominantly tree resources within agro-forestry systems. The proposed trainings were not delivered by the end of the project primarily due to the impacts of covid that restricted travels of the international Specialist. Efforts to deliver virtually

			 Module 5: Enhancement of native regrowth Module 6: Growing and harvesting sandalwood Module 7: Preparation of timber species Propagation Guidelines developed for 5 exotic timber species in Tonga: Species 1: Kauri Pine Species 2: Mahogany Species 3: Pinus Caribaea Species 4: Red Cedar Species 5: Teak 	were not successful due to covid lockdown restrictions and individual or personal internet connectivity are not reliable.
Output 1.3.2: National Forest Monitoring System (NFMS)	A fully functional NFMS is in place and its data outputs are being used in planning by key entities of central and local Government and civil society organisations	Consultations carried out on proposed NFI design and structure of proposed Monitoring and Reporting Framework for the State of Forestry and Tree Resources Training on tools for a NFMS delivered	 A draft Discussion Paper for the design of a National Forestry Inventory (NFI) for Tonga developed. Monitoring and Reporting Framework for the State of Forestry and Tree Resources developed. Training Workshop delivered in partnership with and under FAO co-financing TCP (TCP/TON/3702) on National Forest Monitoring System & Training on Land Cover and Land Use Assessment/Inventory. The tools covered included: - SEPAL – System for earth observations, data access, 	Reporting Framework for the State of Forestry and Tree Resources was added to provide a process to which a NFMS is developed and used in terms of periodic monitoring and reporting of outcomes under the various components of the legal and policy framework. The Forestry Division of MAFF has not provided inputs yet to the proposed Reporting Framework. A fully functional NFMS was not achieved by the end of the project due to delays in delivery of NFI equipment and training.

			processing & analysis for land monitoring	
Output 2.1.1: Multi- stakeholder	Multi-stakeholder mechanisms established in each project target	Establish coordination mechanism for	The project facilitated the establishment of a national coordination mechanism under	Rather than establishing separate multi- stakeholder mechanisms in the target locations, the stakeholders agreed to
mechanisms for	locality	extension services	the umbrella of the National	utilize the National Extension Advisory
the negotiation of resource		at national level	Extension Advisory Committee.	Committee and existing Village Agricultural Committees in the context of
management			The various Village Committees	Village Community Development Plans.
and tenure			participated in ILAMS Plans	
			consultations and are involved in coordinating project activities	
			within their communities.	
Output 2.1.2:	ILAMS Plans developed		Consultations carried out in each	The priorities of each communities for
Negotiated and	for each of the 4 pilot		of the pilot villages and draft	strengthening agro-ecosystems
			LILANAS Diane dovoloped	Language Lan
evidence-based	villages		ILAMS Plans developed.	approaches were identified during
evidence-based plans for land use and	villages		The project also strengthened its	consultations and already incorporated into the annual Work Plans for

agroecosystem management at landscape and village levels Output 2.1.3: 'Eua Water Catchment Area Management Plan (EUCAMP) developed, and implemented	'Eua Water Catchment Area Management Plan developed.	Hold a workshop for key stakeholders to discuss and finalize the draft EUCAMP.	of Rural Development Innovation (MORDI) Tonga Trust, working together in coordination of support to agricultural development in communities in the context of their Village Community Development Plans. A proof of concept was developed for the use of SOLA-OT&CS for mapping tenure and configured for land use. • Draft 'Eua Water Catchment Area Management Plan (EUCAMP) developed. • Monitoring Protocols for the Code of Harvesting Practice for the 'Eua Forestry Plantations developed • Some key priorities contained in the draft EUCAMP were implemented including fencing off areas and signs installed where farmers have been relocated from and rehabilitation of those areas using seedlings of native trees supplied from the nursery installed by the project at 'Eua	The ILAMS Plans could not be finalized as the spatial layout and mapping of each pilot village using SOLA Open Tenure and Community Server configured for land use could not be completed due to delays in procurement of services of a SOLA Specialist and then the impacts of covid that halted the delivery of trainings. All logistics were in place for holding a workshop to discuss the draft EUCAMP but got cancelled due to another covid lockdown.
Output 3.1.1 & 3.1.2: Training modules for	Training modules for extension agents developed	Training delivered based on the	The following training modules were developed Use of PRA tools	

extension agents & Manuals for use by extension agents		modules developed	 Community Based Vulnerability Analysis to Climate Change Training on presentation skills Soil management Farmer Field Schools 	
Output 3.2.1: Demonstration modules for integrated agroecosystem management systems	Integrated agro- ecosystem management system demonstration	Install at least 10 biodigesters connected to piggeries as key component of integrated livestock-crop/tree farming system as a form of integrated agroecosystem management system.	Several attempts were made but by the end, the project was not able to procure and install any piggery biodigester.	The final attempt to procure biodigesters was for a prefabricated model that would have arrived with 'how to' manuals for installation. After a very prolonged competitive process, the selected and approved Service Provider pulled out citing FAO administrative processes as a hurdle. Further follow up also revealed concerns with ability to deliver given the disruptions to supply chains and uncertainties in shipping service costs due to covid. Attempts were also made to procure materials to install fixed-dome Chinese models already installed in other places around Tonga, in partnership with the MAFF Livestock Division. These were also not successful due to delays in procurements.
Output 3.2.2:	FFS delivered	FFS delivered	- FFS training were delivered in	
Farmer field			the 4 island groups in	
schools for participatory			partnership with MAFF. A total of 99 participants attended.	
participatory problem analysis			- FFS were carried out in	
and			partnership with MORDI and	

development of SLM practices			MAFF staff as trainers in the use of mucuna as cover crop for soil health.	
Output 3.2.3: Extension modules applied in target communities	Numbers of staff members in Government institutions and NGOs who have received effective training through the modules		Soil Health training attended by 20 farmers Five trainings were conducted in partnership with MAFF.	
Output 3.3.1: Operational plans for forest restoration, including mangroves, formulated and implemented	Number of Operational Plans developed	Deliver training on the use of the Guidelines for Operational Plans	Guidelines for Operational Plans were developed but training on use was not achieved due to covid	
Output 3.3.2: Systematisation of traditional tree management systems	No indicator in logframe	Deliver training on the use of the Guidelines for Operational Plans	Guidelines for Operational Plans developed for the following 4 topics: 1: Agro-forestry 2: Rehabilitation of degraded land with forestry and tree resources 3: Enhancement of regrowth forestry 4: Tree Seedling Nursery More than 92 toutu'u agroforestry systems were strengthened with tree plantings on boundaries.	

Output 3.3.3: Management Plans for forests and tree resources at the individual forest reserve or property level	Number of Management Plans for forests and tree resources at the individual forest reserve or property level.		No Management Plans developed	
Output 3.3.4: Improved mechanisms for supply of tree seed and planting materials			Issues Paper for developing a Nursery Strategy was developed	
Output 3.3.5: Training modules on forest restoration and management, for Forestry Division staff and community members	Training modules developed	Training delivered	Training modules on Rehabilitation of degraded sites (Module 4) and Enhancement of native regrowth (Module 5) are relevant for forest restoration	
Output 4.1.1: Monitoring and evaluation system established, supporting adaptive project management	M&E system	Populate the M&E database.	A M&E database was developed and data collected by the project team.	
Output 4.1.2: Mechanisms for			A draft Communication Strategy was developed but	

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effective		implementation limited when a	
management		Communications Specialist	
and		recruited did not deliver and	
dissemination of		contract was terminated.	
knowledge			
within Tonga and			
the region			

4. Summary on Progress and Ratings

Please provide a summary paragraph on progress, challenges and outcome of project implementation consistent with the information reported in sections 2 and 3 of the PIR.

This is the final PIR for the project with the NTE being the end of the reporting period. As at the end of the reporting period, \$2,296,576 out of the \$2,344,954 grant or 98% was utilized.

The covid19 pandemic significantly impacted implementation, in particular the restrictions of travel that limited ability to deliver training. Natural disasters also impacted implementation, including the Hunga Tonga-Hunga Ha'apai volcanic eruption that threatened to reverse the gains made, especially from the ashfall on project sites.

One of the main forms of integrated agro-ecosystem approach the project set out to promote involved the installation of biodigesters to utilize the waste from piggeries to produce biogas and organic fertilizer that can be used for growing crops for food and fodder. This kind of integrated livestock-crop farming system would help improve the availability of local pig feed and create incentive to confine pigs in pens instead of roaming. By the end of the project however, no biodigesters were installed despite the efforts that went into procurement of services to design and install appropriate biodigester models. Many factors contributed to the failure to procure services and materials including the last effort that resulted in the selected Service Provider pulling out citing uncertainties in supply chains and shipping services due to covid as posing too much risk for delivery.

Despite the above challenges some good progress was made, including towards strengthening the enabling environment through contribution towards the modernization of the land administration system. Progress was also made in strengthening capacity to adopt SLM practices, including through Farmer Field Schools, training in soil health and demonstration of use of cover crop or soil health, reduction in damages to crops from roaming pigs, strengthening agro-forestry systems improving provisions of seedlings and planting materials through upgrades and installation of nurseries and rehabilitation of forest areas where encroachment occurred. The project also made good progress in the demonstration of SLM practices like composting, key-hole gardening, wicking gardening, and introduced new sources of pig feed like moringa. In terms of institutional strengthening, the project helped strengthen the coordination of extension services under a LOA with MAFF. In addition, several training manuals and Guidelines for Operational Plans in key areas of forestry management were developed to assist the Forestry Division and agro-forestry practitioners in sustainable forest and tree resources management. As response to the Hunga Tonga-Hunga Ha'apai volcanic eruption, the project helped rehabilitate more than 650ha of land where the ashfall from the volcanic eruption caused major damages to crops and soil health.

The project was also successful in widening its stakeholder partnerships including with Women's Groups to improve capacity to conserve and protect plants and trees with high cultural and medicinal value and with schools involved in training on home gardening techniques.

Development Objective (DO) Ratings, Implementation Progress (IP) Ratings and Overall Assessment

Please note that the overall DO and IP ratings should be substantiated by evidence and progress reported in the Section 2 and Section 3 of the PIR. For DO, the ratings and comments should reflect the overall progress of project results.

	FY2022 Development Objective rating ¹⁶	FY2022 Implementation Progress rating ¹⁷	Comments/reasons ¹⁸ justifying the ratings for FY2022 and any changes (positive or negative) in the ratings since the previous reporting period
Project Manager / Coordinator	MS	MS	The project made good progress in promoting and strengthening capacity to adopt SLM practices on the ground. There was significant increased capacity in producing local pig feed and reduction in roaming pigs. Trainings and FFS were also delivered. The project was also successful in broadening its partnerships including with Women's Groups and with schools.
Budget Holder	MS	MU	The proposed demonstration of SLM through integrated livestock-crop farming systems were not achieved as result of delays and eventually unsuccessful procurement of biodigesters that were suppose to generate biogas from piggery waste to reduce firewood use and organic fertilizers for food and fodder crops. The project nevertheless provided training and supported the adoption of other SLM practices, including better management of roaming pigs and strengthening the agrobiodiversity through planting of trees in agro-forestry systems and rehabilitated areas.
Lead Technical Officer ¹⁹	MS	MS	The project has set good examples of agro-ecosystem approach of conservation and integrated approach of farming systems.

¹⁶ **Development Objectives Rating** – A rating of the extent to which a project is expected to achieve or exceed its major objectives. For more information on ratings and definitions, please refer to Annex 1.

¹⁷ **Implementation Progress Rating** – A rating of the extent to which the implementation of a project's components and activities is in compliance with the projects approved implementation plan. For more information on ratings and definitions, please refer to Annex 1.

¹⁸ Please ensure that the ratings are based on evidence

¹⁹ The LTO will consult the HQ technical officer and all other supporting technical Units.

FAO-GEF Funding Liaison Officer	MS	MU	This is the final PIR for this project. Some of the envisaged outcomes and outputs have been achieved, but a few could not be completed due to challenges posed by COVID 19 and the volcanic eruption that struck in January 2022. In terms of institutional strengthening, the project led to better coordination of extension services of the MAFF. The capacity of MLSNR has improved with upgraded equipment and staff well trained on cadastral data capture and data quality management. The training manuals and Guidelines for Operational Plans on forestry management improved capacities of the Forestry Division and agro-forestry practitioners. Many farmers from the project sites benefitted from the farmer field schools and the extension services provided. The project also benefitted from the sustainable land management practices introduced in the project.
			Project activities were disrupted by the Hunga Tonga-Hunga Ha'apai volcanic eruption in January 2022. The PSC took a decision to extend the project by 4 months. The project responded by reorienting some of the activities including rehabilitating more than 650ha of land where the volcanic ashfall caused major damages to crops and soil health. Due to logistical challenges and partly COVID 19 restrictions, one of the key activities that could not be achieved was the procurement of biodigesters to promote integrated livestock-crop farming systems, which was mitigated to an extent by other SLM activities.

5. Environmental and Social Safeguards (ESS)

Under the responsibility of the LTO (PMU to draft)

Please describe the progress made complying with the approved ESM plan. Note that only projects with <u>moderate</u> or <u>high</u> Environmental and Social Risk, approved from June 2015 should have submitted an ESM plan/table at CEO endorsement. This does not apply to <u>low</u> risk projects. Add new ESS risks if any risks have emerged during this FY.

Social & Environmental Risk Impacts identified at CEO Endorsement	Expected mitigation measures	Actions taken during this FY	Remaining measures to be taken	Responsibility
ESS 1: Natural Resource Management				
ESS 2: Biodiversity, Ecosystems and Natural Habita	ts			
ESS 3: Plant Genetic Resources for Food and Agricu	lture			
ESS 4: Animal - Livestock and Aquatic - Genetic Res	ources for Food and Agricultur	e		
ESS 5: Pest and Pesticide Management				
ESS 6: Involuntary Resettlement and Displacement				
ESS 7: Decent Work				
ESS 8: Gender Equality				
ESS 9: Indigenous Peoples and Cultural Heritage				
New ESS risks that have emerged during this FY				

In case the project did not include an ESM Plan at CEO endorsement stage, please indicate if the initial Environmental and Social (ESS) Risk classification is still valid; if not, what is the new classification and explain.

Initial ESS Risk classification	Current ESS risk classification
(At project submission)	Please indicate if the Environmental and Social Risk classification is still valid ²⁰ . If not, what is the
	new classification and explain.
Low (para 279 of prodoc)	Still valid

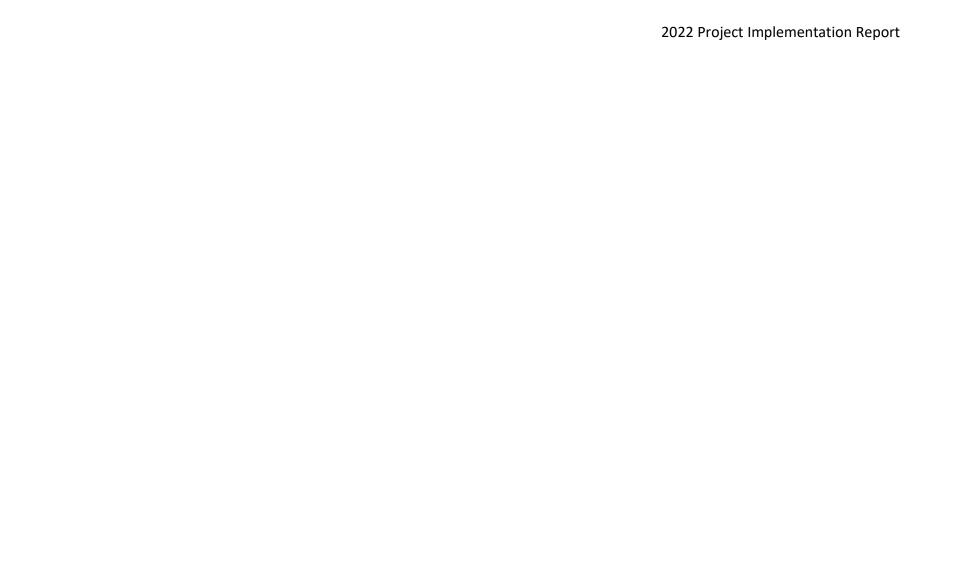
Please report if any grievance was received as per FAO and GEF ESS policies. If yes, please indicate how it is being/has been)
addressed.	

²⁰ **Important:** please note that if the Environmental and Social Risk classification has changed, the ESM Unit should be contacted and an updated Social and Environmental Management Plan addressing new risks should be prepared.

6. Risks

The following table summarizes risks identified in the Project Document and reflects also any new risks identified in the course of project implementation (including COVID-19 related risks). The last column should be used to provide additional details concerning manifestation of the risk in the project, as relevant.

	Type of risk	Risk rating ²¹	Identified in the ProDoc Y/N	Mitigation Actions	Progress on mitigation actions	Notes from the Budget Holder in consultation with Project Management Unit
1	communities: Collaboration of local communities: Collaboration of local communities will be critical to achieving the objectives of the project, but these communities will need to meet their own needs before agreeing to devote time and resources to resource management and biodiversity conservation. It may be difficult to reach agreement with all members of communities on management and enforcement measures.	M	Y	Extensive community consultations are built into every aspect of the project. Project sites have been selected, in large part, on the basis of communities' expressions of interest and willingness to engage in project activities and the existence of relations of trust that have been built up through previous agency initiatives. Participation will further be ensured through the tangible socioeconomic benefits that will result from the project's actions in the short term, in the form of reductions in the damage to crops and lands caused by roaming pigs, and the provision of clean and accessible renewable energy in the form of biogas.	The communities collaborated fully with the project, especially with implementation of activities on the ground. The envisaged socioeconomic benefits from biogas from piggery biodigesters did not eventuate. The improvements in confining pigs which reduced damages to crops helped improved the buy-in of communities.	The risk was well mitigated. Working in collaboration with cofinancing partner MORDI significantly helped towards securing buy-in of communities



²¹ Risk ratings means a rating of accesses the overall risk of factors internal or external to the project which may affect implementation or prospects for achieving project objectives. Risk of projects should be rated on the following scale: Low, Moderate, Substantial or High. For more information on ratings and definitions please refer to Annex 1.

	Type of risk	Risk rating ²¹	Identified in the ProDoc Y/N	Mitigation Actions	Progress on mitigation actions	Notes from the Budget Holder in consultation with Project Management Unit
2	Limited human and financial capacities in national Government: while the Government of Tonga (GoT) has experience implementing GEF-financed and other projects, overall human resource capacity is generally low, particularly in the outer islands where government presence is nearly non-existent. Government budgets are fairly low, which could present problems if already low budgets are reduced due to changes in national budget allocations.	M	Y	Significant capacity-building activities, for government and stakeholders alike, are included in the project to address capacity gaps. Project management will closely monitor government budget allocations in order to flag and potential shortfalls as soon as possible, so that corrective measures can be taken as needed to ensure continued implementation of project activities. In addition, the project will seek to minimize communities' dependence on Government support by promoting their capacities for the participatory generation, adaptation and dissemination of SLM technologies, based wherever possible on traditional knowledge; and "low-tech" approaches to the production and supply of planting materials.	FFS and other trainings were carried out in partnership with MAFF and helped strengthen the coordination of extension services with NGOs and private sector actors. Better coordination helps buffer low Government budgets. The Government sees value in the modernization/digitization of the land administration system and will need to secure provisions in the national budget for ongoing operations and maintenance beyond the project. Several project outputs are in draft form by the end of the project, e.g. Policy Intentions Papers and 'Eua Water Catchment Area Management Plan. Limited budgets and human resource capacity may limit the capacity to develop these further.	All Government co- financing contributions to the project were in- kind. There were no extra demand on Government resources and the project helped strengthen human resources capacity, especially for extension services.

	Type of risk	Risk rating ²¹	Identified in the ProDoc Y/N	Mitigation Actions	Progress on mitigation actions	Notes from the Budget Holder in consultation with Project Management Unit
3	Unsuitability of technologies to local conditions: While the biogas/piggery system is already being piloted in Tongatapu, the integration of the system with whole farming system at the community-level to be piloted under this project has not been tested as yet in Tongatapu or the outer islands	M	Y	The project will build on previous experiences with piggery systems in Tonga and community-based biogas systems in other countries, which have shown a high level of uptake and sustainability. On-going training in operating and maintenance of the entire system would be provided during project implementation. In addition, this training will focus on developing capacities among community members to troubleshoot technical, social or other problems that may arise in the future; while the community-based governance mechanisms to be supported by the project will facilitate the resolution of any stakeholder conflicts that may arise regarding, for example, roles and responsibilities for the maintenance of the systems, or the equity of the distribution of their benefits.	The biodigesters are proven technologies. As reported above, the project failed to install biodigesters by the end.	The impact of covid on supply chains and shipping services partly contributed to the failure to secure procurement of prefabricated biodigesters. The earlier failures to secure contractual services to design and install biodigesters through competitive processes did not help.

	Type of risk	Risk rating ²¹	Identified in the ProDoc Y/N	Mitigation Actions	Progress on mitigation actions	Notes from the Budget Holder in consultation with Project Management Unit
4	Climate change: climate change will pose a risk to the achievement of the project's objective as it may result in the climatic coping limits of the proposed production systems being exceeded (due to increases in temperature, rainfall variability and storm damage); land loss and degradation due to sea level rise, saltwater intrusion and salt spray impacts may also exacerbate productive pressures, and associated degradation, on the remaining land.		Y	The project's approach will mitigate these risks by promoting capacities among extension agents and among community members to innovate and adapt the resource management systems they promote or apply, through the use of participatory, adaptive approaches to analysis, learning and technology generation such as farmer field schools. The project's support to negotiated approaches to addressing land use planning and land tenure issues will further enable communities to adapt to CC-related changes in biophysical and demographic conditions.	The training and modules for extension services included vulnerability assessments to climate change.	

Project overall risk rating (Low, Moderate, Substantial or High):

FY2021	FY2022	Comments/reason for the rating for FY2022 and any changes (positive or negative) in the rating since
rating	rating	the previous reporting period
М	М	No change from previous year. The failure to install biodigesters for management of piggery waste was the main risk to demonstrating integrated farming system. The successful demonstration of other SLM practices like composting, key-hole gardening, wicking gardening, and introduction of new sources of local pig feed like moringa helped mitigate this risk

7. Follow-up on Mid-term review or supervision mission (only for projects that have conducted an MTR)

If the project had an MTR or a supervision mission, please report on how the recommendations were implemented during this fiscal year as indicated in the Management Response or in the supervision mission report.

MTR or supervision mission recommendations	Measures implemented during this Fiscal Year
Recommendation 1: Work in the sphere of ILAMS during the remainder of the project and post project should always adopt an inter-sectoral approach	no specific measure implemented as the project has always taken inter-sectoral approach where possible. For example, in the design of the draft 'Eua Water Catchment Area Management Plan, and participation of the Private Sector in the strengthening of extension services.
Recommendation 2: 2.1 Maps in ILAMS plans should be produced using participatory approaches to show the landscape and the community's vision of how it can be better manage using a landscape approach – so fundamental in the R2R vision (e.g. the FAO LADA system) 2.2 The communities in the target localities (including villages surrounding the pilot villages) are eventually to be integrated into the plans, but mechanisms to include surrounding villages have not yet been established and the recent PIR states they "will require incentives for those communities to do so". It should be an important objective for the FPOs to help all land users to understand the win-win-win benefits of the SLMs in the ILAMS plans. These will not be sustainable post project if incentives have to be given to everyone.	Activities in rehabilitation of areas affected by the ashfall from the HTHH volcanic eruption were not in pilot villages but in surrounding villages in target localities. Various other activities such as strengthening agro-forestry systems in toutu'u systems were also outside of pilot villages.
Recommendation 3: 3.1 Project should prioritise work on-the-ground, but ensure this is much wider that the household piggery units for the	Activities implemented during this reporting period were very limited in terms of piggery development and mostly in promoting SLM practices.
remainder of the project period – reviewing and completing the ILAMS plans using participatory approaches. 3.2 It is imperative for the overall success of the project as a demonstration that building of the hh piggeries is completed, including the promised project-provided improved breeds of pigs had been delivered, rainwater harvesting systems on their roofs and	New nurseries were installed.

promised bio-digester systems to produce	
biogas for cooking (to reduce tree cutting for	
fuel and digestate to be used on croplands	
to increase crop yields and reduce	
application of agrochemicals).	
3.3 The planned rehabilitation /	
construction of new nurseries for trees and	
other economically important plants should	
also be prioritised as these need to be	
functioning with trained local communities	
by August 2020.	
Recommendation 4:	Done
4.1 FFS target should be the numbers of	
farmers benefiting from SLM / SFM focused	Done
FFSs.	
4.2 The PSC should consider revising this	
target to the numbers of land users	Done
participating in and the number of FFSs	
operating.	
4.3 Master trainer in FFSs should be	Done
contracted to provide an initial "training of	
trainers" course for FFS leaders.	
4.4 The project should use, perhaps with	
local tailoring, existing FFS materials and	
avoid "reinventing the wheel" – which will	
be costly and time consuming ²² .	
Recommendation 5:	Project Field Officers continued to populate the M&E database.
The PSC should re-review M&E plan and	
systematically prioritise key elements / data	
which should be kept track of (for the GEF	
tracking tools and project Outcomes /	
Outputs) and the PMU should keep up-	
dating these regularly in the "draft" M&E	
system	
Recommendation 6:	A Comms Specialist was recruited but under-performance resulted in
	termination.
6.1 Communications Specialist and	Communication.
knowledge management Specialist should	Cooperative partnership with MORDI well established and continued
be contracted to support the remainder of	during this reporting period, strengthening link with TRIP II.
the project.	adding this reporting period, strengtherning link with Title II.
6.2 The team would benefit from working	
more closely / learning from experiences of	
other projects – particularly the wider R2R	
programme – also TRIP 2, including sharing	
lessons.	
6.3 The project would benefit from	
producing a small illustrated brochure (in	
Tongan and possibly also in English) about the overall project, its Objectives,	
the everall project its Objectives	

 $^{^{22}}$ FFS global platform - http://www.fao.org/farmer-field-schools/en/ and the manual $\underline{\text{http://www.fao.org/3/a-i5296e.pdf}}$

Components, Outcomes, Outputs and Activities to ensure more people understand the project.	
Recommendation 7: The PSC and TAG should meet and also communicate electronically more frequently to support the necessary enhancement of the rate of project implementation	The PSC has operated virtually due to covid travel restrictions.
Recommendation 8: The PSC and PMU should be more regularly reviewing the Risk Log of the project	No measure this reporting period. The numerous covid restrictions and lockdowns restricted ability to meet regularly. The Senior Technical Advisor (STA) as a key member of the PMU was also not able to carry out missions to help the PMU organize PSC meetings.
Recommendation 9: A no cost extension for the project should be requested	done. As follow-up to this recommendation, the first NCE proposal for 10 months was approved by FAO in July 2020 and revised the NTE from August 2020 to 30 June 2021.
Recommendation 10: 10.1 FPOs and wider PMU should continue to ensure activities involve young people – the future farmers of Tonga – perhaps developing a CSAYN branch in Tonga. 10.2 This could include raising awareness and training teachers for example in the benefits of trees and the principles of the landscape approach for them to pass on to their students has been proven in many other projects to create massive impact	Several activities were implemented at schools this reporting period, including trainings in keyhole gardening and compost making.

Has the project developed an	
Exit Strategy? If yes, please	Not yet
describe	

8. Minor project amendments

Minor amendments are changes to the project design or implementation that do not have significant impact on the project objectives or scope, or an increase of the GEF project financing up to 5% as described in Annex 9 of the GEF Project and Program Cycle Policy Guidelines²³. Please describe any minor changes that the project has made under the relevant category or categories. And, provide supporting documents as an annex to this report if available.

Category of change	Provide a description of the change	Indicate the timing of the change	Approved by
Results framework	Some of the indicators in the Results Framework were changed: - Indicator 10: No specific multi-stakeholder mechanisms were established for SLM practices. During consultations for ILAMS Plans, the communities proposed to utilize existing village Committees such as Agriculture Committees, instead of establishing new ones. - Indicators 13 and 14 were combined to track both Govt and NGOs who received trainings from Manuals and those who use the Manuals as most of the training were carried out as Farmer Field Schools, which means they receive training through "doing". - The indicator "%increase in water harvesting and storage capacity in target communities (m³/month)" was deleted as the validation of baseline data through household surveys	The changes to the RF indicators were proposed by the project team and endorsed by the PSC in its 5 th meeting in April 2020 as follow-up to the MTR recommendations (MTR report finalised Feb 2020). [note: the 5 th PSC meeting was carried out virtually and over emails as a result of covid19.]	Endorsed by the PSC

²³ Source: https://www.thegef.org/council-meeting-documents/guidelines-project-and-program-cycle-policy-2020-update

	by the project team indicated water supplies for all pilot villages were considered adequate and no longer a priority issue". Indicator 16 was changed to make "No change in availability of water to local communities in target localities" specific to "as a result of adopting new piggery management practices". Indicator 23 was changed to remove reference to "Sustainable Forest Management Agreements (SFMAs)". During implementation, it was decided the SFMA concepts do not fit Tonga's regulatory environment and context. The efforts to procure		
Components and cost	biodigesters were impacted by covid19 disruption of supply chains that made the selected Service Provider pull out of the process. These funds were redirected to the rehabilitation of land areas in the target localities that were affected by the ashfall from the Hunga Tonga-Hunga Ha'apai volcanic eruption. The reallocation was within Component 3.	Endorsed by PSC in virtual meeting in Feb 2022 as part of approval of a new NCE proposal to account for the Hunga Tonga-Hunga Ha'apai eruption. Approved 10th March 2022	Endorsed by PSC. Approved by FAO/OCB
Institutional and			
implementation			
arrangements Financial management			
i manciai management	A fourth No-Cost Extension	Revised NTE to	
Implementation schedule	was approved after the HTHH volcanic eruption	end of September 2022	
Executing Entity			
Executing Entity Category			
Minor project objective change			

Safeguards			
Risk analysis	The Hunga Tonga-Hunga Ha'apai eruption posed risk from the ashfall damaging crops and suffocating soils. The reallocation of funds within component 3 to rehabilitate the land areas by tilling the volcanic ash into the soil profile, remediated the risks to soil health.	HTHH eruption in January 2022. Remediation activities carried out in March-June 2022.	PSC and FAO/OCB
Increase of GEF project financing up to 5%			
Co-financing			
Location of project activity			
Other			

9. Stakeholders' Engagement

Please report on progress and results and challenges on stakeholder engagement (based on the description of the Stakeholder engagement plan) included at CEO Endorsement/Approval <u>during this reporting period</u>.

There was no Stakeholder Engagement Plan in the Project Document

Stakeholder name	Role in project execution	Progress and results on Stakeholders' Engagement	Challenges on stakeholder engagement	
Government Institutions				
MAFF	Execution Farmer Field Schools	FFS activities completed		
MLSNR	Execution of land administration system	Good progress made		
Non-Government organizations (NGOs)				

^[1] They can include, among others, community-based organizations (CBOs), Indigenous Peoples organizations, women's groups, private sector companies, farmers, universities, research institutions, and all major groups as identified, for example, in Agenda 21 of the 1992 Rio Earth Summit and many times again since then.

10. Gender Mainstreaming

Information on Progress on Gender-responsive measures as documented at CEO Endorsement/Approval in the gender action plan or equivalent (when applicable) <u>during this reporting period.</u>

Category	Yes/No	Briefly describe progress and results achieved during this reporting period
Gender analysis or an equivalent socio- economic assessment made at formulation or during execution stages.	No	none
Any gender-responsive measures to address gender gaps or promote gender equality and women's empowerment?	Yes	none
Indicate in which results area(s) the project is expected to contribute to gender equality (as identified at project design stage):	Yes	none
a) closing gender gaps in access to and control over natural resources	Yes	none
b) improving women's participation and decision making	Yes	none
c) generating socio-economic benefits or services for women	Yes	Nurseries installed by Women's Groups and a Woman Private Sector
M&E system with gender-disaggregated data?	No	
Staff with gender expertise	No	
Any other good practices on gender	No	

11. Knowledge Management Activities

Knowledge activities / products (when applicable), as outlined in Knowledge Management Approach approved at CEO Endorsement / Approval <u>during this reporting period.</u>

Does the project have a knowledge management strategy? If not, how does the project collect and document good practices? Please list relevant good practices that can be learned and shared from the project thus far.	No
Does the project have a communication strategy? Please provide a brief overview of the communications successes and challenges this year.	In draft form. Having no dedicated Communication Specialist was a challenge.
Please share a human-interest story from your project, focusing on how the project has helped to improve people's livelihoods while contributing to achieving the expected Global Environmental Benefits. Please indicate any Socio-economic Co-benefits that were generated by the project. Include at least one beneficiary quote and perspective, and please also include related photos and photo credits.	The Hon Lord Tu'ilakepa led a delegation that included senior government officials to inspect the project implementation by the village community. The Minister and his delegation arrived on the island on board the ILAMS R2R vessel that was provided by the project for the island community. A tour of the different project programs were held which included viewing the 'puaka palangi' piggery, the 'pauaka Tonga' piggery, tree planting sites, village nurseries, keyhole gardens, composting sites, chicken houses plus the 'Vai ko Kanakana' site.
Please provide links to related website, social media account	https://www.facebook.com/groups/763339937157345
Please provide a list of publications, leaflets, video materials, newsletters, or other communications assets published on the web. Please indicate the Communication and/or knowledge management focal point's Name and contact details	

12. Indigenous Peoples and Local Communities Involvement

Are Indigenous Peoples and local communities involved in the project (as per the approved Project Document)? If yes, please briefly explain.

If applicable, please describe the process and current status of on-going/completed, legitimate consultations to obtain Free, Prior and Informed Consent (FPIC) with the indigenous communities.

Do indigenous peoples and or local communities have an active participation in the project activities? If yes, briefly describe how.

Only less than 5% of Tonga's population are non-Tongan ethnicity.

13. Co-Financing Table

Sources of Co- financing ²⁴	Name of Co-financer	Type of Co- financing	Amount Confirmed at CEO endorsement / approval	Actual Amount Materialized at 30 June 2022	Actual Amount Materialized at Midterm or closure (confirmed by the review/evaluation team)	Expected total disbursement by the end of the project
National Government	Ministry of Finance and National Planning	Grant	3,340,000	3,014,235		3,014,235
Regional Organization	Secretariat of the Pacific Community	In-kind	750,000	15,000		15,000
NGO	MORDI Trust	In-kind	980,000	968,635		968,635
NGO	Oxfam	In-kind	240,000			
Bilateral agency	GIZ	Grant	150,000			
GEF Agency	FAO	In kind/Grant	1,400,000	178,203		1,400,000
National Academic Organization	Tupou College	In-kind	155,000	54,400		54,400
National Academic Organization	Hango Agriculture	In-kind	155,000	150,800		150,800
	•	TOTAL	7,170,000	4,381,273		5,603,070

²⁴ Sources of Co-financing may include: Bilateral Aid Agency(ies), Foundation, GEF Agency, Local Government, National Government, Civil Society Organization, Other Multi-lateral Agency(ies), Private Sector, Beneficiaries, Other.

Annex 1. – GEF Performance Ratings Definitions

<u>Development Objectives Rating</u> . A rating of the extent to which a project is expected to achieve or exceed its major objectives.				
Highly Satisfactory (HS)	Project is expected to achieve or exceed all its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as "good practice"			
Satisfactory (S)	Project is expected to achieve most of its major global environmental objectives, and yield satisfactory global environmental benefits, with only minor shortcomings			
Moderately Satisfactory (MS)	Project is expected to achieve most of its major relevant objectives but with either significant shortcomings or modest overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environment benefits			
Moderately Unsatisfactory	Project is expected to achieve of its major global environmental objectives with major shortcomings or is expected to achieve only some of			
(MU)	its major global environmental objectives)			
Unsatisfactory (U)	Project is expected not to achieve most of its major global environment objectives or to yield any satisfactory global environmental benefits)			
Highly Unsatisfactory (HU)	The project has failed to achieve, and is not expected to achieve, any of its major global environment objectives with no worthwhile benefits.)			

Implementation Progress Rating implementation plan.	g. A rating of the extent to which the implementation of a project's components and activities is in compliance with the project's approved
Highly Satisfactory (HS)	Implementation of all components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be resented as "good practice
Satisfactory (S)	Implementation of most components is in substantial compliance with the original/formally revised plan except for only a few that are subject to remedial action
Moderately Satisfactory (MS)	Implementation of some components is in substantial compliance with the original/formally revised plan with some components requiring remedial action
Moderately Unsatisfactory (MU)	Implementation of some components is not in substantial compliance with the original/formally revised plan with most components requiring remedial action.
Unsatisfactory (U)	Implementation of most components is not in substantial compliance with the original/formally revised plan
Highly Unsatisfactory (HU)	Implementation of none of the components is in substantial compliance with the original/formally revised plan.

Risk rating. It should access the overall risk of factors internal or external to the project which may affect implementation or prospects for achieving project objectives. Risk of projects should be rated on the following scale:				
High Risk (H)	There is a probability of greater than 75% that assumptions may fail to hold or materialize, and/or the project may face high risks.			
Substantial Risk (S)	There is a probability of between 51% and 75% that assumptions may fail to hold or materialize, and/or the project may face substantial risks			
Moderate Risk (M)	There is a probability of between 26% and 50% that assumptions may fail to hold or materialize, and/or the project may face only moderate risk.			
Low Risk (L)	There is a probability of up to 25% that assumptions may fail to hold or materialize, and/or the project may face only low risks.			