INITIATIVE FOR CLIMATE ACTION TRANSPARENCY PROJECT: SET UP OF SECTORAL MRV SYSTEMS FOR THE AGRICULTURE SECTOR

Inception Workshop Report

14 January 2021

Venue: Fiji Revenue and Customs Services Complex,

Level 2, Building 3,

Training Room 3, HR and Training Section, Lot 1 Corner of Queen Elizabeth Drive, Nasese, Ratu Sukuna Road, Suva

Table of Contents

Introduction

The inception workshop for the Initiative for Climate Action Transparency (ICAT) project on the '**Set up of Sectoral MRV Systems for the Agriculture Sector**' was organised by the Climate Change and International Cooperation Division of the Ministry of Economy in close collaboration with the Ministry of Agriculture and the Greenhouse Gas Management Institute. The half-day workshop took place on the 14th of January of 2021, and the meeting was held in person as well as virtually streamed on Microsoft Teams to allow participants to join remotely.

The key objectives of the inception workshop were to:

i. introduce the Project to and engage with the key stakeholders in Fiji and establish mutual understanding and cooperative action platform for achieving project success; and
ii. ensure that project needs and key project tasks, and the project plan are well understood and agreed upon by the key stakeholders in Fiji.

The Project was developed in response to the Fijian Government's request from the ICAT Secretariat to support the design of a functional and robust domestic

An audience of thirty-five participants[1] ranging from policymakers, academia, researchers, and the private sector were present both physically and virtually at the workshop. A detailed participant list is given in Table 1.

Furthermore, the workshop agenda is attached as Annex A, respectively.

[1] The team from CCCID and GHGMI have also been included in this figure.

This page was removed from the document as it contained personal information

This page was removed from the document as it contained personal information

This page was removed from the document as it contained personal information

This page was removed from the document as it contained personal information

Workshop Presenters

Mr Ritesh Dass, Permanent Secretary (PS) for Ministry of Agriculture

Mr Dass delivered the welcoming remarks at the inception workshop. In his address, the PS highlighted how the agriculture sector was most vulnerable to climate change. He further elaborated that the success of the Koroniva Joint Work Programme hinges on the development and implementation of new strategies for adaptation and mitigation within the sector to both reduce emissions as well as build resilience to the effects of climate change. Mr Dass explained how the Fijian agriculture sector was ranked second highest on the national sources of greenhouse gases, contributing to approximately twenty-two percent of the national GHG emissions.

Fiji's agriculture sector is the highest source of methane and nitrous oxide emissions in the country. These emissions largely comprise methane from rice cultivation, enteric fermentation and manure management for livestock, and nitrous oxide emissions from synthetic fertiliser application. It was also stressed that the extent of agricultural emissions was yet to be known, which created challenges in policy development that would address sustainable and economic viability at the same time limiting emissions from the sector. Mr Dass informed the forum that this information and data was crucial for the development of strategies aimed at decoupling economic growth and GHG emissions at the same time venturing into markets for gaining incentives for reducing emissions.

Moreover, the PS explained how the establishment of a Monitoring, Reporting and Verification (MRV) System under this project would contribute towards evidence-based policy and decision making and the MRV of mitigation actions that would be included in Fiji's Future NDCs. Mr Dass stressed the importance of the NDC being a vessel to attract finance for mitigation and adaptation actions.

Lastly, in his remark, the PS expressed how the project was very forthcoming, noting its value in not only informing policies and strategies but in helping build technical capacities locally. The PS said that the capacity building component of the project in GHG measuring, reporting and verification, and policy analysis of GHG and SDG impacts will be very timely and is much needed as Fiji embarks on operationalising the Climate Change Bill and pursuing efforts to reach carbon neutrality by 2050. He acknowledged the value of the project and wished all participants well for the deliberations of the workshop and the implementation of the Project.

Dr Henning Wuester, ICAT Director

Dr Wuester delivered the opening remark for the Inception Workshop. He delivered his opening deliberation virtually in the form of a PowerPoint Presentation, "Transparent, and effective climate action." In his presentation, Dr Wuester focused on the following areas:

i. Introduction to ICAT;
ii. The Importance of Climate Action Transparency; and

iii. The role of ICAT.

Dr Olia Glade, GHGMI, Director for MRV Systems at GHGMI, and ICAT/Fiji Project Manager

Dr Glade plays a crucial role in the ICAT Project and presented on the following components of the project:

i. An introduction and overview of the Project

The Fiji ICAT project on the Set up of Sectoral MRV Systems for the Agriculture Sector has three key objectives, which include:

a. Develop a blueprint for the mitigation MRV system for the agriculture sector;
b. Improve capacity for MRV in priority sectors and for policy impact assessment in the agriculture sector; and
c. Develop recommendations for including agriculture sector policies in Fiji's enhanced NDC.

Dr. Glade further outlined the project scope, timeframe, deliverables, and the proposed training programme for the project experts in Fiji.

ii. The agriculture inventory and reporting under the Paris Agreement

Dr. Glade explained how the greenhouse gas inventory and its agriculture sector inventory ion particular fits within the climate Measurement, Reporting and verification (MRV) framework under the United Nations Framework Convention on Climate Change (UNFCCC), Fiji's position in the global climate arena, and what the shift towards reporting under the Enhanced Transparency Framework (ETF) under the Paris Agreement means to Fiji and its efforts in creating and maintaining the agriculture sector inventory.

iii. The national system organisation of the agriculture sector

The inventory component of the project aims to lay down the fundament for sustainable national system for the agriculture inventory in Fiji and build a national GHG inventory programme in the future. The presentation outlined the key features of a GHG inventory and explained how the agriculture sector fits in the GHG national inventory, presented a concept map of the agriculture sector, and the current status of the agriculture sector inventory in Fiji according to the latest Fiji's reports. She then outlined and explained the key components of the agricultural inventory reporting and provided the linkages to the specific needs and pathways in building the national inventory system to accommodate the reporting requirements.

Ms Katie Goldman, GHGMI, Senior Fellow, Senior Technical Advisor to the project, and ICAT Program Manager

Ms Goldman provided an introduction to the Policy Assessment component of the Project. This component of the project aims to build domestic expertise in the application of the ICAT Tools in

accessing agricultural policy impacts from the perspective of GHG and sustainable development. Ms Goldman gave an overview of the ICAT Guidance to the Policy assessment, explained the main assessment steps, and have examples of the relevant types of policies to assess with the ICAT guidance, and outlined the scope of Agricultural guidance for enteric fermentation and soil carbon pool.

Further, Ms Goldman provided a detailed overview of the Guidance for sustainable development assessments including environmental, social, and economic impacts, giving examples. She also explained the specific steps within the project on how the policy assessment work is programmed and suggested specific criteria for choosing the policies for the assessment.

Professor Peter Grace, Queensland University of Technology and Australian Centre for Agricultural Research (ACIAR)

Prof. Grace presented on GHG emission calculations from Rice cultivation. He discussed the application of 2006 IPCC Guidelines for national greenhouse gas inventories on calculating emissions from the Rice cultivation category in regards to tier 1 methodology. He described the ecosystems for rice cultivations that could be relevant to Fiji and explained the specific greenhouse gas emissions outcomes in association with different water regimes applied to those ecosystems.

Prof. Grace further explained, giving examples, the major factors influencing GHG emissions from rice cultivation and how they fit in the basic methodology for etimating emissions provided by the 2006 IPCC Guidelines. He also emphasised the information required to estimate emissions using basic tier 1 methodology.

Ms Hazelle Tomlin, New Zealand Ministry of Primary Industries, GHGI Team and GRA Secretariat

Ms Tomlin presented the compilation of the livestock emissions, including those from enteric fermentation and manure management. She provided an overview of the 2006 IPCC Guidelines for national greenhouse gas inventories on calculating livestock emissions from the enteric fermentation and manure management categories using tier 1 methodology.

Ms Tomlin explained the general steps in the compilation of the livestock GHG inventory and the decision logic behind the selection of methodological tiers for estimating emissions. She further explained the emission sources for each GHG in the livestock categories and provided a snapshot view of Fiji's livestock emissions according to the Fiji Low Emission Development Strategy 2018 – 2050[2]. Ms Tomlin further provided an example of calculating livestock emissions from Fiji's neighbour in Pacifica – New Zealand. She also explained the key data and parameters for livestock characterisation required for estimating livestock emissions according to the 2019 Refinement to the 2006 IPCC Guidelines for national inventories and discussed the relevant decision trees.

[2] Fiji Low Emission Development Strategy 2018-2050

Dr Tekini Nakidakida, Senior Agronomist, Ministry of Agriculture, Fiji

Dr Nakidakida highlighted that the agriculture sector had no policy to address GHG emissions directly. He further emphasised the importance of low carbon growth, which enables both emissions and reduction expansion by establishing a system through a public-private partnership to spread "developed countries low carbon technologies" and products quickly amongst developing countries, where GHG emissions are forecasted to increase as the country's economy grow.

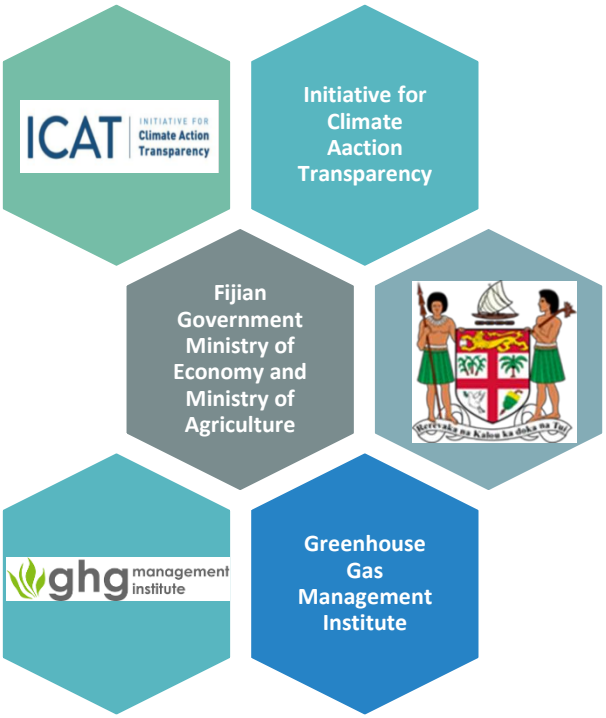
He outlined the existing gaps for climate change mitigation and adaptation and listed the possible actions that could be included in agricultural policies to address climate change.

1. Mitigation
    a. Crop Farm Management Systems
    b. Livestock Management Systems
2. Adaptation
    a. Finance – Loss and Damage
    b. Introduce tolerant varieties/breeds
    c. Farmer Socio-economic development
3. Mitigation/Adaptation
    a. Waste/Manure/Compost management systems – Carbon source & sinks
    b. Fertiliser management systems

Ms Jeanette Mani, Mitigation Specialist, Climate Change and International Cooperation Division

Ms Mani delivered the closing remarks at the workshop.

Project Partners



Survey Responses

Seventy-one percent of the participants in attendance responded to the post inception workshop survey provided by ICAT. The survey was administered via an online platform for participants joining virtually and using hardcopy forms for those present at the venue.

The pie in Figure 1 below represents the representation of countries and gender at the workshop. A majority of the participants hailed from Fiji, while an equal representation of 9% each were from Australia and New Zealand. Five percent did not provide information on the country of residence. Furthermore, the respondents of the survey comprised 55% males and 45% females.

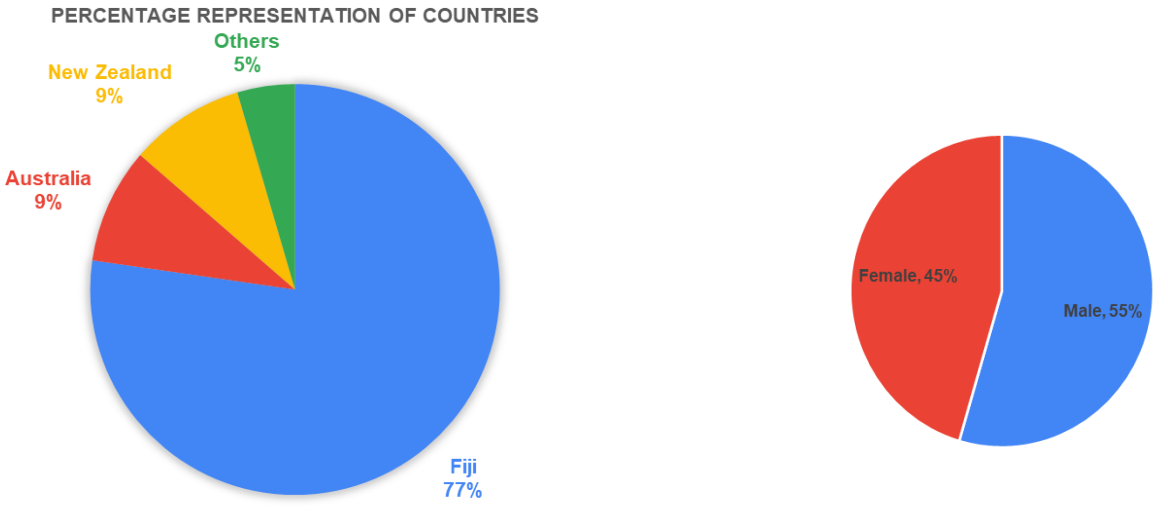


Figure 1: Country and gender representation

The participants invited to the inception workshop were directly or indirectly related to the Agriculture sector. A breakdown of expertise in the room on the day of the workshop has been broken down and classified as per Figure 2. There seemed to be a good distribution of expertise at the workshop. A good representation of agricultural technical and scientific officers (29 %) followed by geospatial expertise (19 %) and administrative expertise, including project managers (10 %), were present at the workshop. While 14 % of the participants did not specify their areas of expertise in the agriculture sector, 33 % of researchers and academics brought rich experiences and information to the forum for discussion.

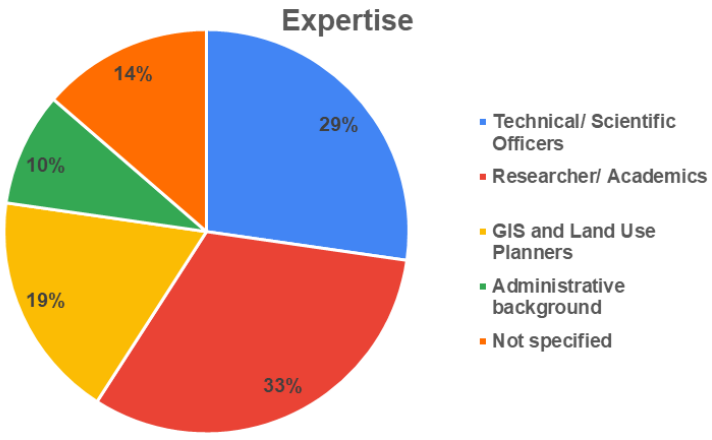


Figure 2: Expertise at the Inception Workshop

The inception workshop can be considered a success as it met its goal of making participants aware of the Project's purpose. It is only rightful that a comparison of participant knowledge of the project be presented to gauge the true success of the workshop. Figure 3 below provides a comparison of the level of understanding of the Project before and after the project.

Figure 3: Participant Knowledge Rating Before Vs. After Workshop

Respondents of the survey highlighted how the workshop enabled them to understand emissions related to the agricultural sector and its contributions towards climate change. The respondents who lacked knowledge on GHG Inventory, decision trees and agricultural emissions, in general, were eager to learn more about the project. Our overseas and regional colleagues were delighted with the type and level of information that was shared at the inception workshop, as it gave them a better understanding of the local context. The presentations ignited thoughts around technology and other links to climate change adaptation for the agriculture sector.

According to the participant's responses on their learning experiences, the key lessons that were flashed out includes:

i. Agriculture sector being the second-largest GHG emitter for Fiji, especially emissions arising from rice cultivation and enteric fermentation

ii. Concerns on mitigating GHG Emissions from the agriculture sector

iii. A better understanding of technical climate change words and terminologies

iv. A better understanding of ICAT and its roles responsibilities

v. A better understanding of the ICAT Project on setting up an MRV for the agriculture sector

vi. better understand the importance of the MRV process

vii. Understanding of emissions calculations

viii. The links between the ICAT tools and their applicability in the Fijian context.

Participants' responses to how frequently they would incorporate the knowledge attained from the workshop into their work and lives. Figure 4 shows the frequency of knowledge incorporation.

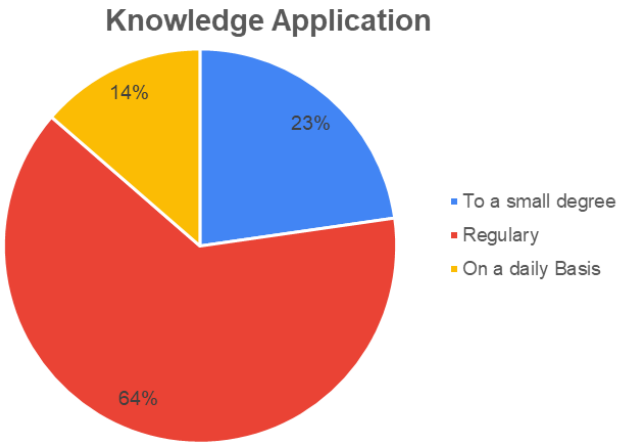


Figure 4: Knowledge application frequency by participants

About 23 % of the participants who responded said that they would use the workshop information to a small degree expressed that certain aspects of the workshop could contribute to their policy work in the agriculture sector. The GIS community expressed how the use of GIS would contribute to collating crop landmass data for the calculation of GHG emissions from crops.

Sixty-four percent of the participants who mentioned using the workshop information regularly explained that they would achieve that through the following interventions: including GHG emission calculation in project development; implementing a few mitigation measures in their farms to avoid GHG emissions; and incorporate topics into research, policy, and university curriculum development.

The remaining participants who mentioned using the workshop information on a daily basis envisioned sharing their experience of the local context with other colleagues. In general, the workshop information would be utilised to improve the implementation of the project in Fiji, ensuring that the MRV for the agriculture sector is one that is robust and holistic.

Furthermore, there were some recommendations for improvement from the participants. Twenty-three percent of the participants recommended improvements for future workshops. This came as they felt that the presentations and discussions were too technical and required more time for elaborate discussions. It was also recommended that future workshops should include key personnel from the Government, especially from the Lands Department, Geospatial Divisions and Ministry of Forestry. A more general suggestion was to ensure future presentations were not very wordy and readable on the screen. However, generally (68%) appreciated the team and their efforts at organising the workshop. Nine percent of the participants were unsure if any aspect of the workshop needed to be improved to support the better application of learning and skills moving forward. A breakdown of responses is provided in Figure 5 below.

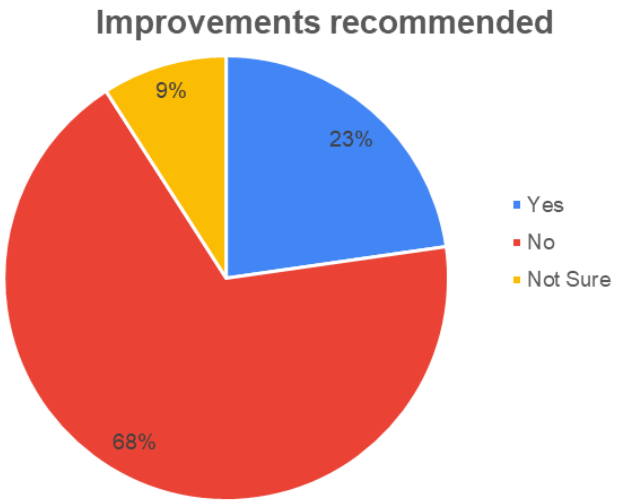


Figure 5: Recommendations for improvement

Overall, the workshop conduction and the information shared were very well received by the Participants. The post-workshop survey reveals a 50% rating for 'Good' and subsequently another 50% rating for 'Very Good.'

Workshop Discussion

There were fruitful discussions during the workshop. Key points from the issues discussed include:

i. Dr Viliamu Lese who is a Research Fellow at USP PACE-SD highligthed that for a forward-looking project such as this, sustainability is a key factor and the need to build capacity in Fiji's National Universities is vital for the continuity of the work. Dr Lese also expressed and commented that the project should involve research projects for data collection.

   Dr Olia Glade highlighted that the national experts for the project can be from universities and is not restricted to those from Government. She added that these experts can be enrolled in the GHGMI course to be trained on IPCC 2006 GHG Inventory guidelines. The proficiency certificates on the completion of the course would add value to the experts' careers and contribute towards the national GHG emissions calculations. Dr Glade also urged that the academic and the private sector be heavily involved in the project to ensure their contributions are reflected in future inventories especially contributions to data collection, quality control and quality assurance, and data validation. These could contribute to building future experts registered under the UNFCCC who could also review other countries GHG Inventories. Ms Katie Goldman further added that the training workshops organised during the implementation of the project could cater to participants beyond the project consultancy (experts).

ii. Ms Hazelle Tomlin sought information on how a data archiving system and the institutional system be developed. To this Dr Glade responded that archiving is an integral part of GHGI system and will be described in the national system guidelines. The project will document guidance on how to archive data efficiently and securely to ensure data is

available for future generations allowing them to have access to long-term time-series data.

iii. Mr Solomoni Nata from the iTaukei Land Trust Board expressed that the data management system needs to be a centralised system and further queried if there was an available system that existing data could be integrated into.

Dr Glade agreed that a centralised system would be appropriate for Fiji and the Information system should mimic the same. She further added that specific domains should be organised for different portions of the agricultural data which would be provided by different groups and vendors for different categories under the agriculture sector GHG inventory. No complicated system or new system is required. The system can be simple but appropriate. She explained that the collection and emission calculation system does not need to be in the same system but is advised to be separate for data security. Data collection is separate from inventory calculating systems. This will ensure Fiji would have organised a good set of workbooks, clearly identifying and explaining data. This will be recommended in the systems manual.

iv. Mr Raj Sharma, the CEO of Fiji Rice Limited reiterated that methane emissions are higher in flooded regions and informed the room that the Fijian Government is encouraging farmers including sugarcane farmers to plant rice in dry lands. He mentioned that the recent cyclone has led to saltwater intrusion. He asked if salinity over a long period would have an impact on methane emissions.

Prof. Peter Grace, explained that long term salinity and water quality would have an impact on the Rice Industry. He further added that the IPCC guidelines however did not highlight any impact of salinity on methane emissions. However, over longer periods salt-tolerant varieties of rice would become important to ensure the sustainability of the industry.

v. Dr Francis Mani who has had experience in developing GHGI for agriculture and waste sectors for the Second National Communication initiated the discussion on institutional arrangements and data collection. He asked how the project will achieve the goal of setting up an institutional arrangement. To this Dr Glade responded, that key elements are good stakeholder relationship, identification of data available and collection process, and setting up a memorandum of agreements for timely sharing of data.

Conclusion

Ms Mani delivered the closing remarks, where she expressed her gratitude for the participant's attendance and contribution. She summarised the presentations of the day and emphasised on the significance of developing a blueprint for greenhouse gas MRV for Fiji. She further stressed the importance of the policy assessment from the GHG and SDG perspective and iterated the importance of addressing GHG mitigation in agricultural Policies and the NDC.

Annex A

INITIATIVE FOR CLIMATE ACTION TRANSPARENCY PROJECT: SET UP OF SECTORAL MRV SYSTEMS FOR THE AGRICULTURE SECTOR

Inception Workshop Agenda

Objective of the Inception workshop: to introduce the project to and engage with the key stakeholders in Fiji and establish mutual understanding and cooperative action platform for achieving project success; to ensure that project needs and key project tasks and the project plan are well understood and agreed by the key stakeholders in Fiji

Audience: Climate Change Division, Ministry of Agriculture, and national consultants, project participants and representatives from GHGMI, GRA, and ACIAR, Fiji NC/BUR project

Date: 14 January 2021, 8.15 am to 2.00 pm

Format:

Face-to-face Venue	Fiji Revenue and Customs Services Complex, Level 2, Building 3, Training Room 3, HR and Training Section, Lot 1 Corner of Queen Elizabeth Drive ,Nasese, Ratu Sukuna Road, Suva
Virtual link	**You're invited to join a Microsoft Teams meeting** **Title: ICAT Inception Workshop Fiji** **Join on your computer or mobile app** **Click here to join the meeting**

Structure and scope: The Inception workshop will be conducted in two parts.

Time	Activity	Presenter	Facilitator
Part 1 : Introduction of the ICAT project to the stakeholders			
8.15 – 8.30am	Arrival and Registration		CCD
8.30am – 8.45am	Welcoming remarks (Fiji officials)	Ministry of Agriculture	MC
8.45am-9.00am	Project team and partner introductions	Everyone	MC
9.00am - 9.15am	ICAT opening remarks	Henning Wuester	MC

Time	Activity	Presenter	Facilitator
9.15am - 10.00am	Project introduction	Olia Glade	MC
10:00 am - 10:30am	***Morning break – coffee***		
Part 2: Planning for data collection for both GHG Inventory and Policy impact assessments with the emphasis on key requirements, potential data availability and sources			
10:30am – 10.50am	Introduction: how the agriculture sector fits into reporting under the Enhanced Transparency Framework under the Paris Agreement.	Olia Glade	Francis Mani
10.50am – 11.10am	National system organization for the agriculture sector	Olia Glade	Francis Mani
11.10am – 11.20am	General discussion	Everyone	Francis Mani
Session: Inventory data required and potential data sources			
11.20am – 11.40am	Livestock inventory - Enteric fermentation and Manure management	Hazelle Tomlin, GRA	Ministry of Agriculture
11.40am – 12.00	Rice cultivation	Peter Grace, Richard Eckard, ACIAR	Ministry of Agriculture
12.00 – 12.20pm	Questions and answers session	Everyone	Ministry of Agriculture
12.20pm – 12.30pm	***Break***		
Session: Policy assessment (2 policies)			
12.30pm-12.45pm	Introduction: policy assessment in the agriculture sector (greenhouse gases and sustainable development and the use of ICAT tool	Katie Goldman, GHGMI	Ministry of Agriculture
12.45pm – 1.15 pm	Discussions on potential policies to include in the policy assessment	Everyone	Ministry of Agriculture
1.15pm-1.30pm	Closing Remarks	Jeanette Mani	
1.30pm	**Lunch**		