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PACIFIC HEADS OF AGRICULTURE AND FORESTRY SERVICES (PHOAFS)
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Paper reference	**Session 2: Agenda Item 2.1**
Title	**Progress Update: Testing and adapting the framework of the Regional Research Agenda**
Action	Decision
Author(s)	**Peer Reviewers and RRA Secretariat**

Summary

The vision of the RRA is as follows: ***"Identifies common forestry and agriculture development challenges in the Pacific Region, establishes Pacific research partnerships, and defines research strategies to overcome these challenges. The RRA brings decision-making, leadership, and planning into an inclusive Pacific process".***

The following paper provides an update to the Pacific Heads of Agriculture and Forestry Services (PHOAFS) on the progress to date of the testing process for the framework of the Regional Research Agenda (RRA) to achieve the above stated vision. It specifically seeks the endorsement of the PHOAFS to allow the Peer Reviewers and SPC as the RRA Secretariat to move to test the final component of the framework. The final results from the testing process will be presented at the 2025 meeting of the PHOAFS.

Recommendation:

The PHOAFS are invited to:

a) Note the progress to date of the testing process of the framework of the RRA.
b) Endorse the decision to progress trialling the pilot research in member countries[1] who wish to take part in the research to test the **Partners in Research** component of the framework of the RRA.

[1] Countries already identified by the Peer Reviewers who can start the pilot work include Cook Islands, Nauru, Marshall Islands and Wallis and Futuna. The Secretariat will write to the PHOAFS to also seek other countries who wish to be involved in the pilot research.

Background

1. The need was identified for Pacific Island Countries and Territories (PICTs) to drive, coordinate, and share resources to implement research to achieve regional impact during the Pacific Heads of Agriculture and Forestry Services (PHOAFS) in 2021. At the request of the PHOAFS, the Pacific Community (SPC), in collaboration with member countries, developed a framework of the Regional Research Agenda (RRA). The proposed framework was presented and endorsed at the 8th PHOAFS meeting in 2023 and SPC was tasked to work with member countries to operationalise the RRA framework. The PHOAFS also requested for the RRA to be a standing agenda item in all future PHOAFS meetings.

2. This paper provides an update of the testing process undertaken to operationalise the framework of the RRA to date. It also seeks the PHOAFS endorsement to allow the Peer Reviewers and SPC as the Secretariat to move towards the final stages of testing the test the final component of the framework.

Purpose of this paper

3. This paper presents the progress of the work to test the framework of the RRA and seeks the endorsement from the PHOAFS to allow the team to test the final component of the framework.

Progress Update: Testing Process

4. The testing of the framework of the RRA was carried out on each component and element of the framework. A call for nominations was made through the PHOAFS in April 2023 for Regional Research Leaders who would form the Peer Review Group (Peer Reviewers). A total of 17 Peer Reviewers were nominated and have been working closely with SPC as the Secretariat, to test the framework of the RRA. The Peer Reviewers have met five times (two face-to-face meetings and three virtual meetings) to go through each component, testing and adapting the process. The RRA is broken down into three main components: Hearing Pacific Voices, Peer Review and Partners in Research (refer to **Figure 1**).

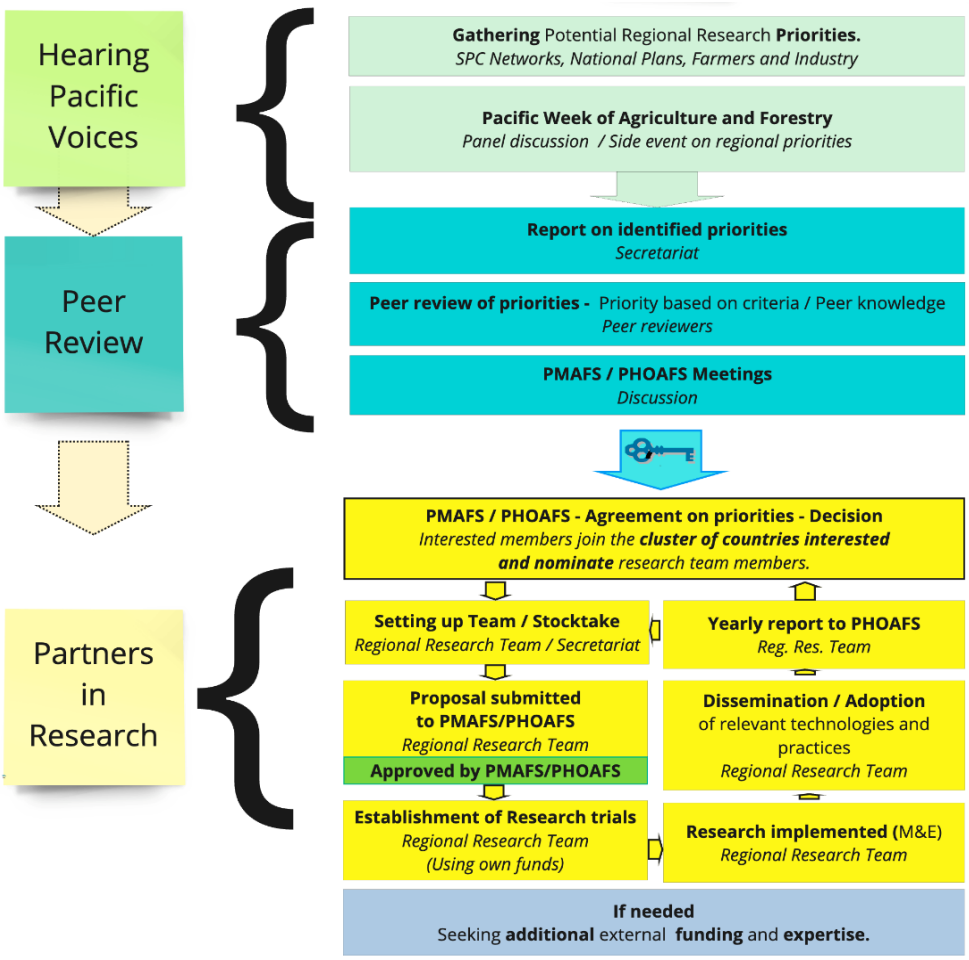

Figure 1: The framework of the Regional Research Agenda

Hearing Pacific Voices

5. To test this part of the component, the Secretariat collected priorities from national agriculture and forestry plans, strategies, policies as well as meeting outcomes from current active SPC technical networks. These were consolidated and 12 themes with 49 researchable priorities were identified. A sieving process was used to identify the researchable priorities that could be used to test the **Partners in Research** component of the framework.

6. The breakdown of the thematic areas was carried out with the focus of supporting livelihoods and the wellbeing of PICTs communities. A full list of the priorities identified were grouped into four thematic areas (attached as **Annex 1**). The fourth group (Enablers) was seen as those tools and expertise required to enable research to happen. The enablers also connect the results of the research to communities e.g. through extension agent's work and provide the feedback loops to the researchers to enable the tailoring of research to farmer's and community's needs.

a) Food Security and Nutrition
b) Climate Change
c) Sustainable Agricultural Systems
d) Enablers (extension work, data, biosecurity)

Lessons learned:

7. The main lessons learned through this testing process was that not all countries had national agriculture and forestry strategies, policies, or plans in place. Other countries had strategies in place but consultations with the farmers, foresters and the private sector and other stakeholders may not have been thoroughly done. Therefore, it was important for a space to be created for more thorough consultations on the identified priorities so that voices from the different stakeholders within the agriculture and forestry sectors could be heard to inform the researchable priorities of the PICTs.

Peer Review

8. This process was first tested by a call of nominations through PHOAFS for Research Leaders (Peer Reviewers) who would support SPC as the Secretariat. A total of 17 Peer Reviewers were nominated from 11 PICTs (American Samoa, Cook Islands, Fiji, French Polynesia, Marshall Islands, Nauru, Papua New Guinea, Solomon Islands, Samoa, Vanuatu, Wallis, and Futuna). The Peer Reviewers were nominated based on their having sound understanding of the Pacific region's social, cultural, economic and environment context. In addition, their selection was also based on their having technical expertise relevant to the agriculture and forestry research areas such as agronomy, forestry, livestock, animal nutrition, social science, post-harvest systems, plant genetic resources, pest and disease management and policy analysis to name a few.

9. Next the Secretariat reported on the results of the identified themes and possible researchable priorities to the Peer Reviewers. The Peer Reviewers went through a sieving process to identify priorities that could be used to test the final part of the framework. The sieving process was a set of questions that guided the selection of the relevant priorities that the region could work on to achieve regional collaboration and impact. While all highlighted priorities were considered important, four main researchable priorities were identified which could be used to test the rest of the framework on:

(i) **Theme:** Nutritious crops.
Priority: Support and make available healthy and nutrient-rich crops for local consumption.

(ii) **Theme:** Genetic Resources.
Priority: Improve the genetic base through seed production.

(iii) **Theme:** Forest and sustainable land management.
Priority: Implement solutions to support sustainable forest and landscape management.

(iv) **Theme:** Climate-resilient crops.
Priority: Promote crops that are climate resilient.

10. In selecting a priority, to test the framework on, one of the considerations by the Peer Reviewers was the timeframe for trialling the research. The theme **Climate Resilient Crops** with the researchable priority to **Promote Crops that are Climate Resilient** was identified as the most suitable priority to be used to test the **Partners in Research** Component of the framework. It was identified as a priority because partnerships could be established quickly, and pilot activities could be tested within a one-year timeframe in order to report results to the next Pacific PHOAFS and Ministers of Agriculture and Forestry meetings at the Pacific Week of Agriculture and Forestry (PWAF) in Tonga in 2025.

Lessons learned:

11. Not all countries were able to send in representatives to be part of the Peer Reviewers. The Secretariat acknowledged this, and it was agreed with the nominated Peer Reviewers that the process would be tested with those who were currently nominated. However, another round of nominations would need to take place after the final testing of the framework in 2025. Each peer reviewer will be nominated for two years and be replaced after that timeframe.

12. An important consideration for the implementation of the RRA process was to use and add value to existing regional processes. The PWAF was identified as a key regional event where relevant RRA stakeholders and partners would gather in the form of a conference to bring voices to the table to hear the research priorities from the respective counties. Naturally, PWAF became a key moment of the RRA timeline where regional researchable priorities can be identified, discussions on sharing resources, knowledge, and data can take place and regional research teams can meet, report progress, and learn from each other.

Partners in Research

13. The Secretariat collected literature through relevant databases and networks to identify all available publications which focused on the priority **Promote Crops that are Climate Resilient**. A total of 69 publications were identified and impacts to research, policy, and communities as well as research gaps were highlighted and presented to the Peer Reviewers. One of the main highlighted gaps from the literature review was the lack of participatory research focusing on farmers. The main recommendations from the research were more targeted research on individual crops (simulation models), increasing genetic resources through breeding programmes, and the general lack of feedback from farmers through to the governments on the performance of the planting materials distributed to farmers from the Centre for Pacific Crops and Trees (CePaCT).

Regional research project concept: Optimising the linkages between researchers, farmers, consumers to build climate resilient crops across the PICTs.

14. The overall research project concept adopts a comprehensive research approach, integrating three core components to optimise a system so that the linkages between researchers, farmers, consumers to address the challenges and opportunities to build climate resilience crops across the PICTs. The components are designed to work synergistically, ensuring that the project outcomes are robust, scalable, and aligned with the needs of both agricultural communities and regional biodiversity conservation efforts.

Component 1 (Regional):

15. The Regional Component (CePaCT) emphasises the conservation, evaluation, and dissemination of genetic resources across the Pacific. CePaCT serves as a regional hub for genetic diversity, prioritizing the collection, preservation, and sharing of plant genetic materials crucial for the development of climate-resilient crops. This component seeks to bridge the gap between the information available within CePaCT through to the Government or the users of the climate resilient planting materials. It also looks to identify ways in which gaps in the farmer feedback on the performance of climate resilient crops distributed back to the Government (distributers) of planting materials and back to CePaCT. By looking at ways to bridge this gap, it is anticipated that the feedback loops across the cycle can be bridged to optimise the process.

Component 2 (National):

16. A National Component focusing on a) the challenges and needs of farmers in the face of changing climate; b) consumers preferences, will aim to inform the introduction of varieties and crops to address the constraints or meet the specific needs and preferences of local farming communities and consumers. This component seeks to bridge the gap between agricultural research and its practical application, ensuring that crop selection and cultivation practices are directly informed by the end-users' needs.

17. The Peer Reviewers agreed that the timeframe of just under one year will require research that can be done within this limited timeframe. The testing of this part of the framework will utilise Component 2 (National). The research will utilise farmer and consumer interviews taken from market areas in those countries who wish to be part of testing this part of the framework. To date, the Peer Reviewers from American Samoa, Cook Islands, Nauru, Marshall Islands, Wallis and Futuna have indicated that the research can be started by utilising the local universities and community structures to start the data collection. However, to ensure that the process is inclusive, the Secretariat has been tasked to write to the countries to seek other countries who wish to take part in this regional effort to see how research collaboration can work across the region.

Component 3 (Evaluation of Crops and Varieties):

18. A second National Component will involve the systematic evaluation of crops and varieties under local conditions with farmers to identify those that offer the best performance in terms of yield, resilience to stresses (abiotic and biotic), and consumer acceptance. The optimisation process will include peer learning and exchange in the region. **Figure 2** provides an on overview of the research project concept.

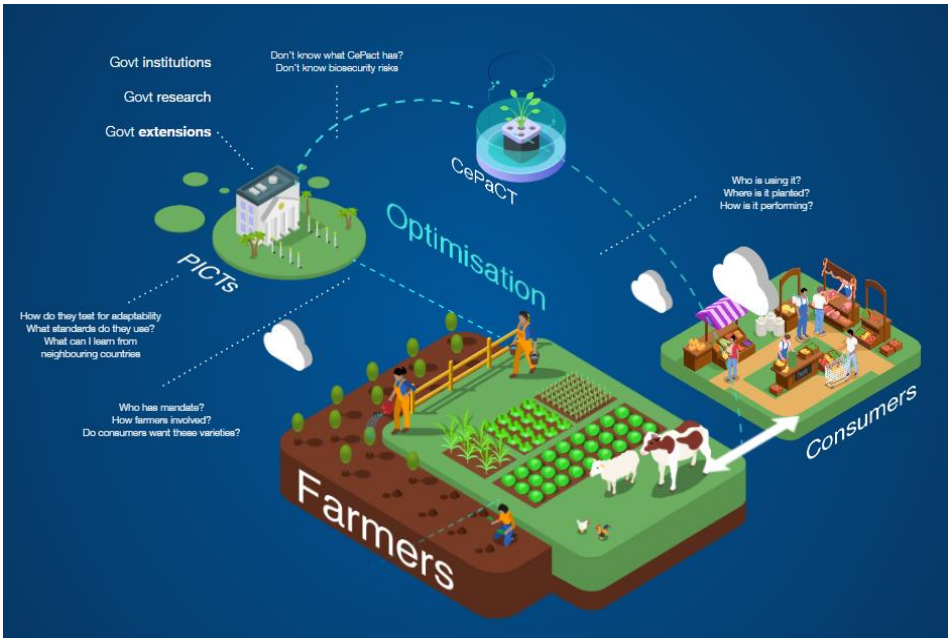

Figure 2: Research gaps that focus on optimising the linkages between CePaCT, PICTs Government, farmers, and consumers.

Lessons learned:

19. The actual research trial under the final component of the framework of the RRA is yet to be tested. However, the Peer Reviewers have already identified that this is perhaps one of the most challenging components to be implemented. This is mainly because of the level of coordination required to ensure that research is conducted for regional impact. Lessons learned from the testing of this component will be shared in the final report to the PHOAFS in 2025.

20. One challenge identified during the literature review was the difficulty in accessing data and relevant information on climate resilient crops from the Pacific Islands. This was because a lot of the research carried out had not yet been published. To support Pacific Island researchers, publish their data and research, the Peer Reviewers will trial the establishment of a Regional Research Journal to support researchers to publish their work. This journal will support to document research from the Pacific and it will also provide a platform to support the hearing pacific voices component of the framework for the RRA.

Recommendations:

21. The PHOAFS are invited to:
    c) Note the progress to date of the testing process of the framework of the RRA.
    d) Endorse the decision to progress trialling the pilot research in member countries who wish to take part in the research to test the **Partners in Research** component of the framework of the RRA.

Annex 1: Researchable priorities identified through a review of national documents and meeting outcomes from SPC networks decisions

Food Security and Nutrition	
Research Themes	**Priorities**
Import substitution and increased production	Refers to the need to increase local production to: - Reduce the importation of agricultural food products from overseas. - Better analysis of comparative advantage for food production e.g., value chain analysis. - Examine the amount of food loss across the food supply chain.
Labour availability	Relates to having limited labour available to contribute to agriculture production because of one or more of the following reasons: - Limited agricultural workforce. - Small pool of available and skilled labour. - Need for labour-saving machinery. - Reduce cost/taxes on agricultural produce.
Forest and Sustainable Land Management	Refers to the need to Improve land productivity.
Sustainable Farming practices	Refers to the need to promote the use of farming practices which supports to Improve soil health and soil fertility through GAPs (cover cropping, intercropping, agroforestry, etc)
Nutritious Crops	Refers to the need to: - Support and make available healthy and nutrient-rich crops available for local consumption. - Challenges related to non-communicable diseases in each country. - Promote school and community gardens to address healthy eating in schools and at community level.
Livestock	Refers to challenges that impacts on the growth of the livestock industry such as: - Limited/lack of improved genetic resources. - Improve food safety standards
Genetic Resources (including seed systems, planting materials)	Refers to the challenges in the countries and the need to: - Improve genetic base through seed production. - Improve genetic base through planting material. - Diversify genetic base for countries through plant breeding or incorporating new genetic material from other countries. - Establish/Improve research infrastructure to improve and expand genetic base.
Biosecurity (prevention of entry, establishment, spread of pest and diseases)	Refers to those challenges specific to prevention of the entry, establishment and spread of pests and diseases: - Lack of or ineffective policies/regulations. - Surveillance improvement for data pest collection and improved market access.
Climate Resilience Crops	Refers to the need to build climate-resilient crops due to the following reasons: - Promote crops that are climate resilient. - Promote traditional knowledge to improve resilience of farming systems. - Promote climate change sustainable cropping.

Climate Change	
Research Themes	**Priorities**
Pest and Diseases and Invasive species	Refers to those challenges which focus on: - Managing pests and disease infestation and reducing chemical use through Integrated Pest Management (IPM). - Increase in outbreaks from invasive species and the need to control these. - Persistent Organic Pollutants (POPs) due to buried pesticides or lack of proper disposal of empty pesticide containers, radiation and waste management of pesticides and chemicals. - Establish/Improve research infrastructure and capacity for diagnostics and other work related to pest and disease control.
Forest and Sustainable Land Management	Refers to the need to: - Implement solutions to support sustainable forest and landscape management (e.g., Agroforestry, Engineered Wood Products) - To maintain ecosystem services - Improve land productivity and - Enhance community resilience - Improve data collection on forests to inform Sustainable Land Management (SLM) - Implement restore areas affected by forest fires
Climate Resilience Crops	Refers to the need to build climate-resilient crops due to the following reasons: - Promote crops that are climate resilient. - Promote traditional knowledge to improve resilience of farming systems. - Promote climate change sustainable cropping.
Genetic Resources (including seed systems, planting materials)	Refers to the challenges in the countries and the need to improve the genetic base through - Seed production and planting materials. - Plant breeding or by incorporating new genetic materials from other countries - Establish/improve research infrastructure to improve and expand the genetic base

Sustainable Agricultural Systems	
Research Themes	**Priorities**
Livestock	Refers to challenges that impacts on the growth of the livestock industry such as: - Lack of feeds. - Waste management (animal waste) strategies needed. - General lack of good livestock management.
Labour availability	Relates to having limited labour available to contribute to agriculture production because of one or more of the following reasons: - Limited agricultural workforce. - Small pool of available and skilled labour. - Need for labour-saving machinery. - Reduce cost/taxes on agricultural produce.
Genetic Resources (including seed systems, planting materials)	Refers to the challenges in the countries and the need to: - Improve genetic base through seed production. - Improve genetic base through planting material. - Diversify genetic base for countries through plant breeding or incorporating new genetic material from other countries. - Establish/Improve research infrastructure to improve and expand genetic base.
Sustainable Farming practices	Refers to the need to promote the use of farming practices which supports to: - Improve soil health and soil fertility through GAPs (cover cropping, intercropping, agroforestry, etc) - Focus specifically on improving organic agriculture - Incorporate other technology (e.g., irrigation systems) to improve soils and crop production
Pest and Diseases and Invasive species	Refers to those challenges which focus on: - Managing pests and disease infestation and reducing chemical use through IPM. - Increase in outbreaks from invasive species and the need to control these. - POPs due to buried pesticides or lack of proper disposal of empty pesticide containers, radiation and waste management of pesticides and chemicals. - Establish/Improve research infrastructure and capacity for diagnostics and other work related to pest and disease control.

Enablers/ Tools	
Research Themes	**Priorities**
Biosecurity (prevention of entry, establishment, spread of pest and diseases)	Refers to those challenges specific to prevention of the entry, establishment and spread of pests and diseases: - Prevent the entry of pests and diseases. - Limited quarantine staff capacity. - Lack of or ineffective policies/regulations. - Surveillance improvement for data pest collection and improved market access.
Limited data	Relates to having: - No data/ little sharing of data/ data not accessible/lack connection between data & policy - Difficulty in collecting data. - A lack of infrastructure/systems to support improved data collection.
Extension Services and Disseminate research findings to farmers and stakeholders	Refers to those challenges related specifically to the limited non-adoption of good practices at the community level. These are related to: - Lack of capacity in the extension service. - Limited involvement of and communication to farmers (diffusion). - No effective extension structures or models in place.