

**Submission on behalf of Pacific Small Island Developing States,
on views on the elements of the joint work referred to in paragraphs 14–15 of FCCC/CP/2022/L.4,
including views on topics for the workshops referred to in paragraph 15(b) on Sharma el-Sheikh
joint work on implementation of climate action on agriculture and food security mandated under
Decision FCCC/CP/2022/L.4, para 17**

A. Background

The Republic of Fiji welcomes this opportunity to make this submission on behalf of the Pacific Small Island Developing States (Pacific SIDS). The Pacific Ministers of Agriculture and Forestry during their 3rd Meeting on the 10th of March 2023 in Nadi, Fiji, endorsed the development of a regional submission on behalf of the Pacific Small Island Developing States (Pacific SIDS). This submission is made pursuant to the request mandated in paragraph 17 of FCCC/CP/2022/L.4.

B. Context

Agriculture and climate change are two key priorities for Pacific SIDS. The Agriculture Sector, consisting of crops, livestock, forestry, fisheries and aquaculture, is an important sector to Pacific SIDS as it contributes to the livelihoods of a significant proportion of the region's population, accounts for an important share of export earnings for many countries in the region, food and nutrition security, livelihoods, social and cultural significance for Pacific SIDS. Climate change is exacerbating loss of production of the agriculture sector, declining contribution of agriculture to national GDPs and increasing food insecurity, malnutrition, poverty, and a major barrier to achieving SDGs.

The Pacific SIDS include some of the most environmentally vulnerable nations in the world that are already facing development challenges. PSIDS are already experiencing the impacts of climate change and based on the IPCC reports (AR6 WG1), the climatic risks are going to get worse. Climate change presents additional sets of issues for the agriculture sector, particularly in terms of managing the projected increase in the frequency and intensity of extreme weather events. -The climate projections for the 21st century and beyond, suggest that extreme events such as cyclones, heatwaves, droughts, and floods in the region are likely to increase in intensity (IPCC 5th Assessment Report). Extreme high (or king) tides and storm surges will continue to threaten low-lying islands, as will the ongoing sea level rise, as the ground water is already salinized in many PSIDS, increasing the loss of arable land and coastal food production systems. Pacific SIDS reiterates the paramount importance of prioritizing and safeguarding food security, ending hunger and the particular vulnerability of food production systems to the adverse impacts of climate change¹.

Pacific SIDS may be small in landmass but they are large ocean states. Fisheries is vital to Pacific SIDS and is a key contributor to food security and nutrition, culture, employment and livelihoods. Pacific Ministers' of Fisheries in their 3rd Annual Regional Fisheries Ministers Meeting held in Tarawa, Kiribati on the 25th August 2022 took note of the Pacific Islands Forum Leaders declaration that the Pacific is facing a Climate Emergency, and is threatening the livelihoods, security and wellbeing of its people and ecosystems². The Pacific SIDS acknowledge the momentum on the Ocean Dialogue under the UNFCCC and calls for discussions on the fisheries and climate change nexus to be brought into the Ocean Dialogue with high visibility and with top priority.

¹ In the preamble of the Paris Agreement.

² Statement of Outcomes from the Third Regional Fisheries Ministers Meeting (RFMM3), Tarawa

The adoption of the Koronovia Joint Work on Agriculture (KJWA) at the UNFCCC COP 23 was a landmark decision highlighting the importance of agriculture in the climate change agenda. The implementation of the KJWA has focused mainly on in-session workshops with little implementation on the ground. As Pacific SIDS, we have worked with our partners such as the Food and Agriculture Organization of the United Nations (FAO) and Secretariat of the Pacific Community (SPC) to implement the KJWA, including through awareness raising, development and application of vulnerability and adaptation assessment methods, capacity building and field demonstration of climate resilience practices in soils, nutrient use, seed systems, water, animal health and integrated livestock production systems, and socio-economic and food security dimensions of climate change across the agriculture sectors. It is therefore important that in the Sharm el-Sheikh Joint work on implementation of climate action on agriculture and food security, considers climate action on agriculture and food security on the ground, recognizing that actions and solutions are context-specific and must consider national circumstances.

C. Views on elements of the joint work referred to under paragraph 14-15 of Decision FCCC/CP/2022/L.4

The Pacific SIDS welcomes the decision adopted at COP27 (FCCC/CP/2022/L.4) on the Joint Work on implementation of climate action on agriculture and food security. The Pacific SIDS reiterates its support of the key elements provided in paragraph 14 – 15 of the decision under FCCC/CP/2022/L.4 and provide recommendations in the table below on how those key elements can be elaborated into actions.

Key elements paragraph 14	Recommendations
(a) Promoting a holistic approach to addressing issues related to agriculture and food security, taking into consideration regional, national, and local circumstances, to deliver a range of multiple benefits, where applicable, such as adaptation, adaptation co-benefits and mitigation, recognizing that adaptation is a priority for vulnerable groups, including women, indigenous peoples and small-scale farmers;	<ul style="list-style-type: none"> • Enhance climate actions on agriculture and food security on the ground, recognizing that actions and solutions are context-specific and must consider national circumstances. • Promote integrated climate smart agriculture approaches, nature-based solutions, and traditional knowledge and practices. • Promote adoption of food system approach, building on the UN Food Systems Summit. • Enhance anticipatory action and multi-hazard early warning systems. • Multi-stakeholder involvement and participation. • Enhance financial tools for agriculture, such as anticipatory action, and risk financing, including insurance, and social protection.
(b) Enhancing coherence, synergies, coordination, communication, and interaction between Parties, constituted bodies and workstreams, the operating entities of the Financial Mechanism, the Adaptation Fund, the Least Developed Countries Fund and the Special Climate Change Fund in order to	<ul style="list-style-type: none"> • Establish an Expert Group on Agriculture and Food Security under the UNFCCC process to enhance coherence, synergies, coordination, communication, and interaction between Parties, constituted bodies and workstreams.

<p>facilitate the implementation of action to address issues related to agriculture and food security</p>	<ul style="list-style-type: none"> • Establish finance windows under existing climate finance mechanisms to support climate actions in agriculture and food systems.
<p>(c) Promoting synergies and strengthening engagement, collaboration and partnerships among national, regional, and international organizations and other relevant stakeholders, as well as under relevant processes and initiatives, in order to enhance the implementation of climate action to address issues related to agriculture and food security</p>	<ul style="list-style-type: none"> • Enhance regional and national focused events on agriculture and climate change targeting also farmers, fishers, extension officers and communities. • Enhance South-South, SIDS-SIDS cooperation, partnership and sharing of lessons and practices. • Enhance engagement of women and youth in implementation of climate actions related to agriculture.
<p>(d) Providing support and technical advice to Parties, constituted bodies and the operating entities of the Financial Mechanism on climate action to address issues related to agriculture and food security, respecting the Party-driven approach and in accordance with their respective procedures and mandates</p>	<ul style="list-style-type: none"> • Establish an Expert Group on Agriculture and Food Security under the UNFCCC process to enhance coherence, synergies, coordination, communication and interaction between Parties, constituted bodies and workstreams (as mentioned earlier). • Establish finance windows under existing climate finance mechanisms to support climate actions in agriculture and food systems. • Strengthening effective partnerships at all levels recognising the role of governments, communities, and partner agencies in operationalising systems approaches to agroecological food production systems for resilience in the Pacific SIDS.
<p>(e) Enhancing research and development on issues related to agriculture and food security and consolidating and sharing related scientific, technological, and other information, knowledge (including local and indigenous knowledge), experience, innovations and best practices</p>	<ul style="list-style-type: none"> • Enhance regional and sub-regional research agenda based on national and regional priorities and needs on agriculture and climate change nexus. • Enhance collection of scientific information and data at national and regional levels, including relevant and applicable traditional knowledge and practices to inform policies, programmes and access to climate finance. • Establishing research methods, and approaches to evaluate the effectiveness of agricultural and food system adaptation/mitigation processes, programs at all levels improve adaptation/mitigation planning processes and effectiveness of implementation in Pacific SIDS. • Strengthen national information systems.
<p>(f) Evaluating progress in implementing and cooperating on climate action to address issues related to agriculture and food security;</p>	<ul style="list-style-type: none"> • Prepare an annual synthesis report on the work undertaken by constituted bodies and financial and other entities under the Convention, as well as by

	relevant international organizations, on activities related to the joint work referred to in paragraph 14 of FCCC/CP/2022/L.4
(g) Sharing information and knowledge on developing and implementing national policies, plans and strategies related to climate change, while recognizing country-specific needs and contexts;	<ul style="list-style-type: none"> • Strengthen sharing of information and knowledge at national and sub-regional levels, build into existing platforms, including the Sharm el-Sheikh online portal. • Support development of science, technology and innovation platform to support resilient building in the countries.

D. Topics for workshops referred to in paragraph 15(b)

Pacific SIDS proposes the following topics for technical workshops referred to in paragraph 15 (b) of FCCC/CP/2022/L.4, based on Pacific regional priorities identified by Pacific SIDS.

Food systems and integrated climate resilience approaches

Agriculture is contributing to, and at the same time affected by the impacts of climate change, ecosystems degradation and biodiversity loss. The Pacific SIDS advocates for a food systems approach involving an examination of the food system as a whole from farm-to-fork and the use of integrated climate resilience agriculture approaches such as integrated crop and livestock production systems for improved environmental sustainability. For the Pacific SIDS, the challenges can be achieved through improved soil health, seed systems, sustainable livestock production systems, integrated pest and disease management, improve biodiversity, and reduce GHG emissions –thereby increasing the resilience of food systems and communities.

Community vulnerability assessment and building capacity on food production systems

Pacific SIDS agreed that work should endeavor to improve the knowledge, skills and capacity of agricultural stakeholders and communities in assessing their vulnerability to climate change and in exploring opportunities to reduce such vulnerability and adapt to the impacts of climate change. Such assessments will be carried out for different landscape units such as water-catchment, ridge to reef transects and whole of island in community-based vulnerability assessments. Agriculture-specific indicators (such as soil health, production index, access to land and food security,) should be developed included in determining vulnerabilities of the agriculture sector. And to support sustainable intensification of food production systems.

Indigenous, Traditional Knowledge and Practices

Traditional knowledge (TK) and practices have played a significant part in solving problems, including problems related to climate change and variability and they continue to be used in Pacific SIDS. The appearance of certain birds, mating of certain animals, flowering of certain plants, diversity of crops and food resources that are often matched by a similar diversity in location of fields are all important signals of changes in time and seasons that are well understood in traditional knowledge systems. As TK are transmitted orally from one generation to another, they risk being lost. It is therefore important to document and promote

indigenous, traditional knowledge and practices that are related to climate resilience and adaptation, and loss and damage on agriculture production systems.

Climate Information, anticipatory action, multi-hazard early warning systems

The climate of Pacific SIDS has and will continue to change in diverse ways that may differ from island to island. However, constructing climate information tables for Pacific SIDS is challenging due to lack of observations and high-resolution climate projections, as well as the inadequate representation and understanding of key modes of variability and their interplay with trends. There is a great need for long and short term weather and seasonal forecasts and farming communities should be provided with downscale and usable climate information and tools to prepare and plan better.

While early warning systems are continually improving thanks to technological gains, there is a great need for long term weather and seasonal forecasts; and importantly to act on them. Anticipatory action meets this call and translates warnings into action to protect people and assets before a hazard develops into a disaster. The approach is being widely accepted and applied in the region, with the ASEAN Framework on Anticipatory Action in Disaster Management becoming a cornerstone piece to achieve this and the Pacific Island Forum highlighting the importance of the approach within their Disaster Risk Financing planning. FAO studies further show that for every USD 1 FAO invested in anticipatory action, families can gain up to USD 7 in benefits and avoided losses. These studies have also found that these interventions can curb food insecurity, support resilience efforts and provide a more dignified approach to aid. Now is the time to change the way we manage disasters.

Pacific countries during the Asia Pacific Ministers' Conference on Disaster Risk Reduction held in September 2022, highlighted the importance of multi-hazard early-warning systems (MHEWS) in supporting disaster risk reduction efforts. It includes investing in and strengthening people-centred MHEWS, disaster risk communication mechanisms and hazard-monitoring telecommunications systems – emphasizing a participatory and gender-inclusive approach. While early warning systems are continually improving, there is a great need for long-term weather and seasonal forecasts, including downscaling of information for communities to prepare and plan better and drawing on indigenous and traditional knowledge. In addition, the Pacific Ministers of Agriculture and Forestry at their Third Meeting held in Nadi, Fiji on the 10th March 2023, endorsed the development of a climate adaptation tool to support agriculture and forestry decision-making, planning and investment in the Pacific SIDS under future climate scenarios. Through generous support from the Government of Australia, the Pacific will be weather ready³, addressing some of the Pacific SIDS' concerns regarding the lack of climate and seasonal forecasts. The Pacific SIDS call on other partners to support this initiative.

Climate change, pest, disease and transboundary/invasive species, and related impact of food security

Increasing evidence shows that climate change is altering the distribution, incidence and intensity of animal and plant pests and diseases. The movement of plant pests, animal diseases and invasive alien aquatic organisms across physical and political boundaries threatens food security across the Pacific SIDS region. Climate change will especially impact vector-borne animal diseases due to the effects of climate change on the arthropod vectors and macro-parasites of animals. With more food production becoming monocrops, the incidences of pests and diseases are increasing in the Pacific SIDS region. High priority should be given to address transboundary plant and animal diseases such as the African swine fever and Fall

³ Initiative is implemented by the Pacific Meteorological Organization, SPREP and BOM

Armyworm, including those that are zoonotic and other livestock production priorities such as animal nutrition and genetic improvement. Climate change is further adding to the scale and complexity of this challenge and the need for more research, information, knowledge, and actions are key priorities in the region. Huge capacity gaps exist in the region including the non-availability of Veterinary Specialist in country to deal with livestock biosecurity threats. One health approach should be strengthened in Pacific SIDS through effective partnership and coordination mechanisms.

Safeguard and Improve livestock production systems

While livestock supply chains account about 15 - 30% of global GHG emissions, it plays an important role in the Pacific cultures, contributing to livelihoods, food and nutrition security. The direct effect of climate change already experienced in the Pacific include increase temperatures and changing rainfall patterns which results in the increased of vector borne diseases and parasites and emergence of new diseases. Most recently, the African Swine Fever has entered the Pacific borders with wide impact on the pig industry in parts of PNG. The Pacific SIDS recommend promoting low carbon livestock production systems through integrated crop and livestock production, improving feeds and nutrition, animal genetics and breeding, animal health and welfare, animal husbandry practices and integration of livestock in circular economies.

Soil health

Soils are our allies in the fight against hunger and climate change and if managed wisely could sequester 1/3 of agricultural GHG emission, thus playing a significant role in the global carbon cycle. The traditional fallow or shifting cultivation in the Pacific SIDS have changed considerably. However, the productivity and sustainability of many cropping systems is threatened by a decline in the fertility, structure and biological health of soils. Appropriate agriculture practices can significantly reduce GHGs emissions from agriculture and food system related activities. A move to systems closer to nature (such as agroecology) will improve biodiversity, increase soil carbon and promote microbial populations in the soil to enhance nutrient recycling and hence improve resilience of production systems.

Water management

Freshwater is an essential resource for Pacific SIDS and a major requirement in agricultural and food production systems. However, the ability of the island countries to effectively manage the water sector differs from island to island, as they are constrained by their small size, isolation, fragility, natural vulnerability, geography and a limited human, financial and natural resource base. Increasingly variable rainfall, cyclones / hurricanes, accelerating storm water runoff, floods, droughts, decreasing water quality and increasing demand for water are so significant in many small island countries that they threaten the economic development and the health of their peoples. A sustainable water management strategy for each country should be developed and there is a need to develop water budgets from rainfall and evapotranspiration data. A high priority for the Pacific SIDS is to promote the use of water-use efficient technologies, increase water storage capacity (e.g. more/larger water tanks), protected cropping (e.g. protect from excessive rain), as well as wicking-based systems (which can protect water crops from saltwater).

Improved biodiversity

Ecosystems and biodiversity can support efforts to reduce the negative effects of climate change restore habitats and are natural carbon sinks, providing nature based climate solutions. Conserving intact ecosystems, such as mangroves for instance, can help reduce the disastrous impacts of climate change such as flooding and storm surges, which are predicted to occur with more frequency and intensity.

Resilience of food production systems in the Pacific SIDS hinges significantly on biodiversity. This is linked to the improved soil health output from below-ground biodiversity. It should be emphasized that above-ground biodiversity is dependent on healthy below-ground biodiversity. A sustainable food production system will also require strengthening seeds systems in Pacific SIDS to enable sustainability, availability, access and use of diverse portfolio of adaptable varieties of crops, trees and animals. A priority for the Pacific SIDS is therefore to improve biodiversity in farming systems to improve soil health and increase sustainable food production through agroforestry and agroecology practices, biodiversity conservation, enhancing seed systems, integrated livestock production systems, ecosystem services; climate regulation and for carbon sequestration. General education and raising awareness need strengthening at the national level, especially of farmers, communities and extension officers on the importance of biodiversity.

Food loss and waste

Globally about 30 - 60 % of food production goes to waste. Food waste is not just a social issue – it is also an environmental one. If food waste ended up in the landfills and rots, it will produce methane. About 8% of global greenhouse gas emissions comes from food waste (FAO, 2011). There is very limited information on food waste in the Pacific SIDS. A life cycle assessment of waste in each country is required, including the development of a strategy to address the problems related to food waste in order to reduce GHG emissions. Food waste reduction strategies (post-harvest technologies, food storage, transportation of perishable foods, specialized markets for perishable foods, and downstream processing of seasonally available foods (i.e mangoes and pineapples) are needed.

Assessing adaptation-mitigation co-benefits

Assessing adaptation and mitigation co-benefits to explore the effectiveness of different agricultural adaptations and mitigation actions in Pacific SIDS to adopt or scale up those approaches. This helps to document evidence of loss and damage, including residual losses in our food system and how to apply approaches including climate risk management to avert, minimize and address loss and damage in the food system and agriculture in the Pacific Islands. This helps us to use limited finances well to only action workable adaptation and mitigation actions that are best options for the place, rather than doing the same thing over and over again. Foundation to the success is promoting and improving soil health, decision making processes and context, evidence based and well researched decisions, scenario based planning.

Predictable, flexible and pre-arranged finance is crucial to allow timely implementation. While anticipatory action ahead of forecasted shocks is a non-debatable concept, only a small fraction – some studies highlighted as little as 3 percent – of humanitarian financing is pre-arranged to be available when warnings materialize. We all need more innovative funding models to be able to adapt to the ever-changing Disaster Risk Management (DRM) environment which demands speed and timeliness. Stronger synergies must also be explored between humanitarian, development and climate finance for multi-risk resilience building.

Conclusion and recommendations

The Pacific SIDS stands ready to continue working closely with Parties, UNFCCC Secretariat and stakeholders to implement the Sharm el-Sheikh joint work on implementation, building on the lessons learned from the implementation of the KJWA. Pacific SIDS put forward the following recommendations, including:

- Enhanced climate action on agriculture and food security on the ground, recognizing that actions and solutions are context-specific and must take into account national circumstances;

- Establishment of an Expert Group on Agriculture and Food Security under the UNFCCC to strengthen coherence, synergies, coordination, communication, and interaction between Parties, constituted bodies and workstreams;
- Establish a regional expert groups to support the UNFCCC Secretariat in facilitating the online portal and the collection and sharing of regional information on the online portal;
- Establish finance windows under existing climate finance mechanisms to support climate actions in agriculture and food systems.

**Submission on behalf of Pacific Small Island Developing States,
on views on the operationalizing of the Sharm el-Sheikh Online Portal mandated under paragraph
18 of FCCC/CP/2022/L.4**

E. Background

The Republic of Fiji welcomes this opportunity to make this submission on behalf of the Pacific Small Island Developing States (Pacific SIDS). This submission together with the submission on paragraph 17 of FCCC/CP/2022/L.4 has been endorsed by Pacific Ministers of Agriculture and Forestry during their Third Meeting on the 10th of March 2023 in Nadi, Fiji. This submission is made pursuant to the request mandated in paragraph 18 of FCCC/CP/2022/L.4 on the operationalization of the Sharm el-Sheikh online portal.

F. Context

The Paris Agreement highlights the “fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse impacts of climate change”. This is echoed in countries’ Nationally Determined Contribution (NDC) where the agricultural sectors stand out as a priority⁴. Climate change already affects agriculture and food security and without urgent action, millions more people will be at risk of hunger and poverty⁵. The Pacific SIDS have experienced first-hand the impacts of climate change, and the set back on sustainable development gains. Therefore, transforming and shifting to sustainable food and agriculture can maximize co-benefits of climate change adaptation and mitigation.

The Pacific SIDS acknowledge the progress made in the implementation of the Koronivia Joint Work on Agriculture (KJWA) in the Pacific region. As referenced in the Pacific SIDS submission on paragraph 17 of FCCC/CP/2022/L.4, we as Pacific SIDS, have worked with our partners such as the Food and Agriculture Organization of the United Nations (FAO) and the Secretariat of the Pacific Community (SPC) to implement the KJWA, including through awareness raising, capacity building and field demonstration of climate resilience practices in soils, nutrient use, seed systems, water, animal health and livestock production systems, methods for assessing adaptation, and socio-economic and food security dimensions of climate change across the agriculture sectors. These have enabled the sharing of information, knowledge and lessons learned in the Pacific.

G. Operationalization of the Sharm el-Sheikh online portal

Objective and scope of Sharm el-Sheikh online portal

The Sharm el-Sheikh online portal established under the joint work referred to in paragraph 16⁶, is for sharing information on projects, initiatives and policies for increasing opportunities for the implementation of climate actions to address issues related to agriculture and food security⁷. The portal should also include, scientific, and technological information and knowledge, including traditional knowledge and technologies, and best practices on climate actions in agriculture.

The Sharm el-Sheikh online portal should also facilitate the exchange of information on projects, initiatives and policies between Parties, UN Agencies, International and Regional Organizations, and other relevant organizations and groups. The information should be accessible to the Constituted Bodies of the UNFCCC, to Parties, farmers, fisher folks and to the public at large, especially those that will find the information useful.

⁴ <https://www.fao.org/3/i6273e/i6273e.pdf>

⁵ <https://www.fao.org/3/i6273e/i6273e.pdf>

⁶ FCCC/CP/2022/L.4

⁷ FCCC/CP/2022/L.4

Information to be shared on the portal should be collected from Parties, UN Agencies, International and regional organizations and other relevant stakeholders.

Host of Sharm el-Sheikh online portal

The Sharm el-Sheikh online portal should be developed and hosted under the UNFCCC Secretariat. Information on projects, initiatives and policies should be reviewed by the Secretariat and the Expert Group on Agriculture (recommended to be established and reference in the Pacific SIDS submission on paragraph 17 of FCCC/CP/2022/L.4) and Food Security.

Existing online portals on agriculture and food security

There are already existing online portals with information on climate change and agriculture at global and regional levels. The Pacific Ministers of Agriculture and Forestry during their Third Meeting on the 10th of March 2023 held in Nadi, Fiji, endorsed the development of a climate adaptation tool to support agriculture and forestry decision making, planning and investment in the Pacific SIDS under future scenarios. The Sharm el-Sheikh online portal should be complementary and build on those existing online portals that contain relevant information on the climate change and agriculture nexus to build synergies and avoid duplication. Linkages should be made from the Sharm el-Sheikh online portal to other existing online portals, which include FAO knowledge and data hubs, the Pacific data hub hosted by SPC⁸ and the recently endorsed Pacific climate change tool that will also be housed in the Pacific data hub.

Regular updates on portal

Regular updates on the portal should be reported to Parties, especially on use, access, traffic and usefulness.

Conclusion and recommendations

The Pacific SIDS stands ready to continue working closely with Parties, UNFCCC Secretariat and stakeholders to implement the Sharm el-Sheikh joint work on implementation, including with the Sharm el-Sheikh online portal, building on existing international and regional portals. The Pacific SIDS puts forward the following recommendations, including:

- Information should be collected from Parties, UN Agencies, international and regional organizations and other relevant stakeholders.
- Information should also include, scientific, technological information and knowledge including traditional knowledge and technologies, and best practices on climate actions in agriculture;
- Online portal should be developed by and hosted under the UNFCCC Secretariat;
- Online portal should build on and complement existing online portals with similar objectives;
- Regular updates on the portal should be reported to Parties, especially on use, access, traffic and usefulness.

⁸ <https://pacificdata.org/>