

# **CALL TO ACTION**

## **IMPROVING THE RESILIENCE OF AGRICULTURE TO CLIMATE CHANGE FOR CHUUK**

This Call to Action is rooted in the shared vision for a thriving and resilient agricultural sector across the islands of Chuuk lagoon, the Mortlock Islands, and the Northwest Outer Islands that supports environmental protection and sustainable livelihoods in the face of climate change. This vision recognizes the long-term sustainability, diversity, and cultural value of ancestral food systems as well as the opportunities that new crops and technologies present for increasing food security and the wellbeing of the people of Chuuk who are at the frontline of climate change impacts.

This call is authored by participants that attended the Chuuk Climate Forum from January 21-22, 2020. to address the current impacts of climate change on the local food system. The Climate Forum was designed to engage farmers, natural resource managers, and environmental and agricultural agencies in a critical dialogue on culturally relevant solutions to maintain and enhance agricultural production and livelihoods under a changing climate.

### **CLIMATE IMPACTS, CONCERNS & VULNERABILITIES**

Key threats to agriculture in Chuuk include increasing unpredictability of seasons, heavy rains and heat that damage crops, reduce yields, erode the soils, and increase pests and disease. Limited water storage in Chuuk increases vulnerability to drought events. Crops and freshwater aquifers on coastal areas and low-lying atolls are vulnerable to damage and salinization from storms, tidal flooding, erosion and sea-level rise.

### **CLIMATE ACTIONS**

Participants in the Climate Forum identify and advocate the following priorities as part of a locally grounded response to climate change:

#### **Increase climate change awareness, education and funding opportunities:**

Implement training and education to increase awareness of climate change, agriculture and local indigenous knowledge related to climate change. Build local capacity for grant-writing and project management.

#### **Improve coastal resilience to promote and protect agricultural production:**

Restore and expand mangroves. Plant 'green belts' of native plants and crops (coconut, breadfruit, taro, pandanus). Support green infrastructure with built structures like seawalls and breakwaters. Stop sand mining. Relocate crops and elevate gardens to adapt to rising seas and increasing storm intensity

### **Implement Climate-related Laws to protect resources from climate change**

Identify existing laws and develop new regulations such as no-take and seasonal take to empower community-based resource protection

### **Improve farm management of soils and pests/disease**

Improve access to and use of soil amendments including food waste composting systems, manure management systems (e.g., piggeries), and other local sources of fertilizer (e.g., bat guano) to maintain crop yields. Use buffer strip plantings (eg. lemongrass) to reduce erosion. Improve the identification and management of agricultural pests and disease.

### **Improve coordination among local and outside groups on climate-related work**

Establish a local working group to identify and communicate successful adaptation projects, to enhance Chuuk's representation among international climate efforts, and to coordinate efforts by visiting agencies and researchers.

### **Improve water quality and conservation**

Increase knowledge and training about water well protection and water conservation to maintain adequate, safe drinking water. Build water catchment systems to help households cope with drought. Reduce erosion by increasing watershed forest cover.

### **Improve documentation and management of plant resources**

Enhance communities' ability to document and monitor plants and other resources and develop community-based resource protection plans. Improve the documentation of ancestral crops, new crops, and farmer knowledge. Increase the diversity of plant species and varieties under cultivation (eg. seed/variety exchange).

### **Promote and empower women as decision-makers and household managers.**

Women are key providers of food and medicines. Women are critical for developing local markets for agricultural products, maintaining and passing on knowledge of local food and medicine preparation, and ensuring the nutritional needs of children are met.

### **Acknowledgments:**



**COOPERATIVE EXTENSION**  
UNIVERSITY OF HAWAII AT MANOA  
COLLEGE OF TROPICAL AGRICULTURE AND HUMAN RESOURCES



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