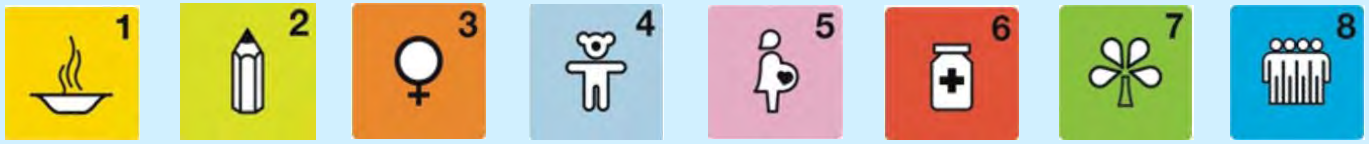
CLIMATE-SMART AGRICULTURE ENHANCES THE ACHIEVEMENT OF NATIONAL DEVELOPMENT GOALS



are given, lower food security. Preserving and enhancing food security requires agricultural production systems to change in the direction of higher productivity and also, essentially, lower output variability in the face of climate risk and risks of an agro-ecological and socio-economic nature. In order to stabilize output and income, production systems must become more resilient, i.e. more capable of performing well in the face of disruptive events. More productive and resilient agriculture requires transformations in the management of natural resources (e.g. land, water, soil nutrients, and genetic resources) and higher efficiency in the use of these resources and inputs for production. Transitioning to such systems could also generate significant mitigation benefits by increasing carbon sinks, as well as reducing emissions per unit of agricultural product.

CSA Project in Yap

The production, processing and marketing of agricultural goods are central to food security and economic growth. Production could be achieved through a number of production systems which range from smallholder mixed cropping and livestock systems to intensive family farming practices. The sustainable intensification of production through climate-smart agriculture practices can ensure food security and contribute to mitigating climate change.

Goal: To develop and test science-based climate-smart agriculture practices that promote successful adaptation of Small Island agricultural systems to climate change and ensure food security. The climate-smart practices will enhance the capacity of small scale farmers and other natural resource users to better manage land and the environment and enhance food security.

Project objectives:

- To develop and evaluate appropriate climate-smart agriculture strategies
- To provide training to small scale farmers in climate-smart agriculture strategies
- To work with small scale growers to incorporate climate-smart strategies to enhance farm sustainability and profitability.

Climate change is transforming the context of smallholder agriculture. Avoiding and managing climate risk is a prerequisite for poor rural people to move out of poverty.

THE TIME TO ACT IS

NOW

Dr. MURUKESAN KRISHNAPILLAI
RESEARCHER/EXTENSION SPECIALIST
COOPERATIVE RESEARCH AND EXTENSION
COLLEGE OF MICRONESIA-FSM
YAP CAMPUS
Tel: (691) 350-4319/5752

College of Micronesia-FSM Cooperative Research and Extension program is funded by the National Institute of Food and Agriculture, United States Department of Agriculture through College of Micronesia Land Grant Program. The College of Micronesia-FSM is an equal opportunity employer.

May 2014

CLIMATE-SMART AGRICULTURE

What is Climate-Smart Agriculture?

Climate-Smart Agriculture (CSA) is a science-based approach to increase crop productivity under challenging environmental conditions. It seeks to increase sustainable productivity, strengthen farmers' resilience, reduce agriculture's greenhouse gas emissions and increase carbon sequestration. In subsistence agriculture-based smallholder systems of our islands this innovative approach is not only important for food security but also for poverty reduction.

What is at stake?

- Increasing ***extreme weather*** events and their devastating consequences to people's lives, the economy and to nature
- ***Increased temperature and changing rainfall patterns*** will have an impact on lives, livelihoods, and production of food
- Climate change will increase the burden on already ***vulnerable populations***
- Specifically, it is critical to support and empower ***small scale farmers***

What is different in CSA?

Climate-smart agriculture contributes to the achievement of sustainable development goals. It integrates the three dimensions of sustainable development (economic, social and environmental) by jointly addressing food security and climate challenges. It is composed of three main pillars:

- Sustainably increasing agricultural productivity and incomes;
- Adapting and building resilience to climate change;
- Reducing and/or removing greenhouse gases emissions, where possible.

CSA Approach

Climate smart interventions are location-specific and knowledge intensive.

CSA is an approach that:

- addresses the complex interrelated challenges of food security, development and climate change, and identifies integrated options that create synergies and benefits and reduce trade-offs;
- assesses the interactions between sectors and the needs of different involved stakeholders;
- identifies barriers to adoption, especially among farmers, and provides appropriate solutions in terms of policies, strategies, actions and incentives;
- strives to achieve multiple objectives with the understanding that priorities need to be set and collective decisions made on different benefits and trade-offs;
- prioritizes the strengthening of livelihoods, especially those of smallholders, by improving access to services, knowledge, resources (including genetic resources), financial products and markets;
- addresses adaptation and builds resilience to shocks, especially those related to climate change, as the magnitude of the impacts of climate change has major implications for agricultural and rural development;
- considers climate change mitigation as a potential secondary co-benefit, especially in low-income, agricultural-based populations.

Info Graphics Courtesy: FAO

What is needed?

Traditional smallholder agricultural production systems are the main source of food and income for most of the island population in the Federated States of Micronesia. Improving them is critical to reaching poverty reduction and food security objectives. In areas where agricultural productivity is low and the means of coping with adverse events are limited, climate change is projected to lead to more erratic production and, if no appropriate responses