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“Resilience of agricultural systems against crises”

Resilience of Pacific Agricultural Systems against Crisis

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Abstract

Though populations in Pacific Island Countries (PICs) are growing at a rate of up to 3% per annum, agricultural productivity is relatively low or stagnant. Farming communities rely on traditional production practices with low levels of intensification, posing considerable risks in terms of food security and income generation in the long term. Increasing deforestation, vulnerability to natural hazards and changing weather patterns due to Climate Change (CC) pose additional risks. Improvement in agricultural productivity, distribution and marketing of locally produced food at affordable prices is needed.

This can only be achieved through sustainable intensification and by building resilience of the agricultural systems in the Pacific Island Countries with a focus on improving smallholder production systems and local marketing infrastructure. The development and adoption of technologies such as tolerant crops, integrated soil fertility management systems, increased crop and livestock diversity to include the use of indigenous genetic resources and improved seed systems and management of natural resources can contribute to achieving sustainability. PICs also need to invest more in science and technology to track climatic changes and loss of biodiversity, forests and fisheries as well as to undertake the research and development needed to achieve transformative changes.

Hence, PICs need to develop strategic long term programmes which are collaborative, cross-sectoral and multipronged in targeting bottlenecks in the overall innovative agricultural systems (including crops, livestock, forestry and fisheries). Research, development and innovation in PICs for resilient agricultural systems include:

- a) Improving the human capacity in key areas of natural hazards and CC mitigation and adaptation;
- b) Improving the preparedness of smallholder farming communities to the effects of CC;
- c) Improving the integration of national information systems which are linked into regional and international systems;
- d) Improving the enabling policy and institutional environment at national and regional level.

Keywords: Agricultural productivity, climate change, development, innovation, Pacific Island Countries, vulnerability