

FARMERS' ENVIRONMENTALLY FRIENDLY APPROACH TO RESTORING HEALTHY GROWING CONDITIONS FOR TARO

Presenter

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Description



Dramatic changes are being experienced everywhere, including the island of Palau. This area is suffering from

- Heavy rainfall that has compromised the functioning of the water infrastructure.
- Rising surface temperatures that rapidly dry out land deposits, creating a compact accumulation of sediment.

Farmers are consequently unable to adequately maintain the watercourses impacting on yield and general farm conditions. They are discouraged by the unhealthy farming environment and low harvesting productivity, leading them to abandon taro cultivation completely.

Nevertheless, several practices have been identified and implemented, aimed at effectively improving traditional water systems on farms and restoring healthy taro growing conditions. Activities include:

- Establishing partnerships with technical agencies, taro farmers and youth groups in the district.
- Site assessment with partners.
- Conduct a baseline survey of the water system.
- Cleaning and maintaining water courses.
- Development of collective plans for the management and maintenance of water systems.
- Conduct monitoring and evaluation surveys.
- Development of an action plan to address identified problems, such as adoption of integrated agricultural technologies and climate change adaptation measures such as intercropping and polycropping practices; crop rotation; cover crops and mulching; biological management of pests, diseases and weeds; recycling and composting of wastes.
- Monitoring and evaluation surveys.

The strategy adopted intends to strengthen traditional ureor beluu practices by soliciting a partnership with the Koror state government, Ngermid and Meyuns youth groups, and members of the larger NgaraMaiberel women's association. This approach will reinforce unity within the community and help promote taro cultivation as a culturally valuable activity that supports the traditional matrilineal system, which is deeply rooted in food production (taro cultivation). Local primary schools are also involved in the project. There, a calendar is planned, designed and published that will spread the cultivation and consumption of taro as a culturally significant part of the social structure, impart the health benefits and reveal the integration of traditional knowledge and the latest agricultural techniques to the wider public.

Results

By the end of the project, about 36 more taro patches will have been restored. In addition, taro cultivation enables the farmers involved in the project to increase their income by selling their produce to local caterers, the national hospital and various shops in the hamlet.

Climate smartness

Despite climate change poses challenging socio-economic and environmental scenarios to SIDS, it has also unveiled the opportunity to move towards a more sustainable production model. Improving traditional Taro irrigation systems and sustainable soil management practices, contribute to re-establish crop production and progressively increase crop yield, while retain sediments that reduces impact of soil runoff on coral reefs (Koshiha et al., 2013). Farm income diversification through polycropping or crop rotation lead to an efficient use of water and soil nutrients, preserving soil fertility that coupled with cover crops, composting, and crop biological management practices reduce the dependency to external inputs such as synthetic fertilizer or pesticides that pose additional risks to human and environmental health. The local demand of organic agricultural inputs and alternative management strategies, stimulate entrepreneurial opportunities or farmer associativity to seize current and potential market opportunities in collaboration with local stakeholders (e.g., the Koror State Government, Ngermid and Meyuns Youth Groups, local elementary schools and other members of NgaraMaiberel Women's Association, etc.). Generating a knowledge-based and circular economy around Taro farming —increasing the options to engage youth population—, minimizing waste and maximizing the use of scare resources in the sector that ultimately strengthen adaptation capacity and will reduce GHG emissions per unit of food produced contributing to mitigation outcome. Additional co-benefits on mitigation are achieved taking into account that the above-mentioned practices have the potential to gradually enhance or balance physical-chemical and biological characteristics, such as soil organic matter content hence promoting soil capacity to store carbon.

