

Integrated Assessment of Trade-Related Policies and Biological Diversity in the Agricultural Sector in Papua New Guinea:

Brief Summary

Trade policy and agro-biodiversity in the food crop sector. A case study on sweet potato and taro.

The assessment sought to identify the impact of PNG's Tariff Reduction Programme (TRP) on food-crop biodiversity. The TRP, introduced in 1999, is a central strategy of PNG's 'Export Driven Economic Recovery Policy' and has removed all tariffs on agricultural inputs. Sweet potato and taro are among the country's most important staple crops in terms of food security. To determine possible trade-related impacts they were examined in relation to two major export crops – coffee and oil palm – in two provinces where staple and export crop are grown side by side: Eastern Highlands for sweet potato and coffee and West New Britain for taro and oil palm. The major premise for this approach was that both, export and food crops compete for limited resource such as land and labor, and that the TRP enhances the export crop industry. In addition, the assessment examined other factors that might encourage the loss of food-crop diversity, such as local production of rice, an introduced crop, and increased consumption of imported rice.

The study shows that despite the removal of tariffs, farmers experienced an increase in the price of inputs, which can be explained by currency depreciation and an increase in the value added tax. No causal connection could be established between the loss of cultivars and the TRP due to lack of data, but important insights have been provided with respect to local market dynamics and food crop varieties. Based on the results of a survey with farmers, both sweet potato and coffee production have increased in the Eastern Highlands province but the number of sweet potato varieties has declined (over 200 varieties were recorded lost or missing). The main reason stated was that local market preferences had led to the abandonment of varieties that have less taste, grow slower, and offer lower yields. Survey results for West New Britain province showed the same trends - an increase in production of both crops and a decline in taro varieties (over 400 varieties were recorded lost or missing). The factors that were identified as contributing to this loss were market preferences, a shortage of garden land, and local traditions that encouraged the destruction of a taro variety if a person with a strong connection to the variety dies. In both regions, rice was identified as substitute, with the consumption of rice increasing with higher incomes but declining with higher prices.

Main recommendations:

- Strengthen national legislation to (i) consider food-crop varieties in the implementation of the export crop rehabilitation and expansion plan, (ii) encourage sustainable farming practices with a focus on combined farming systems, and (iii) protect food-crop biodiversity through agricultural and forest certification standards.
- Initiate further studies to assess the impacts of trade, taking into account a broader range of biodiversity (forest, aquatic, marine, and all food crops).
- Develop baseline data for all important traditional food crops and more systematically monitor changes in diversity.
- Raise awareness on the importance of traditional food crops and the root causes of declining diversity
- Commission strategic environmental assessments and environmental impact assessments for cash crop development as a way to balance interests with food crops.

The project was led by the Department of Foreign Affairs and Trade (Trade Division) and was implemented by the National Agricultural Research Institute (NARI).