

Food Security and Sustainable Seed Supply in Timor-Leste: Progress of the National Seed System (Part 2)

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This is the second in a two-part series about seed supply systems in Timor-Leste. Part 1 (Lopes 2018) dealt with the formal and informal systems, their strengths and weaknesses, and recommended that both could work together to guarantee sustainable seed supply. This In Brief discusses the National Seed Policy (NSP) and the National Seed Council (NSC), and then explores seed system development undertaken by both the Timor-Leste Ministry of Agriculture and Fisheries (MAF) and the [Seeds of Life program](#).

Seeds of Life and the National Seed System

The Timor-Leste MAF and its development program Seeds of Life, funded through a partnership between the MAF and the Australian Government, aim to develop and strengthen the informal and formal seed sectors and facilitate their integration into an established National Seed System (NSS) that supports all stakeholders — in terms of food security, farm family livelihoods and rural development objectives. The Seeds of Life program Phase 1 focused on introducing, testing and selecting varieties within research stations across the country. Phase 2 expanded the research to on-farm demonstration trials plus the beginning of seed production, and Phase 3 which involved all districts of Timor-Leste including the Special Administrative Region of Oequisse was concluded in June 2016. However, the work of the program is being continued by the MAF. The NSS, NSP plus NSC are in place and approved by the current Minister of Agriculture and Fisheries (NSC 2016).

National Seed Policy

The main objective of the National Seed Policy is to ensure farming families have reliable access to, and timely supply of, seed varieties of the desired quantity and quality, in order to increase and secure their food production and income (SOL 2016). For the purposes of the NSP, seed is defined in the broadest sense and includes sexually propagated seed and other planting materials, such as cuttings, tubers, and other vegetative propagules or parts (ibid.). The NSP

is the foundation on which Timor-Leste is building its National Seed System with the support of farmers and other stakeholders, including the commercial sector, the MAF and many development partners, both Timorese and international.

The NSP is also the basis on which the MAF currently issues various guidelines to implement the recently established National Seed System, and will be the foundation for developing the national seed law and promulgating the various regulations that will be necessary for the law's implementation. A holistic approach has been taken in developing the seed policy framework so that all aspects relating to the provision of seeds are covered. Central to the framework are seed production and distribution, and the institutional structures necessary for implementing and managing the policy. The chosen starting point is the maintenance of crop diversity and the conservation of farmers' varieties. This leads to aspects of variety development and registration of commercial seed producers.

The National Seed Council

The National Seed Council has been established as an independent national institution under the authority of the MAF to coordinate and oversee implementation of the National Seed Policy. This was a response to the complexity of the seed sector, involving a wide range of plant seeds and a large number of stakeholders. The NSC was established in 2014 to advise the MAF on the National Seed System implementation. It comprises all stakeholder representatives including MAF officials (the minister is the chair), farmers, non-government organisations (NGOs), religious and development partners. The NSC has three working committees: (i) Variety Approval, Release & Registration; (ii) Seed Planning & Production Coordination; and (iii) Seed Quality Regulation & Monitoring.

The NSC functions as the apex institution of the national seed sector and serves as an advisory body to provide necessary advice and support to the government on all matters related to implementation of the NSP and all ensuing legislation

and regulations. The NSC also supports the development of the NSS.

Progress on seed development

Seed systems play a critical role in maintaining genetic diversity in agricultural systems. While little attention has been given to traditional plant breeding, the Timor-Leste Ministry of Agriculture and Fisheries, in conjunction with the Seeds of Life program, has undertaken systematic evaluation of introduced germplasm of advanced lines and improved plant varieties since 2000.

To date, 19 improved varieties of staple crops have been officially released by the MAF (ACIAR 2016), including five sweet potato varieties, three maize varieties (yellow and white), three cassava varieties, two mung bean varieties, two rice and one peanut variety. These varieties were tested and evaluated in both research stations across different agro-ecological zones and on-farm demonstration trials with individual farmers before being officially released.

In the 2013–14 cropping season, 1200 community seed production groups (about three per village) and 31 registered commercial seed producers (one to three per district) produced more than 80 tonnes of improved varieties of maize, rice and peanut seed (ACIAR 2016). Together with tens of thousands of locally produced cuttings of improved varieties of sweet potato and cassava, these seeds are available for farmers, NGOs and the government to use. A total of 69 commercial seed producers were registered in 2016 (SOL 2016), and these are able to produce and distribute good-quality seed of improved varieties in the country.

However, each year the government, through the MAF, allocates a budget to import seed from overseas. The government also subsidises imported rice while at the same time it wants to increase food production in the country. This approach is inconsistent, since farmers prefer to purchase the cheaper, subsidised rice rather than growing their own. Developing integrated seed systems will help reduce seed importation in the future. Domestic production of seed ensures farming families have enough quality seeds of the productive varieties of food crops at planting time, hence ensuring farmers' increased domestic food production. By not having to buy seed from other countries, and store and distribute hundreds of tonnes of maize and rice seed each year, the National Seed System will increasingly give the government greater seed security and sovereignty.

Once high-yielding varieties become available, the main issue has been an insufficient supply of seed to distribute to all farmers. One effective way of multiplying and disseminating

seed in the farming community is through community seed production groups. This informal seed sector can make a significant contribution to the farming economy of Timor-Leste by providing farm families with reliable and timely supplies of high-quality seed.

Conclusion

Seed systems are a vital part of the rural economy of Timor-Leste and contribute to improved food security. To guarantee sustainability of the seed supply system and ensure availability, accessibility, affordability and quality seed for farmers, it is important to consider the integration of both formal and informal seed systems within the National Seed System. This has been put in place within the National Seed Policy. Together, the MAF and Seeds of Life program developed and released 19 improved varieties and ensure timely seed production and distribution within farming communities and the National Seed Council to ensure its implementation.

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Author notes

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