

## Outline of Timor-Leste's National Seed System for Released Varieties (NSSRV)

This outline aims to introduce and explain the **National Seed System for Released Varieties (NSSRV)** that MAF-SoL and other development partners are collaborating to build in Timor-Leste to deliver a **national seed service**. Related activities include demonstration and extension of improved varieties, good agricultural practices (GAP) and methods of seed and food storage. The NSSRV acknowledges that the majority of seeds that farmers currently use are delivered by the *traditional seed system* involving local varieties, customary sharing and barter practices and traditional methods of food and seed storage.

The primary **objectives of the NSSRV** include:

- 1. ensuring sufficient quantities of quality planting materials** (seeds and cuttings) **of proven varieties of food crops** (including reserves for re-planting) are available to farming families in every aldeia of every suco at planting time, regardless of when opening rains fall (*"food security begins with seed security"*).
- 2. enabling the Government to make big savings** by not having to buy, import, store and distribute imported seed **and farming families to avoid the large opportunity cost** resulting from having to use seed of varieties not necessarily well-suited to growing conditions in Timor-Leste and which often arrive late.

The **four components of the National Seed System for released varieties (NSSRV)** are outlined below:

- 1. Crop variety identification and development** by controlled on-station research trials and many small on-farm demonstration trials (OFDTs) under a range of seasons, farmers' field conditions and practices. Once proven, the varieties are officially released by MAF's multi-stakeholder Variety Approval, Release & Registration Committee. This component also produces small amounts of **"nucleus seed"**, **"breeder seed"** and **"foundation seed"**. With SoL assistance all on-station and on-farm research is conducted by increasingly capable trained staff of MAF's National Directorate of Research & Special Services (NDRSS). MAF-SoL have two low-elevation research stations at Betano and Loes, two high-elevation stations at Quinta Portugal in Aileu and Urulefa in Maubisse, a station on Baucau plateau at Darasula and an irrigated rice research site at Maliana. The >350 OFDTs conducted each year cover all agri-ecological zones in T-L.
- 2. Seed multiplication and quality assurance under strict Government (MAF) control.** This involves MAF Seed Dept contracting expert contract growers and providing them with foundation seed with which to produce **"certified seed"** under carefully controlled conditions including multiple field inspections by MAF Seed Officers during crop growth and at harvest. MAF Seed Dept purchase only quality seed from contract growers and carefully select, process, test and store the seed before subsequent distribution to Community Seed Production Groups and Commercial Seed Producers by trained capable staff (11 District Seed Officers, 2 Pure Seed Officers and Seed Analyst) of MAF's Seed Department of the National Directorate Agriculture & Horticulture (NDAH) who follow all the steps in the quality assurance system. With SoL support all seed processing (drying, cleaning, grading, storage and packaging) and all seed testing (for purity, germination and moisture content) is being done in 6 purpose-built and equipped seed warehouses spread across Timor-Leste and in two district and one central seed testing laboratory .
- 3. Widespread farming community empowerment and engagement in seed production** by facilitating the formation and support of >1,000 suco-based **Community Seed Production Groups (CSPGs)** to undertake their own seed production, safe storage and use by group members and distribution in their community as **"community seed"** (not for commercial sale). The establishment of many CSPGs in each District is being supported by various stakeholders including MAF District Offices, international NGOs, local NGOs and MAF Development Partners. These are all working in collaboration with MAF's National Directorate Agriculture & Community Development Support (NDACD), many with SoL assistance.
- 4. District-based and registered Commercial Seed Producers (CSPs).** These could be composed of self-initiated clusters of >25 farmer members who unite to engage in commercial seed production, safe storage and sale of good quality *truthfully labeled* **"commercial seed"**. Experienced and skilled contract growers who purposefully produce quality seed in excess of their MAF-SoL contract can also become CSPs. The quality of commercial seed is controlled and assured by each individual producer being registered in their District by MAF Seed Department, being required each year to plant only "foundation" or "certified" seed procured from the Seed Department (together with an authority to produce) and being required to

“brand” (with their own unique brand), test and “truthfully label” all their commercial seed products. Each commercial seed producer (CSP) can make their seed available on the open market to MAF, NGOs, farmers or others wanting to procure quantities of good quality commercial seed at competitive prices. However, any CSP’s production, processing and storage system and their branded and truthfully labeled seed are subject at any time to spot checks by District Seed Officers or other staff of MAF’s Seed Department. Any willful breach of MAF’s strict Commercial Seed Production Guidelines could result in de-registration as a commercial seed producer for one or more years.

### Other Related Matters:

A number of other seed-related matters can also be discussed in the context of the NSSRV:

- i. The meaning of “hybrid seed”. Because hybrid seeds are a “cross-breed” (i.e. “F1” or “first cross”) of two different parent lines they cannot themselves produce further “hybrid seed” but segregate out into the two parent lines from which they were first bred. There is therefore no point MAF-SoL using or promoting hybrid seed because the many CSPGs and other farming families cannot possibly use hybrid seed to produce their own hybrid seed. Seed self-sufficiency is not possible with hybrid seed.
- ii. All officially released varieties have been rigorously assessed against a broad number of criteria, not only for superior yield and agronomic adaptability but also for their social, environment and gender impacts. If deemed suitable they are officially released by the Variety Approval, Release and Registration Committee. Hence the intellectual property (IP) of all locally identified, developed and released varieties is owned by the Government of Timor-Leste **and** its people. SoL or AusAID have no IP.
- iii. Before they can be officially released each identified superior variety must have first been extensively location and farmer-tested on research stations and in many hundreds of On-Farm Demonstration Trials (OFDTs) over numerous years (good and bad). Included in the hundreds of on-station trials and OFDTs are many tens of farmer field days wherein farmers and their wives prepare, cook and taste-test the identified varieties and their comparison with known local varieties are included in selection criteria
- iv. In addition to helping reduce farming family food deficits by improving staple crop varieties, SoL is also working in other ways with MAF, other MAF Development Partners, Government agencies, NGOs and renown international experts and universities to improve farm family diets and reduce malnutrition.



*Members of Suco Tequinomata CSPG in Laga, Baucau select Sele seed harvested from their seed production plot*

For more information on the MAF-SoL program including all previous research and survey publications please see the SoL website: [www.seedsoflifetimor.org/](http://www.seedsoflifetimor.org/) or call (+670) 7798 4941 or 7796 3577