



### 3. Environmental protection / c. Establishing seeding nurseries<sup>1</sup>

A good nursery will protect young trees and provide them with the best possible conditions for survival and growth. Designed in the right way, even a very basic nursery can provide the space and facilities needed to grow your target number, size and quality of trees.

#### 1. Identifying a suitable location – factors to consider include:

- Reliable water supply (ideally near a stream, well, pond or borehole)
- Topography and aspect (flat, sheltered and well-drained); facing the morning sun
- Suitable soil (light and free draining)
- Land access and ownership

#### 2. Checklist of basic nursery features:

- Potting medium – a mixture of sandy soil and organic materials (e.g. compost)
- Germination medium – a slightly finer mix for the germination of smaller seeds
- Seed germination areas with seedbeds and seed trays
- Seedbeds (dug or raised) – typically around 1m wide and 5-10m long. They require a shade cover (e.g. palm leaves, bamboo, wire mesh) to protect them from harsh sun.
- Seed trays – small containers placed on benches or in special propagation trays that function like a miniature greenhouse
- Potbeds – where pots or bags containing seedlings are placed
- Shading – including netting, wire mesh or locally sourced materials such as bamboo, palm leaves or grass, which allow around half the light to pass through and are easy to remove
- Fencing – may be required to keep out stray animals and/or serve as a windbreak
- A store or a pit for compost, potting medium or germination medium
- A sheltered work area to fill pots, sow seeds and transplant seedlings from trays to pots
- A water supply – may involve creating a small channel from a nearby stream to the nursery or setting up a water tank to capture rainwater

#### 3. Nursery operations – the following jobs will need to be performed:

- Obtaining seed (from a seedbank or collecting in the wild) – extracting, cleaning and testing
- Preparing germination and potting medium
- Sowing seed in beds, trays or directly into pots (depends on germination rate)
- Caring for young seedlings (watering, weeding, monitoring health, fertilising, hardening off)

#### 4. Organisation and record keeping

To help schedule nursery activities for different species, a production calendar should be drawn up and hung in the nursery to keep track of key duties and dates. A production calendar highlights key milestones for each species (from seed collection right through to planting). Ultimately all activities are geared towards ensuring seedlings will be the right size for planting by a set planting date (i.e. at the start of the wet season).

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<sup>1</sup> Content taken from the Global Trees Campaign guide on How to Design and Manage a Basic Tree Nursery ([https://www.researchgate.net/publication/273002315\\_How\\_to\\_design\\_and\\_manage\\_a\\_basic\\_tree\\_nursery](https://www.researchgate.net/publication/273002315_How_to_design_and_manage_a_basic_tree_nursery))