

Chapter 2: Phased Approach

A Forest Garden hosts a wide variety of trees, shrubs, plants, and planting techniques that requires a great deal of knowledge, commitment and patience for families to establish and manage. A Forest Garden cannot be planted overnight, or even over the course of a year. There are just too many steps, needs, and dependencies, as oftentimes one part of the system must be established before another can begin. TREES has developed a phased approach toward establishing a Forest Garden that guides farmers through a series of logical steps, with each step building on the concepts and benefits brought by the previous one. Over the course of up to four years, this phased approach is an effective roadmap that enables families to transition a degraded plot of land into a productive and permanently sustainable Forest Garden. The phases of the approach are described below:



Phase I: Protection

Before farmers begin planting diverse, high-value products in their Forest Gardens, they need to ensure two things: 1) that their fields are well protected from grazing animals, theft, and wind, and 2) that the soils within the sites are being fortified with nutrients to ensure faster maturation and higher productivity. We begin establishing Forest Gardens by providing farmers with the skills and resources to protect their Forest Garden sites. To protect their sites, farmers plant *green walls* – an enhanced version of a living fence – around the perimeters of their sites. They then plant fertilizer trees throughout their sites, often in alleys among their crops, to further stabilize their soils and enhance fertility.

The protection phase generally takes 1 to 2 years, depending on the state of farmers' sites at the start of the project. Where sites are largely unprotected and the soils are highly degraded, the phase may take two years or more. Revitalization may be impeded when environmental stresses or shocks affect the project area (e.g. droughts, floods or pests).

There is no definite point at which a given farmer group has completed the protection segment, and the diversification segment will overlap with protection. Protection is a continuous process, and farmers should always maintain and manage their green walls and alley trees to ensure on-going protection and soil health.

During the initial years of Forest Garden establishment TREES encourages farmers to continue planting the crops they would normally plant on the Forest Garden sites. Farmers should understand that while they are transitioning their sites to Forest Gardens, they are still able to continue producing what they have in the past. Though they will be planting a lot of new trees in the first year, their crop production area will change very little. However, farmers do need to be aware of where they planted trees so that they can provide them with appropriate protection. Farmers should always avoid ploughing near newly planted seedlings.

Phase II: Diversification

When farmers have begun to establish their green walls and to enhance soil fertility enough to sustain healthy growth of higher-value crops, they are ready to advance to Phase II: diversification. This generally happens toward the end of year one or at the beginning of year two. During the diversification phase, farmers will begin to plant higher-value vegetables, fruit, nut, and timber trees. They will also learn increasingly advanced skills and techniques that will help them manage their Forest Gardens more effectively and sustainably.

Early on in the diversification segment, farmers learn to plant permagardens and fill them with diverse, nutritious vegetables. They will then learn to plant various fruit, nut, and timber trees as they proceed through the project in years two and three. Through training events and follow-up support, farmers' Forest Garden knowledge and experience will increase gradually as they learn, practice, then adopt new and more advanced techniques and concepts. Generally, farmers will have participated in all of the relevant diversification phase training events and adopted the practices they learned to date. The approach then transitions to Phase III: Optimization.

Phase III: Optimization

In the final implementation phase, farmers focus on enhancing the use of space, time, sunlight (or shade), and water. In this phase they will learn advanced Forest Garden management, integrated pest management, and conservation techniques that optimize and ensure the long-term health, productivity, and profitability of their land. They will also integrate new subsistence, protection, and marketable crops into their Forest Gardens to fill in the understory and cover their soils so that they can maximize production in otherwise unused space beneath and between the fruit and timber trees. More advanced utilization of integrated pest management practices is an important component of this phase, teaching farmers to manage pests without expensive chemical pesticides. Use of cover crops and water conservation techniques will supplement the pest management techniques to ensure optimization and long-term sustainability of their Forest Gardens.

Phased Approach		
Phase I: Protection	Phase II: Diversification	Phase III: Optimization
Establish green walls and	Plant a diverse garden and	Adopt Forest Garden
alley crops with fast-	tree portfolio to meet the	management and
growing, nitrogen-fixing	family's priority subsistence	conservation techniques
trees to protect sites and	needs and market	that optimize the long-term
stabilize and revitalize soils	opportunities	health and productivity of
		the land

Steps to Grow a Forest Garden

1. Make a **plan** to meet subsistence needs and market opportunities



2. Protect the field with a green wall of trees



3. Stabilize soils with rows of fast-growing trees



4. Diversify the field with vegetables and fruit trees



5. Farmers learn to **optimize** their field with several *layers*



6. Each family achieves permanent increases in food security and income

