

Mini Series: Sequel to “Designing Roots”

Part 3: Extension Methods for Appropriate Techniques already developed

Previously, we developed long roots cultivation techniques and the use of stones in cultivation. At this next stage, it is now an important task to extend the techniques in the field. In the field, people have been repeating trials and errors to promote the techniques, and from these efforts we feel that we have been slowly learning what would be effective extension methods. We would like to introduce a taste of such methods.

Firstly, tree planting activities in Mali supported by the NGO “Sahel no Mori”. We suggested a “multiple site and stage model.” With this method, local residents themselves implement activities using techniques and materials appropriate to each site. They then increase the number of small sites. As a result, under extremely harsh conditions, they are avoiding or spreading risks of project failure between the different sites. The whole operation is small scale, with multiple sites, and is conducted by a small number of people. At some sites trees are one year old, and at other sites they are only 2 weeks old, which provides live information on the various growth stages of planted trees. We have learned that this is a very important motivating factor for local residents who may be interested in starting their own activity.

Secondly, when considering tree planting as an integral part of water basin conservation, the notion of resource management becomes extremely important. Generally, stones covering soil are seen as obstacles to agricultural development or tree planting. We would like to suggest ways to effectively utilize stones, considering them as important resources. In other words, under large stones or gaps between stones and soil, there is sometimes very fertile soil created by micro-organisms adapted to specific micro climatic conditions. Therefore, when one plants seedlings between stones, they do not only grow well, but are also protected from animals. Moreover, if one piles stones, they have water saving, soil erosion prevention effects, as well as wind breaking effects. As it is, in an effort to spread technologies, it is important to take into consideration micro topographical conditions and the utilization of obtainable materials as resources.

In tree planting activities in arid areas, considering the degree of soil moisture, it is normal practice to plant during the rainy season to prompt rooting of seedlings. In contrast there is also a move towards planting deliberately in dry season. The rationale is that if planting is done according to the soil moisture level during a dry season, making sure that the seedlings will survive through the season, it would be certain that the plants will grow well as the rainy season would come next. In addition, farmers are generally not as busy in dry seasons as they are in the rainy season. This provides another very good reason for planting trees in dry seasons. In fact, “Sahel no Mori” implements dry season planting in villages around Tominian in Mali. The good records of rooting and growth have been surprising villagers.

What is often done to promote technologies is to gather village representatives in a large town, explain techniques and the thinking behind them inside a conference facility, followed by a field visit. Here, we would like to suggest what one might call a field workshop method. With this method, technology promotion is done in villages, hence participants are villagers who are considering planting trees or who have planted trees. The main activities are actual work (digging holes, planting seedlings and building a protective fence etc.), rather than just sitting and listening to a lecture in a classroom. As these activities take place in an open space, children can also observe. By actually doing work in a village, one can also find enthusiastic villagers and children. In this way, it is expected that continued technical support can not only open a path to their economic stability but also promote higher skills and knowledge in villages by nurturing the next generation of leaders.



Tree planting in the dry season



Field workshop



Children surrounding and watching the workshop