

## **A practical solution: Turning drylands into productive areas**



**Through initial low investments and guidance drylands can be made productive.**

Water as a natural resource has been subject to so much misuse and abuse. As a result today there is an acute shortage of water. Unlike scientific inventions, water cannot be invented. One has to depend on the clouds for it.

Monsoon failures and sudden heavy downpours with flash floods washing away a major portion of the water and fertile top soil into the ocean show how difficult the situation can be, says Dr. G. Nammalvar, organic scientist. In the name of industrialization and urbanization, trees have been cut. With the absence of trees, rains fail and this has a direct impact on the planet. While others may feel it, farmers experience it acutely, and monsoon failure results in a disaster for farmers, especially dry land cultivators.

### **Moisture retention**

For a farmer who depends on rains, conserving every drop of water by increasing moisture retention in the soil is important. Maximizing yield with less water should be his objective. To achieve this one needs to integrate mixture cropping, tree growing and animal breeding. Thus the by-product of one unit will serve as input for another. Labour utilization will be optimum.

Even farmers having fertile land and abundant water resources are finding it hard to practice commercial agriculture. A dryland is not nature-made. Nature is always flourishingly rich. Drylands are man-made. When one goes on cutting trees, over a period of time the area becomes barren and unproductive due to the absence of surface water and ground water recharge. In due course, farmers sell these drylands to traders who buy these lands for a throwaway price and sell it as commercial plots for a huge amount.

### **Proper planning**

By proper planning and initial low investments drylands can be made productive. For example cropping patterns have to be closely monitored. Farmers can grow drought resistant native crops which require less water. Also the native varieties are resistant to pests and infestations. In addition farmers can dig small ponds, or pits in their fields. These serve as effective rain catchers. They can grow fishes such

catla, roghu, mirgal and grass carper to get additional food and income when the pits get filled with rain water.

### **Growing azolla**

If they have cattle, azolla can be ideally grown in these water bodies. The azolla can be harvested and used as a feed for their cattle and poultry as it has been proved that azolla increases the milk yield in cattle and egg laying in chicken. The dung from their cattle can be applied time and again over the land. In about 3-5 years they can see for themselves the results, how their lands are turning into productive areas.

If there are trees in the area, farmers can collect the dried fallen leaves from the ground and apply them all over their lands as these leaves serve as effective mulches. They prevent evaporation of moisture from the soil, serve as shelters for earthworms and also act as effective weed suppressers. Not only the leaves, any waste which is available such as kitchen waste, garbage (except polythene or plastic material) can be collected and converted into compost and then vermicompost.

### **Sustainable livelihood**

Integrated multi culture is not only mitigating the impact of climate change it brings about sustainable livelihood for producer and consumer. "But this procedure does not produce an overnight miracle. It takes a minimum of 3-5 years of patience and labour to prepare the land for cultivation under proper guidance.

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