

## Nepal farmers reap bumper harvest

By Charles Haviland  
BBC News, eastern Nepal

### **Farmers in Nepal are the latest to reap huge benefits from an ingenious method of rice cultivation.**

The system was invented by a French Jesuit in Madagascar in the 1980s and has already scored successes in parts of Africa, Latin America and Asia, including India and China.

Now it offers Nepalese a ray of hope in a country beset by conflict.

During a patchy monsoon, Ananta Ram Majhi, his father and women relatives are harvesting the rice they planted in April on their farm near the city of Biratnagar.

In lush fields bordered by fruit trees and bamboo, the family swipe with their sickles, cutting an unusually abundant rice crop.

These are great thick stalks of rice, 50 or 60 sprouting from each seed.

The good yield is thanks to a scheme new to Nepal, the System of Rice Intensification or SRI.

### **Thirstier methods**

Ananta Ram and his neighbours were trained in it by a local farming official, Rajendra Uprety, who read of its success in other countries and took it up.

"This method yields more than twice as much rice," Ananta Ram enthuses, estimating the new figure at 240 kilograms per kattha (360 square metres).

"It uses one-tenth of the seeds - and much less water."

There are many factors to SRI, but the key can be seen at a nearby farm where a younger crop is being transplanted.

The seedlings are being moved from their nursery to the field where they will mature. But crucially, this is happening at a much earlier age - just 9 or 10 days, compared with the traditional 40-45 days.

Earth is left on the seedlings instead of being shaken off.

The women replant them in a strict straight line, singly rather than in clusters, and much further apart than is usual - about 25 centimetres.

Best of all, there is a huge saving on water - the field need only be damp, not flooded.

The rice is planted in mud, only needing extra weeding as compensation.

The maturing plants flourish, much taller and stronger than their conventional neighbours.

SRI is now used patchily in 22 countries - mainly thanks not to governments, but to dedicated individuals like Rajendra Uprety, agricultural extension officer for Morang district.

He has hosted Nepal's minister of agriculture and persuaded the government to promote SRI nationally - so far, the only local agriculture official in the world to achieve this.

His efforts have won a World Bank award.

He says it is impossible to tell why less efficient and thirstier methods of cultivation have become customs.

But he says the rice loses much potential if left in the nursery too long.

### **Skilled attention**

SRI's inventor, Father Henri de Laulanie, found in the 1980s that having plants too close together inhibited their growth.

Mr Uprety says that two years ago there was only one SRI farmer in his district.

"Now I have more than 1,400. There are so many other farmers around Nepal, so many people ask me, telephone me. I send the information."

The ministry has now produced 10,000 photographic posters about SRI, but he wants the word to spread more quickly.

In this poor country, 85% of people depend on subsistence farming, mainly rice. Half the districts suffer a food deficit.

According to Mr Uprety, these shortfalls would be wiped out if just 10 percent of the land switched to this rice system. It would also end the government practice of airlifting rice to 20 hill districts.

Dan Bahadur Rajbansi, a farmer for 35 years, is another new convert to SRI.

He showed the BBC a traditional rice plant in his left hand - just eight stalks from one seed. An SRI seedling in his right hand had yielded over 50.

"When I first heard about the system, it sounded so wonderful that I couldn't believe it," he says.

"But I tried sowing the seedlings on about 1,200 square metres of land. The results were marred by the drought. But they've still been impressive. We used to get barely 3,000 kilos of rice per hectare. Now we get about 6,000."

The technique does not always work. It demands skilled attention and weeding and the right soil and climate.

But it needs no special seeds and works better with natural compost than chemical fertiliser.

Its practices such as greater spacing of seedlings have now been extended beyond rice to sugar cane, finger millet and even winter wheat - in Poland.

And the crop, as well as being more abundant, matures more quickly.

On their farm, Ananta Ram and his family anticipate another bumper harvest in October - and savings on water, money and land use.

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