

Indian farmers cotton on to sustainable farming

October 19 2012, by Mariette Le Roux



Indian labourers pluck cotton from bushes in fields in Warangal District on October 18, 2012. When Indian icon Mahatma Gandhi took up the baton for home-grown cotton a century ago, he may not have realised the devastating impact its cultivation would have on the land he so loved.

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[Cotton](#) is a thirsty plant and parts of India drought-prone. But the [intensive farming](#) process for cotton leaches the soil and requires high pesticide and fertiliser use that pollutes further downstream.

Now in the southeastern district of Warangal, dotted with statues to the independence leader in his trademark cotton dhoti, a project to grow the fibre in a way that causes less harm to the land is taking root.

An initiative of green group WWF, the project in an area covering 103 villages seeks to help struggling [farmers](#) reduce input costs, improve yields, and lessen their [environmental footprint](#) by cutting the use of chemicals and water.

"It works better," 63-year-old Karra Adireddy, a cotton farmer for two decades who has been in the project from the start, told AFP at the village of Nurjahanpally in Andhra Pradesh state.

In the fields around him, men and women are performing the backbreaking work of hand-picking thousands of fluffy, white balls in a green expanse also dotted with red and white flowers yet to mature.

They pick with dexterity and care, the women heaping the white balls into folds in their colourful saris.

The India Sustainable Cotton Initiative started in the region in 2006 with just 16 hectares and 37 farmers, and now covers more than 21,000 hectares and nearly 12,000 farmers.

Some estimates say the project has brought a three percent increase in yield and a 25 percent reduction in costs.

Local NGO Mari (Modern Architects for Rural India), which runs the initiative alongside the WWF, said farmers involved in the project used

61 percent and 51 percent less water than normal in 2009 and 2010 respectively.

Last year, they used 93 percent less pesticides and 25 percent less chemical fertiliser than farmers who had not adopted the better management practices.

Project farmers now use drip irrigation and dig watering funnels near the roots of their plants rather than sucking dry boreholes and losing scarce water to evaporation through sprinkling.



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Instead of chemical fertiliser, many use plant and garlic extracts as pest repellents.

And the farmers sign a code of conduct, undertaking not to use pregnant women and children as cotton-pickers—a common practice in a labour-intensive industry.

Adireddy said he used to pay 1,200 rupees (\$22) for a 50 kilogram bag of chemical fertiliser, but now uses a fermented mixture of cow dung and urine, palm sugar and ghee, a clarified butter made from the milk of his own cows, to nourish his six-acre (2.4 hectare) field.

Why has he not always used this cheaper, less damaging method? "We didn't know!" he said.

Since forming a loose cooperative with the WWF's help, they no longer have to spend money on getting their product to the market—the buyers come to them, farmers told AFP.

Also, they no longer need to pay commission to a middle-man, and command higher market prices with a better quality cotton.

"I've bought two new bulls and a buffalo for ploughing" from the windfall, said Adireddy.

Cotton has been grown in India, the world's second-biggest producer, for thousands of years and has played a big part in its history.

It became a symbol of oppression under British colonialism—the empire forcing Indians to supply only raw fibres and buy British-manufactured textiles in return.

Gandhi led a peaceful uprising against this injustice, encouraging Indians

to wear locally-produced, self-spun cotton cloth.

The farmers now provide cotton branded "sustainable" to ever-more environmentally conscious consumers—feeding some big names including Britain's Marks & Spencer.

"Governments can try and regulate, tax this and introduce incentives there... it is when the markets kick in and buy (sustainable products)—this is what really drives change," said British Environment Minister Richard Benyon on a visit to the project.

According to the WWF, about seven percent of farmers in developing countries, or 90 million people, rely on cotton for their livelihoods.

Farmer Sanjiva Reddy, 61, tenderly touches the leaves of a cotton plant as he describes an improvement in the cotton: "It is smoother."

His face sun beaten by many years in the fields, Reddy was one of the first to join the project, whose results he summarised through an interpreter as "less investment, less pests, more profit".

"We used to pay (a middle-man) a three-percent commission," he said, dressed in the traditional lungi loincloth worn by many of the men in the field.

He told how he recently added two acres to his land, bringing the total to 10 acres.

But even the best-laid plans cannot influence the weather.

"I am happy (with the changes), but this year we had untimely rains," Reddy frowns, lifting his hand head-high as he explained that the plants which reach up to his weathered knees "should be this high".

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Citation: Indian farmers cotton on to sustainable farming (2012, October 19) retrieved 24 April 2024 from <https://phys.org/news/2012-10-indian-farmers-cotton-sustainable-farming.html>

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