

Eco-farming 'helps world's poor'

By Mark Kinver

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Sustainable farming methods can help the poorest farmers in developing nations out of poverty, new research suggests.

Scientists found that techniques such as crop rotation and organic farming increased crop yields by an average of 79%, without risking future harvests.

The study, possibly the largest of its kind, looked at more than 280 projects in 57 of the world's poorest countries.

The findings appear in the



Water is a scarce resource for many farmers (*Image: Jules Pretty*)

journal Environmental Science and Technology.

The team of international scientists who carried out the four-year project found that the farmers enjoyed improved crop productivity, while reducing their use of pesticides and water.

Healthy soil

One of the report's co-authors, Professor Jules Pretty from the University of Essex, UK, said the findings challenged the dominate view that the West knew best when it came to agriculture.

"Most people think it is bad news from the south," Professor Pretty said, "but in many ways farmers in developing country are leading the way."

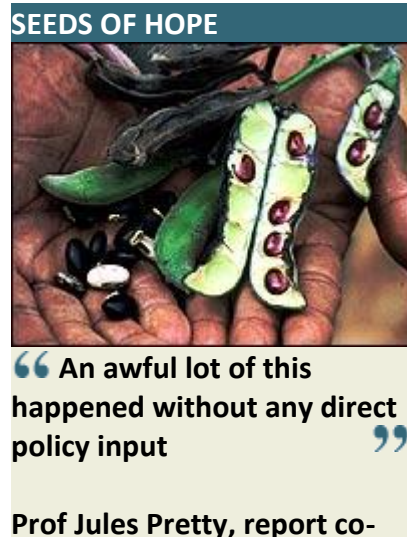
The researchers found methods that did not have an adverse effect on local biodiversity allowed farmers to reap the rewards of growing crops in healthy soil.

"People are using a variety of integrated pest management techniques; making the best of biodiversity like predators,

parasites and multiple cropping," Professor Pretty told the BBC News website.

"In essence, it allows the ecosystem to deliver the pest management services."

This approach paid dividends, he said, because it not only cut the use of pesticides but also resulted in farmers having to spend less of their income on chemicals.



Healthy soil also required less **author** water to cultivate crops, he added: "All crops need water, but soils that are higher in organic matter are better at holding water."

"If you have diverse and higher soil quality then it is better prepared to deal with drought conditions when access to water becomes a critical issue."

Figures from the World Health Organization (WHO) show that many environmental benefits - clean air and water, stable climate - are being lost through unsustainable farming practices.

Professor Pretty hoped the data would act as a catalyst for governments and national organizations to adopt better land management.

"One of the key things from all of this is that an awful lot of this happened without any direct policy input," he said.

"If there was more central support then we would expect to see these sorts of techniques and ideas spread more rapidly."

