

Climate-smart agriculture should be livelihood-smart too

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Encouraging climate-smart agriculture can lead to climate change adaptation practices in a partnership where the farmer's needs are addressed.

"Climate-smart agriculture has the potential to increase sustainable productivity, increase the resilience of farming systems to [climate impacts](#) and mitigate climate change through [greenhouse gas emission reductions](#) and [carbon sequestration](#)," says Henry Neufeldt the lead expert on climate change at the World Agroforestry Centre (ICRAF).

Agroforestry – the growing of trees on farms – is one such climate-smart agricultural practice, and it has tremendous potential for both climate change adaptation and mitigation as well as providing a source of fuel, food, medicine and supplementing the diets of smallholder [farmers](#).

Tree-based farming systems need to be encouraged as part of a low carbon emissions development pathway and adaptation strategy. For example, in tropical forest margins, agroforestry has been used in several protected area landscape buffer zones and within conservation areas as one way of alleviating pressure on forests for timber, thereby reducing deforestation and the resultant loss of carbon sinks.

Drawing lessons from the Philippines, a newly released policy brief from the ASB Partnership shows that programmes to support such initiatives are more likely to succeed in areas that are already deforested or where remaining forests are effectively protected, and where farmers have

secure land tenure.

However, agricultural methods that focus on climate change solely will not be as successful as methods that focus on improving farmer livelihoods. Food security is the central focus for many smallholder farmers. In her work, Tannis Thorlakson, a scientist at the World Agroforestry Centre discovered that smallholder farmers in western Kenya are aware that their climate-coping strategies are not sustainable because they are forced to rely on actions that have negative long-term repercussions. These include eating seeds reserved for planting, selling assets (livestock, tree poles, etc.) at below market value, or building up debt in order to survive. These are only short-term solutions to drought and poverty.

By 2050 approximately 70 percent more food will have to be produced to feed growing populations, particularly in developing countries. As climate change causes temperatures to rise and precipitation patterns to change, more weather extremes will potentially reduce global food production.

In Africa, where 80 percent of smallholder farmers own less than two hectares of land, there will be 1.2 billion more people to feed. Farmers will have to adapt to these changing conditions in order to feed this growing population.

"Our research shows that when farmers change their farming practices their returns are not immediate and in some cases there is a drop in income. For climate-smart agriculture to work there has to be incentive for farmers to change and maintain new production systems," says Neufeldt, speaking at the ongoing COP17 Climate Change Talks in Durban, South Africa.

"Climate-smart agriculture won't be effective unless it specifically

targets food security and livelihoods. Farmers must have sufficient incentives to change the way they manage their production systems," says Neufeldt.

Sayon Kourouma, is a farmer from Guinea, West Africa, who has benefitted from an ICRAF partnership project for peanut tree farmers, that seeks to cater to household needs while improving the way in which local forests are managed.

"I am now earning four times as much as I made in the past," says Sayon. "If my children are sick, I don't have to ask my husband for money, I can pay for medicines myself."

Other signs of her new-found prosperity include a cow and her mobile phone which she uses to transact business. To cater to her basic necessities, Sayon no longer relies on solutions that bring about deforestation. To her, climate-smart agriculture has helped her adapt to climate change while improving her living standards.

Small or micro-scale farming is the primary source of livelihood for over two-thirds of Africans. With this great number of farmers, climate change adaptation can be enhanced once the farmers have the right incentives to participate in climate-smart agriculture. Farmers in the Thorlakon study believe the most effective way to adapt to climate-related shocks is through improving their general standard of living.

In discussions about how to help smallholder farmers adapt to climate change, it will be paramount to first focus on their short-term needs and find mutually beneficial methods that meet these needs and support the push towards [climate change](#) adaptation.

Provided by World Agroforestry Centre (ICRAF)

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