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NEWS

Food security in East Africa 'within reach'

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[NAIROBI] East Africa will face both crop gains and losses as a result of climate change, but food security is an achievable goal if new farming technologies are embraced, says a study.

The research, published in *Agricultural Systems* this month (3 November), predicts that yields of staples like maize and beans will double in the region's highland areas as a result of rising temperatures, as warmer climates make crops mature faster.

But the reverse is likely to occur in both drier and more humid areas, with crop harvests decreasing significantly in these places. Four areas projected to have "statistically significant" yield reductions of 20 per cent or more by 2050 are coastal Kenya, northeast and northwest Tanzania and central Uganda.

Only by adapting its agricultural systems will the region be able to absorb the impacts of climate change, says Carlos Seré, director-general of the International Livestock Research Institute (ILRI) in Kenya.

"Despite an expected three-fold increase in food demand by 2050, East Africa can still deliver food security for all through a smart approach that carefully matches policies and technologies to the needs and opportunities of particular farming areas," he says.

In the worst-affected areas, the researchers recommend farmers keep more livestock (see [Livestock may do better than crops, African farmers told](#)), switch to more drought-hardy crops such as sorghum, or abandon crop cultivation altogether. New sources of income might include carbon sequestration, they say.

In areas where the effects of climate change are likely to be less severe and crop losses more moderate, the authors call for the adoption of new technologies and agricultural techniques — such as water harvesting — that will enable farmers to continue growing crops.

"These technologies are available at national research institutions across the region and are fairly inexpensive," said Philip Thornton, ILRI researcher and study co-author.

Mobile phones and the Internet — both growing in popularity in East Africa — could be used to keep farmers informed of new research and technologies, says Thornton.

He calls for more research in the field of livestock parasites and diseases, an area that he regards as critical



Farmers must adopt new cropping techniques
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yet largely neglected by scientists. He predicts that climate change will alter the behaviour of animal diseases, threatening the livelihood of the many smallholder farmers populating the region.

Link to abstract in *Agricultural Systems*

REFERENCES

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