



RESEARCH PROGRAM ON
**Climate Change,
Agriculture and
Food Security**



East African Dairy Development program adopts Climate Smart Agriculture

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CCAFS Outcome Case

Center	World Agroforestry Center (ICRAF)
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Theme	Low emissions agriculture
Geographic focus	East Africa

Summary

Livestock production is responsible for 12% of all anthropogenic greenhouse gas emissions. Managing sustainable intensification of livestock production systems could therefore soon become a key component of climate change mitigation efforts. Heifer International has been awarded additional funding to build on the existing work of the East Africa Dairy Development (EADD) programme that is working to create a robust dairy industry in a region where demand for fresh milk is close to outstripping supply. The World Agroforestry Center (ICRAF) and the International Livestock Research Institute (ILRI) are partners in this programme, helping Heifer work with more than 200,000 farmers to improve dairy production and provide access to markets over the next four years. EADD has now adopted climate smart agriculture as a programme objective, partly based on engagement with CCAFS scientists, and the mounting evidence that better feeding – by using fodder banks, improved pasture species, planted legumes and crop by-products – and manure management can contribute both to reduced greenhouse gas emissions and improved income for farmers. In partnership with the Standard Assessment of Mitigation Potential and Livelihoods in Smallholder Systems (SAMPLES) project, EADD has selected climate smart agriculture interventions in the new phase of the program. Furthermore, in order to address capacity and knowledge gaps in measuring greenhouse gas emissions in smallholder systems, CCAFS scientists are working with the Food and Agriculture Organization of the United Nations (FAO) at an EADD site in Kenya, estimating greenhouse gas emissions and productivity in dairy systems.

Key facts

- Better feeding and manure management can contribute both to GHG reduction and improved income for farmers.
- CCAFS scientists are working towards addressing capacity and knowledge gaps in measuring greenhouse gas emissions in smallholder systems.
- EADD will work with more than 200,000 farmers to improve dairy production and provide access to markets over the next four years.

<p>Lessons: key elements of success</p> <ul style="list-style-type: none">- Effective partnership among different CGIAR centers, NGOs and international organizations to deliver transformative change to the livelihoods of rural communities.-
<p>Further reading</p> <ul style="list-style-type: none">- EADD Phase II Fact Sheet- Standard Assessment of Mitigation Potential and Livelihoods in Smallholder Systems (SAMPLES) project- MICCA: Reducing the climate change 'footprint' of the dairy industry
<p>Related research outputs</p> <p>Thornton, P.K., and Herrero, M. 2010. Potential for reduced methane and carbon dioxide emissions from livestock and pasture management in the tropics. <i>Proceedings of the National Academy of Sciences of the United States of America</i>, 107(46), 19667–72. doi:10.1073/pnas.0912890107</p>

