

## Opportunities for organic urban waste recycling in Nairobi

In the last two years, Wageningen University, together with ECM Centre, Waste, Carbon Africa and ETC-East Africa have analysed and tested the **potential to recycle organic urban waste in Nairobi**, especially from an economic perspective<sup>1</sup>. In the end of 2010 and early 2011 the outputs were published.

### *What have we done?*

One way to recycle organic waste is to use it for biogas production. In a pilot project, **a new technology for biogas production is tested** in one institution and at two households. With the ARTI technology, which originates from India, biogas is produced using only waste from vegetables and fruit. As this system is not in use yet in Kenya, **we evaluate its technical and economic potential as well as the optimal business model** for rolling out the use of the unit. If the monthly cost of the biogas delivered is significantly less than the price of LPG, fuel wood or charcoal, and the digesters perform reliably, it is anticipated that such a model would be attractive to a certain market segment. And, as long as an attractive project return is achievable, it is believed that private equity partners could be found to invest in such a biogas business venture. To this effect, evaluating the business model also considers carbon credit revenues.

In another activity, we analysed **the potential to produce compost from organic market waste**. Our partner in this activity is ECOH holdings ltd, which is a successful compost business owning a branded compost product in pellet form. Using market waste for composting is a challenge, however, because of institutional barriers such as laws and regulations. **Setting up cooperation** between ECOH, the City Council of Nairobi and the Nairobi City Park Market women's' composting group is to increase waste being converted to compost, and decrease the dumping of waste. Marketing the compost is another challenge addressed in our activities.

We also reviewed the **difference in sustainability between biogas and compost** production from organic waste and evaluated a number of compost cases in (East) Africa. This evaluation will enable us to give recommendations on **how best to produce compost** from green organic waste in a **business-oriented and financially sustainable** way.

*For more information, please contact one of the project team members*

Yuca Waarts (project manager)  
LEI Wageningen UR  
Tel: +31 70 3358384  
Email: [yuca.waarts@wur.nl](mailto:yuca.waarts@wur.nl)

Paul Kirai and Joyce Gachugi  
ECMC  
Tel: +254 734 947882  
Email: [paul.kirai@ecmcentre.com](mailto:paul.kirai@ecmcentre.com),  
[joyce.gachugi@ecmcentre.com](mailto:joyce.gachugi@ecmcentre.com)

Anne Scheinberg  
WASTE  
Tel: +31 6 28763255  
Email: [ascheinberg@waste.nl](mailto:ascheinberg@waste.nl)

Kor Zwart  
Alterra Wageningen UR  
Tel: +31 317 486480  
Email: [kor.zwart@wur.nl](mailto:kor.zwart@wur.nl)

Davies Onduru  
ETC East Africa  
Tel: +254 733 760655  
Email: [d.onduru@etc-eastafrica.org](mailto:d.onduru@etc-eastafrica.org)

Matthew Woods  
CarbonAfrica  
Tel: +254 20 2335771  
Email: [matt@carbonafrica.co.ke](mailto:matt@carbonafrica.co.ke)

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