



## **Naivasha-Malewa Project, Kenya**

Equitable Payments for Watershed Services, international World Wildlife Fund (WWF)/ Cooperative for Assistance and Relief Everywhere (CARE) initiative

### **SUMMARY**

The objective of the scheme is to develop a viable mechanism for payments for watershed services that delivers sustainable natural resource management and improved livelihoods and serves as a pilot and learning model for further expansion and replication. Substantial ground work has been done on baselines and developing methodologies for understating opportunity costs and actual payments. Participants receive vouchers that can be exchanged for tools, seeds, etc.

### **MATURITY OF THE INITIATIVE**

Ongoing. The contracts between buyers and sellers were signed in 2009 and the first payments have been made in May 2010. The WWF/CARE project will officially end in late 2011, yet the annually renewed contracts between sellers and buyers are envisioned to continue without their facilitation (Bertram, 2011).

### **DRIVER**

Part of the larger project Equitable Payments for Watershed Services.

### **STAKEHOLDERS**

#### **Supply**

The project is on a sub-catchments level and two critical sites were selected as pilots: the Upper Turasha (639 hectares) and Wanjohi (4680 hectares) area both situated in the Malewa Basin. Within these, five sub-basins have been selected. Environmental Services (ES) stewards in the scheme are small-scale farmers in the identified hot spots. In total 565 are participating with another 150 already applying the promoted land-use technologies voluntarily. These are to be included in the scheme in 2011. The average size of landholdings of participants ranges from 2-10 acres (0.8-4.05 hectares).

#### **Demand**

Current buyers are the Lake Naivasha Growers Group and Lake Naivasha Riparian Association (LNRA). The legal agreement has been signed on their behalf by the Lake Naivasha Water Resource Users Association (LANAWRUA).

#### **Intermediary**

Payments are delivered through the WRUAs facilitated by WWF/CARE on behalf of the buyers. In the beginning WWF and CARE took over this role yet more and more responsibilities are passed to the Water Resource User Associations (WRUAs).

#### **Facilitator**

WWF/CARE, under the WWF management project, the Integrated Water Resource Management (IWRM) are facilitating the initiative. The project puts strong emphasis on creating a buyer-seller forum that is envisioned to take over the project facilitation once WWF/CARE retreat from their facilitating role.

### **MARKET DESIGN**

#### **Service**

*Water quality and quantity*



### **Commodity**

*Land-based.* Promoted improved land-use and technologies are riparian protection areas; agroforestry; indigenous tree planting (95 per cent survival rate); contours grass strips; high value crops; and other Sustainable Land Management (SLM) and soil and water conserving practices (e.g. bench terraces). Especially agroforestry and soil protection technologies can be expected to benefit farmers independently of the Payment for Environmental Services (PES) scheme.

### **Payment Mechanism**

The payment level is based on land-use technologies promoted as well as in situ benefits farmers receive from implementing the scheme and available project funds at that time. A business case study was drawn establishing the opportunity costs that farmers would undergo as a result of setting aside land for conservation. This was too high for the buyers to afford since the concept was not yet operational. Agreement to the sum was reached with and between sellers and buyers after a rigorous negotiation process. The negotiation process consisted of a series of negotiation meetings between the buyers and sellers who could then give this input to revise the draft contracts which were then discussed together in the seller-buyer forum.

### **Terms of Payment**

Payments are made annually to individual farmers. The sum is fixed to US\$17 per participant in the first three years. The scheme applies a voucher system, with each voucher worth US\$17. They are redeemable with agro-inputs at agreed and convenient outlets.

Participants have to contribute the labour. Material inputs (fodder crops, tree seedlings, and high value crops) are provided by CARE and WWF.

Contracts were endorsed and signed for one year, renewable with revised terms and conditions agreeable between sellers and buyers.

### **Funds Involved**

The first payment in 2010 amounted to US\$10,000 (Njenga & Nyongesa, 2010).

## **ANALYSIS**

### **Economic**

The opportunity costs of participating providers are expected to be covered through the payments of the sellers.

Expected co-effects are livelihood expansion (provision of firewood, sale of fruits, reduced cost of fruits purchase and health improvement), capacity building and institutional strengthening on community level (WWF & CARE, 2010).

### **Environmental**

*Selection of sites:* Initial sensitization meetings with the local Water Resource User Associations (WRUAs) were organized to select target groups, connect to the provincial administration and to organize field visits and create capacity and awareness on PES (Njenga & Nyongesa, 2010). Hotspot farms were identified based on geographical factors such as the location of the farm, steep slopes, distance to rivers etc.; on poorly cultivated farms and farms with water unfriendly trees. Participants had to be land-owners and willing to adopt change and join the project.

*Observed effects* are increased tree cover, reduced soil erosion. There is a 95 per cent survival rate of the agroforestry trees, grass strip planting and endemic agroforestry trees, riparian land restoration. Promoted practices are also applied by non-participants. It is not possible to say to what degree this is taken over from the scheme.



## **Social**

Assistance is necessary primarily in the beginning for capacity building and tree seedling distribution.

**Trainings on SLM techniques;** livelihood improvement; soil and water conservation exercises; tree planning; contour planting; riverbank protection; organic farming; proper use of agricultural chemicals; good farm planning; adoption of high value crops; farming as a business; contract farming; coping with climate change; and farming diversification, etc. were conducted by WWF/CARE. Depending on the kind of training, costs are ranging from Kshs 20,000 (US\$ 244) for local community unit meetings to Kshs 300,000 (US\$ 3,662) for high level seller-buyer meetings.

## **LEGISLATION ISSUES**

Complex and dynamic land ownership due to inheritance and land-use change.

## **MONITORING**

Ex ante baseline studies on hydrological quality or similar studies, as well as socio-economic studies have been undertaken. Conditions to qualify for payments are based on adopting promoted land-uses and technologies. During verifications in the field, those farmers who have not met agreed conditions are not awarded the ex situ benefits.

Four staff gauges in respective rivers of intervention (Wanjohi, Kinja, Karoroha and Turasha) have been installed as well as four turbidity meters. On-farm verification and monitoring is undertaken by the buyers and support institutions (e.g. LANARWUA) as well as by the sellers separately. Biannually, consultants are hired for evaluation and monitoring. In case of conflict or non-compliance WRUAs are responsible for conflict resolution meetings, etc.

## **MAIN CONSTRAINTS**

Major challenges for the project include: complex and dynamic land ownership due to inheritance and land-use change; degraded public lands that influence the water quality yet are not under the scheme; high interest of more participants that can at the moment not be included; limited commitment of new buyers. Kenya currently has no specific PES policy. Water Act (2002) provides for water user fees by large scale users that are to be invested in catchment management. This is, however, not yet operationalized. The Lake Victoria Basin Commission of East African Community (EAC) features strategies for targeting ecosystems, natural resources and environment.

## **MAIN POLICY LESSONS**

No information available.

## **OTHER INFORMATION**

No information available.

## **CONTACT**

No information available.

## **REFERENCES**

Berttram, D. 2011. Positioning the Kagera Transboundary Agro-ecosystem Management Programme (TAMP) project in the PES landscape of East Africa. FAO-NRL.



Watershed  
Markets