



Livelihood Assets & Market Linkages In Turkana

Hunger is a constant threat in Kenya's arid north. Families struggle to get through the cyclical droughts that erode their meagre assets, leaving them worse off with every shock. With the support of the Government and development partners, communities in Turkana county are taking a lead in planning and implementing activities that are fighting the impacts of droughts and improving food and nutrition security. Through the asset creation (food or cash) projects, the World Food Programme is supporting communities to build or repair productive assets, one of them being small irrigation schemes.

River Turkwell, which flows from Mt Elgon, near the border with Uganda, to Lake Turkana, traversing the arid county, offers an opportunity for diversifying the source of food for many families living along its course.

Food insecure families are given food or cash to fill the food gap and enable them to work on irrigation schemes constructing 'water intakes' to tap the water from the river, excavating and lining primary and secondary canals, clearing the land for cultivation and constructing the small canals that lead the water into the cultivated plots.

Each family gets a piece of land on which they grow crop, such as sorghum, cowpeas, green grams, maize, vegetables, and fruit. 4,650 families involved in the irrigation schemes not only have a source of diverse foods, which is good for nutrition security, but can also sell the surplus for income.

In Turkana county, WFP is supporting communities in 25 small-scale irrigation schemes. These schemes have around 4,000 hectares of land that is suitable for irrigated farming. WFP's asset creation projects have helped irrigate 789 hectares so far.

Where We Are Working

WFP's asset creation projects are in six sub-counties namely; Turkana North, Turkana West, Turkana East, Turkana Central, Turkana South and Loima with a total of 93 sites.

The National Drought Management Authority (NDMA) coordinates the activities while the line department staff offer technical support. In implementing the programme, WFP is working with three cooperating partners - Child Fund Kenya, World Vision, and the Turkana Rehabilitation Programme (TRP).

Currently, 91,000 people are benefiting from the asset creation projects in Turkana County, with almost 30,000 participating in small irrigation schemes.



Agricultural Market Access

In 2013, WFP introduced agricultural market access and linkage activities in Turkana. 13 farmer organizations, which were producing a marketable surplus were selected for training in marketing.

Market access support contributes to the process of transitioning families out of food assistance and building their resilience.

The market access activities include:

- training and coaching on post-harvest management of grains, resource mobilization, financial management and access to credit, group governance, warehouse and commodity management, aflatoxin mitigation, institutional procurement procedures, and entrepreneurship, among others;
- financial support for the construction of stores, transportation, marketing and processing equipment;
- WFP food procurement; and
- facilitating linkages and access to other structured markets.

Kakuma Fortification and Milling Pilot

In 2014, WFP started piloting small scale milling in and around Kakuma refugee camp, linking smallholder farmers to the refugee school meals programme.

The project is testing the viability of buying locally-grown maize and sorghum (from smallholder farmers in Turkana or elsewhere in Kenya); milling and fortifying it in small-scale mills, and supplying the flour to the school meals programme in the refugee camp.

This pilot will inform whether maize and sorghum purchased and processed in and around the camp can support the school meals in the camps, in turn boosting local agriculture and economic growth.

This project is focusing on creating a demand-pull for drought tolerant crops like sorghum therefore contributing to resilience building.

So far the WFP supported groups have milled over 200mt of locally purchased maize and sorghum grains. Out of this 40mt of maize was purchased from Turkana County.

WFP is training groups in entrepreneurship, group governance, bookkeeping, customer care, good hygiene, milling and fortification.

Smallholder Market Capacity Development

WFP has enhanced the marketing capacity of the farmer organisations; the groups have improved knowledge and skills for marketing, food processing; Six groups which did not have storage capacity can now aggregate and market collectively; Six groups have sold grain collectively to various buyers including the county government, NGOs, WFP and local traders.

Facts

70 community group members (10 from the host population and 60 from the refugee community) have received training, equipment and infrastructure support to mill and bake

Two groups (one from the refugee community and the other from the host community) are providing milling services exclusively to WFP

Each of these two groups has 10 members

One group of 10 members (refugees) supported to set up a milling business to serve the host and refugee community

Two groups of 20 members each, all refugees, supported to expand baking businesses

Markets

Market capacity development for smallholder farmers is a process that takes 3 to 5 years for significant outcomes to be observed. Continued support to the WFP supported groups for at least two more years is crucial.

After two years of support nine groups are showing observable changes through increased aggregation/storage capacity, marketing of grains and active participation of groups members in collective action.

The other four 'low capacity' groups will need one to two more years to demonstrate improvements in capacity.

Participation of group members in collective marketing improves over time when non participants observe benefits to early adaptors.

Farmer Organisation	Members	Key Outcomes (2013 – 2015)			
		Grain storage Capacity (mt increase)	Grain aggregated for household use and sale	Grain sold collectively (mt)	Families participating in collective marketing
Etic Women Group	110	84**	21	7	41
Kakwanyang Irrigation Scheme Farmers Association	230	28**	8	0	20
Kalemunyang Agricultural Irrigation Scheme Farmers Association	424	0	0	0	0
Kangalita Irrigation Scheme Farmers Association	351	84**	40	0	59
Katilu Irrigation Scheme Group	1,214	500	120	48.42	92
Koolioro Irrigation scheme Farmes Association	750	84**	5	0	40
Kotela Youth Focus Group	30	28**	15	3.25	38
Lokubae Water Users Association	3,678	250	75	12	159
Morulem Irrigation Farmers' Cooperative Society	3,000	500	150	21	210
Nadoto Irrigation Farmers Self Help Group	49	0	0	0	37
Namoru Women Group	31	0	0	0	0
Naurienpuu Emorikinos Women Group	35	0	0	0	0
Tiya Two Irrigation Scheme Farmers Group	204	28**	5	1.25	50

**Storage capacity did not exist before 2013

Irrigation

Challenges Facing Small Irrigation Projects

Insufficient funding

Insufficient funding adversely affected the quality of small-scale irrigation infrastructure as WFP could not secure material required for lining the primary and secondary canals. In addition, WFP reduced ration sizes due to unhealthy food pipeline.

Low technical support

The number of technical staff in the county to offer much needed support, supervision and extension services is inadequate. Although WFP has supported

the cooperating partners to hire technical officers to complement the capacity of the Government, the demand is huge.

Deteriorating soil fertility

Due to lack of crop rotation and other soil feeding practices, soil fertility has diminished thus affecting the yields.

Poor market access and linkage

The farmers that have been supported by WFP have started improving their capacities in marketing. However, high price expectations make traders shun farmers as a supply source. Poor road conditions and

high transport costs remain a hindrance to market integration.

Although sorghum is an appropriate crop for the agro ecological conditions in the county, there is inadequate support for improved production, consumption and marketing.

WFP will work closely with institutional buyers including the county government, to explore opportunities to create a better demand pool for sorghum and link smallholder farmers to the same.

In adequate and poor quality of grain produced locally

WFP planned to purchase 360mt of maize and sorghum from Turkana county. However this has not been possible due to high levels of aflatoxin in the grain and low volumes of sorghum.

WFP and its partner Child Fund are currently collaborating with the Agricultural Sector Development Support Programme to promote production of sorghum so that

farmers can take advantage of existing and potential market opportunities. In addition, intensive training and awareness on aflatoxin mitigation is being done.

Invasive species (*prosopis juliflora-mathenge*)

'Mathenge' reduces the land under cultivation with the community frequently involved in bush clearing season after season.



Statistics

Project Name	Potential For Irrigation (Ha)	Land Under Irrigation (Ha)	No. Of Families	Estimated Annual Yields (MT)
Kalemunyang	150	63	200	91
Kakwanyang	200	43	200	62
Kaitese	250	80	150	115
Tiya	220	80	290	115
Nagis	90	43	160	62
Nadapal	100	48	180	69
Naurienpuu	120	34.6	150	50
Nadoto	300	51	365	73
Kotela	200	60	140	86
Ngimuriaie	250	52	200	75
Kangalita	250	68	250	98
Nabeye	24.5	13.12	155	19
Lokapel	245	5	185	7
Kanaodon	147	3	190	4
Simailele	98	14.44	155	21
Nakwamomwa A	73.5	5	164	7
Nakwamomwa B	74.5	3	164	4
Elelea	343	17	231	24
Nakaparipari	15	7	231	10
Naoyawoi	180	24.4	110	20
Moruese	180	30.4	200	24
Nanyee	150	25	130	20
Naoros	120	6	150	5
Akatuman	100	5.2	150	4
Kangattha	200	8.8	150	7
Total	4,080.50	789.96	4,650	1,074

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