The Karamoja region can be classified into three livelihood zones linked to the degree of aridity and associated dependence on livestock: 1) Pastoral – semi arid zone characterized by a prolonged dry season and erratic rainfall. It runs along the eastern border with Kenya, comprising parts of Kaabong, Moroto and Amudat districts. Livestock production is the main economic activity supplemented by opportunistic farming; 2) Agro-pastoral – with an average annual rainfall of 500 – 800mm, stretches through the central part of Karamoja region from the border with South Sudan covering Kotido and parts of Kaabong, Moroto, Napak Amudat and Nakapiripirit districts. The zone is highly dependent on livestock production and rain-fed crop production; and 3) Agricultural – running along the western side of Karamoja with an average annual rainfall of 700 – 1000 mm, capable of supporting most tropical food crops.

The region is generally characterized by poor rainfall distribution and reliability manifested through prolonged dry spells and flash floods. The magnitude, frequency and severity of these hazards have increased over the past decades seriously eroding the productive assets and traditional coping capacities that support livelihoods. From 2001, there have been extended dry spells every second year (2002 & 2004) and also during the three consecutive years (2007 – 2009). As a result, there has been repeated crop failures and low livestock productivity. The effect of prolonged dry spells on livestock productivity has often been aggravated by presence of trans-boundary animal diseases such as Contagious Bovine Pleuro Pneumonia (CBPP), Peste des Petits Ruminants (PPR); Contagious Caprine Pleuro Pneumonia (CCPP) Foot and Mouth Disease (FMD) and tick borne disease like Anaplasmosis, Babesiosis and East Cost Fever. Lately, the prevalence of zoonotic diseases including Brucellosis and Rabies is also increasing.

Crop production is affected by the massive environmental degradation as a result of deforestation, monoculture, poor land and water management practices leading to uncontrollable runoff, erosion, nutrient depletion, water pollution and flooding in low lying areas. These underlying factors mirror the general lack of
production skills and overstretched extension service delivery in the region. Other constraints include use of rudimentary tools, inadequate supply of clean drought tolerant and quick maturing crop varieties, crop pests and diseases and poor pre and post harvest management practices all of which further threaten to keep the communities more vulnerable amidst the worsening effects of climate change.

**FAO’s RESPONSE**

The Food and Agriculture Organization of the United Nations (FAO) in collaboration with the Government of Uganda and respective District Local Governments has been supporting communities in Karamoja to build resilience over the past nine years through a holistic livelihood programme focusing on three integrated priority areas of livestock production, crop production and land and water management within a Disaster Risk Management (DRM) framework.

To provide basis for designing appropriate interventions without undermining existing survival mechanisms, a comprehensive Household Economy Analysis (HEA) backed up by five complementary studies was carried out in 2010 to generate livelihood profiles and understand how livelihoods can be affected by wider economic or ecological changes. Following pacification of the region and ongoing resettlements, another HEA baseline is being carried out in January/February 2014 to match programming with the present livelihood trends in the region.

**Livestock Production**

- In collaboration with Government, FAO has supported various livestock vaccination efforts in the region. Between 2008 and 2010, a mass vaccination of livestock was carried out. A total of 767,967 cattle and 1,447,308 small ruminants were vaccinated against CBPP and PPR respectively. This reduced incidences of widespread livestock diseases and subsequent pockets of outbreaks have continuously been controlled through improved surveillance and response. FAO also equipped all the districts in the region with cold chains and established a response mechanism comprising of central Government, District Local Governments, NGOs and Community Animal Health Workers (CAHWs), that have been vital in times of disease outbreaks.

- Since 2011, FAO has been promoting and building capacity of frontline veterinary extension staff in the region on the International Livestock Emergency Guidelines and Standards (LEGS). This initiative has improved livestock relief interventions during disease outbreaks in the region.

- To strengthen community animal health, FAO and other stakeholders have over the years been training and equipping CAHWs, whose role is vital in mobilizing and training pastoral communities, carrying out vaccination, disease surveillance and providing basic animal health support services. In collaboration with the Karamoja Livestock Development Forum in 2012, FAO retrained and equipped 420 existing CAHWs who are currently serving as sentinels for livestock disease surveillance. This was preceded by a comprehensive exercise to map all the CAHW and veterinary drug supply points in Karamoja carried out in 2011. This exercise enhanced planning and coordination of community animal health, by providing the geo-spatial distribution and status of the existing CAHWs and Veterinary drug shops in the region in a digitized format using the smart phone technology. Subsequently, at the end of 2011, FAO also carried out an in-depth assessment of the functionality of veterinary drug shops and animal health drug supplies in Karamoja.

In collaboration with the Ministry of Agriculture, Animal Industry and Fisheries, Ministry of Health, VSF Belgium and Uganda Wild Life Authority, FAO has been piloting a One Health initiative to better manage emerging and reemerging animal health and animal-related human health risks in Kaabong district. The initiative has improved knowledge of risk factors and prevention/control measures, improved access to human, animal and environmental health services, and new knowledge, skills and decision-making tools.

**Emergency response**

- Following near-total crop failure in 2008 and 2009, FAO conducted massive distribution of 759 MT of
assorted crop seeds to 130,000 food insecure households in Karamoja to increase their access to quality seeds.

- In response to the ongoing resettlement in the wet belt, effort was directed to support these communities with essential inputs and tools. At least 6,950 beneficiaries in Apeitolim, Lomaratoit and Nabwal resettlement sites were supported with an assortment of inputs and tools including ox-ploughs, hand hoes and planting material.

- In 2011, 52.2 tons of sorghum and cowpea seeds were distributed to 15,000 households and at least 200 acres of nuclei multiplication gardens of disease tolerant cassava varieties and 50 acres of orange-fleshed sweet potatoes were established in the wet belt of Kaabong and part of Kotido districts to enhance the availability of cassava and sweet potato vegetative planting material in Karamoja.

**Building capacities - Agro-Pastoral Field Schools approach**

FAO has been piloting and adapting the Farmer Field School (FFS) approach to the specific context of Karamoja to appropriately address the unique livelihood challenges in the region. The APFS provides a platform for holistically integrating multiple interventions for bridging short term activities such as skills development, provision of essential inputs, rural savings and
DISTRIBUTION OF AGRO-PASTORAL FIELD SCHOOL IN KARAMOJA, UGANDA

**Establishment of APFS by Organization**

**APFS Spread in the Karamoja Region**

**Cumulative Growth of APFS (2007-2012)**

**Legend**
- **P** towns
- Intl border
- Roads
- Subcounty boundary
- Districts boundary

Produced by: DRRU, FAO Uganda
kick starting income diversification as precursors to medium and longer-term development. In collaboration with close to fifteen NGOs and the respective District Local Governments, FAO has supported the establishment of more than 850 FFS, Agro-pastoral Field Schools (APFS) and Pastoral Field Schools (PFS) benefiting 25,500 households in the region. The groups have been provided with assorted seeds, farm tools, investment grants and training in crop & animal husbandry, soil & water management practices.

Livelihood Enhancement
The diversification of agricultural livelihoods and accumulation of assets are important drivers for sustenance of such livelihoods and shift communities on the path to resilience building. Group Savings and Loan Schemes (GSLS) were introduced and have been developed overtime as integral components of the APFS program, to facilitate community level resource mobilization.

To compliment the schemes, APFS groups are trained in undertaking farming as a business to enable them to productively utilize their self-mobilized resources by employing improved and appropriate methods of farming. The group savings act as contingency funds to improve the purchasing power of the households as well as create wealth through asset acquisition.

The integration has enabled APFS groups to gradually and progressively accumulate own resources/group funds to support various activities. The members/groups often use the resources to improve crop or livestock production processes like paying for veterinary services, stocking veterinary supplies, productive assets like buying ox ploughs, improved seed; they invest in income generating ventures like apiculture, bio-intensive vegetable growing, poultry rearing, cereal banking; and importantly have cash to meet the day to day household needs. The livelihood enhancement activities are aimed at reducing the vulnerability of households and communities to shocks.

Disaster Risk Reduction (DRR) and Climate Change Adaptation
With support from the European Commission – Humanitarian Aid and Civil Protection Office (ECHO), FAO has over the last 7 years been supporting efforts to reduce effects of drought on the livelihoods through technical backstopping and coordination. Under similar arrangements, FAO is concluding implementation of the “Drought Risk reduction Action Plan for the Horn of Africa” funded by ECHO, which was largely focusing on increasing resilience and reducing vulnerability in local communities in Karamoja. Specifically the aim was to enhance evidence based advocacy for policy dialogue on drought risk management, make available to DRR stakeholders, technical information, standards and evidence-based good practices models; and strengthen DRR coordination mechanisms.

In light of the twin problems of climate change and environmental degradation and in an effort to enhance drought/flood preparedness and increase the adaptive capacity of vulnerable communities, FAO has adopted a Community-Based Integrated Watershed Management approach taking into account land and water linkages within a natural ecosystem.

Tailored courses have been conducted for District Local Government and NGO personnel in Karamoja region to enhance their knowledge and skills in planning, implementing, monitoring and evaluating community-based integrated watershed management programs. Similarly, in support to the on-going district contingency planning process, FAO in collaboration with the International Institute of Rural Reconstruction (IIRR) has been spearheading the mainstreaming of Community Managed Disaster Risk Reduction in the overall APFS curriculum to ensure that hazard analysis and profiling becomes an
An integral component of the farmer groups’ action planning process.

The aim is to ensure that the district contingency plans are dynamic and have direct involvement of the communities. All APFS groups conduct participatory disaster risk assessments (PDRA) which form the basis for their interventions.

FAO and WFP have been jointly piloting activities on watershed management as part of a broader roadmap to mainstream disaster risk management in programming. The targeted watershed catchments are in Kakamon-gole (Nakapiripirit), Rupa (Moroto), Panyangara (Kotido), Kathile (Kaabong) and Awach (Abim).

**Coordination**

Through its two field offices in Moroto (for south Karamoja) and Kotido (for north Karamoja), FAO has been facilitating in collaboration with the Production Departments food security and agricultural livelihood coordination efforts in the region through which food security working groups have been established at district levels. FAO has regularly carried out Integrated Food Security Phase Classification (IPC), supported joint food security assessments and regional food security meetings. Working with stakeholders and partners, approaches such as the CAHWs, APFS, Village Savings and Loan (VSL) systems, LEGS, Community Based Disaster Risk Reduction, Community Based Watershed Management, and Community Based Early Warning System among others have been harmonized thus enhancing building of synergy. This has also led to more response interventions addressing key vulnerability factors.

**Land and Water Management**

In an effort to minimize the effects of hydrological hazards, FAO has been promoting appropriate land and water management practices including micro-irrigation, construction of sub surface dams on dry river beds, bio-intensive gardening and conservation agriculture. This has been coupled with setting up of community tree nurseries and promoting of drought tolerant varieties.

**Geographical Information Systems (GIS) Support**

Over the years, FAO has supported the respective Dis-
strict Local Governments and NGOs in Karamoja to build capacity on GIS, both in terms of training and infrastructure. Numerous maps on coordination, the distribution and functionality of agricultural productive infrastructure in the region have been generated and updated.

Gender Based Violence (GBV), HIV and AIDS

Recognizing that addressing household food and income security reduces the underlying causes of GBV, FAO is using the Farmer Field and Life Schools (FFLS) as a platform for blending production, entrepreneurial and life skills to achieve the above expectation. Gender and age are critical factors in determining different levels of vulnerability and resilience and FAO’s Socio Economic and Gender Analysis (SEAGA) tools provide the basis for identifying appropriate interventions. As a result, medium and long term livelihood options for sustainability have been supported through the APFS. Alongside the APFS, Junior Farmer Field and Life Schools (JFFLS) have been established in Kaabong and Kotido districts targeting the youth in schools, former raiders and those who dropped out of school.

Karamoja Livelihoods Programme (KALIP)

FAO is implementing Result Area 2 of KALIP, focusing on improving food security and diversification of livelihood opportunities for communities in Karamoja. This is a Government of Uganda PRDP Programme funded by the European Union. The project aims at supporting 13,200 vulnerable households in Karamoja to increase production, incomes and resilience capacities at household and community level. To better cope with the consequences of recurrent and cumulative shocks exacerbated by climate variability, the project adopted a DRM implementation framework. The key ongoing interventions include:

- Establishing and strengthening 440 APFS groups (13,200 households) into viable farmer production units through provision of agro-inputs and productive infrastructure blended with the requisite hands-on skills development on sustainable production practices
- In collaboration with Nabuin Zonal Agricultural Research and Development Institute and the National Semi Arid Resources Research Institute of NARO, FAO is enhancing crop production through revitalization of the local seed system by setting up seed multiplication blocks in the region in an attempt to increase access to good quality seed and make the region seed sufficient.
- Revitalizing the animal health service in Karamoja by retraining and re-equipment 420 Community Animal Health Workers to support monthly livestock disease surveillance. This will also involve setting up 10 veterinary supply points
- In collaboration with the National Livestock Resources Research Institute, mainstreaming livestock nutrition and rangeland management in the APFS and rehabilitating degraded dry season pasture belts including establishing fodder tree nurseries in 15 sub counties.
- Promoting community based environmental management practices including appropriate soil and water management infrastructure in 240 catchments.
- Establish community based market information system in 25 sub counties to enhance viable income generation through group marketing.
REDUCING IMPACT OF CLIMATE RISK ON LIVELIHOODS

With funding of British pounds 7,762,500 million (UGX 32 billion) from the UK Department for International Development (DFID), FAO is implementing a 2 year (October 2013 – December 2015) project – “Strengthening adaptive capacity of agro-pastoral communities and the local government to reduce impacts of climate risk on livelihoods in Karamoja”. The project builds on lessons and emerging gaps over the past years.

The expected outcomes are (1) Improved strategic planning and response to climate risks/shocks and (2) Strengthened adaptive capacities of agro-pastoral communities and the district local governments to reduce climate risks.

The project is strengthening:
1. early warning, preparedness and contingency planning and response system;
2. livestock disease surveillance, diagnostic capacity, veterinary services and animal/livestock nutrition; and
3. agro-pastoral production systems through support to district local governments, APFS and improved access to water.