**Introduction**

ASAL APRP is a five-year project (2012-2017) funded by the Government of Kenya and the European Union under the Kenya Rural Development Programme. It is a successor to the Kenya Arid and Semi-Arid Lands Research Programme (KASAL) which was implemented by KALRO from 2007-2011. ASAL APRP which continues to be implemented by KALRO builds on the achievements of KASAL and will also develop new information, knowledge and technologies suitable for the ASAL areas.

**Overall Objective**

To improve food and nutritional security and income in Kenya through KALRO-led research.

**Specific Objective**

To increase agricultural productivity of the ASAL areas in the long term with the intermediate objective of increased agricultural production and productivity in ASAL through development, distribution and application of appropriate technologies.

**Project Results areas**

The project aim is to validate and upscale/out-scale knowledge, technology and information through KALRO-led research, targeting farming and pastoralist communities in the project mandate area. The project has four result areas shown below:
RESULT 1: UP-SCALING/OUT-SCALING OF APPROPRIATE ASAL KNOWLEDGE, INFORMATION AND TECHNOLOGIES PROMOTED

KALRO’s primary mandate is the development of new technologies that address identified problems/constraints. KALRO has recently developed a large number of technologies suitable for the ASAL areas and which should be released for adoption. A specific strategy for rapid dissemination of improved livestock and crop technologies to different areas simultaneously will be through collaboration and partnerships with CBOs, NGOs, private sector and state partners. The activities under this result are:

- Developing procedures and modalities for collaboration/partnerships in scaling up activities for dry land crops, pasture, indigenous poultry, cattle, sheep, goats and camels (engagement, funding, performance monitoring, reporting) and formalization of partnerships and collaborations
- Selecting and packaging improved livestock and crop technologies for up-scaling/out-scaling to arid and semi-arid areas
- Up-scaling/Out-scaling of livestock and crops technologies in the arid and semi-arid areas
- Adoption and impact assessment of up-scaling/out-scaling collaborations and partnerships in the arid and semi-arid areas (baselines, adoption/impact studies)
- Management, backstopping and performance tracking of partnerships and collaborations and sharing of information and knowledge.

RESULT 2: LIVESTOCK PRODUCTIVITY IMPROVED

Livestock is a major source of livelihoods in the ASAL and improvement of the productivity and marketing of livestock and livestock products will have a major impact on the agro-pastoralists and pastoralists in these areas. The result will focus on developing research interventions that will lead to improved livestock productivity in the ASALs.

The activities include:

- Prioritizing intervention focus areas in poultry, camel, cattle and small stock (sheep and goat) research and development, formation of research teams and proposals development
- Improving access to poultry, camel, cattle and small stock information, technologies and markets
- Adoption and impact assessment of poultry, camel, cattle and small stock productivity research in the arid and semi-arid areas
- Management, backstopping and performance tracking of livestock research and sharing of information

RESULT 3: FOOD AND NUTRITION SECURITY IMPROVED

KALRO has developed new technologies which need further testing and adaptation in various areas and with the participation of the target populations. These include new drought tolerant seeds and crop varieties, production systems and processing/storage systems. The interventions under this result will address food and nutrition security in the ASALs. The activities under this result will be:

- Develop procedures/modalities of establishing a vibrant seed multiplication and distribution network for the ASALs involving partnerships with private sector and communities
- Intensify and expand multiplication, packaging and distribution of appropriate dry-land seeds and their agronomic packages
- Validating and dissemination of technologies to enhance dry-land farming (water management, soil fertility management and irrigation models)
- Capacity building for partners and pastoral communities in crop production, utilization and value addition
- Strategic and alternative approaches to food and nutrition security for households members left after animals migrate during drought (poultry, milking camels, minor irrigation, fodder production)
- Adoption and impact assessment of crop production and utilization on ASALs households’ livelihoods.

RESULT 4: KALRO CAPACITY FOR ASAL RESEARCH STRENGTHENED

KALRO has a well-developed research system for the high rainfall areas. Its infrastructure for research and dissemination is also well structured. The capacity for research in the ASAL areas is limited by a number of reasons
including the low priority given to research in ASAL production systems. Initial KALRO research infrastructure development was established by the colonial government to support settler agriculture in high potential areas. Recent government strategies and policies however has shifted focus to ASAL development and research will play a pivotal role in this development.

KALRO requires to develop certain capacities at Headquarters, Garissa, Kiboko, Marsabit, Perkerra and other ASAL research centres. The activities under this result will include:

- Build the capacities and soft skills of the technical staff at the Headquarters and other centres on finance, change management among others
- Develop ASAL- Research, Information and Training Network (ASAL-RIT) facility coordinated by Marsabit
- Develop Garissa Research Centre (farm development and initiating research work).

**Partners**

The project is working with five (5) partners that have signed contracts with KALRO. These are:

- Women and Children Alternative Lives (WACAL) - promotion of dry land crops in Makueni and Kibwezi
- Anglican Development Services (ADS) – promotion of dry land crops and improved indigenous chicken technologies in Mount Kenya, Eastern and coastal regions
- Sustainable Community Development Project (SACDEP) – promotion of improved indigenous chicken technologies
- Catholic Diocese of Kitui - promotion of grain amaranth production and utilization technologies
- Smart logistics – promotion and commercialization of sorghum value chain in Kitui, Machakos and Makueni.

**Beneficiaries**

The final beneficiaries are crop and livestock farmers in the ASAL areas of Kenya. A total of 500,000 farmers are targeted.