

Rwanda – “Development of innovative forage production technologies for improved dairy productivity”, Ministry of Agriculture and Animal Resources (MINAGRI)

- **Objectives:** Improve dairy cattle productivity through development and transfer of improved feeds.

- **Context:** The Rwandan dairy industry is severely constrained by the unavailability of land per capita, large numbers of cattle, and pressure on grazing land, due to both population and climate. This has led the country to look for innovative solutions for livestock feed, notably based on improved forage and utilization of crop residues, to meet both the increasing demand for livestock products as well as preserve the environment.

- **Project Summary:** The project aimed at developing improved feeds to enhance dairy cattle productivity. A workshop gathering the Institute for Agronomic Sciences in Rwanda (ISAR), stakeholders, researchers and MINAGRI staff was organized to define the strategic guidelines for research on cattle feeding based on locally available feed resources, and improved forage production technologies. The project was carried out over three different phases. The first phase aimed at assessing commercial and smallholder farmers’ current feeding practices and to identify improvements in feeding management and forage conservation techniques. Improved forages were also tested. The second phase of the project mainly focused on the development of an integrated watershed management system to evaluate different livestock management technologies. During the third phase, on-farm studies involving farmers were conducted.

As a result, improved forage cultivation and conservation technologies were disseminated to smallholder and commercial dairy farmers. Farmers’ capacity to apply the introduced technologies was enhanced through a series of training workshops and practical on-farm training sessions. Later, the project integrated its activities into the Government’s “One cow to every poor Family” programme. A study funded by CAPMER (Centre for the Promotion of Small and Medium Enterprises) was also conducted to develop a forage irrigation system to increase forage production on medium-scale farms. This system will allow the farmer to produce improved forage all year round.

The project is part of a global political effort to boost dairy sub-sector (Strategic Plan for Agricultural Transformation), which reinforces the project’s efficiency. The project received funding from the African Development Bank, IFAD and the World Bank.

- **Impacts:** An improved forage bank was developed, quality forage production techniques were adopted by at least 5,000 dairy farms, and imports of protein-rich concentrates were reduced by 30% within two years.

- **Factors of success:**

The government’s commitment, vision and readiness to implement holistic policies, including a number of focused agricultural development initiatives, including strategic plan for agricultural transformation, have been key to project success.

- **Agricultural producer organizations/villagers involvement:** The project was conducted in a participatory way. Farmers were involved in initial workshop, during which the project’s main guidelines were defined. They were then involved in all phases of the project after on-station research phase was carried out.

- **Training:** Farmers received training in feed conservation and utilization.
- **Date of creation:** 2004
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