

# **Establishing a System of Integrated Resource Utilisation (ESIRU)**

**Rwanda**

**AF 1343 / RWA 1024-04**

## **Mid Term Evaluation**

**Final Report**

**Vincent Ngarambe**

**Birgit Kundermann**

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**on behalf of**

**German Agro Action**

<b>Allocation amount:</b>	<b>3,826,752 €</b>
<b>Project holder:</b>	<b>German Agro Action</b>
<b>Co-Funding</b>	<b>Royal Netherlands Embassy</b>
<b>Project duration:</b>	<b>10/2004 – 09/2007</b>

# **1. Summary of the main results and conclusions including an assessment of following aspects**

The project “Establishing a System of Integrated Resource Utilisation (ESIRU)” is implemented by German Agro Action (GAA, synonym: “Deutsche Welthungerhilfe”) with co-funding of the Royal Netherlands Embassy in the Southern Province in Rwanda. It is implemented under the framework of the “Programme de Développement Local à Haute Intensité de Main d’œuvre” (PDL-HIMO) of the Ministry of Local Government, Community Development and Social Affairs (MINALOC). The funding of the current project phase amounts to 3,826,752 € for a duration of three years (October 2004 – September 2007).

This evaluation was carried out in July 2006 by two consultants with the objective to compare the project plans with the present situation from the quantitative and qualitative points of view. Based on the results of this comparison, it shall be determined whether the project’s objectives can be reached within the foreseen project duration, and if so, how. In addition, the evaluation shall provide recommendations for a following project phase after September 2007. The evaluation involved field visits of all project sites, as well as discussions with project and GAA staff at all levels and all stakeholders (target groups, representatives of the local governments, the Governor, technicians from various Ministries and donor representatives).

## **1.1 Project holder analysis**

The main work focus of GAA in Rwanda is to promote the development of marshland areas and protect the surrounding hillsides in order to improve agriculture and food security. GAA started to develop marshlands in the Southern Province since 2000 and had already developed a total of 306 ha of marshlands through the former projects. The organisation herewith gained considerable experience and reputation and was able to acquire funds from the Royal Netherlands Embassy at Kigali for the continuation of marshland development. The current project has started in October 2004 with a duration of three years and builds up on the marshlands already developed through the former projects. At the same time, the marshland works were extended to the adjacent hillsides, where they now also include soil and water conservation works in order to protect the marshlands from erosion and secure productive, as well as degraded soils on the hillsides.

The current project is working according to the strategy of PDL-HIMO, which emphasises on public works for (productive) infrastructure. Some aspects, which are of major importance for the appropriate utilisation of the created infrastructure, the intensification of agriculture and the sustainability of the created infrastructures, cannot be considered by the funding framework (PDL-HIMO) of the current project. GAA has recently started an additional complementary project within the framework of the “Millennium Villages” as part of GAA’s sector programme for MDGs, which will address these aspects in one of the developed marshland system.

GAA has a coordination office in Kigali and a project office in the Southern Province, located in the former town of Gitarama, close to the project sites. Personnel, assets and logistics are sufficiently available for the project and financial management is performing well. The monitoring & evaluation system has been thoroughly prepared and developed. It consists of day-to-day monitoring by the field technicians, a monitoring unit for activities at the project office, and impact monitoring through the coordination office. For this purpose, a baseline study in the project area was carried out, and yearly assessments at household level will identify impacts according to defined indicators. The indicators do not yet consider all dimensions of impact.

## **1.2 Analysis of situation and target group**

National development policies such as the 'Poverty Reduction Strategy Paper' and the 'Vision 2020', as well as different sector policies for agriculture, environment, marshlands and roads all emphasize on agricultural intensification as the motor of development, the development of marshlands, and the protection of the environment through reforestation and soil conservation. The country has just concluded a Territorial Reform in March 2006 with local elections. The process of the reform did not allow integrating the local governments in the project implementation as initially foreseen. The newly merged districts have updated their action plans according to the new circumstances, and the technical personnel has recently been deployed. Thus, the conditions for institutional integration of the project now are complete.

The main challenge of poverty reduction is the scarcity of land: the former Gitarama Province shows a population density exceeding 400 people / km<sup>2</sup>. 3.4 % of the population are landless and another 25.3 % have less than 0.2 ha of land for agricultural production. 61.8 % of the population are assumed to be structurally food insecure as a result of limited land availability, as well as land degradation and inappropriate agricultural production methods. The share of landless or very land-scarce households has been steadily increasing as a result of general population growth, with an estimated 3.4 % at province level. The hillside areas are largely suffering from erosion and land degradation, since efficient soil and water conservation methods are hardly utilised. Therefore, yields are steadily declining, and some areas are no more productive at all. 53.7 % of the people live below poverty line with less than 1 US\$ per day, while 34.5 % are rated as extremely poor. Currently, remaining options to increase agricultural production are concentrated in the development of the swamp areas, which cover 12 % of the area in the province. The transport network in the country has deteriorated during the last decades, especially for secondary roads and feeder roads, which only receive sporadic maintenance. Households in average are composed of 5.3 members. 23.3 % of the households are female-headed, and in addition, many households send male members to urban areas for temporary employment. Only 11 % of the households in the project area have a cash income above 18 US\$ per month. The number of livestock had declined considerably during the period of war and genocide, and the amount of farm capital, as well as household assets is extremely little. A raising commitment of women to form associations, especially for the cultivation of marshlands can be observed.

## **1.3 Analysis and assessment of project preparation**

The target groups have been carefully analysed. The project planning is perfectly in line with all national development and sector policies. Its target groups are subdivided into two groups: the beneficiaries of temporary CFW - schemes according to the PDL-HIMO approach for short term employment (~ 15,000 households) and the long term beneficiaries of improved agricultural lands for intensified agricultural production (~ 4,200 households) receiving plots of about 0.1 ha of irrigated or terraced land. A high integration of women as beneficiaries has been realised for all activities. The wage for the cash for work – schemes is of 0.71 €/day for 6 working hours, and attracts many households. The access is open for people living at the project sites and those participating in the national health insurance.

The project was well prepared through a series of technical feasibility studies, a baseline survey, and gender studies, the results of which are summarized in a comprehensive inception report. A planning workshop with the participation of all major stakeholders took place at the beginning of the project. Its report is well explaining the project concept and contains a detailed justification of the planned strategy.

## **1.4 Analysis and assessment of planning /project planning matrix**

The project's overall objective is that: "*ESIRU has contributed towards sustained reduction of poverty, enhancement of food security and self-reliant continuation of developmental initiatives in the project area.*" The project's purpose is formulated as: "*Improved and sustainable utilisation of infrastructure and installations established in the marshlands and the adjacent hillsides for increasing production of high value food and market crops has been achieved by the groups of cultivators in both areas in an increasingly self-reliant manner.*" Its results refer to three technical components: marshland development, soil and water conservation, and road rehabilitation. Another result is specifying project management and some crosscutting issues. The intervention strategy of the project follows a logic hierarchic structure from the overall objective to the project's purpose and the results. The activities mainly refer to the establishment of the planned infrastructure, while its appropriate utilisation and maintenance is not well specified.

Project impact indicators refer to increased household incomes and assets, the reduction of severe malnutrition (overall goal) and rice production and marketing, as well as the capacities of target groups to operate and maintain infrastructure at the level of the project purpose. The indicators are generally well defined. Some critical aspects of adoption of the new production methods connected to the new infrastructures by the target groups are not mentioned and the utilisation of terraced plots on the hillside is not taken into account. Indicators at results level are performance based, partly focussing on quantitative achievements of the project. Interviews with target groups confirm the underlying impact chains. A high expectation of beneficiaries towards increased production of high value crops on the bench terraces was observed, which might be difficult to realise at short term.

## **1.5 Analysis and assessment of project implementation**

The project is running very well in terms of quantities and quality realised in all technical components, and its achievements in the field during 20 months only are very impressive. The project is well in line with its planning, and even ahead of schedule for some activities. The project strategy to work in marshlands and on hillsides in order to protect the productive area of the water shed at long term is estimated as very advantageous compared to the former works in marshlands only. A total of 184.5 ha of marshlands, 126 ha of bench terraces and 17 km of roads have been realised up to now. The technical quality of implementation is very good for all activities. In total, a number of 807,149 person/days were involved in the establishment of the infrastructure. The selection of participants through the local authorities is working without complaints by the target groups. Local contractors perform small infrastructure works while engineering companies ensure the technical supervision of the works. The project provided seeds and fertilisers for rice production, lime and manure for the bench terraces, as well as technical training for beneficiaries.

The rice production in the marshlands is generally very promising. Most of the marshland plots are well managed. The bench terraces are not yet as productive as foreseen since an appropriate utilisation strategy, as well as an organisational structure for their utilisation has not been elaborated yet. Cultivators are lacking equipment and infrastructure for rice harvesting and marketing.

Including retention dykes for improved water availability and management in the project planning will complete the marshland production system and resolve current problems concerning the availability of irrigation water after two rainy seasons with sub-average rainfalls. The length of road stretches to be rehabilitated was reduced in favour of the construction of two retention dykes. Two of the three planned road stretches have almost been completed in good quality.

The target groups are not fully integrated into the planning of activities at the working sites and the associations managing the marshlands are not yet functioning in a sustainable way. A strategy for institutional integration of the project into local governments has been elaborated. Its planning is quite ambitious. The remaining project duration will not allow a full integration. This might challenge the sustainability of the achievements.

## **1.6 Impact with regard to development**

Up to now the project's impacts, including also impacts of predecessor projects, are already very impressive. The cost efficiency of the project activities are very convincing for marshlands, where the investment will pay back within five years, including the costs of retention dykes. For bench terraces, the investment will pay back after more than 10 – 15 years, but will definitely secure yields for the future without further investment. The cost-efficiency of the project is quite positive with 66 % of the total budget being directly attributable to activities. Two thirds of this amount is used as wage for CFW. The CFW-works' efficiency is not fully satisfactory, since high labour costs are encountered for some activities.

The labour schemes, as well as rice production have produced considerable economic impacts in the project area. Households report to cover running costs for the health insurance, schooling, improved food, clothing and shoes. In addition, considerable investments in houses, household assets, bicycles, small livestock, and savings at the local banks could be made. There are many indications that the rural economy in the area has been largely enhanced: Increasing numbers of shops and turnover, availability of industrial goods in remote areas, and secondary income generation connected to the project activities. The labour-intensive rice production initiated a high rate of secondary employment. Work-migration into the project area is observed and partly assumed to remain after the end of the project. All rice producing households report consuming a considerable amount of rice in the household (50 – 140 kg/year). The quality of nutrition is assumed to have improved.

Regarding the high number of impressive positive impacts already visible now, the project is expected to reduce poverty in a significant and sustainable way at the local level. Since benefits of the project are mainly labour-based, poor households can profit to a high degree, provided that they have sufficient labour force. Many poor households were also able / will secure land plots on the long term after the cadastre registration will be completed, and even more, if the current associations will be converted into cooperatives in the future. Marginalised groups without labour force (female-headed households, elderly, and sick people...) do not profit to the same degree from the project.

The project introduced new agricultural production systems in terms of irrigated marshland production, rice production, as well as bench terracing, which involves substantial changes in the livestock husbandry system (stabling without grazing, fodder production on the slopes of the terraces, and manure production in the stables). These new production systems change the traditional farming and working system. A certain impact of the project on the reconciliation through the cooperation in the working groups is also probable although not actively initiated by the project. In general the project meets a high legitimacy and acceptance by the target group because of its very positive results. Therefore, no major obstacle in order to ensure the continuance of the system is assumed with regard to socio-cultural aspects.

Women participate and benefit from the project to a high degree: 62 % of female members in the working groups, 52 % of female marshland plot users, and 56 % of female training participants. The share of female bank account holders has also increased. There are some indications that the estimate of women within the households is raising, because women contribute to the household income to a high extent. Benefits of the project are mostly labour based, and female-headed households might not be able to invest a high quantity of labour,

and thus, benefit less from the project or spent an important share of the income to hire additional labour. It is currently not known to which extent work migration has an impact on the situation of women.

The project's impacts on the environment are also very positive. According to the national "Schéma Directeur d'aménagement des marais", the marshlands do not bear any environmental risks for intensive agricultural utilisation since they are located in the central plateau, and their original ecologic characteristics had already disappeared through excessive drainage a long time ago. Since the method of marshland development avoids high drainage, but aims at retaining water in the marshlands, the hydrological characteristics have even been improved through the project because the ground water table will increase. In addition the retention dykes will increase the hydrological balance of the area. As to soil conservation, bench terraces will especially stop the vertical erosion. Sedimentation towards the marshlands herewith will be largely reduced. Increasing soil humidity and evapotranspiration might, if applied in the whole catchment's basin, even contribute to restore a favourable microclimate.

The sustainability of the project is not yet ensured at the current stage although its results are very positive, mainly for the following reasons: (1) organisational sustainability of user associations is not yet ensured, (2) institutional integration of the project into the system of local government is not yet put in place, (3) the utilisation of the bench terraces is not yet clarified, and (4) the maintenance of roads and of irrigation and drainage infrastructure is not yet ensured. The sustainability gap is mainly attributable to the constraints and practice of the PDL-HIMO approach, which concentrates on the creation of infrastructure in terms of hardware, but does not sufficiently consider its future utilisation.

## **1.7 Project management**

The communication and cooperation between the different management units at GAA level is performing very well with regular visits of the Regional Coordinator at the project site, as well as of the Project Manager and other representatives from the GAA Office in Bonn. Useful and critical recommendations are provided by all parties involved during the field visits, as well as through permanent communication. The competence of the project in marshland and natural resource management is highly estimated and utilised at the regional level. The Royal Netherlands Embassy as co-funding agency is closely supervising the project's implementation. The relation between GAA and the Embassy is very cooperative and fruitful. The mayors of Ruhango and Muhanga Districts, as well as the Governor of the Southern Province are acting in favour of the project for any purpose of their concern. Relations with the new technical departments of the local governments have not yet been established apart from some informal contacts. An impressive number of project visits have taken place by representatives of German Agro Action, as well as by representatives of the Rwandan Government.

The monitoring of the project is performing very well, with monthly meetings each being documented by a detailed report. Yearly monitoring and evaluation workshops are carried out to assess the achievements and plan for the following year. All deviations from the overall project planning are well explained and a detailed assessment of the status of indicators is also included. Thus, project cycle management and quality management are highly emphasised. Reports to the Royal Netherlands Embassy are established quarterly and are always available shortly after completing the reporting period.

In total, 57 % of the RNE budget has been spent after 21 months of a total of 36 months of implementation period. Thus expenses are in line with the schedule. The cost-control of the activities and of the cost categories spent at the different working sites is difficult.

## **1.8 Recommendations**

Recommendations are divided into those for the completion of ESIRU I, and those for the planning of the following phase (ESIRU II). They mainly include technical recommendations for soil conservation measures and for the improved utilisation of the productive infrastructure, agricultural extension services, and marketing support. The development of a training strategy and the improvement of organisational sustainability of the user associations are also part of the recommendations. Finally, a gradual integration of the project into the local governments is recommended, which will be completed under ESIRU II. A stronger integration of the private sector is also recommended (local companies for small infrastructures and engineering companies for technical supervision), so that the project can gradually phase out from the implementation. An assessment of the labour system with regard to work burden of new activities, work migration, and employment creation are recommended. The integration of women and youth shall still be strengthened. Recommendations concerning the personnel of the project, its cost control system, planning and monitoring, and the improvement of the understanding of PDL-HIMO have finally been included.

For the new phase, despite the current constraints of PDL-HIMO, a more holistic approach considering the watershed area should be followed. This would also require caring for land use planning. Those (software) aspects, which are difficult to handle in the current project should still be included in the second phase, since they are of utmost importance in order to achieve sustainable benefits. It is recommended to integrate the project into the district development plans and to create a project coordination and steering committee before the start of the project as already foreseen.

A programme approach should be envisaged by GAA, if possible including different funding sources to complement the activities, which cannot all be handled by one specific source (e.g. PDL-HIMO). The project's duration should be extended to a maximum, since major changes of the farming system occur, and management capacities need to be strengthened and gradually developed.

GAA should continue to support marshland development projects in Rwanda and consider the existing demands for support. The requirement to develop marshland is also valid for other countries in the Great Lakes Region. The role of the project as consultancy provider should be developed into a "competence centre" for this priority area at regional level, since Burundi, Rwanda and Eastern Congo have similar problems and potentials.

## **1.9 General conclusions**

The acquisition of funds for this project (3.4 million € for the current phase and probably even a higher amount for the second phase through Canadian International Development Agency and the Royal Netherlands Embassy) was only possible because GAA had already acquired considerable experience and reputation in the field of marshland development in the country through the predecessor projects. These former projects were mainly carried out and financed by GAA's own funds. The regional programme therefore should have its own funds available to invest in priority areas in order to be in a position to attract donors and being able to demonstrate achievements in the country.