

# Ex post evaluation – Islamic Republic of Mauritania

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**Sector:** Agricultural land resources (Code 31130)  
**Project:** Management of Natural Resources in Guidimaka  
 BMZ No.: 2004 65 294\*  
**Programme executing agency:** Ministère du Développement Rural et de l'Environnement



## Ex post evaluation report: 2014

		Project (Planned)	Project (Actual)
Investment costs (total)	EUR million	4.70	4.39
Own contribution	EUR million	0.70	0.39
Funding	EUR million	4.00	4.00
of which BMZ budget funds	EUR million	4.00	4.00

\*) Random sample 2014

**Description:** The pilot programme was designed and carried out as an open programme in cooperation with GTZ/GIZ's project "Management of natural resources". The measures comprised stone and earth constructions on farmland, plantings (trees, bushes, grass) combined with water harvesting structures in valleys subject to seasonal water flows (wadis) and wadi overpasses. These measures were complemented by mobilisation campaigns for local beneficiaries, who were supported during the planning and elaboration of the investment measures.

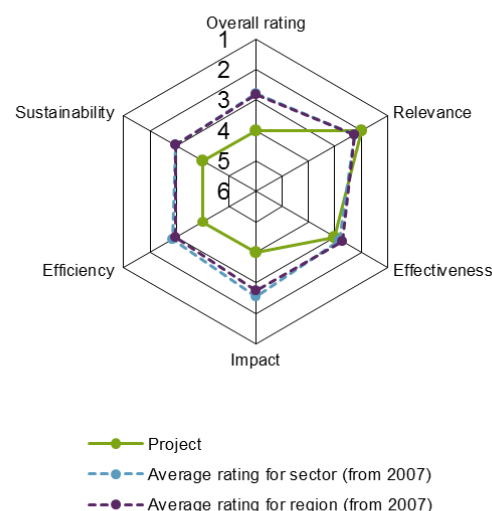
**Objectives:** The overall objectives (intended impacts) were to ensure improved or stabilised living conditions for the population in the intervention areas – with a better food situation, greater natural vegetation coverage as well as easier access to drinking water and firewood as indicators. The programme objective (outcome) was the restoration and sustainable management of Guidimaka's natural production potential in; indicators used included the percentage of functional structures, surface stabilised by the programme, the development of agricultural incomes as well as the number and functionality of user associations.

**Target group:** Natural resources users, i.e. of soil (for farming and rearing livestock), forestry products as well as water – roughly 18,000 people in 18 small catchment areas with roughly 1000 inhabitants each.

## Overall rating: 4

**Rationale:** The sub-programme supported through KfW in Guidimaka fell well short of expectations with regard to target achievement, sustainability and broad developmental impacts (improved living conditions for beneficiaries). In spite of the high relevance of protecting natural resources and the probably satisfactory efficiency (higher crop incomes and biomass for keeping livestock), the pilot programme is no longer rated as satisfactory on the whole, particularly because the land surface actually covered/ treated was far below target.

**Highlights:** All international experts were withdrawn from Guidimaka at the end of 2010 due to the increasingly precarious security situation, which meant the planned follow-up phases could not be carried out.



## Rating according to DAC criteria

### Overall rating: 4

#### General conditions and classification of the project

Guidimaka region is one of the most densely populated and poorest regions of Mauritania. Agriculture and animal husbandry are the most important economic activities, but these are increasingly threatened by the degradation of soil and water resources. To stabilise living conditions, stone and earthworks were established on farmland and protective plantations as part of a pilot project, sometimes combined with hydraulic engineering measures (e.g. rainwater retention structures like dams or similar for irrigation purposes). Furthermore, public mobilisation campaigns were carried out – largely in parallel – and the population was actively involved in planning and implementing erosion protection measures. In addition, beneficiaries received technical advice on cultivation techniques. The landowners were to work voluntarily contribute to the project with their own labour. The pilot project was conducted in cooperation with a programme supported through GIZ ("Management of natural resources"), whereby the TC promoted, amongst others, the establishment of user associations, which were then supported via FC-financed measures. The entire intervention was originally planned for a longer period; however, by the end of 2010, the FC project was not continued beyond the pilot phase assessed here, as the security situation had become too dangerous for international experts.

#### Relevance

The problem analysis remains valid with hindsight: The vegetation cover that has been degraded due to overgrazing, deforestation and repeated droughts does not offer adequate protection against erosion. Effective protection against this and better use of the available water resources could help to improve incomes and ultimately living standards of those depending on agriculture for their livelihoods. In this respect, the intervention logic and the bundle of activities derived therefrom are essentially defined correctly – particularly with view to the alternative income opportunities for large parts of the population, which are limited at best.

With hindsight, the high level of participation by beneficiaries as planned in the project approach proved a constraint. This concept was based on the assumption of the population sharing the aforementioned problem analysis with regard to soil degradation. However, this hypothesis was not tested as part of the preparatory mobilisation activities, as is otherwise common with such project types,. Consequently, the choice was to attempt a "cold start", accepting the inherent risks of such an approach. Ultimately, the beneficiaries' mobilisation and commitment were particularly hampered by parts of the population earning a significant portion of their income through remittances from migrant workers (especially the Soninke people accounting for 60 % of the population, the "original" crop farmers): As a consequence, mobilising participation and contribution through work force was difficult. Poorer farmers, by contrast, could not afford to work voluntarily free of charge. They were and are reliant on additional income.

The programme concept also comprised the establishment of user associations as the basis for implementing FC measures. These user associations were set up in agreement with the prefectures, which subsequently supervised the associations. Thus the project made use of national procedures and institutions. This is consistent with Mauritanian policy of strengthening food security, and also with the priorities of German-Mauritanian development cooperation today.

In summary, the relevance of the project is still good.

#### Relevance rating: 2

#### Effectiveness

The programme objective ("outcome") - the restoration and sustainable management of Guidimaka's natural production potential - is measured against the following indicators, whose achievement is summarised below:

Indicator	Project appraisal target (Planned)	Ex-post evaluation (Actual)*
Number of active user associations	28	Eighteen which cover more than 50 % of the region's grazing area, no information on operations
Utilisation rate of stabilised areas	90+ %	68 %
Ratio of user associations that can cover monitoring costs of checking compliance with land use rules	75 %	67 %
Protected or stabilised areas (ha)	4500ha	2500ha
Ratio of constructions that fulfil their function	85 %	87 %

\* Data from 2011. No current data could be collected due to the security situation;

With particular regard to the area to be stabilised (the core component of the FC contribution), achievements are way below target, but less so concerning the degree of utilisation of such areas. In this context, significant constraints were presented by the FC commitment's premature abandonment for security reasons (see above) as well as the beneficiary population's low capacities to work for free in the dry season. Still, beneficiaries put in 102,000 working days, and in good locations land use productivity rose by 128 % with sorghum. It is difficult to determine ex-post whether the surface indicator was possibly too ambitious. Other requirements were met to an adequate extent overall. However, no detailed information exists on adherence to the agreed land use rules (especially protecting the vegetation against grazing or browsing, maintenance of protective measures such as stone walls, etc.), a core element of the project. Control mechanisms in this respect were and are the responsibility of the user associations, who also bear the costs and are supposed to collect any fines. However, information on the actual functioning of those mechanisms is sparse and contradictory at least in part.

Overall, effectiveness is still rated as still satisfactory.

**Effectiveness rating: 3**

### Efficiency

Design and consulting costs in the start-up phase were very high (73 % of the FC funds). This was primarily due to difficulties in mobilising the target groups without a lengthy "lead time" (see "Relevance" above), which required a much higher degree of supervision particularly in the early stages and during the pilot phase. Moreover, the abandonment of FC activities as outlined above meant the planned "decreasing" intensity of external consulting and planning work – and spreading this over a wider area – did not materialise. The costs per hectare are roughly EUR 578 (excluding consulting costs), whereby 27 % of the costs were covered by the beneficiaries' own contribution. Considering only direct consulting costs (i.e. excluding GIZ support) the total costs per hectare amount to EUR 1,754, which means the production efficiency is no longer satisfactory.

Assuming constant variable production costs (more specific information is not available here), the additional revenues (+128%) estimated with sorghum as the main crop could result in additional revenue of EUR 263-456 per hectare and year depending on the project. This essentially indicates acceptable economic efficiency of the investment measures; provided that land areas developed are sufficiently large, structures are maintained in the long term and utilisation level remain adequately high. However, the low area output and the moderate degree of utilisation prevent satisfactory allocation efficiency in this case. It is also unclear whether the structures and installations can be maintained appropriately (cf. "Sustainability" below) and therefore generates additional revenues over a sufficiently long period. Supplementary income possibly derived from improved livestock husbandry, growing vegetables and time saved in collecting drinking water for example could not be estimated for lack of information. Intensifying animal husbandry would be an alternative to rainfed agriculture in Guidimaka. Unfortunately, this cannot be quantified for lack of relevant data. A cost/benefit analysis of a neighbouring Mauritanian region can nevertheless be used to assess allocation efficiency. In that context, an average internal rate of return of 4.9% was calculated for similar measures – albeit assuming a land utilisation rate of 100%. This means similarly positive figures can, in theory, also be expected for Guidimaka. Generally speaking, safeguarding the livelihood basis (esp. soil) in the countryside can essentially be rated as efficient from an allocation perspective - as long as the rural population predominantly lives from subsistence farming and livestock keeping, without alternative sources of income. The importance of money remitted by labour migrants proved a challenge in this case (cf. above).

In view of the aspects referred to above regarding production and allocation efficiency, the sub-rating is "no longer satisfactory".

**Efficiency rating: 4**

### Impact

Data on income effects at household level would have been necessary to assess impact achievement: improved or stabilised living conditions for the population. Ex-ante surveys ("baseline") for this are lacking as much as relevant information ex-post. As an alternative, reference data from other Sahel countries and quality survey results can be used. Experiences of comparable projects elsewhere generally confirm positive effects such as more intensive farming and higher incomes. Higher yields likely made it easier for the target group to buy foods, thereby triggering income effects. It is equally plausible to assume that more fodder was produced on the land managed in Guidimaka (tree and bush vegetation, harvest residues). Greater production of basic foodstuffs, vegetables, milk and meat improves the population's food situation. Nevertheless, actual impacts are scattered and the project was unable to deliver any widespread impact, especially since - owing to the security situation - it could not be continued beyond the pilot phase.

Given the difficulties in confirming improved living standards, the limited project duration, and the restricted larger-scale effects as a result (also caused by the limited surface output) – we rate the overall developmental impact of the FC component of the cooperative programme as no longer satisfactory, despite noteworthy, albeit scattered positive results. The achievement of the indicators can be summarised as follows:

Indicator	Project appraisal target (Planned)	Ex-post evaluation (Actual)
Improved food situation	No "baseline" available	According to survey (2011), improved animal husbandry and higher yields, more wild animals;
Easier access to drinking water and firewood	As above	No information

Development of vegetation index (ICV) in areas where user associations exist for 3+ years	Improvement	Positive development in level of coverage with natural vegetation, but no information on area
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**Impact rating: 4**

### Sustainability

Currently, no estimates or figures are available on the proper maintenance of erosion protection measures; equally, information on the user associations' actual functioning is non-existent – and certainly not on their future prospects. Since beneficiaries' initial mobilisation has already proven difficult, it is plausible to conclude there that similar problems exist with regard to maintaining erosion protection structures, accordingly, sustainability is rated as unsatisfactory. Nonetheless, the Mauritanian land tenure rule prevents a fully unsatisfactory evaluation. This system stipulates that land can only be leased from the state (owner) to individual land users or those organised in associations if such land is visibly worked on and protected. Thus, lease and land use law secures the preservation of protective structures to some extent, at least theoretically.

Generally speaking, land use in its current form is not sustainable in Mauritania for the most part (neither for crop farming nor for keeping livestock). In this context, there are clear indications that Mauritania's agro-ecological potential as regards rainfed agriculture is not yet exhausted, even if precipitation fluctuates significantly. Yet extensive improvements are not evident for the project region of Guidimaka. The commitment was ultimately terminated too early to bring about any lasting changes in behaviour or management methods.

**Sustainability rating: 4**

### Notes on the methods used to evaluate project success (project rating)

Projects (and programmes) are evaluated on a six-point scale, the criteria being **relevance, effectiveness, efficiency** and **overarching developmental impact**. The ratings are also used to arrive at a **final assessment** of a project's overall developmental efficacy. The scale is as follows:

<b>Level 1</b>	Very good result that clearly exceeds expectations
<b>Level 2</b>	Good result, fully in line with expectations and without any significant shortcomings
<b>Level 3</b>	Satisfactory result – project falls short of expectations but the positive results dominate
<b>Level 4</b>	Unsatisfactory result – significantly below expectations, with negative results dominating despite discernible positive results
<b>Level 5</b>	Clearly inadequate result – despite some positive partial results, the negative results clearly dominate
<b>Level 6</b>	The project has no impact or the situation has actually deteriorated

Ratings level 1-3 denote a positive assessment or successful project while ratings level 4-6 denote a negative assessment.

### Sustainability is evaluated according to the following four-point scale:

Sustainability level 1 (very good sustainability): The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability): The developmental efficacy of the project (positive to date) is very likely to decline only minimally but remain positive overall. (This is what can normally be expected).

Sustainability level 3 (satisfactory sustainability): The developmental efficacy of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive developmental efficacy.

Sustainability level 4 (inadequate sustainability): The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and is very unlikely to improve. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The **overall rating** on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. Ratings 1-3 of the overall rating denote a "successful" project while ratings 4-6 denote an "unsuccessful" project. It should be noted that a project can generally be considered developmentally "successful" only if the achievement of the project objective ("effectiveness"), the impact on the overall objective ("overarching developmental impact") and the sustainability are rated at least "satisfactory" (rating 3).