

Ex Post-Evaluation Brief

Moldova: Construction of Agricultural Equipment Service Centres



Programme/Client	Establishment of Agricultural Equipment Service Centres – BMZ No. 1999 65 625*	
Programme executing agency	Leading German producer of sugar	
Year of sample/ex post evaluation report: 2012/2012		
	Appraisal (planned)	Ex post-evaluation (actual)
Investment costs (total)	EUR 6.4 million	EUR 4.5 million
Counterpart contribution (company)	EUR 1.3 million	EUR 2.5 million
Funding, of which budget funds (BMZ)	EUR 5.1 million EUR 5.1 million	EUR 2 million EUR 2 million

* random sample

Project description: The project was conceived as a public-private partnership with a leading German producer of sugar. It ultimately comprised the establishment of one agricultural engineering service centre (up to five facilities had been planned originally) and equipping it with agricultural machinery and the necessary infrastructure. The centres were supposed to offer agricultural equipment on hire as well as other services related to sugar beet cultivation to growers supplying sugar mills to the German producer of sugar in Moldova.

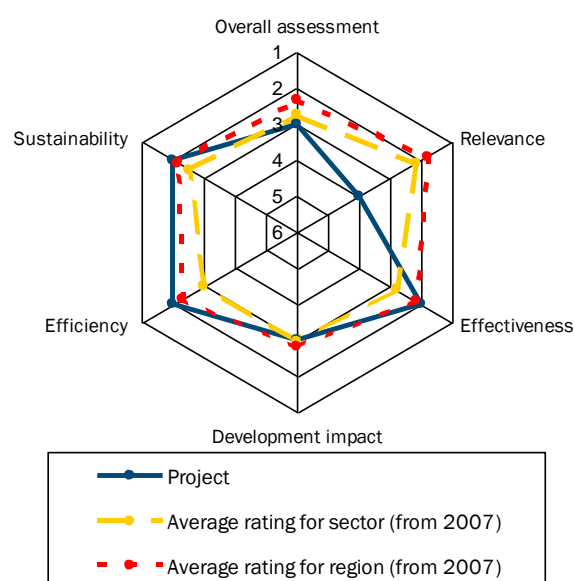
Objective: The project sought to safeguard the raw material supply base for the sugar factories run by the project agency, thus stabilising sugar production in Moldova (project objective). This was to help stabilise farming in the project region over the long term (the overall objective) by increasing harvests, productivity, and business revenues. These objectives were modified in the course of this evaluation – with increased and more efficient sugar production as outcome and a macro-economically beneficial stabilisation of Moldova's sugar sector as impact. **Target group:** The target group comprised farmers engaged in sugar beet production in the areas surrounding the sugar factories (Moldovan entity of the German producer). At the time of project appraisal, each factory was supplied by roughly 50 larger and some 700 smaller-scale farms.

Overall rating: 3

The project secured the raw material supply to the sugar factories, and this has made a significant contribution to preserving the sugar sector in Moldova. However, it appears likely that FC support was not an essential contributing factor to this outcome.

Of Note: The approach of promoting agricultural production by facilitating a private investor's entry into subsequent processing has proven its worth in this instance. However, it is fair to assume that – being an efficient, commercially motivated operator – the project agency would also have made the investment required out of its own financial resources.

Rating by DAC criteria



EVALUATION SUMMARY

Overall rating: The project has been awarded good ratings for effectiveness, efficiency and sustainability. This is due not least to the project agency, the leading German producer of sugar, a commercially motivated company which takes a long-term view. However, FC participation did not in itself have any incentivising effect, since the German corporation had already completed its investment in Moldovan sugar factories by the time of initial project planning. Greater relevance could perhaps have been achieved if the project had been designed more broadly - including also measures that were not in the project agency's direct interest (e.g. extension services for the cultivation of other crops as part of the crop rotation cycle). Had FC support explicitly addressed such incentives, a better rating could have been awarded. **Rating: 3**

Relevance: Until 1991, the then Soviet Republic of Moldova served as a supplier of food and other agricultural products to Soviet industrial centres. In the decade following the Soviet Union's collapse, Moldovan agriculture experienced a significant decline in the production of capital-intensive crops and their processing. In the case of sugar, the country's production decreased from 250,000 t.p.a. in Soviet times to less than 125,000 t.p.a. This was due to fragmented growing areas, outdated agricultural equipment and technology, the widespread lack of expertise in the newly established small farming units, which led to a shift towards growing less demanding crops. Maintaining sugar production in the country with the help of a private project agency seems a sensible approach, also in retrospect. The aim was to avoid the alternative scenario – a general collapse in production as experienced by the Moldovan livestock sector, with its associated impact on GDP, exports, and employment, including the effect on value added downstream. The involvement of the German sugar producer in Moldova provided an opportunity to stabilise the sugar sector. Sugar beet production in Moldova could be increased by virtue of providing targeted support to growers in the form of farming equipment and technology as well as extension services – partly financed by FC funds. Thus, the sugar factories' raw material supply base could be maintained. Even today, total sugar production (on average approx. 115,000 t.p.a) is still well short of Soviet era levels. However, a competitive sugar sector has developed with good prospects for the future, both in terms of sugar production and beet growing. From today's perspective, the approach of using sugar beet production to stabilise the farming sector as a whole seems to be logical and opportune in principle. On the one hand, there was a reliable buyer available for sugar beet once the German sugar corporation had entered the market. On the other hand, habitually cash-starved farmers benefited from the traditional model of pre-financing beet cultivation. Hence from the growers' perspective, this approach - targeted support for sugar beet cultivation - reduced risk levels and improved their liquidity. However, it cannot be ruled out that focusing on – comparatively capital-intensive and sophisticated sugar beet production accelerated the decline of low-technology-based small-scale farming (see below). When assessing this project, attention needs to be drawn towards two specific points as sugar beet growing is comparatively demanding and capital-

intensive. Essentially, its suitability as a crop for small-scale farming is limited at best. Growing sugar beet profitably and achieving adequate, high-quality yields requires modern farming technology, a targeted crop protection regime (with pesticides etc.) and sufficient expertise. Against this background, the envisaged stabilisation of sugar production went hand-in-hand with a fundamental structural change for the growers. At project appraisal, several thousand growers were growing sugar beet for the factories of the German producer; most of those were small farms (up to 1.5 ha), largely operating manually. By contrast, sugar beet cultivation in the project area is now limited to about 120 larger, mechanised growers. One reason for this trend is many smallholders' limited capacity to cope with losses suffered in drought years, which caused many farmers to give up. In summary, stabilising the farming industry - as targeted at project appraisal (and since achieved) - is not synonymous with maintaining the fragmented structure that predominated previously.

At the time of project appraisal, the German producer had already been involved in the sugar factories in Moldova for two years. Hence the FC contribution cannot be credited with providing an entry incentive for the German corporation to the Moldovan market. In any case, the German corporation was forced to address the challenge of raw material supply itself, due to investments already made in those factories. The project, which was partially financed by FC funds, largely achieved the objectives set; but it seems that the German corporation had the necessary financial resources to finance the service centre independently. Hence there is a need to differentiate between the relevance of the project and the relevance of the FC contribution. Sub-Rating: 4

Effectiveness: Project results of the demonstrate the adopted approach's suitability – providing agricultural services through a private project executing agency - for encouraging growers to modernise, as well as for improving their efficiency and hence their economic stability. In this context, one key factor was the in-depth extension service provided, of which all contract growers to the German producer benefited. Original outcome indicators were only partially achieved, to which the following factors have to be considered:

1. Campaign duration (the sugar factories' operating days per year during the harvest period): the target of 80 days was not achieved, especially during drought years. However, the target set is very ambitious. Rather, the increase of the German corporation's annual sugar production by around 25% during the period under consideration as well as its operational profitability indicate that – in essence – the intended outcome (an adequate level of capacity utilisation at the sugar factories) has been achieved.
2. Area under cultivation: actual figures fell significantly short of the 40,000 ha target (area covered by the producer's contracts). The initial value of 21,000 ha (at project appraisal) has dropped to 14,500 ha (2012 estimate). However, using the area under cultivation as an objective indicator fails to take into account neither the harvested

sugar beets' quality (sugar content) nor productivity measured by yield per hectare. This is highlighted by the declining area under cultivation on the one hand, in combined with increased sugar production on the other (n.b: only domestically grown sugar beet is processed).

In assessing the project's outcome, the project objective indicators selected at project appraisal have to be viewed critically (sugar factory campaign duration, area under cultivation, and productivity levels expressed in yield per ha). Ultimately, the production of an adequate sugar volume from locally grown beet (a prerequisite for the continuing viability of the sugar industry as buyer) and improved productivity are key elements of the project's sustainable success- -Productivity needs to be considered in terms of comparison with the national average. For the purposes of this evaluation, the following indicators were defined as suitable alternatives: utilisation degree of factories (showing a production increase of 25% since the beginning of the project); the level of cost recovery achieved by the service centres (achieved); and the yields achieved on the areas under cultivation by the contract growers of the German producer of sugar (which are around 15% above the national average). The rating for effectiveness has been awarded on this basis. Sub-Rating: 2

Efficiency: Full cost recovery has been achieved in running the service centre. This indicates several points: the service centre has been well equipped in terms of a) range and type of machinery, b) efficient allocation among farmers and c) appropriate maintenance of the equipment procured. The involvement of the German corporation as experienced operator and with close knowledge of the market has paid off. Other options for achieving the project objectives more efficiently are not evident (production efficiency).

Viewed in absolute terms, the funds deployed for setting up the service centre (EUR 4.5 million) appear entirely appropriate, measured against the total sugar production volume at world market prices (USD 55 million in 2011) and the proportion of GDP originating from sugar production (0.7%). However, if examined in terms of the additional impact achieved by the FC contribution, the project's efficiency can be viewed quite critically (see respective comments under "relevance"). Sub-Rating: 2

Overarching developmental impact: Attainment of the overall developmental objective is closely linked with the findings highlighted earlier on under "relevance". The original overall objective was defined as "stabilising agricultural enterprises by increasing harvests, productivity and revenue in the project region". This can be considered to have been achieved at industry level, but not at the level of individual farms. An extremely fragmented agricultural structure mostly composed of small-scale farms arose as a consequence of land reform and transformation into a larger-scale, increasingly mechanised form of agriculture seems almost inevitable in retrospect and follows the wider pattern of modern agricultural development in industrialised countries. In the end the very smallest farms - not least because of the recurring years of drought - proved too fragile in economic terms. In recognition of those facts, the overall objective was modified *ex-post*. the intervention was

not suited (and probably neither able nor intended) to stabilise “farming” at individual enterprise level. For the purpose of this evaluation, the overall objective is defined as “to contribute to the stabilisation of the Moldovan sugar sector and to ensuing respective benefits to GDP and exports”. Through increased domestic sugar beet production, this positive contribution has been achieved.

The situation that would most likely have occurred in the absence of the service centres can be used as reference in assessing the developmental impact. It is plausible to assume that if the centres had not been established the growers would have developed at a significantly slower rate without the service centres: over the medium term, it may not have become impossible to operate the sugar factories profitably, due to inadequate raw material supplies. Ultimately there would have been a serious risk of the sugar factories closing down completely. This would have led to another major slump in domestic sugar production and consequently to substantial job losses in the factories as well as possibly at growers' level. Adverse effects would have arisen at macro-economic level, primarily in the form of a further decline in exports and in domestic production.

We consider the modified overall objective (contributing to stabilising the Moldovan sugar sector and to beneficial effects on GDP and exports) to have been achieved. It should be noted here that (1) whilst GDP has increased significantly, the sugar sector's contribution to the GDP now stands at 0.7%, compared to 1.7% at the start of the project; (2) no sugar exports have taken place since 2009 - the total volume produced has been used to serve domestic demand. The growers' competitiveness was improved, with a stabilising effect on the production of other crops grown in rotation. Moreover, this model - entry by a private investor into the downstream processing, providing support for supplying agricultural enterprises - could prove a model for other areas of Moldovan agriculture.

There is no reliable basis on which to gauge the project's employment impact, as the direct effects of service centre operations (up to 30 employees) and of safeguarding employment in the sugar factories (approx. 250 employees) on the one hand must be set against the effects of structural change on agricultural businesses. Those effects are difficult to quantify, but may well have caused a marked decrease in agricultural employment as a consequence of mechanisation.

The project's consistent focus on sugar production is open to criticism in one more respect. For the purpose of stabilising the large numbers of small-scale growers, it would have been appropriate to promote the cultivation of other, less demanding and capital-intensive crops. It cannot be ruled out that the project accelerated structural changes in the growing sector, which may have reduced the time available for the affected population to adjust. Sub-Rating: 3

Sustainability: By progressively supporting sugar beet production over the last ten years, the service centre has largely fulfilled its purpose. The agricultural machinery is being

gradually sold off to growers whose economic capabilities have increased. By now, equipment is only hired out to a limited extent, and the remaining machinery is primarily used by the German corporation's Agro division in Moldova for its own operations. Many growers are no longer dependent on the services provided by the service centre, as they have since been able to invest in their own agricultural equipment.

The sustainability of this project is demonstrated by the higher production levels attained by the German producer's plants in Moldova, which continues to be achieved even after the project has been closed down, with the service centre partially winding up. The growers' harvest volumes are still sufficient to ensure the sugar factories adequate capacity utilisation at a profitable level.

Hence the sustainability of these measures is evident. However, this is based on the precondition that climatic conditions for growing sugar beet (esp. the frequency of droughts) do not deteriorate further. Sub-Rating: 2

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:

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

Ratings 1-3 denote a positive or successful assessment while ratings 4-6 denote a not positive or unsuccessful 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).