

Ex post evaluation – Senegal

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Sector: 16040 Low-cost housing
Project: Pikine Residential area rehabilitation 1–3
 (BMZ No.: 1998 66 773, 2003 65 445*, 2004 65 526)
Implementing agency: Fondation Droit à la Ville (FDV)



Ex post evaluation report: 2018

| | | Project Phase I–III (Planned) | Project Phase I–III (Actual) |
|-----------------------------|-------------|----------------------------------|---------------------------------|
| Investment costs (total) | EUR million | 10.15 | 10.15 |
| Counterpart contribution | EUR million | 1.00 | 1.00 |
| Funding | EUR million | 9.15 | 9.15 |
| of which budget funds (BMZ) | EUR million | 9.15 | 9.15 |

*) Random sample 2016

Summary: Within the scope of the three phases (PIS 1–3) of the FC project, the FC financed the construction of roads and drinking water supply in PIS 1, the largest unofficial settlement area in Senegal in an over 700 ha project area located south of Pikine Irrégulier Sud (PIS) near Dakar, to improve the living conditions of the population ("Pikine residential area rehabilitation"). Educational facilities like primary schools, advanced training, sports and cultural centres, and relevant educational and training measures were financed during PIS 2 ("Primary education Pikine"). This improved the educational opportunities for children and young people in the project area and contributed to improving social integration for young people threatened by unemployment or a lack of prospects. Finally, PIS 3 continued an approach followed during PIS 1 for legalising real estate in one area, developing inundation areas in the region and financing tertiary roads. Together with the "Pikine residential area rehabilitation" TC project, the FC project formed a cooperative programme for developing the FDV and creating an appropriate legal framework.

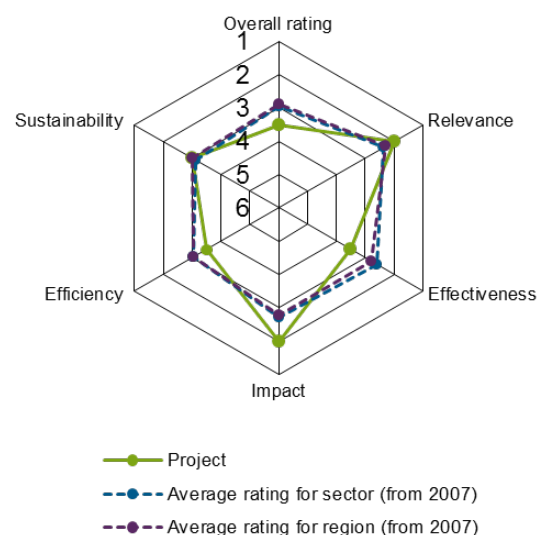
Objectives: The development objective of the FC project was to contribute towards improving the living conditions of the target group. The project objective was sustainable use by the target group of the basic municipal infrastructure created in close co-operation with the population.

Target group: The target group was around 70,000 people in the PIS project area, the majority of whom were poor. A substantial portion of the infrastructure measures was built in the Keur Massar resettlement area designed for 15,000 people. 481 households were resettled there. The residents of Keur Massar are thus also part of the target group.

Overall rating: 4 (all phases)

Rationale: The project was relevant, but the work was performed with significant delays and the objectives were only achieved in part. The roads are only usable to a limited extent due to external factors (heavy rainfall, a rise in the water table after a neighbouring well field was closed). The schools and the advanced training, sports and cultural centres in particular are not used to capacity. However, the project still exhibits positive impacts on improving living conditions.

Highlights: Within the scope of the project, a participatory approach to restructuring land titles was tested during the municipal renewal. This approach was continued nationwide by the FDV without FC support after FC withdrew from the focus area.



Rating according to DAC criteria

Overall rating: 4 (all phases)

The three phases are part of a uniform programme for residential area rehabilitation. They overlapped, and the developmental impacts are difficult to isolate. Consequently, all phases are evaluated together with separate ratings according to the DAC criteria where necessary. The final inspection (October 2013) was carried out jointly for Phases I–III.

Overall context and project description

The impacts of the project were affected very negatively by the effects of climate change. After forty years of relatively dry conditions, Senegal was afflicted by heavy rainfall of an unprecedented intensity in 2005 and 2006. Since then, heavy rain falls much more often than it did in the past. The water table in the project region also rose to a point where it almost reached the surface, after a well field for producing drinking water located at the edge of the project area was closed in 2003. Both effects – the high water table and the heavy rainfall – have damaged infrastructure financed by the project. One road was ripped up again shortly after its completion to lay rain water drainage. This (secondary) drainage system was not financed by the project because a primary rainwater drainage system would have been necessary to absorb the rain water. This did not exist during the project planning phase and was also not planned at the time. After the rainfall in 2005 and 2006, relevant plans for the entire urban area were created and the process of building infrastructure began.

Breakdown of total costs

| EUR million | PIS I (Planned) | PIS I (Actual) | PIS II (Planned) | PIS II (Actual) | PIS III (Planned) | PIS III (Actual) |
|-----------------------------|--------------------|-------------------|---------------------|--------------------|----------------------|---------------------|
| Investment costs | 5.40 | 5.40 | 1.75 | 1.75 | 3.00 | 3.00 |
| Counterpart contribution | - | - | - | - | 1.00* | 1.00* |
| Funding | 5.40 | 5.40 | 1.75 | 1.75 | 2.00 | 2.00 |
| of which budget funds (BMZ) | 5.40 | 5.40 | 1.75 | 1.75 | 2.00 | 2.00 |

* The counterpart contribution amounting to EUR 1 million was provided across all three phases. It was not used to finance investment costs. Instead it was used primarily for compensation.

Relevance

The selected project area, Pikine Irrégulier Sud, was the largest unofficial agglomeration in Senegal and simultaneously one of the most densely populated areas of the country with 220,000 residents. Poor migrants from the interior of the country came here hoping for a better future. According to the patterns and standards of West African spontaneous settlements, public and private infrastructure in the past has largely been built without urban planning and with almost no public supervision. This is what the FC project was geared towards. It was to make a considerable contribution to improving the living conditions of the predominantly poor population in the project area through the provision and sustainable use of basic municipal infrastructure. Improving the sanitary conditions (better drinking water supply, wastewater regulation, removal of ponds that act as breeding grounds for mosquitos and malaria) had the potential to contribute towards improving the population's health situation (especially for women, children and the elderly). The transport connection for the community to the capital of Dakar was intended to facilitate the free movement of people, goods and services for the first time, and thus create access to new employment and income opportunities. The use of primary schools and other educational facilities was intended to improve the population's educational situation and the life opportunities of poor, disadvantaged children and underemployed youth in particular. This results chain also appears plausible from today's perspective. The FC project was thus relevant for the needs of the target group as well as the priorities and policies of

the Senegalese government. It tackled the main problem and the measures planned during the project appraisal had the potential to contribute to achieving the project objective.

The project corresponded to sectoral development policy priority areas of Senegal and the Federal Republic of Germany (promotion of youth employment in urban areas), and supported the implementation of the Senegalese government's Poverty Reduction Strategy Papers (PRSP).

The target group included 70,000 people, the majority of whom were poor, in the project area, which is part of Irrégulier Sud. It also included 481 households that were resettled to Keur Massar. The target group was underprivileged and was properly selected.

The FC project was and remains relevant from today's perspective.

Relevance rating: 2 (all phases)

Effectiveness

The project objective was the sustainable use by the project-area residents of the infrastructure created in close cooperation with the population. The programme included indicators for the following infrastructure measures: road construction, draining a pond, drinking water supply, construction of schools and the building of training facilities (multifunctional centres). In local committees the population was able to participate both in planning the resettlement and in determining compensation payments in a transparent manner. The achievement of the indicators can be summarised as follows:

| Indicator | Ex post evaluation |
|---|---|
| (1) The roads are used, properly maintained and are regularly cleaned (sand). | Partially achieved. The roads are used, but three out of the four are in bad condition and can thus only be used to a limited extent. One road was cut off by a motorway and is thus divided into two cul-de-sac roads. |
| (2) There are only a few regularly flooded areas (natural outflows): these are still uninhabited. | The indicator pertained to "Sam-Sam Pond". There are hardly any areas under water there anymore, and the inundation area no longer contains inhabited houses. However, other parts of the project area have since been subject to flooding. |
| (3) The residents of the project area have access to hygienically safe drinking water and no longer rely on traditional wells for drinking water; the distribution network financed in the project continues to be used and is properly operated. | Fully achieved. The residents of the project area have access to hygienically safe drinking water and no longer rely on traditional (polluted) wells for drinking water; the distribution network financed in the scope of the project continues to be used and is properly operated. |
| (4) 90% of the educational facilities are used, properly operated and maintained. | Partially achieved. Nine of the ten educational facilities (four schools, four multifunctional centres and the municipal training centre) are used. The four schools and one multifunctional centre are at full capacity (50%). Maintenance is adequate. |

(1) Of the four roads built in the project area, only one is in relatively good condition. The three other roads are in bad condition for the above-mentioned reasons (heavy rainfall and rising water table), but also due to insufficient maintenance on large sections, so their use is limited. Road no. 7 has also been divided into two cul-de-sac roads due to the construction of a motorway at the edge of the project area. Even road no. 1, which is the only one in relatively good condition, has collected a large amount of sand.

The sand was blown onto the road by the wind, and residents placed sand on the lower sections of the road to ensure it can still be used by pedestrians, despite the puddles that gather.

(2) At the time of the project appraisal in 1998 only part of the project area – Sam-Sam Pond – was threatened by flooding. The population in this flood area was completely resettled. However, due to the changing hydrological conditions, other parts of the project area have since been threatened by rising ground water and heavy rainfall. Although the indicator was achieved, the problem is not solved.

(3) The drinking water supply in the project area is continuous and of good quality. Around 95% of the population has since been provided with service connections, so the public standpipes that were also put up over the course of the project in addition to the drinking water pipes are hardly used anymore. The low utilisation of the standpipes is deemed positive because the population is now able to access drinking water much more conveniently by using the house connections. The indicator is therefore considered fulfilled.

(4) Four of the five schools that were built or repaired within the scope of the project are being used. The utilisation level of these schools is high, up to overcrowding. The fifth school was changed from a primary school into a secondary school, and is currently not being used after the secondary school moved into a new building. It is currently in bad condition and, according to information from the community, they intend to renovate it with their own funds and reopen it as a primary school. The condition of the infrastructure built in the other four schools is acceptable. However, older parts of one school that were not financed by the project are close to collapsing. Other schools are regularly flooded up to knee height; in one school the flooding is limited to the rainy season in the summer, which mostly coincides with the school holiday. All four multifunctional centres built within the scope of the project, which are primarily used for training purposes and cultural activities, and the community training centre are used. Only one of the centres located in the Keur Massar resettlement area has a high utilisation rate. There, the graduation and placement rate of the previous 25 graduates is 100% even though the certificates from the centres are not yet recognised by the Ministry of Education. Today, the graduates work as seamstresses (17), hairdressers (4) and restaurant employees (4). The success of the centre is attributable to the dynamic director, extensive advertising and the quality of the instructors. In the other centres and in the community training centre, the indicators have barely been fulfilled. The low graduation and placement rates can partially be attributed to the fact that the centres primarily focus on school dropouts and on young people that have never attended school. The centres are not sufficiently equipped with sewing machines or supplies for hairdressers and cook training in most cases, even though sufficient equipment was provided at the beginning of the project. Despite these challenges, at least in Keur Massar it was possible to use the centre to capacity, complete training and place the graduates.

Road construction, which received the majority of the funds, was weighted most heavily during the overall assessment. The drinking water supply received the smallest amount of funding and was weighted less strongly.

Effectiveness rating: 4 (all phases)

Efficiency

The programme was implemented with some delays. The consultant was only able to begin work four years after the project appraisal. From that time onwards, PIS I was implemented within the planned five-year period (2002-2007). This was despite the fact that the project had a newly founded executing agency, that expropriations and compensations were handled with time-consuming participation from residents, and that the construction of both of the last roads was delayed by flooding in 2005 and 2006.

By contrast, the execution of PIS II took five years from the time the consultant began working (2006–2011), which significantly exceeded the planned two years. One reason was the sluggish replenishment of the project account by the Ministry of Finance. Another reason was the intense "follow-up" required from KfW to ensure sustainable use of the training centres. As the operator of the centres, the city was overburdened when it tried to put them into operation, while the operating concept provided by the consultant for the city to be the main actor came up short. One FC-financed expert then helped to clarify the division of labour between the city, the local operating committees and other actors.

PIS III was implemented within four years (2008-12) once the consultant began working, compared to the planned two years. The project start had previously been delayed by four years because the transmission of funds by the Ministry of Finance to the Fondation Droit à la Ville (FDV) had been blocked. A change to the concept (improving the run-off conditions of the pond instead of creating a park) that became necessary due to the rising water table also led to delays. The search for people at the edge of Sam-Sam Pond who needed to be compensated was more difficult than expected because the owners of the abandoned buildings could only be found after lengthy searches, if at all.

The implementation of all three phases was also hindered when the municipal partner changed, usually due to elections, and it became necessary to undertake lengthy contractual adjustments because individual budget headings had been exceeded.

Evaluating the appropriateness of unit costs is difficult due to the very different measures and a lack of comparative costs. The unit costs for road construction, the most cost-intensive measure by far, appear to be appropriate. At 8% the percentage of consulting costs was slightly lower than the 10% estimated during the appraisal. The implementation costs are appropriate. All planned measures could be implemented with the available funds. However, it would have been possible to increase the allocation efficiency by focusing more on the drainage infrastructure to reduce the resulting costs caused by flooding, which influenced the impacts of the measures. The FC funds were not sufficient for this though.

In summary, the efficiency rating is only just satisfactory.

Efficiency rating: 3 (all phases)

Impact

According to the project appraisal, the development objective was to contribute to improving the living conditions of 70,000 people living in Pikine Irrégulier Sud (PIS). As no indicator was defined during the appraisal, the increase in real estate prices in PIS was used as a proxy indicator in retrospect within the scope of the ex post evaluation.

| Indicator | Status PA, Target value PA | Ex post evaluation |
|--|----------------------------|------------------------------|
| (1) Increase in real estate prices in the PIS project area | Not defined | Increase by a factor of 5-10 |

A detailed analysis of real estate price development including a control area was not possible as part of the evaluation. However, a non-representative random sample indicated that the prices have increased by a factor of five to ten since 2001. In some cases, the price increase was significantly higher. One important factor for the price increase is the better accessibility and passability of the district due to widening alleys into roads and due to the construction of a motorway at the edge of the district. Residents of the project area who sold their property after receiving land titles under the project benefited from the higher property prices. It should be noted that the selected proxy indicator can only serve as an indication of improvements to the living conditions, which are influenced by a number of factors that are sometimes difficult to quantify.

The living conditions improved for the majority of the 481 resettled families (219 within the scope of PIS I due to expansion of the roads and 262 under PIS III due to uncovering sinks). The entire infrastructure was newly built in the resettlement area (roads, electricity, water and schools). The resettled people received land on which they built new houses with the compensation that was paid to them. Due to its location and topography, a large section of the resettlement area was not affected by the high ground water level. However, the resettlement area is located next to Dakar's solid waste dump, so the residents located in the section of the resettlement area that borders the solid waste dump directly are often exposed to odours and noise.

The programme had indirect positive impacts. The participatory methods for settlement restructuring and resettlement introduced by the programme are now being successfully applied nationwide. Also, for the first time since the heavy rainfall in 2005 and 2006, drainage measures were implemented as part of PIS

III. This inspired a ten-year plan currently being executed from 2012–2022 for drainage and climate change adjustment.

Impact rating: 2 (all phases)

Sustainability

Both of the local authorities responsible for maintaining the roads and schools do not include sufficient funds in their budgets to maintain the roads, even though the project agreement between the Senegalese state, FC and the state of Pikine requires them to do so. As a result of the third phase of decentralisation in Senegal in 2013, the city of Pikine in its original form was dissolved. According to their own statements, the local authorities that became the legal successors were not aware of these maintenance obligations until the evaluation. Accordingly, the roads built within the scope of the project have not been well maintained.

There is a chance the sustainability of the impacts could be improved to some extent: firstly, extensive drainage measures are currently being carried out in Pikine and a recommissioning of the well field is planned for irrigation. This can prevent further damage to the infrastructure. Secondly, one of the three local authorities affected – Keur Massar – made extensive efforts to better identify taxable operations. This made it possible to increase tax revenue by a factor of three in just a few years. Extensive funds have been earmarked for improving the infrastructure created in this community under the project. However, there is no comparable positive development in PIS.

Real estate prices are not expected to fall. On the contrary, a further increase is likely.

Although German development cooperation withdrew from the priority area of urban development in favour of promoting renewable energy sources around five years ago, the state is using its own funds and EU support to implement further district renewal and resettlement projects nationwide based on the model established through PIS. This shows that, even today, the government takes a high degree of responsibility for the approach which was chosen close to 20 years ago.

Sustainability rating: 3 (all phases)

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

Projects 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:

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

Rating levels 1-3 denote a positive assessment or successful project while rating levels 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. Rating levels 1-3 of the overall rating denote a "successful" project while rating levels 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" (level 3).