



Executive Summary

Project for the Improvement of Access to Drinking Water and Sanitation in the Koulikoro Region (PEPAK)

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This review was conducted within the framework of cooperation between Mali and Belgium. The report was written by independent external experts. The opinions expressed in this document represent the views of the authors and are not necessarily shared by Enabel, Belgian Cooperation, or the authorities of the concerned country.

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1 Evaluation presentation

The 'Project for the Improvement of Access to Water and Sanitation in the Koulikoro Region' (PEPAK) aims to sustainably improve access to drinking water and sanitation for over 140,000 people in the Koulikoro, Dioila, and Nara regions. It contributes to Sustainable Development Goals (SDGs) #3 and #6, focused on reducing poverty and improving public health. The project adopts a holistic approach centred around three key areas:

- The establishment of drinking water and sanitation infrastructure with low operational, maintenance, and repair costs.
- The improvement of working conditions for key stakeholders through the provision of equipment and materials.
- The strengthening of the technical, management, and governance capacities of key stakeholders.

The total budget for PEPAK is EUR 14,000,000.00, fully funded by Belgium

The main users of the evaluation are the Enabel teams in Mali and Brussels, members of the Steering Committee (CoPil) and the Technical Committee (CTS), beneficiaries, civil society organisations, and service providers.

The evaluation covers the implementation period from the end of December 2018 to the second quarter of 2024.

The data collection was conducted in two phases. The first phase, which was preparatory and done remotely, involved the provision of documents and meetings with the PEPAK team in Mali to define the schedule, resources, and sites to be visited. The second phase, from 27 May to 8 June 2024, consisted of field data collection. The centres and individuals interviewed were not randomly selected; their selection was based on their role in the project, the information they hold, their impact, gender, and accessibility. Further details are provided in the inception report attached as an annex.

The data sources included PEPAK programme documents, national and sectoral policies, regional and communal planning documents, meeting minutes, activity reports from partners (ALMADIUS, ALPHALOG), and other relevant documents, as well as semi-structured group and individual interviews, and field observations. In total, 13 group discussions, 7 in-depth individual interviews, and observations were conducted across 9 sites in the Koulikoro, Dioila, Kati, Dombila, and Komi Komi circles.

The evaluation respected the confidentiality of the participants, who consented to the recordings. The data is used solely for the evaluation, and the interviews were conducted in a respectful atmosphere.

Finally, it should be noted that the evaluation team identified two major limitations during this exercise. First, the analysis of project monitoring data was hindered by the lack of data, its quality, and the difficulty in identifying sources, making the compilation process challenging within the time available. Second, the final evaluation took place before the project's completion, which may lead to changes in findings and conclusions by the final closure in December 2024.

2 Findings and conclusions

2.1 Findings by DAC criteria

Relevance	A	The PEPAK actively supports national and regional strategies for access to drinking water, sanitation, and a healthy living environment, in partnership with local authorities. Despite political tensions and reduced international financial support, the project has adapted by rehabilitating infrastructure and reallocating resources. Contractual adjustments were necessary to ensure the continuity of efforts.
Coherence	A	The project aligned with regional and sectoral initiatives in water, sanitation, and hygiene, minimising overlaps through coordination with local authorities and technical services. An initial list of active projects assisted in this alignment, although it was not updated regularly. Enabel also participates in a sectoral working group in Mali, bringing together various partners to coordinate activities and maximise the impact of interventions.
Effectiveness	B	The PEPAK project has improved access to drinking water for 20,540 people in 17 rural and semi-urban centres, achieving 82% of its initial objectives. It has also strengthened community management capacities and built 257 communal latrine cabins in Koulikoro, with a target of 263 by the end of September. A modern Sludge Treatment Station has been established, although challenges remain regarding awareness and the optimal use of the infrastructure. Awareness campaigns have improved hygiene practices, despite some shortcomings in latrine-specific initiatives.
Efficiency	B	The PEPAK management team effectively managed resources, adhering to the planned budget. However, budget allocation issues prevented some villages in N'Djibala from accessing drinking water. Of the 53 contracts, two faced major problems, but the other projects met deadlines and quality standards. Enabel's direct management ensured efficient use of resources, despite criticisms of the lowest-cost approach, which argued that it allows technically less competent companies to secure contracts.
Sustainability	C	Access to drinking water and sanitation has significantly improved thanks to the PEPAK project, but the sector faces several challenges. Management of interfaces between departments hinders the smooth flow of communication and coordinated decision-making. The robustness of the Sludge Treatment Station's equipment is crucial for maintaining its performance, while sludge management presents challenges in terms of quantity and quality, affecting the project's economic viability. The distance between sludge collection and treatment sites represents a major logistical challenge.
Impact	B	The poverty index increased from 54.1% to 68.8% between 2018 and 2023, influenced by external factors such as insecurity and the national economy. Despite methodological challenges, the number of cases of diarrhoea excluding cholera decreased from 45,541 to 42,049 over the same period. The rate of access to drinking water rose from 57% to 78%, although the distribution of standpipes has not always met the specific needs of the villages. Satisfaction with access to drinking water reached 89% in 2023, but this excludes unconnected villages, highlighting the need to improve data collection for a more accurate assessment of the PEPAK's impacts

2.2 Findings by specific evaluation question

Has the intervention been adapted to remain relevant in the face of contextual changes and/or potential needs following the mid-term evaluation?

The PEPAK intervention has been significantly adapted to remain relevant in response to contextual and contractual changes occurring between the first quarter of 2023 and the second quarter of 2024. In response to diplomatic tensions and the cessation of international funding, the project has strengthened its crucial role in providing essential drinking water and sanitation services, thereby filling the gaps left by the Malian state. Following the withdrawal of MINUSMA, PEPAK adjusted its operations to compensate for the reduced sludge collection, including the rehabilitation of desludgable latrines and expanding partnerships with major sludge producers. Additionally, contractual adjustments such as the extension of the project's duration have allowed for the completion of initial objectives despite necessary contract terminations and budget reallocations in Nara. In conclusion, these adaptations have ensured the continuity and relevance of PEPAK amid evolving economic and security challenges.

To what extent has the intervention been aligned with other initiatives in the region and in the water, sanitation, and hygiene (WASH) sector?

Through close coordination with local authorities and state technical services, the PEPAK project selected its intervention sites based on priorities agreed upon with these local stakeholders. Additionally, the project avoided overlaps with other technical and financial partners by establishing a list of ongoing interventions in the region from the outset. Enabel also actively participates in a sectoral working group dedicated to water and sanitation in Mali, bringing together various donors to coordinate their activities effectively and minimise duplications. These efforts have enabled PEPAK to contribute coherently to national and regional goals for access to safe drinking water and sanitation.

Has the project contributed to, or will it contribute to, sustainably improving access to safe drinking water for the targeted populations?

The project has significantly improved sustainable access to potable water for the targeted populations through several concrete achievements. To date, 14 potable water supply systems have been commissioned in semi-urban and rural centres, covering 14 municipalities in the Nara, Koulikoro, and Dioila regions. Although some delays have been encountered, particularly in Komi Komi, where work is still ongoing, the project aims to fully meet its objectives by the end of the year. Additionally, further initiatives have been undertaken, such as the installation of 2 additional potable water supply/basic water supply systems in N'Djibala and 4 boreholes equipped with handpumps in various municipalities. These achievements have significantly increased the capacity for supplying potable water, thereby improving the daily lives of beneficiaries in terms of proximity, availability, and water quality.

Has the project contributed to or will it contribute to improving access to sanitation for the targeted populations in a sustainable manner? If so, how? What are the facilitating or constraining factors?

The project has significantly contributed to the sustainable improvement of sanitation access for the targeted populations through several initiatives. Firstly, the rehabilitation of 234 traditional household latrines to make them emptyable has improved the management of domestic liquid waste, although the initial target of 800 latrines remains partially unmet. Additionally, although the Small-Diameter Sewer Network (REFAID) has not yet been implemented in Koulikoro, the prospect of connecting 179 households to this network offers a modern and replicable solution for wastewater disposal.

However, challenges persist. Delays due to contract terminations and reliance on external sources for sludge compromise the full effectiveness of the project. Additionally, the lack of verifiable data on key indicators, such as the percentage of households using traditional latrines or the satisfaction rates of training, limits an accurate assessment of the progress made. Despite these obstacles, efforts to strengthen infrastructure, provide training, and promote good sanitation practices are significant facilitating factors for ensuring ongoing and sustainable improvements in sanitation access in the region.

To what extent has the intervention produced results in an economical and timely manner?

The intervention has generally maintained economically efficient management and adhered to the prescribed deadlines, despite some notable challenges. Regarding economic efficiency, all activities were completed within the initial budget, although adjustments were needed to optimise resource allocation, particularly in rural centres like N'Djibala. In terms of adhering to deadlines and quality, of the 53 contracts awarded, only two issues arose, including the termination of a contract with ACF due to significant delays. However, apart from these incidents, deliverables were met on time and in accordance with technical specifications. The execution modalities under Enabel's direct management allowed for rigorous control over the use of funds, promoting transparent management.

To what extent are changes in impact identifiable and measurable, and attributable to the intervention?

To assess the extent to which changes are identifiable and attributable to the PEPAK intervention, several key indicators have been monitored. Although notable improvements have been observed, such as the reduction in cases of non-cholera diarrhoea and the increase in access to drinking water in targeted centres, challenges remain. The regional poverty index has risen, complicating the direct attribution of changes to the PEPAK intervention. Furthermore, the uneven distribution of water points in rural centres raises concerns about equity in access to water. Despite these challenges, positive beneficiary perceptions regarding health and improved access to drinking water suggest a significant contribution from the project, although adjustments are needed to accurately measure and attribute impacts to the PEPAK intervention.

In their view, what are the impacts of the intervention on the beneficiaries?

Beneficiaries perceive major positive effects of the intervention, including the availability of high-quality drinking water, a reduction in waterborne diseases, and an improvement in the social status and living conditions of women. In the field of sanitation, better management of liquid waste has been observed, with a reduction in wastewater in the streets and increased public interest in sanitation.

What are the unintended effects of the project (positive and/or negative) that can be observed?

The unintended effects of the project include improvements in community relations and social cohesion, as well as increased recognition of sanitation-related professions. However, tensions have arisen with local businesses excluded from public tenders, market distortions in the waste management sector, and higher sanitation costs for households. The proliferation of consultation frameworks requires better coordination to avoid confusion and inertia.

Has the governance system implemented contributed, or will it contribute to the sustainability of the intervention, particularly in the effective management of the water-related systems? If so, how? What are the enabling or constraining factors? How might they be improved ?

The governance system established by the PEPAK for water management has positively contributed to its sustainability by instituting consultation frameworks and creating a database of infrastructure. Facilitating factors include delegated management, training for local stakeholders, and depositing revenue into secure

accounts. However, challenges persist, such as the lack of technical and financial monitoring (STEFI), low profitability of some centres, and limited willingness to pay among the population, which require improved coordination and increased awareness to address these issues.

Has the governance system established contributed, or will it contribute to the sustainability of the intervention, particularly in the effective management of the sanitation systems? If so, how? What are the enabling or constraining factors? How might they be improved?

The governance system established for the sanitation component has significantly contributed to the sustainability of the intervention, particularly in the management of liquid sanitation systems. Through an effective consultation framework, key actors at each stage of the sanitation chain have been strengthened, including users through awareness campaigns and subsidies for latrine rehabilitation. The Neighbourhood Development Committees (CDQ) have been structured and trained, thus reinforcing their crucial community role. However, challenges remain, such as complex institutional coordination and the need to strengthen the technical expertise of the National Agency for the Management of Wastewater Treatment Plants (ANGESEM) to ensure the sustainability of the sludge treatment stations. Improvements are needed, particularly in financial management and product valorisation, to ensure effective and sustainable management of sanitation infrastructure.

To what extent has the project integrated gender-related issues into its implementation strategy? What are the enabling or obstructive factors? How could this aspect be better integrated?

The target of 30% women in Potable Water Users Association (AUEP) committees is both a realistic and achievable goal, as it is mandated by law in Mali. AUEPs, which are required to register with the authorities, must ensure that 30% of their committee members are women, in compliance with Malian law on equal opportunities. Among the 18 AUEPs, 33% of the members are women. The PEPAK project has not sought to change traditional roles but rather to ease the burden on women in their roles as those responsible for water collection, sanitation, and domestic hygiene.

To what extent has the project incorporated environmental and climate change issues, including Mali's vision of prioritising a green and resilient economy, into its approach? How could this aspect be better integrated in the future?

The project effectively integrated environmental considerations by opting for renewable energy sources, such as solar panels, for the water supply systems (AEP) and the faecal sludge treatment plant (STBV), thereby reducing its carbon footprint.

Has the PEPAK given sufficient attention to the theme of "digitalisation" in its implementation? If so, how? How could this aspect be better integrated in the future?

PEPAK integrated digitalisation by training beneficiaries in data collection using tablets and the KOBOTOOLBOX platform. However, the continuity and effectiveness of this process have been mixed, indicating a need for better management and regular monitoring to optimise the use of the database in the future.

3 Conclusions

- **C1: Project Monitoring:** the PEPAK indicators suffered from inconsistencies and lack of relevance from the outset. The team did not invest sufficiently in collecting and analysing project-specific data. These shortcomings have hindered the objective measurement of goals.
- **C2: Report format:** the annual reports lack details on the adjustments and solutions pursued to achieve the desired outcomes. This limits the potential for learning.
- **C3: More regular reporting mechanism:** a quarterly reporting system instead of just an annual report would better document and archive activities.
- **C4: Public procurement procedures:** procurement practices need reconsideration to find a balance with local businesses.
- **C5: Involvement of local authorities in procurement:** contracting authorities, such as the Regional Council of Koulikoro (CRK) and the Urban Commune of Koulikoro (CUK), would like to be more involved in the opening of tender documents.
- **C6: Demand-driven approach and sustainability:** while community water needs were considered, low water sales indicate a need to investigate communities' willingness to pay for water services, which is crucial for sustainability.
- **C7: Water infrastructure database:** databases are essential for infrastructure management, but the lack of enthusiasm from local authorities in using Kobotoolbox raises concerns about the effectiveness of training and post-training follow-up.
- **C8: Consultation frameworks:** the consultation frameworks established for discussing water access have not been active, limiting their usefulness for planning at the communal and regional levels.
- **C9: Sanitation consultation framework:** similar to the water consultation frameworks, the sanitation consultation framework was established but remains largely inactive.
- **C10: Hygiene and Sanitation Brigade (BHA):** the BHA is a success of PEPAK, thanks to adequate technical and material support, although further improvements could be made.
- **C11: Dedicated sanitation account:** the creation of a dedicated sanitation account is a significant achievement, though its full potential has yet to be realised.
- **C12: Sanitation marketing:** sanitation marketing should be strengthened to stimulate demand for services.
- **C13: Faecal sludge valorisation:** despite intentions to partner with the Rural Polytechnic Institute for Training and Applied Research (IPR/IFRA) for sludge valorisation, unforeseen extensions have hindered long-term planning.
- **C14: ANGESEM:** the National Agency for the Management of Wastewater Treatment Plants in Mali did not adequately prepare for the handover of the PEPAK despite a 15-month grant contract, raising concerns about the sustainability of the achievements.

4 Recommendations

Recommendation	Related conclusion(s)	Targeted actor(s)	Level	Priority	Type
R1. Train the team in internal monitoring and evaluation to enhance the understanding, collection, analysis, and interpretation of project indicators.	1, 2, 3	Enabel Brussels, particularly the monitoring & evaluation teams and the WASH team (in coordination with the project team) 4o mini	1 & 3	ST	Operational

Recommendation	Related conclusion(s)	Targeted actor(s)	Level	Priority	Type
R2. Conduct an in-depth audit of procurement procedures to more flexibly integrate the specificities of the local economic context.	4	Enabel Brussels, specifically the procurement/contract and finance teams (in coordination with the project team)	1 & 3	ST	Operational

Recommendation	Related conclusion(s)	Targeted actor(s)	Level	Priority	Type
R3. Provide the Urban Municipality of Koulikoro (CUK) and local authorities with copies of all plans, technical specifications, and provisional and final acceptance reports for PEPAK infrastructures and equipment to address any future technical issues.	5	Intervention team	1	ST	Operational

Recommendation	Related conclusion(s)	Targeted actor(s)	Level	Priority	Type
R4. Organise a meeting with all the municipalities to present the sales results, initiate an awareness tour in the potable water supply centres, and assess the database performance, drawing lessons from the shortcomings in the digitalisation process.	6, 7	Intervention team in coordination with the Regional Council of Koulikoro (CRK), the Regional Directorate of Hydraulics (DRH), and the municipalities of the beneficiary centres.	1 & 2	ST	Operational

Recommendation	Related conclusion(s)	Targeted actor(s)	Level	Priority	Type
R5. Revise the objectives of the consultation frameworks so that they become annual review meetings, ideally around 22nd March for water or 19th November for latrines, where the past year's progress is assessed and the plans for the following year are outlined.	8, 9	Koulikoro Regional Council"(CRK) for water and Koulikoro Urban Commune (CUK) for sanitation	1 & 2	MT	Operational

Recommendation	Related conclusion(s)	Targeted actor(s)	Level	Priority	Type
R6. Recruit a team dedicated exclusively to "Hygiene and Sanitation Brigade (BHA) tasks and develop a sanitation marketing programme to generate greater demand for sanitation.	10, 12	Koulikoro Urban Commune (CUK)	1 & 2	MT	Operational

Recommendation	Related conclusion(s)	Targeted actor(s)	Level	Priority	Type
R7. Organise a meeting with all stakeholders in the liquid sanitation chain to discuss as soon as possible the implementation of a sludge disposal fee designed to discourage trucks from dumping their sludge in the environment.	11	CUK in coordination with ANGESM, manual and mechanical sludge removers, the public, and the response team.	1 & 2	ST	Operational

Recommendation	Related conclusion(s)	Targeted actor(s)	Level	Priority	Type
R8. Establish a partnership with IPR/IFRA by organising regular meetings based on a clear roadmap, with the aim of launching a value enhancement programme at the beginning of 2025.	13	CUK, in coordination with ANGESM and the Climate Portfolio response team.	1 & 2	ST	Operational

Recommendation	Related conclusion(s)	Targeted actor(s)	Level	Priority	Type
R9. Establish more stringent subsidy agreements, either declining or performance-based, or through other forms, to encourage partners to be more dynamic and active during the subsidy agreements.	14	Enabel Brussels	3	ST & MT	Operational

Recommendation	Related conclusion(s)	Targeted actor(s)	Level	Priority	Type
R10. Invest in human capital to develop the soft skills of local partners.	1 - 14	Enabel Directorate in coordination with the countries:"	2 & 3	MT - LT	Strategic

5 Lessons learned

In the framework of the PEPAK programme, Enabel supported the development of liquid sanitation in Koulikoro. The urban commune has over 63,000 households according to 2023 projections. The project aimed to improve living conditions by working closely with CUK, which facilitated:

- The provision of a plot for the construction of the STBV.
- The formation of a hygiene brigade.
- The establishment of a consultation framework bringing together liquid sanitation stakeholders.

Results include a better understanding of liquid sanitation, the construction of Mali's first STBV with a capacity of 56 m³/day, the training and equipping of sanitation chain actors, and a management delegation agreement between CUK and ANGESM.

Challenges faced included the termination of the contract with ACF for social mobilisation, which delayed the project, and the sudden need to replace 40 m³/day of sludge following MINUSMA's departure from Mali.

Lessons learned include the importance of involving municipal authorities to address land issues and integrating PEPAK activities into the PDESCs, which secured full support from local policymakers.