

THE MIREP PROGRAMME, OR HOW TO INVOLVE THE PRIVATE SECTOR IN DRINKING WATER SERVICES MANAGEMENT

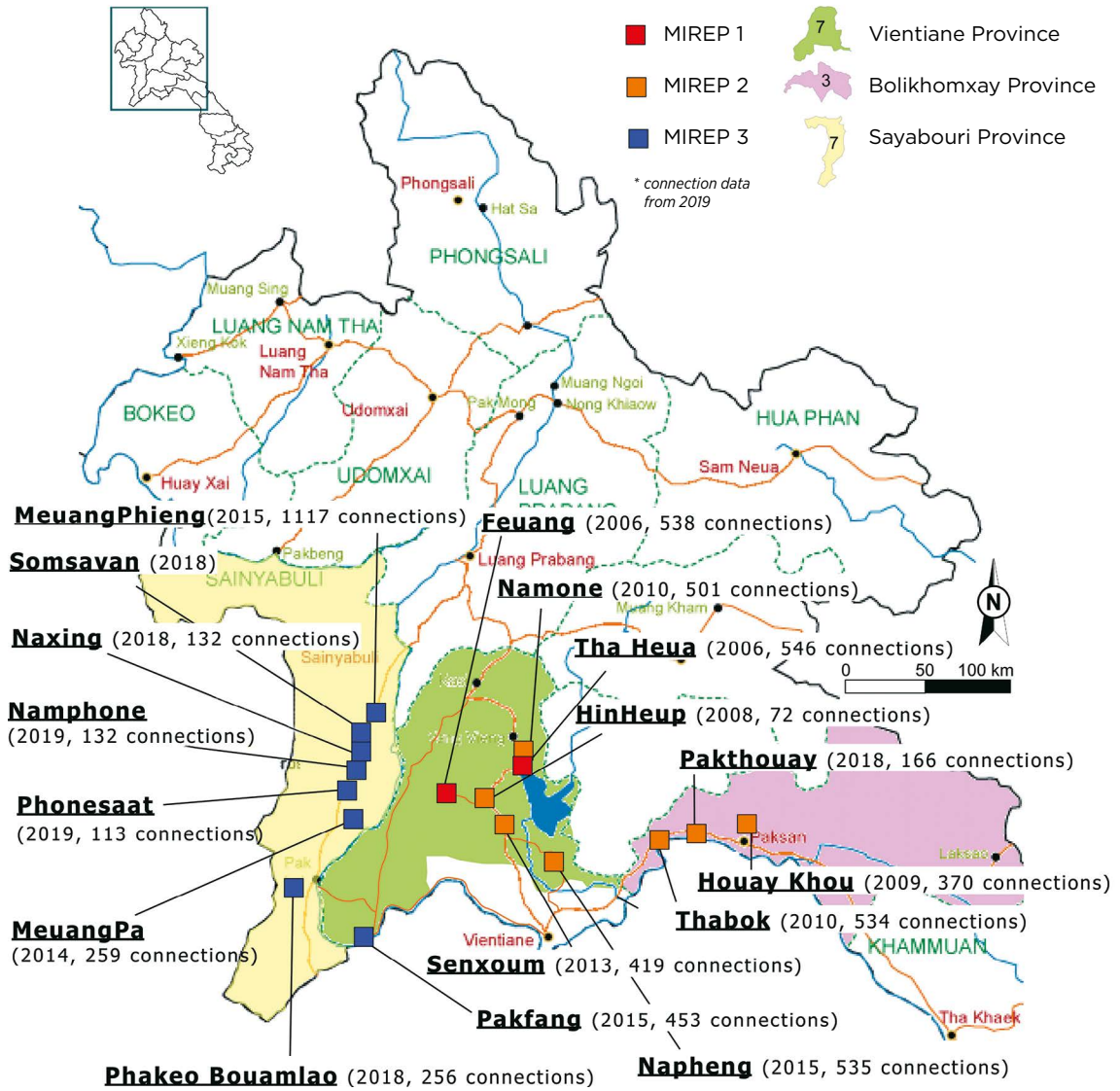
GRET launched the Drinking water mini-networks programme (Mirep) in Laos in 2004, at the request of the Lao authorities. The latter wanted to test an approach involving the local private sector in water services management, an approach that had already been tested successfully in Cambodia. This programme aimed to implement quality water distribution services in rural towns not benefitting from public investments or development projects. Initially funded essentially by the French Île-de-France Region Water Syndicate (Sedif), the project was conducted in three phases: a pilot phase (2004-2006), during which the approach was tested with two services, a second phase of expansion (2006-2011), during which seven additional services were launched, and a final phase (2011-2018), during which eight other services were initiated and GRET gradually withdrew.

In 2019, GRET assessed the project, 15 years after its launch, with an analysis of the various sites' performances. This project had enabled the implementation of 17 services supplying drinking water to more than 6,500 households (approximately 35,000 people).

Today, performances are variable, but they are satisfactory overall: 16 of the 17 services are operational. The leverage effect of public-private partnership is significant: 1 € of public investment made it possible to mobilise 4 € of local private investment. The analysis pointed to positive results in terms of technical solutions, sustainability of services and involvement of the local private sector. However, the scheme of governance and regulation was not maintained and the model was not significantly upscaled.

This brief explains how, by working in an evolving institutional context with complex relationships between stakeholders, the Mirep programme remains innovative in its "public-private" approach and its subsidy procedures. Secondly, it presents a positive assessment of the technical and commercial performances of services in terms of operations and collection of payments, demonstrating that in the vast majority of cases, concessions are profitable. It also describes how, despite these good performances, the Mirep programme did not succeed in becoming institutionalised, and concludes with some brief recommendations.

MIREP IN LAOS: 17 WATER SERVICES



WATER TREATMENT PLANT AT THE NAMONE SITE IN VIENTIANE PROVINCE, VISITING THE PLANT WITH THE OPERATOR



WATER TREATMENT PLANT AT THE MEUANGPA SITE IN SAYABOURI PROVINCE. CHECKING OPERATION OF PUMPS

AN INNOVATIVE APPROACH IN RESPONSE TO A CONSTRAINED CONTEXT

AN INNOVATIVE APPROACH IN SEVERAL RESPECTS

Mirep targeted “grey” zones that are neither completely urban nor completely rural, often neglected by traditional development policies.

In an unprecedented context where Laos was opening up to market principles, GRET was able to implement an innovative approach, which had already been tested in Cambodia, based on three main principles:

- **participation of the local private sector in water supply** via public service delegations in the form of 25-year concessions;
- **implementation of appropriate technical solutions** based on simplification of public enterprises’ standards (“Nam Papa”) while remaining in line with WHO criteria;
- **an unprecedented funding system** to encourage private investment, combining public subsidies and a guarantee system to facilitate access to bank credit.

Delegation of public service, as envisaged by GRET, consists of a partnership between a local private concession holder and local authorities (the district), aiming to launch a water supply service with the help of private investments. The private operator finances the construction of infrastructure and has the right

to manage it and earn income from the sale of water for the duration of the contract; it is also in charge of proper functioning and maintenance of the service and its commercial management. The district authority (as the owner of the infrastructure) is the public stakeholder that organises the service: it ensures users’ rights are respected and the appropriate national standards are applied, and it acts as a mediator to resolve local conflicts. The district must also organise regular meetings to review contracts so that the stakeholders can propose adjustments (regarding prices for example).

The investment subsidy provided to the concession holder is estimated upstream of each project. The concession holder is selected via a call for tenders and candidates are evaluated based on the quality of their technical offer and their experience, as well as on the amount of the subsidy requested for construction of the infrastructure. A subsidy contract is signed between GRET, the concession holder and the province. Lastly, GRET transfers the subsidy to an investment fund managed by the province, which is also topped up by local public authorities.

Specific subsidies are directed towards the poorest households, which are incapable of paying the cost of connection to the water network and the service, but who are nevertheless willing to pay the price of water and who have a fixed abode. These beneficiaries are identified in partnership with local authorities, in particular village representatives, as closely as possible with communities.



WATER TREATMENT PLANT IN PAKPHANG IN VIENTIANE PROVINCE. THE DAY OF THE LAUNCH

Lastly, in order to enable concession holders to have access to the most advantageous loans (minimal interest, highest loan amount possible), GRET paid into a guarantee fund at the Lao Development Bank, in partnership with the central authorities.

A CONTEXT THAT IS COMPLEX BUT OPEN TO INNOVATION

The context in which the Mirep programme was conducted is complex. It features a relatively recent institutional water framework, as yet incomplete and therefore constantly changing, as well as a multitude of stakeholders who all have a role to play, but with diverging interests. In addition, there were no technical-economic references for water supply in these intermediary localities.

Until 1999, the water sector in Laos was governed by the public domain. At that time, a single public company, Nam Papa, provided water distribution services in the country. Private sector participation was rare. Nevertheless, a decree allowed for private management of the water sector in 1999. Delegation procedures were vague, enabling GRET to envisage the concession model that was tested. However, the changing institutional framework was decentralising the service and reorganising institutions at national level. The Water Supply Agency (WASA), created in 1999, was set up to explore the specificities of the water sector and establish regulation that would come into force in 2005. The sector was still being institutionally structured and the legal vacuum was

gradually filled by various texts published in 2005, 2009 and 2010. In 2016, the different national bodies for regulation of the water sector merged into a single entity: the Department of Water Supply (DWS). These institutional evolutions complicated the establishment and deployment of the regulation model that had been envisaged and initially supported.

The complex relationships between stakeholders is as follows:

- **the local private sector** funds, constructs and ensures operation of the service. It is made up of medium and large businesses, mainly in the construction industry, which have the financial capacity to invest. Their motivations are economic, but at the same time social and cultural;
- **public authorities** share power in terms of contracts, subsidies and regulation of the water sector. At national level, the DWS; at provincial level, the office of the Governor of the province, the Department of Public Works and Transport (DPWT), and the provincial division of the Nam Papa public company; at local level, the district — at the core of the Mirep approach's operation — and village leaders;
- **users of the service** are responsible for paying for the service they receive (cost of connection to the network and monthly cost of water consumed) and can express their complaints;
- **donors**, of which there are seven, contribute financially to the programme during the fourteen years of its implementation.

As the mainstay of the system, GRET:

- seeks, mobilises and manages funding;
- designs, studies and organises the construction of infrastructure;
- contributes to drawing up of contracts and selection of concession holders, and strengthens the capacities of all stakeholders, including local authorities.

SATISFACTORY RESULTS BUT FACTORS THAT ARE UNFAVOURABLE FOR INSTITUTIONALISATION

A POSITIVE ASSESSMENT OF SERVICES' TECHNICAL AND COMMERCIAL PERFORMANCES

In 2019, GRET conducted a mission to evaluate the quality and performance of the services. Visits to infrastructures, collection and analysis of operational data and interviews with stakeholders made it possible to make a positive assessment.

60% of sites are providing a continuous water service, without disruption. When this is not the case, it is often due to poor financial management. Water prices are the result of consultation between the various stakeholders, which is validated by the province. At all the sites, water prices are systematically less expensive than those of the public company. Although the data should be interpreted with caution, as it was generated by interviews solely with users' representatives, it is estimated that 60% of users are satisfied with the service. Unfortunately, the majority of operators did not succeed in controlling the quality of water over the long term due to budgetary

constraints, lack of technical expertise and lack of public regulation.

At all of the sites, production capacities cover users' needs and allow for further extension of the network with new connections. The average yield of networks is estimated to be close to 78%, confirming their technical quality and good management of water losses. Losses are acceptable at the majority of sites and, when this is not the case, it is due to problems around leaks and illegal connections. The evaluation showed that the Mirep infrastructure is in good condition, thanks to appropriate design, rigorous control of construction and adequate choice of materials.

The rate of connection to the network is heterogeneous according to sites, ranging from 13% to 93%, with an average of 49%. Connections rise significantly during the first two years of the service launch, and then stabilise. This is due to pull factors (social marketing, subsidies for poor households, commitment from authorities) and push factors (households' wait-and-see strategies, other, more competitive options, lack of trust in water quality). Collection of payments at Mirep sites is satisfactory (88% on average), and concession holders are supported by local authorities to remind users of their duty to pay. Services' sources of income in order of importance are sale of water, with a price that tends to be homogenous between the various sites, and connection fees; this income is mainly received in the first two years of the service.

Lastly, the service's operational costs are mainly made up of expenditure on energy and human resources (60%), followed by maintenance and connection costs (23%). One of the programme's real successes is that it generated a significant leverage effect (1 € of public investment made it possible to mobilise 4 € of local private investment).

ABANDONMENT OF THE HIN HEUP CONCESSION

The Hin Heup system was one of the most effective of the Mirep programme. Launched in 2008, by 2012 the service had achieved an 81% connection rate. Today this site is closed.

In 2012, given the increase in demand, the site's concession holder decided to invest in increasing the service's production capacity with river catchment and by constructing an additional treatment unit and water tower. To recoup this investment, the concession holder obtained the district's authorisation to increase the price of water from 1,500 kip/m³ to 2,500 kip/m³.

However, incorrect sizing and faults in the construction of the new infrastructure led to a decrease in the quality of the service: discontinuities in supply and water quality problems, whereas the price increased.

As recurrent complaints from users to the concession holder and the district authorities were not addressed, households began to disconnect from the system and seek alternative supply solutions.

Faced with a decrease in revenues, the concession holder recruited a poorly qualified operator, thereby increasing the problems already observed by users. This led to a further decrease in revenues and difficulties for the concession holder in terms of payment of electricity bills. In July 2019, the district terminated the system. The concession has been for sale since 2020.

So, a poorly thought-through investment, together with an increase in water prices, generated a decrease in the quality of the service — leading to loss of users' trust, reduced revenues and poorer quality of human resources — and therefore an even greater decrease in revenues. All this finally led to abandonment of the concession.

In the vast majority of cases, concessions are profitable. However, forecasts concerning return on investment are more optimistic than reality: initially evaluated at an average of 13 years, return on investment was systematically longer, except for two services which did better than forecast.

In total, thanks to the Mirep programme, 35,000 people have access to quality drinking water. This programme made it possible to develop new technical solutions at reasonable prices. It also enabled testing of a new governance model promoting decentralisation and delegation of public service, strengthening local stakeholders and providing the Lao authorities with an alternative model.

AN INTERESTING EXPERIENCE, BUT OBSTACLES TO INSTITUTIONALISATION EXIST

Despite these good performances, the approach promoted by the Mirep programme did not succeed in becoming completely institutionalised. Neither the public authorities nor the concession holders implemented new services, with the exception of a programme related to Mirep and led by East Meets West (EMW - an American NGO), which set up six additional services using the same procedures, with varying levels of success.

THA HEUA, A VIRTUOUS CIRCLE

The new Tha Heua concession holder took over this service in 2016. As a native of the region, he knew the previous concession holder and was willing to purchase the concession to improve it. He agreed to a significant investment for upgrading (300,000 USD), which made it possible to increase the network's production capacity and yield, thereby meeting users' needs.

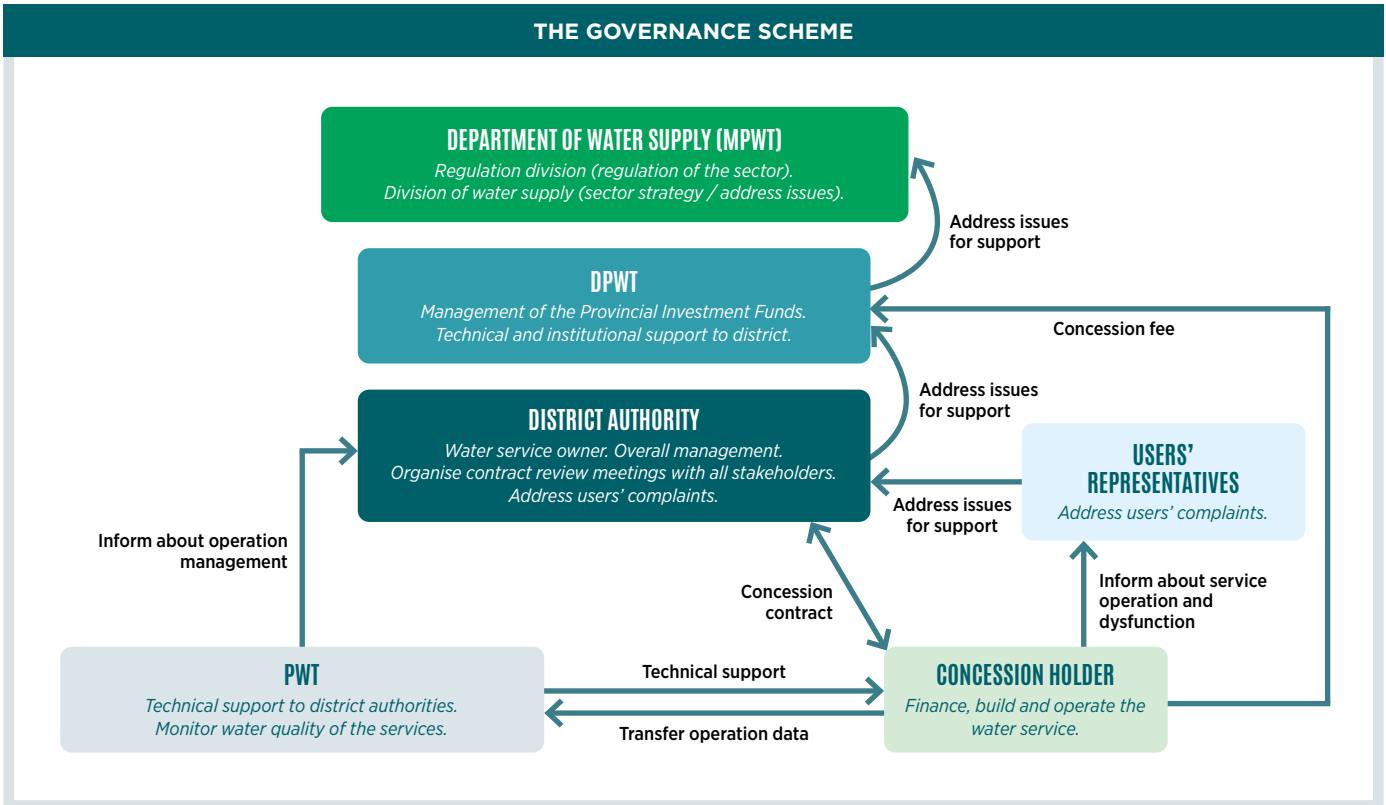
He also chose to recruit professionals and supervise them closely. He made significant efforts to keep up a good relationship with the Vang Vieng district authorities. He keeps users regularly informed, has periodic meetings with their representatives and participates in events that are important for the community. Users are very satisfied with the service and the connection rate is high. Tha Heua is the most profitable of all the Mirep sites.

So, a concession holder who invests in his/her concession, works with users' representatives and the local authorities, provides a quality service, and creates a virtuous circle in which quality leads to connections, generates profitability and provides the means to continuously improve quality.

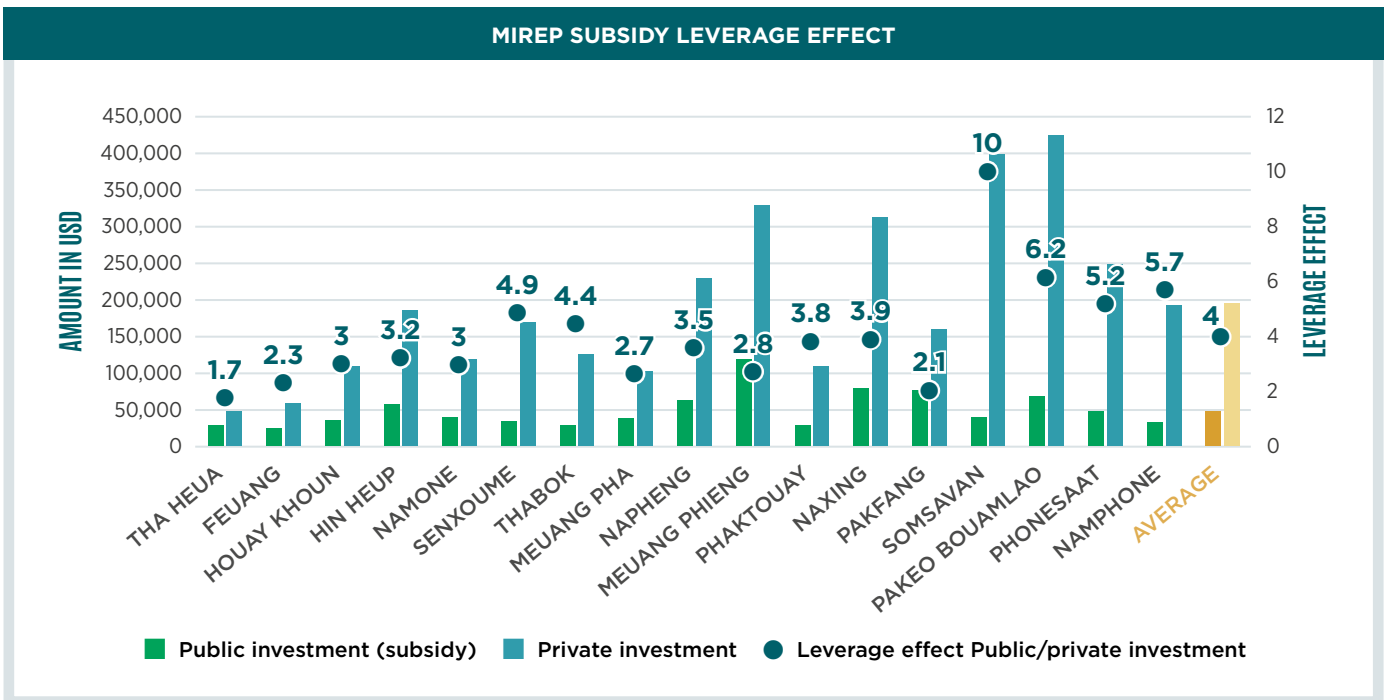
VIEW OF THE MEKONG FROM THE PAKTHOUAY WATER TREATMENT PLANT IN BOLIKHAMXAY PROVINCE



THE GOVERNANCE SCHEME



MIREP SUBSIDY LEVERAGE EFFECT



For public authorities, weaknesses and turnover in institutions fragilized the governance systems promoted. During the first phases of the programme, a central regulation body was in charge of supporting districts with regulation of the service. However, after it merged with the DWS, this central body gradually turned away from the Mirep sites. The districts, which own the infrastructure, found themselves in a situation where they had to regulate services without support and with too few resources.

For cultural reasons, contracts have little value in Laos. Consequently, contracts are rarely updated when they are revised or when the concession is transferred from one private stakeholder to another. In addition, numerous institutional and legal vacuums still exist in the country, which is not used to the participation of private stakeholders in the water sector. So, the definition of authorities' intervention procedures is vague and complicates the use of coercive means.

Furthermore, lack of communication between the various administrative departments and turnover of administrative staff within public authorities generate loss of knowledge and expertise. Authorities have poor knowledge of their rights and their power to deal with concession holders, which makes them passive when malfunctions occur in the service, whereas they could take corrective measures.

Lastly, governance and service regulation depend on the district, but the latter cruelly lacks technical and financial capacities. This is the primary cause of public authorities' inaction.

Consequently, there is little or no implementation of regulation and governance as imagined by the programme, which tends to leave the service solely in the hands of the concession holders. Informal reform of regulation has however emerged and is taking place at several sites.

Concession holders know the difficulties involved in maintaining satisfactory service management teams at each site. Due to financial pressures, they may be tempted to employ poorly qualified workers, with negative impacts on the quality of service maintenance and management. In addition, concession holders may seek to revise water treatment costs downwards, at the risk of generating a vicious circle causing users to lose confidence in the service and turn away from it.

The model of public-private partnership via delegations of public service promoted by the Mirep programme was in fact not widely replicated. Despite keen interest at the start of the programme, the central authorities gradually lost interest in the model and turned towards more traditional models, supported by more substantial investment programmes.

Although the institutional transplant was not fully successful, the Mirep model has nevertheless been emulated. It was used by EMW, with some minor changes and therefore continues to exist in Laos with Australian and American funding. The model was an internal source of inspiration at GRET and served as a basis for strategies to develop water services in rural towns in Madagascar, Mauritania and Senegal in 2007-2008. Through dissemination, the Malagasy version of the model was used by Helvetas, Catholic Relief Services and Care.

This experience convinced GRET of the validity of calling upon the local private sector to provide essential services, when the conditions and the context allow it. This makes it possible to ensure sustainability of the intervention, its appropriateness, and economic fallout at local level. It requires actions to strengthen public and private stakeholders' capacities, and the proposal of a propitious ecosystem, in particular an effective regulation system involving users. ■



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RECOMMENDATIONS

Several conditions need to be present to implement a Mirep-type service. Firstly, the existence of **sufficient solvent demand**: households and businesses must be willing to use the service, without having too many parallel water sources that are more competitive. Secondly, **technical solutions must be optimised and appropriate to the context and to demand**; and work must be carried out with care. Thirdly, it is necessary to choose a **private investor with sufficient resources, capable of collaborating with the authorities and willing to develop a public service**. This entrepreneur must be able to recruit and retain **competent management teams to ensure the viability of the site**, particularly with a high salary.

Lastly, it is important to **strengthen stakeholders' capacities and plan governance and management costs in contracts**: where no competent regulation authorities exist, regulation will take place informally, or not at all.

Other actions, such as **increasing ease of access to credit** and, in the longer term, **conducting more social marketing actions with users and awarding more substantial subsidies**, can contribute to the implementation of an effective, competent, sustainable water supply service.