

Public-private partnerships for green growth, the case of Eranove in West Africa

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Introduction

"The Future We Want," the RIO+20 Declaration adopted in 2012 by UN Member States, underscores the private sector's critical role in promoting green growth. The declaration encourages innovative public-private partnerships to facilitate financing and technology, strengthen national capacities, and formulate sustainable development policies that ensure access to life-sustaining services for all. The private sector is urged to contribute to poverty eradication and sustainable economic growth, promote social inclusion and human well-being, and create employment opportunities and decent work for all, while using and preserving the planet's ecosystem services.

Access to water and sanitation, declared a fundamental human right at the 64th General Assembly of the United Nations, and access to sustainable energy services for all, are essential components of inclusive green growth. Despite significant progress in these areas, Africa has yet to achieve the Millennium Development Goals: 344 million Africans, or 35% of the population, still lack access to safe drinking water¹, and about 620 million people, or two out of three Africans, have no access to electricity. These are formidable human, technological, and financial challenges that the private sector can help address, as official development assistance and national budgets alone are insufficient to close the current gap. In West Africa, institutional frameworks for public-private partnerships (PPPs) have been established in these three sectors.

Sustainable development in Africa

Eranove and its subsidiaries have been operating as a public service manager and independent producer of water and electricity in Côte d'Ivoire since 1961 for SODECI, 1990 for CIE, and 1994 for CIPREL, and in Senegal since 1996 for SDE. The group has successfully partnered with these countries to achieve sustainable development objectives while maintaining economic balance in the concessioned sectors.

Electricity, water, and sanitation have been developed under various models in Africa, with different regulatory frameworks and varying division of roles in operations and investments between private operators and states. Eranove's experience, accumulated since the early 1960s, demonstrates that there is no one-size-fits-all model for developing public-private partnerships (PPPs) in Africa. However, several factors contribute to successful PPPs.

Presentation of the Eranove Group

Eranove operates in Senegal through its subsidiary, Sénégalaise des Eaux (SDE), and in Côte d'Ivoire through three main subsidiaries: Compagnie Ivoirienne d'Electricité (CIE), Compagnie Ivoirienne de Production d'Electricité (CIPREL), and Société de Distribution d'Eau de la Côte d'Ivoire (SODECI). The group is also active in the Democratic Republic of Congo through a service contract with Regideso, which is financed by the World Bank. Recently, Eranove expanded its operations to Mali through its subsidiary, Kenié énergies renouvelables, which is responsible for developing the Kenié hydroelectric power plant.

As a private operator, Eranove has integrated the entire value chain of water and electricity, including resource capture, potabilization and transport, distribution and commercial interface, sanitation and discharge into the natural environment for the former, and hydroelectric and thermal production, management of energy flows, electricity transport and distribution, and commercial interface for the latter. In 2014, its subsidiaries had an installed capacity of over 1,100 megawatts and produced 374 million cubic meters of drinking water. They served over 1.3 million customers with electricity and 1.4 million with drinking water, and provided sanitation to more than 370,000 customers in Abidjan, Côte d'Ivoire.

The Eranove Group's management model is decentralized and intercultural to ensure the sustainability and growth of its performance. The group encourages the empowerment of its subsidiaries and their employees, who are all united by a common objective: to develop adapted and innovative solutions to make essential services accessible, in compliance with the best international standards. The performance of the subsidiaries is reinforced by quality (ISO 9001), safety (OHSAS 1800), and environmental (ISO 14001) certification procedures. Each subsidiary develops procedures and tools to identify its best practices, which are then pooled and adapted to the operational context and realities of each company to respond to the specificities of each country and each subsidiary, the culture, and the imperative of local anchoring.

The group is committed to sustainable development and operates as a responsible player through its subsidiaries, adhering to the ISO 26000 standard. AFNOR Certification has assessed the social responsibility strategies of three of its subsidiaries in accordance with the AFAQ 26000 standard. SDE's approach is recognized as "Exemplary", while the inter-connected production of CIPREL and CIE has achieved a "Mature" level.

Green and trusted public-private partnerships

Private operators in the water and electricity sectors have a responsibility to work alongside the government to improve service delivery to the population. This involves participating in national discussions on access to water and electricity for disadvantaged communities, proposing investment plans, and supporting the completion of major infrastructure projects.

In return, the government is expected to fulfill its commitments, including paying bills, planning and investing in infrastructure, mobilizing concessionary financing for infrastructure development, adjusting tariffs to maintain financial balance while remaining socially acceptable, and more.

Eranove's subsidiaries, SODECI and SDE, continuously monitor performance indicators and benchmark their performance with African and international utilities to improve their services. They work together with public utilities, such as the Office National de l'Eau Potable (ONEP) in Côte d'Ivoire and the Société Nationale des Eaux du Sénégal (SONES) in Senegal, as well as other partners in the water sector, to become key players in their countries' drinking water development policies. (See box on the next page for more information.)

The challenge of public-private investment

Despite the significant investments needed to address infrastructure deficits and challenges posed by economic and social transformation in the African continent, official development assistance and national budgets have limitations in financing such projects.

In particular, the water and electricity sectors face this challenge of financing infrastructure. According to the African Development Bank, the development of the electricity sector in sub-Saharan Africa would require an annual investment of US\$41 billion per year, equivalent to about 6.4% of the region's GDP. These investments are crucial for the development of the sector and improving access to essential services, but finding adequate financing can be a major hurdle.

Box 1: CIE and SODECI: Examples of Commitment to Development Policies in Côte d'Ivoire

In October 2014, CIE, the State of Côte d'Ivoire, and its development partners initiated a project called "Electricity for All" with the aim of facilitating access to electricity for low-income populations. CIE offers beneficiaries a connection-subscription kit containing a smart meter, a circuit breaker, and low-consumption lamps at an initial price starting from 1,000 FCFA (~1.5€), and the equipment's cost is post-financed by the electricity consumption of the following years. The first pilot phase was deployed in the Odienné region, and a survey established that electricity had improved the living environment, resulting in more comfort for 51% of respondents and more security for 32% of them. Furthermore, 98% of respondents felt that electricity had helped improve their children's school performance.

In 2013, SODECI carried out a rehabilitation and maintenance program on 17,000 human-powered pumps, increasing access to drinking water in more than 10,000 Ivorian villages and camps. The objective was to increase the availability rate from 50 to 80% within a year. The program provided 19 million liters of drinking water per day to over 1,300,000 people (15 liters/day/inhabitant), significantly improving access to drinking water in the country.

The annual infrastructure spending requirement in the water and sanitation sector amounts to US\$21.9 billion⁴. This investment gap in the electricity and water sectors in West Africa presents an opportunity for private sector actors, particularly in independent power production.

CIPREL, a subsidiary of the Eranove group and the leading independent electricity producer in Côte d'Ivoire as of 31 December 2014, continues to expand. Meanwhile, Eranove maintains its strategy of promoting independent power production in Africa (refer to Box 2).

Private actors must be able to identify finance sources with appropriate structures and costs to enable the implementation of independent power producers. However, credible companies may not agree to make long-term commitments if the infrastructure financing is not sustainable and if their business models do not guarantee a return on investment.

Similarly, financial institutions may not provide financing if the revenues are insufficient to repay the debt.

Box 2: The Kenié hydropower plant in Mali - the independent power producer model

In 2015, the Eranove Group's subsidiary, Kenié Energie Renouvelable, signed a 30-year concession agreement with the Government of Mali for the financing, development, construction, and operation of the Kenié hydroelectric dam in Baquinéda, Mali. This agreement marks an important milestone for the Republic of Mali, as the country's current installed capacity of about 414 MW is only capable of meeting half of the potential demand according to World Bank estimates. With an installed capacity of 42 MW, the Kenié hydroelectric scheme will contribute to meeting this energy challenge by producing approximately 175 GWh annually, which corresponds to the average annual consumption of 175,000 households. This project will enable Mali to better exploit its hydroelectric potential and reduce its dependence on imported hydrocarbons.

The signing of the agreement marks the beginning of the financing phase of the project, which is estimated to cost €110 million.

How likely is it for a state to accept a project that does not ensure a reasonable price for consumers?

The economic and financial balance of the sectors is crucial to support investments and ensure sustainability.

To meet the significant investment needs while maintaining economic and financial balance, creative financing solutions are required. These solutions should improve essential services provision without incurring excessive additional costs and increase technical performance and efficiency. Concessional loans and institutional partners with a long-term perspective may be necessary to finance these investments and achieve economic and financial equilibrium.

Improving operating performance, such as technical efficiency, billing, and operating costs, can immediately enhance the sector's financing capacity. Waste is a significant barrier to achieving economic and financial equilibrium. To address this issue, the increase in consumption by administrations must be controlled through programs that combine consumer awareness and empowerment within administrations, with the identification and repair of water leaks or electricity waste.

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The implementation of progressive tariffs is an effective solution to these challenges. A social tariff accessible to the poorest must be maintained, while the other tariffs should be regularly adjusted to support operating costs and investments.

The company's human capital

The development of the group's human capital, composed of a diverse range of African skills, was achieved through employee training and the implementation of efficient working methods, as both the water and electricity sectors require technical expertise.

To provide a nationwide public service with local proximity, centralized decision-making had to be decentralized and re-empowered. The management structure was reorganized into a flatter, more decentralized structure with a limited number of hierarchical levels. This participatory management approach involves negotiating objectives collectively at each level of operations, with employees involved in setting requirements, resources, and objectives. These are then computerized in management charts, with results being monitored and analyzed.

This participatory approach ensures that everyone is co-responsible for decision-making, leading to decentralization of decisions, delegation of powers, and individual empowerment. It also promotes local communication and a family spirit within the company, facilitating social dialogue between employee representatives and management. To ensure quality control, an internal audit system is complemented by methodical organization of processes and work instructions. Quality/safety/environmental certification processes, procedures, and toolkits are developed by subsidiaries to identify best practices, and are then adapted to local contexts.

Eranove prioritizes the development and strengthening of subsidiary skills, rather than replacing them. The group strives to be a catalyst for African expertise, respecting the culture of each company while driving and monitoring key issues. To develop internal skills, Eranove invests in training center projects, continuing education programs, and has even launched since september 2015 a BTS (Brevet de Technicien Supérieur) in electrical engineering in partnership with its subsidiary CIE, in response to a shortage of young graduates with the basic training required to work in the electrical sector.

The launch of a BTS program in electrical engineering in September 2015 aligns with Eranove's goals of promoting excellence and catalyzing African expertise. In cases where internal skills require enhancement, the group forms partnerships with globally recognized technical leaders. For new projects in areas without local roots, the group forms partnerships with local companies renowned for their expertise and ability to accurately evaluate the local context.

Sustainable production and consumption

To address the challenges of lack of access and increasing demand, sustainable production and consumption practices must be implemented to meet the needs of current and future generations. The demographic challenge and climate change are both issues that must be addressed. The companies within the group have undertaken environmental management systems according to ISO 14000 standards, and are aware of the importance of preserving resources and providing public services. Efforts are made to engage consumers in sustainable consumption through awareness-raising actions.

CIE, a green electricity company, operates a hydroelectric generating fleet of 604 MW. The company measures rainfall and hydraulic stock of its dams regularly, as the supply of water to the dams is dependent on rainfall, and there may be a lack of water in the dry season. The production plan is aimed at balancing the needs of populations and ecosystems. CIE's dispatching centre integrates seasonal and daily climatic factors into consumption and production planning. CIE has also partnered with the state-owned company CI-Énergie to promote energy efficiency and encourage sustainable and responsible consumption with less energy-consuming equipment.

CIPREL, an independent power producer, integrates sustainable electricity production into its model. Its thermal power plant runs on natural gas, and since 2014, CIPREL has been constructing a combined cycle to recycle hot gases from its stacks to power a steam turbine, producing more electricity with equal gas combustion, and avoiding greenhouse gas emissions.

SDE and SODECI, in the water business, also address the climate issue. The filling of surface and underground reservoirs varies according to rainfall, and with increasing demographics and urbanisation, water treatment and transport infrastructure needs to keep up with the pace.

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Awareness-raising actions for sustainable consumption are necessary to better preserve and share available resources. In Côte d'Ivoire, SODECI encourages consumers to read their meters, monitor their water consumption, and identify any leaks. Guides are available to help them discover sustainable water consumption practices. In Senegal, SDE is collaborating with the government to reduce water consumption in administrative buildings by addressing unrepaired leaks that waste water resources.

The SDE also has an energy efficiency policy with committees

SDE also has an energy efficiency policy with "eco-energy" committees in each regional department, corrective actions on COS phi, subscribed power, and adaptation of drilling motors. Moreover, SDE is studying the possibility of self-generation of electricity based on biomass for one of the water production sites it operates.

Box 3: CIPREL IV - Sustainable Electricity Production

In December 2011, the State of Côte d'Ivoire and CIPREL signed Amendment No. 6 to their independent power production agreement, aiming to increase the company's production capacity by 222 MW through the CIPREL IV project. The project comprises of two phases: phase A entails the construction, design and commissioning of a 111 MW combustion turbine (TAC 10), while phase B involves the installation of a steam turbine (TAV 1) which will be converted into a combined cycle, with TAC 9 (commissioned in 2009) and TAC 10 feeding their hot exhaust gases into TAV 1. This will result in CIPREL's total installed capacity reaching 543 MW.

The CIPREL IV project is a sustainable initiative as it contributes to mitigating climate change by recycling the exhaust gases from TAC 9 and 10 to feed TAV 1, thereby avoiding the emission of 500,000 tons of CO₂ per year and producing an additional 1600 GWh/year of energy without using additional gas. Furthermore, NO_x emissions are limited by installing a Dry Low Nox (DLN) system on TAC 10. This system limits NO_x concentrations when operating on natural gas or liquid fuel.

Stakeholder engagement

The State, in fulfilling its public service missions, is expected to set an example. This is a sentiment that has been expressed by the beneficiaries of these services.

The private partner, acting as the delegatee of a public service mission, should prioritize the interests of all its stakeholders, including the local communities where its development projects take place. The societal performance of the State's private partner can be measured by the values it creates and shares with consumers, employees, and local communities. However, the consumers who benefit from these essential services are at the center of the system, making it all the more important for Eranove and its subsidiaries to prioritize their expected performance. This is especially true since all the countries where Eranove operates have ratified the United Nations declaration recognizing access to water and sanitation as a fundamental right and have committed to the "Sustainable Energy for All" (SE4All) program.

Ensuring a reliable and effective service is crucial, and it requires a reception system for consumers in all national territories and information systems to alert consumers in the event of network disruptions affecting the water supply. Providing access to water and sanitation as a fundamental right is not solely the responsibility of the private partner; it requires the activation of technical and financial means, which is why the private partner works with the State and development partners to implement social connection programs. Drawing on its knowledge of the field and consumers, as well as its organization, the private operator can provide access to financial resources and implement operations to facilitate consumer access to the networks and make the service financially accessible to the least well-off populations.

Eranove's societal approach implemented for the benefit of its employees is a reflection of another key feature of African culture: solidarity. To alleviate the burden of community solidarity on employees, which can distort their judgment and lead to fraud and embezzlement, Eranove has implemented an innovative social policy. In some subsidiaries, a solidarity fund has been set up to provide non-reimbursable financial support in the event of fortunate or unfortunate events; this fund is financed by a company contribution and by employee contributions. A mutual savings and loan scheme encourages employees to build up their savings so that they can access loans to finance, in particular, access to property. A Solidarity Health Fund supports employees infected with HIV so that they have free access to tritherapies. A mutual fund allows employees to build up a "retirement treasure" and to participate in the capital of their company and of the Eranove holding company.

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The social approach of the group is also focused on the host communities where the companies are located. Their consideration is crucial due to the transformation of the environment that has often resulted from hydroelectric facilities in the history of electricity. In the water sector, the resource is drawn from a village site, creating a relationship with the local population. In all cases, these territorial anchors have been strengthened by taking these communities into account and contributing to local development. Eranove subsidiaries have implemented development actions in several villages, such as organizing local governance, improving access to education and health, creating income-generating activities, and preserving the environment and biodiversity. The company has gradually standardized its approach, reflecting its societal model in the communities by training villagers to manage village development in a participatory manner, providing the tools necessary to identify sources of wealth, and promoting a culture of savings and sustainable resource management.

Conclusion and outlook

The Eranove Group has established the foundations of its model and is preparing for a new era. While consolidating its achievements in performance, management, and social responsibility, the company has also begun to focus on development. In recent years, Eranove has expanded its pan-African presence, winning a service contract with Régideso in the Democratic Republic of Congo in 2012, and signing an agreement with the Malian government in 2015 for the development and operation of the Kenié hydroelectric plant.

The goal is to establish a pan-African platform for managing utilities and producing water and electricity, with several projects currently being considered across the continent. The challenge now is to deploy this platform while remaining true to the company's values and operational, environmental, societal, and financial requirements. This will require adapting the model to the context and culture of each country and company, while ensuring that the platform is replicable and scalable.

NOTES

1. WHO 2012.
2. World Energy Outlook 2014, International Energy Agency.
3. African Development Bank, Energy Sector Capacity Building Diagnostic and Needs Assessment Study, 2014.
4. Source: World Bank, *Africa's Infrastructure Imperative*, 2011.