

Water Integrity: Unlocking the Potential of Public Private Partnerships



Achieving SDG 6 by 2030 depends on the water community's capacity to mobilize private sector investment and innovation, and on its capacity to govern public private partnerships (PPPs). With the water sector being corruption prone, engaging in PPP allows one to unpack management functions and improve governance. Corruption in the water sector has negative social, environmental and financial impacts. It violates people's rights by limiting their access to goods and services to meet their most basic needs; in extreme cases, corruption kills (Ambraseys & Bilham, 2011). Corruption distorts the objectives of public policies, undermining confidence in the collective capacity to protect the environment and valuable water resources. Public, private, and civil society actors joining forces in integrity building as a major element of governance systems, including across water infrastructure financing, enables institutions to limit and prevent corruption and manage resources efficiently (UNDP/SIWI, 2016a). This helps attract much-needed investment into the water infrastructure sector by drawing on the resources of the private sector.

The water sector remains highly dependent on infrastructure projects to not only improve long-term water security, but also provide positive effects on economic growth and development. Despite the urgent needs across the sector, there is a persistent gap in water infrastructure financing. The African continent alone is currently experiencing a water infrastructure financing gap of an estimated 67.6–107.5 billion USD according to the African Development Bank (2018), leading to a loss of economic, social and environmental benefits from further reductions of the water risks (OECD, 2017). In order to achieve the Sustainable Development Goals (SDGs), it is clear that not only a higher level of investment is needed but also better protection of current investments, so resources are not lost.

It is estimated that corruption diverts 30 percent from billions of dollars spent annually for international development loans (Dudley, 2000). These costs tend to “disproportionately affect poor and disadvantaged individuals and groups, as they lack the necessary power to oppose the vested interests of elites, and do not have the necessary resources to pay bribes” (General Assembly, 2015). On the other hand, observers estimate that “20 percent to 70 percent of resources could be saved if transparency were optimized and corruption eliminated” (Shordt, Stravato, & Dietvorst, 2006). As such, there is ground to examine what could be done to improve transparency and integrity across the project cycle of water infrastructure financing from early stage project preparation through feasibility and late stage preparation.

Public-Private Partnerships

Public-private partnerships (PPPs) are a collaboration between a government agency and a private firm established to finance, build or operate a project. PPPs emerged to structure large and complex infrastructure projects, leveraging an assumption that by involving the private sector, major infrastructure projects can be completed faster or become more financially viable in the first place through the greater access to technical

Financing Water infrastructure

Water infrastructure is generally considered to be the part of public infrastructure presenting the greatest financing challenges in developing countries (EUWI EU Water Initiative, 2011). The persistent water infrastructure financing gap will not be met by current financial flows alone, whether from public investments or grants. Most countries in the world are unable to meet investment needs unilaterally and in many cases are unable to meet the requirements of traditional donors.

In order to meet the ambition of Sustainable Development Goal 6 including water supply and sanitation, flood protection, drought management, and water quality management new modules to support investment needs for food security, health, sustainable consumption and production, sustainable urban development and terrestrial ecosystems are needed.



Photo: iStock

skills, as well as capital markets which the private sector has at its disposal. PPPs are today one of the leading financing mechanisms for water infrastructure projects in both developed and developing economies. In short, PPPs constitute “a distinct form of public procurement which involves the acquisition by a government depart-

Elements of PPPs in relation to conventional contracts
<ul style="list-style-type: none"> • PPPs are significantly longer-term (sometimes for 20 to 30 years).
<ul style="list-style-type: none"> • PPP have as objective the provision of a service by the Service Provider, for which, the Service Provider may have all responsibilities from design of the facilities, the funding, and its construction and at times operation for the provision of the service.
<ul style="list-style-type: none"> • PPP projects are financed by user fees or tariffs, direct payments using public funds, loans or guarantees provided to the service provider, or a combination thereof.
<ul style="list-style-type: none"> • PPP projects can bring about cost reductions to the service provided due to improved risk sharing obtained by allocating risks to the party best able to manage it. With this possibility, the private operator has incentives to reduce costs.
<ul style="list-style-type: none"> • In certain types of PPPs the Service Provider forms a special company called a "special purpose vehicle" (SPV) to develop, build, maintain and operate the asset for the contracted period.

Table 1: Adapted from World Bank Group (2010). Procurement arrangements applicable to public-private partnerships (PPP) contracts financed under World Bank projects.

ment or any government-owned institution of goods or services” (Bildfell, 2018). Yet there are some differences between traditional procurement and public-private partnerships; the World Bank (World Bank Group, 2010) identifies the following key elements:

PPPs: Advantages and disadvantages

PPPs can have numerous advantages but also disadvantages, and it is important to understand that PPPs

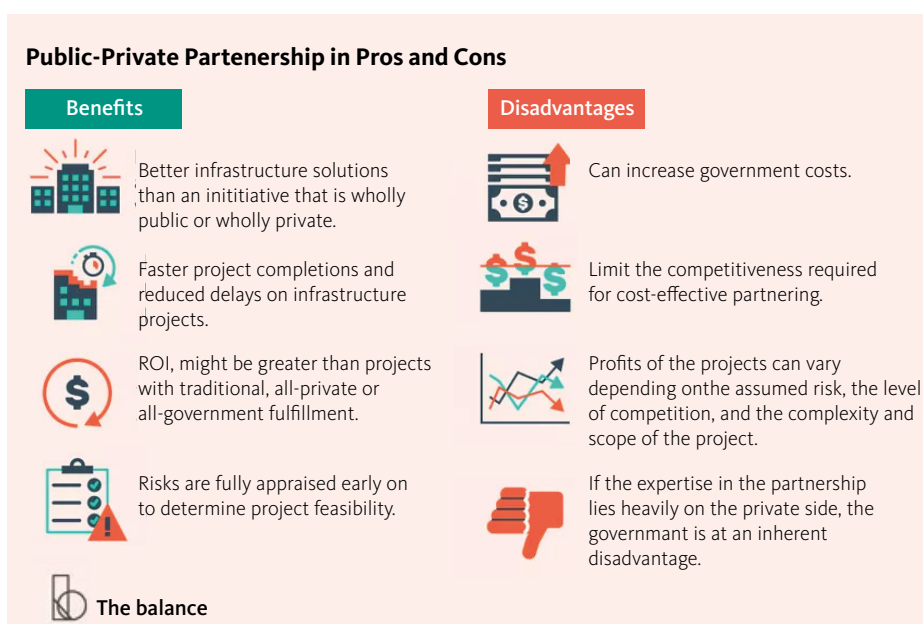


Figure 1 Public -Private Partnership Pros and Cons. From: <https://www.thebalancesmb.com/public-private-partnership-pros-and-cons-844713>

are not a “magic bullet,” rather their suitability must be studied case-by-case. Prior to engaging in a PPP, the public authority needs to assess the economic value of such a partnership, foreseeing the potential benefits, efficiency gains, but also possible risks involved. The most common advantages and disadvantages of PPPs are outlined in Figure 1.

Are PPPs a solution to improve integrity and mitigate corruption?

In 2009 Philippe Martin reported that only 7 percent of the urban population in developing countries has access to water services through private operators (Martin, 2009). In recent years, there has been a large number of studies examining the issue of corruption in the infrastructure sector, and even if PPPs constitute a mechanism with numerous benefits, corruption can occur at any stage of a project (Wells, 2015). It is important to understand what the major corruption risks are in PPPs and, what the main features of PPPs are to prevent corruption. Bildfell (2018) identifies the following risks:

1. **General observations on life cycle risks.** PPPs can increase corruption in different ways. The specific type of governance that regulates them may generate a space for structural weaknesses. Although different problems have various concrete impacts, the damage to the image and credibility of the PPPs affects, in turn, the perception of institutions and the rule of law.

Corruption appears through the weakest links in the system. In the case of PPPs, as across infrastructure procurement processes, the project selection stage and the bid evaluation stage are most vulnerable to integrity risks. These are the key entry points to the contract itself, where the public authority has the utmost decision-making power. Unethical conduct is the bigger risk, during the market-testing phase, as private sector participants may try to “win over” the public sector through improper means. Before contracts are signed, PPPs are not immune to electoral campaign dynamics: a quid pro quo system may take place where private companies finance the campaigns, in exchange for a return in favourable policies and the preferential use of PPPs, which would open up the weaknesses

touched upon previously. Connections between PPPs and electoral campaigns are not new, and although not technically illegal in most countries, they are ethically questionable.

The appearance of corruption at the early stages – or even before the PPPs are set up – can have destructive effects. It will shape the tone of the contracts. Considering their usual length, it will perpetuate for a long period, and it will open up for further elements of corruption in later stages when the attention of the public tends to fade. Therefore, while attentiveness to corruption is key at the beginning, a strong monitoring system is possibly even more important throughout the PPPs' life cycle.

Finally, towards the end of the contract, economic considerations take the spotlight, as the reduced interest for a contract that is close to its end can incentivize engagement in opportunistic, non-ethical practices that are just as dangerous and probably the hardest to tackle. Assessment and auditing are good instruments to reduce these risks, and they should be carried out repeatedly and be overarching, not limited to financial/ economic considerations but look at social, ethical, environmental, and other such issues. The comprehensive and independent audit processes foster

more ethical and transparent conduct, not eliminating all risks, but certainly reducing those that are not as easily visible.

2. Length. PPPs are typically leveraged for projects that span 20 or 30 years to make them a bankable investment for private firms. Hence, it is reasonable to assume that a project might be more subjected to bribes over such a long time span, but also as the project progresses to the end of the contract, the risk for the private actor to neglect the collective benefits in favour of private benefits increases. For example, after 25 year of services, when infrastructure is mostly paid off, the risk for the private actor to maintain a soon publicly owned system at lower quality standards increases. To reduce this risk, regular audits should be performed during the whole cycle of the project, to ensure that parties continue to respect the terms of the project but also corporate governance that increases accountability mechanisms in decision-making processes.

3. Value and complexity. PPPs are often used as a mechanism to finance “megaprojects” so, as the value of the project rises, so does the incentive to gain a competitive advantage using corruption (United Nations General Assembly, 2019). Also, the complexity of roles and responsibilities of the different

Case Study: El Salvador – Integrity Pact promotes transparency around pipe replacement contracts

The National Water and Sewerage Administration of El Salvador (ANDA) committed to build trust and increase transparency around public procurement, decided to sign three Integrity Pacts around the tenders for pipe replacement in the greater San Salvador. An Integrity Pact – a tool developed by Transparency International – is an agreement between the government agency offering a contract and the companies bidding for it that they will abstain from bribery, collusion and other corrupt practices for the extent of the contract. To ensure the Pact is being followed by the parties, the Integrity Pact include the figure of a monitor that oversees the bidding and execution process, provides recommendations and delivers a public statement. The role of the monitor is typically led by civil society groups.

The Integrity Pacts were signed by ANDA as the bidding party, the contractors as the bidders' parties, and the Foundation for Studies on the Application of Law in El Salvador (FESPAD) in the role of monitor. The UNDP-SIWI Water Governance Facility (WGF) signed the Pact as the international witness, in charge of providing advice about the implementation of the Integrity Pact. The financing of the Pact formed part of the activities included in the “Agreement on Technical Cooperation on Improving Integrity in the Management of ANDA” between the UNDP-SIWI WGF and ANDA to improve the management of the organization through the lens of integrity. The work

was supported by the Spanish Agency for International Cooperation and Development (AECID). FESPAD's bidding process evaluation report was presented to the public in press conference in 2016, with AECID and ANDA also present during the event. FESPAD's final report is due to be presented in press conference by the end of 2018.

The signature of the Integrity Pacts forms part of a series of ANDA's initiatives to move forward towards a more open, transparent and accountable management of the organization that aim to increase the efficiency in which resources are being used, to reduce the losses due to corrupt practices and to attract better offers from private sector by building trust. This includes a series of workshops and activities to improve how integrity is being understood and managed by the organization and its staff, what bad practices are hindering its full realization and what can be done collectively to increase ANDA's integrity management, like adopting results-based management or performance indicators for staff evaluation. The workshops were conducted in collaboration with cewas, a Swiss non-for-profit organization, drawing on the methodology of the Integrity Management Toolbox.

Source: This case study was originally published in The United Nations World Water Development Report 2019: Leaving No One Behind. WWAP (UNESCO World Water Assessment Programme), 2019.

Case Study: Assessment of PPP for water supply in Niger's largest cities.

In 2017 Veolia offered to SIWI the opportunity to assess PPP governance in the area of Water Supply of Niamey. The PPP originates in the decision made in 2000 by the government to take head-on a reform of the urban and semi-urban water supply sub-sector in Niger, and to introduce the private sector in the service provision. On August 14, 2000 the Law 2000-12 was promulgated and forms the basis of the creation of SPEN (Niger Water Asset Company) and SEEN (Niger Water Exploitation Company). In 2001, the Niger Water Exploitation Company (SEEN) was set up under Niger law by Veolia with public and private co-shareholders: private Nigerien shareholders (34%), SEEN staff (10%), the State (5%). Veolia holds 51% of SEEN's shares. As such, in 2001, the four key players in urban water supply were:

1. The Republic of Niger, responsible for the sectoral policy of water supply, the management of water resources, the definition of the legal framework as well as the pricing policy.
2. The Multisectoral Regulatory Authority (ARM), with as mission the application of legislative and regulatory texts, protecting the interests of users and operators, ensuring the economic and financial balance of the sub-sector and the preservation of the economic conditions necessary for its viability.
3. The Niger Water Asset Company (SPEN), a state-owned company, owner of the assets and in charge of further developing the state's asset capital. The Niger Water Exploitation Company (SEEN), a private-law company linked to the State and SPEN by a performance contract, and in charge of operating the assets, of distribution of water supply, and billing the customers.

SIWI's assessment framework was based on the Water Governance Assessing User's guide (UNDP/ SIWI,

2013). It was built on three main components:

- Actors and institutions with their interests
- Governing principles, and
- Governance performance.

SIWI drew the following conclusions:

1. The PPP is widely accepted in Niger. The starting point made most of it: a sector in ruin, with +/- 50% of unpaid water bills assessed to a one-year state budget. After 11 years of service, the 2012 assessment reported 84% of citizens served by SEEN as satisfied. The network performance went from 77.55% in 2001 to 84.17% in 2015. Financial equilibrium was found in 2006. The rate of service in urban areas increased from 65% to 91%.
2. SIWI's assessment identified the building blocks for this PPP to be successful. It also identified the areas for potential improvements.
3. The assessment identified several aspects of governance that are not currently monitored by the PPP partners, nor by the regulator, making the partnership blind to some risks to the served community, and to the financial stability of the sector

The assessment proposed different governance functions and attributes that could be improved on by the partnership, in collaboration with regulator and civil society. It lists governance attributes that could be (better) monitored and proposes actions for improvements. Improving the governance of the sector would positively impact its financial balance. Better performance (more efficient, more effective, more sustainable governance) and greater integrity (less corruption, more transparency and accountability, more stakeholder participation) reduce costs in the short, medium and long-term, increase the confidence of financiers and donors, and therefore attract capital.

parties involved might constitute an opportunity for some in reducing accountability, thus creating blurred limits to the responsibilities of each party.

- 4. Flexibility and open-ended nature.** Flexibility is identified as one of the main values of PPPs, allowing for innovation and ability to react over the long course of the project. However, this same flexibility may decrease the level of accountability contrary to traditional procurement projects that have a more predictable set of scenarios.
- 5. Renegotiation.** There is a high rate for contract renegotiations in PPPs, which is due to the flexibility and open-ended nature of PPP contracts. However, contract renegotiations occur generally behind closed doors posing great concerns about the motives and terms of PPP amendments.

- 6. "Locking-in" and "holding-up."** Although PPPs are known for their contractual flexibility, there is, however, a "locking-in" effect for the contractor. Since a considerable up-front investment must be made, the fear of losing that initial investment decreases the firm's leverage power in the event a government agent asks for particular benefits for a personal gain. Relatedly, "holding-up" is considered the other side of the coin and occurs when a project is "too big to fail." In such a case, the firm might ask for concessions to the government, which in return, the public entity might be forced to accept for political reasons.
- 7. Pressures for performance.** PPPs are designed to put pressure on proponents based on performance indicators. While this can increase efficiency, it could also constitute a reason for the parties to find shortcuts to stay afloat.

- 8. Collusion.** Interest alignment from the parties is considered advantageous as it fosters collaboration and encourages the achievement of mutually held objectives by the public authority and the private firm. However, it can also constitute an opportunity for underestimating the costs and/or overestimating the benefits of a proposed or existing project. For example, for a government agent competing for national budget, a private firm naturally would present a proposal to meet the terms and increase the chances of securing a contract. Although this scenario can bring more competitive offers to the bidding process, it can also, however, constitute an opportunity for collusion among the bidders.
- 9. Unsolicited bids.** In PPPs the project proposals are initiated, designed, and submitted by private firms. In principle, this should not constitute a problem in it of itself, since the government retains the last decision over the projects. However, the main concern is that since the private firm is the one that initiates the process, in order to ensure public interest prevails, PPPs must ensure fair competition and transparency, which is not always the case.

Despite these risks and shortcomings mentioned above, PPPs can constitute a mechanism to prevent corruption as identified in the below benefits:

- 1. Elimination of principal-agent problems:** The risk of developing corrupt relationships between a government officer and private firm increases when the officer stays in the same position for the entire length of an agreement (Rose-Ackerman & Truex, 2012). In PPPs, due to the length of projects, it is very unlikely that the same government officials will remain on the

same positions for the whole project, thus decreasing the risks of corruption (Bildfell, 2018).

- 2. Focus on long-term outcomes:** When the project includes the continued involvement of the private firm in the maintenance and operation of the project, there is little incentive for using poor quality products, because it will result in increased long-term costs for the contracted firm, undermining its performance obligations during the operation and maintenance phase, and hence payment if it is based on performance targets (Bildfell, 2018).
- 3. Enhance expertise and learning of governments from previous projects:** PPP models for water infrastructure financing have been advanced across many countries of the world today with accompanying national legislation that govern their use. As such, much national and institutional learning has taken place making the model more robust in mitigating corruption concerns than ever before.
- 4. Regular audits and increased oversight:** An effective system of internal control and financial reporting is needed to monitor irregularities. The independence of the auditors must be ensured and enough resources and capacity need to be provided to have reliable audits (OECD, 2009).
- 5. Clear roles and responsibilities including ethical codes that are open to the public:** Developing codes of conduct for both government authority and private firms which include: clear standards and definitions on what constitutes a corruption act; guidelines on how staff (both from public and private parties) deal with conflict of interest, prejudices and grey areas that

Case Study: Lesotho Botswana Water Transfer (LBWT) Project

The Orange-Senqu River Basin Commission (ORASECOM) is the river basin organization established in 2000 by the Governments of the four States for managing the transboundary water resources of the Orange-Senqu River Basin and promoting its beneficial development for socio-economic well-being and safeguarding the basin environment. As part of the AEWPP project, SIWI and the Climate Resilient Infrastructure Development Facility (CRIDF) have partnered together to mobilize finance for the Lesotho Botswana Water Transfer (LBWT) Project. This includes establishing the institutional and financial structuring options relevant to the LBWT Project. The project aims to support the development of a pre-feasibility study to investigate the viability of abstracting water from the Makhaleng River, the preferred water resource development option in Lesotho, conveying it through South Africa to Botswana by considering engineering, institutional, procurement, costing, social, legal, environmental, economic and financial factors.

SIWI and CRIDF support specifically entails consideration of the alternative institutional and financial structuring options that will assist in optimizing the outcomes of the project. Early reports by specialist consultants are elaborating on traditional and alternative procurement mechanisms as well as the impact thereof on the institutional and financial options.

AEWPP's engagement in this project is particularly relevant given the contextual relationship to a similar regional project, the Lesotho Highlands Water Project, which experienced significant corruption challenges. Integrity related lessons learned from the LHWP experience, for both local and international levels (Earle, 2006) have been integrated into the AEWPP engagement approach. Moving forward, as with other transboundary projects of this nature, it will be important for ORASECOM and the relevant countries to consider the technical options, the economic cost-benefit, the commercial viability as well as the institutional and procurement options that will facilitate the optimal delivery of the project.

are encountered in everyday work; and sanctions for integrity breaches (OECD, 2016).

6. Enhanced scrutiny and transparency: PPPs include private sector financiers and third-party participants such as auditors (private or social institutions). When a third-party institution is fully involved, then the whole project is subject to a higher degree of scrutiny which can reduce the risks of corruption as more stakeholders are negotiating, probing, and testing the agreement. PPPs also must be subjected to major access to information acts.

Conclusion

When examining the relationship between integrity and PPPs it is clear that there are both integrity building opportunities, as there are also significant risks. The public authority tasked with oversight of the PPP needs to have sufficient capacity to monitor and regulate all aspects of its implementation, ensuring that maximum value for money is being obtained for the tariffs being collected. In the absence of such a regulatory function being performed by the public authority there is the real risk that the operational and financial terms of the PPP will favour the private company at the expense of the population being served.

The quality of the process, from project initiation, throughout the life cycle, including the long-term operation, is critical. Continuous and robust mechanisms for external evaluation and audit, combined with accountability mechanisms to the citizens constitute key elements to reduce the corruption risks and maximize the potential benefits of PPPs.

References

African Development Bank Group (2018). African Economic Outlook 2018. Retrieved March 5, 2019, from https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/African_Economic_Outlook_2018_-_EN.pdf.

Ambraseys, N., & Bilham, R. (2011). Corruption Kills. *Nature*, 469 (January), 153–155. <https://doi.org/10.2307/j.ctt183p35j.10>

Bildfell, C. (2018). P3 Infrastructure Projects: A Recipe for Corruption or an Antidote? *Public Works Management and Policy*, 23(1), 34–57. <https://doi.org/10.1177/1087724X17709791>

Dudley, R. G. (2000). The rotten mango: the effect of corruption on international development projects. *Proceedings of the 2000 System Dynamics Conference*, 59–60.

Earle, Anton and Turton, Anthony. (2006) *No Duck No Dinner: How Sole Sourcing triggered Lesotho's Struggle against Corruption*. Conference Paper.

EUWI EU Water Initiative. (2011). *Financing for Water and Sanitation A Primer for Practitioners and Students in Developing Countries*. 44.

General Assembly. (2015). *Report of the Special Rapporteur on the human right to safe drinking water and sanitation on Affordability*. A/HRC/30/39.

Martin, P. (2009). Public-private partnerships for urban water utilities : a review of experiences in developing. Washington DC 20433: The International Bank for Reconstruction and Development / The World Bank. doi:10.1596/978-0-8213-7956-1

OECD. (2009). *OECD Principles for Integrity in Public Procurement*. <https://doi.org/10.1787/9789264056527-en>

OECD. (2016). *Integrity Framework for Public Infrastructure*.

OECD. (2017). *OECD-WWC-Netherlands Roundtable on Financing Water Inaugural meeting 12–13 April 2017, Paris Discussion Highlights and Roadmap for Future Work*.

Rose-Ackerman, S., & Truex, R. (2012). Corruption and policy reform. *Yale Law & Economics Research Paper*, (444).

Shordt, K., Stravato, L., & Dietvorst, C. (2006). About corruption and transparency in the water and sanitation sector. *Thematic Overview Paper / IRC, no. 16* (December), 39 p. : tab. Retrieved from <http://www.ircwash.org/sites/default/files/Shordt-2006-About.pdf>

UNDP/SIWI. (2016). *Integrity in water governance*.

United Nations General Assembly. (2019). *A /74/197 The impact of mega-projects on the human rights to water and sanitation* (Vol. 12327).

Wells, J. (2015). *Corruption in the construction of public infrastructure: Critical issues in project preparation*.

World Bank Group. (2010). *Procurement arrangements applicable to public-private partnerships (PPP) contracts financed under World Bank projects*. (September), 1–27. Retrieved from https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/ppp_testdumb/documents/GuidanceNote_PPP_September2010.pdf

WWAP (UNESCO World Water Assessment Programme). (2019). *The United Nations World Water Development Report 2019: Leaving No One Behind*. UNESCO Paris.

The Africa-EU Water Partnership Project (AEWPP) is a joint undertaking by the European Union, the African Ministers Council on Water (AMCOW) and the Government of Sweden through Sida that aims to enhance the financial viability of water infrastructure projects in Africa by making more public and private capital accessible for water-related infrastructure projects and encouraging and supporting African governments to invest in water governance through capacity building.

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Authors

This paper has been authored by Pilar Avello with contributions from Elizabeth A. Yaari, James Leten, Alejandro Jimenez and Anton Earle from SIWI and Camilo Cetina, Executive Principal from CAF – Development Bank of Latin America.

About SIWI

Stockholm International Water Institute (SIWI) seeks to strengthen water governance for a just, prosperous and sustainable future.

For more information on the AEWPP please visit www.sivi.org or contact Ziyanda Mpakama, AEWPP Programme Manager, at ziyanda.mpakama@sivi.org.

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