



**INFRASTRUCTURE DEVELOPMENT, THE RIGHT TO WATER, AND PUBLIC
HEALTH RISK: ANALYSIS OF THE INKISI LOOP CRISIS IN KONGO CENTRAL,
DEMOCRATIC REPUBLIC OF THE CONGO**

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Abstract

Access to safe drinking water is a fundamental determinant of public health and a recognised human right. In the Inkisi Loop, Kongo Central Province, Democratic Republic of the Congo (DRC), road concreting works have led to a prolonged disruption of water supply for surrounding communities and certain health-care facilities. This article analyses the situation in light of public health evidence, legal frameworks, and governance challenges. It demonstrates how an infrastructure project that is insufficiently health-sensitive can generate predictable and avoidable public health risks, and it proposes recommendations to strengthen infrastructure governance that protects health and promotes equity.

1. Context and problem statement

In sub-Saharan Africa, investments in road infrastructure are widely regarded as essential for economic development and territorial integration. However, when such projects fail to take into account the fundamental determinants of health, they can generate adverse public health effects.

In the Inkisi Loop, the settlements of Gare, Mission, and Nkandu have faced a prolonged loss of access to safe drinking water for several months following road works. Water pipelines were damaged or destroyed without durable repair or adequate compensatory measures, turning a development project into a source of increased public health vulnerability.

2. Disruption of water access and predictable public health risk

Access to safe drinking water, hygiene, and sanitation (WASH) is recognised as a central pillar of public health. Scientific evidence shows that inadequate access to water is associated with a significant increase in morbidity and mortality from waterborne diseases, including infectious diarrhoeal diseases, cholera, typhoid fever, and certain parasitic infections.

In the Inkisi Loop, the duration and scale of the disruption in water supply reflect not only a technical failure but also the absence of institutional mechanisms to safeguard essential services during public works. This constitutes a predictable and avoidable public health risk, rather than an unforeseen collateral effect of development.



3. Health-care facilities without water: implications for the health system

The situation becomes particularly critical when health-care facilities themselves are deprived of access to safe drinking water. In the Inkisi Loop, the Gare Health Centre and Maternity Unit, as well as other health facilities, are operating without secure access to water.

From a health systems perspective, this situation compromises:

- infection prevention and control,
- the quality and safety of maternal and neonatal care,
- the protection of patients and health-care workers,
- public trust in health services.

International standards clearly establish that the availability of water is a prerequisite for health service readiness and safety. Its absence reveals a governance failure in safeguarding the essential functions of the health system during infrastructure projects.

4. Legal framework, human rights, and State obligations

Access to safe drinking water is enshrined in Congolese constitutional law and in international human rights instruments.

The Constitution of the Democratic Republic of the Congo guarantees:

- the right to health (Article 47),
- the right to a decent living environment and access to essential services, including water (Article 48),
- the right to a healthy environment, of which water is a fundamental component (Article 53).

These constitutional provisions impose a positive obligation on the State to prevent harm to the environmental and health determinants of health.

This obligation is further specified in Law No. 15/026 of 31 December 2015 on water, which recognises water as a national common good and guarantees the right of access to safe drinking water, while requiring the State and public entities to protect and secure this access, including during public works.

At the international level, the DRC is a party to the International Covenant on Economic, Social and Cultural Rights, which explicitly recognises the right to safe drinking water and sanitation as a prerequisite for the realisation of the right to health.

Within this multi-level legal framework, any prolonged deprivation of access to water linked to infrastructure works, without corrective measures, engages the responsibility of the competent authorities.

5. Social determinants of health and equity

The Inkisi Loop crisis illustrates the central role of the social determinants of health. Affected populations are forced to rely on unsafe water sources, bear additional economic costs, and assume increased domestic workloads.

Evidence shows that women and children are particularly exposed, thereby exacerbating existing social and health inequalities. Infrastructure projects that fail to account for these determinants risk reinforcing vulnerabilities rather than contributing to health equity.



6. Governance gaps and implications for public policy

This **situation** highlights several structural governance gaps:

- the absence of health impact assessments prior to infrastructure works,
- insufficient intersectoral coordination between the health, water, and public works sectors,
- the lack of contingency plans for essential services,
- limited mechanisms for community participation and accountability.

The international literature recommends health-sensitive infrastructure governance, systematically integrating WASH standards, health impact assessments, and intersectoral coordination mechanisms.

7. Public policy recommendations

Based on the available evidence, the following actions are recommended:

1. immediately repair and secure damaged water pipelines;
2. prioritise the restoration of safe drinking water in all health-care facilities;
3. implement interim emergency solutions in line with WASH standards;
4. institutionalise health impact assessments for major infrastructure projects;
5. strengthen intersectoral coordination between health, water, and public works sectors;
6. involve local communities in monitoring and preventing public health risks.

Conclusion

The water crisis in the Inkisi Loop is not an isolated incident. It reveals structural weaknesses in the governance of health-sensitive infrastructure projects.

Protecting access to safe drinking water is essential for health system resilience, equity, and sustainable development. Acting decisively can restore coherence between development objectives, legal obligations, and public health outcomes.

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