

Reducing the risks of zoonoses in Burkina Faso through a One Health approach

Lessons from water, sanitation and hygiene initiatives

Policy brief – June 2025

Key messages – how to address zoonotic health risks

Integrate zoonotic health risks into WaSH policies.

National water, sanitation, and hygiene (WaSH) policies and strategies can play an important role in addressing zoonoses, i.e. disease and infection spreading from animals to humans. Animal excreta pose a major risk, yet the topic is largely overlooked in Burkina Faso's WaSH policies.

Raise awareness of animal-related health risks.

Animal excreta is frequently reused as organic fertilizers in agriculture and horticulture, but many farmers are not aware of the associated risks. Traditional practices involving the handling and use of animal excreta are often carried out without proper treatment, protective measures, or training. This exposes farmers and livestock keepers to zoonotic infections such as brucellosis and tetanus.

Projects offer promising approaches that can be scaled up.

Burkinabe initiatives such as SELEVER, the Clean and Productive Village (VPP), and CLTS+ have successfully driven behaviour change at the community level through participatory and educational approaches. While their reach remains geographically limited, these projects demonstrate that incorporating targeted WaSH messaging on animal waste management can lead to significant public health improvements.

Purpose of this policy brief

Burkina Faso faces many challenges related to the health and wellbeing of its population, but the country has also been home to innovative projects that point to potential solutions.

SIANI's expert group *One Health in Burkina Faso* has analysed several initiatives related to water, sanitation and hygiene (WaSH). In this policy brief, we study how WaSH interventions can reduce the risk of zoonoses, i.e. diseases and infections from animals to humans.

The brief builds on the report *Reducing Zoonosis Risks in Burkina Faso – Water, Sanitation and Hygiene with a One Health Approach* and has three main objectives:

- to assess to what extent animal excreta management is considered in national WaSH policies;
- to identify key implementation gaps in WaSH interventions at the community level;
- to map existing experiences, constraints, and needs related to zoonotic risk management within WaSH initiatives in Burkina Faso.

The methodology follows a mixed-methods approach, combining a systematic document review, a qualitative field survey, and participatory validation through a workshop.

WaSH challenges in Burkina Faso

The United Nations General Assembly, through Sustainable Development Goal 6 (SDG 6), enshrines the fundamental right of every individual to equitable access to safe drinking water, as well as hygiene and sanitation services that are culturally appropriate, affordable, and respectful of human dignity.

In Burkina Faso, despite notable progress—such as a national drinking water access rate estimated at 78.3% in 2023 (according to the annual sector performance report)—significant challenges persist, particularly in sanitation and hygiene. National access to sanitation infrastructure remains low, averaging just 28%, with substantial geographic disparities: 40.5% in urban



Photo:
Abdoulaye Pedehombga

areas compared to only 22.7% in rural areas.

Moreover, open defecation remains widespread, affecting 65% of rural households, underscoring the urgent need to intensify efforts to improve hygiene and sanitation, especially in rural settings. This already precarious situation is further compounded by insecurity and forced displacement and is exacerbated by the lack of integration of zoonotic risks into WaSH policies—despite evidence from the World Organisation for Animal Health (WOAH) indicating that 60% of human infectious diseases originate from animals.

Lessons from the Burkinabe experience

National policies, legislation, and strategic plans

As part of the report Reducing Zoonosis Risks in Burkina Faso, a literary review was conducted of twelve national documents related to water, sanitation, and hygiene (WaSH), eight of which were national policy or strategy documents and four legislative or regulatory texts. The objective was to assess the extent to which existing frameworks explicitly consider the health risks associated with animal excreta.

The report showed a widespread lack of explicit consideration for the management of both human and animal excreta within public policies and sectoral strategies. These issues are addressed in a fragmented and isolated manner, without coherent or cross-cutting integration into national WaSH frameworks.

Only three legislative texts specifically address zoonotic risks associated with animal excreta:

- The prohibition of discharging animal waste in public roads and spaces.
- The ban on burying animal carcasses within residential compounds or households.
- The strict regulation of livestock farming in urban environments.

As for the projects and programmes implemented by public institutions, NGOs, or private partners, only four out of the fifteen technical reports or studies reviewed explicitly incorporate animal excreta management into their hygiene promotion and domestic sanitation strategies.

Insights from prevention interventions

The report also included an in-depth study of three initiatives that do explicitly integrate zoonotic risk prevention into WaSH strategies: the Community-Led Total Sanitation (CLTS) model adopted at the rural level, CLTS applied in an urban intervention in Yako, and the Clean and Productive Village (VPP). These interventions adopt a holistic approach consistent with the One Health paradigm, which emphasizes the interconnectedness of human, animal, and environmental health (Destoumieux-Garzón et al., 2018; FAO-OIE-WHO, 2019).

Community-Led Total Sanitation

The first two initiatives are adaptations of the Community-Led Total Sanitation (CLTS) model, extended into a version known as CLTS+, which incorporates the management of animal excreta into community-level sanitation dynamics.

- The first initiative, implemented in some 30 rural villages in 15 municipalities across the Centre-Ouest, Boucle du Mouhoun, and Hauts-Bassins regions, aimed to reduce children's exposure to faecal pathogens—aligning with Spears' (2013) findings on the relationship between unsanitary environments and child stunting. It combined hygiene promotion, improved sanitation infrastructure, and modifications to livestock rearing practices.
- The second intervention, conducted in the urban commune of Yako in the Northern Region, sought to eliminate open defecation and expand sustainable access to WaSH services in households, schools, and health centres, following WHO's WASHFit standards (2018).

In both cases, the interventions mobilized the three core phases of the CLTS+ process (pre-triggering, triggering, and post-triggering), resulting in significant behavioural changes. These included the construction of animal enclosures, regular cleaning of household compounds, installation of handwashing stations, latrine construction, and the creation of local sanitation committees.

This participatory process fostered strong local ownership, facilitated by mechanisms of social capital

(Putnam, 2000), and encouraged the spontaneous dissemination of improved practices to neighbouring communities (Rogers, 2003).

Clean and Productive Village

The third initiative followed the Clean and Productive Village (VPP) approach, grounded in ecosystem thinking. It combines basic sanitation with the safe agricultural reuse of human and animal excreta, along with other organic waste, through two complementary components:

- a “clean village” component, focused on health promotion, and
- a “productive village” component promoting composting of organic waste for soil fertilization.

This model, aligned with the principles of the circular economy and regenerative agriculture (Pretty et al., 2018), demonstrates the health, food security, and environmental benefits of integrated organic waste management (WHO/UNICEF, 2021).

Community experiences, constraints and needs

To understand how different actors experienced the initiatives that integrated zoonosis awareness into WaSH programmes, the researchers organised discussions in focus groups with beneficiaries as well as a participatory feedback workshop with WaSH stakeholders.

Twelve focus group discussions were held. In total participated 135 people (68 women and 67 men), across six purposively selected localities in the North and Centre–West regions. The discussions provided in–depth insights into the experiences, constraints, and needs of beneficiaries related to the adoption of good WaSH practices, particularly those addressing zoonotic risks.

Before the interventions, participants described a severely degraded health environment, characterized by widespread open defecation around household compounds and in public spaces. This exposure to human and animal excreta significantly increased the risk of diarrheal diseases, especially among children. These observations are consistent with the findings of Prüss–Ustün et al. (2019), which establish a clear link between inadequate sanitation and the burden of waterborne diseases.

Following the implementation of WaSH interventions, communities reported a noticeable improvement in their awareness and understanding of hygiene, sanitation, and health risk management. This positive shift was accompanied by enhanced social cohesion, marked by the formation of local sanitation

committees and the development of solidarity initiatives—such as community contributions to support the construction of latrines for vulnerable households. In several locations, sanitation facilities were also installed in public spaces like schools and markets, with maintenance systems managed locally.

Constraints and needs of the beneficiaries

Despite these gains, several barriers continue to hinder the large–scale adoption of improved practices:

- **Material and financial constraints:** High costs of construction materials (e.g. cement, iron sheets, fencing materials) remain a major impediment.
- **Institutional limitations:** Persistent gaps exist in ongoing training, technical support, and the reinforcement of local capacities.

The needs expressed by beneficiaries center around two key priorities:

- Targeted material and financial assistance, including subsidies and microfinance schemes.
- Strengthened health education and community support mechanisms to sustain behavioural change.

In addition, the participatory feedback workshop with WaSH stakeholders brought to light several systemic constraints:

- The absence of a unified strategic framework integrating WaSH and zoonotic risks within a One Health approach.
- The lack of mechanisms to ensure the long–term sustainability of local initiatives.
- Weak implementation of existing policies related to excreta and wastewater management.

These findings underscore the need to revisit national WaSH policies through a more integrated, community–driven, and sustainable lens.

Recommendations

To sustainably enhance the integration of zoonotic risks into national water, hygiene and sanitation (WaSH) policies and interventions, the following actions are recommended:

- **Strengthen communication and community outreach.** Burkina Faso’s National One Health Coordination Platform (PNCOH) should intensify communication and advocacy efforts promoting the integrated WaSH–Zoonoses approach. Special emphasis should be placed on rural areas, where frequent interactions between humans, livestock, and wildlife increase the risk of zoonotic disease transmission.

- **Improve the policy integration of zoonotic risks in WaSH policies.** National hygiene and sanitation policies should explicitly incorporate animal excreta management. Addressing this policy gap will help reduce zoonotic transmission linked to agropastoral practices and improve environmental and human health.
- **Operationalise the One Health approach within WaSH strategies.** Develop and disseminate a dedicated strategic framework to guide the integration of zoonotic risks into One Health and WaSH programming. This would facilitate better coordination among the human, animal, and environmental health sectors.
- **Ensure the sustainability of WaSH community initiatives.** Establish institutional, technical and financial support mechanisms to ensure the long-term viability of community initiatives. This includes strengthening local capacity and providing material support to vulnerable households for the construction of sanitation facilities and animal enclosures.
- **Enforce existing policies more effectively.** Sanitation and environmental health regulations must be fully enforced, particularly those related to excreta and wastewater management. The focus should be placed on mitigating high-risk practices (e.g., open defecation, informal waste disposal) and encouraging the safe reuse of organic matter in agriculture within a circular economy framework.

Conclusions

Implementing these recommendations would enhance the resilience of WaSH systems in Burkina Faso to zoonotic threats and future public health crises. It would also strengthen the synergy between public health, food security, and environmental sustainability, in line with the One Health vision and the Sustainable Development Goals of the 2030 Agenda.

References

The following documents have been reviewed for this brief:

- Destoumieux-Garzón, D., et al. (2018). The One Health concept: 10 years old and a long road ahead. *Frontiers in Veterinary Science*, 5, 14.
- FAO, OIE, WHO (2019). Taking a multisectoral, One Health approach: A tripartite guide to addressing zoonotic diseases in countries.
- Spears, D. (2013). How much international variation in child height can sanitation explain? Policy Research Working Paper; No. 6351. World Bank.
- WHO (2018). WASH FIT: A practical guide for improving quality of care through water, sanitation and hygiene in health care facilities.
- Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community*.
- Rogers, E. M. (2003). *Diffusion of Innovations* (5th ed.). Free Press.
- Pretty, J., et al. (2018). Global assessment of agricultural system redesign for sustainable intensification. *Nature Sustainability*, 1(8), 441–446.
- WHO/UNICEF (2021). Progress on household drinking water, sanitation and hygiene 2000–2020: Five years into the SDGs.



The views and content in this document are the authors' own, and do not necessarily represent the views of SIANI or its members or partners

The Swedish International Agriculture Network Initiative, SIANI, is an open and inclusive network that supports and promotes multisector dialogue and action around our vision of sustainable agriculture for food security, improving nutrition and the eradication of hunger. Our work is aligned with Agenda 2030 and in particular Sustainable Development Goal 2. SIANI believes that agriculture matters – to get involved go to www.siani.se