ANDEAN COMMUNITY POTABLE WATER COMMITTEES, BOLIVIA

Heritage-based governance for equity

In the peri-urban settlements of Cochabamba, Bolivia, neighbourhoods excluded from municipal water services created Comités de Agua Potable y Saneamiento (CAPS). Rooted in Quechua traditions of reciprocity and communal labour, CAPS formalized heritage-based governance while integrating with national law. They extended reliable water, ensured affordability, and increased women's leadership—becoming a model for inclusive utility reform.

The Cochabamba Highlands are semi-arid, with rains concentrated between December and March. In the city's southern belt, municipal expansion lagged, leaving residents to secure water themselves. CAPS emerged to finance, build, and manage local supplies, providing wells, small distribution systems, and governance mechanisms where the utility SEMAPA was absent (Marston, 2014; UCL, 2015).

CAPS build on Andean traditions of ayni (reciprocity) and minka (collective labour). Springs and canals were historically sacred, linked to rituals for apus (mountain guardians). Customary rules of fairness and collective action underpinned legitimacy, and these traditions were translated into modern neighbourhood governance structures (Marston, 2014; The Guardian, 2016).

TRADITIONAL KNOWLEDGE OF THE COMMUNITY

- **Source protection:** safeguarding springs with vegetative buffers and ritual prohibitions against pollution.
- Hydraulic design: building low-cost gravity-fed networks and phasing distribution extensions.
- **Governance norms:** using seasonal calendars to allocate supply fairly and organizing minka work days for maintenance.
- **Social stewardship:** elders and women ensured compliance with rules, linking technical reliability to cultural obligations.

KEY CULTURAL HERITAGE AND INTEGRATE TRADITIONAL KNOWLEDGE IN PROJECT DESIGN

- **Legal framework:** Bolivia's Water and Sanitation Law 2066/2000 created space for licensed community providers, giving CAPS formal legitimacy (Lexivox, 2000).
- **Community governance:** elected boards—often including women—retained authority to set tariffs, manage expansions, and enforce rules rooted in ayni and minka.
- **Hybrid financing:** household contributions were combined with NGO and municipal support for drilling and infrastructure.
- **Ritual continuity:** annual spring-cleaning and offerings to apus were institutionalized as part of system operation, reinforcing cultural identity (Marston, 2014; World Habitat, 2016).

LESSONS LEARNED

- Formal recognition of community providers enhances durability.
- Heritage-based governance can be modernized without losing legitimacy.
- Women's participation strengthens service quality and equity.
- Blending customary norms with legal frameworks reduces conflict and ensures sustainability.
- Community-led systems can deliver affordable, scalable services in peri-urban contexts.