GOVERNMENT OF NEPAL

EUROPEAN UNION

Ministry for Foreign Affairs of Finland

Sustainable Rural Drinking Water Supply

RVWRMP The Approach

- Community Self-Management
- Municipal Policy Development
- Gender and Social Inclusion
- Cooperative Affiliation
- Water Safety Planning
- Village Maintenance Workers
- Step by Step approach
- Income Generation
- Multi-Use-Services

RVWRMP

Rural Village Water Resources Management Project-III

Sudurpaschim and Karnali Provinces, Nepal

FCG

Integrated Systems for Sustainable Water Supply

Based on years of experience with hundreds of water supply systems, RVWRMP has developed a roadmap to their sustainability. Safe drinking water, improved sanitation, and hygiene behaviour (WASH) have always been the backbone of the Project. Over time, new program elements were added to strengthen the sustainability of the WASH service. For example, the need for a sustainable Operation and Maintenance (O&M) fund of the Water Users and Sanitation Committees (UC), led to work with cooperatives. The need to pay for water, led to water-based livelihood activities to generate income. Water scarcity was tackled by recycling waste-water for home gardening. Multiple Use Systems (MUS) were introduced by including small-scale irrigation, water mills, and drinking troughs for cattle. These examples show how holistic development around water contributes to increased sustainability of the water supply.

Technical, Social, Environmental, Financial and Institutional Sustainability

Many technical/social/financial/environmental/institutional aspects have to be in place to guarantee reliable service levels without major rehabilitations for a minimum of 15 years.

Technical: The basis of sustainability is well-designed robust infrastructures that are functional, and serve the needs of the people. The technical design aims to utilize every drop efficiently. Step by Step (SbS) and Post Construction manuals contain steps for inclusive, participatory planning; development of individual and community capacities for operation and maintenance (O&M); and transparency through public auditing and monitoring of the scheme. The quality of construction is strictly monitored and procurements follows the procurement manual. After the construction, the UC is supported through a Post Construction trajectory for the minimum of 6 months. SbS implementation and shared learning creates capacity for self-management by the UC. Village Maintenance Workers are trained in solving problems and management of spare-parts and tools. Water Safety Plans (WSP) are prepared for risk management and planning for scheme operation and maintenance.

Social: Each project starts with mapping of the current situation and needs. Pre-feasibility studies evaluate not only the technical or environmental, but also social and financial feasibility, by looking at the community commitment and (water) disputes. Scheme construction and management is in the hands of the elected UC members and the water users from the initial planning to post-construction. Almost all of the planning and construction is done by the local citizens, facilitated and technically supported by the Project. The schemes are not 'handed over' to the community, since the community is in the driver's seat of the project from the beginning. Throughout the process, special attention is paid to participation, gender equality, and inclusion of disadvantaged groups including disabled people, and proportional ethnic representation. Buy-in from traditional, political, educational, and religious community leaders is sought for major leverage. Six major mass meetings/public audits during the construction process keep everybody informed and involved. Participation and transparency from pre- to post construction creates ownership and social cohesion and strengthens bonds between the stakeholders.

QARQ Criteria for drinking water

Quantity:	45 lpcd or more
Accessibility:	Within 15 minutes round trip
Reliability:	12 months uninterrupted service
Quality:	Free from bacteriological contamination (PA vial test)

Environmental Sustainability, Climate-Adaptation and Disaster Risk: The Project promotes protection of the water sources through recharge, retention and reuse principle, risk reduction activities and conservation plantation for continued water flow in the future. Together with the local tradition of community forestry, terracing and using compost, it ensures high level of protection of the watershed. Resilient designs and risk reduction consideration reduce damages of disasters like floods, landslide, drought and earthquakes. An example of adaptation is that water reservoirs are now build at the source and extra storage volume is added for the dry season. Source protection and conservation of this type store the water during high discharge and use in the dry period. Implementation of Water Safety Plans (WSP) include disaster risk reduction and climate adaption actions in all water schemes, such as risk identification, source protection, O&M modalities, plantation, surface water diverting drains, structures improvement, water recharging pits, and animal troughs. Erosion from new roads is worrisome and the Project is thinking how to address it.

Core Sustainability Indicators	*Secondary Sustainability Indicators*
A. UC registration and renewing	A. UC membership/ annual general assembly
B. Functional status of the scheme	B. Annual planning/ reporting shared with RM
C. Village maintenance worker availability	C. Management of spare parts and tools
D. Active O&M management and water tariff collection	D. Book keeping and documentation
E. Regular meetings of UCs	E. Active affiliation with cooperatives
F. Implementation of Water Safety Plan	

Financial: Water tariff calculation and collection starts during project implementation. An O&M fund is set up to buy spare parts and pay for repairs. Preferably a cooperative is responsible for the management of the O&M Fund. It builds up interest from the savings of the UC, which then is used to provide micro-finance services to the community. Cooperatives provide multiple benefits to the community since they keep the funds in circulation through micro credits. The Project also supports advanced capacity building and poly-house investments for income generation from the water resources. The increased benefits for the users increases their willingness to pay for water, and thus contribute to the overall sustainability of the scheme.

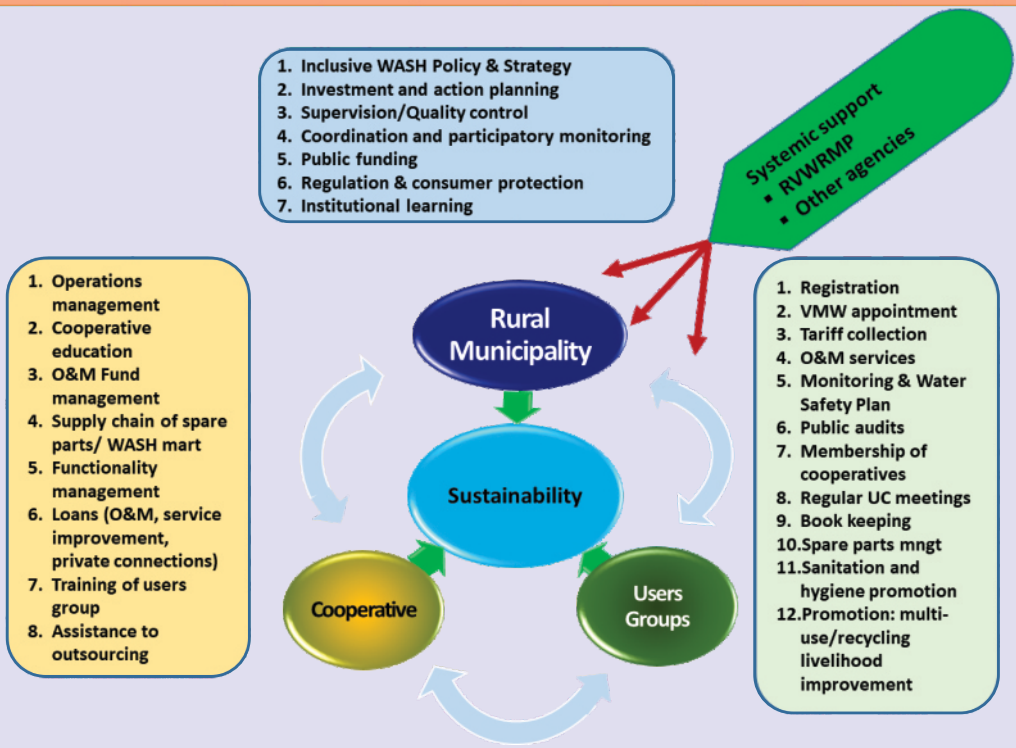
Shared Responsibility: Rural Municipality, Users Committee, and Cooperative

Institutional sustainability of O&M is ensured by coordinated actions between three key players: the Water Users and Sanitation Committee (UC), the cooperative and the Rural Municipality (RM). Federal and provincial policies steer the policy formulation at RM level. RMs are responsible for serving the citizens with safe water supply, formulation of local policies, and monitoring the functionality of the systems. The Project supports drafting of O&M management policies. Project support to other local bylaws and regulations for school WASH, hygiene behaviour, gender equity and social inclusion, menstrual hygiene management, waste management, and environmental protection, are in the pipeline. The Project produces official Water Use Master Plans and Livelihoods Implementation Plans with the RMs, including sectoral development objectives and strategies with water scheme prioritisation policies and investment schedules.

The Project motivates UCs to formally affiliate with cooperatives, and open O&M accounts with a credit-line. Under emergency situations, the cooperatives can quickly fund necessary repairs. In addition, cooperatives are entry points to channelling livelihood promotion, capacity building activities and investments such as Improved Cooking Stoves and supply of spare parts. Cooperatives are the stepping-stone to more entrepreneurial forms of managing water supply in public-private partnership arrangements.

At the UC level, the representatives are elected annually in a public mass meeting. Day-to-day O&M is done by a trained and paid Village Maintenance Worker (VMW). They are motivated men and women that have gained the knowledge and skills for small maintenance and repairs. Local Resource Persons capacitate the sustainability management of the schemes.

BUILDING BLOCKS FOR SUSTAINABLE WATER SUPPLY



Water management is at the centre of healthy lives and wellbeing of the people in the Far- west of Nepal. The Project invests to support the people to exercise their right to safe drinking water. With more than 600 schemes built, RVWRMP has learned what it takes to set up sustainable water services.
The lessons are the basis for working with Rural Municipalities and local organizations in providing the population with sustainable water supply, sanitation, and hygiene.

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