A Universal Language for Community-driven Water Management

Going Digital in Support of SGD 6

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Context

Water scarcity currently affects over 40% of the global population and this problem is projected to worsen as climate change results in increasingly erratic and extreme weather combined with rising temperatures (UNDCP, 2015). The link between poverty and water scarcity, as well as exploitation of water resources, has been well documented (Mdzansio, 2015). The vast majority of the affected population will be located in semi-arid regions within Asia and Sub-Saharan Africa (World Bank, 2007), which also continue to be the greatest number of poor and the highest incidence of water poverty (IPAD, 2013). An increasing number of these living in poverty have identified access or control of water resources as more critical than access to food, primary healthcare and educa-
tion (Barker et al., 2005). In many instances, poverty and elevated water rates have been caused by anthropogenic interventions with the hydrological regime, such as over-extraction for agricul-
tural irrigation which triggers and propagates processes of environmental degradation (Agarwal and Narain, 1999). Based on the ‘natural flow principle’, any alteration to the natural flow condition will alter the river ecosystem (Mittal et al., 2016) and thus, the environmental quality of the river basin.

Improved holistic river basin management (human and physical processes) can regenerate local water resource availability, restore natural capital and contribute to the alleviation of rural pov-
erity in addition to the innumerable possibilities outlined by Hetherington et al. (2009). The successful management of local hydrological systems and resilience to the impacts of climate change requires a decontextualised, cooperative and community-based approach (Barker et al., 2000). Local community-driven approaches have successfully supplied reliable, sustainable water to local populations and retained potential flow to previously ephemeral rivers across north-western India using indigenous surface run-off collection and storage techniques. This includes the work of the community-based NGO TNM Tarun Bharat Shikshak (TBS) in restoring landscapes across Alwar, Rajasthan. The basic and passive nature of these techniques makes them applicable to communities in communities in dryland and semi-arid and vulnerable rural areas.

Water poverty and rural development: evidence from South Africa


-Rajendra Singh


The literature review revealed a series of traditional engineered water resource management systems exist across India, summarised in Table 1. Water Up focuses on the use of johads in the Sarsa catchment, Alwar, Rajasthan.

Figure 2 The process Water Up undertook to produce the language-neutral educational film, utilising digital tools in the design phase of the johad


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Catching Data

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In this digital age, 85% of the population has access to a mobile phone but almost one third still lack access to safe drinking water and sanitation. This is a unique opportunity to use these technologies to improve all aspects of water resources. Therefore, Water Up has the potential to benefit the 3.2 billion people who currently live with high to very high water shortages or scarcity in rural areas every single day (FAO, 2020). By empowering communities through upskilling and shared leadership with the aim of catalysing landscape reso-
nivation and livelihood improvement around the world, we can contribute towards achievement of the SDGs, particularly SGD 6.

Figure 6 Members of the Wayuu community reviewing the educational film in animation created by the Flow Partnership

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