iDE creates income and livelihood opportunities for poor rural households. Since 1992, iDE has substantially increased the incomes of more than 240,000 poor rural households in Nepal, reaching 1.25 million people.

Multiple Use Water System (MUS)

A multiple use water system (MUS) is an improved approach to water resource management, which taps and stores water and distributes it to farm households in small communities to meet both domestic and agricultural needs. iDE Nepal has positioned MUS as a replacement for existing systems that are typically designed, managed, and financed for a single use. iDE Nepal is considered an authority on MUS; its program is recognized by the IWMI and the MUS Group as a leading application of the MUS approach.

Why Multiple Use? Multiple Use Systems provide a secure, convenient, sustainable source of water for agricultural communities. MUS is superior to conventional water systems which are designed for either agricultural or domestic needs, but not for both. Communities with separate systems suffer from increased costs and inefficiency. In addition, single-use systems frequently end up serving both uses anyway. MUS is highly efficient and allows for improved management of limited water resources. This is especially important for many of the disadvantaged communities iDE works with, who require a system that allows them to maximize the productive output of highly constrained resources.

Technology: The simplest and most economical MUS configurations are gravity fed; they are appropriate when the community is located at an elevation below the water source. Poor and marginalized communities however are frequently located at elevations above their water source. For these communities a powered-pump solution is required. iDE has implemented a solar MUS solution which is both reliable and sustainable.

The Multiple Use System generally consists of two tanks. The domestic use tank is filled directly from the source, while the overflow is used to fill the irrigation tank. This allows communities to monitor water levels more easily and ensures compliance with the official water resource strategy which prioritizes drinking water over other uses.

An important part of MUS is the integration of micro-irrigation technology (MIT). MIT allows communities to significantly increase crop yields, improve water use efficiency, control weed growth, and reduce labor while expanding women's empowerment.

Facts and Figures:

- 246 Total Systems Installed
- 29 Districts with Installations
- 50,000+ People Served
- 8 Solar Powered MUS Systems
- $115USD cost per Household
- Under 12 Month User Payback

Photos by Bimala Rai Colavito

Major Projects Involving MUS Technology:

Project	Dates	Donor	Description
Anukulan-BRACED	2015-2018	DfID	The project will help 500,000 poor and vulnerable people in rural Nepal build their resilience to climate change impacts like floods, landslides and drought through scale-up and integration of proven approaches.
PAHAL	2014-2019	USAID	The project seeks to strengthen livelihoods, improve nutritional status and increase the capacity of 175,000 vulnerable households to mitigate, adapt to and recover from shocks and stresses in communities with deep poverty and high rates of malnutrition in 14 remote districts.
IAPAC	2014-2017	EU	Strengthening the participation of key stakeholders of civil society in decision-making and service delivery towards improved food security and nutrition through increased agricultural development in Banke, Dang and Rolpa districts which suffer from high prevalence of under-nutrition and food insecurity.
ICCA	2012-2017	USAID	Improving climate change planning and developing resilient income streams for 20,000 households. Developing adaptation and watershed management through joint planning of community forestry, agriculture, and governance.
MAWTW	2013-2016	USAID	Promoting women's leadership in agriculture to enhance income, use of labor saving water technologies, empowerment to influence policies and improvement in health and nutrition. The project will increase the incomes of 10,000 households directly and through private service providers.
Solar MUS	2012-Ongoing	Renewable World	Pioneering the design and demonstration of solar lifting for multiple use water systems for domestic and agricultural needs.
MASF	2010-2012	DfID	The project has increased the average annual income of farmers by £125 per farmer, 55.8% of participating households were lifted out of poverty, and 71% of the 24,000 participating households experienced reduced levels of poverty through increased access to markets.
FSI	2010-2011	EU	The project aimed at reducing the vulnerability of targeted families and their children to soaring food prices and food insecurity in Mid-western Nepal.
SIMI	2003-2009	USAID	The project used a value-chain approach to develop smallholder pockets around rural collection centers. The project also developed supply chains for micro-irrigation technologies. More than 70,000 households increased their agricultural incomes by over $200.

Major Ongoing MUS Project Partners: