

## Kingdom of Cambodia

accurately, proxies such as characteristics of the dwelling and land area cultivated may be used as proxy. Until the technologies are firmly established, subsidies at full cost may be required to demonstrate their benefits. In all likelihood, households living below the official poverty line cannot be expected to pay for what is in essence a public good. However, a full subsidy should be given to schools, health care centres, and pagodas. Subsidizing is only possible with financial support. An adaptation fund will make an important contribution to this objective.

### 1.4.2 Technology Action plan for the Transfer and Diffusion of Wells for Domestic Water Supply

Well construction for domestic water supply has been one of the central activities of the Department of Rural Water Supply, which is part of the Ministry of Rural Development. However, with emerging problems such as high arsenic concentration in groundwater, and increasing climatic vulnerabilities and risks, a sound climate-informed planning and decision-making process as well as climate proofing of infrastructure is necessary. To enable the Department of Rural Water Supply and their development partners in making a more climate-informed decision and planning, the suggested actions plans for diffusing and transferring of rainwater harvesting technology are also valid for diffusing and transferring of wells for domestic water supply. In addition, the following focuses should be underlined for this specific technology:

- Climate-proof well designs that can be more tolerant resistant to climatic stresses should be included in the institutional capacity building and research activities;
- Climate hazards and vulnerabilities should be mapped out and the information be shared widely, especially among key actors to serve as a basis for planning and decision-making in selection of rural water supply options, especially well construction. Overlay mapping between arsenic concentrations in groundwater and climate vulnerabilities may provide detailed information for better informed decisions;
- Local maintenance capacity should be packaged with the development of wells and take into consideration social acceptance and local affordability to ensure that the infrastructure can be operated over the longest duration possible.

### 1.4.3 Technology Action Plan for the Transfer and Diffusion of Small Dams, Small Reservoirs, and Micro Catchments

Although small dams, small reservoirs and micro-catchment are low cost, low tech adaption options and have been implemented in Cambodia, the implementation of these technologies remains a challenge due to a number of reasons. Investment cost is a significant obstacle if funding is not available, especially when a community based approach is selected. Based on a study done in rural Takeo province (Dany and Vuthy 2011), local investments were available for construction of sub-canal (see Figure 16: ) only in selected locations. Operation and maintenance of the system also requires budget and good organization of water user groups. Because these technologies are collective assets, collective action would be required to operate and maintain the systems. To enable the diffusion of these technologies, the following action plan is proposed.