

## 2.6 Action Plan for Building of a Concrete Apron/Collar on the Well

### 2.6.1 *Target for Technology Transfer and Diffusion*

The main target groups for actions on climate change adaptation with respect to this technology are communities in Region I. The pilot project will target 2,000 HHs who are affected by the seasonal floods that brings up the challenge of accessing clean water.

The technology will reduce the chances of households failing to access potable safe water supplies during floods. It will reduce the time lost traveling long distances to access good drinking water when the water point gets either damaged, contaminated or cannot be accessed because of the floods. Avoiding such loss of time prevents disruption in productive activities and the negative implications this entails. Time loss to morbidity or taking care of a sick relative especially by women due to water borne disease from contaminated water points is also reduced.

The estimated unit cost of protected well built to be resilient to flooding is US\$4,000. The cost depends on geographical location, soil type-sandy or rocky and distance to site.

## 2.6.2 Proposed Action Plan for Building of a Concrete Apron/Collar on the Well

Barrier	Root cause(s)	Proposed Measure(s)	Justification	Relevant Agency	When	Funding Sources	Indicators for Success	Possible Risks
The high cost of materials for use to improve the wells	The high price of building materials (e.g. cement) due to high demand	<ul style="list-style-type: none"> <li>Promote investments in the manufacturing of building materials</li> <li>Accelerate investment in infrastructure such as housing</li> <li>Promote a reduction in commercial bank's reliance on physical collateral when providing credit for construction)</li> </ul>	<ul style="list-style-type: none"> <li>To create competition &amp; increase supply to reduce price</li> <li>Reduce infrastructure deficit and demand for cement in the long run.</li> <li>Difficult for many SMEs firms to mobilize collateral for security. Will allow construction companies arrange credit to buy cement and other materials</li> </ul>	<ul style="list-style-type: none"> <li>ZDA, MOF, ZAM, ZACCI, BOZ</li> <li>ZDA, ZAM, ZACCI, CBs, BOZ</li> <li>BOZ, CBs</li> </ul>	<ul style="list-style-type: none"> <li>2014 &amp; ongoing</li> <li>2014 &amp; ongoing</li> <li>From 2013 but ongoing</li> </ul>	<ul style="list-style-type: none"> <li>Budgets of relevant agencies</li> <li>As above</li> <li>Budgets of relevant agencies</li> </ul>	<ul style="list-style-type: none"> <li>Investment in mfg industry for building materials</li> <li>Infrastructure constructed</li> <li>% of loans given without physical collateral</li> </ul>	<ul style="list-style-type: none"> <li>Difficult to regulate markets</li> <li>Global &amp; domestic factors</li> <li>Over-regulated financial sector</li> </ul>
	The high cost of fuel that leads to high mobilization costs	<ul style="list-style-type: none"> <li>Streamline fuel procurement process, reduce number of taxes &amp; promote transparency</li> <li>Promote use of alternative and cheaper sources of fuel</li> <li>Introduce subsidy on fuel for Climate Change projects</li> </ul>	<ul style="list-style-type: none"> <li>Will reduce the final price paid by oil consumers</li> <li>Will reduce the cost of fuel</li> <li>Need to reduce high transportation costs &amp; import duty</li> </ul>	<ul style="list-style-type: none"> <li>Min of Com &amp; Industry, ERB, MEWD, CBs, BOZ</li> <li>ERB, MEWD, Research Institutions</li> <li>Min of Com &amp; Industry, ERB, MEWD, CBs, BOZ</li> </ul>	<ul style="list-style-type: none"> <li>2014-ongoing</li> <li>2014 &amp; ongoing</li> <li>2014 &amp; ongoing</li> </ul>	<ul style="list-style-type: none"> <li>Budgets of relevant agencies</li> <li>As above</li> <li>As above</li> </ul>	<ul style="list-style-type: none"> <li>Procurement of fuel is tendered to credible bidders</li> <li>Alternative sources of fuel promoted &amp; used</li> <li>Fuel prices and import duty reduced</li> </ul>	<ul style="list-style-type: none"> <li>Failure by Government to adhere to tender procedure</li> <li>Alternative fuels not accepted by users</li> <li>Distortions in markets</li> </ul>

Barrier	Root cause(s)	Proposed Measure(s)	Justification	Relevant Agency	When	Funding Sources	Indicators for Success	Possible Risks
Inadequate information & knowledge by intended users on the technology	Inadequate Sensitization Campaigns	<ul style="list-style-type: none"> <li>Re-employ extension personnel for awareness creation and sensitization programs</li> </ul>	<ul style="list-style-type: none"> <li>Effective way of imparting information and awareness</li> </ul>	<ul style="list-style-type: none"> <li>Min of Local Government, Min of Community Development</li> </ul>	<ul style="list-style-type: none"> <li>2014 &amp; ongoing</li> </ul>	<ul style="list-style-type: none"> <li>Budgets of relevant agencies</li> </ul>	<ul style="list-style-type: none"> <li>Number of extensions officers</li> </ul>	<ul style="list-style-type: none"> <li>Failure to implement due to inadequate funds</li> </ul>
	Inadequate platforms for knowledge & information sharing	<ul style="list-style-type: none"> <li>Creation of more forums for inter-departmental knowledge &amp; information sharing on water, sanitation and hygiene</li> <li>Support existing platforms for program implementation such as D-WASHEs</li> <li>Identify specific institutions to undertake sensitizations programs on knowledge &amp; information sharing</li> </ul>	<ul style="list-style-type: none"> <li>Need for more coordination &amp; collaboration for agreeing on a shared agenda</li> <li>Strengthening &amp; using already existing structures most cost effective</li> <li>Better results could be expected from using institutions with recognized capacity already</li> </ul>	<ul style="list-style-type: none"> <li>Min of Health, Min of Community Development, ZEMA, NWASCO, Min of Local Govt</li> <li>Min of Health, Min of Community Development, ZEMA, NWASCO, Min of Local Govt</li> <li>Min of Health, Min of Community Development, ZEMA, NWASCO, Min of Local Govt</li> </ul>	<ul style="list-style-type: none"> <li>2014-18</li> <li>2014-18</li> <li>2014-18</li> </ul>	<ul style="list-style-type: none"> <li>Budgets of relevant agencies</li> <li>As above</li> <li>Budgets of relevant agencies</li> </ul>	<ul style="list-style-type: none"> <li>More dialogue platforms established</li> <li>Frequency in meetings by existing platforms</li> <li>Number of sensitization meetings held/Number of institutions doing sensitization</li> </ul>	<ul style="list-style-type: none"> <li>Difficult to regulate them</li> <li>actors that have weakened existing platforms continue</li> <li>Failure to implement due to inadequate funds</li> </ul>