EUROPEAN COMMISSION
HUMANITARIAN AID OFFICE (ECHO)

MISSION REPORT

Subject: Monitoring mission – Sindh, PAKISTAN

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Participants:

- ECHO: Lale, ECHO Bruxelles, & Olivier, Iqbal & Luc, ECHO Islamabad
- Partners: Concern, lead, with WHH & local IPs, TRDP, NDS & RDF

Places visited & Interlocutors:

Thar desert villages from Umerkot

AWARE local NGO

PCRWR – Pakistan Council of Research in Water Resources, based in Hyderabad

1. EXECUTIVE SUMMARY / HIGHLIGHTS

Seemingly good satisfactory WASH implementation in general

EXCEPT

solar powered water pumping systems: those will not be able to be completed within contract ending; then, - no cost – extension considered, and recommended to enable to carry out that very important part of the project with the required expected quality.

2. INTRODUCTION & BACKGROUND

Monitoring mission a month before the contract ends. In general, good activities well lead, with a good although limited impact in difficult desert conditions, marked by under nutrition.

The Thar Desert is the most densely populated desert in the world, with a population density of 83 people per km^2 plus 3.6 % growth rate + (too?) many cattle.

73 years of drought in the last 114 years: that is a normal phenomenon.

3. ISSUES DISCUSSED, COMMENTS AND RECOMMENDATIONS

Quite a few field sites were visited during the 4 days' visits:

Taluka Umerkot: Harkhio Bheel (day 1), Marohar, Bhenrio Bheel, Ratnor (d 2), Lalabah, Vicklokar (d 3),

District Tharparkar, tehsil Chachro: Ranchani + Bagisar, Dadyo Halepota & Nibaaro (d 4).

Most – if not all – villages of intervention are listed as Hotspot of Malnutrition & that was the main parameter for selection.

The situation was found quite similar within Taluka Umerkot: targeting households with mal / under nutrition cases or PLWs, construction of 'tanka', traditional buried water reservoirs, & latrines + 'tarai', communal water points or ponds.

The activities are pretty much the same in tehsil Chachro, where the situation was felt slightly better with more vegetation, probably thanks to better rains in 2015.

Construction of latrines was canceled in Faqeer Abdullah union council where another actor, Awo, was working based on CLTS, Community lead total sanitation, which gives no subsidy at all to avoid conflict & misunderstanding; that actor is involved in long term development, CLTS is very difficult, if at all possible, in the context of short term intervention as it requires drastic behavior change & investment.

We could wonder on the interest or impact of tanka & tarai that collect & retain / store rain water. Those can avail water for an extra 2 to 3 months after the rains – given they do happen – showing they are worth it. Tanka are also used to store water at the household level, which is fetched from a more or less distant water point or delivered by trucking. People met said unanimously & systematically they needed & wanted tanka. Very interestingly, in at least one village, there was an almost complete correlation between the absence of tanka in a household & the presence of mal / sub nutrition. We asked to dig / look into this to see whether such a correlation could be observed more generally; if it was documented to be the case, then tankas should be made available for all households.

When they can afford it or run out of water without anybody able to go & fetch any from a water point, like in the case of the absence of a male in the household, people buy water from tanker trucks coming from Umerkot, more expensive with the distance.

In most cases, underground water is brackish, salted, but still used, including for drinking. That is illustrated by chemical analysis showing high conductivity & high TDS, Total dissolved solids, contents, seemingly systematically well above the WHO standards of 1000 mg/l & almost always above the less demanding Pakistani standard of 1500 mg/l. Other problems are high turbidity, high chloride, high sodium contents.

A technical way to get rid of those unwanted elements is reverse osmosis, RO. RO produces distilled water which then is to be mixed with raw water.

RO is unfortunately not easy. It is costly & requires energy, which can be solar. Household RO plants exist, for a cost of 17 000 PKR, able to produce 70 l/d, with the constraint of TDS < 2000 mg/l: most of the Thar desert underground water is above or well above that limit.

The government has been installing RO plants for a year; we could see 2 functional ones, one very oversized, badly designed, powered by a generator. The main interest of those stations seems to be the motorized borehole supplying water in good quantities.

Concern has showed concerned & hesitant to motorize brackish water points & eventually shared with us. We clearly answered the best 10 possible sites remained relevant as long as the population were already using that water source.

Interestingly, & a subject of concern, social / human issues may have to be overcome: we paid a visit to the good village Nibaaro, considered for solar motorization of a well; the population, 450 households # 2700 cap, + 55 camels, 60 donkeys, told us 2 systems were required: one for the Muslims, one for the Hindus… Their 2 possible wells were less than 50 m apart; we told them the underground water was the same & unique; they reverted no, the water column is different; we explained to them the reason can only be a difference of depth of the well, the water level being the same from the surface… Then, they proposed one motorized system with 2 distribution systems… I thought several taps would be acceptable & reasonable.

An additional advantage of solar powered water systems is that they make camels & donkeys less needed as they are mainly used to pull the rope drawing the water container whereas they require to be fed & watered, a cost that can be eliminated.

We were given quite good profiles for all the villages visited providing with most statistics, population, nutrition data, WASH activities, cattle, deworming campaign – at the same time, those could be even better harmonized & unified between IPs NDS, NGOs Development Society, & TRDP, Thardeep Rural Development Programme, using one format & RDF, Research and Development Foundation, using a different format.

Lecture / training (by ECHO WASH) was given 2 evenings on water pump testing & solar driven pumping: the partner engineers & technicians showed very interested, curious, available & willing to learn – more capacity training, especially technical, would be needed / required regarding motorized pumping for which current knowledge & capacity are very low, actually below basic & insufficient.

The deworming campaign could reach all the animals of the covered villages, more than planned, thanks to the - on the other hand unfortunate – fact that animals were underweight & weak & then vaccine doses had to be divided into 2.

We heard of usury practices regarding loans with interest rates of 50 % per annum or 10 % per month!

Carpet weaving discontinued for girls to go to school in the past & resumed because of draught.

Teachers often disappear with no reason & do not get replaced.

Debriefing session with partners

First, ECHO thanked & congratulated all the partners for their good work, showing great team spirit, good support to each other, great involvement & commitment & availability & talent in difficult conditions, particularly heat & long drives. It was reminded that ECHO is & wants to be available as much as possible, smooth communication making relations better & easier – the failure to the attempt to connect to the army water pipeline should have been communicated sooner & differently than thru the HIP 2016 proposal.

2 – The request was reminded to look into a possible correlation between absence of tanka – household water storage & mal / sub nutrition.

3 – Unlike was observed, metal covers for tanka are to be covered & protected with anti-rust paint; the operation should have been done in workshop before installation: now, it will necessitate for a technician to go back to the concerned sites, dismantle, apply the paint & reinstall.

4 – Timing for the rest of the activities, mainly solar water pumping – why did it not start sooner as it is known the most complicated & lengthy activity, but also, hopefully, having the greatest impact?

Pumping test needs to be conducted – not necessarily a comprehensive one but at least to make sure the well can supply or tend towards supplying the needed water quantity within some 8 hours of direct pumping with sunshine. Then, the pumping system, mainly the right pump & the adequate solar panel, taking into account the head (pressure) & the flow required, needs to be actually designed & sized for every single site.

The optimized site selection has to be conducted taking into account the feasibility, the water quality, the population served – ECHO reminded their availability to assist, for example, on that exercise; a table can be prepared showing all the possible sites with all their parameters to help the optimized selection, possibly with grades & weights given the various parameters to select the highest priority, best feasible sites.

Social mobilization may be required in some sites, like in Nibaaro, to make sure to reach a reasonable consensus. An MoU (memorandum of understanding) / agreement should accompany the motorization project in all sites to specify clearly the agreement & engagements, to make sure the water produced will be availed to everybody, whether Muslim or Hindu or sub cast, poor or less poor; the responsibilities of all parties, the NGO & the community, should be clearly stated & engagements should be taken with signatures. It would be good to look into the possibility to set a water fee to cover the maintenance & repair costs &, ideally, replacement – that should be possible taking into account that some people pay significant amounts of money, for instance, on water trucking on the one hand & that running costs are hardly nothing for many years on the other hand, the pump should have a life expectancy of at least 10 years, normally 15 & up to 20 & even 25 years, the panels have a life expectancy of over 25 years, up to 30 years or more; panels will have to be kept clean of dust regularly, ideally daily.

Then, reasonably, that part of the project is extremely difficult to be completed by the current contract end, 15 May, leaving hardly 3 weeks. Quality, in all senses, technical, social… should not be compromised.

Concern did not want to express before the local partners to avoid the current pace to slow down. Later, they told us they were looking into their accounts to see the possibility of a no cost extension. They were reminded the nutrition activities could not

be discontinued. A request for a 2-month NCE was just received: it is supported & recommended.

On the way back to Karachi, it was agreed & organized to meet with PCRWR – Pakistan Council of Research in Water Resources, based in Hyderabad. We were very well received by an enthusiastic, available, proficient team.

With a skilled staffed laboratory equipped with comprehensive equipment & reagents, they conduct the water analyses. They acknowledged the underground water was not a preferred solution in the Thar desert given its chemical quality; I was surprised to hear them tell that the only viable long term solution is water channeled from the Indus river – that requires massive works & investments, US$ millions, beyond our capacity &, especially, mandate.

On the other hand, they have the capacity & the equipment to conduct the pumping tests, which, both, Concern & their partners do not have. It was agreed to look at possibilities to cooperate, first organizing field visits – they reminded they are civil servants & their services would then be cheap.