

Fact Finding Mission and Drought Master Planning Appraisal Mission Tharparkar Drought, Pakistan 16 to 21 April 2014

WACREP Activity No: 1.3.1.B WACREP Work Package 3: Development of Area Specific Investments

Drought has become a frequent phenomenon in Pakistan especially, in Sindh due to climatic change. According to a report issued by the Economic Survey of Pakistan, drought is one of the factors responsible for poor growth performance in the country. Drought is common in Pakistan if there are no rains during the monsoon season. Drought of 1998–2002 has been considered the worst drought in the last 50 years in the history of Pakistan.



Background

Severe drought has occurred in the Thar Desert of Sindh Arid Zone. Failure of monsoon observed in all the talukas¹ of district Tharparkar (or Thar) of Sindh reeling in drought during November 2013 to 2014. However, the rains were too little and late for many crops in the area and it resulted in severe shortage of food, fodder and water². Higher rates of child deaths and loss of livestock due to diseases were reported. The concern was focused on the extreme water shortages in several pockets of Thar. The food shortages lead to rapid outmigration of people from the area. With the request of Planning Commission of the Government of Pakistan, Pakistan Water Partnership (PWP) led a mission to observe the surroundings and provide recommendations to the Government to conceptualise a response that would address drought from a sustainable development perspective in line with the emerging development strategy and the 5 year planning cycle.

The comprehensive mission report on Thar Drought written by Sardar Muhammad Tariq; Executive Director/CEO, PWP was submitted to the Government of Pakistan on 12 May 2014. Assessment was conducted in drought affected talukas of Thar which include Diplo, Mithi, Chachro, Nagarparkar and pockets adjoining Umerkot. The objective of the mission was to gather primary data on the drought through; collecting water conditions and water sampling in small dams, assessing the health of livestock, state of vegetation and livelihood opportunities, gather viewpoints of the affected communities, government officials and NGOs.

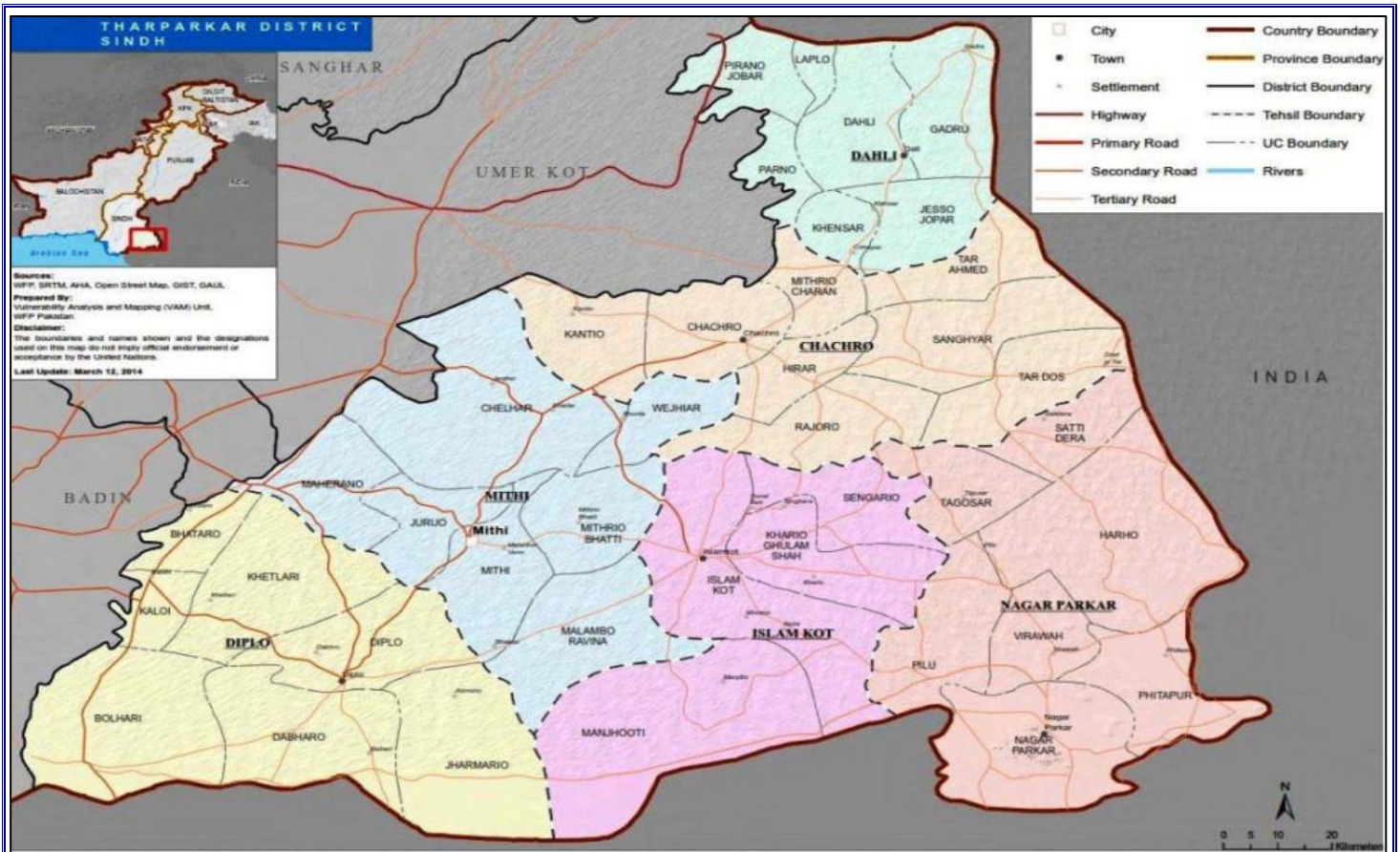
Conceptualizing a Master Plan:

Reportedly, Thar is traditionally prone to drought of varying degree. The desert receives highly variable rainfall, from 100 to 700mm. Some of its areas are within the monsoonal zone and directly benefit from the precipitation. Though the desert is sandy there are little evidences of shifting sand dunes as in the case of Cholistan or Thal. Thar houses a large population of goats, cattle and camel who are being reared through traditional grazing but with poor management. It was evidenced that there is a potential to increase the productivity of the livestock by improving the nutrition intake through introducing multiple and new fodder species and utilizing dam water fed agriculture in some areas. The Thar coal project design is a witness to the massive amounts of gypsum and marble reserves and coal exists in the area. The biodiversity and potential for medicinal spices is vast in the area (eg. India produces large quantities of high value crops i.e. Zeera (Bunium bulbocastanum) along the border. A mega project – a new canal supplemented by rain water harvesting, creation of water ponds/tanks by constructing embankments, introducing arid fodder varieties would provide sustainable solutions for drought mitigation and provision of livelihood opportunities for Tharparkar.

¹ A sub-division of a District

² JAGGARTA Organisation. 2014. Tharparkar Drought 2014

Worldwide, even 50mm of annual rainfall has been effectively harvested and prudently utilized. Worldwide 95 percent rainfall is harvested whereas in Pakistan it is less than 20 percent and still much less in Thar Desert. (S M Tariq. 2014)



Finding solutions for Water Resource development in Thar can be categorised as immediate, medium and long term.

- i) **Immediate** The immediate need is acceptable quality drinking water which can be fulfilled by cleaning the wells which were contaminated with brackish water. Harvested rain water could be utilised for drinking and livestock purposes.
- ii) **Medium Term** The medium term developments would address the water security of Thar. The available natural depressions on the grounds in Thar desert can be filled up with water when it has been protected and linked carefully. Preferably these to be located along the livestock paths and should be monitored regularly.
- iii) **Long Term solution** Flood water is being flown into the ocean without being made useful to people, losing environmental flow and affecting river diversity and coastal protection. These flood water could be diverted to the Thar desert via a canal which runs across the area which would recharge the ground water and fill up the strategically located tanks and ponds. The proposed canal would draw water – average 31 Million Acre-Foot (MAF) which flows without utilising to the sea especially during monsoons/floods. Nearly 1.5 million of population and almost 5 million livestock will be benefited in addition to provision of sufficient water for industries, agriculture and livestock.

Further studies:

- **Extension of Rainee canal to Tharparkar area**
The 174km Rainee canal construction in the left bank of Indus River which offtakes water from Guddu Barrage (Pond Level 255.5 ft. AMSL) is in progress. It was estimated that some areas of Thar can bring under Guddu Barrage by extending the length of Rainee canal in another 345km.
- **Extension of Thar Coal Field water scheme**
Merging water scheme of Thar Coal Field with the suggested Thar Desert scheme is the second suggestion.

Discussions ongoing to provide locally produced *Nadi* water filters introduced by Muslim Aid to people in Thar as a method to provide clean drinking water. The focus was to provide cost-effective water purification units since the water quality of the area is not within the permissible level.

For further information: Mr Karamat Ali, Country Coordinator, Pakistan Water Partnership (PWP), 710, Street 22, I-8/2, Islamabad, Pakistan. Email: pwp@pwp.org.pk, karamat@pwp.org.pk | Web: www.pwp.org.pk

Ms Priyanka Dissanayake, Regional Coordinator, GWP – South Asia Regional Office (GWP-SAS)
Tel: +94 11 2880000 | Fax: +94 11 2786854. Web: www.gwp.org/en/gwp-south-asia