Innovative project to reclaim Barren Land and its transformation into high yield farmland by efficient utilization of water

Dr Aman Nawaz Khan Ustrana
Agriculturist
Consultant Diagnostic and Interventional Radiologist
Director training and Development Rehman Medical Institute
President Elect Radiological Society of Pakistan

Background

- 23% (3.5 million acres) of cultivable land is not utilized due to lack of water (MINFAL & JICA)
- In D I Khan district of the 730575 Hectares of available land, 483773 Hectares of land is not cultivated.
- “Ustrana” area is at the border with DG Khan and is dependent on rain fall and flood channels from Koh Sulaiman for agriculture
- Most of the land in this region is “Barren” due to lack of water.
- A project with support of BoK was planned to reclaim 800 acres of land by solarized tube well irrigation with concrete water courses.

Implementation

- This project has been successfully completed
- 4 sites with 7 solar tube wells and proper water management system has been established.
- For the last 3 years approximately 800 acres of “Barren” land has been transformed into proper agricultural farmland with twice an year cultivation/harvesting cycle, live stock and wood lot establishment.
- This has been an uphill task that involved collaboration with industry, financial institutions, research, investment and personal devotion.
- This project has changed the outlook of the local community with many other farmers following suite.

Results

- On 4 sites, we have well established farms with round the year agricultural cycle.
- The cumulative revenue from all these lands was less than 100000PKR before the project.
- 2019 cotton harvest (still ongoing), so far have yielded 5 million in revenue
- Last year wheat harvest was affected by untimely rains but still the total revenue from wheat was 8 million
- Last year total revenue from Gram was 5 million

Results

- 10 families, as partners from local community, are making a living from this project solely, with onsite tenancy.
- We have 30 regular employees as part of various operations of the project, thus providing local employment.
- Cotton, which was never cultivated in our region, is providing employment to female population of our community.
- Indirect employment in cultivation and harvest cycle is generated
- The agricultural yield from our project is contributing to local and national GDP.
- The availability of water and food in our project area was scarce (particularly in summers) and with this project, it has become abundant.

Results

- Cattle farming is on rise in our area
- Availability of water has led to development of orchards and wood lots
- The success of the project has changed the culture of the local community, who are investing in similar projects
- As a business model, this project is now self sustaining with 25% net profit on yearly basis.

Key learning

- Reclaiming “Barren” and “Uncultivable lands” (which is more than 50%) of the available land in southern districts of KpK is a viable option to improve the personal earnings of the inhabitants of this region.
- This has the potential of giving agricultural and food security to the province by acting as a food basket by bringing the >50% of uncultivable land.
- It has the potential of absorbing and transforming a large number of idle workforce as employees.
- It can potentially make a significant difference in the local, provincial and national GDP.
- Support and guidance from financial institutions, like BoK is vital for extending and implementing the concept in southern KpK.
- In future we plan to utilize drip/sprinkler irrigation to extend the area under cultivation of single solar tube well unit.