Achievements and lessons learnt from SDIP I

"Agricultural, water, energy and hazard management for improved livelihood in the Upper Indus River Basin, Pakistan"

(September 2015 – August 2017)

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SUMMARY	
Title	Agricultural, water, energy and hazard management for improved livelihood in the Upper Indus Basin, Pakistan
Project period	02 Yeas [September 1, 2015 – August 31, 2017]
Funded by	ICIMOD, Kathmandu (SDIP 1 - RBP)
Implemented by	WWF-Pakistan through a consortium of technical agencies
Reporting period	September 1, 2015 – July 31, 2016

PROJECT OBJECTIVES

1. Assess current state of water, energy and hazards in UIB pilot site;
2. Demonstrate improved irrigation systems to increase production of vegetables, crops and fruits;
3. Manage water induced hazard risks such as GLOF events, landslides, erosion, flash floods and debris flows;
4. Demonstrate innovative energy management options to address farm level energy issues;
5. Enhance capacity of pilot communities for better management of water, energy and water induced hazards.


ICIMOD
Karakoram International University
WWF
PCRWR
PAKISTAN
NDMA

BUILDING LINKAGES & PARTNERSHIP

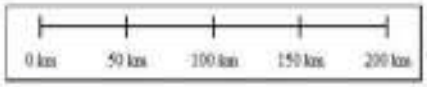
OUTPUT 1	Information and analysis related to water, energy, hazards management and use of technology for climate smart agriculture in pilot areas
OUTPUT 2.1	Introduce contextually relevant climate smart technologies and micro irrigation systems for better livelihood options
OUTPUT 2.2	Introduce contextually relevant climate smart technologies i.e., Bio-engineering measures for better risks reduction from water induced hazards
OUTPUT 2.3	Introduce contextually relevant climate smart technologies i.e., Early Warning Systems for water induced hazard risk management
OUTPUT 3	Enhance institutional as well as individual capacity of relevant public institutions, community organizations and pilot communities for better management and utilization of water, energy and hazards management technologies and approaches for climate smart agriculture

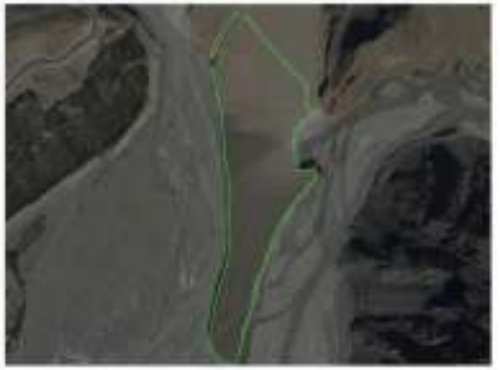
Pilot sites in UIB Area (Pakistan)

CBFEWS site at Damas, District Ghizar

Water Management Activities Site, Morkhun

CBFEWS Site at SherQilla Valley, District Ghizar





Water Management Activities Site, Passu

Rehabilitation of Gulkin Channel, Passu Glacier

Biological Measures for River Erosion, Passu

A. IMARC-KIU:

Conducted the following studies:

1. **Situational Analysis – water, energy and hazards**
2. **Climate vulnerability**
3. **Socio-economic baseline**

Sample Areas	Population (N)	Sample (n)
Passu	143	105
Hussainabad	45	41
Murkhun	86	71
Gulkin	184	125

B. PCRWR

1. Socio-economic survey conducted in pilot sites i.e., Ghulkin, Passu, Morkhun and Azizabad
2. Engineering surveys conducted for site selection, intervention designed, tendering and work orders
3. Two Solar-Powered Pumping units placed in Passu and Morkhun
4. Two Water Storage Tanks (100 gallon each) placed at both sites
5. 500 tube plants (Kala kolu - apple) planted in both sites
6. 400 m HDPE pipe with two brick masonry water storage tanks made to restore flood damaged Irrigation system at Azizabad (KVO)
7. 4580 feet HDPE pipe provided for rehabilitation of Shahabad village in Ghulkin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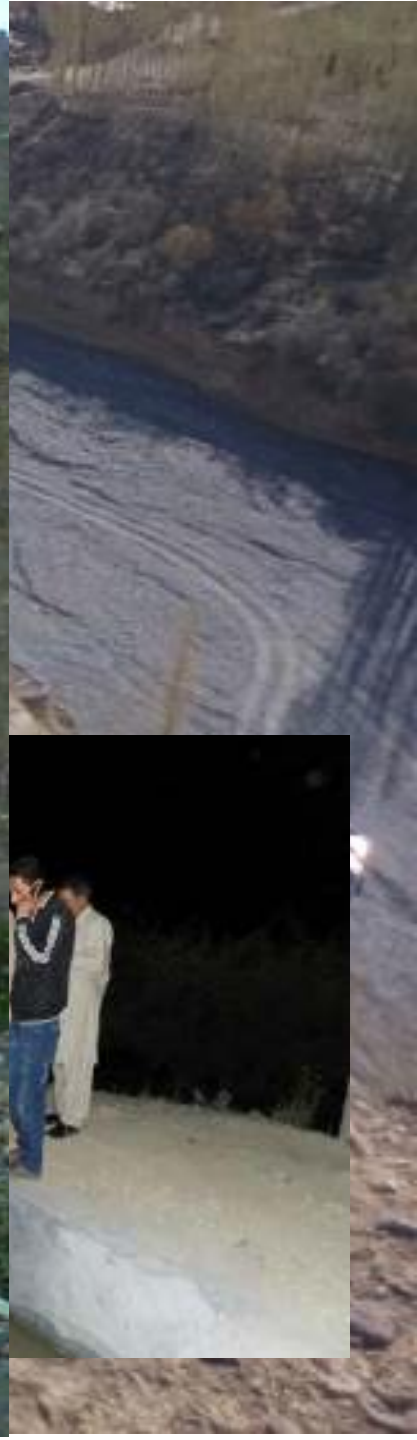

C. FOREST DEPARTMENT:

1. TOP signed with Passu and Morkhun communities for social forestry intervention
2. Plantation schemes developed
3. 10,000 popular and 400 blue pine planted in Morkhun
4. 5,000 sea buckthorn planted in Passu
5. Barbed wire provided to Morkhun village for protection by Forest department (contribution) for fencing

D. GBDMA AND FOCUS:

1. Feasibility study conducted
2. Agreement signed with communities
3. Procurement of EWSs in progress
4. GBDMA notified PAC for UIB hazard risk management initiatives

Fig1: The red polygon indicates the vulnerable community at Sherqilla for flood, the valley upstream is Derani Valley which is comprised to two villages namely Derani and Bilchar where two streams are also flowing. Yellow points indicated the site for EWS on both streams.

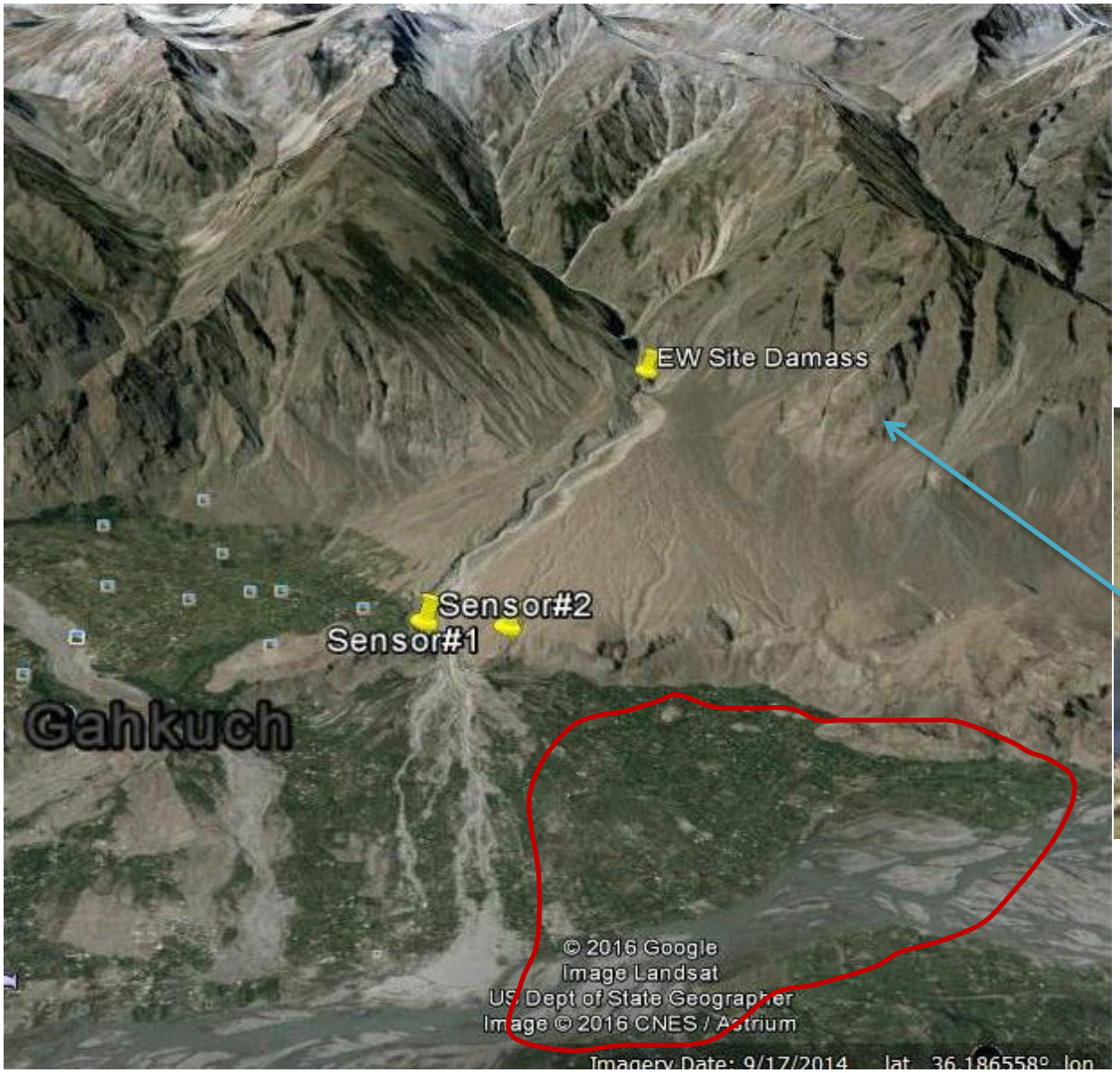

Fig2: The red polygon indicates the Damass village which is settled on the debris fan and the whole village is at risk of debris flow/mud flow. The EW indicates the location for the installation of Radar sensors to detect the debris flow/mud flow and the small picture shows the hard rock on either side of the nala, which is the ideal location for the installation of Radar Early warning system.

Fig4: The yellow polygon indicates the risky houses holds almost 21, yellow pinpoint shows the possible location for sensors and EWS site indicates the location for radar early warining system, from where it can easily sensors the out coming flood the glacier. Passu terminal moraine lake can also be seen on the map.

CHALLENGES

- Short season and time bound activities
- Hierarchal impediments in collaboration
- Communication & coordination
- Procedural delays from signing to implementation
- Reporting is another dream yet to come true
- Scope & scale - a pilot initiative with high expectations

NEXT STEPS (Till August 2017)

- Training Need Assessment (project partners & stakeholders) – July 2016
- Monitoring (JPRP meetings & Field visit) – quarterly
- Training / exposure of partners & relevant stakeholders (Sep 016 – Jul 017)
- End line survey, documentation / sharing of evidence based information (BMP)
- Consultation for Up / Out scaling of successful pilot initiatives.


THANKS