Seminar on Fresh water Ecology of Nika Chhu under Jigme Singye Wangchuck National Park, Trongsa: Bhutan.

Two day seminar meeting was conducted with different stakeholders (JSWNP, Chendipjee FMU, Zhemgang Division, Sephu and Tangsibji geog administration, Local communities of two geogs, Tsangkha Central School, Tangsibji Hydro Energy Limited) at the conference hall of Jigme Singye Wangchuck National Park on 1st and 2nd November 2016. During the meeting, awareness on importance of Freshwater ecology, Payment for Ecosystem services (PES), Water User Association (WUA) formation, findings/results, and recommendations were disseminated.

Day one: 1/11/2016

Awareness meeting on Payment for Environment Services (PES) and formation of Water User Association (WUA) was conducted with local communities of Sephu and Tangsibji geog (25 households). Following points were discussed:

- 1. What does PES mean?
- 2. How PES works?
- 3. Examples of PES in Bhutan?
- 4. Benefits of PES
- 5. Informed about WUA

I urge them to keep in mind the following points as "Take Home Messages".

- 1. A conservation effort is required from local communities to protect Nika Chu fresh water catchment in order to make PES mechanism happen in reality.
- 2. Down the line it is necessary for Sephu community to rehabilitate the degraded areas through communal plantation.
- 3. WUA formation is vital for effective usage of freshwater.

Day two: 2/11/2016

Results from the research/project were presented to the stakeholders (JSWNP, FMU Chandepjii, Zhemgang Division, Wangchuck Centennial National Park, Local government of Sephu and Tangsibji, Tangsibji Hydro Energy Limitted, and Tsangkha Central School). About 25 participants from different stakeholders were involved during the seminar. Following sections was covered in the seminar.

- 1. Why conservation of freshwater Ecology necessary?
- 2. How fishes and macro invertebrates plays their role in maintenance of ecology?
- 3. How many fishes are found?
- 4. Types of macro-invertebrates found?
- 5. Additional information on butterflies was also presented.

Following "Take Home Messages" were shared.

- Fishes are important bio-indicator in maintaining freshwater ecology
- Three species of fishes were present in Nika chu
- Hydropower, road widening, waste problems, and excessive usage of chemical fertilizers by the communities are exerting immense pressure on Nika Chu freshwater ecology.
- Macro invertebrates are also important bio-indicator for assessing water quality
- Sensitive macro invertebrates are minimal near communities

Glimpse of Seminar

