DEALING WITH VARIABLE ACCESS TO WATER: AN ASSESSMENT OF CHALLENGES AND COPING STRATEGIES IN FAR-WESTERN NEPAL

Ram Bastakoti1, Emma Karki1, Bhesh Raj Thapa1, and Vishnu Prasad Pandey1

INTERNATIONAL WATER MANAGEMENT INSTITUTE (IWMI), Pulchowk, Lalitpur, Nepal

CHALLENGE

• Extremes, such as flooding and long dry spells, which affect water availability and access to water in the study site, including three villages in different physiographic zones: Mellekh (mountain), Punebata (hill), and Kuti (terai).
• Irrigation sources vary, from a stream/spring as the primary source in the hills/mountains to groundwater in terai villages.
• This research tried to answer several questions.
  • How do biophysical and other environment factors affect water availability and access in different agro-ecological regions?
  • Which type of socio-technology uptake is bested suited to improve water productivity, crop productivity, and livelihoods?
  • What kind of climatic and non-climatic coping strategies are farmers using?

RESEARCH APPROACH

NEXT STEPS

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The following determinates were identified for poor water access:

- Topographical constraints
  - Unfavorable terrain and poor infrastructure (141/142 households)
  - Decked water availability in streams/springs
  - Flat land and door proximity to two rivers (terai)
  - Flooding during the monsoons, followed by two months’ drought after the monsoon (terai)

- Climatic constraints
  - Changes in precipitation, i.e., erratic rainfall and changes in temperature which also shifted the timing of crop cultivation
  - Intermittent rainfall and increased temperature in summer

- Land access and crop constraints
  - Fragmented land (0.47 ha)
  - Lack of labor, poor irrigation facilities, high investment in irrigation, short cropping season (hills/terai)
  - Limited number of pumps and tube wells and high-cost rental and physical infrastructure (terai)

- Socio-economic constraints
  - Outmigration of young male members has left a demasculinization of intensity of agricultural cultivation
  - Labor shortages and feminization of agriculture

- Coping/adaptation strategies
  - In areas with low water levels, farmers are using water harvesting techniques, such as terracing, bunds, and check dams.
  - Farmers are using water-efficient irrigation methods, such as drip irrigation and sprinklers, to minimize water waste.
  - Farmers are implementing water conservation practices, such as rainwater harvesting and flood control measures.
  - Farmers are diversifying their crops and increasing their crop yields through the use of new technologies and improved crop varieties.

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