

Multi-stakeholder Perspective in Catchment Management –Case from Nepal

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Background

- Successful examples of multiple resource management by communities are less common
 - the community forestry program
 - farmer-managed irrigation systems (FMIS) in Nepal.

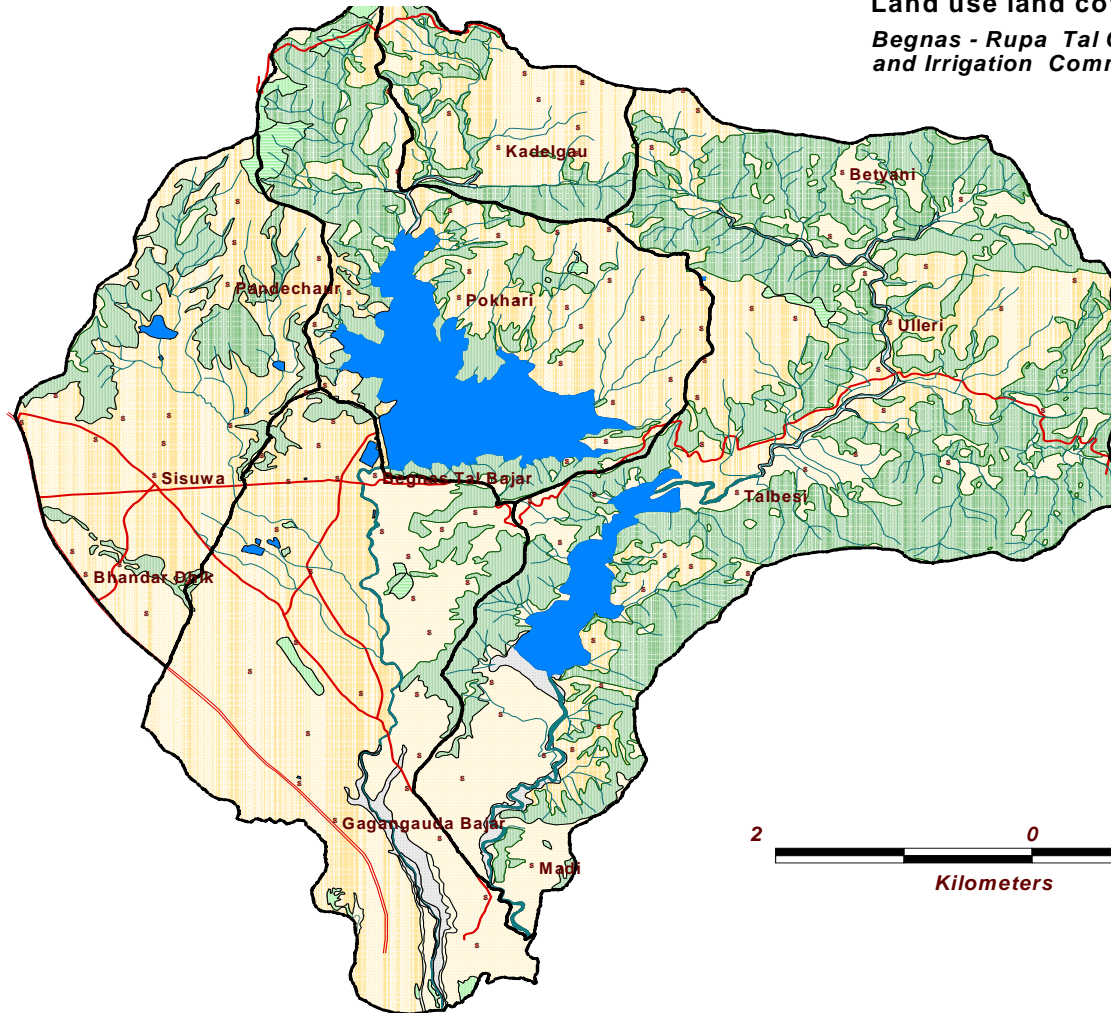
- The action research was initiated to contribute to enhanced sustainable livelihood opportunities.

Objective of the study

- Analyze forest and water based livelihoods opportunities and constraints.
- What are the institutional roles of each of the resource user groups in the management of natural resources?
- How these user groups are linked to each other in contributing to resource management?

Begnas-Rupa Basin

Land use land cover, 1996
Begnas - Rupa Tal Catchment
and Irrigation Command Area



- Settlement
- Basin boundary
- Rivers or stream
- Road
- Highway
- Landuse.shp
- Cultivation
- Forest
- Bush
- Grass
- Sand
- Channel
- River Cliff
- Lake/pond

2 0 2
Kilometers

Methodology

- Research was undertaken in a 75.04 sq. km. *Begnas-Rupa* Basin
- Major basis of the selection was the water rights differentials displayed by them.
- Data related to resource assessment, information on livelihood, resource management practices and institutional analysis.

Socio-Economic characteristics **of Begnas Catchment**

➤ **POPULATION**

- **Average family size 5.7**

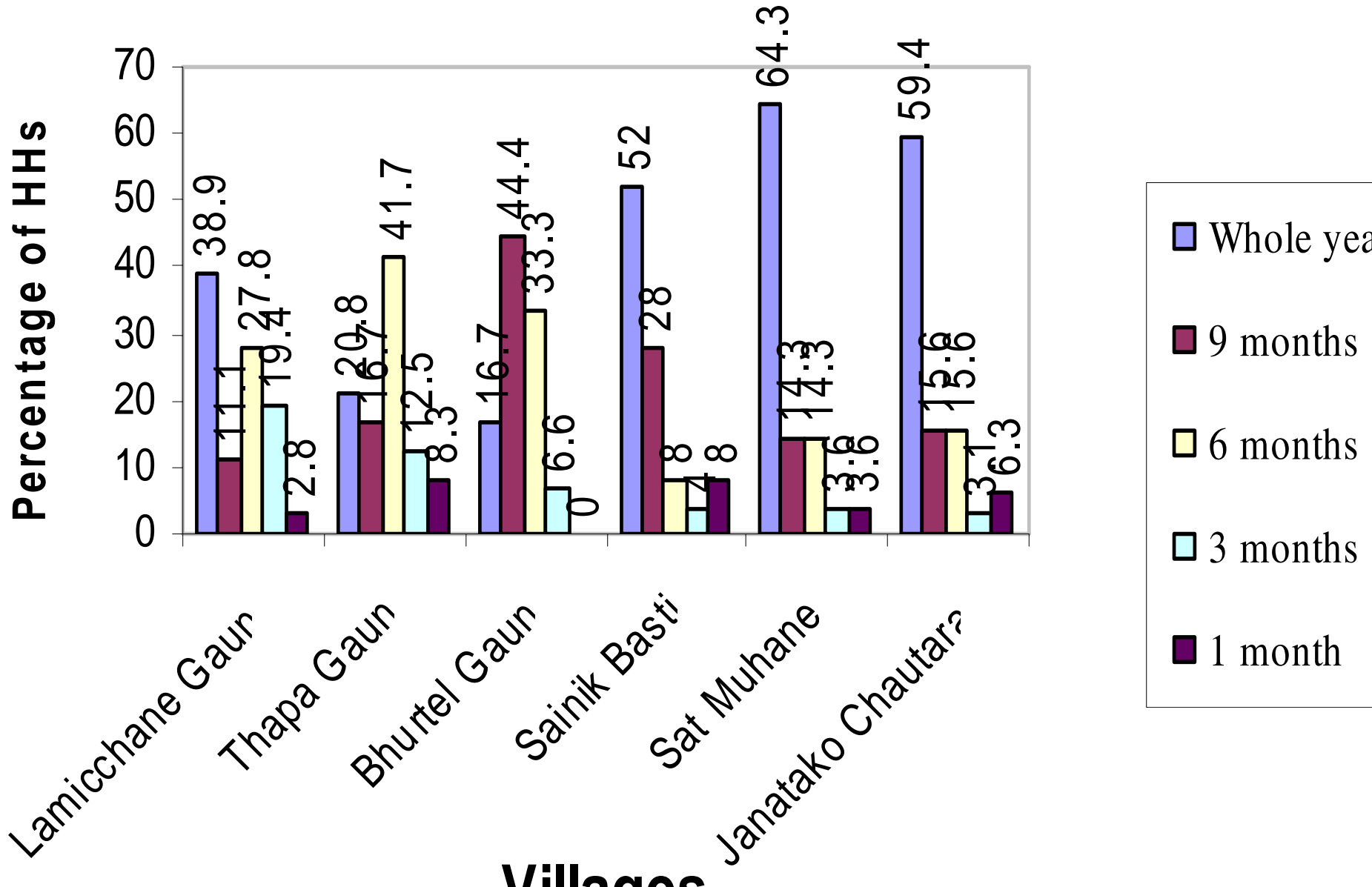
• Landholding and tenure System

- landholding size is less than 0.5
- in terms of the irrigation availability, the households in the valley floor are better off.
- inequity among land in the upper reach of the canal and those at the tail reach is great.

• Food Security

- half of the households (hhs) of valley floor grow food sufficient for whole year
- less than 30% of the households produced sufficient food for the whole year.

Food Security



• Off-farm activities

- livestock keeping and selling milk
- remittances
- poorer households, however, earn income from seasonal labor wage

Institutions in Begnas-Rupa Watershed

- Forest Users' Group
- Water Users Group
- Fishers' Group
- Boat operators' Group

- local elected institutions
- local NGOs
- Community Based Organizations
- formally or informally organized

• Forest Institutions

- community forestry program contributed in regenerating and restocking the forests in the watershed.
- subtropical forests and lower temperate forests.

- initiated community managed forest concept in the Begnas Catchment since 1985.
- FUGs have its own institutional arrangement, appropriation, inventory of forest product, graduated sanctions, conflict-resolution mechanism.
- FUGs are evolving as effective institutions

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- they are not financially strong
- has been one of the constraints in providing economic benefit to the households.
- Forest Act of 1993 standardized and institutionalized the process of forest handover and management to the Community Forest User Groups (CFUGs).

• Water Institutions

- Water Users Association (WUA)
- Farmer Managed Irrigation System (FMIS)
- Begnas-Rupa Watershed
- *Jalhari* (Fishers' Group)
- Boat Operators Group

•Government and other institutions

- the Fishery Centre of Government
- local governmental bodies
- I/NGOs are another set of institutions
- the Lekhnath municipality
- Kaski District Development Committee (DDC)

- roles and responsibilities are sometimes overlapping with those of the government line agencies

Equity in resource management

- equity in common property resource management
- equity within the resource users group
- equity among the resource users group.

Equity within the resource user Group

- Irrigation Users
- water rights are tied to land
- increasing competition in the allocation of water

- in the upper catchment there are no further water sources
- conversion of *bari*(*unirrigated*) land to *khet*(*irrigated*) land

- users at the head end in the upper catchment do not agree to this for fear of loosing their water right.
- construction of Begnas Irrigation System (BIS) in the valley floor which intended to irrigate 540 ha of land.
- intended to irrigate 540 ha of land.

- do not have resources to implement any intervention that help in reducing inequity
- age-old rules for water allocation and distribution

- ill-equipped for dealing with the increased number of stake-holders within the command area
- service delivery capacity of the irrigation infrastructures is improved.

• Forest Users

- rights, duties and punishments for its members involvement in the management of Community Forest
- no discrimination in rights and duties

- Harvest distributed among member households in an equal amount.
- fuelwood
- present practice cannot be termed equitable to poor
- income generation from forest products is lacking.

- expert guidance to diversify forest plantation
- increase in household income

• **Jalhari (Fishers Group)**

- 40 households of Fisher men engaged in the fish raising in the lake.
- One household earns Rs.6000-Rs.8000 (\$90-122) per month.
- Female have formed their own group
- Female group has started cooperatives for saving.

• Boat Operators

- None of the boat operators are entirely dependent on the earning from the boat for their livelihood
- Females are also actively involved in canoeing

Institutional Linkages and its Dynamics

- FUGs have linkage with both government and non-government organizations including DDC, VDC and District Federation of Forest Users (DFFU).

- FMIS group upstream which is informal does not have any relation with government and other local organization except FUGs.

- Fishers Group has linkage with Fishery Centre
- Also, Municipality seek cooperation from Boaters' Group for maintaining the environment of lake.
- don't have formal relation with BIS.

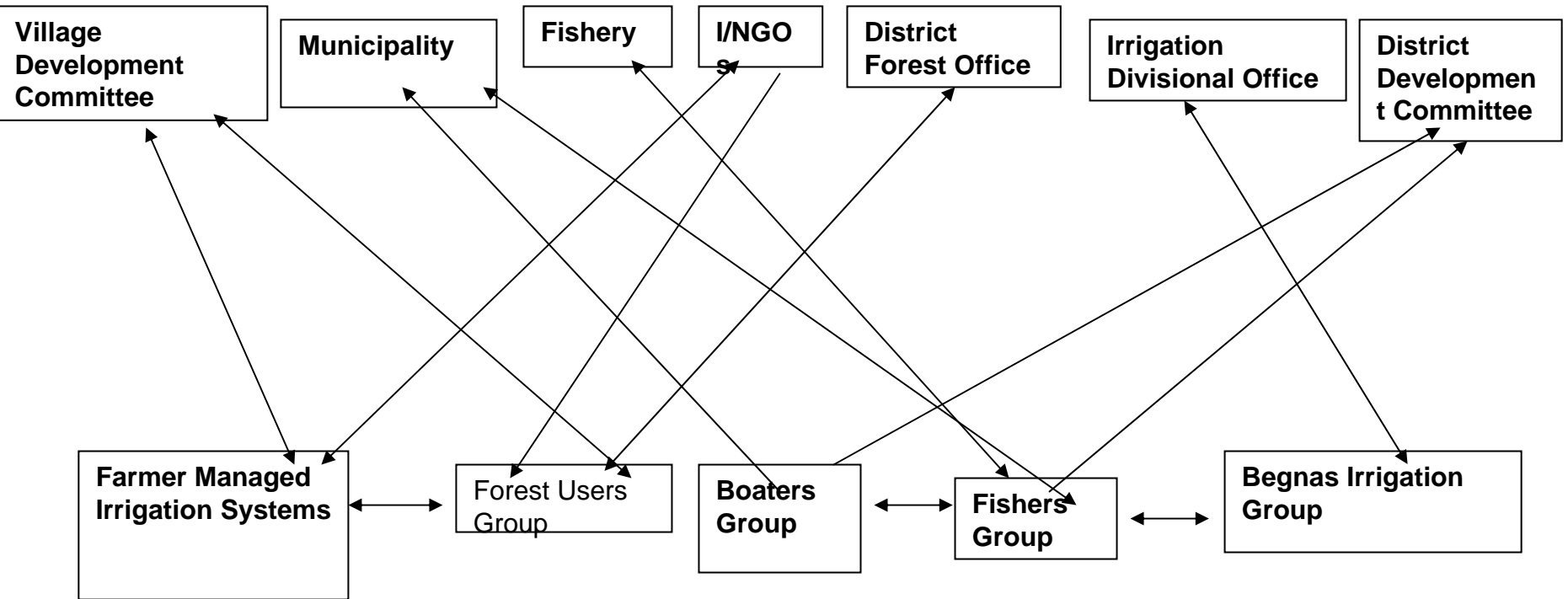
- affected by the use of lake water which is controlled by them
- established working relationship with irrigation users' group
- Non-government organizations or local organizations support through new technologies and income generation activities

- two sets of institutes have stake in the catchment management.
- users' organizations are the local level stakeholders

- institutions that influence/control, facilitate/provide technical support
- collect taxes from local stakeholders
- also who claim ownership of local resources are the external stakeholders

Institutional Linkage between Local and External Stakeholders

External Stakeholders



Local Stakeholders

Two way relationship ←→

One way relationship →

- The water users at downstream (BIS, Fishers Group and Boaters Group) have linkages to each other
- irrigation users claim first use right of the lake on the ground that the dam construction was for diverting water to irrigation.

- their vertical linkage with external agencies is also intense and expanded
- communities running hotels and shops nearby lake side do have linkage with other users at local level.

- vertical linkage of local users group with external agencies also reflects sectoral orientation i.e. BIS linked to Directorate of Irrigation
- One of the mechanisms is to introduce Environmental Services Fee (ESF).

- benefit downstream is due to the action of upstream users' needs to be established and the cost/ benefit needs to be ascertained before its introduction.
- intermediary that plays the role of mediator between the resource users upstream and downstream

- users need to acknowledge and accept the concept of ESF, which is quite new to the users in the catchment.

Analysis and Conclusion

- Though several water user groups the functional linkage among them is weak.
- Each of the user group is trying to maximize the benefit from the lake without making substantial contribution for its sustenance.

- system level equitable delivery of water can improve access to water for poor farmers and then improve their livelihood

- conflicts arise within and among the institutions due to their diverging interests.
- exists an institutional gap in actualizing the said linkage. For example, during long dry spell, BIS wants to release more water from the lake to the main canal to irrigate their dry land

- resource users recognise the water-forest (upstream–downstream) linkage although it is not clearly visible and users are unable to identify and establish this.
- Actualization of such linkage at the basin level would be possible.

- the governance at the system level is improved and delivery of water to users becomes reliable and equitable at system level.
- lack of resources and adequate communication among users.

- water distribution has remained inequitable leading to several types of water use conflicts.
- equitable and reliable delivery of water at system level are pre-requisite for realizing upstream-downstream linkages at basin level.

- A holistic approach of Lake Management in consultation with relevant stakeholder can create a win-win situation for all of them.
- not happening due to lack of relevant policies that delineate the roles and responsibilities of both external and local organizations in common property resource management.

- supports for integrated management of resources in the catchment.
- The research project aims at creating a platform that could be helpful for these user groups where each of the user group present their view, interests and demands.

- users could learn from the experiences of each other and some of the experiences should be shared among them for better resource management.
- users group could strengthen relationship with local institutions, government agencies and other external institutions for expanded and integrated activities on land and water management

- platform could be facilitated to act as up scaled institutions for integrated natural resource management at catchment level.

THANK YOU

THE END