

# Participatory approach to wetlands management

The Regional Training Course on  
Sustainable Use and Management of Wetlands  
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Dr. Kulvadee Kansuntisukmongkol

# Involvement of local and indigenous people in natural resource management

collaborative management



co-management

joint management

participatory approach to natural resource management

# Why do we need participatory approach?

- Facilitate effective co-operation, communication, and participation of different interest groups,
- Help identify and raise awareness of cross-sectoral issues of wetland management,
- Strengthen and empower local institutional capacity, indigenous knowledge networks, and adaptive capacity.

# local people involving in a management partnership are suggested when:

- The active commitment and collaboration of stakeholders are essential for the resource management.
  - Local people have historically exercised customary/legal rights over the resource,
  - The decisions to be taken are complex or controversial (e.g., different values need to be harmonized or there is disagreement on the ownership status of the land or natural resources in the wetland).
- The access to the natural resources within the wetland is essential for local livelihood, security and cultural heritage, therefore local interests are strongly affected by the way in which the wetland is managed.
- Local people express strong interests in being involved in management when the existing management regime has failed to produce wise use.



## **Kud Peng**

Natural wetlands under community-based resource management system

Local people in 4 villages participate in wetland management.

They have depended on resources substantively and exercised customary rights over resources. The access to the natural resources within the wetland is essential for local livelihood, security and cultural heritage, therefore local interests are strongly affected by the way in which the wetland is managed.

Local people express strong interests in being involved in management. They restored the surrounding vegetation of the wetland.

They have established self-governance over resources following their traditional ecological knowledge and arranged local institutions to manage the landscape in sustainable manners.

Regulations to control behaviors of resource users have been put in place and protected area and resource use area have been demarcated.



The further challenge is to scale up the local management system to involve more stakeholders in larger area.

# To be successful, participatory approach needs:

- Long term incentives and benefit for local people's involvement and wise use
- Trust among stakeholders
- Flexibility and learning by doing approach
- Knowledge exchange and capacity building
- Continuity of resources and effort



# incentive

- Local people have achieved an economic stake or other interest in the wise use of wetland resources.
- Appropriate legal and financial incentives for participatory management are in place.
- A more equitable sharing of benefits among stakeholders has resulted from the participatory management process.

# trust

- There are resource use and participation rules which are appropriate to the local situation.
- The management agreement has clearly defined boundaries and membership.
- The management agreement specifically defines stakeholders' functions, rights and responsibilities.
- Any system of graduated sanctions for infringement of rules has been agreed upon by all key parties.

# flexibility

- There is the potential for collective modification of the rules relating to resource use by those affected.
- There are “nested” management units (different bodies at different levels).
- There is evidence that the local people can influence the speed and direction of change in relation to the resources with which they are concerned.
- Facilitators/coordinators practice “learning by doing” and adaptive management.

# knowledge exchange and capacity building

- There is a two-way flow of information and communication between local people and relevant government agencies.
- Information reaches local people in a timely and accurate manner, and in a form which is readily understandable.
- Local people participate in site monitoring and in evaluation of the participatory process.
- There is evidence of respect by key government agencies for local human systems and local ecological knowledge.

# continuity

- There are one or more organizational structures that facilitate local people's involvement (e.g., a council, management body, women's group, etc.).
- Local people have provided in-kind support (time, labor, traditional knowledge and expertise) to implement the participatory management agreement.
- Conflict management mechanisms exist, and there is an appeals process in case of conflicts within the management partnership.
- There is integration between local wetland management and management of the entire catchment.

# Participatory approach

- Stakeholder analysis is usually the first step in building the relationships needed for the success of a participatory project or policy. It provides a starting point, by establishing which groups to work with and setting out an approach to be achieved.
- Participatory rural appraisal is one of participatory approaches and methods that emphasize local knowledge and enable local people to make their own appraisal, analysis, and plans.

# **Stakeholder analysis**

# Stakeholder analysis

- Stakeholder analysis is aimed at enhancing stakeholder involvement in participatory processes, prior to their actual involvement in decision-making activities.
- It is the identification of a project's key stakeholders, an assessment of their interests, and the ways in which those interests affect project riskiness and viability.
- It contributes to project design by identifying the goals and roles of different groups, and by helping to formulate appropriate forms of engagement with these groups.



# Conducting a stakeholder analysis

## **Step One: Identifying major stakeholder groups**

- Stakeholders can be individuals, groups, communities, organizations, etc. Breaking stakeholder groups into smaller units (e.g. men and women, ethnic groups, locality, organizational departments) will often assist in identifying important groups who may otherwise be overlooked.

# Conducting a stakeholder analysis

(continued)

## Step Two: Determining interests, importance and influence

- Draw out key interests for each stakeholder group in the initial list. Key questions could include:
  - what are the likely expectations of the project by the stakeholder?
  - what benefits are there likely to be for stakeholders?
  - what resources are the stakeholders likely to commit (or avoid committing) to the project?
  - what other interests does the stakeholder have that may conflict with the project?
  - how does the stakeholder regard others on the list?

# Conducting a stakeholder analysis

(continued)

- Assess the influence and importance of each stakeholder on the project.
  - Influence refers to how powerful a stakeholder is;
  - importance refers to those stakeholders whose problems, needs and interests coincide with the aims of the project. If these “important” stakeholders are not involved or assisted, then the project cannot be called a success.

# Conducting a stakeholder analysis

(continued)

## **Step Three: Establishing strategies for involvement**

- Plan strategies for approaching and involving each person or group.
  - How to do approach each stakeholder will usually depend on the results of the previous analysis.
  - How to involve each stakeholder will depend on the appropriate type and level of participation.
  - Stakeholders may change their level of involvement as the process continues.

Thus, partnerships should be flexible and designed to grow.

# **Participatory Rural Appraisal (PRA)**

# Participatory Rural Appraisal (PRA)

- Participatory rural appraisal is one of participatory approaches and methods that emphasize local knowledge and enable local people to make their own appraisal, analysis, and plans.
- PRA uses group exercises to facilitate information sharing, analysis, and action among stakeholders.
- The purpose of PRA is to enable development practitioners, government officials, and local people to work together to plan context appropriate programs.

# Key principles of PRA

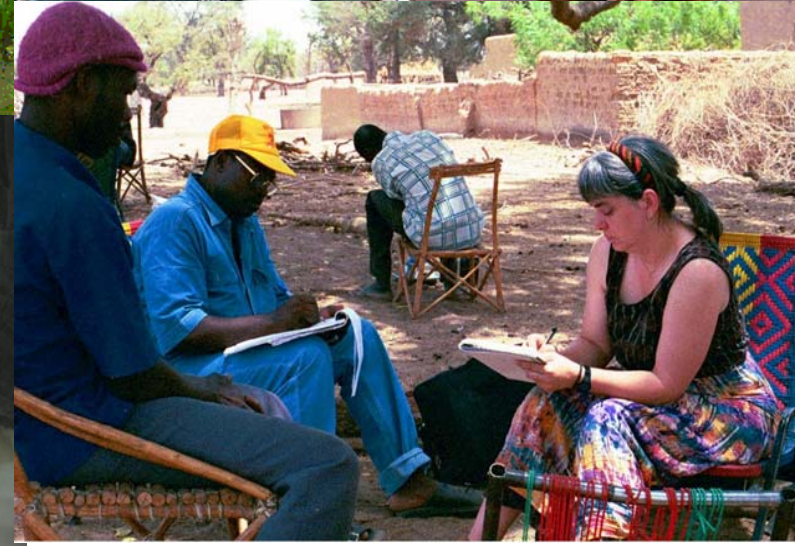
- Participation: local people's input into PRA activities is essential to its value as a research and planning method.
- Teamwork: the validity of PRA data relies on informal interaction and brainstorming among those involved. A well-balanced team will represent the diversity of socioeconomic, cultural, gender, and generational perspectives.
- Flexibility: PRA work depends on available resources, time and skills of those involved.
- Optimal ignorance: PRA intends to gather just enough information to make necessary recommendations and decisions.
- Triangulation: PRA works with qualitative data. At least 3 sources must be consulted or 3 techniques must be used.

# Tools common in PRA

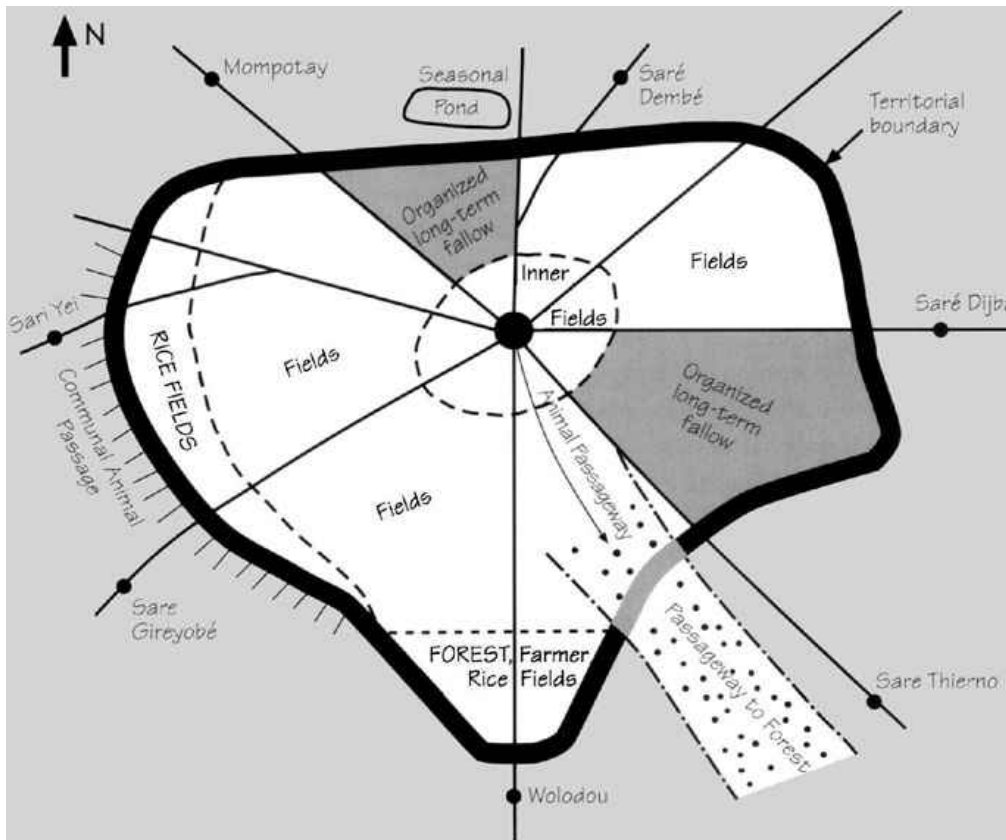
- Semi-structured interviewing
- Focus group discussions
- Sequencing and chains of interviews
- Preference ranking
- Mapping and modeling
- Transect walks and direct observation
- Wealth rankings and social maps
- Seasonal calendars and activity profiles
- Timelines and local histories
- Venn diagram and network diagram
- Matrix scoring and pair-wise ranking



# Selected PRA tools and practices



# Participatory Mapping



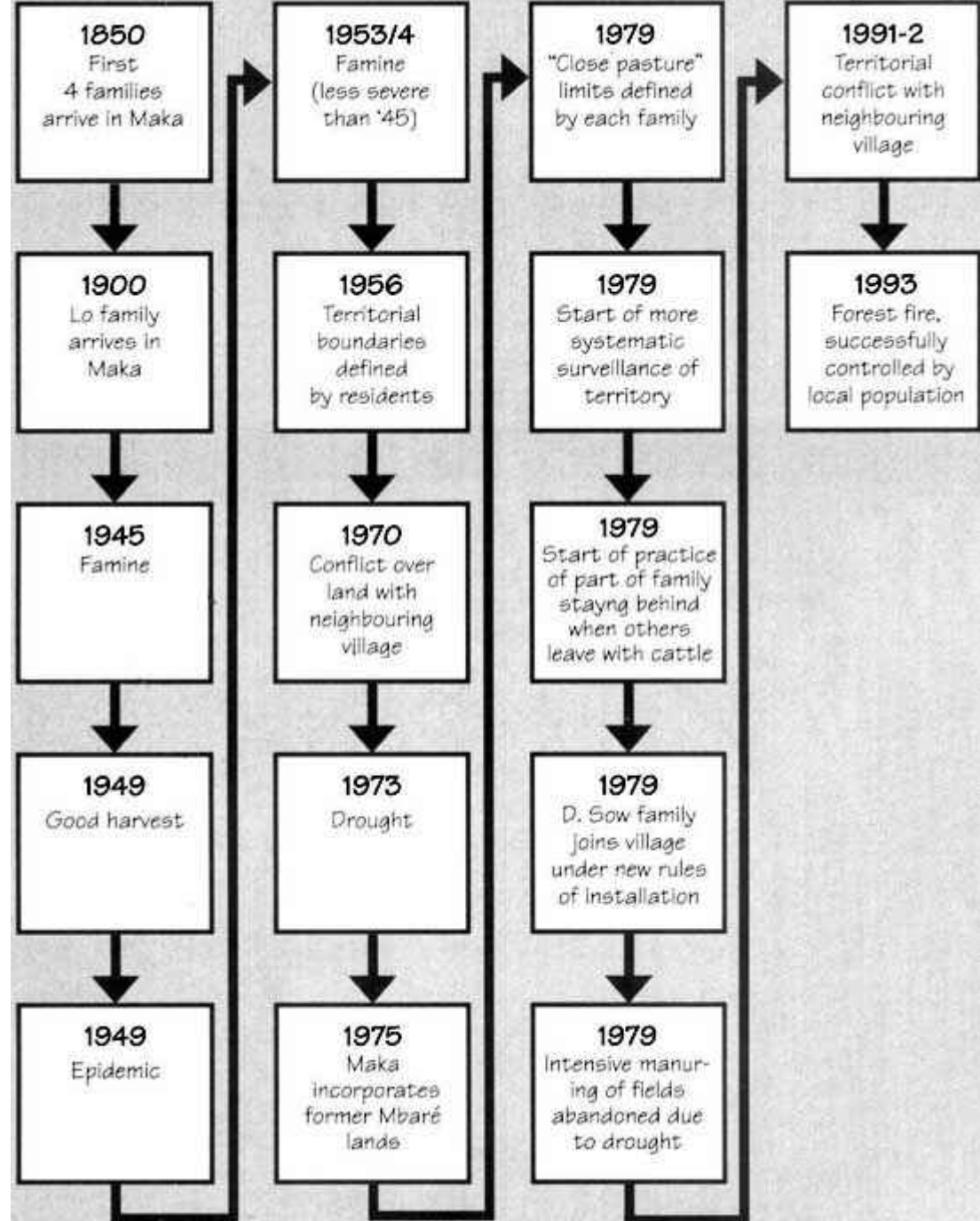
Maps are most useful when a group of people participates so that everyone contributes to the activity and information can be cross-checked by several sources. It is sometimes useful to do resource maps with different groups of people to see how their perceptions of resource issues differ.

In participatory mapping, community members sketch maps to elicit information and provoke discussion on spatial issues.

## Historical Profile

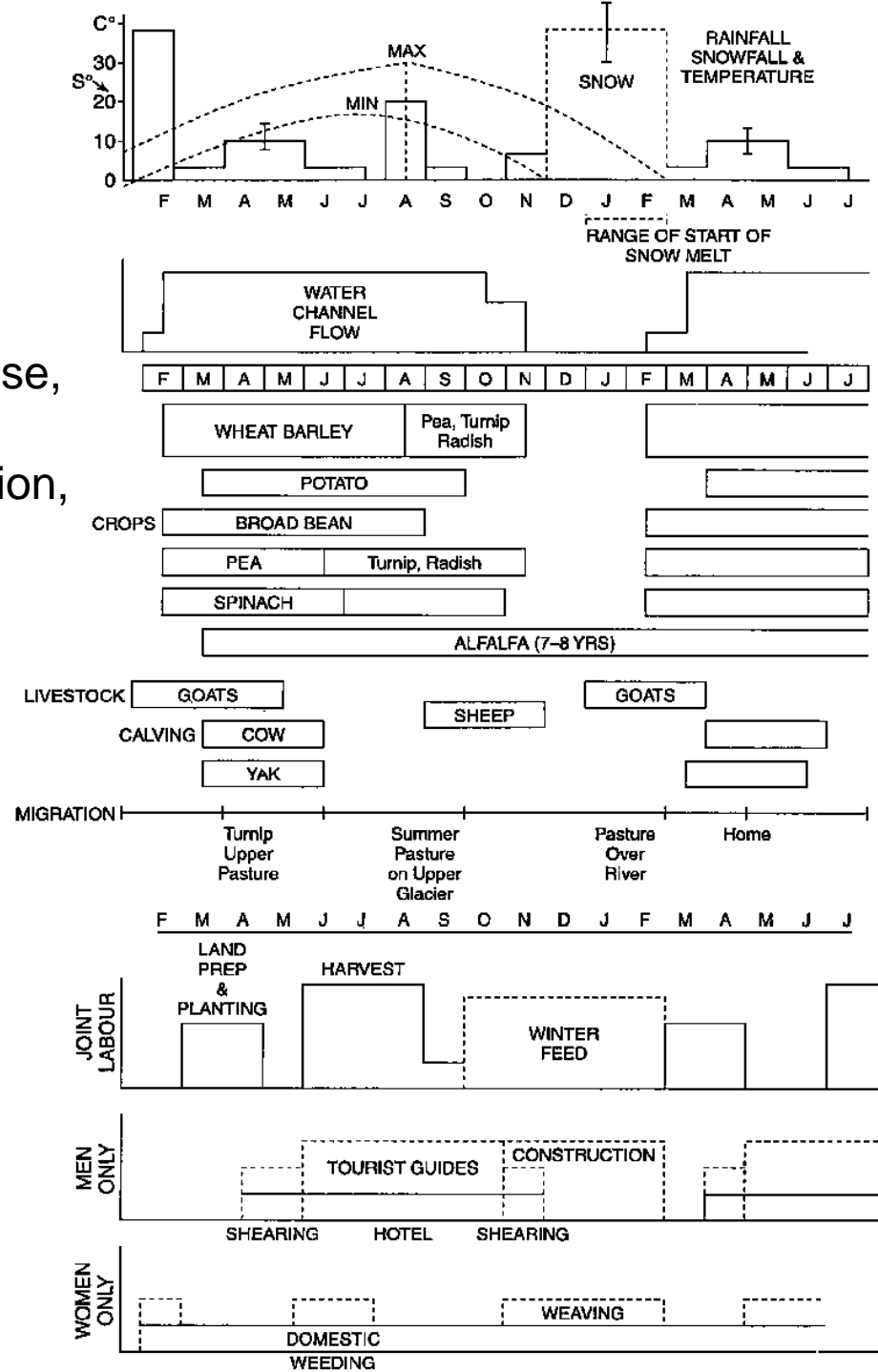
A historical profile is an interview with several of the people in the village who are most knowledgeable about its history.

The historical profile is most useful when it focuses on issues about resource governance such as the settlement history of the community (who came when), periods of abundance and scarcity, landmark events such as the building of roads and bridges and notable conflicts in village history (especially those related to resource use).



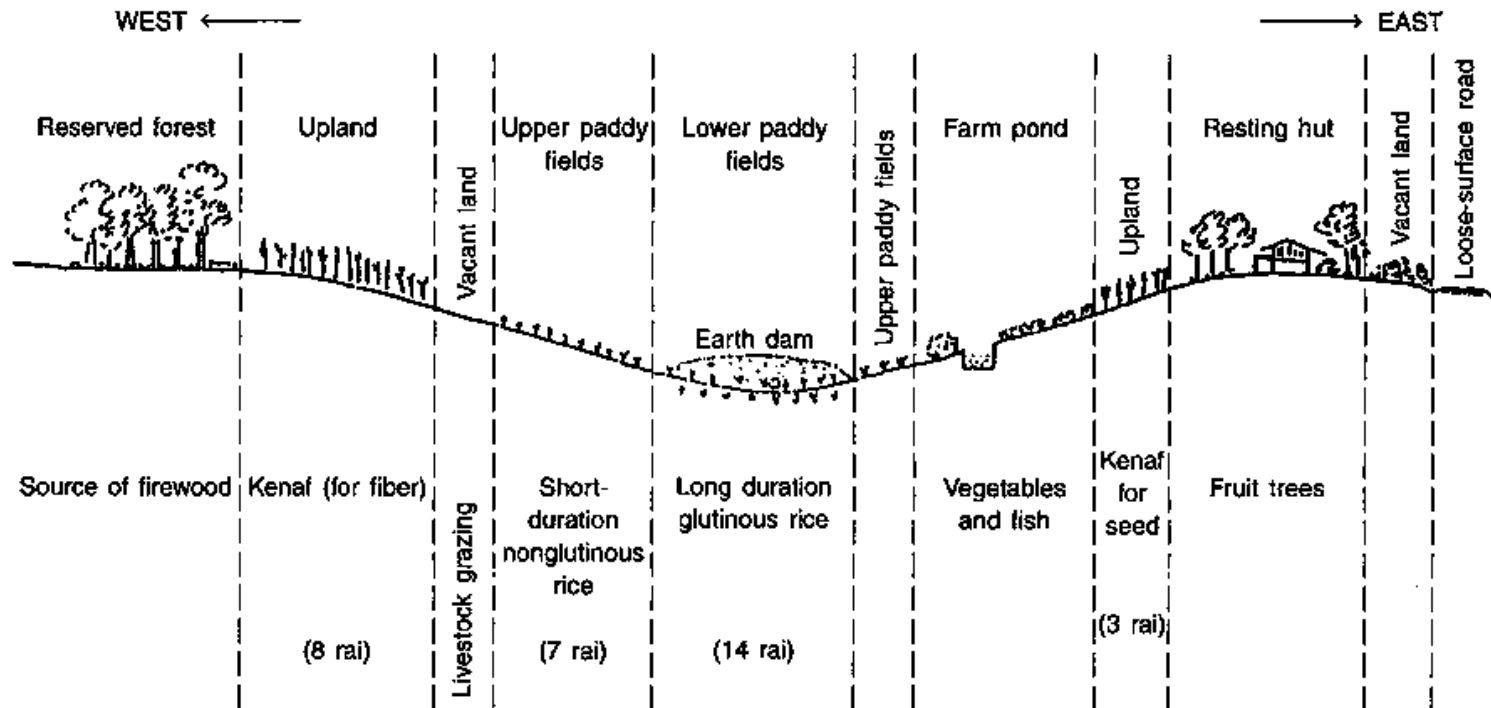
# Seasonal Calendar

In addition to calendars of local resource use, interesting seasonal calendars include calendars of wildlife movement and migration, and vegetation availability.



# Transect Walk

A transect walk is a mobile interview in which the research team walks from the centre of the village to the outer limit of the territory accompanied by several local informants who are especially knowledgeable about natural resource issues.













































Note: 1 rai = 0.16 hectare

Transects can be helpful in focusing on such issues as where resources are located, how and by whom they are used, how much pressure exists on various resources, what the rules of access are and whether there are conflicts.

# Matrices

A matrix is a double entry grid that can be used to analyze two sets of variables.

RESOURCE USE MATRIX								
	GENDER		WEALTH			PROVENANCE OF USER		
	Men	Women	Richer	Average	Poorer	Villager	Neighbouring village	Stranger
Cropland	 12	 2	 10	 8	 5	 10		
Kitchen Garden Land	 3	 10	 10	 10	 10	 10		
Tree Wood	 6	 6	 5	 6	 10	 6	 4	 5
Tree Leaves	 3	 13	 6	 3	 10	 5	 3	
Medicinal Plants	 6	 8	 2	 3	 8	 5	 3	 12
Grasses	 10	 4	 9	 5	 2	 6	 4	

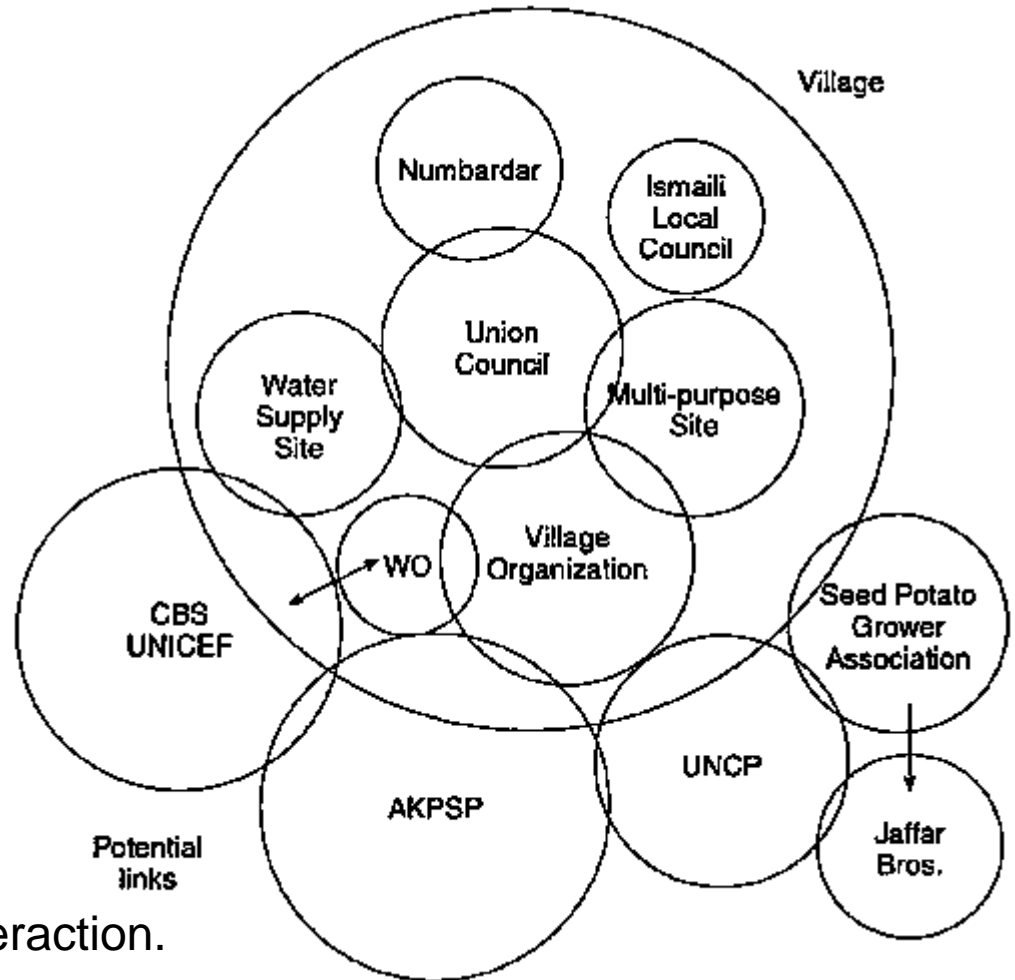
Beans to indicate rankings can be used to identify the principal users/stakeholders of various resources and to explore how these groups use the resources and their importance.

It is important to follow up the matrix with an interview that goes into greater depth about why use patterns differ how access rules affect different populations what conflicts arise among various groups, etc.

## Venn Diagram

Venn diagram is used to study institutional relationships.

This method uses circles of various sizes to represent institutions or individuals. The bigger the circle, the more important is the institution or individual. The distance between circles represents, for example, the degree of influence or contact between institutions or individuals. Overlapping circles indicate interactions, and the extent of overlap can indicate the level of interaction.



The method provides valuable insights into power structures and decision making processes.

# Practices

- **3D Venn diagram for identifying problems**
  - Size of circle = importance of the problem to wetlands
  - Distance from wetlands = degree of seriousness
  - Stack of coins = cost of problem solving
- **3D Venn diagram for stakeholder analysis**
  - Size of circle = importance of the stakeholder to wetlands
  - Distance from wetlands = degree of influence
  - Stack of coins = cost of involving the stakeholder
  - Overlapping circles= level of interaction



# Put the tools into practices

- **Stage 1: Stakeholder identification and engagement**
  - Identify the range of wetland stakeholders or interest groups, i.e. those involved with wetlands either through their livelihood strategies or through their responsibility in an institutional context.
  - Consult those identified with respect to the aims and subsequent activities.
  - Methods used: Stakeholder analysis and Secondary data collection

- **Stage 2: Participatory analysis**

- Facilitate the participation of various stakeholder groups to present and discuss particular wetland issues.
- Estimate the dynamic characteristics of wetlands and their utilization. Typical themes for discussion include:
  - Spatial and temporal changes in wetland use,
  - Environmental characteristics and dynamics of wetlands,
  - Socio-economic characteristics of wetland users,
  - Indigenous knowledge of wetlands,
  - Gender divisions in wetland use and management,
  - Institutional arrangements for wetland management,
  - Policy issues in wetland use.
- Methods used: Participatory Rural Appraisal (PRA) techniques

- **Stage 3: Discussions**

- Discuss with participants either in a group context or with key individuals. Follow up discussions which focus on specific themes of interest or importance can also facilitate the triangulation of information and assist dissemination.
- Methods used: Group discussions, Semi-structured interviews, Transect walks

- **Stage 4: Information exchange for empowerment**

- Whilst the use of PRA tools for presentation and analysis provides an opportunity for awareness raising and the exchange of information among participants, more formal methods of information exchange such as workshops or exchange visits can make a key contribution to strengthening wetland management capacity.
- Such activities should ideally be facilitated by locally based participants to ensure institutional capacity building and to lend more credibility to the information exchanged.
- Methods used: Group discussions

- **Stage 5: Participatory planning**

- The exchange of information, either through workshops or informal means, should be a prerequisite to stakeholder engagement in the wetland planning process.
- Where wetland planning is required, representative groups of all stakeholders should be allowed to participate in policy formulation.
- Methods used: Group discussions with PRA tools

- **Stage 6: Participatory extension**

- On the basis of recommendations or key issues identified through various stages of participatory discussion, there may be an opportunity to develop with participants, extension materials for a range of stakeholders or explore the various extension channels (formal or informal) through which wetland management capacity can be empowered.
- Methods used: Group discussions, Flow charts, Network diagrams, Venn diagrams

- **Stage 7: Participatory monitoring**

- Given that environmental and socio-economic changes may affect wetlands and their management, there is a need to facilitate a process of sustainability monitoring whereby stakeholders can develop and recognize indicators of change (e.g. vegetation change or water table decline).
- Methods used: Seasonal diagrams, Group discussions

- **Stage 8: Participatory evaluation**

- Participants should be given the opportunity to provide feedback on activities at any time during wetland assessment and management activities, but particularly on their completion.
- Even simple consultations and discussions can provide valuable feedback on the strengths and weaknesses of particular participatory activities and whether any changes have occurred through the planned intervention.
- Methods used: Group discussions, Semi-structured interviews