Lesson 8: Experiences in the Field

- Principles for success at the community level
- Field experiences - Examples

General Principles

General Principles for success at the community level:

- **the political will to democratize and genuinely empower local communities;**
- **shared visions across all institutional levels, based on careful problem analyses;**
- **effective coordination of civil and professional science;**
- **commitment to a continuous and iterative learning process**

Twenty-three case studies, ranging from Landcare in Australia to the Aga Khan Rural Support Program in India.

The features common to successful projects at this community level include:

- Small micro-catchments with boundaries rarely defined and rarely hydrological.
- Planning units that are community-based in organization rather than as individuals, with the emphasis on working with people who have something important in common (e.g., caste, blood, class, common dependence, common priority).
- A reasonable degree of social organization through which the necessary critical mass of collective action can be organized.

Where this does not exist, it has to be created, requiring significant development of trust and platform building. The social units most appropriate for participation need to be tailored to the particular setting, and the approach may not work where "community" is not the norm and people are devoted to individual actions (e.g., absentee landlords, landless people).

- **Flexibility. A thoroughly predesigned and preplanned project is not considered a good project. Indicators of success focus on adaptation rather than adoption.**
- **Clearly defined roles for the different organizations: state departments, NGOs, and CBOs.**
- **Orienting initial projects and approaches away from "treatment" of specific problems toward whole-catchment management focused on livelihood priorities.**

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- **Tangible benefits to participants in a short space of time.**
- **Group access to finance through credit or other means.**
- **Highly subsidized by government and donors, with local residents contributing only a small percentage of the value of the development works in cash or as labor.**

Adequate financial and institutional support is considered critical where authorities are handing responsibility for complex, costly, and conflict-ridden problems back to local people

- **Community participation in local development.**

This generates a stake in the process and enhances the prospects of effective and sustainable joint action. However, entirely "bottom-up" proposals for improvements limited to the possibilities already known to rural people will not suffice. The process must be open to the wider possibilities known to outsiders and in a format for planning, implementing, and monitoring that allows these outside agencies to verify that public funds have been spent properly.

- **A clear strategy for scaling-up.**

  Expansion pathways for NGOs are often poorly defined.
  Support agency roles that allow the necessary degree of participation for interventions to be planned and function adequately, but that at the same time are rapidly replicated

A criticism of donor-supported watershed development, for example, is that despite large amounts of funding on infrastructure, institutional arrangements are rarely adequate to continue maintenance.
On the other hand, long-term empowering approaches adopted by some NGOs achieve institutional sustainability in individual villages at the cost of extremely slow replication.

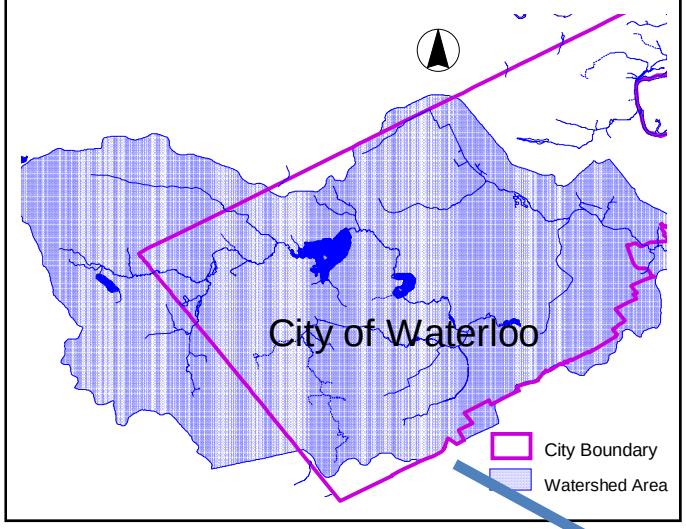
A balance is required.

From: Chris Lovell, Alois Mandondo, and Patrick Moriarty
The Question of Scale in Integrated Natural Resource Management

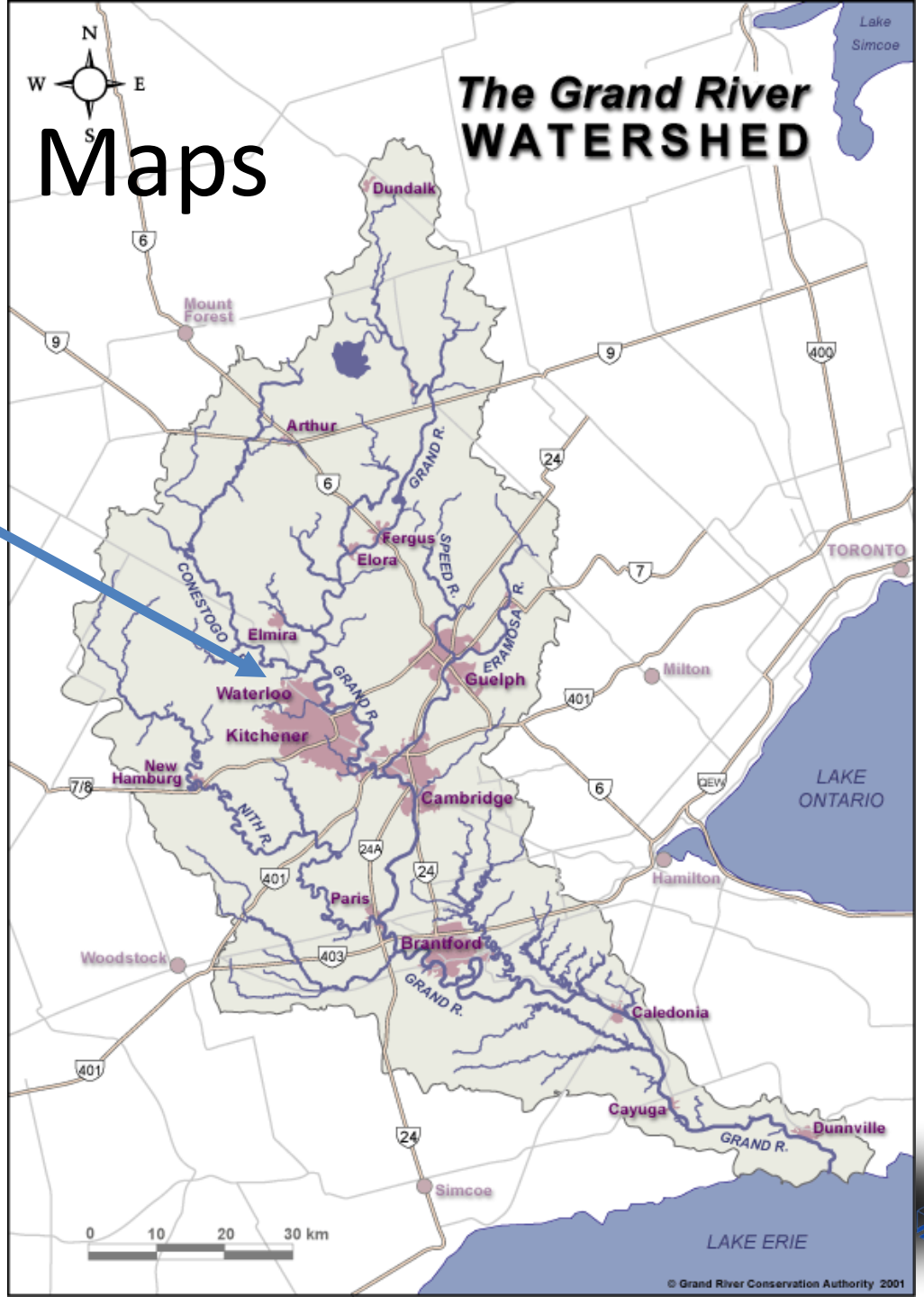
Issues of Scale

- Different scales
  - Small scale – Laurel Creek Watershed
  - Large scale – Fraser River Action Plan
- Laurel Creek Watershed, Waterloo – monitoring and planning of Waterloo.
  - Monitoring study
  - Involved community at a later stage only for collecting information (data).


Laurel Creek
WATERSHED
MONITORING PROGRAM



Maps



- **Approximately 74 square kilometers**
- **80% is within the City of Waterloo.**

WVLC
United Nations
Water Virtual
Learning Centre

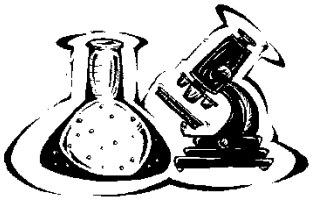
Evolution of Project

- 1990- Laurel Creek Watershed Study initiated
- 1993- Official Plan Amendment #16
- 1996- Laurel Creek Watershed Monitoring Program Pilot Study
- 1997- Present Ongoing Monitoring

Program Objectives

- Detect changes to the watershed
- Determine the effects of land use and best management practices
- Promote partnerships between agencies, municipalities and watershed residents
- Increase public awareness and stewardship
- Develop database for comparison and trend analysis.

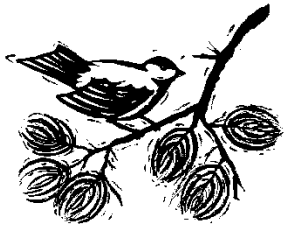
Analyses



Water Quality
Total Phosphorus
Suspended Solids
Dissolved Oxygen
Temperature
E. Coli

Aquatic Habitat
Benthic Invertebrates

Hydrology
Baseflow
Storm Flow
Precipitation

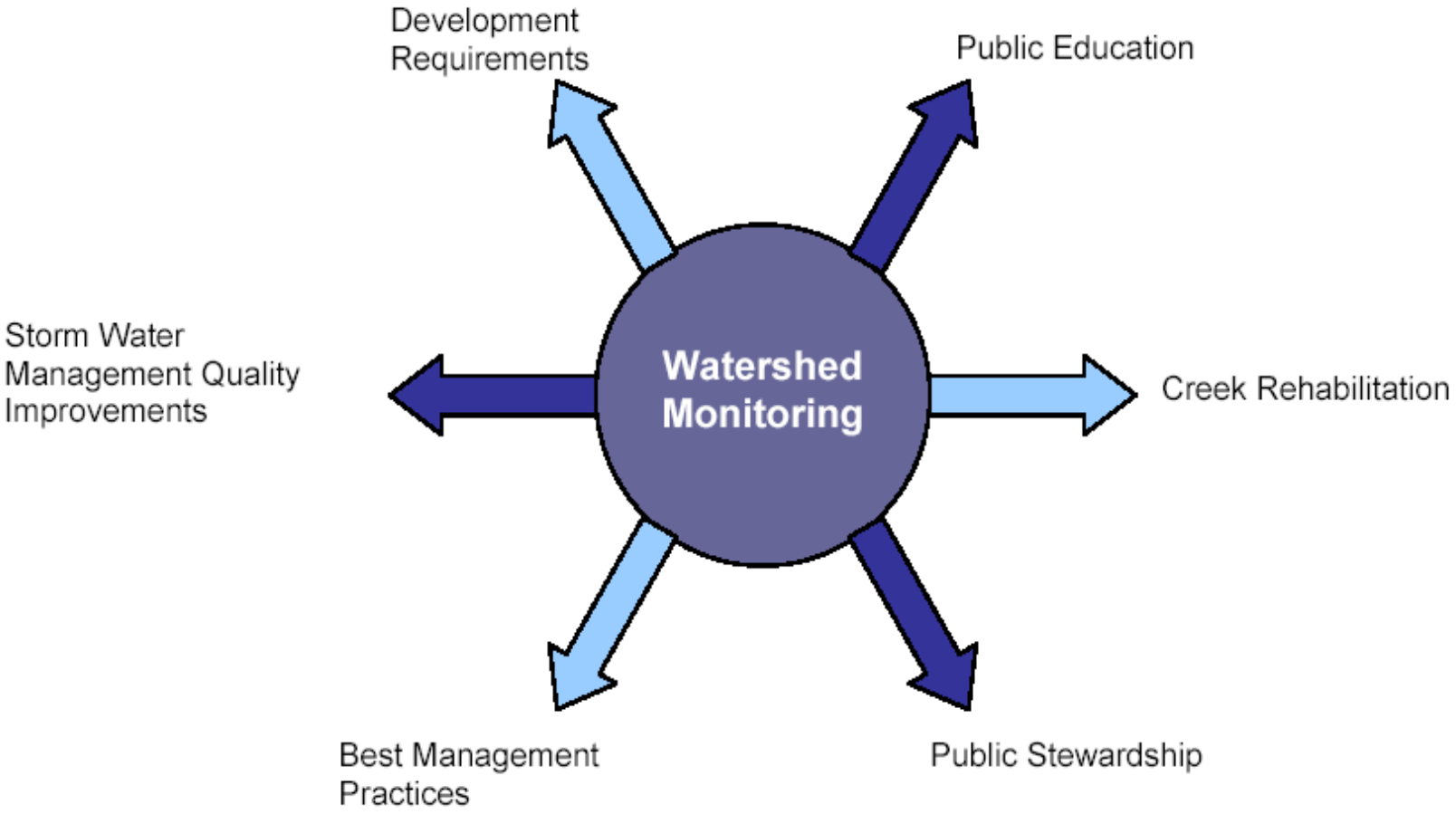


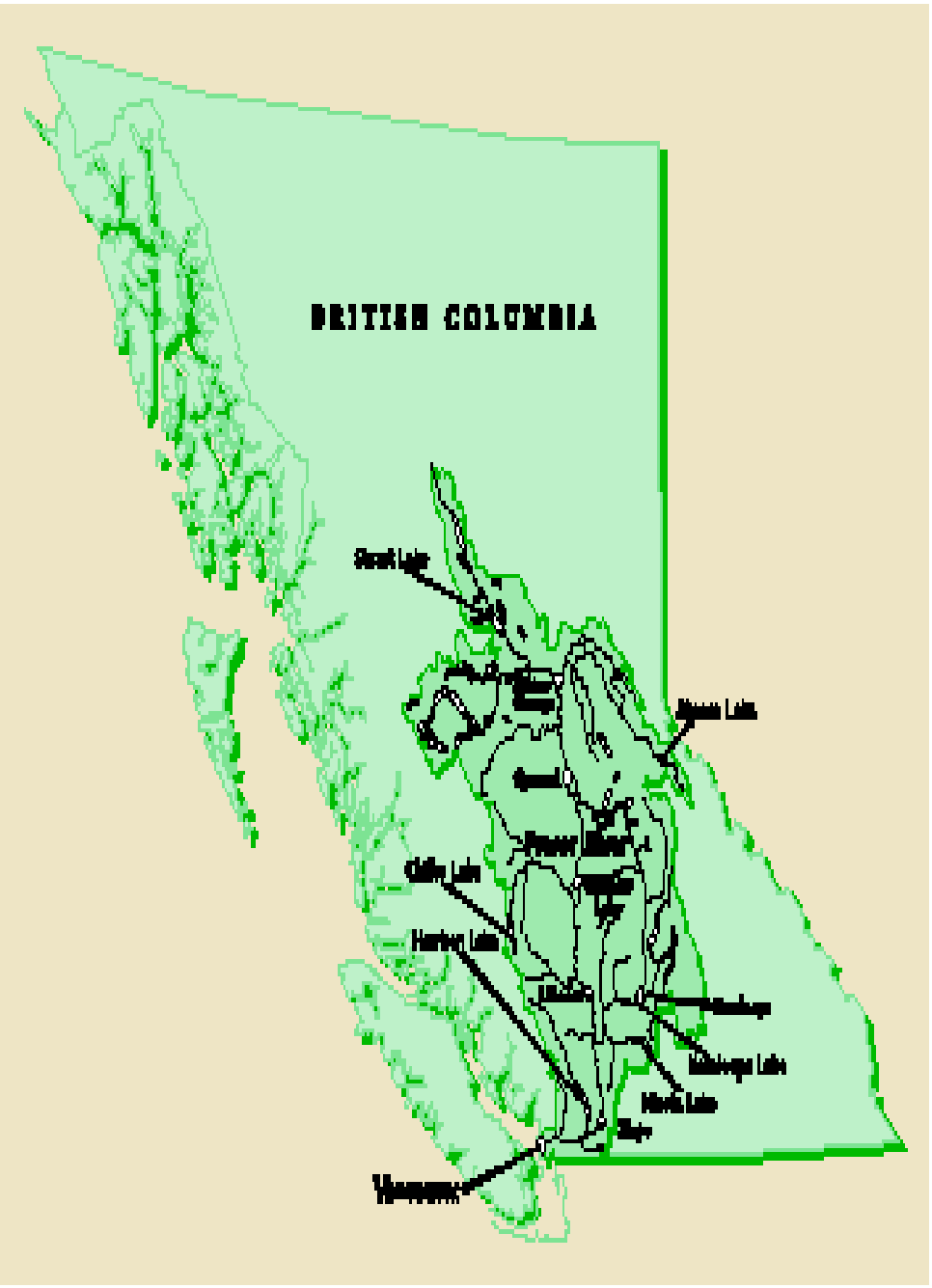
Terrestrial Features
Greenspace Size
Greenspace Health

Summary of Findings

- Surface water quality is a key indicator
- Monitoring has confirmed existing land use impacts (e.g. agriculture)
- Pre-development conditions have been benchmarked
- Certain parameters consistently exceed targets
- Final analysis of SWM facilities, buffers, vegetative planting will be possible in 3-6 years
- Development controls are critical

Why is Monitoring Important





Fraser River, British Columbia, Canada

- Largest river in B.C.,
- 5th largest river in Canada
- Over 1378 Km in length
- The drainage of the Fraser River watershed is nearly one quarter of a million square kilometres - which is larger than the area of Great Britain

Fraser River Valley Project

Initiative was intended to foster a cooperative, multi-organizational approach to restoring the environmental health of an entire watershed. The main points were;

- Focus on ecosystems
- Address the whole watershed: take the watershed as an appropriate unit for ecosystem analysis
- Work cooperatively: encourage partnerships, joint action, and collective stewardship for effective watershed management.
- Involve the public

- Studied contaminants, issues were;

  - **Study which contaminants are present**
  - **How to measure the contaminants**
  - **Cycle of contaminants from origin to graveyard including their entry into (and impact on) food chain.**

- water quality (contamination from point sources and non-point sources), pollution impact on flora and fauna and on human, urban centers, agriculture, paper and pulp mills etc

Two case studies raise the question of what is the right scale !!

The issue of scaling

- What are the issues of scaling?
- Is there an the ideal scale for IWRM in terms of population, geographic area, watershed size or catchment area?
- Can IWRM be done effectively on that smaller sub-watershed scale?
- Can sub-watershed scale IWRM efforts easily be combined into a larger whole?

What is the right scale?

- Community level
- Municipality level
- Province/State level
- National level
- International level
- Watershed level etc,

Issues of Scaling

- Moving from a small-scale to a larger scale implementation of IWRM is an issue when the original scale is not at a catchment or watershed level.
- Many projects that attempt small-scale IWRM find it difficult to “scale-up”
- “Bottom-up” or community-driven projects are usually at the smaller scale levels

Preconditions for scaling-up, defined in the design phase, in the Indo-German Watershed Development Program, India

Preconditions for scaling-up, defined in the design phase, in the Indo-German Watershed Development Program, India

1. The setting of appropriate criteria for the selection of watersheds, villages, and local-level NGO partners, and the design of local-level collaborative mechanisms

i. Technical criteria include:
   a. notable erosion,
   b. land degradation or water scarcity problems;
   c. villages located in the upper part of drainage systems;
   d. watershed size around 10 km2;
   e. village boundaries corresponding closely with those of the watershed.

ii. Socioeconomic criteria include:
   a. villages poorer than average;
   b. no wide disparities in size of landholding;
   c. villages having shown a concern for resource conservation and having a known history of coming together for common causes.

Conditions

iii. As a condition for support, villagers must commit themselves to
   a. banning the felling of trees;
   b. banning free grazing;
   c. undertaking social fencing to protect vegetation;
   d. reducing excess populations of livestock;
   e. limiting water-intensive crops;
   f. contributing voluntary labor to a value of 16% of the unskilled labor costs of the project (landless and single-parent households exempt);
   g. starting a maintenance fund;
   h. setting up a village watershed committee.

iv. In the interests of replication, the IGWDP decided not to work with larger NGOs inclined toward long-term, empowerment-type approaches to group formation

2. The design of village-level mechanisms for participatory planning, learning, and implementation

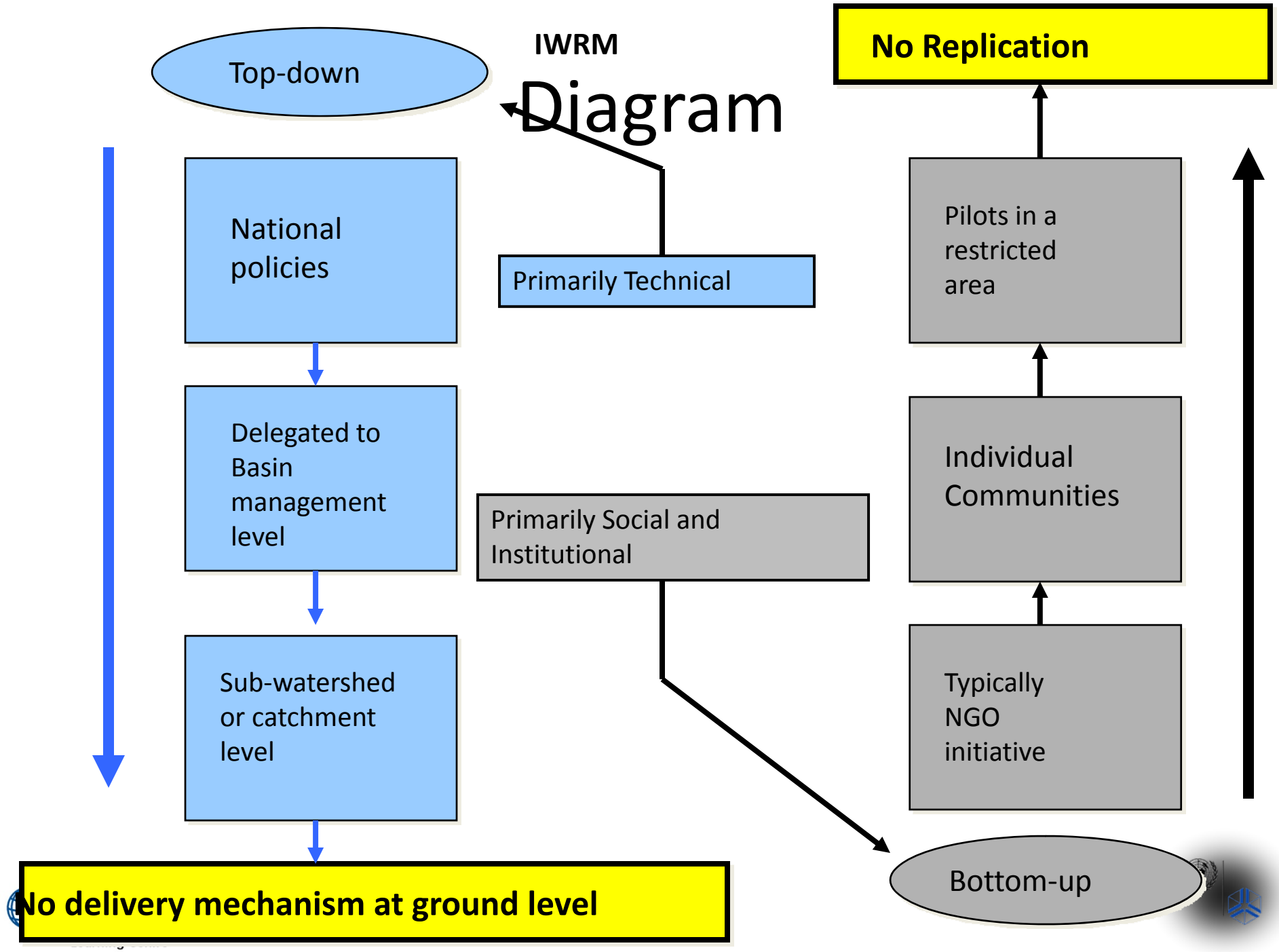
i. Planning by agencies based on external maps failed.

ii. Community mapping was done

3. Design of a sustainable mechanism for screening and funding individual proposals submitted for watershed rehabilitation -

4. **Mobilization of administrative and political support from the early stages**

5. **Establishment of channels for drawing on technical expertise in the post-rehabilitation period - facilitated in the IGWDP by a watershed organization trust (WOT).**


IWRM
Diagram
Top-down
National policies
Delegated to Basin management level
Sub-watershed or catchment level
No delivery mechanism at ground level
Primarily Technical
Primarily Social and Institutional
No Replication
Pilots in a restricted area
Individual Communities
Typically NGO initiative
Bottom-up

Scaling

Scaling and NGOs

- **The NGO perception of scaling-up recognizes that it is about relationship-building.**
- **It is not just replication of technologies or approaches, but expansion of principles and knowledge, such that people build capacity to make better decisions and influence decision-making authorities. Thus, scaling-up has power and development dimensions.**
- **However, the "learning-process" approach that is adopted generally proceeds through three slow stages:**
  - **learning to be effective (with emphasis on building interpersonal relationships)**
  - **learning to be efficient (withdrawal from individual sites)**
  - **learning to expand (but focused on local organizational development rather than broader policy and institutional arrangements).**

Scaling

- The NGO approach tends to be:
  - try a project, have success,
  - then think about scaling-up, including development of relations with the state and how to sustain the momentum, both vertically across institutional levels and horizontally.
- Collaborative planning from the outset between communities, NGOs, and the state is crucial if social change and empowerment of people is to occur in a meaningful and lasting way.
- The Government(s) and NGOs will need to undertake certain commitments to help reconcile current top-down (predominantly technical) and bottom-up (predominantly social/institutional) approaches to IWRM -- or "Bridging the Gap"

Bridging the gap – Government Actions

Scaling

- Provide a stable, supportive, and **enabling environment**.
- Provide **long-term meaningful support** to IWRM.
- Implement meaningful **devolution of control** with **institutional capacity-building** at middle and lower levels.
- Avoid top-down community manipulation and NGO tension by ensuring that programs are led by, and remain focused on, **community priorities**.
- Provide clear mandates that allow NGOs to participate.
- Provide clear mandates among state agencies.
- **Develop infrastructure** for disadvantaged communities.
- Provide appropriate **technical support**.
- Ensure **independent monitoring and evaluation** and documentation of lessons learned and best practice.

From: Farrington and Boyd (1997)

Bridging the gap – NGO Actions

Scaling

- Forge **strategic alliances** to generate impact on a large scale.
- Build up sufficient **broad-based community pressure** to influence policy.
- Lobby politicians; invite them to see what is happening in the field and how this fits with their own mandates.
- Influence **market forces** and market development.
- Encourage **local champions**.
- Help to construct a **shared vision** for scaling-up through active participation by all.
- Strengthen **community knowledge** and skills in law, planning, decision making, marketing, team building, communication, conflict resolution, and natural resource management,
- Strengthen **community understanding** of the government system in the scaling-up process.
- Build **social capital** (trust/cooperation networks).

From: Farrington and Boyd (1997)

Lessons

A lesson to date in IWRM is that there are no magic, generic solutions and no quick fixes. To benefit many people across large areas requires considerable political will, investment, and planning from the outset. It also takes time, as institutions, roles, and responsibilities evolve and the slower variables change. Emphasis needs to be on long-term management of resources at all levels, even though this may not be attractive to bureaucrats and politicians who want another glittering initiative

From: Batchelor et al. 2000.

The process also goes far beyond simple, area-based extension or expansion concepts envisaged by some NGOs. There must be demand for IWRM at the local level, it should be integrated with means of enhancing livelihoods, and it needs to be tailored to local conditions. Nevertheless, account must be taken of the "global" as well as the site-specific causes of the problems facing people and the environment

From Turton and Farrington 1998.

From: Chris Lovell, Alois Mandondo, and Patrick Moriarty

Capacity Building

Capacity building is the key to sustainability

- **Capacity building is targeted towards ensuring that all participants share a common set of basic knowledge, data and capabilities, especially in areas where they are not specialists**

Coastal Zone Resources Management - Indonesia

The project initiated a participatory process in each village to develop profiles of coastal resources management issues of concern to the community, and subsequently, to prepare coastal resources development and management plans.

- The purpose of the early implementation actions were to:
  - Build community support for the longer-term planning initiative
  - Experiment with mechanisms for community implementation
  - Build community capacity for implementation through a learning-by-doing process

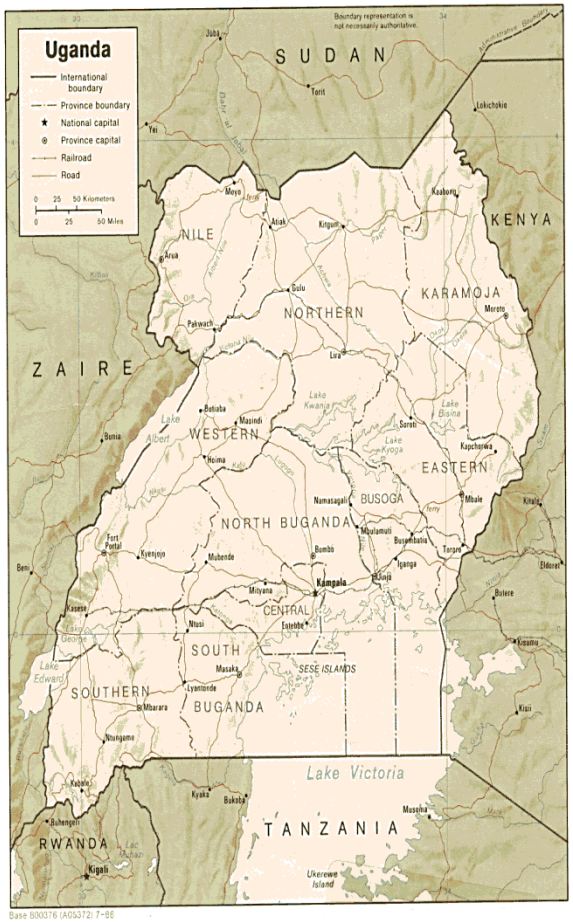
- Three example sites discussed:
  - Water Supply System (Blongko)
  - Water Supply System River Dike (Tumbak)
  - Water Supply Extension (Bentenan)

Involvement of all stakeholders is required

- Genuine participatory decision making is the rule, not the exception.
- Conflict resolution procedures are available and used.
- Reporting is a collaborative process.
- Management and implementation are also collaborative

Institutionalising Community Management in Uganda

- Amsalu Negussie - WaterAid Uganda
- Community management in Uganda
- The Water and Sanitation Sector in Uganda
- The WaterAid District Support Programme
- Scaling-up?
- Lessons Learnt



Community Mobilization for Sanitation in Kenya

- The village of Maina is an informal settlement within the boundaries of Nyahururu town in Kenya, where the Danish International Aid Agency executed a sewerage house connection project between 1988 and 1991.

- In the first year of the project, a trunk sewer and a few lateral sewers were constructed without any participation by the residents .

Community Mobilization for Sanitation in Kenya

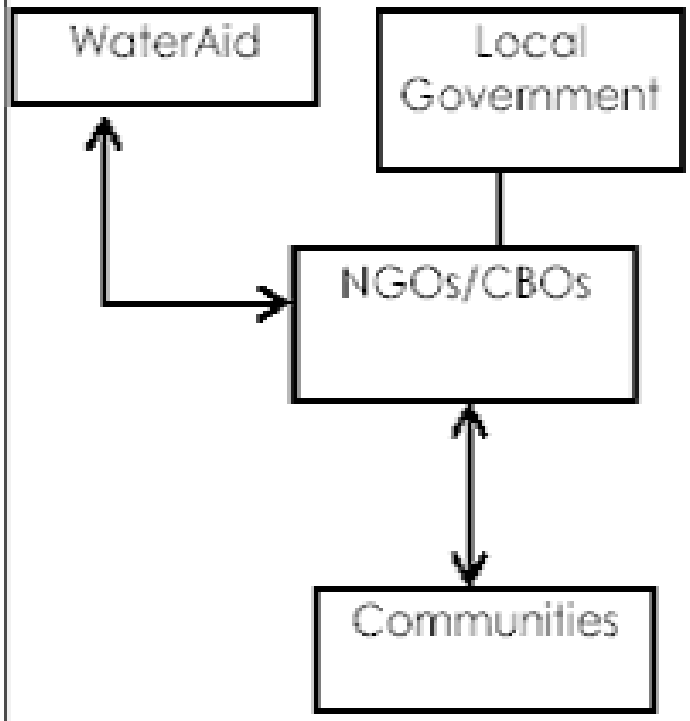
The consequences were predictable.

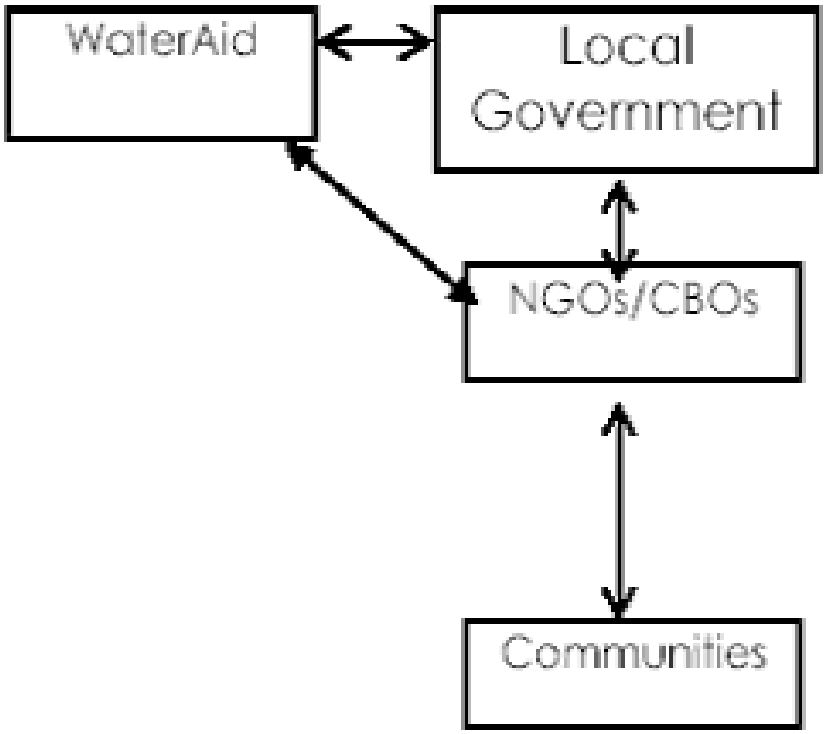
- **Villagers did not understand the project motives**
- **They resisted collaborating with project teams when the plans indicated that the layout of some plots would be altered to make room for roads, storm drains, and toilet units.**
- **Villager apprehensions were based on a valid concern that engineering plans would result in large-scale alterations to existing houses and structures.**

Community Mobilization for Sanitation in Kenya

- A review mission by the Danish International Aid Agency in 1989 recommended that, before any further investments were made, the physical plan be revised with community participation.
- A site committee was formed, involving residents in the process of determining what the project components would be.
- The results were striking.
  - **Communities began mobilizing labor and materials for construction and began participating in O&M of constructed facilities.**

Old - Direct Partnership with Local NGO/CBOs New Integrated District Support Programme





By the time the project came to an end;

- **the community groups with support from the NGO had charted a completely different course for the project**

- **were able to engage the municipal council in a productive dialogue on where and when other infra-structural facilities such as roads, a police station, and a post office should be located within the village.**

Efficient water use is essential and often an important “source” in itself

Striking a gender balance is essential

Case Study in Gurjrat, India

- Initiated and managed by extremely poor women, this decade long program lead to:
  - increased watershed sustainability,
  - rehabilitation of ecosystems, and
  - sustainable livelihoods for participants.

- Facts:
  - Patan District is arid. Average annual rainfall is 7 inches. Frequent droughts, severe salinity in land and water, high temperatures and sandstorms reduce communities to survival level. When crops fail due to drought, there is no option except migration.
  - Two-thirds of water-user are women.

- Planning:
  - In 1995, the Self-Employed Women's Association (SEWA), a trade union of 215,000 poor self-employed women, launched a 10 year water campaign in 9 districts of Gujrat.
  - Watershed Committees were set up at meetings where every villager from Users Groups and self-help Groups were present. Put of a total of 11 members, at least 7 were women. The chairperson was unanimously elected from the women members.
  - The Watershed Committees first collected detailed information on the resources of each village - natural resources as well as human resources. Then they prepared an action plan for every 4 years. Treatment works were implemented on the basis of annual micro plans.

- Results:
  - Over the period of the program, the committees constructed 15 farm ponds, recharging 120 tube wells. They also repaired 20 village ponds, and recharged 3 check dams and 15 open wells in 8 projects. Through soil and moisture conservation work, the salinity of the land decreased. With more productive land, the women began getting higher and more sustainable incomes. About 3,662 hectares were thus treated. Now they grow cash crops using organic farming.
  - Using pachayat wasteland, community pasture land and private land, about 5,000 trees have been grown and grass cover created on 3,500 sq. meters of field bunding for better retention of water. This has created a green belt in the area and generated employment opportunities for about 240 women. About 2,500 hectares of land, which formerly had only rain-fed agriculture, have an irrigation facility, and drinking water in now assured.

The Key Messages of the Rural Women in the Program:

- The most important method of mainstreaming women is enhancing their financial and managerial powers.
- Unless women watershed users groups manage their own watershed resources, the watershed will remain unbalanced, in favor of men and vulnerable to overuse.
- Equity, not only between women and men, but also between poor women and better-off women, is important. This means recognizing the poor women as watershed users in an individual capacity as well as in a group.
- Women are good managers and they have access to traditional technical knowledge.
- The key to women's effective involvement in forestry and biodiversity protection is through their access to the watershed.

Summary - Why implementation of IWRM fails

- Single framework for IWRM for all countries is not possible because there is a difference of
  - Natural resources
  - Population distribution and styles of living
  - Economy
  - Political, institutional and legal structures.

- Projects are often too ambitious – most of the developing countries do not have enough capacity (financial or human).