

The purpose of these *Key Sheets* is to provide decision-makers with an easy and up-to-date point of reference on issues relating to the provision of support for sustainable livelihoods.

The sheets are designed for those who are managing change and who are concerned to make well-informed implementation decisions. They aim to distil theoretical debate and field experience so that it becomes easily accessible and useful across a range of situations. Their purpose is to assist in the process of decision-making rather than to provide definitive answers.

The sheets address three broad sets of issues:

- Service Delivery
- Resource Management
- Policy Planning and Implementation

A list of contact details for organisations is provided for each sub-series.

Overview of the debate

Over the past 5 years the debate about participatory watershed development (WD) has focused on:

- Whether watersheds should be defined according to biophysical criteria, human settlement patterns or a combination of the two.
- What type of social and institutional arrangements help ensure equitable distribution of costs and benefits from WD.
- The institutional and ecological sustainability of WD.
- The key enabling macro-level factors and policies for WD.
- How to evaluate the impact of WD projects.
- How to implement participatory approaches to WD on a wide scale.
- How to link development at the micro level to management of macro-watersheds to take account of upstream/downstream issues and the wider objective of ensuring equitable access to water.

Key issues in decision-making

WD aims to establish an enabling framework for the integrated use, regulation and development of land and water resources in a particular area in order to reduce poverty. The area of operation can be defined at various physical scales: at one extreme watersheds cover whole regions or countries, at the other they occur within individual farms. The selection of watershed areas should be based on a combination of biophysical criteria (e.g. levels of erosion, groundwater potential, livestock numbers), social criteria (e.g. landholding size, migration levels, literacy rates) and institutional criteria (e.g. functioning of self-help groups, history of collective action, presence of NGOs).

Typical objectives of WD programmes include:

- raising the productivity of rain-fed agriculture and non-arable lands;
- encouraging the sustainable management and optimal use of surface- and ground-water;
- reducing soil erosion;
- conserving forests and other natural vegetation;
- creating employment (both directly and indirectly); and
- promoting increased individual and collective responsibility for natural resource management and strengthening social institutions.

Local communities play a central role in the planning, implementation and funding of activities within participatory WD programmes. The exact composition of any given programme should be determined in conjunction with them. It is important to ensure that programme activities:

- do not provoke conflict between resource users (where conflict is unavoidable, conflict resolution mechanisms should be specified early on);
- do not further isolate marginal households (that may not be able to participate in activities which demand a labour or financial contribution);
- do not undermine viable indigenous soil and water conservation techniques;
- are informed by an understanding of existing management practices (e.g. they do not immediately promote group activity if there is no history of communal working);
- are feasible given current capacity within the community and external organisations; and
- take into account underlying climatic, hydrological, soil and land use characteristics.

Participatory approaches are more likely to succeed if complex group activities - such as soil and water conservation - are delayed for a few years to build up local support and develop social capital.

WD programmes can be institutionally complex. Effort must be devoted to understanding the institutional environment in which they operate and finding ways to promote co-ordination:

- Which government departments and other organisations/institutions (e.g. local government, NGOs, community organisations, individual leaders) have a stake in the programme?
- How will these work with each other and any proposed new institutions (e.g. watershed committees)?
- Can a lead organisation be identified? (Vision, willingness to experiment and reach into the community are important qualities for any lead organisation.)
- What are the main constraints to improved links between organisations (e.g. conflicting organisational mandates, resource control problems)?
- How can these be resolved (e.g. through earmarking funds to facilitate links, lobbying for changes in legislation, increasing the flow of information between organisations)?

Successful projects - many of which have involved NGOs - have facilitated rather than directed WD activities. They have worked with local people as equal partners and they have been flexible in their design. They have also placed a particular emphasis on the development of strong local groups through:



DFID experience

- Research: Partnerships and policies for improved natural resource management (ODI – start 1996)
- India: Sadguru watershed management development (start 1990)
- India: Karnataka watershed management (start 1994)
- India: Tamil Nadu watershed development project (start 1995)
- St Lucia: Watershed and environment management (start 1994)

NEDA experience

- Asia: Participatory watershed management training (start 1996)
- Nepal: Bagnas Tal/Rupa Tal watershed management (start 1986)

Centres of expertise

- Institute of Hydrology
- IAC, Wageningen
- IFPRI
- IIED
- MYRADA, India
- ODI
- University of Essex, Centre for Environment and Society
- WAU
- The World Bank (India)

Participatory Watershed Development *continued*

- devoting significant resources to social organisation;
- engaging a high proportion of staff with skills in this area;
- explicitly tracking changes in social organisation as part of project monitoring (a meaningful set of indicators must be developed to measure group capacity); and
- rewarding staff according to their success in group development.

The effectiveness of watershed development in eliminating poverty will depend on the distribution of costs and benefits in the short and long term. Particular attention should be paid to understanding and supporting the livelihood strategies of women and the landless.

- Which resources are most important to the poor? (Access should be safeguarded where possible.)
- How are land and water resources distributed within the community? If proposed activities will affect this distribution who gains and who loses?
- What non land-based activities can be promoted to benefit landless households (e.g. livestock, non-farm employment)?
- What impact will proposed activities have on women's workloads? Can these be reduced by introduction of drudgery-reducing alternatives (e.g. improved energy sources, better water supplies)?
- Will women have access to wage-earning opportunities within the programme? If so, what can be done to help ensure that they retain control over the money they earn?

Specific capacity building efforts may be required to ensure that women, indigenous people and other marginal groups are involved in decision-making about WD activities and the use of WD funds. Capacity building may also be required in order to:

- improve awareness of local technologies and how to adapt new technologies to local contexts;
- help NGOs and community-based organisations develop effective working relations with government departments;
- ensure that groups are able to manage finances effectively; and
- enable local people to be fully involved in monitoring and evaluating programmes.

Effective monitoring of participatory WD is made difficult by the multiple objectives (social, economic and environmental) of programmes and trade-offs between environmental protection and short-term productivity gains. At the community level, monitoring can become a powerful force for participation. Performance indicators should be negotiated with local people, government organisations, research organisations, environmental lobby groups etc., who should then be made responsible for tracking progress and proposing changes to the programme where necessary.

There is still relatively little quantitative data on the scale of environmental or social benefits of WD. Success at a small scale may be difficult to scale-up to the level required to achieve a significant impact on poverty reduction. To improve the scope for scaling up, project design should consider:

- Which type of expansion pathway (e.g. clusters or a patchwork of villages) will do most to facilitate wider adoption?
- Is funding for networking and sharing experience included in the programme?
- Do NGO-led programmes have adequate linkages with relevant government organisations?
- Are project costs realistic? (Can the public sector, NGOs and communities afford to replicate the approach?)

Key literature

- Bhatia, A., et al. (eds) (1998) *Capacity Building in Participatory Upland Watershed Planning, Monitoring and Evaluation: A Resource Kit*. Kathmandu: ICIMOD/PWMTA/FAO.
- Farrington, J., Turton, C. & A.J. James (in press) *Watershed Development and Rural Livelihoods in India*. Delhi and Oxford: Oxford University Press.
- Kerr, J., et al. *The Role of Watershed Projects in Developing Rainfed Agriculture in India*. Prepared for the Indian Council for Agricultural Research. Washington D.C.: World Bank.
- Pretty, J.N., Thompson, J. & J.K. Kiara (1995) 'Agricultural Regeneration in Kenya: The Catchment Approach to Soil and Water Conservation'. *Ambio*, 24, 7-15.
- Seckler, D. (1996) *The New Era of Water Resources Management: From 'Dry' to 'Wet' Water Savings*. Research Report 1, Colombo, Sri Lanka: International Irrigation Management Institute.

Key Sheets are available on the Internet at: www.odi.org.uk/keysheets/
or through the websites of DFID and the Netherlands Ministry of Foreign Affairs

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