The effects of recurring floods and
droughts, the deaths of 6,000 babies daily
from waterborne diseases and growing
sanitation problems in booming peri-
urban and urban centres. No act of
terrorism generates devastation on the
scale of the crisis in water and sanitation.
A billion people still lack access to safe
water and 2.6 people lack access to
adequate sanitation. More than most
resources and services, water and
sanitation are essential for all aspects of
life, wellbeing and productivity and have
been the focus of development
interventions and international action for
three decades. But there remains a big
disconnect between global rhetoric and
the everyday realities and experiences of
poor and marginalised people.
Why is there a disconnect?

Much current debate, policies and interventions fail to address water and sanitation problems in sustainable ways that meet the needs of poorer and marginalised people. The focus on water as an economic good can overshadow other, particularly cultural and symbolic, meanings and roles of water. The engineering and public health domination of sanitation can obscure local level priorities, needs and socio-cultural practices. Consequently, despite good intentions, many projects fail. For example, villagers in Merka, western India, prefer local sources of water (e.g. the tank and wells) to the ostensibly ‘improved’ government-supplied piped water. Views that see water and sanitation problems in aggregate, technical terms, ignore the social, political and distributional issues that often underlie what may appear as ‘scarcity’ and have little to do with local users’ rights and interests (See Case 1).

“It is time to move beyond conventional indices of sustainability that tell us little about equity, pro-poor agency, power and resilience”

Liquid dynamics and Sustainability

Current approaches often fail to address challenges associated with contemporary dynamics in water and sanitation systems. These could be called ‘liquid dynamics’ and refer to the patterns of complexity and interaction between the social, technological and ecological/hydrological dimensions of water and sanitation systems.

Access to water and sanitation is determined by the complex, dynamic interactions between different social, technological and environmental processes across different scales and working and timeframes, with uncertain consequences. But significant existing problems in sustainable access are now compounded by new uncertainties arising from rapid urbanisation and climate change.

Governance processes are key here - institutional and political relationships that shape interactions between water and sanitation technologies and people. While important moves to involve communities and address water and sanitation problems at different scales have been made, key challenges remain in addressing adaptation to dynamics, uncertainties and the framings of different groups.

Design processes are also crucial. This refers to different kinds of social appraisal through which water and sanitation knowledge is gathered to inform decision-making and institutional arrangements designed to enhance equity and sustainability. These processes have traditionally focussed on narrow, technically-focussed approaches such as cost-benefit analyses and blanked out a range of options and alternative perspectives. Appraisal processes must be opened out to support pathways to sustainability and social justice.

Developing pathways to sustainability in water and sanitation

A sustainable water and sanitation system is one that can maintain a level of service provision over the long term by adapting and coping with these dynamic interlocking processes (e.g. floods, droughts, growing number of users etc.). But there are diverse views of what counts as sustainable or not and it is important to look at the services valued by marginalised rather than powerful groups and ask whether water and sanitation sustainability has normative goals such as poverty reduction or social justice.

“Seeing water and sanitation problems in aggregate, technical terms, ignores the social, political and distributional issues that often underlie ‘scarcity’”

To achieve socially just Sustainability in water and sanitation, the following need attention:

- How the dynamics of complex socio-technical-ecological water and sanitation systems, and how resilience, robustness, durability and stability might be built in the context of new shocks and stresses from, for instance, climate change, rapid urbanisation and new middle class hygiene movements. Processes at different scales (temporal and spatial), and the ways these interlock and are felt in different places and by different groups, are key.

- The framings of water and sanitation systems and dynamics held by different people, and how they lead to particular, valued Sustainability goals and properties

- The governance and appraisal of water and sanitation systems and how these are shaped by power relations, including political economy and power-knowledge, and how approaches might better enable poorer people’s own perspectives and agency in water and sanitation services provision.

- The influence of history and culture in shaping water and sanitation knowledge and practice, whether in divers local settings or in the contexts of global debates and agencies, is also a crucial factor.

Building pathways to pro-poor, equitable Sustainability in water and sanitation will involve a plurality of approaches. Mapping what works when, where and how needs to involve detailed case studies, urban as well as rural, whether focusing in on water and sanitation issues or examining their interaction with other processes - for instance in relation to health, food or agriculture.

It is time to move beyond conventional indices of sustainability - and those definitions of water and sanitation problems and solutions - that tell us little about equity, pro-poor agency, power and resilience. It is important to advance an agenda for understanding and action in the water and sanitation domain that links poverty reduction and social justice with Sustainability in today’s accelerating liquid dynamics.