http://www.un.org:80/wcm/content/site/chronicle/home/archive/issues2012/thefuturewewant/watermanagementstartsatthelocallevel

Why Water Management Starts at the Local Level

By Margaret Catley-Carlson

Pakistan flood victims access safe drinking water. ©UN Photo/UNICEF/ZAK

Water is ubiquitous: it is essential for all forms of life and virtually all economic activities. The United Nations has declared that a human right exists for reliable access to safe and clean drinking water and sanitation which, along with other domestic purposes, accounts for about 7 to 10 per cent of all water use. We require water for so much: transportation, municipal and industrial uses (from about 10 to 30 per cent), agricultural (more than 70 per cent), recreational, religious, and more.

WHAT DOES "LOCAL" MEAN IN CONNECTION WITH WATER MANAGEMENT?

Local usually refers to villages and the countryside where rural people live, but since more than 50 per cent of the population is now urbanized, with an additional 200,000 per day packing up and moving to cities, the local level is mostly urban. In some small and medium-sized countries, local will also include the national level—particularly if this is the rule-setting level. Thus, though imprecise, the term often has to do with who is supposed to provide services, and with financing. In most countries, responsibility for water is delegated at the regional or local level; in a few countries, such as Senegal, they try to operate water services on a national basis. Very large countries will have regional, state, or provincial and municipal level regulations and investments.

Supply is an issue at all levels. The local water supply is often a river or groundwater sourced by a river. About seventy of the world's major rivers are already over abstracted; more specifically, economic activities are taking too much water out to permit the river to reach the sea and nourish the ecosystems. Although the poetry of water is wonderful, all water uses require infrastructure which have both initial and maintenance costs. The burden of disease, lack of food, and diminished economic activity can all be traced to deficiencies in water management and water infrastructure.

At all levels, therefore, there are concerns with money and financing, particularly at the local level. Modes of payment can be tariffs, taxes, or transfers if there is an entity to make transfers. Water infrastructure costs money: the Organisation for Economic Co-operation and Development (OECD) estimates that about $18 billion is needed annually just to meet the new infrastructure needs of the Millennium Development Goals (MDGs) relating to drinking water and sanitation in the global South, along with a hefty $54 billion to maintain and upgrade the current infrastructure.

WHY IS WATER MANAGEMENT LOCAL?

Water is local in that how it is managed within a country or region or town will reflect culture, history, religion, geography, geology, soil characteristics, economy, and climatic patterns along with hydrologic realities (rainfall patterns, rivers, lakes, groundwater, and weather events).

The diversity of local cultures and economies makes a profound difference. Water problems, such as droughts, can manifest themselves in similar physical ways around the world yet result in vastly different economic or health impacts: nobody actually starved during the seven-year Australian drought, and the gross domestic product did not fall, yet far too many died last year in Somalia. Drought devastates the GDP in too many countries. The same flood magnitude has different death and disaster implications depending on local preparedness and response. Bangladesh, for instance, has improved its flood response capacity markedly over a decade; the magnitude of flood that once killed tens of thousands now has mortality rates in the hundreds, largely due to capacity building at the local level. The same water pump that functions for years in one situation could only last days in another. The amount of water applied per cotton bush in Central Valley California is dramatically less than in Egypt and around the world. The level of drought preparedness, national response, degree of cooperation, regulatory enforcement, willingness or ability to change, income effects, loss of life and livestock, and impact on political stability differ dramatically from community to community.

It is, therefore, quite apparent that water solutions can usually not be adopted without being adapted locally. Sharing knowledge, data, ideas, and technology is essential. Ways of collecting data, technologies, systems information, technical information, and billing system practices may be designed locally, but will increase in value when building on the experience of others. The Global Water Partnership has a water toolbox for policies. The International Water Management Institute, the 2012 Stockholm Prize winner, and the Food and Agriculture Organization work to share knowledge on water use in agriculture. The United Nations Secretary-General's Advisory Board on Water and Sanitation (UNSGAB), of which I am a member, conceptualized and promoted the creation of the UN-HABITAT Global Water Operators' Partnerships precisely so that utilities could share what they know to speed advances. Many of the most effective water service providers are local community groups and non-governmental organizations.

WHAT ARE THE ISSUES AT THE LOCAL LEVEL FOR UNSERVED POPULATIONS?

The most important questions can only be answered locally. Local power structures determine the priority for irrigation water, and therefore, the huge recourse to groundwater and diesel pumping. For drinking water, the rhetoric of 1.2 billion people with "no water" can lead to the perception that people don't have any water at all. In reality, people without water would be, simply put, dead. Everyone has water. Yet, far too often it is not clean, accessible, or plentiful enough for human health and wellbeing. While it may not be a high priority, sanitation—the health and dignity guarantor—will be even lower. Indeed, 2.5 billion people survive without it.

So the question is, why don't 1.2 billion people have better, more accessible water? Why do water and sanitation often suffer from low political priority? There are many answers— managed municipal water is not made available to certain ethnic groups or people living outside declared municipal perimeters. Water has a relatively low development assistance priority. People may prefer to spend their scarce resources on other services, such as telephones, transport, electricity, or entertainment. Soon there will be more mobile phones in the global South than there are toilets, so personal choice is a real issue.

Why aren't water projects sustained? The reality is that approximately 80 per cent of all water projects are not functioning after three years. There are many reasons for this. Did anyone seriously analyze what was being asked of people in water projects and what their incentive was to spend these resources in this manner? Who has the incentive to make changes and make things work? Who has the incentive to block change? Who holds the key, the power? Does the functioning of the project depend on changes in local politics or stratification? Have the politics of the pricing issue—especially for maintenance—been resolved? Is there an ethnic issue or pastoralist/farmer water conflict? Has there been any community or slum organization participation in talking through these issues? Are women included, excluded or allowed to be change agents?

Two UN agencies announced on 22 March 2012, World Water Day, that globally the MDG goal for drinking water has been reached, largely due to the investments made in the BRICS countries: Brazil, Russia, India, China, and South Africa. This is good news, but it paints a better picture than what actually exists at the local level, as pointed out by the Chair of the Joint Monitoring Programme for Water Supply and Sanitation and UNSGAB member Gérard Payen. What is being celebrated is that collectively the world has halved the proportion of people with no sustainable access to improved water sources, rather than the actual MDG goal of halving the proportion of people with no sustainable access to safe drinking water—the actual goal approved by Governments. At least 11 per cent of the world's population, 783 million people, are still without access to safe drinking water. Sanitation lags even further behind this statistic.

BETTER WATER-MANAGED CITIES

Cities are engines of growth, but also have high rates of poverty and low rates of service provision. They have more potential to raise capital. Some of the relevant Policy Recommendations for Rio+20 from the 2011 Bonn Nexus-Conferences, for which I served on the Advisory Board, were:

• develop conceptual frameworks and plans that identify the synergies between urban water management and agriculture, and create an enabling environment for implementation;

• ensure coordinated planning for waste management, water reuse, peri-urban agriculture, energy for waste;

• develop clear national and municipal roles and responsibilities and facilitate intersectoral cooperation to achieve more sustainable water, sanitation, health and food security impact and manage natural disasters.

THE WATER NEXUS

Local and national levels need to face the quickly growing competition for water between food, energy, and local administrations: the water nexus. Some problems can be addressed at the local level, but it is indispensable that a body of law be enacted to protect water resources, follow regulations that govern their use, invest for infrastructure, and create policy coherence to adjudicate water conflicts, in order to validate local water management. Progress at the local level can be stymied or enhanced by national level initiatives.

The tasks ascribed to at the national level by the Bonn Conference are comprehensive and daunting, yet essential in order to achieve national objectives and to facilitate local action:

• set the policy framework;

• regulate markets and provide enabling conditions;

• facilitate and finance access to food, nutrition, water, sanitation and, energy for the poorest people;

• monitor progressive realization of peoples' rights to water, food, and energy;

• assess institutional and procedural constraints;

• formulate a roadmap covering each of the nexus opportunity areas;

• establish an enabling framework for policy dialogue and coherence across sectors;

• build coherence in regulatory, planning, and management frameworks.

Priorities for national–local priority setting include pro-poor tariff structures; national food and nutrition strategies that take into account consequences for water and energy; bioenergy and food production; creating a culture of wastewater reuse and water recycling; strengthening land governance and integrating land use management for effective use of bioenergy by the poor; water and energy savings and reducing non-revenue water and electricity; sustainable management of groundwater; use of salt tolerant food crops, fodder crops and biofuels in coastal and saline affected areas; reducing vulnerability to natural disasters; and reducing pollutants of water and land bodies.

This is a daunting task but through collaboration and cooperation, a doable one.