



Water and Sanitation Program

An international partnership to help the poor gain sustained access to improved water supply and sanitation services

Eleventh Meeting of the Urban Think Tank

The Challenge of Gangtok

June 17-18, 2000 • Gangtok, Sikkim

Nagari

South Asia Region



Urban Think Tank
Water and Sanitation Program
Think Tank

FOREWORD

by Hon'ble P. K. Chamling
Chief Minister, Government of Sikkim

We are grateful to the Water and Sanitation Program and AusAID for organizing the 11th Urban Think Tank in Sikkim. The theme of Institutional Options is one of critical importance to the Gangtok Urban Water Supply and Environmental Sanitation Project. I am sure that the deliberations will contribute to a more focused understanding of the problems and benefits of different institutional options for urban water supply and sanitation improvement and will help the State Government to make the appropriate policy decisions.

My Government is committed to institutional development through a process of decentralization and consultation with communities and other stakeholders. We are also actively considering the setting up of urban local bodies in the state. We have undertaken, for the first time, a census to identify the people living below the poverty line to ensure that their needs are incorporated in developmental projects such as water supply improvement. We welcome this opportunity to discuss those issues of institutional development which we hope will lead to an effective and successful improvement of the water and sanitation services in our state capital.



K. Graham-Harrison


DFID

Department for International Development


Government of Sikkim


AusAID

The Gangtok Urban Water Supply and Environmental Sanitation Project

 In 1998, Australia refocused its development cooperation program with India, targeting three new geographic priority areas and with an emphasis on human and social development in water and environmental sanitation, primary health care, education, rural development and governance. Sikkim became one of the strategic partner states for AusAID in 1998 because it was:

- a progressive state with good governance/reform intent
- a GOI priority area with special status
- had clear development needs and opportunities
- matched Australian core competence in many areas of need
- had limited previous donor presence

A full design for the Gangtok Urban Water Supply and Environmental Sanitation Project will be undertaken shortly. The complex water distribution system has been unable to effectively and equitably deliver the abundant water supply available to Gangtok. Per capita water use is very low despite the benefits of a dependable source and a gravity-fed supply system. Poor distribution has resulted in inequities within the Gangtok urban area and has forced disadvantaged communities to tap contaminated spring sources. Poor water quality has led to a high prevalence of water-borne diseases, particularly gastrointestinal ailments. Inadequate sewerage networks, ill-maintained communal latrines and poor sanitary conditions in

the growing number of multi-storied houses, further compound the health impact.

The proposed project will involve the rehabilitation and expansion of the water supply and sewerage network and address the service needs of vulnerable communities, particularly in sanitation services. It will also facilitate the establishment of a new institutional authority for urban services in Gangtok by building the capacity of state agencies to better address water and sanitation service needs. AusAID recognizes the strong development opportunities and critical needs in technical, social, economic, health, governance and institutional functions.

The topical context of the 11th Urban Think Tank focused attention on the institutional challenges faced by small towns such as Gangtok in addressing future urban water and environmental sanitation needs. The outcome will contribute towards the preparation of the Gangtok project design and any future implementation activities will benefit from the learning that has been generated through the interaction among utility managers, representatives from other states, financial institutions and NGOs with officials from the Government of Sikkim.

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Municipal Corner

A FIELD VISIT TO SELEP

The Government of Sikkim organized a number of field trips to allow a first-hand look at some of the serious problems of urban and rural water supply, sanitation, drainage and solid waste management. One of these was to Selep, the water treatment plant that is the main supply source for Gangtok. The plant is gravity-fed from a perennial stream, located 16.5 km away at Rathechu, at an altitude of 8,000 ft. The treatment process uses sedimentation, rapid sand filtration and chlorination. The plant was constructed in 1976 with a treatment capacity of 4.5 mld; a further 9 mld capacity was added in 1982 when the plant was extended. Treatment capacity remains static at 13 mld, although the plant has an estimated water run-through of 36 mld. With insufficient volume in the sedimentation tank, some water is simply filtered and chemically treated and the final output mixes treated, semi-treated and untreated water. The bulk water meter is out of commission, making it impossible to accurately measure the exact quantity being supplied. The present distribution system leads to widespread waste from the plant (surplus water is flushed down the *jhoras* as there is insufficient reservoir holding capacity), through leakages and at the consumer's end. The PHED estimates a per capita production of 217 liters per day, while independent estimates for household consumption is 65 liters per day. There are insufficient on-site facilities for water quality testing and water distribution lines frequently run through the *jhoras* and storm drains where they are vulnerable to infection.

A priority of the Gangtok project is to expand the water treatment plant, and renovate and expand the distribution system. Accurate metering of water will have a direct impact on plans to improve the revenue collection service as customers can be charged for what they consume.



Gangtok Fact File and Project Background

Population of Sikkim: 406,000 (Census, 1991)

Population of greater Gangtok: 90,000 distributed between the core (28%), periphery (50%) and outer periphery (22%)

Gangtok is a rapidly growing hill city dependent on a fragile environment. It is the primary city of a predominantly rural state where nearly half the population are in Government service and there is virtually no industry. It is home to a multicultural society of Nepalis (49%), Bhutia-Lepchas (34%) and Others (17%) who live in mixed neighborhoods, many of which have poor services. About 20% live below the poverty line and another 20% are classified as vulnerable. Literacy rates are high, over 85%.

- Water is supplied via a gravity-fed system and distributed through the PHED (piped supply - 70%), RDD (piped supply and standpipes - 15%) and springs (individual collection - 15%). Only 37% of consumers receive 24-hour supply; unaccounted for water is running at 80% due to the large number of unauthorized connections and massive physical losses; water contamination is widespread.

- The sewerage system extends to less than half the current urban area, with no coverage on the western face of the Gangtok ridge. There are high levels of exfiltration and pipeline failures are commonplace. Sewage contaminates most of the natural drains (*jhoras*), making it difficult to operate the sewage treatment plant because of low throughput.

- Gastro-intestinal disease is widespread, affecting up to 60% of households with 140,000 cases reported annually. Coping costs are an estimated 150 lakhs per annum; the effect on poor households is particularly acute

- Inadequate drainage management accentuates the high landslide risk and has caused building collapses and casualties. Steep slopes are overloaded with multi-story buildings.

- The Government of Sikkim, with assistance from AusAID, is developing options to improve this situation with the proposed **Gangtok Urban Water Supply and Environmental Sanitation Project**



M. Webster

(GUWSESP), which will include the entire greater Gangtok area.

The project is to be implemented over five years, with a funding grant of AUD 15-20 million (US \$ 8-11 million). The focus will be on: improvements in water supply; sanitation extension and improvement; integrated drainage system; overhaul of solid waste management; institutional reform and restructuring; review of tariff, billing and revenue collection; environmental health improvement; service delivery to the poor and vulnerable; implementing development controls.



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Project Timeline

May 1998

Shortlisted by Project Identification Mission

June 1999

Pre-feasibility study confirmed overall feasibility


January-June 2000

Institutional review, socio-economic and health studies

July-September 2000

Full project design

Letter to the Chief Minister

 Having discussed and debated the problems facing Gangtok, visited water treatment plants, sewage works and solid waste dumps, looked at urban and rural water supply systems and interviewed consumers about their ability and willingness to pay for improved services, the Think Tank participants pooled their knowledge and resources in a final

exercise. The most critical institutional changes needed to improve service delivery in Gangtok were identified. In a hypothetical letter to the Chief Minister, the problems were summarized and followed by an analysis of some key institutional interventions that could address the problems and improve the situation. That letter is reproduced below:

*To the Honorable P.K. Chamling
Chief Minister
Government of Sikkim*

Dear Chief Minister,

On implementing institutional changes for water and environmental sanitation service delivery to Gangtok

The quality, quantity and reliability of the water supply has been identified as a serious problem for all inhabitants of Gangtok city. Sewerage connections are inadequate, reaching less than 20 percent of the population; dumping and insanitary disposal of solid waste is widespread. Weak institutional arrangements, a lack of awareness among most of the citizens and a gap in the effective enforcement of existing arrangements have created a situation where the impact on health is reaching critical proportions. Diarrheal incidence afflicts 60 percent of the population and typhoid and hepatitis B are increasing. The effect on poor households is particularly acute and it is estimated that coping costs amount to Rs 150 lakhs annually, approximately 75 times the income that could be generated by a utility.

The participants at the 11th Urban Think Tank are conscious that your Government is committed to a process of water supply improvement and institutional restructuring. And we are also aware that the existing problem derives as much from inadequate sector management as from the large-scale financial investment needed to renovate and extend the existing infrastructure.

We have therefore set out below a number of key institutional interventions that we hope will help to guide the reform process.

- 1. Establish an appropriate urban governance mechanism for Gangtok that has the support of all sectors of society and is in accord with the 74th Constitutional Amendment. Strengthen inter-departmental co-ordination between all those responsible for water supply and environmental sanitation; begin capacity-building of city administration and civil society institutions.*
- 2. Achieve a coherent approach to water/sanitation/drainage problems by defining the service delivery area in terms of the water catchment area. This would obviate the need for artificial rural/urban boundaries.*
- 3. Establish a well-regulated autonomous agency responsible for water quality and appropriate tariff setting. There is a clearly identified willingness among consumers to pay more for a reliable, good quality water supply and a realistic tariff would establish a sound financial base.*
- 4. Ensure that existing regulations are enforced and frame new policies and rules with due emphasis on solid waste disposal. Introduce new technical methods for waste collection and disposal (for example, vermicomposting) and dispose of hospital waste at source.*
- 5. Organize Community Health Volunteers to work with both traditional and Government health systems to introduce better hygiene practice and preventative health care among the community.*

A further option which you may like to consider in the long-term vision for the development of greater Gangtok is the introduction of the private sector as stakeholders in the water and sanitation sector and the use of competitive tendering to ensure the best value for money. The five working groups produced interesting models and proposals and one of them developed a well-structured plan embracing short- and long-term strategies; details of their vision is attached as an annexe to this letter.

Yours sincerely,

Participants at the 11th Urban Think Tank

Annexe to the Letter to the Chief Minister: Working in Partnership with the Private Sector to Improve Service Delivery in Gangtok

This plan for the development of Gangtok water supply is underpinned by a very strong underlying vision. Taking a joint public/private sector approach, it has a clear picture of the key institutional interventions that will be in place four years from now. Introduced in two phases, the process will ensure the development and involvement of local expertise.

Phase 1

This would not entail any capital investment because the Government of Sikkim does not have the money. The process would:

- make the PHED exclusively responsible for Water Supply and Sanitation and for Solid Waste Disposal.
- Define the watershed area as the boundary for service delivery.
- Form a *Special Purpose Vehicle* (SPV) consisting of a joint venture between the PHED, local urban/rural bodies, and private trade investors as shareholders. The staff would initially be seconded from the PHED (an affordable subsidy).

The SPV would:

- outsource solid waste management on the basis of competitive tendering;
- prepare an operation and management service contract;
- draw up a water loss reduction plan;
- introduce a management contract for revenue collection on a revenue sharing basis;
- start a tariff enhancement scheme.

The PHED would act as regulator during Phase 1 of the reform process as there would be insufficient revenue to fund an independent operator. This arrangement will, however, carry some risk of conflict of interest.

Phase 2

Institutional reforms coupled with the loss reduction plan would allow the SPV to start a program of capital expansion in Phase 2. Though the population served is relatively small, the gravity-fed system could nevertheless make the water supply system an attractive proposition for small private operators who could become partners in the SPV. Phase 2 would see:

- infrastructure investment and renovation of existing assets;
- a stepwise increase in tariff to tap the identified willingness and ability to pay off most customers;
- Government employees seconded to the SPV/contractor on a 50:50 cost-sharing basis;

- an independent regulatory structure for service delivery within the watershed area.

The challenges are certainly daunting and broad-based community support will be essential if this approach is to work. In this respect, the Chief Minister and local leaders will need to mobilize an effective public campaign to counter skepticism and unite stakeholders to carry this vision forward. A possible Phase 3 could see the emergence of a community-based body in which all the citizens of Gangtok would hold shares.



P. Pathak



K. Graham-Harrison

Urban Governance in India

“Governance is a broader and more inclusive term than Governments, it encompasses the activities of a range of groups — political, social and governmental, as well as their inter-relationships” UNCHS 1996

Global consensus points to two key elements of “good” governance:

- Decentralization to the lowest possible level; and
- Democratization to ensure representation and participation of all groups.

But these two elements are underpinned by certain broader principles without which systems of governance will fail; and these include transparency, accountability, responsiveness, equity, efficiency, effectiveness and leadership.

In recognition of these principles, the 74th Constitutional Amendment Act of 1992, **which has been ratified in principle in Sikkim**, created a third tier of Government for urban areas in India. Through this process of democratic decentralization, planning for economic development and social justice are delegated from the state to become the major responsibility of Municipal Governments. This legislation enables:

- a more responsive approach to the needs of the poor, Scheduled Caste, Scheduled Tribes and women;
- a broader approach to slum upgrading;
- a democratic process to bring power to local communities in decision-making;
- devolution of financial power through State Finance Commissions; and
- establishment of Ward Committees to give voice to the disadvantaged.

Unfortunately, service levels over the last eight years have shown no significant improvement and the conclusion must be that the 74th Amendment has failed to provide the impetus for improvement in city economies, infrastructure and services. While most states have ratified the 74th Constitutional Amendment, and the majority have put elected Urban Local Bodies (ULBs) in place, there has been no planning for economic development of cities and no city has yet come up with an explicit poverty reduction process and provided resources for it. Crucially, the ULBs do not have the capacity to handle their new functions and to take advantage of the new opportunities open to them. They have inadequate fiscal autonomy to levy taxes and many key functions remain with parastatal organizations whose functioning is beyond the control of local democratic processes. While the ULBs have power ‘on paper’, there has been no true devolution of power and no commitment to building capacity to handle such power at the local level. Thus urban governance remains fragmented, and power remains beyond the remit of the elected ULBs.

Eight years after the Act was passed, only marginal, mandatory, changes have been carried out. While a few states have taken some initiatives to selectively include a few additional functions, the radical institutional changes required for true decentralization to occur have been side-stepped.

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THE BOUNDARY QUESTION IN GANGTOK

The Government of Sikkim reclassified the city limits of Gangtok in 1991, causing the population and the city area to shrink by 60 percent. Rapid expansion following the 1971 merger with India had pushed the urban boundary well beyond the municipal* boundary with which it was originally contiguous. Strong public pressure to revert to the original limit led to the reclassification leaving 65,000 residents outside the city boundary and only 25,000 inhabitants in the city core. Land ownership lies at the heart of this situation as, according to Sikkim legislation, land outside designated urban areas can only be owned by specified groups of people.

Current Institutional Situation

The definition of the current boundary to exclude large urban areas of greater Gangtok has a significant impact on the provision of services. Responsibility for water and environmental sanitation services rests with the Public Health Engineering Department (urban water and sanitation), the Urban Development and Housing Department (solid waste management), the Rural Development Department (rural water supply and sanitation) and the Irrigation Department (drainage). There is no municipality.

* (Municipality suspended in 1985)

Key Roles for Civil Society and NGOs in the Challenges Ahead

In the two-and-a-half decades since Sikkim became part of the Indian Union, politicians of every persuasion have successively contributed, through populist policies, in creating a society totally dependent on the Government. This problem has been further compounded by the politician's penchant for immediate demonstrable results that do not address fundamental issues of growth, equity, sustainability and governance. Their paternalistic attitude has reduced communities to passive spectators in the development process and the consequences are manifest in many ways; the Government's inability to maintain and service many of the state-owned assets, their inability to effectively deal with growing unemployment and social problems and a lack of community participation and sharing of responsibilities in the development process. Given this backdrop, the implementation and long-term sustainability of the project depends on overcoming some serious challenges.

Getting Community Participation: To counter community cynicism and disenchantment with the Government, it is important to create an enabling environment where stakeholders can work together in a relationship based on mutual trust, respect and shared vision. Gangtok communities are a major stakeholder and the main beneficiaries of the project and their cooperation and support will only be forthcoming through active participation and involvement in project-planning. This is also essential to foster a sense of ownership of the assets created to ensure their long-term sustainability.

Reforming Organizational Structures: In Gangtok, water supply and environmental sanitation is fragmented across a number of Government departments, resulting in a lack of communication and interdepartmental coordination. A bureaucratic structure, by its very nature, fosters inefficiency and ineffectiveness and a lack of responsibility, accountability and transparency is apparent in Sikkim. Issues of competence and organizational capacity also need to be addressed. There is a pressing need to establish a separate legal entity to manage water supply and environmental sanitation that is independent, financially autonomous and grounded in best management practices. Proper rules and regulations must be formulated to enable its effective governance.

Implementing User Pay Systems: Political will and determination to implement a user-pay system is essential and goes to the very heart of the sustainability issue. Community involvement in the project, resulting in an acceptance of a user-pay



TARU

Alternative Views from the Think Tank

Conventionally the idea of a strong municipality is considered a prerequisite of good governance. This has not happened in Sikkim because of doubts and concerns over land issues. But in thinking about effective water and sanitation supply, maybe having a municipality is not a prerequisite if a strong, independent, body that can operate irrespective of boundaries can be established.

system, will mark a turning point leading from a mindset of passive acceptance of Government largesse to one of taking the responsibilities for development initiatives into their own hands. Over the years most of the free services provided by the Government have disproportionately benefited the most affluent communities.

Role of NGOs and Civil Societies: NGOs and civil societies can play a positive role in ensuring the long-term success of the project, but in the face of community skepticism and bureaucratic inertia the challenges are daunting. They can act as a catalyst in mobilizing community support by undertaking education and awareness-building campaigns and by bringing stakeholders together to discuss issues of concern and common interest. Broad-based community support will also enable NGOs and civil societies to undertake advocacy work for much needed policy reform in the management and administration of service delivery. Within a larger context, NGOs and civil societies must foster the growth of grassroots movements significant enough for their voices to be heard in unison by the Government and for them to take a more prominent and assertive role in the development process.

(The views expressed in this article are entirely those of the author.)

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Guest Editorial



by Mr S.W. Tenzing

Addl. Chief Secretary-cum-Development Commissioner, Gangtok, Sikkim


I did not hold out any great hopes for this Think Tank, but my misgivings proved unfounded. This has been a good beginning for the process of consultation which must now continue with local people. The message from the ministers has been very positive. Important local participants came and all the working groups grappled with local problems and came up with interesting ideas and options. My hope is that the seeds which have been sown will reap a good harvest.

My initial skepticism at the idea of Gangtok hosting the 11th Urban Think Tank stems from the perspective of a small state/small town mindset, that such high level discussions of experts and municipal practitioners are the preserves of larger states, and bigger cities. This two-day meeting helped dispel that misconception. The Chief Minister inaugurated the meeting and his brief speech set out the reform agenda that the State Government is pursuing. With the benefit of hindsight, I find that there is coherence between the Government's stated policy and the various ideas generated by the Think Tank.

The seminar was well-structured and expertly facilitated. The city-specific theme and the field visits evoked a great interest among all participants. Informed discussions focusing on issues of governance, health, poverty, equity and finance gave a clear indication that the time has come for the community and the private sector to play a greater role in managing the affairs of the city. Various options generated by the deliberations will help a progressive State Government to address issues of major concern.

The experience of this Think Tank has left us yearning for a more enduring association with the Water and Sanitation Program.

The Urban Think Tank

 The Urban Think Tank is a participatory forum, which enables experts and practitioners to address issues related to the service delivery of water supply and sanitation services to the poorest sectors of the community. The Think Tank is also intended to spark policy-level debate and provide a forum where the issues and concerns of municipal managers can be brought forward. Regular meetings have been hosted by the Water and Sanitation Program-South Asia (WSP-SA) in collaboration with the UK Department for International Development (DFID) since December 1994.

The Eleventh Urban Think Tank was held in Gangtok from June 17-18, 2000 at the invitation of the Government of Sikkim and in partnership with AusAID, the Australian Government's Development Cooperation Program. The meeting focused on the institutional challenges faced by Gangtok, and similar small towns, in addressing the urban water and sanitation needs of a rapidly growing population.

Through the publication of *Nagari*, the proceedings and key issues of each meeting are disseminated to municipalities all over India. The purpose of this information note is to share lessons learnt, highlight emerging issues, illustrate examples of best practice and provide a link between municipalities and other stakeholders to foster a better operating environment in the sector of water supply and sanitation services. We would welcome your ideas on any of the issues discussed and feedback forms are enclosed for this purpose. Please also write to us with any comments and suggestions on topics that you feel are important for managers of local urban bodies.

Mr Mulay, Director, Ministry of Finance, captured his first experience of a Think Tank in verse, and in the process demolished some preconceptions. Here are some extracts:

*Invited for the Think Tank...I was surprised
Nobody thinks Government can think
Government asks: 'What kind of tank is it?
have you reported it?' What is its capacity?
Don't touch it till the explosive experts arrive...*

*...Suddenly like a landslide the words came
rushing....
Sanitation, water supply, kept on flowing....
Sticky cloth, sultry weather,
blue and pink paper....
Ideas pour out...there are methods that are safer.*

*Visit to the solid waste,
glimpse of liquid water....
Thousands of connections...
must be a serious matter
Drainage meeting water pipes,
isn't it a wonder...?
Rules change, city shrinks,
there's a point to ponder....*

*...Clean city, green city
Nobody pays, what a pity
Bring new principles, write new policy
Bring new tariff structure, create new legacy....*

*...That was the Think Tank
Full of learning....
We carry memories....
And a lot of yearning....*

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