

OVERVIEW AND SUMMARY

STRATEGIES AND TOOLS WORKSHOPS

Track 1: Sustainable Water and Waste Management

Session 1: Environmental Services for the Poor

Session Chair: Mayor Omar Kamil, Colombo, Sri Lanka

Facilitator: Joseph Schilling, Director of Economic Development, ICMA, Washington, D.C.

Case Study Presenter: Dr. Prasanna K. Mohanty, Commissioner and Special Officer, Municipal Corporation of Hyderabad, India

Respondents:

Abe Malae, CEO, American Samoa Power Authority, Pago Pago, American Samoa

Liao Xiaoyi, President, Global Village of Beijing, China

Duane Kissick, President, PADCO, Washington DC

In most developing country cities, the investments for improved water supply and urban environmental infrastructure have bypassed, or at least not been equitable for poor communities. This not only exacerbates the plight of the poor due to increased exposure to environmental health risks, but also because it limits the effectiveness of such investments for the community at large.

A number of new and innovative approaches are being undertaken to address this problem:

- CBOs managing slum improvements and maintenance
- Slum Networking in India
- Increasing role of private industry as good corporate citizens
- Enhancing participation of slum communities in development decision-making

Dr. Mohanty described the approach to environmental protection and poverty alleviation in Hyderabad, India. He noted the linked linkages of environment, health, and economic productivity. He emphasized that the solutions requires city-level reforms, and that the city must own certain functions. Key principles applied include: holistic and integrated approaches, multi-agency partnerships, and consultative and transparent processes.

Highlights from discussion by respondents and audience:

Abe Malae: Partnerships with community and private sector are key. But how can we overcome some of the barriers communities tend to have, especially from poor sections that are not interested in what municipal government has to offer?

Prasanna Mohanty: There is a psychology that “everything has to be done by the government.” Even the poor expect everything from the government. In Hyderabad we try to involve the one thousand resident welfare associations. We simplified tax structures and the property tax. We use an informal rule: whatever tax they pay, they get two to three types of services. The poor pay less tax but everybody has to pay. There is a series of meetings with associations. The tax rate is low but everybody pays. Depending on what they collect, they can ask for more money from local government. If they cannot contribute taxes, they contribute labor. For slums that are not clean, the municipality gives money, but community supervises the work. Women's groups: they are the links with higher levels. They mobilize the community and identify problems. They know where to go and whom to approach.

Duane Kissick: India has been a real pathfinder in finding appropriate solutions to daunting challenges. For example: finding ways to empower women; dealing with exclusion of poor; finding means of participation. It was great that we have opportunity to hear from Dr. Mohanty. All is not well in our communities. If we can find ways to nurture these types of projects, that should be our goal. My observations in countries where I work: leadership is key. Leaders can find a solution to problems and make things happen. We need to make opportunities for leader to share and build on experience. Leaders cannot succeed unless the policies are good. We need decentralization. Public health: a lot of problems are due to poor public hygiene. We need to change way people care for their health and homes. Small investments in public hygiene can have tremendous impact. Resource management: participation is important for all stakeholders. Participation also helps us to get the right equation and mix. Customer preferences are more likely to be reflected. It is more likely to find out their real ability to pay. Participation is not easy; it requires time and energy. Micro-finance in India: it is not easy to find NGOs to take lead in managing micro finance. To become a lender for municipal infrastructure is novel.

Liao Xiaoyi: I am really impressed by what they did in India. I am honored to be a respondent. Not as a professor but as an activist -- I am a promoter of green community in china. I use to do research, and founded the Chinese NGO Global Village of Beijing in 96. We promote green community in china. Community is fundamental to improve environmental movement. It helps over come poverty alleviation. We initiated the concept of green community. Cooperation with local government is key. It was a pilot project. We asked the media to report the project. We asked the Beijing mayor to visit the project and sent a proposal to him. Eventually the mayor accepts the idea. He asks every leader to develop green communities according to our experience. Every official in Beijing has to develop the green community concept now. We establish a partnership: government , private sector, residents, and NGOs. We have monthly meetings to discuss program and policy. We organize group of volunteers to be pioneers. Some are retired people; some are children. We organize a series of environment activities in the community, e.g. regarding a landfill. We organize public hearing with policy makers. Most important is participation in the community. We hope to get some solution to promote green community in the region by establishing a network of green communities. We will develop an award of green community people, and get TV coverage. Thank you.

P.U. Asnani (USAEP): In India we have huge problems. Forty percent of Hyderabad live in slums. Are we just doing cosmetic changes? I suggest we dedicate a set amount and solicit participation in building infrastructure. Slum residents can agree to pay 1/3 of money for water, sewage, road, etc., with 1/3 by other institutions, and 1/3 by city govt. NGOs can become the facilitators. Instead of becoming a beneficiary, become a partner. This is the cost of total package: only 6000 rupees. If you provide, they invest in shelter themselves.

Unknown: Each city needs a survey of its slums. That study should determine if the slums are on municipal land, state land, or private land. Then decide on the strategy. E.g. take up the big populations first to be cost economical. Then go to smaller slums.

Jeff Stubbs (ADB): Link this with the L.A. situation. Low-income communities suffer the most. There the driving force is a political one. In Hyderabad, this is probably not the case. What is the driving force? Humanitarian, labor force?

Mohanty: For the last 20 years, the national government has experimented with various approaches. E.g., the area development approach: sewers, lights, water. Then the beneficiary

approach. Now the community approach with women's groups involved. All three are not adequate alone. Now combine the three -- the three have to go together. The community and beneficiary are the driving force.

Member of audience: Contaminated water is a problem worldwide. 5 million children die due to water borne diseases. We remove microbiological pathogens by using the heat of the sun -- boiling the water is not necessary. We need to develop relationships with governments. Technology is a strategy. There are some barriers, of course.

Kamil: Mr. Mohanty looked into quality of life in the poor population. If we not move away from bureaucracy, we can achieve these types of successes. Hyderabad looks into infrastructure and welfare of the people in low-income areas. Thank you to the three respondents. Duane emphasized leadership to bring about results. To low income people, we have moral obligation. Though they might not have legal status, we must make every endeavor to allocate funds. This helps to improve the quality of life of the people. Thank you.

Session 2: Dealing with NIMBY (Not In My Backyard)

Session Chair: Patrick McManus, Mayor, Lynn, Massachusetts

Facilitator: Joseph Schilling, Director of Economic Development, ICMA, Washington, D.C.

Case Study Presenter: Doug Palmer, Mayor, Trenton, New Jersey

Respondents:

Dr. Prasanna Mohanty, Commissioner and Special Officer, Municipal Corporation of Hyderabad, India

Mayor Robert Harvey, Waitakere, New Zealand

Mayor Omar Kamil, Colombo, Sri Lanka

Chantale Wong, Alternate Director to United States, Asian Development Bank, Manila, Philippines

Dr. Tasanee Aikvanich, Director of Health and Environment, Phuket Municipal Health Center, Phuket, Thailand

The siting of sanitary landfills and wastewater treatment facilities is an urgent challenge- as developing countries increase attention to toxic/hazardous waste management, the NIMBY problem will become even more constraining. Today, the city of Metro Manila is at the crisis stage in disposing garbage. Many other cities throughout the region face the same challenge. The problems are rarely technical- much more political and require consultative and public awareness/consultation as part of the solutions.

Mayor Doug Palmer of Trenton, New Jersey began the session with a talk on his experience in fighting an incinerator slated for his city.

Highlights from discussion by respondents and audience:

Mohanty: In Hyderabad, we had a typical NIMBY problem. There were 13 legislators. One wanted garbage shifted from his area. He was rowdy. He stopped all garbage vehicles, gathered 5000 people, and obstructed lorries. Some people broke the weigh station. The result was a law and order problem. If you don't want garbage dumping, please tell us a solution how you take care of your garbage. You produce 1/15 of the garbage. Show us a place. There was not a solution. We shifted the dumping area to a place where it pollutes a heritage monument. This is a case of "free riders." In addition to popular handling, it requires publicity and involvement of people themselves. If all dump, the scale is very large. Individuals do not

perceive this scale. In Hyderabad, we have 3 dumping yards. One is closed, so only two remain. We thought of created centralized dumping yards. No single place was acceptable. Polluters must pay: he must pay for his action as well as the collective bad. Technology: sometimes technological solutions are cheaper. Education and publicity: every individual needs to have an expert opinion. Otherwise you cannot convince people of collective consequence of their action. Involvement of resident welfare association: if you don't want garbage in your area, you must pay for relocation. Make cost implications clear.

Kamil: Let me share experiences in Colombo. Since 1992, we have had a project in the pipeline. The city and suburbs had to sign an agreement with the national government and the World Bank. Up to 1999, there was still no project. I was Deputy mayor in 97. The World Bank found a place 30 km from Colombo. At tender time, pressure from groups from the area mounted. The government did not have the political will to go ahead. In 1999 we saw we had no project. We collect every ton from the city daily. Disposal was the problem. Interest from private sector was strong. 40 collected documents, 7 made offers. In 14 months we awarded tender to a serious offeror. This year February we signed the agreement. Maybe next year, a compost and sanitary landfill project will open. This came about because of political will, irrespective of opposition. Relocation of 1000 families will be necessary. We had a strong commitment because there was no escape. We made the correct the decisions. I hope that in 14 months we will have a successful project.

Chantale Wong (ADB): My experience in the USA: in the last ten years a movement is catching fire -- "environmental justice." It started with African American communities that felt environmental facilities were sited in their communities and economically depressed areas. In a 1997 report, Benjamin Chavez argued that race is the most important significant factor in determining location of hazardous waste facilities. Was it race, or was it because poor and Afro-Americans live in depressed areas because they have no choice? Solid waste companies say they do not target minority neighborhoods. Most residents do not want facilities in their area. Health and property value loss feared. Such reactions caused by fear of wastes oozing out of tanks and drums. New environmentally sound facilities are more high tech and provide better options than old facilities. In Manila, no facilities exist. Garbage is burned at night. We should be talking about different type of facility. Solutions: a reverse Dutch auction. Government can offer compensation to accept hazardous waste facility. Advertise. If no bids come in, raise the price. Once a bid is received, study the proposed site. Hire an attorney to oversee the study. Hold an elaborate referendum to get community buy in. People living in the areas would have say if they wanted it. Do a geological assessment. Assure after the public referendum, that site would be wanted where it would be built. But would it achieve environmental justice? Or would people take it because it was economically advantageous?

Howard Schirmer: I did not hear a strong emphasis on community participation in planning process. We need to identify stakeholders; hold open and transparent sessions; present the scientific facts; determine weights to the issues; and finally converge on a decision. This may be not the best economic decision but the job gets done. It is an effective way to make decisions.

Cinnamon Dornsife (ADB): I think in US and other places, environmental and health impacts can be minimized. Risks need to be identified clearly to the community. They can then weigh the costs and benefits.

Wong: That is a great idea from Howard. Example: sewage treatment plant in San Francisco. We had sewer tours. People could see what we were doing with the money. It gives them better sense of what you are trying to do and the benefits.

Member of audience: Find point of least resistance vs. best solution. Part of it has to do with participation. There is a lot of talk of improving participation, but it is still a very weak link. New approaches are coming in but government agencies do not have the capacity and staff.

Joe Schilling: Looking at obstacles: are there obstacles that are more unique in Asia Pacific because of cultures, that make it more difficult to communicate?

Kamil: Public pressures do come even if the project benefits the communities. It has to be tackled well. Benefits must first be shown to the community. When the World Bank project fell through due to opposition to the location, we had to find a site in city boundary.

Warren Evans: A major issue is credibility in developing countries. Power supply, waste dumps -- it does not matter how you plan, people won't buy the idea. You should show people places where it is working. There is a lack of understanding by government bureaucrats of how to let people participate. There is a lack of power among locally elected officials to ensure it really happens.

Unknown: Education is an important component. These processes all take a long time. When is the point when you decide to force it or create more education, or cut this off?

Palmer: It became a statewide crisis. It had to be taken care of. It became a political issue. We made the election a referendum on the incinerator.

O'Hearn: Same problem in Thailand, and often not managed well. Ultimately you need to find domestic example. Cultural differences and lack of faith in the political system are pervasive. People feel decision is already made and public hearing is just a backdrop. Otherwise they will not engage in constructive process, but opposing process.

Stubbs: I recently worked on a project. The ten top sites were owned by government and created by the government.

Eminent domain is not prevalent in many parts of Asia and the Pacific. Only solution is community involvement. Doug's experience so relevant. They selected a site and got a massive reaction which forced them to abandon site. Eventual site: a tailored solution to the needs of the community.

Palmer: Some people dread public participation. If you want public participation, don't just stand up at a mike, but really involve them. If you fail to plan, you plan to fail.

Mohanty: Let me caution on the limits on public participation. Sometimes this route can create an enemy. If you locate elsewhere, you are transferring it somewhere. I feel it is a problem where the market fails. Government is likely to fail. It has to be multi-pronged. Face the monetary consequence of your actions. Do not dump it on someone else's head.

McManus: Keep in mind everything does not work perfectly. Despite NIMBY there are still people who don't like it even after a successful project. Not everyone can bat 1000. Thank you.

Sessions 3 and 4: Cities Without Sewers (and other environmental infrastructures) and Finance, Equity and Privatization

Session Chair: Warren Evans, Manage, Environment and Social Development, Asian

Development Bank, Manila, Philippines

Facilitator: Joseph Schilling, Director, Economic Development, ICMA, Washington, D.C.

Case Study Presenter: Dr. Bhichit Rattakul, Director, Anti Air Pollution Environmental Protection Foundation, Bangkok, Thailand

Respondents:

Rich Hays, Director of Environmental Services, City of San Diego, California

Howard Schirmer, President, Transnational Associates, Inc., Englewood, Colorado

Prof. Yanxin Wang, Vice Head Master, China Wuhan Geology, University, Wuhan, China

The reality faced by most Asian and Pacific cities is that they will be without conventional waste management facilities on a citywide basis for the next several years. Most cities have no wastewater management systems, and if they do, the collection system is generally undersized. Very small portions of wastewater flows are treated. Garbage disposal is usually far from sanitary- though garbage collection during the last decade has improved dramatically. Very few cities have the ability to deal with hazardous wastes. The capital investments to develop what would be considered adequate waste management systems in a developed country are huge. The most expensive urban environment issue to tackle is wastewater management- in a large city, the cost is likely to be \$3 to \$5billion. Solid Waste facilities and air quality management systems are much more affordable. Very few developing country cities have the financial resources—and at the same time their population growth is demanding budgetary allocations just to keep up with new basic infrastructure. What are the options to cities without the needed urban environmental infrastructure and services?

Finance is clearly a constraint to developing the urgently needed environmental infrastructure and services. ADB studies have shown that in most cities there is an affordability of such facilities and that if financing is structured properly the costs are shared on an equitable basis. Privatization is sometimes touted as the solution to the Mayor's finance and management woes. There is a role but the correct parameters need to be taken into consideration and the right steps followed if the private sector and City are to have a mutually satisfying partnership in the urban waste management sector.

Mr. Rattakul began this session with a presentation on the challenges Bangkok faces in this area. Mr. O'Hearn followed with a presentation on issues of finance, equity, and privatization.

Highlights from discussion by respondents and audience:

Amory Lovins (Rocky Mountain Institute): Look at whole system efficiency. There are often different organizations involved. Example: simple technology and education can save half of water and electricity. Savings in urban settings can probably be more dramatic. One flush of a toilet in Bangkok is equal to the daily use for five people upcountry. Be careful not to "design in" problems. Think of sewers as a habitat and not a nuisance. Need engineers, architects, botanists, planners, and more perspectives. Take a fresh look at cistern storage -- can pay for itself from storm drainage and water supply. Give them away. Fragmented thinking on bringing water in, and another agency taking water out, having never talked to each other. Optimal scale is key. Ninety percent of cost is in collection. Diseconomies of scale are common. Look at analogies of wastewater and electrical systems. Why make wastewater in the first place? It's a Victorian concept. Urine and feces are easier to manage separately. Why dilute with clean water? Cheapest solution is preventing creation of wastewater. It makes more sense to provide waterless sanitation because it is cheaper from a whole system perspective. Put intake downstream of its outfall. Look at simple solutions which give polluters direct feedback. Do the same with policy. This leads to breakthroughs in technology.

Min (Korea): We talked about poverty. Preservation requires strict rules and regulation. We need the consent of people and we need to harmonize environment and development. In my city the river is the main source of drinking water and industrial use. 20 million people depend on river. Central government enacts many laws: factories must reduce waste, restrictions on cattle farms, etc. My city is promoting organic farming at county level. Four major reasons why we succeeded: supporting structure; regions themselves organized; county provided incentives; consumer realized importance of organic farm products. Thank organizers for allowing me to introduce our campaign. We are Mecca of organic farming in Korea.

Hays: Privatization has a significant role, but beware when you dance with the devil. E.g.: South Africa, Saudi, and Mexico. You need to be careful. Need to beware of promises. Not one local government official voted against turning energy to private sector in California. Don't transfer all control to corporate boardroom. Their incentive is the bottom line. Private sector is more efficient? This is a bald-faced lie. I run a solid waste system. We provide low cost and high efficient service at half or two thirds of the cost of others. You can be efficient. Competition is great when government employers think they will lose their job. A lot of public unions believe they are so strong they can put in rules. You must convince the unions. There is a middle ground. You can have a government-controlled enterprise. Contract out what you cannot do well. I invite you to San Diego. We started at the bottom with low productivity and low morale. We got employees and citizens involved. We fired 52 people. Today we have automated trash trucks run on CNG. City trucks are on a GIS routing system. We know where the trucks are. We will mine the methane from the landfill.

Willis: We need to promote better utility service. It depends on how well it is run and not who runs it. We should provide education to personnel and politicians on what a quality utility organization really is. We should provide public information on the services so they have a frame of reference on what its value is. There are huge water losses in utilities and water intrusion in the system. A utility will not be viable if it loses 50% of its water through its pipes. You need a commercial and industrial base to pay for service. A utility has to be allowed to target people who pay. A utility can provide quality service so that it does not become a hindrance to others agencies.

Wan Yanxin: Government should have a very important role. Government is responsible for infrastructure investment in flood control projects. Price is critical in providing service. Wuhan has very low water price and privatization will increase water prices. But we must take care of the poor because they cannot afford the price. We have to subsidize for the poor. We shall improve our technology with more cost-effective approaches to bring down the cost of environmental services.

Schirmer: I come here with the perspective of a private consulting engineer. We were asked to talk about cities without sewers. For small cities and rural areas, education and training is absolutely essential. Public health aspects are critical. Providing clean water does not solve the problem if it goes into dirty bucket. People swim in heavily polluted water with no level of knowledge of the seriousness of the risk. LA looked at recycling program but had to focus on the children. They will educate the parents.

Evans: In Manila, 11 million people have no site for legal disposal of solid waste, so it is burned and dumped. When rains come, this leads to cholera and other diseases. Capacity is extremely weak. Recent survey found that narrowest gap between managers is six times salary. When they learn some skills, they resign and go to private industry. Malaysia is an exception. Water

systems problems: 60% unaccounted for water (Rajasthan), mainly because of lack of incentives, training, and pressure on water works. There is no concept of delivery of goods to consumers. Bangkok has good waterworks. They needed a small increase in rate. Politician did not allow it because it is a hot political issue. In India water has been a free "gift from God." It is easier to have a wastewater tariff than one for water. The harsher realities: 1) political pressure to subsidize operations, and 2) lack of capacity in institutions. Slum networking in India is a model worth replicating: 1/3 budget from city for services; slum dwellers contribute; and other third from industry. Most slum dwellers work in factories. Most slums located next to the factories. It is good business to improve life of their employees. This works well in Ahmedabad. This could be adopted in other cities, recognizing they don't have the funds for environmental services.

Stubbs: Look at institutions if you want to improve services. Look at board of directors, city council. Look at mayor's office. Can they set direction? Can utilities hire and fire staff, offer competitive rates? What can they do about corruption? How many governments can account for their system? Access to information is key. ADB has water utility data book. Get the right information to the right people.

Lily Casanova (UNEP): Only Bangkok talked of small systems. This is an issue not addressed. Wang emphasized technology. Yet higher technologies are not effective without the knowledge. Need soft technologies. But we don't talk about our kitchen software. Information is available via internet. Why is there lack of information. Problem is of dissemination. Good example in Rio -- needed to provide treatment facilities to slums. Rio is famous for slums. They developed a system to work with a community. They build a low-income condo with technical support from the city. People themselves build the system and operate it. It takes effort to get information out. Not all are connected to the internet. Computers are not used properly -- lots of playing games. People don't always trust the web. We need hard copies. Face to face meetings can be the best way to spread information.

Kevin James (Alliance to Save Energy): Energy efficiency is a big opportunity. What if you have 50% water losses and water available only part time. If information is available, people are focused on just trying to get water. There is no way to recover cost with so much leakage. You need to focus on "carrots" for leaders to take steps to build capacity. We have shown how energy efficiency works.

J. Morgan (Armor) Williams, Parliamentary Commissioner for the Environment (New Zealand): "Soft" systems are the key, and how to build capacity to run them. Need to build up understanding of the whole system. Not just a problem of local governments but you get in tangles of privatization. In New Zealand, we experimented. Now the evidence is that we need private public partnerships. A problem we have is that local governments talking privatization language. When metering is put in, it looks like first "evil" steps toward privatization. All the key issues have been the soft systems. Water supply is most important. In case of labor strikes we can function, but water supply cannot be stopped even for a day. People rise through water supply systems. This is your duty. No promotions if you fail.