

MUMBAI 'CITY DIALOGUE' ON CLIMATE CHANGE
BOMBAY NATURAL HISTORY SOCIETY
21th SEPTEMBER 2007, MUMBAI

Organised by the Centre for Social Markets
In partnership with BNHS and Asia Society India Centre

Event report by Ms Deborah Matzner¹

The Gateway of India, once a popular tourist attraction and symbol of Mumbai's historical significance, submerged under rising sea waters. The Maharashtra Nature Park, once a dumping ground, now a forest preserve for rare bird and butterfly species. The discussion tonight at the **Mumbai City Dialogue on climate change** evoked these two striking images of two possible futures for the city. One is the fate likely if nothing is done to combat climate change. The other, a model of the ways in which citizens and the city can ameliorate the situation and create a sustainable future before it is too late.

The Mumbai City Dialogue was the Mumbai iteration of 12 televised events being held in cities across India as a part of the Centre for Social Markets' (CSM) **Climate Challenge India** initiative. The evening consisted of a panel discussion-cum-informal town hall meeting in which concerned citizens and prominent leaders from across the spectrum of the city's civil society, business, science and government addressed the implications of climate change for Mumbai, and this city's responsibilities and opportunities for confronting it.

In the packed auditorium of the **Bombay Natural History Society**, in which the event was held, one saw well-dressed business people, young college students, retirees and activist-types, all quite visibly eager to learn and to contribute their insights, hopes, fears, and examples of proactive change to the evening's dialogue. Skillfully and dynamically leading the evening and eliciting productive discussion from panel and audience members alike was Malini Mehra, CSM's founder and CEO of the Centre for Social Markets.

Civil society was represented in the panel by a leader of the city's activist ecologist community, Mr. Bittu Sahgal, editor of the wildlife and ecology

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magazine *Sanctuary Asia* and founder of Kids for Tigers, the Tiger Sanctuary Programme. Representing Mumbai's city government was Shri R.A. Rajeev, Addl. Municipal Commissioner with the Municipal Corporation of Greater Mumbai. The city's community of scientists who produce data recording and predicting the impact of climate change was represented by Dr. Rakesh Kumar of the National Environmental Engineering Research Institute, who heads the Mumbai Zonal Center of the Council of Scientific and Industrial Research. Bringing to the discussion the role Mumbai's business community can have in mitigating climate change was Mr. Shailesh Pathak, Director of Investments at ICICI Venture. Two panel members addressed what artistic and cultural institutions and individuals can do to spread awareness in the community. One was Sangita Jindal founder and chairperson of the Jindal South West Foundation, which is involved in art, culture, education, heritage conservation and sports, who also runs Art India; and Jaimini Pathak, a writer, actor, producer and director whose recent play *Once Upon A ... Tiger* uses theatre to get young people and their parents thinking about ecology.

After brief introductions and invitations for membership by the Bombay Natural History Society and the Asia Society's India Center, the two co-presenters of the event, Ms. Mehra set the participatory tone for the evening by inviting members of the audience to introduce themselves and share why they had come. This led to an introductory discussion addressing some of the questions and concerns that audience members were bringing to the evening's dialogue. Beginning the discussion at the basics, one older gentleman's question began things at the basics. If, he asked, species have evolved over many millennia, could not climate change be seen as simply another evolutionary factor to which nature, and man as a species, would have to adapt? This led to the groundwork of the discussion being laid out by panel members along with informed members of the audience. Bittu Sahgal clearly presented the scientifically documented realities of climate change. Extinction is, indeed, a natural occurrence, he agreed. But human-produced climate change is leading to a species extinction rate at nearly 10,000 times the natural rate. This is but one clear, scientific statistic illuminating that what we see going on in terms of climate change is not natural, but man-made. If it's because of us, the solution must be as well, Mr. Sahgal pronounced eloquently. With the case so persuasively and incontrovertibly presented, the discussion for the evening could proceed with no further doubt about the reality of climate change, human culpability, and our responsibility for producing solutions to it.

Another thread of this introductory discussion that would weave itself throughout the night's dialogue was whether and how business and economic growth could be reconciled with the mitigation of climate change. One audience member, who introduced herself as the director of

environmental programs for an oil company, bemoaned the dearth of business and industry leaders in global discussions on climate change. Malini Mehra, along with other members of the panel and the audience, responded that they had encountered many concerned members of business and industry in their discussions of the issue, including prominent leaders from Mahindra and Bajaj. The problem, Mehra posited, is not the lack of concerned members of this community, but rather the need for a platform from which they could present and act upon those concerns. The broader point was that rather than place blame or responsibility with one sector of society or group, we should be building coalitions and cooperation with concerned sectors across society. This theme ultimately constituted one of the most profound conclusions arising from the evening's event.

Preceding the panel was a screening of footage filmed in Mumbai. In the footage, citizens were asked to discuss their experiences and responses to environmental change in the city. Among those represented in the footage were a journalist, an IT professional, a retired corporate worker and, finally, Avinash Kunbal of the Maharashtra Nature Park. As Malini Mehra explained, the footage provided some information about environmental problems within Mumbai for those viewing the event on television, who might not be familiar with the city. Moreover, she suggested, the *vox populi* interviews brought up the fact that, as individual citizens, we tend to only be aware of the personal impacts that we suffer with a deteriorating environment. The Maharashtra Nature Park, on the other hand, provides an example of what can be done when a critical mass within the citizenry and civic bodies can cooperate to affect change.

Following this screening, the formal panel discussion was structured around three themes: Mumbai's implication in the causes of climate change; its particular vulnerabilities to the effects of climate change; and what Mumbaikars can do, both personally and publicly, to respond to the situation.

Mr. Bittu Sahgal brought up the fact that Mumbai is responsible for 40% of pollution in India. At the same time, the city has a huge park system that harbors sensitive animal species. On the national and global scales, then, Mumbai has a responsibility and the resources necessary to tip the balance in favor of environmental sustainability.

Ms. Mehra invited the panel to discuss the special problems that an island-city, formed out of the connection of 11 separate bodies of land, is likely to face with rising global temperatures and sea-levels. She brought up, in particular, salination of water sources, and the vulnerability of reclaimed land. Mr. Sahgal elaborated on further effects the city can expect. These

include increased disruption, and eventual failure of public transport due to ever-worsening flooding. In addition, he said, the city's water supply can be expected to suffer not only from contamination by rising sea waters, but also because of increased rates of evaporation of aquifers with rising temperatures. Finally, he mentioned, rainfall will become more erratic, hampering rainwater harvesting.

Dr. Kumar warned that higher temperatures and other climatological effects will lead to an increase in the incidence of diseases. The rate of disease will quickly outstrip the capacities of the city's health care infrastructure, such as hospitals and trained medical professionals. He also pointed out that Mumbai will suffer due to the climate's effect on the broader region, as the city relies on energy and water from outside its boundaries.

Ms. Mehra also asked the panel to discuss the problem of increased urbanization that the city will face as surrounding rural areas confront climate change. Mr. Rajeev described how the population influx into the city will then, in turn, exacerbate Mumbai's experience of the effects of deteriorating weather conditions. He warned that the city has reached the limits of possible growth, yet slums spread inexorably. The ramifications were made strikingly clear: 40% of Mumbai, he explained, lies under average sea level which is incredibly flood-prone and will only become more so with sea-level rises due to a warming globe. And it is in this sub-prime real estate is that most low-income settlements tend to occur. The poor, especially immigrants into the city, will not only compound Mumbai's global warming problems, but are quite likely to be its first and hardest-hit victims.

This discussion led Sangita Jindal to point out the lack of awareness of environmental issues on the part of the poverty-stricken who are struggling for basic, personal survival, let alone the long-term survival of the planet. Since the poor will be worst hit by climate change, raising awareness of what they can do to mitigate it should be of topmost priority.

Others asserted that higher-income development is also culpable for adding to the problem of climate change, and also quite likely to suffer its consequences. Bittu Sahgal warned that much higher-income development on reclaimed land was vulnerable to the encroachment of sea water into the soil, and the subsequent loosening of structures' foundations. Mr. Shailesh Pathak provided an example of high-end development that not only does not take climate change into account, but also worsens it. New malls are being built with glass exterior walls, which add significantly to the electrical expenses because of increased air conditioning costs. Increased air conditioning uses more electricity, requiring the burning of more fossil fuels, and thus recursively adding to increased global temperatures and

greenhouse effects. There is one bright spot to this particular example. As Mr. Pathak said, business listens to price signals. In cases like this, the price signals clearly tell businesses to shift to more energy-friendly, and therefore environmentally friendly, practices.

The next portion of the discussion addressed who can do what to confront climate change in the city. Panelists described what the sectors they represent have tried to do so far, and what they hope to achieve in the future. Running throughout this portion of the discussion was the question of responsibility and ability to produce change. In particular, Mr. Rajeev gamely submitted to being taken to task by the other panelists as a representative of a city government that may not be doing all that it can in the face of this imminent threat. Mr. Sahgal faulted the government for failing to engage in a dialogue with the citizens contributing to and most likely to be directly effected by climate change. He asked, why does the city government not use taxation and zoning to discourage developers from building on reclaimed land? Why does the national government not advise farmer and fisher folk on how to alter their practices to render them more sustainable and more able to adjust to the changes that a warming global is likely to wreak on the resources on which they depend?

Mr. Sahgal insisted that it is only natural that citizens, such as those in the *vox populi* footage, tend to be aware only of their personal experiences of environmental problems. People should not be expected to think globally, he asserted, for that is the responsibility of their elected representatives. The government is failing its citizenry, however, due to temporary power, the greasing of wheels, and other realities of the functioning of this city's government, he asserted.

Mr. Rajeev countered that the city government has done a great deal by, for example turning garbage dumps into park land, and proposing incentives for environmentally friendly building and greenhouse gas limitation. In addition, he defended the government, saying it often gets blamed for effects of global warming which are beyond its control. For example, the meteorological department is often unfairly faulted when it fails to predict extreme rainfall, which is, he argues, inherently unpredictable.

Other panelists challenged Mr. Rajeev. Ms. Jindal proposed that if the city has managed to accomplish environmentally friendly gains, then it is failing to communicate those gains, and its dedication to the environment to the citizenry. Ms. Mehra also pushed Mr. Rajeev on two particular issues: the city's disaster preparedness, which lags far behind that of, European cities; and the results of Mumbai's Mayor's recent trip to the summit for city mayors from around the globe, which was held in New York City, at which

city governments' responsibility for the environment was a central issue. What, if anything, has the mayor communicated with its citizenry following this event, Ms. Mehra pressed Mr. Rajiv to respond. His replies--that Indian civic government should not be compared with the city governments in the West, because the mayor here is answerable not to the citizenry at large, but to the majority party in power; that the scientific community needs to provide clearer data for the government to work from; and that the citizenry, particularly the rich of the city, should take an equal share of responsibility for the situation as well--met with some contention among the panelists.

Nevertheless, in the end, consensus was reached on the larger point that, rather than waste energy pointing fingers and laying blame on other sectors of the city, one needs to instead take a proactive, coalitional approach. Ms. Mehra proposed that the resources available within the panel itself be made of use. A concrete, very feasible coalition across government, science, citizenry, arts, and ecological activism had been modeled in the panel discussion itself. These resources should be utilized, and the model repeated.

In closing remarks, in which the panelists described their hopes and dreams for a proactive city response to climate change, the call for coalitional action was repeated. Dr. Kumar proclaimed a desire to find ways to translate scientific data into resources that can directly inform the policies of city government. Ms. Jindal reaffirmed her desire that NGOs reach out to the poor of the city, providing educational materials for children and in local languages, so that they could be a part of the discussion, and the solution. Jaimini Pathak resolved to continue to use theater, with its long history as a direct and effective mode of educating the public, to spread awareness about the environment to those in all walks of life. Mr. Sailesh insisted that the business community should consider the ways that they can actually profit by investing in public/private partnerships that will improve the city's environment. Mr. Rajeev opined that action should be taken to reduce the number of vehicles in the city. Mr. Sahgal dreamed of a city that took pride in and protected its natural parks and resources, and created an urban environment friendlier to pedestrians than to vehicles. He envisioned car-free pedestrian plazas in Colaba and other parts of the city, with benches and walkways. The will for positive change was palpable throughout the auditorium.

Ms. Mehra ended the evening by requesting that the dialogue continue. She urged panelists and audience members alike to consider this event not the end, but rather a beginning of discussion and collaboration across the city. The Mumbai City Dialogue on Climate change brought into sharp focus not

only just how incredibly high the stakes of rising global temperatures will be for Mumbai, but also how much we can gain by taking personal and political responsibility, and affecting positive change.