Kanpur City Dialogue on Air Quality and Transportation: Snapshots[1]

Kanpur, December 17, 2009

Engaged in a public debate…….

Clean air action in Kanpur has helped to lower its runaway air pollution levels. But the time to breathe easy is over as air pollution is again reaching critical levels in Kanpur like other major cities of India. The city needs to act fast to recover its right to clean air again. This was the key message from the *Kanpur City Dialogue on Air Quality and Transportation Challenge: An Agenda for Action* that was jointly organized by the Centre for Science and Environment and the Uttar Pradesh State Pollution Control Board in December 2009.

The purpose of this public meeting was to find solutions to the scary air pollution and mobility crisis facing Kanpur; engage with policymakers and people of the city to strengthen policy action on air pollution and urban mobility; and, also share lessons from other cities like Delhi to chart the future course of action.

The dialogue got overwhelming response. This gathering of nearly 150 people included all who are concerned about the deteriorating air quality and congestion. They debated on the critical strategies needed to move ahead. The UP state government officials including district divisional and administrative agencies, regional transport office, Kanpur municipal corporation, development authority, civil society groups, educational institutions, medical doctors, citizens and media participated in this city dialogue.

Citizens of Kanpur absorbed in discussion

[1] This brief summary is based on the discussions at the Kanpur public dialogue held in December 2009 and highlights the key issues that emerged from the deliberations.

Update on Action

Air quality management has taken roots in Kanpur. Action has begun and shown results. The ongoing government action also gathered momentum after 2004 when the Supreme Court of India broadened the ambit of its ongoing public interest litigation on air pollution in Delhi to include Kanpur along with six other polluted cities. The Union government and the concerned state governments had drawn up action plans to lower particulate pollution. The combination of the government and the court action has kicked off the first generation reforms in Kanpur

The citizens of Kanpur took stock of the action. Yashpal Singh, from the Environment Directorate, UP Government along with the UP State Pollution Control Board presented an overview of the status and progress of action in the city. The city has implemented the Auto Fuel Policy Roadmap and introduced Euro II and Euro III norms for vehicles; Initiated the CNG programme for autos, tempos and buses; about 1208 CNG personnel have been trained on safety related issues; strengthened PUC system with new equipment and norms for the in-use vehicles; phased out old vehicles – buses, tempos, autos and Maxi cabs; Premix dispensers have been installed for two-wheelers; New buses are being introduced; Entry time of transit commercial vehicles on the Grand trunk Highway has been restricted; efforts are on to check fuel adulteration; Battery operated three wheelers are being encouraged. The city is working on a parking policy. Action on industry has also been initiated. About 105 industries have been identified as with air pollution potential. 50 per cent are not complying with the rules – they have been served notice or being closed down. This has led to decline in sulfur dioxide levels in Panki industrial area. Plans are afoot to further accelerate the action.

Update on action	
	
Y P Singh, Director of Uttar Pradesh State Environment Department	***C S Bhatt, Member secretary, UP State Pollution Control Board***

Focus shifts to new challenges and future strategies

On this occasion Centre for Science and Environment released its preliminary findings from the citizens' survey and assessment of the pollution and mobility challenge in the city. Efforts to reduce air pollution in Kanpur are in danger of being wasted, as pollution levels are once again creeping up in the city.The city must take steps to reverse this trend fast. Need tough action. Soft options have all been exhausted. Restricting car numbers and upgrading public transport and non-motorised transport – cycling and walking, and technology leapfrog is the future option for the city.

CSE also presented the results of the stakeholders' perception survey in Kanpur on residents' views on air pollution and mobility problems in the city. The survey results echo its analysis: 80 per cent of the respondents have said air pollution is worsening, and incidence of respiratory diseases, asthma and eye irritation is on the rise.

Anumita Roychowdhury, Associate Director, Centre for Science and Environment presenting the findings of its research and survey in Kanpur

The recent tightening of air quality standards by the Union ministry of environment and forests has further changed the air quality profile of different locations in Kanpur. Locations like Sharda Nagar, Deputy ka Parao, Kidwai Nagar and Fazal Ganj continue to remain critically polluted with particulates; nitrogen dioxide levels in all these locations have now moved from low to moderate levels. Studies have shown that about 60 per cent of the geographical area of the city has a pollution problem, with a highly polluted city core. This exposes a large number of people to very high pollution levels. The costs are high. Studies done by the GSVM Medical College and the Central Pollution Control Board (CPCB) show lower lung function for people living in the Vikas Nagar and Juhilal Colony areas, than those living in cleaner environment. According to UPENVIS,

0.4 million disability adjusted life years are lost every year in Uttar Pradesh due to air pollution. This costs the state about Rs 2.6 billion.

But it is also clear that if the city acts on time and improve the air quality, it can save lives and prevent illnesses. A study by the Usha Gupta Institute of Economic Growth and the Bhimrao Ambedkar College has estimated that collectively, Kanpur can save as much as Rs 213 million if it meets the air quality standards.

Even though the vehicle numbers are a lot less than in Delhi, smaller and densely built Kanpur is getting increasingly congested. Dependence on personal vehicles is rising steadily. Two-wheelers are 83 per cent of the fleet, while cars make up another 13 per cent. But people are now buying more cars: the annual growth rate of cars is higher (10 per cent) than that of two-wheelers (7 per cent). As a result of this growing congestion, peak hour traffic is slowing down. Against the governed maximum speed of 40 km/hour, the average speed in Kanpur has plummeted to 17-20 km/hour and even slower. According to a 2008 study commissioned by the Union ministry of urban development, traffic volumes have exceeded the designed capacity of roads in more than 26 per cent of Kanpur's road length. Some of the key roads which carry more traffic than designed include Meston Road, Canal Road, Halsey Road and the Kidwai Nagar Road near Ghantaghar.

Vehicles not only pollute the air; they also threaten energy security. In Kanpur, studies have shown that cars and two-wheelers together use up about 80 per cent of the total energy consumption of 0.1 million tonne of oil equivalent per year in the transport sector. If dependence on personal vehicles continues to increase, oil consumption will go up by three times by 2030. This is ominous for a country which imports 72 per cent of its crude oil. Increasing energy use, in its turn, can hike emissions of heat-trapping carbon dioxide (CO2) leading to more global warming. According to a recent air study done by New Delhi-based air pollution research and modeling body SIM Air, personal vehicles in Kanpur account for the highest CO2 emissions -- 84 per cent – in the transport sector.

Kanpur's strength is that it meets nearly 60 pent of its travel needs through the intermediate public transport system -- autos, tempos, cycle rickshaws, cycles, buses and walking. The majority of the city's people still use sustainable forms of transport. Kanpur must not repeat the mistakes that Delhi has made of following pro-car policies. Kanpur still has the chance to plan its future growth differently and avoid the path of pollution, congestion and energy-guzzling. More road space is not the answer. Cities need to redesign their existing space and travel pattern to provide the majority of the people affordable and efficient mode of transport that can be an alternative to personal vehicles. Kanpur must build on its strength. The city needs a detailed action plan to help Kanpur stem the tide.

The city needs to strengthen the ongoing programmes like the CNG programme and advancement of cleaner vehicle technologies and fuels. But great emphasis will have to be on the implementation of a transportation and mobility plan for the city to encourage public transport systems and non-motorised transport and building of pedestrian-friendly systems. The city needs to use parking policy to reduce congestion, and fiscal strategies to promote public transport usage.

Call for stringent action and enforcement

Bhure Lal, Chairperson, Environment Pollution (Prevention and Control) Authority says action must accelerate

The Supreme Court appointed Environment Pollution (Prevention and Control) Authority (EPCA) has played an important role in monitoring of the City Action Plan. Addressing the gathering, Bhure Lal, the Chairperson of the Authority said, “Indian cities will have to strengthen pollution control regime, and also improve enforcement at the local level. In the absence of coordinated efforts, including stricter enforcement, pollution is likely to rise in the coming years due to the sheer increase in vehicle ownership.”

EPCA has set tight deadlines for implementation in each city, which it monitors and reports on progress to the Supreme Court. The impact of the programme is beginning to be visible with pollution trends in some cities being reversed. But there is substantial work to be done as the pollution is threatening to go up again in the city. EPCA has identified four key areas that have the potential to engineer a fundamental transition. These include gaseous fuels programme, public transport and transport demand management, vehicle inspection and management of transit traffic and phasing out of old vehicles. Bhure Lal warned, “Pollution control has to be an integral part of the urban growth process and must rest on precautionary and prevention principle to avert threat to public health.”

Debate to set the terms for action

L Venkateshwar Lu, Divisional Commissioner of Kanpur district and the chairperson of the Task Force for the Kanpur action plan deliberating on the terms for policy action

`Need maximum benefits for maximum people`: The fact that Kanpur has successfully begun to implement the difficult measures in the past gives the confidence that it is possible to take on the newer challenges and achieve clean air. L Venkateshwar Lu, Divisional Commissioner of Kanpur district and also the head of the task force of the city action plan pointed out that the people of the city must seriously discuss and come out with an action plan for the future.

It is beneficial and wise to reduce air pollution than to spend money on numerous health problems. We need greater insight into the problem. The city needs a holistic approach. The CNG programme needs encouragement. Public transport should improve. We must educate each citizen to use right kind of transportation modes to make travel more sustainable in the city. A lot of road space is taken by parking of vehicles. Many business establishments do not have adequate parking facilities. People need to be charged for the number of hours they park on roads.

The city should make and implement policies “for the maximum benefit of maximum number of people.” The rules should be same for all big and small people when it comes to decongesting the city.

Anil Kumar Sagar, District Magistrate, Kanpur, shares thoughts on the implementation challenges

Working towards mobility Plan for the city: Anil Kumar Sagar, District Magistrate of Kanpur highlighted the challenges of implementation to address air quality and mobility crisis. Kanpur faces a major traffic crisis. There is also a lot of concern over encroachment on roads and pavements. This is aggravating congestion. The older part of city is much more congested than the newer areas. Area wise strategies are needed to reduce congestion. Improvement in public transportation can encourage people to switch from cars. The city needs holistic strategies.

The City Mobility Plan is urgently needed but this is still a long pending issue. However, the state government has taken the initiative to initiate its preparation. The city in the meantime has introduced the low floor buses and is planning to expand the bus fleet. But the occupancy is still very poor about 20 to 30 per cent. This needs planning and reforms. The services and time taken to travel in these buses need to be further reduced.

The CNG programme has expanded in the last few years. This is a good effort. But a lot more needs to be done

Mukesh Sharma, Air Pollution expert from Indian Institute of Technology, Kanpur, shares his findings on air quality of Kanpur

Understand the unique pollution challenge of the city: Mukesh Sharma, professor, IIT Kanpur highlighted some unique issues of the city. The population of Kanpur is one fourth of that of Delhi's population, its pollution load is also one fourth of Delhi, but the air quality is as bad as Delhi. At the same time the population density of Kanpur is higher than Delhi. But road space of Kanpur is just 3 percent against 21 percent in Delhi. Obviously congestion and pollution impacts on people are more severe in kanpur and the city has much bigger problem than Delhi.

The way the city has been planned – the highways run though the heart of the city which has split the city into four or five different parts. This also brings in large number of transit traffic that contributes to the pollution load. The railway line goes all the way through the city and further divides up the city and results in numerous crossings that aggravates congestion. Also the condition of roads is poor – the amount of silt load on roads is 7 to 8 times higher than any other city. This also contributes to fine particles.

IIT Kanpur has carried out emission inventory to assess the sources of pollution in the city. There are huge emissions from garbage and biomass burning, vehicles and road dust. The contribution of vehicles is about 20 percent to the total particulate matter, but more than 30 per cent to the finer particles. So with this mix of sources – it is challenging to manage air quality. Their studies also show there is a problem of long range transport of emissions into the city from other places and nearby towns and cities.

CNG is indeed very good programme for the city. They have measured and compared emissions from CNG and diesel vehicles. Their studies show that CNG has helped.

U N Tiwari, Additional Municipal Commissioner, Kanpur Nagar Nigam that is in charge of the mobility plan of Kanpur highlighted concerns over transportation strategies

Need public transport reforms in the city and public support: The city is introducing new buses under the JNNURM programme. It also has to undertake the conditional reforms in the transportation sector that include formation of the unified transportation authority, public transport funds, parking policy, and congestion reduction strategies among others. This presents a new governance challenge in the city.

U N Tiwari, Additional Municipal Commissioner, Kanpur Nagar Nigam highlighted the key initiatives to improve public transport and to decongest the city. The city is introducing 300 buses to improve the public transport service. But this will have to be supported by the bus sector reforms. There are barriers as already noticed from the low ridership of buses. The city will have to overcome the hurdles. For instance, currently, people are used to paying Rs 2 to 3 for a public transport trip. This will cost about Rs 8 to 10 in the new buses. Therefore, acceptability of the new bus service is likely to be poor. The city is also grappling with the challenge of integrating bus transport with the informal intermediate transport of autos and tempos. The city will have to improve the bus services and address the issue of integration. The stakeholders need to build awareness about using public transport buses.

The city government along with the state pollution control board and industry has also carried out a comprehensive survey of small scale industrial units which are operating within the city and causing congestion. They have surveyed about 1200 units. UPSIDC has prepared a scheme for relocation of these units. This scheme needs to be expedited so that the Core area of the city which is highly congested and polluted can benefit.

Tiwari feels that this public forum is very important as it includes people from all agencies and departments. They can take these issues forward and help remove the barriers to the city development schemes for air quality and mobility. Public participation is very important.

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S P Selvam, Managing Director, Central UP Gas Ltd presents a roadmap for further strengthening of the CNG programme for maximum environmental benefits

CNG programme is a success story in Kanpur. But needs further strengthening for environmental benefit: Kanpur is one of the leading cities in the country to have implemented the CNG programme. All its autos, buses, and small commercial vehicles are expected to be on CNG.

S P Selvam, MD, Central UP Gas Limited (CUGL) highlighted the status of the current programme. The CUGL has set up 7 CNG dispensing stations and plans to increase this to 16 stations by March 2010. But the pace of CNG conversion falls short of expectation. When CUGL had started operations, there were 10,000 tempos in the city. But only 40 per cent has converted. The capacity utilization is still low -- about 50 per cent of the 100,000 cubic metres per day of gas availability. CNG programme will have to be enhanced. Infrastructure bottleneck persists that is evident in the long queues. But this is expected to be smoothened out as the number of stations is increasing.

There are implementation challenges. The diesel vehicles are registering outside Kanpur city, -- in Kanpur-Dehat, Unnao or Kannuaj and coming into the town. This defeats the purpose. As of now deployment of CNG buses is also poor. But the bus fleet is expected to expand as more buses are inducted for public transport improvement under the JNNURM programme.

CUGL is requesting the authorities to bring some kind of directives and incentives for the industries as well to switchover to natural gas. They have laid down long distance pipelines linking up the industrial areas of the city. About 20 to 30 per cent of the area is already linked with the pipeline. In the residential areas the domestic supply of natural gas has already started. The housing societies should be encouraged to switchover to gas based gensets.

CNG pricing remains a big concern in Uttar Pradesh due to higher tax burden on the fuel. Delhi has given enormous incentives to the CNG programme – like VAT exemption etc. But in UP tax on CNG is very high which makes the gas costlier for the people. There is demand for tax holiday (no VAT) for CNG for at least five years to make CNG more competitive vis a vis diesel and petrol.

Rakesh K Jaiswal, Executive Secretary, Eco Friends reflecting on people's participation for better transportation planning in the city.

Need peoples' participation: Public reaction to the rising pollution levels in the city has been strong. Rakesh Jaiwasal, executive secretary of Eco Friends, a well-known civil society group, is worried. Jaiswal said, it is really unfortunate that Kanpur is known as one of the most polluted cities in the World. Time magazine in 2006 said that and again NASA said so in a study in 2007. The data as presented in the meeting shows that Kanpur is more polluted than other metros. Near Phool Bagh the air quality data is displayed that also shows SPM and RSPM levels are very high and exceeding the norms by more than five times. So situation has not improved. Reasons are many – bad roads, vehicles, gensets, etc.

The city is making efforts but not getting the results. One important strategy will be to make congested and crowded areas in the city non-motorised. The city planners should not only think about the vehicles but promote the non-mtorosied transport along with public transport.

It is difficult to discourage people from buying vehicles. Even the policy focus is on developing road infrastructure that largely benefits the motorized vehicles. Every person has ambition to own a vehicle. But at the same time the city needs to improve the public transportation system so that people have the option to switchover.

Public participation is needed for successful planning. But people are not aware of what government is doing for the mobility planning of the city. The city needs planning for the people – not just for car owners. The city needs public engagement.



People engage

S C Tripathi, Head, Urban Environment Development Society sharing citizens' perspective on traffic and transportation challenges in Kanpur

People demand action and accountability: People have persisted with questions. There is no lack of knowledge or understanding about the sources of pollution or how serious is the problem of air pollution in the city. But who will do the work to clean up the air, asked S C Tripathi, Head, Urban Environment Development Society, a prominent civil society group. Who should have the accountability? People have to remain involved. But public representatives who represent the people in government planning need to truly represent the public opinion. People should be involved from the beginning of the planning process. Only then people can take the responsibility and ownership and participate in the implementation process.

Government agencies also have to coordinate with each other and plan properly. For example, the Government is constructing footpath in the middle of the road between Company Bagh to Chunni Bagh. They have left 10 feet on one side and 25 feet on the other. If two buses are plying on that road no body else can go because there will be hardly any space left. When people objected, the footpath was shifted to extreme left of the road and the road was also widened by another 14 feet. There is utter confusion.

The government agencies have to take the responsibility. They should monitor and evaluate the transportation projects and see whether the required work is happening in a proper manner. A proper monitoring system should be put in place. People should be consulted. The Parivartan forum which is a network of civil society groups in the city meets regularly to discuss peoples' problems and find solutions. This is an opportunity to build public opinion on air quality and mobility.

B P Pundir, Professor, Mechanical Engineering and vehicle technology expert from Indian Institute of Technology, Kanpur, highlighting the challenge of vehicular pollution in the city

Polluting in-use vehicles remain a special concern: There is a lot of concern in the city regarding the state of vehicle technology and a large fleet of old and in-use polluting vehicles.

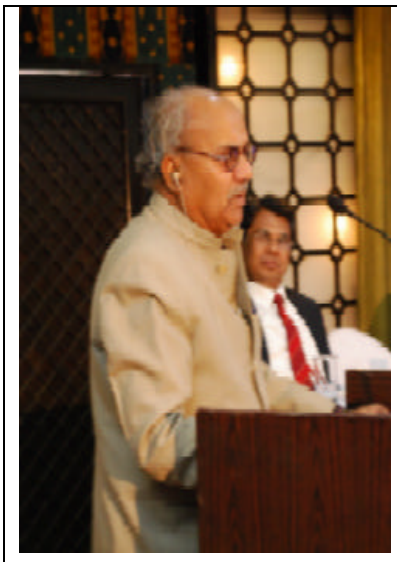
The national norms decide the technology roadmap of vehicles in the city. Kanpur also qualifies for the one notch tighter emissions standards that are enforced in other big cities in advance. More stringent national action will enable greater penetration of more advanced and cleaner new in cities like Kanpur.

But there is also a large fleet of in-use vehicles. Pollution surveillance of these vehicles are done under the Pollution Under Certificate (PUC) programme. But the PUC system is not working. It has not worked in other places as well. The reason is it is very difficult to govern this system and there is no quality control over this programme. The agencies do not pay attention to calibration of instruments for testing of emissions, and neglect training of personnel who conduct the emissions checks. The government is outsourcing emissions tests to private agencies and there is no control over them.

The license for pollution testing should be given to a limited number of agencies and testing centres. A few capable and big companies with 5 to 10 big pollution checking centres will be more appropriate and effective. They can also be held responsible for the work. It is not going to work in the current system where a large number of PUC centre are issued licenses. Only tough standards and tough regulations cannot solve the problem of in-use emissions. Too many unorganized and unmonitored centres have mushroomed that are difficult to control. Introduce high volume testing centres instead. Otherwise, we will not benefit from the new technologies that are coming into the market. We have to take tough decisions.

Questions galore

Citizens of Kanpur engaged with a lot enthusiasm and interest in this dialogue meeting. A large number of concerns from air quality and health to traffic congestion and roads conditions hogged their attention. K K Bhardwaj made a plea that the Government should promote buses and other eco friendly vehicles. Surya Narayan Mishra of Paryavaran Vahini said Kanpur should have a task force for comprehensive decision making on environmental issues. The action plan should have short, medium and long term activities. Strengthen the governance system. H K Mahapatra, Professor, HBTI wanted even the non technical factors like lack of driving discipline, lack of maintenance addressed to improve the air quality. And many more…….that we certainly help to enrich the debate to find the effective solutions.



People fiercely engage in the discussions: Demand solutions

Time to wrap up and look forward

Vivek Chattopadhyaya of Centre for Science and Environment wraps up the discussions

This public dialogue has helped to build new energy and interest for change and action in the city. This is an opportunity to build network in the city, identify priority strategies, strengthen community action, galvanise policy makers and enable stringent enforcement. Public awareness and public support are essential to clean up the air of Kanpur and make the city sustainable.

Media alert...

About 10 print and electronic media participated and highlighted the debate