Environmental Impact – A Priority for Building Smart Cities

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What sort of environment will we bequeath to our children, and who will decide the political and economic weight we place on the utility of future generations? We can think of two fundamental institutions at the heart of this decision—markets and government. It will have to be a joint effort between the market and the government, with the latter charged with the mandate to improve resource allocation through enlightened regulation and with a generous nudge from concerned citizens.

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What are Externalities?

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- Externalities, according to economists, such as emissions from power plants and automobiles, prevent the market from reaching a socially-efficient equilibrium.
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- For example, the clean-up cost of environmental damage is often ignored by firms making their production decisions.
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- The cost is, therefore, ‘external’ to the firm and borne in the form of health costs, for example, by people with no say in deciding how much to produce.
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- On part of the producer, there is no compelling incentive to internalize such external costs, reflecting the ‘tragedy of the commons’.
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- Markets will not readily internalize the externalities because of the presence of very high transactions costs, and, thus, to reach a socially-efficient equilibrium, these costs will have to be forced by regulation. Hence, the oft-heard dictum ‘tax the externality’, or make the polluter pay. Practical examples include upping the emission standards for automobiles and permits for discharge of hazardous substances among others.
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Situation in India:

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- In emerging markets such as India, which are faced with numerous public service deficits, there is another reason for damage to the environment.
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- Excessive reliance on private and/or self-provisioning of services such as water, mobility and electricity worsens the already toxic air-quality in a number of our bigger cities.
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Initiatives taken by the Government:

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- In recent times, meticulous empirical evidence confirms that using certain fuel types for cooking (kerosene and firewood) are harmful to health, especially that of women since they are directly exposed to the toxic fumes from burning these fuel types.
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- With a majority of the population breathing contaminated indoor and outdoor air, the pollutants that get lodged in our lungs make a permanent home in our bodies.
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- In this context, the government’s initiative to equip each Indian home with gas cylinders is a welcome move.
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- Similarly, the Delhi government’s scheme of odd-even car-rationing is an attempt to reduce toxic emissions from private vehicles, whose use has grown even as public transport in Delhi has improved considerably.
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- Pilots in Delhi suggest that bicycles could become attractive at the last-mile, provided separate spaces are created for them.
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- Some cities are already working on changing service-delivery models.
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- Both Surat and Pune have water treatment plants, and in the case of Surat, the municipal corporation is operating its own wind and solar plants.
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Conclusion:

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Hopefully, the perspective on service provisioning should help our policymakers decide on options while working on the smart city plans. As the government has often pointed out, the smart in India’s smart cities is not so much technological, as has been the case in the West, but the provision of basic and clean services of water supply, sanitation, transportation and energy to its residents.

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