Focus 62 – **Indian Urban Policy for Environmental Sustainability:**
The Role of Behavioural Economics

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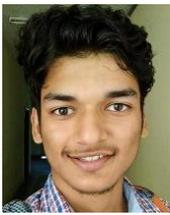
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Abstract

The adoption of practices such as washing hands for a minimum of 20 seconds, excessive and frequent sanitisation, maintaining physical distance, etc. has compelled us to change our behaviours and adapt to the crisis, even if reluctantly. Amidst this pandemic, the world continues to face an ongoing environmental crisis. We still have many and much urgent problems to counter which are related to our behaviour towards the environment. This article will review past influences of behavioural economics on policymaking and inquire as regards the ways in which behavioural economics can play a significant role in the future. Our goal is to design effective and efficient, behaviourally 'guarded' environmental policies.

Keywords

Behavioural Economics, Environmental Policies, Inequality, Sustainability, Urbanisation

Introduction

The concept of '*homo economicus*,' i.e. the notion of human beings as completely rational organisms, has so far failed to address inconsistent and asymmetric patterns of consumption and decision making. Behavioural economics (BE) has played an important role in informing policy makers about individual behavioural patterns in different areas of social welfare. Different biases remain unclear and/or have unknown implications for policy design and implementation. In terms of environmental equity, current research and policy frameworks have extensively examined the technological and managerial factors that can contribute to building sustainable urban settlements. Rapid urbanisation and unplanned human settlements have proved hard to cope with. For example, the supreme court of India took action to displace about 10 million Adivasis (indigenous) communities to protect forest regions. This constitutes a managerial action taken by the government to implement pro-environmental policies – however, what about the living, feelings, emotions, migration issues and proper rehabilitation of Adivasis? Is this really promoting environmental equity? (Roy, 2019).

Human behavioural aspects involved in building environmentally sustainable human settlements through systematic public policy frameworks constitute an important field of research. Hence, decisions related to the environment often require careful consideration between external (e.g. financial), internal (e.g. intrinsic motivations) and social factors (e.g. norms) (OECD, 2012).

Behavioural insights developed by Mukhopadhyay and Revi (2009) suggest that a series of coordinated actions are necessary – all the way up from the household to state and national levels and further into the international domain – in order to preserve a strong continuity with our past. The role of behavioural economics as an effective and efficient policy tool must be clearly specified. The next sections will discuss how behavioural economics has influenced some recent policies in India and what role it can play for effectively dealing with climate change in urban contexts.

Urbanisation and Environmental Inequity

The rise of a capitalist culture in leading developing economies constitutes the primary reason for social and economic inequality, unjust practices, and unsustainable frameworks. This has also resulted in 'environmental inequity,' a broad terminology suggesting the burden and stress that urbanisation brings to the environment – and which often results in

health problems amongst the citizenry. The capital city, Delhi, is a classic case, one which directly points towards the domination of industrial emissions and excessive migration. India has been a part of the urban rat-race for exponential economic growth – free of the necessary, careful considerations as regards fair resource distribution. Ideally, urbanisation should not only serve as an engine of economic growth but also centre on the integration of both human and entrepreneurial resources that can generate the new ideas, innovations and technologies necessary for promoting a sustainable and productive use of resources (Cobbinah et al., 2015). However, evidence suggests that environmental sustainability is now at risk owing to excessive urbanisation and the rural-urban disconnect, i.e. spatial, social, and hypothetical distances among urban and rural individuals.
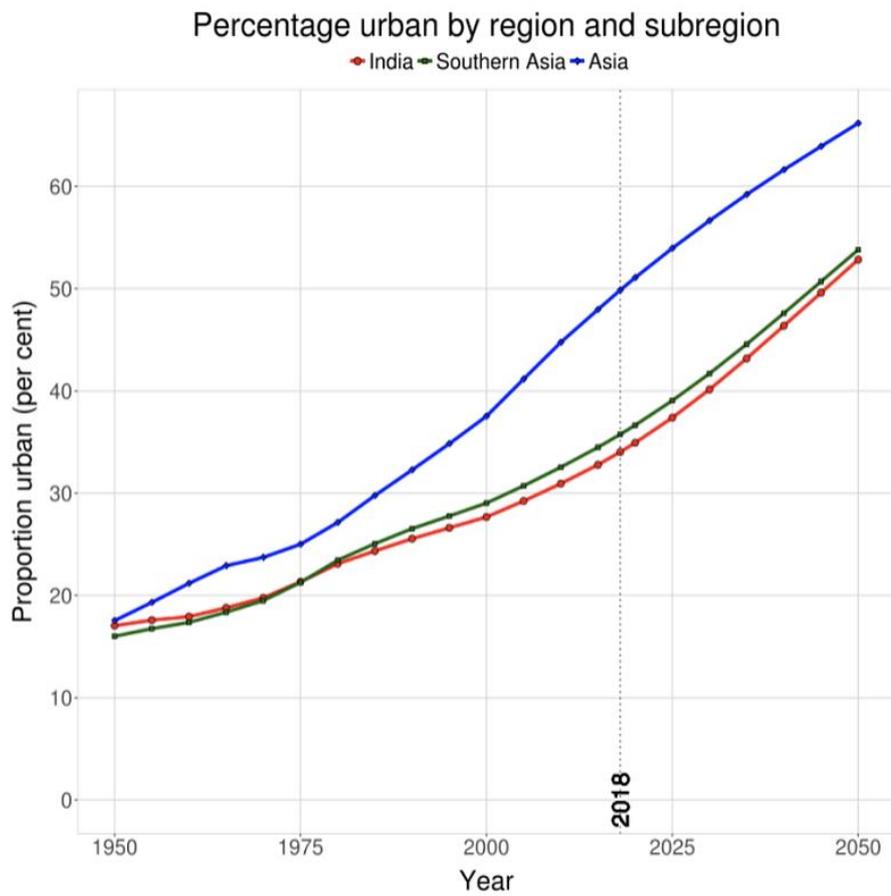
Figure 1: Percentage of Urban populations by Region and Sub-region, showing an exponential growth in Urbanisation

Source: United Nations Population Division (2018)

Human interactions occur at multiple levels – involving individuals, households, organisations, governments, and societies (American Psychological Association [APA], 2017). This confirms that anthropogenic forces or human activities have to be considered in climate change action, mitigation, adaptation, risk, impacts, effects, and coping. As 55 per cent of the world's population lives in urban areas and urbanisation is rapidly increasing, the situation is likely to become ever more critical. This is because increasing urbanisation leads to increasing climate issues, which in turn can induce increased human migrations from rural to urban areas.

Climate change-induced catastrophes such as droughts and floods in rural regions often result in loss of livelihoods affecting millions of citizens in those regions. This ultimately triggers migration from rural to urban areas – and hence, urbanisation increases. This constitutes a threatening cycle that can be interpreted as a positive feedback loop between urbanisation to climate change and vice versa (Mukhopadhyay & Revi, 2009). This cycle is likely to continue and aggravate environmental inequity if holistic interventions are not undertaken. This scenario of urbanisation and environmental inequity clearly demands a human-centric, individual behaviour-oriented approach so as to bring about broad changes.

Urban Policy and Environmental Sustainability in the Urban Framework

Public policies from state to international level have extensively focused on environmental sustainability through the lenses of economic factors – poverty, unequal distribution of income, legal changes, and more. Recent pivotal shifts from the 'rational man' assumption to mathematical models, neoclassical economics, and finally to behavioural economics can lead to new experimental approaches to such problems. Recently, Indian Prime Minister Narendra Modi suggested that human behaviour needs to be in harmony with nature and the environment so as to mitigate climate change. Public schemes, campaigns, and movements both in India and overseas reflect a move towards behaviour-oriented economic notions — political nudges, individual biases, default systems, heuristics and much more (Sunstein and Reisch, 2013). All these theories concern predictable errors that individuals are likely to make – hoping that if we can anticipate those errors, we can devise policies that will reduce the error rate (Thaler, 2016). Take the example of GiveItUp started in 2015 — a campaign aimed at motivating LPG users who can afford to pay the market price for LPG to voluntarily surrender their LPG subsidy(Ministry of Petroleum & Natural Gas, GoI, n.d.). The Swachh Bharat Movement (SBM) initiated behavioural change in the usage of toilets.

Over five lakh 'swachhagraha,' foot soldiers of the SBM, were recruited; the similarity with satyagrahis is intentional – intended to reinforce the message. The Jan Dhan Yojana aims at a mass opening of bank accounts by each and every individual; however, its success relies on people using these accounts regularly – which in turn depends on efficient default rules, easy choices, loss aversion and more (Ministry of Finance, 2019). 401K Savings is aimed at increasing employee savings in the United States. It removed paper-based formalities and used default systems wherein the employee only had to fill forms in order to opt out of the scheme and not for entering the scheme (Thaler, 2016).

Despite these moves by various governments, a systematic approach intended to comprehend human behaviour is needed. Most public policies attempt to cater to many and complex issues at one time – which normally decreases efficiency. The New Urban Agenda (2016) stresses local action and implementation (a focus on grass-root levels). It suggested policy implementation at several levels — "with the participation of subnational and local governments, parliamentarians, civil society, indigenous peoples and local communities, the private sector, professionals and practitioners, the scientific and academic community, and other relevant stakeholders, to adopt a New Urban Agenda" (UN Habitat, 2016). One can read on its report that "There is no single prescription for improving urbanisation and achieving sustainable urban development" (UN Habitat, 2016). However, and as is true for example of health treatments, although not every patient receives the same prescription even for similar diseases, the methodology of diagnosis is systematic.

Behavioural economics as a tool for diagnosis and problem-solving – A key role player

Conventional economics has yet to take into account the negative externalities that lead to environmental degradation. The environmental costs of smoking, single-use plastics, kerosene etc., cannot be countered only through taxation or price increases. As stated above, the major issue in the context of urbanisation and related environmental drawbacks lies in individual behaviour – in inefficient consumptions patterns, individualistic decision making, and more. Behavioural Economics are thus crucial when studying urbanization and related phenomena. Extensive research in the field of BE in policy framework and environmental protection incentives have focused on creating the 'right incentives. Behavioural economists provide theoretical frameworks which are applied to public policymaking.

Schemes like Mandatory Energy labelling for household air-conditioners in Singapore and the United Nations Zero Waste Place for example, both of which refer to how environmentally friendly the product is, will eventually make it easier to make a sustainable choice. These and many more policies have applied behavioural science theories such as:

1) Loss aversion: a loss hurts more than an equivalent gain gives pleasure. For example – having the choice between two options. In option a) a 100% loss of 50 rupees is guaranteed; in option b) one has a 50% chance of gaining 100 rupees and a 50% chance of losing 150. Which option would you choose?

2) Image motivation: a tendency to be partly motivated by others' perception. For example, to perceive a restaurant good just because my neighbours always go there.

3) Availability heuristics: to choose what is readily available. For example, to use a plastic bag instead of a cloth/paper bag just because it is easier to access.

The aforementioned examples suggest the significance of human behaviour in policy-making – although a systematic approach seems to be lacking. In the example of the United Nations Zero Waste Place approach, the initial level of participation was low; it was only after the media presented the movement to the citizens that participation grew. Similarly, an empirical study of Twitter data (involving around 400,000 tweets) collected during the period between December 1, 2017, and March 31, 2018 and pertaining to the Indian Cleanliness Campaign called Swachh Bharat Abhiyan (Dhiman & Toshniwal, 2019), shows the importance of mass media to accelerate image recognition. Celebrities also repeatedly approached the public with messages of cleanliness, thereby increasing participation. These examples suggest how human behaviour has been playing an important role in promoting public policies. This has been known for decades; however, a systematic study of why, how, and what induces the behaviour and motivates action is lacking. With case studies, the research approach to BE is a diagnostic one. The diagnosis is that issues seem to be related to behavioural drawbacks, not market failure, and the treatment prescribed is only thinly veiled behavioural engineering (Berndt, 2015). When we discuss the market, we consider a mathematical model of the market that is based on certain assumptions such as rationality or market theory. When things do not work as expected in terms of models and theory, we name the events as failures – for example, failures due to lack of information, inequality, and so on. Whereas when we consider issues as behavioural problems, we focus on individuals and the behavioural errors they have made. The GiveItUp scheme constitutes a good example. People are aware of whether they can afford LPG cylinders – and consequently of who deserves a subsidy for their purchase.

Despite this knowledge, many citizens did not give up their subsidy — this is behavioural; it does not constitute a market failure due to lack of information. The #GiveItUp movement lead about 10 million people to surrender their subsidies - without changing the available information.

Conclusion

Urbanisation and environmental equity constitute multifaceted issues in need of an integrated approach. This review has specifically focused on a systematic role by behavioural economics in the context of urbanisation, public policy and environment. Studying urbanisation is complex, exhaustive but interesting and insightful endeavour. Individual experimental researches on specific environmental problems are needed so as to diagnose the behavioural "disease" – and an integrated policy framework is needed to "treat" these environmental problems. Local problems also need local solutions.

Behavioural errors and predictable behavioural errors can be the same across the world, though techniques of diagnoses and treatment may differ. This is because of the mediation of variables such as culture, social structure, standards of living, economic conditions, and more.

The same behavioural nudges used in the United Kingdom or the United States of America for increasing the efficiency of traffic management are unlikely to work in India, as the way people perceive those nudges differs. The current COVID-19 crisis is one such case – as motivating people to act in pro-environmental ways becomes difficult. For example, urging people not to use plastic bags can be useless given the 'fear' of the virus and related reluctance to use reusable bags; similarly washing hands can lead to water wastage. The key learning from such a situation is that fear-induced motivations such as sanitising hands have become routine very quickly, while closing taps and stopping water leakages still have not. This case can be seen through the lens of psychological distance – the distance between a stimulus (object or event) and the perceiver's direct experience. People perceive the threat of coronavirus as psychologically near to them, whilst they perceive climate change as a psychologically distant event. This constitutes a predictable error which can explain people's behaviour as regards sanitisation and pro-environmental behaviours. In such cases, further experimental research is needed at a local/regional level for the "diagnosis" of behavioural gaps – and for an action-based, local approach to be designed.

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