

Behavioural Approaches Towards Sustainable Development: A Study on Two Municipal Wards in West Bengal, India

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Abstract

Sustainable development is a popular topic of discussion nowadays in seminars, conferences, discussion forums, etc. It is an important part of government practices, academic curricula, political agendas, global discussions, etc. Billions of rupees are expensed every year for promoting and maintaining sustainable development at the global level. Shri Narendra Modi, the Prime Minister of India, introduced the Swachh Bharat Mission (Clean India Mission) in 2014 across the country as a part of sustainable development. The last Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC), widely familiar as COP 29 in Baku, capital city of Azerbaijan, put a series of Sustainable Development Goals (SDGs) and urged member countries to follow the same. Achieving SDGs requires proper understanding of the concept of sustainable development at every level of society. This research paper focuses on the behavioural approaches and actions towards sustainable development of urbanites residing in the Rajpur Sonarpur municipality area in the South 24 Parganas district of West Bengal. The study was conducted on two groups – an educated group and a less educated group. Both groups of respondents showed agreement and disagreement across different dimensions of SDG awareness. Their responses have helped the researcher to understand the challenges preventing the SDGs from being met completely in that area.

Keywords: Development, India, Municipality, Plastic, Respondents, Sustainable.

Introduction

Human beings are inextricably interconnected with the environment. The longevity and quality of a relationship solely depend on give-and-take policy. An equilibrium can be maintained in the relationship between the human beings and the environment based on the balancing use with renewal and pollution with its impact on ecosystems. This is the key to understanding the world's challenges. Only maintaining environmental concerns by people is not enough; rather, keeping systems in balance is more necessary (1). As the overarching paradigm of the United Nations (UN), sustainable development pursues a balanced development of environmental, social and economic goals to improve quality of life for the future generation (2). The 70th Session of the United Nations General Assembly mentioned seventeen Sustainable Development Goals (SDGs) (3, 4). It was a framework for further global development from 2015 to 2030 after the replacement of the term 'Millennium Development Goals' (MDGs) with 'Sustainable Development Goals' (SDGs) (5, 6). It is aimed at sustaining the

well-being of both humankind and the planet (7, 8). The UNESCO definition of the education for sustainable development is a process of learning how to make decisions that consider the long-term future of economy, ecology and equity of all communities (9).

Psychological factors, personality, social influences and institutional factors help to shape human behaviour towards maintaining better sustainability. There are three determinants to shape the multidimensional sustainable behaviour of citizens in urban society—internal socio-psychological factors (awareness, knowledge, perception, attitudes, environmental concern, beliefs and intentions), personality traits (moral values, identity, altruism, responsibility) and external factors (socio-cultural norms, education and economic background, public policies, role of institutions and infrastructure). Despite maintaining a positive attitude towards sustainable development, barriers like cost, convenience, inadequate infrastructure and institutional constraints prevent many citizens from adopting

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sustainable behaviour. Personality characteristics such as environmental identity, altruism and moral values may influence sustainable behaviour. More empirical data is required to validate the framework across different urban society (10). City dwellers with knowledge and positive attitudes towards environmental issues are more likely to intend to perform sustainable behaviours. External pressure to change behaviour towards maintaining better surroundings affects citizens to adopt sustainable behaviour. Stronger willingness to have a positive behaviour is preferable. Recycling, energy conservation, sustainable transport, green consumption are different ways to promote better sustainable behaviour. Psychological factors like attitude, subjective norms and behavioural intentions are central predictors of bringing any change in human behaviour towards maintaining sustainable development. Cultural settings in different countries may also play a significant role in changing behavioural approaches among citizens. Experimental or intervention-based studies are needed to establish causal relationships between communication, policy and sustainable behaviour. Whether these observations are equally applicable to developing and underdeveloped nations has not been explored (11). Only information on sustainability may not bring any positive change in people's behaviour towards nature (12). Initiatives taken up by local government towards maintaining sustainability may bring positive change in citizens' behaviour (13). The positive-minded people respond better to government initiatives.

Individual behaviour, social practices, collective action and governance play a significant role in maintaining sustainable development (14). Such behavioural changes have been noticed in western nations, where the level of basic education is higher than in the developing nations (15).

Sustainable practices by citizens in developing nations highlight water and energy conservation behaviours (16). To make everyone aware of it, only awareness campaigns are insufficient. Besides formal education, social media posts influence human behaviour in bringing about a positive change towards maintaining sustainable development. The outcome may be different in varied cultural contexts (16, 17).

As an initiative to address the need for sustainable development, the Lifestyle for Environment (LiFE)

was introduced by the Prime Minister of India, Shri Narendra Modi, on November 1, 2021, at the COP26 in Glasgow. It is an international mass movement towards "mindful and deliberate utilisation, instead of mindless and destructive consumption" to protect and preserve the environment. Those who will practise such behaviour will be recognised as Pro Planet People (18).

A previous study in southwestern Nigeria found that 43% academic staff members and a few persons with their personal interest acquired knowledge on SDGs. But the remaining 56.3% of respondents have a positive attitude towards SDGs, but their knowledge on SDGs was poor which was a constraint in attaining the SDGs. The study recommended changing educational curricula suited to acknowledging common people on SDGs (19).

Research gaps were noticed in not giving emphasis on household electricity consumption, transport, waste management, water use, demographic differences and behavioural approaches outside domestic atmosphere (20). For promoting sustainable development, behavioural insights and social norms have been given importance. But the effectiveness differs when it is studied on different groups (21).

Research Questions

Before conducting the study, three research questions have been formulated to continue the argument.

- a) What is the concept of sustainable development among the residents of the area mentioned in the study?
- b) To what extent are the residents of this area aware of different approaches to sustainable development?
- c) What measures do the residents of this area undertake to promote and maintain sustainable development?

Objectives of this Study

The objectives of this research have been thus designed

- a) to understand the awareness of sustainable development of residents in the selected wards of the Rajpur Sonarpur municipality at South 24 Parganas district in West Bengal,
- b) to analyse the actions of residents in maintaining and promoting sustainable development in this area.

Methodology

Novelty of the Study

This research was carried out to understand the awareness of sustainable development of the residents living at the Rajpur Sonarpur Municipality area in South 24 Parganas district, West Bengal and their actions to preserve sustainable development in that area. It is located between 22° 15' N to 22° 19' N and 88° 32' E to 88° 34' E (approximate GPS coordinates 22.44° N, 88.42° E). The Rajpur Sonarpur Municipality, covering an area of 49.26 sq km (19.02 sq mi), has jurisdiction over the entire city of Rajpur Sonarpur. Set up in 1876; this municipality is divided into 35 administrative wards. This municipality has been administered by the All India Trinamool Congress (AITC) since the 2022 Municipal Election (22). A small unit, if studied properly, may give idea and help to develop a primary concept of a sample of population's behaviour towards a particular mission (23). This place was chosen to conduct the study, as no such study on awareness of sustainable development was made in this area earlier. This place has more greenery as compared to the main city of Kolkata. There are many protected gardens, unused green lands, wetlands, ponds and waterbodies in this area. The normal temperature here is always 2 to 3 degrees lower than the city of Kolkata because of the greeneries. It has been an extension part of urban development since the last few years, as the main city of Kolkata is densely populated and heavily developed with real estate, office places, high-rise infrastructure, etc. Many real estate developers like SuCasa, Pacific, Rajwada, Primarc, Srijan, Riya and Mayfair groups have already established residential complexes in the Rajpur Sonarpur area. These residential complexes have been built on unused lands, filled-up wetlands and small sized water bodies, etc. This area's close proximity to the main city of Kolkata is another contributing factor. The study was carried out here expecting that the residents of this place would possess considerable awareness regarding sustainable development owing to multiple awareness drives on SDGs in Kolkata and its surrounding areas by government agencies and non-government organisations (NGOs) working for sustainable development.

This study is based on the Theory of Planned Behaviour and the Value-Belief-Norm theory. The Theory of Planned Behaviour proposes that

behaviour is primarily determined by behavioural intention, influenced by attitudes, subjective norms and perceived behavioural control over performing the behaviour (24). The Value-Belief-Norm theory explains that pro-environmental behaviour arises from personal values, ecological beliefs, awareness of consequences and moral norms, motivating individuals to act responsibly toward environmental sustainability (25).

This is a descriptive study. No such study was made earlier in this area. To conduct the study, a Focus Group Interview (FGI) was conducted on two types of respondents. A Focus Group Interview (FGI) is a method, practised while doing any qualitative research, to collect data through group discussions. A group of 5 to 10 people answers questions on a specific topic in a moderated setting. Here one person plays the role of moderator; in this case, the researcher himself played the role of moderator and took notes of the group's opinion (26).

One group were educated respondents residing in the area, possessing educational qualifications up to graduation and above in any stream. The other group of respondents were vegetable and fruit sellers from the Rajpur market (approximate GPS coordinates 22.4473° N, 88.3920° E), for whom the educational qualification was not mandatory. All the respondents in both groups were adults. The educated group consisted of 10 members living in Ward no. 26 of the Rajpur Sonarpur municipality (approximate GPS coordinates 22.404° N, 88.386° E). The vegetable and fruit sellers' group consisted of 10 members from the Rajpur market, falling under Ward numbers 17 and 25. To choose respondents, the purposive sampling was followed. Respondents of both groups were asked unstructured open-ended questions to encourage them to speak in detail. Considerable time was given to the respondents of both groups to assist them to think properly and reply. Whenever necessary, questions were simplified for the respondents belonging to the vegetable and fruit sellers' group to enhance their clarity and understanding. The research followed qualitative content analysis of their responses to meet the objectives. The discussion took place in the Bengali language, as it is the official and first language in West Bengal. Responses were recorded first electronically and then they were transcribed into the English language.

Results

Responses from both groups on different issues related to sustainable development are as follows:

Idea to Sustainable Development

Educated Group's Response

Respondents said that the term 'sustainable development' means how to save nature for future generations. It may be done through two approaches – directly and indirectly. Respondents identified several direct environmental sustainability practices, such as increasing tree plantation, curbing indiscriminate tree felling, maintaining cleanliness in their surroundings, preventing water stagnation in broken or unused containers to control mosquito breeding and promoting the conservation of flora and fauna.

They also said that more effective steps by panchayats and municipalities to save nature are a part of sustainable development. They further added that they always try to prevent littering the surroundings, like preventing open defecation and urination and wish to see that turning wetlands into a place for building real estate should be stopped. To them, the idea of sustainable development means controlling the use of the air-conditioning system, stopping wastage of water in the house and outside of the house, reducing all kinds of pollution at maximum rate, conservation of energy, etc. A suggestion has been received for using one air-conditioning system for 4 persons. While using exhaust fans or kitchen chimneys in flats and houses, the direction of exhaust air should not disturb other flat owners, they said. Teaching the children the same behaviour and helping them practise the same issues is also part of sustainable development, they opined.

The indirect approaches include saving nature by various means. They are: reducing visual pollution, like wearing vulgar dress, generating more consciousness on wearing the right dress at the right place, like not wearing party dresses at educational institutes, etc.; preventing the availability of porn videos on mobile phones and their circulation in society, as they leave detrimental effects on human minds, etc. It also includes prevention of using abusive words and slang in public and private places for the sake of our children, as children learn very fast from others through listening and viewing. The respondents termed it 'listening pollution'. They also said that unnecessary storage of food and

other materials is also a threat to sustainable development, as it costs nature a lot. It may help a few sections of the society based on their economic status, but the practice also increases the scarcity of food and other materials in society. It also results in uneven demand and supply of food and other materials in society, inflation in the market, etc.

Among other indirect approaches, the respondents said that more parental and social care for the physical development of children is required, as it has been found that children remain mostly busy with mobile-phone-based computerised games rather than going to the field for participating in any kind of sport. Physical movement is necessary for the growth of a child's body and mind. Only then will the future generation be more stable in their overall growth. Too much use of mobile phones may hamper the brain development of children, they opined.

Vegetable and Fruit Sellers' Response

Respondents said that they do not have any broad or specific idea about sustainable development. They are rarely exposed to the term sustainable development, suggesting limited public engagement with the concept. But they failed to identify the source from where they heard this term.

Plastic Use and its Consequences

Educated Group's Response

Respondents were found highly anxious over the growing use of plastic products. They admitted that plastic goods beyond the permissible level as specified by the state government authority are a threat to civilisation. They also said that using any plastic product if the same is not biodegradable causes health hazards too. They also admitted that plastic packets and plastic goods are the main reason for the clogging of drain water in this area. Uncontrolled plastic waste reduces the depth of river and sea beds; it causes soil erosion, which is harmful for the sustenance of plants and trees, thereby affecting ecosystems, they said. They also said that plastic waste has been clogging the normal flow of the Adi Ganga here.

Respondents suggested that the state administration should implement stringent measures to curb the indiscriminate use of plastic products, particularly single-use plastic bags and packaging materials commonly used in everyday shopping. They further emphasized the need for strict enforcement in marketplaces to eliminate the use of plastic bags. They also suggested that as an

alternative, cloth-made bags may be made mandatory at every level.

They said that plastic packets litter the surroundings and store water, which turns into a breeding zone of mosquitoes. They also said that they know that mosquito-bites cause dreadful diseases like malaria, dengue and other vector-borne diseases. They further added that burning plastic goods and packets causes extreme air pollution, which is harmful for all and causes severe lung-and-heart-related diseases.

For drinking water, respondents prefer to use steel-made bottles or glass bottles instead of using plastic bottles. They even do not keep used plastic bottles of any kind of soft drinks for long in their homes. Even respondents claimed that leftover plastic packets and goods are eaten by fishes, which is proven hazardous for the ecosystem. At the same time, respondents said that limited use of plastic products is needed for everyday work, what they cannot evade.

Vegetable and Fruit Sellers' Response

The respondents said that preventing the use of plastic carry-bags in markets has not become possible, as customers demand plastic carry-bags while buying vegetables. They put the onus of using plastic bags on the customers directly. They said that if customers are not given the same, they indulge in quarrelling and go to another vegetable seller, which results in loss. They admitted that state government officials visited many a time and advised not to use plastic bags for business or any other use, but they are compelled to use plastic carry bags for the need and demand of customers.

Prevention of Vector-borne Diseases

Educated Group's Response

The respondents said that to prevent vector-borne diseases and the breeding of mosquitoes, they regularly empty the pots in their homes and outside of their homes (whenever noticed), where water is found stored for more than one or two days. It is being done regularly, not daily. They also said that disinfectants and insecticides are used by them and municipality workers to prevent further growth of poisonous insects like mosquitoes, flies, cockroaches, rodents, etc. They also claimed that recurrent use of insecticides and disinfectants may result in hazardous health effects if used in an improper way. They said that cleaning the parasites in nearby unused gardens and a few haunted houses here are also necessary to prevent

the growth of poisonous insects and rodents. Respondents highlighted that inadequate drainage and the accumulation of stagnant wastewater in the locality facilitated mosquito breeding, posing a significant environmental and public health concern. Following norms like putting up mosquito nets during sleep hours and covering food plates and other state government-declared guidelines are maintained by respondents here to prevent vector-borne diseases. They also said that developing the human immune system is also necessary for preventing vector-borne diseases.

Vegetable and Fruit Sellers' Response

Other than mosquitoes, rats and cockroaches, the respondents are not aware of other vector-borne diseases. They said that they prefer to kill mosquitoes whenever they bite them. They also said that they kill cockroaches whenever they find them. They never spray insecticides on vegetables, as it may result in health hazards to the buyers. They sometimes use locally made insecticide to prevent and kill the rats, which are found in good numbers in the vegetable market here. They also said cats help them a lot in killing rats and cockroaches here.

Wastage of Water and Its Prevention

Educated Group's Response

Respondents said that Kolkata is a city where water is available free of cost and also at very low cost in some places. The Rajpur Sonarpur municipality area is also not an exception. Water is available here in abundance. Therefore, wastage of water is too high as compared with cities like Guwahati and Bangalore, where water scarcity turns people conscious about water wastage. The respondents were able to compare this difference, as many of them earlier worked in the cities of Guwahati and Bangalore.

They said that they know that the level of ground water is getting depleted regularly for excessive use and consumption, so they need to be more careful about it. The respondents also admitted that they close the running taps for preventing water wastage wherever found. They further suggested that depending on government-supplied water only should be an alternative option to prevent water wastage. They also complained that laying off water pipes and sewage pipes leaves the place and road untidy once the work has been completed by government authorities. It creates problems in the safe movement of the local

residents. A few respondents also said that excess water left from the RO machines installed in their flats after purification of drinking water is used by them for watering the indoor plants.

Vegetable and Fruit Sellers' Response

The respondents said that they always try to make their household members realize the wastage of water and other types of energy saving by not keeping electric equipment in use unnecessarily, but in maximum time, all efforts go in vain and result in domestic quarrelling.

The respondents added one more extra point in reducing wastage of vegetables and fruits. They said that prevention of wastage of vegetables is tried by them at maximum level by not buying extra vegetables beyond their selling capacity. They also said that if any vegetable is found near to rotting soon, the affected part of the vegetable is cut off and put to use in their own homes.

Sound Pollution

Educated Group's Response

The respondents said collectively that they are against burning crackers to prevent sound pollution. They also blow horns of their personal vehicles (motorcycles and cars) in a restrained manner and, when necessary, on the road.

They suggested that restraining use of loudspeakers (even in religious places), television sets and other music systems is needed in this area to prevent sound pollution. Respondents said that the nearby K. D. Mullick's garden is a hotspot for outsiders during winter to arrange picnics and host marriage ceremony receptions. During these days, loudspeakers are being used at a beyond-permissible level, which is highly irritating and intolerable for local residents.

Vegetable and Fruit Sellers' Response

The respondents said that they do not have any broad idea on sound pollution, but they also do not like the use of loudspeakers unnecessarily, except on festival days.

Air Pollution

Educated Group's Response

The respondents said that as Kolkata is a highly congested city and ranks quite high in air pollution across the country, the state administration may implement the Delhi model of running vehicles with odd and even numbers on specific days of the week to reduce air pollution. Given the close geographical proximity, these observations may also be relevant to the Rajpur-Sonarpur

Municipality, situated approximately 5 km from Garia in the Kolkata metropolitan region.

Vegetable and Fruit Sellers' Response

The respondents expressed their disgust at growing air pollution, as it causes coughs and other health diseases for them daily.

Energy Saving

Educated Group's Response

In terms of energy saving, the respondents said that they always switch off the electrical equipment like lights, fans, etc. in their homes when the electrical equipment is not in use. They also ask other household members to follow the same and they also follow the advice. One respondent said that using solar power is the best option to save energy generated through fossil fuels. They also admitted that if a solar power system were to be introduced here in the future, they are ready to use solar power for their domestic purposes.

But all the respondents said that proper lighting is required in the roads and lanes of this area (Ward No. 44) to prevent petty crimes like eve-teasing, snatching of items, molestation, theft, etc. Even lighting is necessary for personal safety from snake-biting and attacks from other poisonous insects, as this area is infamous for snakes (especially Russell vipers) and different species of poisonous insects, they said.

Vegetable and Fruit Sellers' Response

The respondents said that they always try to make their household members realize the wastage of water and other types of energy saving by not keeping electric equipment in use unnecessarily, but in maximum time, all efforts go in vain and result in domestic quarrelling.

Balancing Real Estate Development with Environmental Conservation

Educated Group's Response

The respondents said that this area has been attracting many real estate developers at the cost of nature. This trend needs to be curtailed, as it has already contributed to significant environmental degradation. Keeping in mind the growing need of the population, the state government should introduce effective plans to save nature from the real estate industry. The respondents also said that the state government may introduce strict birth-control policies to control the enormous population growth, but they also expressed their skepticism that the government may collapse if

they try to implement such policies without making people aware of the good sides of population control in advance. They also suggested that real estate developers should promote the culture of planting trees inside the housing projects and make their building plans in advance accordingly.

Vegetable and Fruit Sellers' Response

Respondents reported having limited knowledge of the issue and expressed little interest in learning more about it, as they perceived it to have no direct impact on their business activities.

Municipality's Role in Cleanliness

Educated Group's Response

The respondents said that the Rajpur Sonarpur Municipality's concerned authority sends workers regularly to clear solid and liquid garbage from their homes or flats. Although these workers monitor the presence of water in broken or unused containers, the nature and effectiveness of any subsequent intervention or remedial action remain unspecified.

The workers even collect the signature from every respondent in their official documents after visiting, but this work is being executed once every 3 or 4 months. Respondents also said that the Rajpur Sonarpur municipality works better before and during election time and major festivals like Durga puja, Diwali, Poila Baisakh (first day of the Bengali month of Baisakh), etc. Lack of interest in providing civic amenities like road repairing and construction at regular intervals by the municipality is visible. Lanes and roads turn dangerous during monsoons. Accidents regularly take place as dangerous potholes affect the movement. They also said that people should be more aware of the municipality's responsibility towards society and create peer pressure on them for providing effective civic service.

Vegetable and Fruit Sellers' Response

The respondents claimed that the Rajpur Sonarpur municipality workers regularly carry out cleanliness drives in the market area by taking away everyday garbage. They added that this practice has been in use for the last 10 years, after the Trinamool Congress government came to power in West Bengal in 2011. No effort is made by them to make any organic fertilizer by dumping waste vegetables and fruits, rotten parts of vegetables and fruits, leftovers of foods, etc.

Flora and Fauna

Educated Group's Response

Respondents said that viewing of birds here is very limited to pigeons, a few doves and rarely one or two crows. They are well aware of a bird sanctuary, namely, the Chintamani Kar Bird Sanctuary, which is located nearby, but they hardly visit the place, as it is very bushy and a hotbed of mosquitoes. Hardly any various species of birds are seen. There were many trees here earlier, which were felled because of the growth of the real estate business.

The respondents said that they think high use of mobile phones and its radiation may be a reason for the depletion of different species of birds here. They also said that the architectural designs of flats and new homes do not give space for any small ventilation outlets in homes now, which earlier were used by sparrows to live.

Respondents collectively said that parasites should be cleared regularly from the surroundings, as the weeds and parasites give birth to insects and offer a suitable environment for breeding dangerous reptiles, who are harmful for people's sustainability here. They also opined that the unnecessary killing of reptiles should not take place, as it would affect the ecosystem.

Vegetable and Fruit Sellers' Response

Respondents perceived a substantial decline in local bird populations, attributing this change to rapid population growth and the consequent expansion of real estate development, which they believed had adversely affected natural habitats. They claimed that pigeons, maynas, crows, doves, parrots, sparrows, vultures were found in huge numbers here earlier. They admitted that trees were felled in great numbers in the last few years. But they have no idea on whether the felling of trees and filling up wetlands for the real estate business was carried out following legal guidelines. They also reported that foxes, *khotas* or *bham biral* (larger-sized cats) and monitor lizards (*Varanus bengalensis* or another *Varanus* species) were found here earlier in good numbers; now they are hardly visible. A few Komodo dragons, a maximum of one or two, are available in the nearly extinct Adi Ganga, which has turned into a dirty canal now. They are not sure who makes the Adi Ganga dirty and turns it into a dump yard of waste products. They prefer the reduction in using paper, as it costs nature.

Technological Outlook

Educated Group's Response

The respondents said that the introduction of the Internet and its widespread use have helped them a lot in the banking sector, postal sector, etc. Too much dependence on the Internet has also turned them lazy, they opined. They have expressed their concerns for their children's growth as the Internet takes away children from fields and locks them into rooms.

Vegetable and Fruit Sellers' Response

The respondents said that the introduction of the Internet and its widespread use, especially via mobile phones, has helped them a lot in money transactions, especially using Paytm, GPay and PhonePe. Respondents perceived that the increasing use of digital financial technologies has simplified banking transactions by reducing the need for physical visits to banks. They further believed that the digitalization of financial transactions has improved transparency and regulatory oversight, compelling larger vegetable and fish traders to comply more consistently with tax regulations.

Reliance on Media for Acquiring Knowledge of Sustainable Development

Educated Group's Response

The findings reveal limited media engagement among respondents with regard to sustainable development. Most participants stated that they seldom accessed newspaper reports or audio-visual content on the subject unless prompted by others or attracted by content of particular interest. In contrast, one respondent demonstrated comparatively higher media engagement, reporting that her understanding of sustainable development had been developed through a range of print, broadcast and digital media sources, including Bengali newspapers (*Ei Samay*, *Anandabazar Patrika*), Bengali language news channels (*News18 Bangla*, *ABP Ananda*) YouTube, Facebook-based news links and videos and content produced by environmental activist Subhas Dutta. They also said that it has been disheartening to them that news on sustainable development from this area has never been covered by any news channels or newspapers. The respondents highlighted the limited media visibility of the Chintamani Kar Bird Sanctuary and perceived a lack of adequate governmental responsiveness to

the sustainable development challenges facing the area.

Vegetable and Fruit Sellers' Response

The respondents said that they have never seen any videos or read reports on social media or in any other media. They only know that wasting vegetables and energy would cost them a lot in terms of money.

Personal Attempts to Promote Sustainable Development

Educated Group's Response

The respondents never tried to make others aware and participative in sustainable development, fearing that people may react poorly or negatively. But they teach their children to follow and maintain sustainable development. Planting flowers inside flats, watering plants regularly and restraining use of air-conditioning machines are a few attempts by themselves to save nature. Sometimes they pick up used paper cups left by others in nearby tea stalls and throw them in dustbins, aiming to motivate others to do so.

Vegetable and Fruit Sellers' Response

No such attempt has been made by any respondent so far.

Adi Ganga

Educated Group's Response

Respondents said that the Adi Ganga (Old Ganges), which is flowing beside the Baruiপুর bypass, has turned into a dirty canal now. They also said that local people use it as a dump yard of garbage. It is disheartening to know from them that once upon a time, boats used to ferry through this Adi Ganga. They even said that if heritage houses can be preserved, then the state government should work to preserve the natural waterbodies also.

Vegetable and Fruit Sellers' Response

They know the presence of the Adi Ganga, but they have no interest in its reformation and cleanliness.

Discussion

There is a wide gap present between the educated group and the vegetable and fruit sellers' group in the context of having ideas on sustainable development. The educated group is quite aware of the idea of sustainable development as defined in the Sustainable Development Goals (SDGs) proposed by the UNESCO (27). They have a wide idea of what causes prevention from fulfilling the SDGs. Even the educated group is also worried about their children's future in terms of their

physical and mental growth. In contrast, respondents belonging to the vegetable and fruit sellers' group consistently reported having only a limited understanding of the concept of sustainable development.

The limited awareness and engagement of these groups may hinder the effective implementation of sustainable development initiatives, given that they and their families are integral members of society. Achieving sustainable development requires collective participation; therefore, disparities in awareness and commitment across different social groups are likely to impede the realization of sustainable development goals (27). Regarding the use of plastic packets in the market, both the educated group and the vegetable and fruit sellers' group have accused each other. More awareness campaigns are required.

The selective adoption of plastic-free practices by only a small proportion of vegetable and fruit sellers may place them at a competitive disadvantage, as customers may prefer vendors who continue to provide plastic carry bags, thereby resulting in potential economic losses for environmentally responsible sellers. Alternative mode of reusable products is needed to be acknowledged to the users (28). But that must be pocket friendly (29).

Besides, government regulations are not regularly checked and followed by the concerned authority. A team of officials may be formed by the Rajpur Sonarpur municipality to check, supervise and make people more aware of the hazardous effects of using plastic carry bags. Government should be more cautious in maintaining SDGs at its every level, more awareness programme and orientation on SDGs are needed to be carried out for government sector employees for better outcomes (30).

Regarding uses of other plastic products like water bottles, plastic pots and other household items, users or buyers should have to be careful while buying these plastic products and check whether they are biodegradable or not and within the government-specified permissible limit.

More awareness campaigns by government bodies, NGOs and local clubs on how to prevent vector-borne diseases are required to make the vegetable and fruit sellers group updated on this topic. They are not aware of dreadful contagious diseases coming from vectors. The market in Rajpur

Sonarpur municipality is also not getting cleaned by disinfectants and insecticides. Rodents and cockroaches are also found in vegetable baskets during the night, when the market remains shut.

Vegetable and fruit sellers' groups are the worst affected by air pollution, as they have to do their business under open air for the maximum time in a day. It results in health hazards to them, like coughing, sneezing and other air pollution-related diseases. Many of them just take it lightly, which may cause serious health issues for them in the future. It has been observed that the market area is highly congested and it is located beside the Baruipur road. This is the road that connects the main city of Kolkata with Baruipur. As a result, a huge number of vehicles pass through this road every day. This road is very narrow too, which causes stagnation in vehicles and people's movement here.

The expansion of commercial establishments beyond their designated premises has resulted in further encroachment upon the roadway, thereby reducing its effective width and potentially contributing to traffic congestion and pedestrian inconvenience. Therefore, the burning of fossil fuels emitted from vehicles adds more to air pollution.

Vegetable and fruit sellers' groups should be acknowledged more for how to avoid hazardous effects of pollution on health and maintain preventive ways for maintaining primary health, like using masks in crowded and dusty regions, cleaning hands regularly and especially before taking meals, avoiding unhealthy lifestyles, etc. (31).

The development of the real estate business will add more customers to the vegetable and fruit sellers of the Rajpur market. It is a big advantage to them. It has also been notified that most residents of flats and housing complexes prefer to buy vegetables and fruits from the local market without any bargaining. It is a monetary benefit to the vegetable and fruit sellers here. The educated group does not want more residential complexes here, as the natural beauty of this place will be curtailed and the ecosystem will be affected too. Proper eco-friendly guidelines should be followed while developing urban infrastructure and culture (32).

The workers of the Rajpur Sonarpur municipality here work at a slow pace. Both the educated group

and the vegetable and fruit sellers' group have intelligently avoided answering with a broader outlook, as they do not want to bring the wrath of the state government upon them. A few educated group members have just cited very common issues that they think are drawbacks of the municipality workers.

The respondents of the vegetable and fruit sellers' group have been living here for a long time as compared with the respondents of the educated group, who mostly have migrated from other places to this area for various reasons. Respondents from the vegetable and fruit sellers' group perceived the expansion of real estate development as a key contributor to the observed decline in both the abundance and species diversity of local animal and bird populations. But they are not too bothered by this.

Technological change has brought benefits to the respondents of both groups. In contrast, respondents from the educated group primarily expressed concern about the physical and mental development of children in the context of the increasing use of technology across various aspects of daily life.

It is alarming to find that media has played a negligible role in generating awareness on sustainable development among the respondents of both groups here. All the members of both groups are glued to different content of media of all types (print, audiovisual and new media), but they are mostly reluctant to follow any content on sustainable development in the media. Only 1% of educated group members owe it to media's role in generating awareness on sustainable

development. In earlier studies also, it was found that media's role on sustainability awareness was limited and uneven (33).

Promoting the concept of sustainable development among others and asking others to follow the same has been found to be a challenge to the respondents of both groups. Respondents from both groups identified several behavioural and socio-cultural factors that impede the adoption of sustainable practices. These included negative behavioural attitudes, a tendency to encroach upon others' property or public spaces and the pursuit of social dominance and influence, all of which were perceived as significant barriers to collective environmental stewardship. The finding is replicable with another study where responsibility and pro-environmental behaviour were examined in littering prevention (34). This outcome goes with the theory of Norm Activation Theory. It suggests that pro-social and pro-environmental behaviour occurs when individuals recognize the consequences of their actions, accept personal responsibility and activate moral norms guiding responsible behaviour.

The restoration of the Adi Ganga was widely perceived as an unattainable goal. Respondents from both groups felt that they lacked the authority to compel the relevant government agencies to undertake restoration and conservation measures. They also acknowledged their limited capacity to prevent individuals from continuing to pollute the river through indiscriminate waste disposal and other environmentally harmful practices. If summarised, then it is as discussed in Table 1.

Table 1: Themes and Key Findings

Themes	Key Findings
Awareness	Educated group has higher sustainability awareness a wide idea of what causes prevention from fulfilling the SDGs.
Behaviour	Awareness does not ensure sustainable behaviour as it requires collective participation.
Participation	Unequal awareness weakens collective action; more awareness programme with feedback receiving system are required.
Plastic use	Economic interests hinder plastic reduction. Alternative mode of reusable products is needed to be acknowledged to the users provided they also would not cause harm to nature and the same must be pocket-friendly.
Governance	Weak enforcement limits sustainability efforts; government should be more cautious in maintaining SDGs at its every level, more awareness programme and orientation on SDGs are needed to be carried out for government sector employees for better outcomes.
Health	Vendors face higher environmental health risks. Vendors should be acknowledged more how to avoid hazardous effects of pollution on health and maintain preventive ways for

	maintaining primary health like using of masks in a crowded and dusty regions, cleaning of hands regularly especially before taking meals, avoiding unhealthy lifestyles, etc.
Urbanisation	Development creates economic–environmental conflicts. Proper eco-friendly guidelines should be followed to prevent this threat.
Technology	Benefits are acknowledged, but concerns remain for children. Therefore, children also should be acknowledged of SDGs right from their childhood days through making children-friendly content.
Media	Media has little influence on sustainability awareness. Media should make more efforts to reach to the audience with interesting content and feedback system must be encouraged.
Civic responsibility	Low public responsibility hinders environmental conservation. More studies are required to examine the responsibility and pro-environmental behaviour of human beings in order to prevent littering in various ways.

Conclusion

Based on the discussion, I conclude here by presenting the behavioural pathway towards sustainable development through this arrow chart. Knowledge → Environmental Awareness → Attitude → Behaviour → Community Participation → Environmental Sustainability.

This study underlines the major behavioural drivers towards maintaining SDGs found as

- (i) environmental awareness,
- (ii) concern for future generations,
- (iii) economic incentives,
- (iv) occupational exposure and
- (v) community participation.

Whereas, the major behavioural barriers are

- (i) poor environmental literacy,
- (ii) weak government enforcement,
- (iii) lack of media engagement,
- (iv) negative social behaviour,
- (v) economic dependence on unsustainable practices,
- (vi) inadequate municipal sanitation and
- (vii) urban congestion and pollution.

Limitations and Future Research

One of the biggest challenges to this research was the finding of respondents. Most people, including the educated group, after knowing the concern of this study, stepped back fearing various types of odd outcomes. Many of them directly claimed that if they were to respond and their views were to be telecast or broadcast later, they may face administrative difficulties. Many of them even listened to the objectives but finally stayed away from participating in discussion. A few respondents of the vegetable and fruit sellers' group even wanted to keep their identity undisclosed while participating in the response.

The threat of unseen consequences plays a challenging role in meeting the broader objectives of the research. The study in the future may be conducted on a greater number of respondents of different focus groups, provided the respondents will spontaneously give responses without being afraid of anything for the sake of nature.

Abbreviations

AITC: All India Trinamool Congress, LiFE: Lifestyle for Environment, MDGs: Millennium Development Goals, NGOs: Non-government Organisations, SDG: Sustainable Development Goals, UN: United Nations, UNFCCC: United Nations Framework Convention on Climate Change.

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Author Contributions

The author himself has contributed entirely for the research work.

Conflict of Interest

The author declares that he has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data Availability

The data of the research was collected in a recorded version while conducting the focused group interview.

Declaration of Artificial Intelligence (AI) Assistance

The authors acknowledge the use of generative AI to assist in the paraphrasing of certain parts of the manuscript. All content generated through AI was critically reviewed, edited and verified by the authors to ensure accuracy, originality and compliance with academic standards. The authors take full responsibility for the integrity and validity of the manuscript.

Ethics Approval

The respondents have acknowledged the publication of their views through this research paper, hence there is no violation of the ethics approval.

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