

**KNOWLEDGE STATUS OF BIODIVERSITY MANAGEMENT COMMITTEE (BMC) MEMBERS AND FUNCTIONING OF BMC AT THE GRAM PANCHAYAT (GP) LEVEL: AN INTROSPECTIVE STUDY FROM THE BUDGE BUDGE II BLOCK, SOUTH 24 PARGANAS, WEST BENGAL**

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**Abstract**

*In India, elected actors are playing major roles in all fronts of ensuing development and growth-related activities at all levels. In this context, the researcher's idea is that elected actors need to be knowledgeable at each level of government mechanism so that idea of sustainable growth and development can be ensured in true spirit and for that grassroots level government and governance system has a very important role in it. Regarding sustainable development and growth ideas environmental issues, biodiversity management is a major concern, and it is expected that elected actors at the grass root level institutions need to be knowledgeable enough to work on these issues. But the question arises whether the existing members of local government and governance have adequate knowledge to take care of these pertinent issues on environment and biodiversity. So, the major idea of the paper is to understand the knowledge status of elected members at the grass root level of governance, and members of BMC so that the study team can also understand the functioning status of BMC. BMC has been created in all local bodies in India with the direction of the National Green Tribunal (NGT) and based on the biological diversity Act 2002 and Bio-logical Diversity Rules 2004 of the Government of India. The observations made in this study are expected to trigger the interests of the researchers, academicians, and policymakers at various levels working towards biodiversity management and the role of local government and governance.*

**Keywords:** Biodiversity Management Committee, Elected actors, local governance, Local government



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## **Introduction:**

Environment protection is a very important task for all as environmental degradation is very rampant where people are suffering from air pollution, water pollution, and all other modern life environmental hazards. Global warming, reaching 1.5°C in the near term, would cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans (IPCC 2022). (Fischer et al., 2012, p. xx) the research suggests that human needs to adopt sustainable behaviour to act against the ill effects of climate hazards, but unsustainable behaviours result from a vicious cycle. So, the vicious cycle needs to be broken, and needs to ensure civic engagement for adopting sustainable behaviours in true sense. But the study (Thind et al., 2022, p. xx) it has been mentioned that due to environmental degradation human health especially children were reported to be more susceptible to health risks and there is an urgent need to take corrective measures for sustainable development ideas. One can really feel passionate while talking about beautiful ideas of sustainable development goals for 2030 and its vision is like the “ Sky is the limit” so it is difficult to achieve as the limit is the sky. There are 17 goals, and each goal has a direct or indirect correlation with the environment/ecosystem/ biodiversity where GOAL 3: Good Health and Well-being, GOAL 6: Clean Water and Sanitation, GOAL 7: Affordable and Clean Energy, GOAL 11: Sustainable Cities and Communities, GOAL 12: Responsible Consumption and Production, GOAL 13: Climate Action, GOAL 14: Life Below Water, GOAL 15: Life on Land has a direct link with environment and biodiversity. So, managing biological diversity is an important agenda to ensure the SDGs 2030, and the researcher’s view is the management of biodiversity need to start at the grass root level where local level administration and civil society need to play a proactive role on all fronts.

The present status of air quality, and environmental degradation is very alarming, and the survival of humans is under serious threat. Stephen Hawking stated that “Humanity Only Has 100 Years Left on Earth before the End of the world” and he also warned by saying that climate change, asteroid strikes, epidemics, and overpopulation will be our downfall. So, there is a dire need to find solutions and alternatives, and this is high time to introspect at all levels of human civilizations. There are currently over 98,500 species on the IUCN Red List, and over 27,000 of these are endangered by extinction (IUCN Red List). For terrestrial

ecosystems, habitat loss is mostly caused by the conversion of uncultivated lands to agricultural use (Global Biodiversity Outlook-3, 2010). Unsustainable forest management drives species to extinction (IUCN Red List). The principal dangers to the world's biodiversity and ecosystems are overexploitation and damaging harvesting methods (Global Biodiversity Outlook-3, 2010). Referring to all these studies it can be said that unsustainable human behavior is the major reason for climate hazards and environmental degradation which negatively impacts our forests, agriculture, and better survival of all species in the world. It is quite true because at present government whether central or state both are initiating so many programs for Behavior Change Communication/Information Education and Communication (BCC/IEC) where Solid and Liquid Waste Management (SLWM) and Plastic Waste Management (PWM) are major concerns.

But, in addition to the above problem statement the researcher is more interested to introspect about its solution through sustainable means. So, the major pertaining question is how to address all these issues, who will take the pain of managing the biodiversity issues as it is not a job that can be done with project mode rather it needs a long-term and constant approach. Researchers found that local government is the best institutional framework and its associated structure especially BMC can seriously take a lead to run the whole show. While going deeper into the problem it has been noted that in many cases there is a missing link as the government of India or regional government has brought no of laws, rules, regulations, and schemes but why it is not implemented with the right approach? Here, it also noted that a more centralized approach and lack of knowledge among local stakeholders about the issues are the major challenges to biodiversity welfare action. So, one of the major issues has been identified as a hypothesis that a lack of knowledge about environment and biodiversity issues and their management aspects creates hurdles for BMC members and elected representatives to deliver better performance.

### **Background:**

Keeping in view the increasing trend of unsustainable human behavior and climate hazards, the government of India and the concerned state already took efforts, where some of them got successful and some of them are not as it felt that there was a serious gap at the grassroots level governance system. In the same direction, enacting BD Act 2002 is a remarkable step

towards the management of biodiversity in the true sense and optimal approach which especially focuses on local-level management.

The act was enacted in 2002, it aims at the conservation of biological resources, managing their sustainable use, and enabling fair and equitable sharing benefits arising out of the use and knowledge of biological resources with the local communities.

The act envisaged a three-tier structure to regulate access to biological resources:

- The National Biodiversity Authority (NBA)
- The State Biodiversity Boards (SBBs)
- The Biodiversity Management Committees (BMCs) (at the local level)

The Act provides these authorities with special funds and a separate budget to carry out activities for the sustainable use of biological resources and optimal management of biodiversity dealing with the biological natural resources of the country. These authorities also shall supervise any use of biological resources and shall take control over the financial investments and their return and dispose of those capitals as correct.

As stated above the Biological Diversity Act of 2002 has a provision for the constitution of a Biodiversity Management Committee (BMC) at the local level with certain roles and functions as specified by the Biological Diversity Act of 2002, the Biological Diversity Rules of 2004, and the Guidelines for Operationalization of Biodiversity Management Committees (BMCs) issued by the National Biodiversity Authority (NBA) in 2013. As it has been already mentioned that the Act, Rules, and Guidelines mentioned above create the pathways to form the Biodiversity Management Committee (BMC) a local committee. Here researcher's major submission is these local-level BMCs need to be efficient enough to handle all sorts of issues so that sustainable usage of biological resources can be a reality. The question arises that whether the BMC and PRIs members of the GP have enough knowledge and expertise to handle all pertinent issues of Bio-Logical Diversity and its management. So, the researcher attempted to initiate introspective research on the same.

#### **Objectives:**

- To understand the knowledge status of the Biodiversity Management Committee (BMC) and associated Panchayati Raj Institutions (PRIs) Members of BMC.

- To know the status of BMC and it's functioning with respect to the knowledge level of BMC and PRI Members.
- To state some recommendations based on the study.

**The rationale of the study:**

Population growth, the increasing trend of unsustainable human behavior, and the existing rate of environmental degradation have no balance. So, it is an alarming stage where all level of government and governance system needs to equip themselves for need-based action. But the question arises how and at which level of government will be able to ensure better delivery of services? The researcher feels that the grassroots level of government and governance system together can deliver better services and ensure sustainability in terms of effective management of biodiversity and conservation of the local ecosystem. At this juncture, it needs to understand the knowledge status of BMC and PRI members of the local government for environment conservation and the promotion of sustainable usage of natural resources in rural areas. So, the proposed study has a lot of significance towards the empowerment of BMC and local governance and the promotion of good governance with a major emphasis on environmental conservation and its sustainable use.

**Research Design:**

A descriptive research design has been followed to understand the functioning status of BMC based on the existing knowledge of BMC members where the researcher was also exposed to the exploratory method of research design.

**Methodology of the study:**

So, the qualitative and quantitative method has been followed to summarise the whole research work where the researcher went through a good no of secondary evidence like journal articles, newspaper, online materials, etc.

**Sample and tools of the study:**

A simple random sampling method has been followed to select three Gram Panchayats under the Budge Budge II Block of South 24 Parganas, District of West Bengal. In the second stage to choose respondents the researcher collected the contact list of existing BMC and elected members of each study area i.e., GP where another round of simple random sampling method

followed, and 22 members including BMC and elected members of the concerned GP have been interviewed.

A semi-structured interview schedule has been developed and collected data by using the same. After collecting data each response was coded and made entries in the excel sheet for generating necessary tables and graphs to represent the result which has been briefed as follows.

**Area of the study:**

Three Gram Panchayat of Budge Budge II block, South 24 Parganas, West Bengal.

**A brief about the area:**

South 24 Parganas is a big district, extending from the metropolis of Kolkata to the rural riverine villages up to the mouth of the Bay of Bengal, apart from its staggering size (10,000 sq. km) and population (8161961, census 2011), the district administration must contend with problems typical of metropolitan living in the urban area, such as high population density and overloaded civic infrastructure.

The Sundarbans, the world's largest mangrove forests and UNESCO World Heritage site also located in the district, these areas cover thirteen of the district's 312 GPs, 2086 habitats, twenty-nine development blocks under 5 administrative sub-divisions, and 7 Urban Local Bodies. Due to its location, the south 24 Parganas district is one of the most eco-sensitive and disaster-prone districts in the state of West Bengal and it is also considered the cyclone hot spot of the state (CEEW 2020). So, it is obvious that the district needs special attention in terms of managing its biodiversity, flora, and fauna.

The Budge Budge II Block has 11 GPs, 150 Gram Sansads, 64 Mouzas, and 61 inhabited villages with a population of 192,134 (2011 census) and an area of 78.00 sq k.m.. It is situated on the eastern banks of river Hooghly with a semi-urban setting and most of the village areas are census towns as stated by the last 2011 census.

The main occupation of people living here is agriculture, floriculture, and tailoring. Due to the existence of river, a good no of people still depends on natural resources for their livelihoods like fisherman community, potters, and brick field owners for soil extraction from rivers, sand miners, and others. But it is very unfortunate that no strong regulatory system is

there to manage these natural resources optimally and efficiently for local economic development.

The researcher chose three Gram Panchayats (GPs) where Dongaria Raipur Gram Panchayat majorly shared one side of the border with the river and the other two Panchayats i.e. Naskarpur and Satgachia are adjacent to the Dongaria GP. Most of the natural resources and its allied activities have existed in the GP area, which is close to the riverside, so Dongaria Raipur Gram Panchayat has great significance for its biodiversity. So, the local administration and people of the area have a larger responsibility to ensure the optimal and rational utilization of all these resources so that all these resources can sustain to a great extent.

**Analysis and Interpretations:**

The researcher interviewed 22 respondents and consolidated their responses of them where PRI members and BMC members of 3 Gram Panchayat were interviewed using a semi-structured interview schedule. Based on the respondent the following analysis and interpretations have been made.

**Table No -01 Status of Identity Being a Member of BMC**

Nature of response	No of respondent	Percentage
Yes	10	45.45
No	12	54.55
Total	22	100.00

Source: Primary Data

The question asked was whether the member is aware that he/she is a member of BMC. The table shows that 54.55% of respondents shared that they are not aware of their inclusion in BMC and 45.45 % of respondents shared that they are aware of it. During the interaction, it was also noted that most members said ‘Yes’, they are either elected representatives, Pradhan, or the most influential person in the GP, and members who said ‘No’ are general members of the GP or BMC. In addition, some of the members also shared that they never heard about BMC’s existence rather they know about a committee on environment headed by the Pradhan, so the member of BMC or PRI never claimed them as members of BMC and not aware of their associated roles and responsibilities being a member of the BMC.

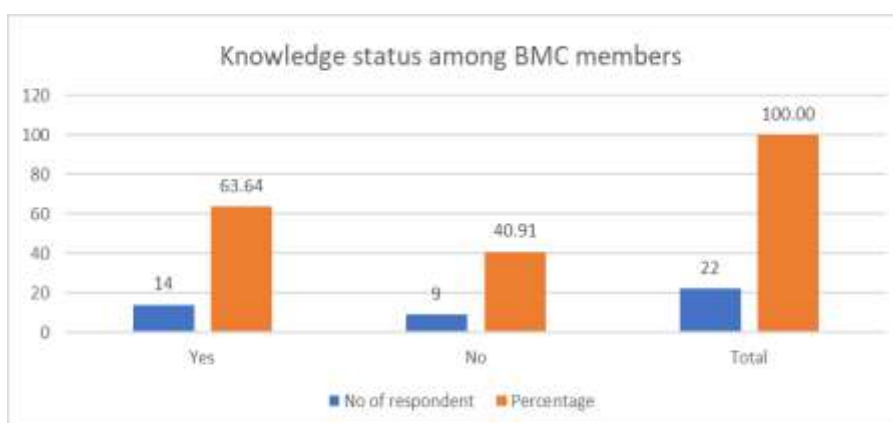
**Table No -02 Process of Informing BMC Members about Their Inclusion in the BMC**

Nature of response	No of respondent	Percentage
GP informed by a letter	0	0.00
GP informed orally	10	45.45
I don't know when I became a member	10	45.45
I am an expert, so I have requested the GP be a member	0	0.00
Others	2	9.09
Total	22	100.00

Source- Primary Data

The researcher also had a qualitative discussion with all respondents where it has been asked how the process of informing the member about their inclusion in the BMC. There were multiple answers along with some body language which shows that members are confused about the process of intimation. In an empowered administrative system, it is expected that there will be some official process for better functioning of any governance structure, and here it is BMC. So, it has been explored that nearly half of the respondents shared that they got information from the GP verbally and half of them said that they are not aware of their membership in BMC and the responses are connecting the responses of table no-1. Some of the members also answered that usually the GP Pradhan and Secretary used to take care of administrative activities of all such committees in the GP so when there is any inclusion, they used to publish circulars and put them on the notice board or shared in the what's app group from which they get to know about their inclusion. It was also shared by a few respondents that they thought that this committee also has the same component as other committees of the GP where they may conduct some meetings and are not much aware of this committee.

**Table No -03 Knowledge Status about Biodiversity or Environment of Own Area**



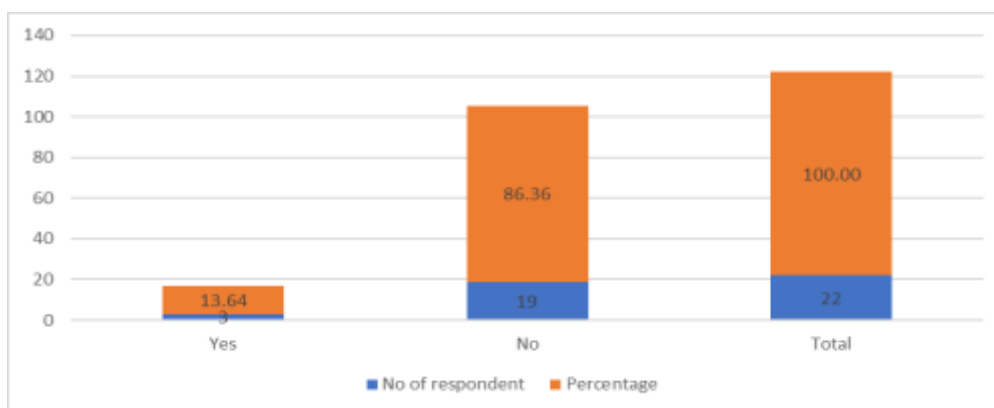
Source -Primary Data

It reveals that most of the members i.e., 63.64% are aware of their local flora and fauna and shared multiple concerns during the interview such as depletion of natural resources, absence



of a lot of local green plants which used to grow naturally, and people used to eat earlier days and it is good for health. Most members said that the thankuni plant (*Centella Asiatica*) and Brahmi plant (*Waterhyssop*) are rarely seen in the area whereas they used to be available in their locality in plenty. During individual interviews whoever said that they are not aware of local biodiversity also joined in further group discussion and supported the fact that many local cultivars are on the verge of extinction or soon became endangered species. During introspection, the researcher felt that members are aware of the qualitative ideas of biological diversity but may not be very familiar with the terminology of Biodiversity.

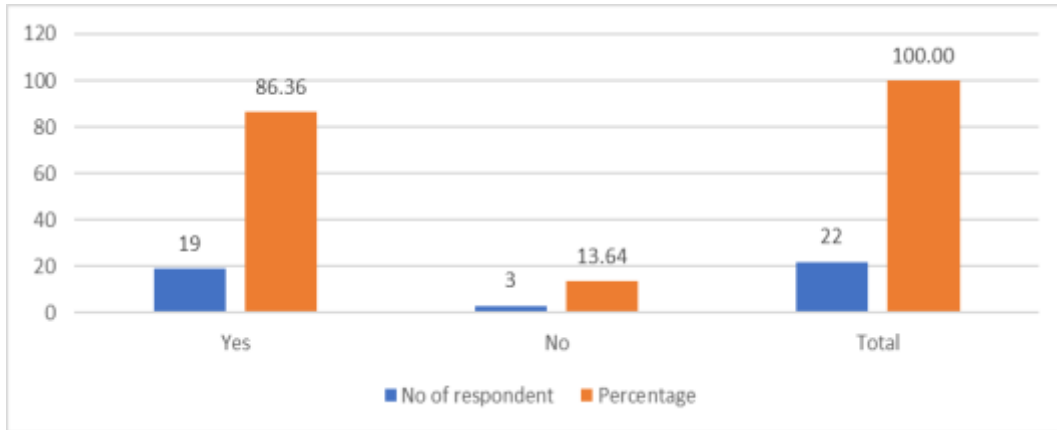
**Table No -04 Status of Awareness Regarding the Responsibility of BMC Member**



Source- Primary Data

Knowing the roles of responsibility of own position is the primary criterion of performance where it can be considered as basic knowledge of an individual or group of people working in the same ecosystem. The major function of the BMC is to work for the sustainable management of biodiversity and the local ecosystem, and it is obvious that members of the BMC must need to know their own roles and responsibility. But the above table surprisingly reveals that only 13.64 % of respondents i.e. 3 people out of 22 people only aware of their responsibility. Further, it also revealed that they had never been instructed to have any meeting on the BMC nor received any guidelines or training on the same.

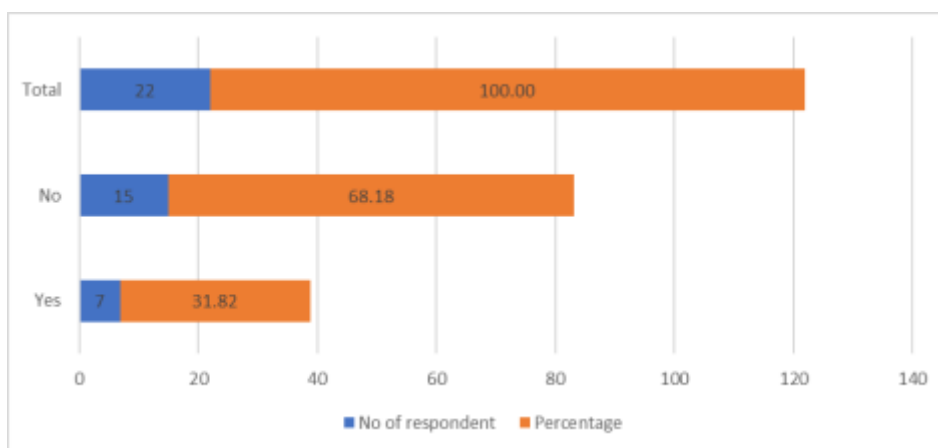
**Table 05- Attendance in BMC Meeting after Being a Member of BMC:**



Source- Primary Data

It is a very positive approach that most members i.e., 86.36 % of members attended the BMC meeting after becoming a member of BMC. Most members said that whatever meeting has been conducted by the Gram Panchayat they used to attend so they may also attend a meeting of BMC. In further discussion majority of the 'Yes' category respondents were not able to share the content of the discussion. Some of them shared that they attended a meeting related to Hooghly River cleaning where a discussion was held about the cleanliness of the GP area especially the adjacent area of Hooghly River. Researcher also introspect that the meeting is not happening in periodic basis for BMC activities.

**Table 06- Status of Maintaining Minutes of BMC Meeting**

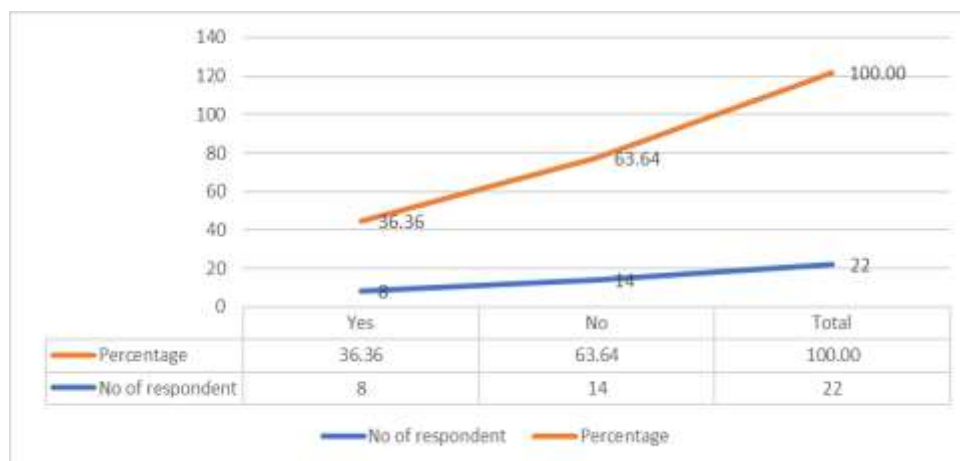


Source- Primary Data

68.18% of respondents shared that they have no idea about the documentation of the meeting held for BMC as BMC meetings may be used to conduct the general meeting of GP. The

researcher also desired to access some of the minutes of the meeting, but the GP or BMC authority was not able to share the same. So, it can be interpreted that members lack knowledge, so they have not made any effort the documentation the meeting.

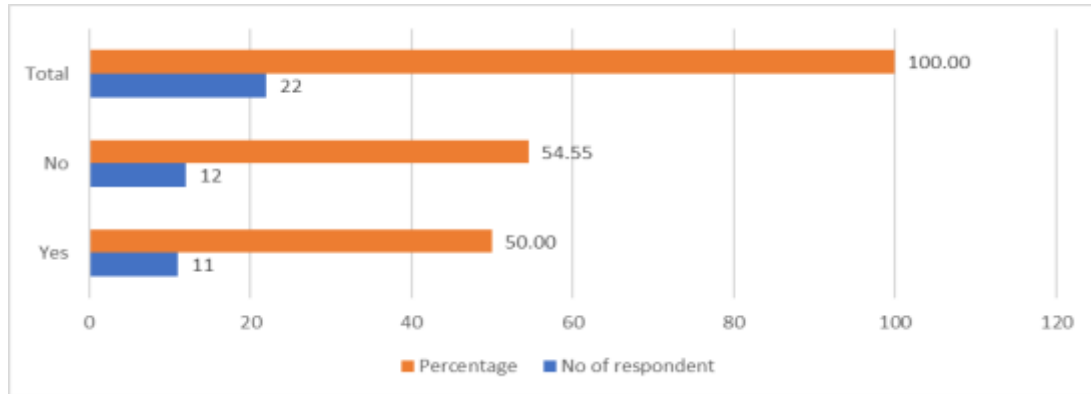
**Table No -07 Knowledge status of BMC about People’s Biodiversity Register (PBR)**



Source- Primary Data

People’s Biodiversity Register (PBR) is a document that contains comprehensive information on locally available Bio-resources including the landscape and demography of a particular area or village (National Biodiversity Authority, n.d.). So, it must be prepared by ensuring the larger participation of local people with the leadership of BMC, so preparation of PBR, its regular updating, and necessary validation is the major task of BMC. The above table reveals that only 36.36% of respondents are aware of the PBR and the rest of them are not aware. This information also supports the consolidated table no 04 where most of the BMC members shared their lack of awareness regarding the responsibility of being a member of BMC. So, the researcher’s assumption about the knowledge status of BMC members is true and it can be also stated that the functioning of BMC is not good as most BMC members do not know about their responsibilities and a basic idea of PBR.

**Table No-08 Attendance in Gram Sabha Meeting of BMC Members**



Source: Primary Data

Gram Sabha is a constitutionally approved forum of discussion at the local levels where local people can discuss their needs and concerns and similarly, planning can be made with greater participation of people. So, for the proper functioning of Gram Sabha role of elected actors is very significant, in addition, associated bodies of local governance also need to play a proactive role to ensure the success of Gram Sabha. Along the same line, researchers believe that issues of biodiversity, and the environment must need to be discussed in this forum and the necessary decision can be taken to strengthen the BMC. So, with a question, the above respondent shows that nearly 50% of members said that they used to attend the Gram Sabha and the rest are not attending. It further explores that no funds are being allotted for the proper functioning of BMC and no plan is also taken either under GPDP or planning activities of the GP. So, it can be interpreted that the functioning of BMC needs to be improved, and attending gram sabha can be considered as a major indicator of whether the BMC members are working well and BMC functioning well.

#### **Major Findings:**

- Most BMC members are not aware of their inclusion in BMC members and associated roles and responsibilities.
- So, it can be said that a lack of awareness and knowledge about BMC activities is noted among BMC members.
- Most members are aware of biodiversity and environmental degradation issues but due to a lack of knowledge, they are not able to react to it with a scientific approach.

### **Challenges and Recommendations:**

- No training has been organized by the block or state government for the BMC members so periodic training and a capacity-building approach are required.
- GP needs to take the initiative for ensuring the proper functioning of BMC, for example, BMC issues can be an agenda point for the Gram Sabha meetings.
- State government needs to provide necessary guidelines to the BMC and GP with vernacular language so that everybody may understand the content.
- During the qualitative discussion, very few ideas were received about the convergence activities but there is a huge scope for convergence for ensuring the functioning of BMC like Namani Gange, MGNREGA, and others. So, from the state and district level guidelines needs to be issued so that convergence can happen for the proper functioning of BMC.

### **Conclusions**

The study has been conducted to evaluate the knowledge status of PRI elected representatives and BMC members as they are supposed to take major concern for environmental protection and safeguarding environmental degradation. The researcher put light on the major concern of environmental degradation and specify the importance of scientific management of biodiversity and the environment. It also reveals that the role of local government and BMC is very crucial to manage the local biodiversity and to suffice the same local elected actors of local government and non-elected actors of the local governance system i.e., BMC members need to play a proactive role at the grassroots. In the same direction, it can be said that for playing a significant role local level BMC functionaries and elected members need to be knowledgeable enough about the BMC and its standard system of functioning.

### **Limitations of Study:**

- i. During the field visit, only 22 respondents has been interviewed which is generally considered to be insufficient to comment on the overall functioning and knowledge status of BMC members. Although each GP has 7 BMC members and all of them were interviewed by the researcher. It is suggested that future field visits be conducted to collect larger samples.

ii. The study may generalize for the whole block but for the district, we need to take more samples from other blocks and panchayats.

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