

PROCESS DOCUMENTATION

Programme to Conserve the Urban Biodiversity of West Bengal With School Students

Supported by



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AIM OF THE DOCUMENTATION

The main aims of the documentation are:

- To document the process that was followed in the implementation of the *Programme to Conserve the Urban Biodiversity of West Bengal with School Students*.
- To understand the various steps in fulfilling the objectives of the programme
- To identify the areas that may require special attention, so that they can be in mind when the programme is implemented again in the future.
- To understand the scope of the programme and how it affects the target audience
- To prepare the grounds for the development of a module for environmental education so that the programme can be implemented repeatedly and by different people.

¹ Gitanjali Ghosh has been actively involved with programmes for children in the development sector for the last 22 years. A graduate of the Tata Institute of Social Sciences, Mumbai, she, at present, heads *Anando*, an NGO working with disadvantaged children. Over the past few years she has also been involved with ASED and its activities.

THE PROGRAMME

Background

The *Programme to Conserve the Urban Biodiversity of West Bengal with School Students* had its beginnings in Diti Mookherjee's active involvement in nature study programmes conducted by ASED² and other organizations. The success of these programmes convinced her that this knowledge could well be extended to reach out to children with limited exposure and opportunities to explore nature.

The *Programme to Conserve the Urban Biodiversity of Kolkata with School Students* was launched in October 2004 when Diti Mookherjee received the first grant from the Rufford Small Grants for Conservation UK. She initiated the first phase of the programme with the support of the ASED team. Subsequently the grant was renewed for the *Programme to Conserve the Urban Biodiversity of West Bengal with School Students, 2007-08* and a booster grant was awarded in December 2008. Each stage of renewal will henceforth be referred to as a phase. The programme is currently in its third phase.

A brief description

The programme essentially involves a series of interactions with a select group of students in each of the chosen schools and through these interactions exposing the children to the fascinating biodiversity that surrounds them. Through slide shows, field trips guided by environmentalists, nature games and lively discussions the children are encouraged to appreciate the wonder of nature and subsequently develop their own field action projects.

The projects give the students a first hand experience at conservation and motivate them to believe that even the smallest effort can make a significant difference. It is envisaged that when ASED moves out, the schools will continue to implement the original projects involving subsequent batches of students in them.

The programme involves students in middle school aged between 12 to 14 years and covers both government and private schools. On an average, individual students get the opportunity to be a part of the programme for one year.

AIMS

The overall aim of the project is to make school students aware of their natural urban heritage and promote efforts to conserve it.

² ASED, the Association for Social and Environmental Development is a non-profit making organization with the work objective of biodiversity enhancement through public awareness, action research and people's participation.

The specific aims are:

- To use an action-based approach to create a basic understanding of biodiversity and the inter-dependence of various species.
- To promote urban biodiversity conservation in West Bengal with school students
- To encourage students to contribute to biodiversity conservation actively.
- To give students with an inherent interest in the environment and its conservation a platform to explore their world and contribute positively to its preservation.

DEVELOPMENT OF THE PROJECT SINCE 2004

In the first phase 14 schools from Kolkata were recruited to the programme. The schools were well distributed over the city and were chiefly government or government sponsored in nature. At this time the programme was called *Programme to Conserve the Urban Biodiversity of Kolkata*, as its scope was limited too the city itself.

In the second phase the involvement and performance of the 14 schools was reviewed and a decision was made to continue with only those schools which had shown genuine interest and where the school authorities were supportive of the efforts of the students. Consequently the 14 schools were pared down to 5. It was also felt that the programme could reach out to students outside Kolkata and accordingly 2 schools from Durgapur were recruited for the second phase. At this time the project was renamed *Programme to Conserve the Urban Biodiversity of West Bengal* as it had now extended its reach beyond the limits of the city.

In the third phase, one of the 5 Kolkata schools was reluctant to continue and so was replaced with a school from Howrah. At present there are 4 schools in Kolkata, 1 in Howrah and 2 in Durgapur involved in the project.

PHASE 1: 1 year



Chart 1: Flow chart showing the phases of the programme

IMPLEMENTING TEAM:

The team which implemented the programme consisted of:

- **The Team Leader:** Visualizes and oversees the whole programme. Makes the initial contact with the schools. Acts as the primary contact for the school authorities. Orients the Core Group on the school projects. Develops resources that the schools can use during the programme.
- **Coordinator:** Maintains a regular dialogue with the school and the student participants. Organises the various events connected with the programme (slide illustrated talk, field trips, project sharing workshop, etc.). Visits the schools regularly and monitors the progress of the school projects. Acts as the liaison between the school and the Project Team. Makes available such resources as the school may request or need (e.g. Seeds, reference material, expert advice, etc.)
- **Panel of Experts:** A group of 3-4 persons who are authorities on various aspects of biodiversity. They are a vital part of the field trips and the talks the students are exposed to. The panel is also consulted whenever any school project needs their professional expertise.
- **Schools:** A group of interested teachers coordinates and guides the activities of the students on behalf of the school. They liaison with the programme coordinator to develop their school projects and elicit the support of the organisation and its panel of experts whenever they need it.

The ASED project was headed by Diti Mookherjee. It was coordinated initially by Samya Basu and later by Pratik Ghosh and then Indrajit Mullick with the able support of Kushal Mookherjee , Member National Board for Wildlife and State Wildlife Advisory Board West Bengal. The expert panel constituted Kushal Mookherjee, Susmita Basu and NN Chatterjee, all environmentalists.

STEP-BY STEP IMPLEMENTATION OF THE PROGRAMME

Step 1: Selection of Schools

Aim: To create a select group of schools that will participate in the programme

The schools are selected on the basis of the following criteria:

- **Location:** The presence of school grounds or proximity to open spaces helps when field trips are being organized. School authorities are also more likely grant permission for the trips if transport costs and time available for the trips are kept at a minimum.
- **Distribution:** Schools are chosen from different parts of Kolkata and later Durgapur so that various locales can be represented and the program can address a variety of issues. Having different localities represented in the programme allows the various facets of the vast biodiversity to be brought to light. It also makes for an interesting project sharing session at the

end of the year when students get to learn about the biodiversity in other parts of their city and state.

- **Level of Interest:** The support and involvement of the school authorities and teachers is vital to the success of the programme. Thus schools where the principal is encouraging and supportive of the students' efforts and those where the programme is viewed as an opportunity for the students to broaden their horizons are given priority. An assessment of the school's previous involvement with environment programmes can help gauge how successfully their students can be involved. Schools which are looking to build on earlier experiences as well as schools which do not have much access to programmes of this nature usually prove to be eager participants. Schools which are already deeply involved in environment activities may be avoided in order to avoid duplication of effort.
- **Classification of School:** Schools run or sponsored by the Government are given greater importance as the students of these schools have fewer opportunities for such exposure as compared to private schools. A few private schools who were greatly interested in the programme can be included.

Step 2: Approaching the Schools

Aim:

- **Appraising the school authorities of the details of the programme and creating an interest in adopting it**
- **Assessing the level of interest of the school**

Once a number of schools have been shortlisted, the Team Leader and Coordinator approach the school authorities. The head of the institution is appraised of the details of the programme and relevant documents describing the project and the implementing agencies are handed over for consideration.

This first contact is vital in determining the interest level of the school. It is also important to clarify at this stage the varying roles that each of the partners will play in conducting the programme. For example that the project will be an initiative of the school and that the organisation (ASED) will play a supporting role.

Step 3: The Agreement

Aim: Setting the parameters for future interactions

Once the school has satisfied itself that this is a programme they want to be involved in they sign an agreement with ASED. The agreement sets out in detail the various components of the programme and the responsibilities of the various partners. Copy of agreement annexed.

By this stage the school will have had time to mull over the details of the programme and will have an idea of how they want to carry it forward. It is thus important that any questions that the school or organisation has at this time be addressed clearly in order to avoid future misunderstandings.

Step 4: Slide Illustrated Talk

Aims:

- ***To help a large group of students understand the concept of biodiversity and interdependence of species***
- ***To give the students an exposure to the vast biodiversity of West Bengal***
- ***To address questions that students may have on the topic***
- ***To allow interested students decide whether they would like to participate actively in the project.***



A popular aspect of the programme the slide illustrated talk provides the students with their first glimpse into the fascinating biodiversity of the state. The slides breathe life into concepts that many students encounter only in their text books and make a long lasting impact on the children. The combination of slides and discussion helps give the children a fuller idea of the importance of biodiversity.

Kushal Mookherjee, wildlife expert, conducts the slide illustrated talk on behalf of ASED and highlights the biodiversity of West Bengal Scheduled in the school itself, the talk is attended by middle school students selected by the school. It usually lasts for an hour. Some schools choose only students from Class 7 while others might involve both Classes 7 and 8.

The talk is followed by an intense question-answer session and lively discussions, inevitable with a classroom full of curious youngsters!

The date(s) for the slide illustrated talk is decided beforehand by the teachers and the coordinator. Arrangements are made for slide projector and screen (could be provided by either the school or the organisation), a room that can be darkened and a sound system and microphone in case a large number of students attend. The choice of student groups is left to the school. It is mandatory that the teachers who are going to work on the subsequent stages of the programme be present during the slide illustrated talk.

In organizing the slide show the following points can be kept in mind:

- ***Large number of students:*** *The slide illustrated talk works best with a moderate number of students (up to 50). In case larger numbers are proposed by the school, the talk could be held on more than one day with different groups.*
- ***Teacher-in-charge:*** Having the teacher-in-charge present ensures that the discussions initiated at the talk can be carried on as the programme develops. Further the coordinator and

resource person are then free to interact with the students without having to maintain order and discipline.

- **Interaction time:** The time set aside for interaction needs to be sufficient so that the students have time to open up and talk and the resource person is able to answer queries in depth. Taking into consideration factors like the number of students, the venue, etc. will ensure that the school and coordinator can set up a mutually agreeable time that will benefit the students to the maximum. This is all the more significant because most of the children will not continue in the programme after this session and so this talk could be their only chance to learn more about the biodiversity of West Bengal.

Step 5: Selection of Core Group

Aim: To choose a group of the most interested students who will conceive and implement an action based project to conserve biodiversity

The teacher(s) designated to coordinate the student project team select 25 of the most interested students to form a core team. This group also includes the teachers who will motivate and guide the team.

The concept of an action-based project is introduced to the core group, who are then encouraged to come up with ideas of what is relevant and practical to them

The choice of students for the core group can make or break the project! A group of enthusiastic and interested youngsters can take the project far and ensure that it sustains itself in the future. Interest and not academic performance needs to form the basis of selection.

At this stage discussions can also be held regarding the different kinds of projects that may be possible for their students. Some schools may lack exposure and experience with practical hands-on projects. So such discussions would be beneficial and help determine how much support the school might need in this regard.

Step 6: Local Field Trip

Aim: To help the students appreciate the biodiversity in their immediate surroundings.



A local field trip is organized so as to give the core group an idea of what the term “biodiversity” encompasses. Guided by an expert they examine their immediate surroundings and look at all the various species of plants and animal life which co-exist side –by-side. This field trip is often the students’ first attempt at observing and recording the biodiversity around them. With the trained eye of the expert making even the ordinary extraordinary,

the students discover wonder in their every day surroundings.

The trip could be within the school grounds or in neighborhood, depending on the location of the school. In cases where the school is located in the heart of the city, a near-by park may be chosen as the venue. Ideally, the location should have dense vegetation with a concentration of plant and animal life.

During the trip the students each receive a booklet describing the concept of biodiversity and details of the biodiversity found in West Bengal. It also contains tips on how to identify various aspects of biodiversity and a bibliography of books on the subject

It is important that the local field trip is organized soon after the slide illustrated talk so that the students are able to relate the two experiences while maintaining the excitement of discovery.

Step 7: Visit to a Biodiversity Hot Spot

Aim: To allow the students to experience biodiversity in all its glory and in a more detailed manner

Similar to the local field trip, this excursion is wider in its scope. The students visit a location termed a “hot spot” because it has an intense concentration of biodiversity within it. Locations could be botanical gardens, wildlife or bird sanctuaries, large water bodies, etc.

The right “hot spot” can maximize the learning opportunities for the children. A location which covers a large area and has a concentration of various forms of plant and animal life will allow the children not only to observe various species but also understand and appreciate the inter-dependant relationship they share.



The core group is accompanied on this trip by both the coordinator as well as a few naturalists. The children first undertake a nature walk, making observations and learning about the various facets of



biodiversity from the experts. They then congregate at one spot to play nature games like The Web of Life and Who Am I? Quizzes and discussions keep the students enthralled and interested.

This opportunity is also utilized to discuss the project that the core group is planning to undertake. The experts are able to offer their suggestions and the students can discuss any dilemmas or questions that

they may have regarding the project.

Step 8: Project Formulation

Aim: To design an action based project that the students can participate in with the aim of contributing to the conservation of biodiversity in West Bengal

Under the guidance of the coordinator and core group teachers, the students plan out a project that they can undertake for the rest of the year. The project will help the children understand the issues of conservation and gain first hand knowledge of the biodiversity in their own environment.

The idea of the project would have taken root during the previous step and during this phase the coordinator helps the core group translate their ideas into a workable format. This project planning stage of the project helps the students focus on the task at hand. They are able to look at the practical aspects of putting their plan into action and sort out any bottlenecks beforehand so that their progress is not hampered.

The coordinator visits the school several times to discuss the ideas, work out resources and reiterate all that the students have learnt so far. By discussing various alternatives and bringing varied resources to the board the coordinator can ensure that the project does not get limited to making charts and collecting data. Experts can also be brought in if the school so desires to help explore various possibilities and narrow down their choices.

By the end of this phase the students will have planned their project, prepared a work plan and acquired the relevant permissions from the school authorities. They are now ready to launch their project.

Step 9: Monitoring of Ongoing Project

Aim: To keep the projects on track and provide support, as may be needed

Once the project has been planned and a work plan is put in place the core group starts putting their ideas into practice. The core group teachers provide any guidance that is required and help the students maximize their experience.

The most interesting and important part of the project is now underway! The coordinator visits the school regularly to monitor the progress and provide any support in terms of resources and advice that may be required. The visits help to keep the students motivated and ensure that the projects are proceeding without hindrances.

Step 10: Project Sharing Workshop

Aim: To allow the students to share their experiences with other schools and showcase their projects

To interact with students from various localities and places and learn from their experiences

By the end of the cycle the core group would have progressed substantially with their projects. Since most of the projects are planned as on-going activities which will accommodate subsequent batches of students, it is not expected that the projects would have come to an end. The project sharing workshop thus provides a platform for the students of various schools under the programme to come together and share their experiences so far. Not only can they showcase their progress but students



can also learn from each other and incorporate new ideas into their activities.

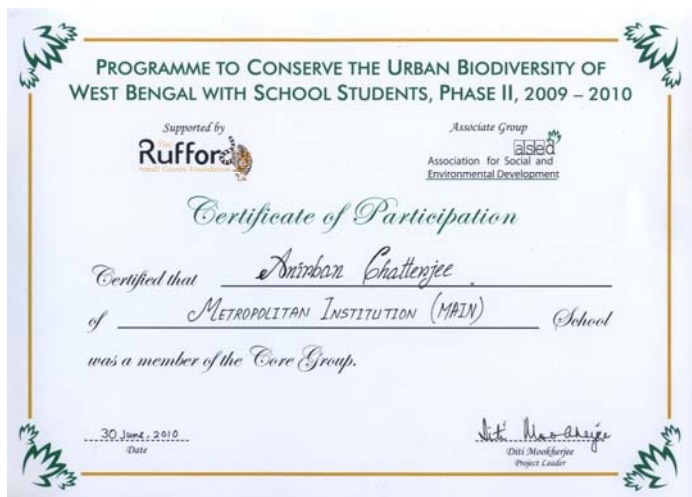
The workshop is organized in a conveniently located hall or auditorium and is held over a single day. It starts with special guests speaking about biodiversity and related issues and continues with a slide presentation of the various projects that have been undertaken so far. Each school then takes the stage and speaks about their project. Some time is allowed after each presentation for discussions.

The project sharing workshop acts as a great incentive for the students and teachers alike. It provides an interesting platform for learning and encourages lively discussion among the students. The preparations for the workshop need to start well in advance. Some schools may need ideas on how to exhibit and showcase their work, especially if they want to do it innovatively. The coordinator plays an important role in guiding the students in this regard. If required sessions on project exhibition can be planned, bringing in resource persons who can help the children go beyond hand drawn charts to showcase their work.

The workshop schedule could also include interesting speakers, short films, games, quizzes or activities to make it interesting for the assembled students and giving them various platforms to intermingle.

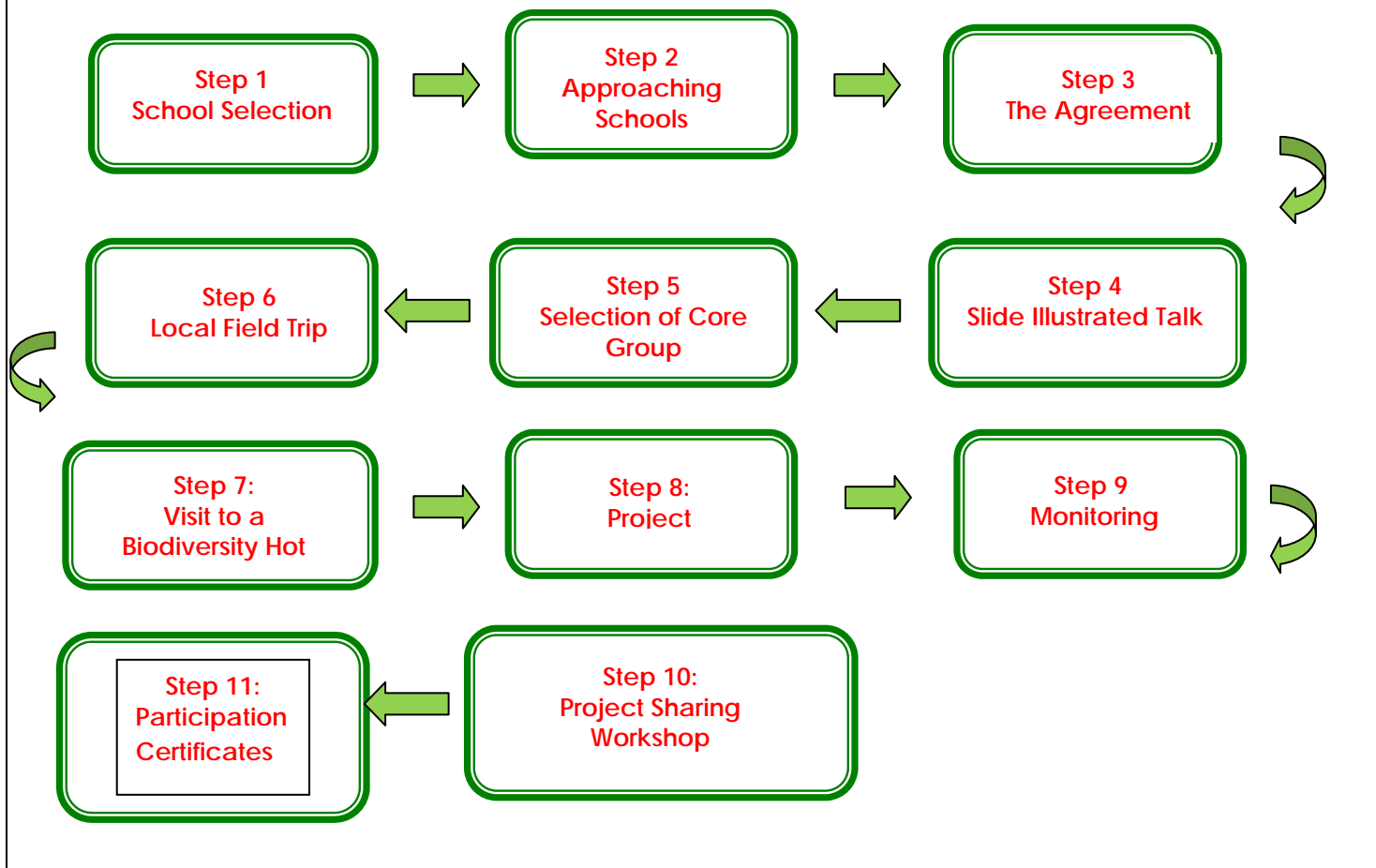
Step 11: Participation Certificates

Aim: To give the Core Group members recognition of their contribution to biodiversity awareness and conservation



At the conclusion of the Project, participation certificates are given to all the Core Group students in recognition of their efforts.

A Diagrammatic Summary



SUSTAINABILITY

After the project sharing workshop, the core group starts winding up its activities and prepares to orient a new core group into the project. This group will go through the same process as their seniors. However when it comes to project planning they will work on ways by which they can take the existing project further and build on the work of their seniors.

BENEFITS

By involving enthusiastic youngsters and encouraging them to become conservationists, ASED's *Programme to Conserve the Urban Biodiversity of West Bengal with School Students* has the potential to start an entire movement among the student population. Each of the three groups involved in the process, viz. the school, the students and the implementing organization all benefit in various ways in this programme.

For the school, the programme offers an opportunity to set up an on-going school project on biodiversity conservation with expert help and guidance. Through the implementing agency, the school gets access a vast array of resources which it can then use to run the project in the best possible way and get the maximum possible benefit for its students.

The students learn to formulate and implement a conservation project. The experience helps them to take environment education out of the school books and into the realm of reality. With exciting and proactive projects the students also learn that every effort at conservation can reap benefits for the world we live in and even as students they are able to make a difference.

The implementing agency's focus is to use the programme to develop a growing band of young people who are aware of the biodiversity around them and the issues that are connected to it. They can then become agents of change themselves and spread the message of conservation far and wide.

The programme also allows the organisation to develop a model for biodiversity conservation for the youth and test out its feasibility in a monitored environment.

CONCLUSION

The process recorded above has been developed over the last six years that Diti Mookherjee and ASED have been implementing the its *Programme to Conserve the Urban Biodiversity of Kolkata with School Students* and the *Programme to Conserve the Urban Biodiversity of West Bengal with School Students*. Many lessons have been learnt on the way and the original plan has been modified and adjusted whenever the situation has demanded it.

By being flexible and leaving space for new ideas to be incorporated along the way, the programme has been able to address the various needs of its student beneficiaries in an effective manner.

The process is not sacrosanct and is still evolving through experience and experimentation. The foundation has been laid firmly and it is now time to take it into another realm.

Annexure 1

REGISTRATION FORM for

Programme to Conserve the Urban Biodiversity of West Bengal with School Students

School:
Address:
Telephone No:
Fax:
E-mail:

We agree to participate in the "Programme to Conserve the Urban Biodiversity of West Bengal with School Students" being conducted by the Association for Social and Environmental Development and supported by the Rufford Small Grants, UK.

We have been a part of the "Programme to Conserve the Urban Biodiversity of West Bengal with School Students" held in 2007-2008. We agree to continue with the project work that was initiated by the Core Group during this period.

We will also participate in the activities as per the schedule given below:

<u>Activity</u>	<u>Time</u>
Sensitization Programme in School	Dec to April
Interactive Slide- illustrated Talk on "Biodiversity of West Bengal"	Jan 09
Appointment of new members of Core Group	Jan 09
Local Nature Trip with Core Group	Feb to March, 09
Visit to Biodiversity Hotspot with Core Group	March to April, 09
Project Work and Follow Up	May, 09 to Dec, 09
Sharing Workshop, Report Submission	Dec, 09 to April, 10

We agree that 25 students and 2 teachers from Classes 7 and 8 of our school will be the Core Group as per the Programme guidelines.

The two teachers appointed for the Core Group are:

Name: _____ **Signature:**

Contact Number:

Name: _____ **Signature:**

Contact number:

Signature:

Principal

School Seal:

Name

Date:
Place:

Annexure 2

Examples Of Some Projects Undertaken by Schools

- Survey on the status of water monitors and campaign to preserve their habitat
- Local Awareness campaign and tagging of trees in the school
- Maintenance of school garden
- Medicinal plants garden
- Study of local biodiversity and tree plantation