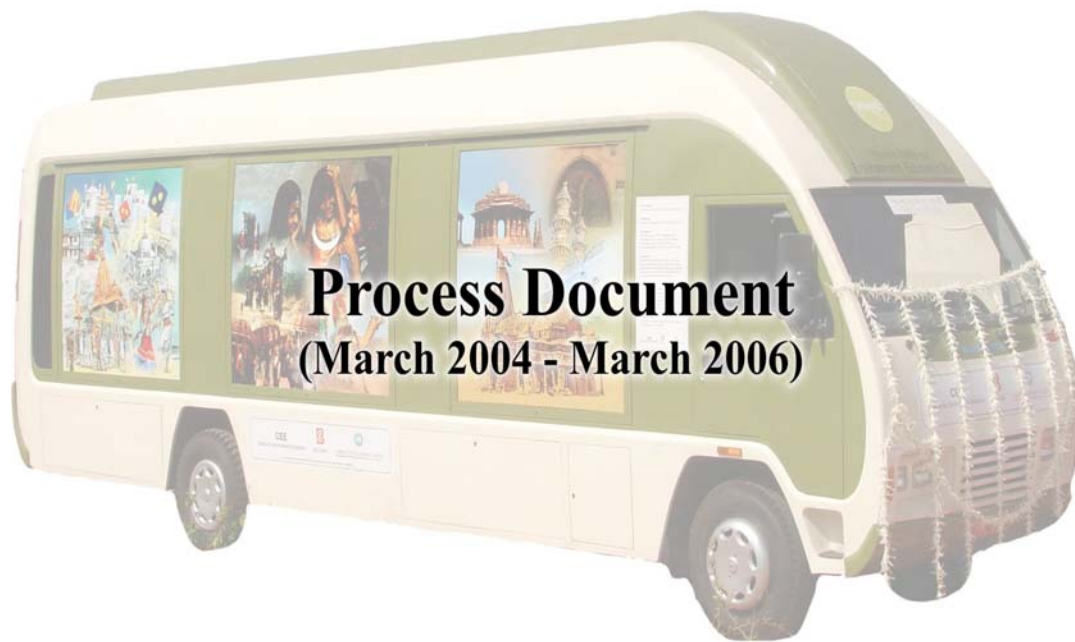


**Draft**



# **Our Gujarat's Heritage *Prakriti* Environment Education Bus**



**Process Document**  
**(March 2004 - March 2006)**

**CEE**  
Centre for Environment Education

**bg**  
BG INDIA

  
GUJARAT GAS COMPANY LIMITED

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## Project Summary

*Prakriti* Environment Education Bus, a mobile resource centre, is a joint initiative of Centre for Environment Education (CEE), BG India and Gujarat Gas Company Limited (GGCL). The resource centre is developed to be primarily used by the youth volunteers in three districts of Gujarat --Surat, Ahmedabad and Bharuch including Ankleshwar to create awareness among the school children, youth and general community about the emerging environmental concerns in their immediate environment.

The project was initiated on March 10, 2004. Following this, series of steering committee meetings, discussions with stakeholders, workshops were organised to finalise the focus and the content of *Prakriti*.

A CNG run chasis was procured so as to ensure “practice what we preach”.

Fabricator and bus and communication design experts were identified and through a series of discussions, monitoring and follow-up, the *Prakriti* was developed.

Basic concerns for developing the resource centre content were that it should be such that it is suitable for any location (urban or rural) in at least the three project districts and for all the target groups --school children, youth, general community and the decision-makers. Thus, multi-media approach consisting of exhibit panels, games and activities, interactive models, film shows, puppet shows, street plays, take away communication materials etc., were included in *Prakriti*.

Pilot runs were conducted from February 17, 2005 onwards in the two project districts and based on the feedback and suggestions, the resource centre was modified.

Finally, *Prakriti* was launched at the state level by the Hon’able Chief Minister of Gujarat on September 30, 2005.

Between February 17 2005 and March 31, 2006, *Prakriti* visited 234 schools and colleges, community parks, gardens and other places and participated in events organised by NGOs, corporate, institutions and Government and reached out to 1,07, 721 people. The feedback and response received from all the *Prakriti* visitors has been very positive.

The whole project has been conducted in a participatory manner involving all stakeholders. This Process document is a compilation of processes adopted for the development and implementation of *Prakriti* and activities related to it.

## About the Project

### Goal

Create an educated and aware task force of youth and school children in Gujarat on key environmental challenges and some possible means to overcome them.

### Objectives

- Create environmental awareness among school children, teachers and parents.
- Capacity build youth on using the resource centre effectively.
- Provide resource material support to youth and other organizations to enable them conduct environmental awareness activities and projects.

### Rationale

CEE has been involving youth to create awareness among school children since the formation of the youth club, Club of Youth Working for Environment (CYWEN) in 1996. They are a key stakeholder for sustainable development. They are enthusiastic, have the energy and willingness to undertake actions related to sustainable development. One of the needs expressed by then the members and even felt today is the need for resources.

BG India, GGCL and CEE jointly discussed and decided to develop and provide the resource materials support to youth in Gujarat to create environmental awareness among school children, youth and the general community. The key concerns were the resource centre should be such that it is equally relevant in both urban as well as rural areas and also for all the target groups.

The resource centre was developed with the following premises:

- Environmental education is essential for all. Ensure environmental awareness at door step level.
- Youth have the energy and enthusiasm and are interested in working on environmental projects. They need resource material support so as to create environmental awareness
- A collective information on all major environmental concerns at one place focussing on inter-linkages, will help in providing a holistic understanding about such issues

Thus, *Prakriti* has several advantages—is dynamic i.e., can be adapted as per the target group; can visit even remote areas, has ready to use materials, wider reach—various districts, long lasting.

### Target Groups

The primary target group for the project was school children and teachers. Youth were involved as volunteers to run the resource centre. The project also reached out to college students and professors and the general community in urban/semi urban and rural areas of the project districts.

## Project Partners

**Centre for Environment Education (CEE)** is a national institution engaged in developing programmes and material to increase awareness about the environment and sustainable development. CEE was established in 1984 as a Centre of Excellence in Environmental Education, supported by the Ministry of Environment and Forests (MoEF), Government of India. It is affiliated to the Nehru Foundation for Development (NFD). CEE's primary objective is to improve public awareness and understanding of the environment with a view to promoting the conservation and sustainable use of nature and natural resources, leading to a better environment and a better quality of life. To this end, CEE develops innovative programmes and educational material, and builds capacity in the field of education for sustainable development. It undertakes demonstration projects in education, communication and development that endorse attitudes, strategies and technologies which are environmentally sustainable.

### **Centre for Environment Education (CEE)**

Nehru Foundation for Development  
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E-mail: [ceewest@ceeindia.org](mailto:ceewest@ceeindia.org); [sayen@ceeindia.org](mailto:sayen@ceeindia.org)  
Website: [www.ceeindia.org](http://www.ceeindia.org)

**BG India** is part of BG Group, a leading international energy company that has expertise across the spectrum of the natural gas chain. Its activities span the range of gas operations from exploration to delivery to the consumer. BG Group has global presence spanning 20 countries across five continents. BG India manages and develops the upstream and downstream interests of the Group in India and has been active in the country for over a decade. BG India and its assets are actively involved in several social development and environment initiatives benefiting local communities across the country.

### **BG India Pvt. Ltd**

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Website: [www.bg-group.com](http://www.bg-group.com)

**Gujarat Gas Company Limited (GGCL)** supplies natural gas to the cities of Ankleshwar, Bharuch and Surat in south Gujarat. GGCL is India's largest private natural gas distribution company serving over 140,000 domestic, commercial and industrial customers in the State.

### **Gujarat Gas Company Limited (GGCL)**

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Website: [www.gujaratgas.com](http://www.gujaratgas.com)

## **Prakriti Development**

*Prakriti* development included a series of tasks and sub-tasks including the following:

### **A. Formation of Steering Committee**

#### **Why Steering Committee?**

Steering committee was essential to provide guidance to the project team, review project processes and several aspects related to it including design and fabrication and implementation activities.

#### **Members of Steering Committee:**

Steering Committee consists of representatives from all the project agencies. *Prakriti* steering committee members included:

Ms. Jyotsna Bhatnagar, BG India

Mr. Himanshu Upadhyay, Gujarat Gas Company Limited

Ms. Madhavi Joshi, Programme Coordinator, CEE

Mr. Gopal Kumar Jain, Programme Officer, CEE

Several steering committee meetings were held during the project period. (*Minutes attached as Annexure I*)

### **B. Identification of Target Areas**

#### **Criteria for selection:**

1. Target area selected should be such that where GGCL, a project partner, has a business presence
2. CNG either readily available/ will be available during the project period.

#### **Target area finalization:**

Based on the above criteria, rural as well as urban areas in districts --Ahmedabad, Surat and Bharuch including Ankleshwar were identified as the primary project districts.

### **C. Identification of Target Groups**

*Prakriti* was developed for all target groups (rural as well as urban areas) from the three project districts. These include:

#### **Primary Target Groups:**

Based on the discussions during the steering committee meeting and stakeholders meetings, the primary target group selected was **school children and teachers**.

#### **Other Target Groups:**

Other target groups identified for *Prakriti* include:

**Youth:** Colleges and youth groups

**General Community:** Public places and gardens including participation during public events.

## D. Chasis Procurement

### Criteria for selection of chasis

1. CNG fuelled
2. Capacity
3. Length- 25-30 feet
4. Cost
5. Delivery schedule
6. Maintenance (parts availability, service station, other related issues)

### Contacting Chasis suppliers

Various chasis suppliers- Swaraj Mazda, Tata Motors, Ashok Leyland, Tempo Traveller, Essar, etc, were contacted and quotations for chasis were requested.

Following is the comparative, chasis details received from various agencies:

	Company	Model	length	Cost	Delivery
1.	Swaraj Mazda	ZT54ED-ELWD NG fitted with C.N.G., WB 4760MM,6+1 TYRES	27 feet	8,41,000.00 (with C.N.G)	1 Month
2.	Tata Motors	222 PASSENGER	27 feet	8,00,000.00 (with C.N.G)	3 Months
3.	Ashok Leyland	SFC/407/31, EX CLB HDK	16 feet	4,63,716.00 (without C.N.G)	2 Months
4.	Tempo Traveller	OM 616'(D.98) Diesel	17 feet	5,55,000.00 (without C.N.G)	3 Months

### Chasis selection

Based on the selection criteria, Swaraj Mazda chasis was finally selected for *Prakriti*.

### Chasis specification

Following are the specifications of chasis selected for *Prakriti*:

Registration No - G J 1 AU 3655 (this was received after finalizing fabrication)

Seating capacity - 1 + 5

Swaraj Mazda - Model: ZT 54ED – ELWD-NG

Engine No: SLNGQ 76183

Chasis No - QHZGL 4GM 0083315

Fuel used in the engine – Compressed Natural Gas (CNG)

No. of Cylinders - 8

## E. Content Development

In past, CEE has worked on similar resource centre development. But this was a first instance where CEE would also be the implementing agency.

Based on the previous experience and steering committee meeting discussions, it was finalised that the bus would involve multi-media approach suitable to all target groups (both in urban and rural areas) in the three project districts.

One of the ideas discussed was to focus on Gujarat's cultural and natural heritage and through this, focus on the key environmental challenges of the state.

Several reports, publications and interactions were held with experts, resource agencies and other stakeholders to identify key environmental challenges of the state. For this following procedure was followed:

### *a. Participatory Workshops*

There were three project districts. There are some key challenges which are relevant for the whole state but few are very local specific. To identify the local specific environmental challenges, three workshops, one in every district, was organised. Details of each workshop include:

#### **1. Workshop at Surat: 21<sup>st</sup> March, 2004**

**Organisers:** This workshop was organised by all the three project partners- BG India, CEE and GGCL, with local support from GGCL, Surat Branch.

**Participants:** Participants included school and college teachers, NGO representatives, education and communication experts and individual youth.

**Outcomes:** Following key environmental concerns were identified at Surat level- Vehicular pollution, Lack of public transport, Land pollution, Solid waste management, Polluted water resources, Population, Disaster preparedness and occupational hazards.

#### **2. Bharuch workshop: 28<sup>th</sup> April, 2004**

In Bharuch workshop participants identified key issues like Pollution, Soil salinity, Preservation of wetlands (mangroves), Deforestation and Solid waste management. Disaster preparedness and deforestation was identified as emerging environment concern by the participants in the workshop.

#### **3. State level workshop, Ahmedabad: 27<sup>th</sup> May, 2004**

A state level workshop was organized on 27<sup>th</sup> May, 2004. The workshop played dual role—identifying and finalizing concerns at the state level as well as Ahmedabad.

The participants for the workshop included representatives from various organizations including educational institutions, Government, NGOs, education and communication experts. The main objectives of the workshop were to identify the positioning, focus and resources for Prakriti. The participants also provided important feedback on the content, media strategies and implementation and beyond bus strategies for Prakriti.

*(Refer Annexure II: Reports of the participatory workshops)*

### ***b. Research***

Research was an integral part of the content development process. Extensive research work was carried out by the project team and an intern for the collection of primary and secondary data. Several organizations, institutes, experts were contacted for the data collection. Also, other sources like informative reports, websites, and reference journals were referred and relevant information was obtained.

Research data were presented at each forum for inputs and guidance for further research.  
(Refer Annexure III: List of Resource Agencies)

### ***c. Compilation of the data***

Based on the participatory workshops and research, primary and secondary data received was compiled and further shared with the experts for validity and authenticity.

### ***d. Selection of theme***

Selection of themes was the most crucial aspect of content development. Enormous inputs/ suggestions were received from the three workshops, interaction with experts and resource agencies and reports and publication.

#### **Criteria for selection of theme:**

1. Major concern at the state level, at least in all three project districts
2. Individuals/ groups/ communities can undertake actions

#### **Theme finalization:**

Based on the above mentioned criteria's, research and inputs from the workshops and interactions, following themes were identified:

- Basic information about Our Gujarat; Education initiatives and the project districts
- Our Biodiversity
- Our Land
- Our Water Resources
- Our Energy Resources
- Air Pollution, Industrial Gujarat and Natural Gas

### ***e. Development of Concept list***

Themes finalised were further developed in the form of concepts to be focused through the content. Thus, each theme was further worked upon as sub-themes and various concepts related to each. This provided inputs for the further content development.

(Refer Annexure IV: Concept List)

### ***f. Method Media Matrix***

*Prakriti* would focus multi-media approach including exhibitions, models, games and activities, audio-visual aids, etc. Each concept identified may not be suitable to focus through one or all the media. Thus, based on the concept list, a method-media matrix was developed so as to match concept and the media. This became the basis for developing various media.

(Refer Annexure V: Method Media Matrix)

## **F. *Prakriti* Design and Fabrication**

*Prakriti* design and fabrication consists of three tasks:

1. Communication Design
2. Bus Design
3. Fabrication

### ***Selection of communication and bus design experts and fabricator***

For this, several expert agencies were contacted. Each of these agencies was provided with the concept note, Method Media Matrix and workshop reports and was requested to make a presentation on the conceptualized designs.

To review the presentations and finalize designers, a panel comprising of professionals from Design, Development communication, Environment Education, Media was set up. The panelists included:

- Mr. Vikas Satwalekar, Design Consultant, NID
- Dr. Arbind Sinha, Professor, Mudra Institute of Communications, Ahmedabad
- Mr. Sameer B. Bhatt, Free Lance Consultant, Graphics Design
- Ms. Mamata Pandya, Programme Coordinator, CEE
- Mr. K. V. Suryanarayan, Administrative Officer, Purchase, CEE
- Ms. Madhavi Joshi, Programme Coordinator, CEE

Designers participated in the exercise included Think Collaborative Design, Delhi; Design Edge, Ahmedabad; Wadia Body Builders, Ahmedabad; Genesisism, Pune; Abhikalp Design Studio, Indore and Cluster One, Pune.

*(Refer Annexure VI: Presentation of the Designers)*

### **Following are the designers selected for *Prakriti*:**

1. **Communication design:** Think Design Collaborative, Delhi was selected as the Communication design expert for *Prakriti*
2. **Bus Design and fabrication:** Agencies selected include Wadia body builders, Ahmedabad in collaboration with Design Edge, Ahmedabad; wherein Design Edge to provide the bus design Wadia Body Builders to fabricate *Prakriti*.

### ***Developing Communication Design***

Communication design was based on six key themes identified for *Prakriti*.

#### **Identifying Mascot**

Gujarat is only home for the Asiatic Lion in wild. Mascot was designed around this and was named “Sheru”, as known locally.

#### **Developing Exhibition**

Three major aspects were focussed under each theme:

1. General information
2. Concerns and Best Practices
3. Interactive

Thus, for six themes eighteen panels were identified as the space requirement to be incorporated in bus design.

For the general information panel under each theme, Gujarat base line map was developed and information related to the theme was extrapolated on the base line map.

For the concern and best practices panel, the panel was divided into two parts demarcated through two different colours.

For the interactive panels, various types of interactivity that exhibition panels could handle were identified. Under each theme, type of interactivity required was also listed. Types of interactivity were later divided to each theme so as to avoid repetition of a particular type of interactivity.

### **Designing exterior**

Exterior of the bus was proposed to focus two aspects:

1. Natural heritage of Gujarat- forest, marine and desert eco-systems.
2. Cultural heritage of Gujarat- Festivals, people and monuments and historical places

### **Other medias'**

Provisions were requested for following other media's:

- a. 3-dimensional models (No. 3-4)
- b. Screening of short films and documentaries.
- c. Storing materials required for conducting various games, activities and other resource materials and take-away materials such as brochures, wall papers, posters and pamphlets

Details of these media include:

- **Interactive Models:** Display of interactive three-dimensional models, emphasizing the concepts focused through the exhibition panels. These include models on rain water harvesting, efficient use of energy in our day to day life, solid waste management and management of grey water discharged from kitchens.
- **Film shows:** Screening of short films and documentaries on various environmental issues to create audience interest in environmental topics. (*Refer Annexure VII: List of Films*)
- **Games or activities:** Environmental games and activities helping audience to understand concepts.
- **Other Resources:** Take-away materials such as wall papers, posters, pamphlets, brochures, bookmarks and school labels on popular birds, animals and plants; books, manuals, games and activity kits to facilitate resource centre activities.

### **Bus design and fabrication**

Based on the communication design, following bus design was proposed:

1. Provision of 18 panels, 9 on each side with three panels enclosed in one section.
2. These sections are closed and covered by glass shutters, while the bus is moving.
3. On the glass shutter appears, a visual collage, on one side featuring people, lifestyle and places (cultural heritage) and the other highlighting desert, forest and marine eco-systems (natural heritage)

4. The back side of the bus is used for viewing 3-dimensional models and screening of short films and documentaries.
5. Inside the bus, are made space to store other materials.

### ***Identifying and Procuring Equipments to facilitate Prakriti***

Following key equipments were identified and procured for facilitating conducting of various *Prakriti* activities:

1. Computer
2. LCD
3. Screen
4. Public Address System including a cassette player
5. Generator
6. CD player

### ***RTO and Octroi Procedures***

Once the fabrication of the bus is complete in all terms, the bus is sent to RTO for permanent registration.

For this all relevant papers- chasis purchase bill, fabrication bill are essential. It takes roughly half-working day.

After receiving the permanent registration number, a visit to octroi department is essential for payment of tax, any other dues.

### ***Insurance***

Insurance of the bus along with all the equipments including electronic items and other resource materials is essential. For this, a detail list of items along with their serial number/ identification code and cost of each item is essential.

## ***Prakriti* Implementation**

Following are the activities conducted as part of the *Prakriti* implementation phase:

### **a. Identifying Local Coordinating Agencies**

#### **Reasons:**

1. Ensure better reach out
2. Link to ongoing programmes so as to have better response
3. Economical
4. Local ownership, so better chances of success

#### **Criteria:**

1. As the name suggest, should have a local presence in the particular district
2. Interested in running the resource centre
3. Have proven experience

Thus, to ensure partnership from various stakeholders including local NGOs, educational institutions and other organizations; were involved right from the project conceptualization stage through workshops, interaction and sharing of reports/ other materials.

Following are the local coordinating agencies identified for the three project districts:

- § *Surat*- Nature Club Surat
- § *Bharuch*- Bharuch Jaycees and GPEC Power Plant
- § *Ahmedabad*- Club of Youth Working for Environment (CYWEN), CEE

#### **Role of local coordinating agency:**

- Identify youth volunteers in their respective districts.
- Help in identification of target group
- Coordinate with target groups including schools, colleges and NGOs, others youth groups and community leaders and scheduling Environment Education Bus visits, venues for the programs
- Prepare route map and plan for Environment Education Bus visits
- Linkages with the Government, other organizations and ongoing programmes in the district
- Logistic support for *Prakriti*
- Conducting feedback and follow-ups
- Develop and submit reports

### **b. Facilitating involvement of Youth volunteers**

Local youth volunteers play a key role in conducting the *Prakriti* activities. They are the one who finally use the resource centre, interact with target audience, conduct feedback and follow-ups.

#### **Criteria:**

1. Young, enthusiastic and creative
2. Interested in environment education and communication
3. Have some past experience in conducting education activities

#### **Role of youth volunteers:**

##### **Before Environment Education Bus visits**

- The volunteer will study and prepare activities planned during the visits

- Check and will keep ready all the materials of games and activities and equipments
- Distribute responsibilities among one another

#### **During the Environment Education Bus visits**

- Communicate with school authorities/community leaders
- Conduct Project Activities
- Take feedback and suggestions
- Look after all the materials of activities and equipments

#### **After the Environment Education Bus visits**

- Check all the materials of games and activities and will keep them at the right place
- Share experiences, feedback and suggestions  
Plan for the next visit

#### **Capacity building:**

*Prakriti* involves a multi-media approach and focuses on key environmental challenges at the state level. To help youth understand *Prakriti* and its focus and role of youth volunteers, capacity building workshops were conducted.

#### **Developing Resource and Activities Kit for volunteers:**

Resource and activities kit is an additional resource for *Prakriti* team helping them to conduct *Prakriti* activities. The kit expands on the thematic areas addressed through the panels and models in *Prakriti* and the technical operating procedures right from organizing a visit to successfully conducting it.

The kit as such is divided into two parts – part one gives the information about *Prakriti*(hardware) which includes technical procedures for operating *Prakriti*, procedures pertaining to setting up the exhibition, the CNG aspect, servicing details, various dates of installation, service etc. of various parts covering all technical details of *Prakriti* and also detail programmatic procedures like the exhibition, how to use the panels effectively, the various aids on board *Prakriti*, target group specific activities to be undertaken. Part two focuses on some of the environmental issues in Gujarat and specifically aims to:

give the educator background information on natural and cultural heritage of Gujarat; different environmental themes such as biodiversity, land, water, energy, air pollution, industries and natural gas; environmental challenges in Gujarat and efforts for conservation at sectoral as well as individual level;

suggest activities through which the educator can effectively communicate this information to students;

outline projects which students can undertake at individual / community level towards environment conservation.

### **c. Linkages with ongoing environment and education initiatives of Government, Corporate and NGOs**

#### **Why linkages?**

1. It strengthens the programme through sharing of resources and experiences
2. Widens the reach out
3. Helps follow-up and monitoring

4. Increases learning opportunities
5. Helps sustaining the outcomes

### **Programmes/ Agencies target**

*Prakriti* was linked with following programmes/ agencies:

1. National Green Corps (NGC) programme facilitated through District Education Departments, supported by the Ministry of Environment and Forests, Government of India. As a part of the project, 150 eco-clubs are being set up in each district (both urban and rural areas) of the country. Eco-club undertakes projects and activities related to issues of their immediate concern. In the three project area districts, '*Prakriti*' activities were linked to the NGC programmes in the district.
2. Forest Department: Forest Department were involved right from the initial stage of the project. The Bharuch workshop was conducted in the premises of Forest Department. Representatives were involved in the other two workshops also. Forest Department was also one of the resource agencies during *Prakriti* development. Later, *Prakriti* participated in the Forest Department initiatives in the three project districts.
3. Gujarat Pollution Control Board (GPCB): They were also one of the resource agencies. *Prakriti* participated in the events organised by GPCB.
4. Comet Media Foundation: This communication focussed organisation, conducts Balvididha, an educational fair for school children. 2-3 fairs are organised once every year in Gujarat. *Prakriti* has been one of the key activities at the fair.
5. Others: *Prakriti* partners and several other organisations including educational institutions, British Council and NGOs organise events to create environmental awareness. *Prakriti* has been one of the key highlights of these events.

### **d. Conducting *Prakriti* Activities**

Following standard formats were developed to organize *Prakriti* visit to the school, college, village or public place. These include:

1. Deciding route
2. Approaching schools, colleges, villages and other places.
3. Preparing schedule for *Prakriti* visits
4. Deciding timings
5. Selecting programme design
6. Conducting visit
7. Feedback
8. Reporting
9. Publicity

#### **1. Deciding route map**

For administrative purposes, each district is divided into talukas and further into zones. For *Prakriti* activities, talukas in the district were identified to act as the base stations. Subsequently the whole district was divided into successive phases and the number of days was fixed for each station (talukas) in the district. This was based on total area to be covered around the station and time actually required.

#### **2. Approaching schools, colleges, villages and other places**

A list of schools, colleges, institutes and public places in the district was prepared by the concerned coordinating agency. Based on the list, they approached the relevant agencies for *Prakriti* visits. A format of letter was developed to approach the institutes. (*Refer Annexure VIII: Format of Letter*)

Also, during scheduled *Prakriti* visits, recommendations in terms of other interested agencies were received by the volunteers. Follow-ups regarding *Prakriti* visits were done with these agencies as well.

### 3. Preparing schedule for Environment Education Bus visits

After receiving confirmations of interest for *Prakriti* visit from schools, places, villages and others, the next step was to prepare schedule for *Prakriti* visit.

#### Key points related to planning a bus visit include:

1. In case of schools, colleges and other educational institutions, the visits could be in either/both shifts—morning and afternoon
2. In case of public places/public fairs/villages, visit during evening hours as this is the time where you get maximum crowd.
3. During public holidays or school vacation, visits could be planned to public places/ gardens, residential colonies, shopping markets etc.
4. Local festivals, vacations were also considered while finally deciding the route.

#### Guideline Chart

Following was the Guideline Chart for day-to-day visit, during a month

No	Day/Date	Schools/places/villages to be visited	Timings		
			Morning	Afternoon	Evening
1	Day 1				
2	Day 2				
3	Day 3				
4	Day 4				
5	Day 5				
6	Day 6				
7	Day 7				
8	Day 8				
9	Day 9				
10	Day 10				
11	Day 11				
12	Day 12				
13	Day 13				
14	Day 14				
15	Day 15				
16	Day 16				
17	Day 17				
18	Day 18				
19	Day 19				
20	Day 20				
21	Day 21				
22	Day 22				
23	Day 23				
24	Day 24				

In every monthly schedule, a two day cushion was kept to overcome any delay or repetition required or to meet any special request for *Prakriti* visit.

### **Information to Octroi and Police Department**

After preparing the bus visit monthly schedule, request letters to the Octroi and Police departments for information and seeking their permission was sent. This is important to avoid any traffic related problems. (*Refer Annexure IX: Format of letters to Octroi Superintendent and Police Commissioner*)

### **4. Deciding timings**

Based on the school time, the duration for Environment Education Bus visits were decided. On an average the time needed in a school was about 2 hours and 30 minutes, in the public places 3-4 hrs, and one whole day in public fairs depending on the timings of the fairs and at least six hours in a village. Considering these time slots and availability of the school management the timings for *Prakriti* visits were decided.

### **5. Programme design**

A typical *Prakriti* activities format include:

- Bus arrival at venue and parked at the centre.
- Opening of glass shutters and display of exhibition panels
- An introduction of *Prakriti* to the audience
- Visitors taken through the exhibition including panels, models.
- Visitors, particularly children participate in Games and activities. Film screening/ puppet show
- Discussions and feedback

To finalise programme design, following were the key parameters:

1. Target group- school students and teachers, youth, general community, etc
2. Location- Urban/ semi-urban/ rural
3. Timing- Day; Evening or Night
4. Venue- Open place/ Hall and space available for activities; facility of electric point
5. Duration- Minimum- an hour and Maximum- 4 hours
6. Expected number of visitors- Anywhere between 50 to 300

Based on the few combinations of parameters, programme designs were developed. These were a mere guideline for the volunteers conducting *Prakriti* activities. Volunteers were free to modify, adapt based on the local conditions. Some typical programme design include:

#### **a. School/ college and other educational institutions**

Target group: School and college students, teachers and lecturers, other staff

Timing: Day time

Duration: 125 minutes

No of Audience: 300

Area: Semi urban/ urban/ rural

Venue: schools

#### **Programme design**

Open ground:

- Introduction – 5 minutes
- Panel exhibition – 30 min

- Games and activities – 45 minutes
- Medias – documentary films/ slide shows/ role plays/ puppet shows – 25 minutes
- Discussions – 10 minutes
- Gathering feedback and suggestions – 10 minutes

**Auditorium:**

- Introduction – 5 minutes
- Panel exhibition – 30 min
- Games and activities – 45 minutes
- Medias – documentary films/ slide shows/ role plays/ puppet shows – 25 minutes
- Discussions – 10 minutes
- Gathering feedback and suggestions – 10 minutes

**b. Public places**

Target group: urban, mixed urban or semi urban community

Timing: Morning/Evening

Duration: 65 minutes

No of people: passing crowd

Area: urban/Mixed urban/ semi urban

Venue: crossroads, malls, public garden and shopping centers, near temples.

**Programme design**

- Panel exhibition – 30 min
- Medias – documentary films/ slide shows/ role plays/ puppet shows – 25 minutes
- Gathering feedback and suggestions – 10 minutes

**c. Public fairs/religious gatherings**

- Panel exhibition – 30 min
- Medias – documentary films/ slide shows/ role plays/ puppet shows – 25 minutes
- Discussions – 10 minutes
- Gathering feedback – 10 minutes

**d. Villages**

Target group: Rural Community

Timing: Evening

Duration: 3 hours

No of people: 500 - 600

Area: Semi urban and rural

Venue: open place/ common place of village where everybody can come

**Programme design**

- Rapport building with villagers – 1.30 hours
- Mobilizing children and people – 30 minutes
- Discussions through panel exhibition – 30 min - participant go through all the panels
- Games and activities – 45 minutes
- Medias – documentary films/ slide shows/ role plays/ puppet shows – 25 minutes
- Discussions – 10 minutes
- Gathering feedback and suggestions – 10 minutes

**e. NGOs/Government organizations and other organizations**

- Introduction – 5 minutes
- Discussions through panel exhibition – 30 min - participant go through all the panels
- Medias – documentary films/ slide shows/ role plays/ puppet shows – 25 minutes
- Discussions – 10 minutes
- Gathering feedback and suggestions – 10 minutes

**6. Conducting visit-** Based on the activities schedule and the programme design, actual visits were organised.

**7. Feedback-** Feedback was one of the key components for sustaining the bus activities. These were undertaken through observation, interaction with the audience and written feedback.

The observation focused on:

- i. The first reaction of visitors as they saw *Prakriti*
- ii. Movement around *Prakriti*—Do participants go according to the sequence of panels or straight away go to a particular panel?
- iii. Interaction with the panels

While interacting with the students and teachers, following questions were asked:

- a. What are the student's expectations when they come to see *Prakriti*?
- b. Do the teachers need any other materials to discuss concerns raised through *Prakriti*?
- c. Do students, teachers and others want *Prakriti* to revisit their school? If yes, any additional materials suggested for the next visit?

The principal/ school management, NGO representatives and others were requested to provide feedback and suggestions about *Prakriti* in the prescribed format. (*Refer Annexure XI: Feedback Format*)

**8. Reporting-** Based on the actual visit, feedback and suggestions received, local coordinating agencies were requested to generate monthly report and send it to CEE.

These reports were compiled quarterly and circulated to all partners.  
(*Refer Annexure X: Reporting Formats*)

**9. Publicity-** Various publicity materials were developed including pamphlet on *Prakriti*, promotional document, feedback reports, etc. *Aastha*, a monthly Gujarati newsletter published by CEE, dedicated a full issue on *Prakriti*.

Information on *Prakriti* was also compiled and published through SAYEN website:

<http://www.sayen.org/eebus.htm>;

BG India website: [http://www.bg-india.com/corpresp/guj\\_bus.htm](http://www.bg-india.com/corpresp/guj_bus.htm);

CEE website: [www.ceeindia.org/cee/archive/eebus.htm](http://www.ceeindia.org/cee/archive/eebus.htm)

**e. *Prakriti* Modification, Updation and Maintenance**

Modification and updation based on the feedback received and regular maintenance is a key aspect of sustaining the dynamic resource centre such as *Prakriti*.

Based on the feedback received at the pilot runs, *Prakriti* was modified and updated. This included developing additional panels, changing all the exterior panels and developing the Resource and Activities kit.

Maintenance of bus and the equipments are undertaken at regular intervals.

To keep *Prakriti* dynamic, experimentation were done with programme design, activities conducted, and strategies and additional resources were provided by the local coordinating agency and other resource agency from time to time depending upon where the bus visit is planned. Feedback and suggestions from each visit provided input to plan the next visit and thus, each visit was different from the previous.

# Annexures

## *Annexure I: Minutes of Steering Committee Meetings*

### First Meeting

**Date:** March 20, 2004

**Venue:** CEE

#### **Members Present:**

1. **BG:** Ms. Jyotsna Bhatnagar and Mr. Himanshu Upadhyay
2. **CEE:** Ms. Madhavi Joshi and Mr. Gopal Kumar Jain

#### **Meeting Agenda:**

1. Discuss the MOU and finalise which of the two options indicated in the MOU should be implemented and other finance related decisions
2. Finalise the first two quarter activities
3. Proposal review: About the resource centre

#### **Discussion points with reference to the agenda:**

1. **Agenda 1:** Discuss MOU, finalise which of the two options indicated in the MOU should be implemented and other finance related decisions
  - a. The options for the implementation plan would be decided after the finalization of the content of the resource centre.
  - b. CEE could recruit two Project Associates since April 2004 and their salary could be included in the financial requirement from April- September.
  - c. The attendant for the van could be recruited from 1<sup>st</sup> of July, 2004.
  - d. BG and GG to look for information for the chasis of tempo-trailer.
  - e. CEE to provide quarterly focus budget and activities to BG to release funds. Also, CEE to provide annual focus activities and budget to BG.
  - f. Project could be divided into two phases- Project initiation which could include activities such as resource centre (van) development; recruitment of project coordinator, associates; driver and attendant and capacity building workshops and Implementation.
  - g. Minutes of the meeting could be sent to BG and GG. Representative from one of the organisation would sign and send the hard copy to CEE for the record.
2. **Agenda 2:** Finalise the first two quarter activities
  - a. Half-a-day workshops could be organised one each at Surat and Bharuch, Ankleshwar to identify the key environmental concerns in the two districts. The participants for the workshop would include School teachers, NGO and youth representatives involved in environment and education related projects/ activities. Number of participants during each workshop would be around 20.
  - b. A one-day culmination workshop could be organised at Ahmedabad where participants would include representative school teachers, NGO and youth from the three districts Ahmedabad, Surat and Bharuch (Ankleshwar is a town under Bharuch district); experts from education, communication and design

related fields. The number of participants for the Ahmedabad workshop would be around 30.

- c. Organisations having similar experience such as Habitat Technology Group based in Kerala (BG/ GG have contact details) should also be invited to the Ahmedabad workshop.
- d. Bharuch workshop could be organised after April 22<sup>nd</sup> and the Ahmedabad workshop during May 1<sup>st</sup> week.
- e. By May end, short list of specific areas- priorities areas of the content could be finalised which could be presented during the steering committee meeting.
- f. During June 2004, actual content of the van would be finalised.
- g. By June 15<sup>th</sup>, the truck should reach CEE.
- h. CEE to send the list of participants for the Bharuch and Ankleshwar workshop to BG for inputs from them.

**3. Agenda 3:** Proposal review: About the resource centre

- a. A section of the resource centre could be devoted to Innovations.
- b. Information and activities included in the resource centre should be simple to understand. Also, such information should be locale specific but presented in a holistic manner helping people to understand the impact and what they can do at individual level.
- c. One of the themes of the resource centre could focus on energy sector specially differentiating oil and natural gas and creating awareness about green fuel.

**Second Meeting**

**Date:** 21<sup>st</sup> and 22<sup>nd</sup> May, 2004

**Venue:** CEE

**Members Present:**

3. **BG:** Ms. Jyotsna Bhatnagar and Mr. Himanshu Upadhyay
4. **CEE:** Ms. Madhavi Joshi, Mr. Gopal Kumar Jain, Ms. Usha Gangadhar & Mr. Anindito Guha.

**Meeting Agenda:**

1. Finalizing the content of EE van.
2. Agenda for the 27<sup>th</sup> May workshop
3. Van Development related decisions
  - a. Bus procurement- procedures review
  - b. Capital items purchase
  - c. Design and Development
  - d. Fabrication

**Discussion points with reference to the agenda:**

4. **Agenda 1:** Review Surat and Bharuch workshop- specific comments/ suggestions
  - a. Smaller group meetings were suggested for pre-testing. This could be done by the Associates who join for the project.
  - b. Bharuch participants did not discuss issues related to biodiversity and wildlife in detail as they focused primarily on pollution. A holistic environmental

perspective which includes biodiversity and wildlife would need to be the basic approach to the EE Van development process.

- c. Organisations having key resources including audio video aids such as GEER Foundation; DFO Bharuch should be contacted and listing of such resources could be made which could be useful for the van.

**5. Agenda 2: Ahmedabad workshop agenda**

- a. A presentation related to the topics and subtopics to be focused in the van and the treatment to be given to each topic should be made during the workshop.
- b. Organisations such as Rajkot Community Science Centre who have experience in similar activities should be invited
- c. 3-4 organisations of each type including users and grass root workers; rural and urban based; those working on environment and working on issues other than environment; experts from education and science field should be invited.
- d. Sample registration process should be presented.
- e. One-two key organisations that would coordinate the van in their respective districts should be invited.
- f. The state level workshop to be organised on May 27, 2004. Prior to this, the steering committee meeting would be organised on May 20-21 2004 where the concepts could be initially presented and after finalization could be presented to a larger CEE group for comments and suggestions.
- g. Gas as a separate topic should be covered in the van. BG to supply text for the matter.

**6. Agenda 3: Van Development related decisions**

- a. CEE to give the size specifications to Gujarat Gas depending upon what would best suit our requirement.
- b. Gujarat Gas to send the specifications of Bajaj to CEE by Friday (April 30, 2004)
- c. By Wednesday (May 5, 2004), CEE to finalize the specifications and give it to Gujarat Gas.
- d. Gujarat Gas procedures to be followed for procurement of the van.
- e. List of capital items required for the van to be made by June

**Third Meeting**

**Date:** April 29, 2004

**Venue:** CEE

**Members Present:**

1. **BG and GGCL:** Ms. Jyotsna Bhatnagar and Mr. Himanshu Upadhyay
2. **CEE:** Ms. Madhavi Joshi and Mr. Gopal Kumar Jain

**Meeting Agenda:**

1. Review Surat and Bharuch workshop- specific comments/ suggestions
2. Ahmedabad workshop agenda
3. Van Development related decisions
  - e. Bus procurement- procedures review
  - f. Capital items purchase

- g. Design and Development
- h. Fabrication

**Discussion points with reference to the agenda:**

**Agenda 1:** Review Surat and Bharuch workshop- specific comments/ suggestions

- f. Smaller group meetings were suggested for pre-testing. This could be done by the Associates who join for the project.
- g. Bharuch participants did not discuss issues related to biodiversity and wildlife in detail as they focused primarily on pollution. A holistic environmental perspective which includes biodiversity and wildlife would need to be the basic approach to the EE Van development process.
- h. Organisations having key resources including audio video aids such as GEER Foundation; DFO Bharuch should be contacted and listing of such resources could be made which could be useful for the van.

**Agenda 2:** Ahmedabad workshop agenda

- i. A presentation related to the topics and subtopics to be focused in the van and the treatment to be given to each topic should be made during the workshop.
- j. Organisations such as Rajkot Community Science Centre who have experience in similar activities should be invited
- k. 3-4 organisations of each type including users and grass root workers; rural and urban based; those working on environment and working on issues other than environment; experts from education and science field should be invited.
- l. Sample registration process should be presented.
- m. One-two key organisations that would coordinate the van in their respective districts should be invited.
- n. The state level workshop to be organised on May 27, 2004. Prior to this, the steering committee meeting would be organised on May 20-21 2004 where the concepts could be initially presented and after finalization could be presented to a larger CEE group for comments and suggestions.
- o. Gas as a separate topic should be covered in the van. BG to supply text for the matter.

**Agenda 3:** Van Development related decisions

- p. CEE to give the size specifications to Gujarat Gas depending upon what would best suit our requirement.
- q. Gujarat Gas to send the specifications of Bajaj to CEE by Friday (April 30, 2004)
- r. By Wednesday (May 5, 2004), CEE to finalize the specifications and give it to Gujarat Gas.
- s. Gujarat Gas procedures to be followed for procurement of the van.
- t. List of capital items required for the van to be made by June

## **Fourth Meeting**

Date: July 9, 2004, Time: 2.00 pm

Venue: SEM 4, CEE

Members present:

BG Team:

1. Ms. Jyotsna Bhatnagar
2. Mr. Himanshu Upadhyay
3. Mr. Dilip Lote

CEE Team:

1. Ms. Madhavi Joshi
2. Mr. Gopal Jain
3. Ms. Usha Gangadhar

Agenda:

1. Workshops and their outcomes
2. About the Chasis- process followed, status
3. Discuss timeline and development on the content
4. Reporting format
5. Financial aspects

### **Discussion points with reference to the agenda:**

**Agenda 1:** Workshops and their outcomes.

- a. Workshop reports to be sent to the participants.
- b. Inputs to be taken from CEE and BG team and Dr. Arbind Sinha and incorporate in the project appropriately.

**Agenda 2:** About the chasis-process followed & status.

- a. Chasis will be delivered by 1<sup>st</sup> week of August, 2004.
- b. Design and fabrication of smaller model of the bus to be ready by 15<sup>th</sup> August, 2004.
- c. Design and fabrication of the chasis by 15<sup>th</sup> September, 2004.

**Agenda 3:** Discuss timeline and development on the content.

**Panels:**

- a. Number of panels depends on the theme content. It could range from 3 to 6.
- b. To minimize the text in the panels and adding more pictorials as some themes can be shown using visuals. Activities; Pamphlets; slide shows to be used to cover other themes.
- c. The “What will I do” panel will have permanent buttons and changeable panel themes.

**Timeline:**

- a. Programme type/City schedule/design – 15<sup>th</sup> July, 2004
- b. Route map – 16<sup>th</sup> July, 2004
- c. Communication material to the design team – 16<sup>th</sup> July – 1<sup>st</sup> August 2004
- d. Design and fabrication – 1<sup>st</sup> August 04
- e. Information and publicity – 2 weeks before launch
- f. Appoint one project associate who will be based in CEE, Ahmedabad, one project assistant and a driver (1st Aug). Implementing agencies will have two project assistants to coordinate activities at district level.

- g. Pretesting and modification – 15<sup>th</sup>Sept to 1<sup>st</sup> oct,2004
- h. Bus launch around 1<sup>st</sup> week of October. (Could be 2<sup>nd</sup> October,2004)

*Design & Implementation: Some suggestions*

- a. To develop the Method, Media & Matrix
- b. Redesign and structure the programme to cater the audience.
- c. Develop ready to test **introductory kits** with the available resource.
- d. The content and the bus should have a colour and design theme, story board.
- e. Display of prominent contact details on bus
- f. Common webpage on websites of CEE, BG and GG
- g. Contact details of all support agencies in the bus.
- h. Benchmarks: measure of performance against other agencies.
- i. Petrocard for refilling.

**Agenda 4:** Reporting format

Activities planned	Period	Activities conducted	Status	Remarks

**Agenda 5:** Financial aspect.

First quarter financial report to be presented

**About Next Steering committee meeting**

Following was discussed for the next steering committee meeting:

Date: July 16, 2004 (Friday) at CEE

Agenda:

- 1. To discuss city schedule
- 2. To discuss programme type
- 3. To discuss method, media matrix

**Fifth Meeting**

Date: July 16<sup>th</sup>, 2004

Time: 11.00 pm

Venue: SEM 4, CEE

Members present:

BG Team:

- 1. Ms. Jyotsna Bhatnagar
- 2. Mr. Himanshu Upadhyay

CEE Team:

- 3. Ms.Madhavi Joshi
- 4. Mr.Gopal Jain
- 5. Ms. Usha Gangadhar

Agenda:

1. To discuss city schedule
2. To discuss programme type
3. To discuss method, media matrix

**Discussion points with reference to the agenda:**

**Agenda 1: City schedule**

- City launches of the environment bus.
- List holidays and exam schedules.
  1. Navaratri - (1 day) – 22<sup>nd</sup> October, 2004
  2. Diwali - (3 weeks) 5<sup>th</sup> to 22<sup>nd</sup> Nov, 2004
  3. Christmas – (1 week) 25<sup>th</sup> Dec, 2004
  4. Uttarayan – (2 days) 13<sup>th</sup> & 14<sup>th</sup> 2005
  5. Annual exams – April
  6. Activities in schools till February 15.

Thus, effectively bus activities would be conducted during October, December and January to February 15. The bus would be to Ahmedabad schools during January.

- All areas of BG/ GGCL to be mentioned like Adajan in Surat along with CNG refueling stations in the route map.
- There would be one implementing agency in each district. After the first year of implementation, these implementing agencies, depending upon their activities during the first year, will function as coordinating agencies in the respective districts.

**Agenda 2: Programme type**

- Focus on specific age group/class.
- Focus on programmes for teachers to increase their motivation levels for better teaching methods.
- Opt for more controlled auditorium activities in urban schools like including more demonstrations to be done in the auditorium.
- Interactive models should be simple and manageable.
- Plan time and batch slots for exhibition in schools.
- Mascot and name for the bus.

**Agenda 3: Method, media matrix**

- Update the shared matrix and share it with design team
- Visuals from other projects can be utilized to give live examples.
- Presentation of the communication materials to the larger group of CEE to get feedback.

**Sixth Meeting**

Venue: Board Room, CEE

Date: 6<sup>th</sup> August, 2004

Time: 11.00 am to 3.00 pm

Designers for presentation:

- **Think Design Collaborative**-Mr. Hari Kishan, Delhi
- **Design Edge & Wadia Body builders**- Mr. Amit Paul & Mr. Naushad Wadia, Ahmedabad
- **Genesisism**- Mr. Atul Manohar, Pune

- **Abhikalp Design Studio-** Mr. Manish Maheshwari, Indore
- **Cluster One-** Mr. Parag Sen, Pune

Committee members present:

- Mr. Vikas Satwalekar, Rtd. Professor, NID
- Dr. Arbind Sinha, Professor, MICA
- Mr. Sameer B. Bhatt, Free Lance Consultant, Graphics Design
- Ms. Mamata Pandya, Programme Coordinator, CEE
- Mr. K. V. Suryanarayan, Administrative Officer, Purchase, CEE
- Ms. Madhavi Joshi, Programme Coordinator, CEE

CEE-British Gas (BG) Project Team

- Mr. Gopal Kumar Jain, Programme Officer, CEE
- Ms. Usha Gangadhar, Project Associate, CEE

### **Minutes of the presentation-**

A brief profile of all the designers was circulated among the committee members. Each designer was allotted 20 minutes for presentation and 10 minutes for discussion. All the designers presented the conceptualization of the EE Bus.

After the presentation by five designers on August 6, 2004; the committee felt that none of the designers had a holistic approach in terms of conceptualizing the EE Bus. However the committee members felt that the conceptualization, design & fabrication of EE Bus can be divided into three components and one component can be given to each agency:

1. Design and conceptualization: Mr. Hari Kishan, Think Design Collaborative.
2. Fabrication and development: Mr. Naushad Wadia, Wadia Body Builders.
3. Portal Design: Mr. Atul Manohar, Genesism.

Mr. Amit Paul, Design Edge along with Mr. Naushad Wadia of Wadia Body Builders had series of discussions with CEE and also made detailed presentation on the development and fabrication of EE Bus. After the presentations and discussions, it is suggested that the fabrication and development work could be given to Wadia Body Builders.

Discussions were also held with Think Design collaborative for the design and conceptualization of the bus. Also, they have agreed for the same.

### **Seventh Meeting**

Date: June 29, 2005

Venue: CEE

#### **Members Present**

Ms. Jyotsna Bhatnagar, Mr. Himanshu Upadhayay, Ms. Madhavi Joshi and Mr. Gopal Kumar Jain

#### **Points discussed**

1. Budget: Gopal informed the group that the budget used at present is a combination of Option 1 and Option 2. Since, the situations in the three districts are different, he mentioned about having a combination of both the options. The members agreed to the same.

2. Resource materials: Three materials were suggested to be developed. Out of these, the first two were suggested to be developed before the bus launch. The details about the material include:
  - a. A school kit consisting of basic information about the issues followed by activities that the teachers could conduct in the respective schools would be finalized before the state launch of the bus.
  - b. An operational manual, which would act like a 'How to' kit and cover the technical operating procedures of the bus, exhibition and equipment on board as well as the programmatic details. The manual would: i) provide the technical operating procedures pertaining to setting up the exhibition, the bus, the CNG aspect, servicing details, various dates of installation, service etc. of various parts covering all technical details of the bus and ii) detail programmatic procedures like the exhibition, how to use the panels effectively, the various aids on board the bus, target group specific activities to be undertaken AND a school kit-with school specific activities that can be done even after the bus moves on-to be given to schools for posterity.
  - c. A Phase one manual of the bus capturing all aspects and steps that have been done for development of the bus since the beginning of the project including an inventory of all the items on board.
3. Gopal also handed over the copy of the Bus promotional report along with a permission letter developed by the agency involved in developing the Communication design of the bus.
4. Route map from August 1 to end of project period with the GGCL locations factored in to be forwarded to BG before bus launch
5. List of prospective partners ( including the ones already partnered with and their signed MoUs) to be forwarded to BG for feedback before any finalization is done
6. Details of the Utilisation Certificate to be forwarded to BG
7. Post project forward plan to be forwarded to BG
8. Panels to be repaired and fixed ASAP
9. Bus launch: A state wide launch of the bus was suggested. CEE, BG and GGCL will discuss the same on July 6 and finalise the same.
10. All the members visited the bus. The bus was suggested to be ready for launch with necessary changes in terms of bus look. Also, art work of suggested exterior panels was shown to the members for comments and suggestions.
11. CEE was also suggested to send a request for next two years extension of the project with some additional districts wherever GGCL has their presence.

### **Eight Meeting**

Date: 06.08.2005

Venue: CEE

Members Present: Ms. Jyotsna Bhatnagar, Mr. Himanshu Upadhyay and Ms. Madhavi Joshi

Invitees: Ms. Yogita Nandanwar, Mr. Richard Parmar

The points discussed in the meeting were as follows:

#### **A. State Launch of Environment Education Bus – Status**

1. Chief Guest: BG and GGCL are discussing with the CM's PA office on the possibility of having Hon. Chief Minister, Shri Narendra Modi as the Chief Guest for the state launch of Environment Education Bus. If in case, it is not possible to have Chief Minister as the Chief

Guest, other suggestion was to invite Shri Saurabh Patel, State Minister for Planning (In-charge), Finance, Energy and Petrochemicals as the Chief Guest. BG and GGCL would confirm the Chief Guest for state bus launch after meeting with relevant officers.

2. Flow of the Launch Programme: An outline of the programme was discussed in the meeting, according to which the programme will start with a welcome speech by Shri Kartikeya Sarabhai, Director, CEE. Madhavi would confirm the same with Director. Welcome speech will be followed by the speech of Mr. Bill Adamson, Chief Executive Officer of British Gas India. After that, the Chief Guest will release the How-To kit, specially developed for the EE Bus volunteers, followed by an address. The programme will end with a vote of the thanks by Shri B. S. Shantharaju, Managing Director GGCL. After the speeches, the Guests will flag off the bus.

It was also suggested that the flag off programme organized in Gandhinagar would help to get the maximum presence of the government officials. Further, it was discussed that after the launch at Gandhinagar, the bus will move to Ahmedabad wherein a programme will be organised in one of the schools where bus activities will be conducted.

3. Venue: The venue suggested in Gandhinagar is either an open ground near Chief Minister's residence, or the Punit Baug.

In Ahmedabad, Sheth C.N. Vidyalaya was suggested for the programme. Also, committee suggested CEE could look at the other options.

4. Date: The tentative dates suggested for the launch is between 22 and 26 August, 2005.

5. Timings: For the launch programme at Gandhinagar, the time suggested was 10.00 a.m. and for Ahmedabad, around 12.30 p.m.

6. Responsibilities: Invitee list of CEE was discussed in the meeting and some corrections were suggested. It was further decided that BG and GGCL would finalized their invitee list and would send it to Yogita for compilation.

It was also decided to invite one of the schools in the nearby areas of the programme venue. From the management point of view, it was suggested that attendance from school at the Gandhinagar programme would be 50.

Further it was decided that BG and GGCL will take care of the event at Gandhinagar; whereas CEE will be responsible for the same at Ahmedabad. All the senior staff, involved in the project, from all the three agencies would be present at the Ahmedabad programme. Design of a draft invitation card was shown to the members and as per the request it will be circulated to members for comments. Further, CEE will print the cards.

#### **B. How-To kit:**

A draft of the "how to kit" was shown to the members. The members gave comments on the kit. Jyotsna shared the idea of having this kit among the members and also discussed the content of it. This kit would emphasize on detail of components like the exhibitions, activities, and models along with how to conduct these for effective environment awareness.

#### **C. Others**

Jyotsna asked CEE to provide the following at the earliest:

- a. MoUs: CEE will forward the copies of MoUs signed with the coordinating agencies in Surat and Bharuch, to British Gas India.
- b. Route Map: CEE will develop a route map for EE Bus from launch to March 2006, and will forward it to BG and GGCL.
- c. Post Project Proposal: CEE was asked to submit the next phase proposal of two years covering some additional districts for project implementation. Again it was discussed that it would be finalized after the bus launch.
- d. CEE was also suggested to send the revised budget as soon as possible.
- e. The first Phase Manual: It would be developed focussing on all the aspects and steps that have been undertaken for development of the bus since the beginning of the project. CEE was suggested to develop and forward to BG.
- f. Proposed costing for the publication: CEE was suggested to send the costing for the publication to BG.

## **Annexure II: Reports of the participatory workshops**

### **1. Surat workshop report - Workshop of identifying key environmental concerns in Surat**

#### **Introduction**

Centre for Environment Education (CEE) and the BG India has undertaken a project to develop mobile resource centre. This resource centre would be used by the youth volunteers in Surat, Bharuch, Ankleshwar and Ahmedabad to create awareness among the school children on the emerging environmental issue in the respective districts.

The workshop would help in identifying key environmental concerns in Surat. During the introduction, participants also shared some of the environmental issues with which they have conducted projects/ activities or think needs greater attention through the mobile research centre. These issues were discussed in more detail during the discussions on the key environmental concerns in Surat.

Importance of environment education was also shared with the participants. Environment education goes through the five steps of information to knowledge to attitude to skills to action. The resource centre would help in providing the first four steps and thus would help in undertaking desired action for environment protection.

#### **Discussions on Key Environmental Concerns in Surat**

##### **Pollution, sources and impacts**

- **Vehicular Pollution:** A large number of two-three and four wheelers can be seen on the roads of Surat. Particularly auto rickshaws are involved in adulterating petrol with kerosene to save money. Even public hearings were conducted to reduce the adulteration of fuel. Shared auto rickshaws are a key concern as most adulteration is done by them.
- **Polluted water resources:** Effluents particularly from the textile dye stuffs and dye intermediate industries are discharged into the ground water sources leading to the pollution of the water sources.
- **Industrial air pollution:** Particularly textile industries running on coal fired boilers create lot of air pollution. Though some industries shifted to gas based but has not been very easy task due to poor availability of gas. But with the presence of Gujarat gas becoming stronger, things are changing and awareness should be created for the conversion from coal to gas.
- **Land pollution/ Noise pollution:** Land pollution and noise pollution particularly from the textile and the diamond cutting industry is a key concern.
- **Impact of Pollution on Health:** Pollution whether it is land, water, air or noise has health hazards. Due to adulteration of fuel and presence of diamond cutting and textile industries, pollution level is very high in Surat. This has a detrimental impact on health.

- Access to resources (gas) but not capitalized upon: Strong presence of Gujarat Gas in Surat but the conversion from use of polluting sources of energy such as coal to clean sources of energy such as gas has been a slow process. Due to this, for most that were willing to and had converted has been a tough path.

## **Urban Infrastructure**

### **Public transport**

- Lack of Public Transport: There are very few options available for those who want to commute through public transport system and an effective public transport system is not in place in Surat.

### **Solid Waste Management (SWM)**

- Plastic Waste/ SWM: Management of plastic waste is a big issue in Surat. There is a dearth of recycling facilities leading to low earning for the informal sector involved in the collection of the dry waste. Also, Surat which is considered the city with best solid waste management practices, the severity of problem could be evident particularly during late evening or night when the waste is burnt openly which creates lot of air pollution.

### **Water**

- Depleted Water Table: Due to continuous increase in population and high pressure on the ground water, the water table is continuously falling.
- Water and sanitation: Water and sanitation is a major issue of concern.
- Over irrigation: Accessibility of water due to recent Narmada initiative of the Government of Gujarat, cash crops such as sugarcane are being opted by farmers which causes other environmental problems such as land degradation.

### **Population**

- Population Increase (urban): There is a high increase in population particularly in the urban areas due to migration from nearby rural areas in search of jobs in the textile and diamond industry.
- Migrant Population: About forty percent of population includes migrants particularly as laborers in diamond and textile industry which are labour intensive industries.

### **Disaster preparedness and occupational hazards**

- Disaster preparedness: There is very little disaster preparedness particularly from the industries as these are slow disasters.
- Occupational hazards: Occupational hazards not only for those who work in the textile or diamond industry but also for the common public while commuting from or to their work place is an immediate concern.

### **Affluence vs. Conservation**

- Affluence Vs Environment awareness: Due to high standard of living and consumerism in society, there is little awareness on environmental issues.

## NGOs

- Less Presence of NGOs: Surat Nature Club is the only recognized non-government organization in Surat. Though there are few individuals who are concerned and are working in the environment sector in Surat, these individuals need to come together for solving local environmental problems.

## Some positive experiences from Surat

- Use of gas: Majority of households and industries use piped gas which is a clean fuel.
- Responsive citizens: If provided a catalyst, people respond positively and can be active participants in programmes. e.g.: cleanliness drive
- Power, Capability and Attitude of Surat Municipal Corporation (SMC): Presence of a powerful SMC has been a very positive step in Surat. SMC has undertaken projects related to -Greening, Recreation and Cleaning drives
- Presence of a strong organization Surat Nature Club: Many interested youth volunteer for the nature club activities. People of Surat have been very sensitive to birds and animals. Many even sacrificed flying kites as they hurt birds. Nature club also attends to birds rescue calls.
- Good Economical status: Economical status is a very good in Surat.
- Philanthropy: Is very good in Surat.

## Resources

- Consumer groups
- Associations
- Surat Nature Club- which undertakes volunteer and internship programmes
- Rotary, Lions, Junior Chamber of Commerce
- Environmental Engineering Dept
- Consumers of Gujarat
- Schoolteachers – As part of the NGC programme of the Ministry of Environment and Forests, Government of India, eco-clubs exist in 150 schools of Surat.
- Centre for Social Service: An organization involved in social research.
- Navsarjan Trust- An organization working for welfare of rag pickers, esp. women
- Community Science Centre, Dharampur which has developed a mobile resource centre on science.
- SMC
- Pratham working with municipal schools in Surat

## What should *Prakriti* do?

- Point out major threats – (cause- effect relationship)
- Visually appealing- use lots of visuals
- Seen everywhere- has to be on the move
- Assuming that awareness levels are low, show examples that
  - They can relate to
  - Demos
  - Local examples / data

- Target group- Primarily youth who would be the carriers of message to colleges, hostels and also reaching out to secondary schools
- Create excitement
- Suggested solutions are such that
  - Easy to apply solutions and ideas
  - Practical suggestions
- Should create understanding that development does not necessarily bring environment pollution
- Can go to colleges, hostels which celebrate significant days such as “no plastic day”
- Should provide a physical space (such as a folding stage for) Puppet shows, facilities to show Cartoon films and Movies and Street plays
- Language-English, Gujarati, Hindi
- Theme- wise use of natural resources leads to environment conservation
- Opinion polls, signature campaigns
- Demo for air/water monitoring
- Competitions – practical, community level
- Incorporate Indian tradition
  - Cash in the spirit of being Indian
  - Pride in our heritage
- Fashion shows

#### **How do we target youth?**

- Sense of achieving public recognition
- Adventure (who dares, wins!!)
- Games that involve critical thinking and problem solving
- Trendy, fashionable
- Should practice what we preach
- CNG vehicles
- Incentives, recognition- souvenirs, badges linked to the central theme
- New innovative Environment solutions presented in a tech-savvy way.

#### **Names (some suggestions)**

Mashal  
 Prakriti  
 Yuva  
 Jagruti  
 Parivartan  
 Shakti

#### **Conclusions:**

The workshop ended with thank you address to all the participants and representatives particularly from Surat Nature club. Also, it was mentioned that a meeting would be organised again with a larger group in Surat before finalization of the content of the resource centre so as to ensure that all the relevant contents are incorporated.

## **2. Bharuch workshop report - Workshop of identifying key environmental concerns in Bharuch**

### **Introduction**

Centre for Environment Education (CEE) and the BG India has undertaken a project to develop mobile resource centre. This resource centre would be used by the youth volunteers in Surat, Bharuch, Ankleshwar and Ahmedabad to create awareness among the school children on the emerging environmental issues in the respective districts.

Two workshops were organized, one each at Surat and Bharuch to identify the key environmental concerns in the respective districts. The second workshop organized at Bharuch was conducted at the Van Chetna Kendra, Ghumandev, Bharuch on April 28, 2004. For organizing this workshop, we had initially contacted the District Forest Officer, Bharuch Dr. R. M. Patel and Mr. J. D. Mehta, the District Education Officer, Secondary Schools, Bharuch and had discussions with them. Both of them showed their keen interest in the workshop and extended their full support for the workshop including finalizing the list of school teachers who could participate in the workshop, providing venue and other support required for the workshop.

Mr. Shabbirbhai (Retired Principal), Master Trainer, The National Green Corps (NGC), Bharuch

Mr. Manaharbhai, Coordinator, NGC Programme and Mr. Sindha, School teacher were of great help in organizing the workshop including in contacting NGOs, school teachers and private companies interested in environment related activities.

Dr. R.M. Patel and Mr. J.D. Mehta were present for the workshop and they shared their ideas about the van during the introductory session. While sharing his thoughts about the key concerns in Bharuch and the need for environment van, Mr. Patel expressed about how deforestation has become a major problem in Bharuch particularly after formation of Narmada as a separate district which has left forest cover of mere 3 per cent in Bharuch. He mentioned about his dream of developing an environment education van which reaches to both urban and rural community and disseminating information related to greening including what, why and how to plant and from where to get saplings and other relevant materials for planting. He also shared interesting case studies related to the greening in Bharuch whereby industrialists in Bharuch have been involved in greening their own factory and workers campuses and has also come forward to undertake massive road side plantations and how villagers have been involved in greening their own surroundings. He stressed the need for the sensitizing villagers and van such as this could go to village to village, create awareness among them to undertake greening their own surroundings and encourage them to be involved in similar activities.

Dr. Mehta stressed the need for reaching out to primary and secondary schools through the van for creating awareness among the school children. He extended his full support for the programme.

One of the participant shared the importance of education mentioned the famous Chinese quote “If you want to think ahead for a year- grow paddy; plan for ten years, plant tree but if plan for 100 years educate the masses”.

Another participant sharing the Bharuch concerns maintain “Disaster” to be a key concern stating Bharuch over a big bomb. During the recent Supreme Court rulings on the 417 polluting industries in Gujarat, most of such chemical industries are in Bharuch. It is important to inform students about the types of gases released from such chemical industries; kinds of disasters that can take place; dos and don’ts and list of antidotes.

During the introduction, participants including teachers involved in the National Green Corps (NGC) programme shared some of the environmental issues with which they have conducted projects/ activities through Eco-clubs or think needs greater attention through the mobile research centre. These issues were discussed in more detail during the discussions on the key environmental concerns in Bharuch.

### **Key Environmental Concerns in Bharuch**

A discussion was conducted with participants to enlist the key environmental concerns in Bharuch. Some of the obvious issues were those discussed during the inaugural such as:

1. Pollution- air, water, noise, land
2. Soil Salinity
3. Deforestation (Global warming)
4. Wetlands (Mangroves)
5. Solid Waste Management

Some of the issues which were discussed in detail include:

6. Water:
  - a. Quality of water was expressed as a key concern due to water pollution particularly from industries.
  - b. Rain water harvesting was expressed as a major solution so as to solve problems related to both water quality as well as quantity. For industries, it was suggested to have aqua recharging ground water systems.
  - c. Salinity due to individual induced mismanagement of water
  - d. Conservation was identified as a key message while discussing issues related to water. Some initiatives have been undertaken by local groups involving house wife’s in Ankleshwar which have been very successful.
  - e. NGC schools have undertaken action projects to understand water wastage due to leaking taps in their schools, homes and neighborhood.
  - f. River Pollution: Impact on eco-system
7. Disasters preparedness/ management
  - a. Disasters expected particularly from chemical and boiler plants.
  - b. There is lack of information about the mitigation/ preparedness particularly about the do’s and don’ts during the disaster
  - c. An example shared was during the Bhopal Gas tragedy when one of the participant’s friends reached station by crawling as gas being lighter remains much above the ground.
  - d. Most important aspect during any gas leakage is to understand the direction of gas. For this, one can hold sand in one hand and blow. The direction of the flying sand would be the direction of gas. Or, one can also see the flying flag over any temple. By this, one would understand in which direction to go so as to avoid any impact of the gas.
  - e. It is important to have a small document on do’s and don’ts about disaster as there is no such information available. This document should also have

- important telephone numbers of organization/ individuals or whom to approach for getting specific help during disaster.
- f. Tie up could also be made with local industries as some do have cells related to it. Also, tie ups could be made with top disaster management centre.
  - g. The presentation style should be more of pictures/ visuals. Also, local folk media in the form of puppet shows, street plays, bhawai should be used.
  - h. It would be also important to understand the workers living in industries and what interests them most.
8. Energy- Alternative fuels
- a. Conservation should be one of the key focuses particularly switching off appliances when not in use, losses during transformation. Focus should also be in using solar energy wherever possible
  - b. Fuel wood is one of the key energy sources particularly in villages. So, should also focus on use of alternative sources such as biomass, biogas, etc.
9. Flora and Fauna
- a. There is hardly any effort towards conservation of wildlife.
  - b. Some years ago, a snake shows were conducted by some interested individuals.
  - c. Could see many migratory birds including endangered species. Also, commonly found are vultures, common house sparrows and crow
  - d. It's important to focus on the nature related livelihood- advantages and disadvantages. Also, cropping patterns need to be studied and presented.
  - e. Students would much more be interested in the basic information related to livelihood.
  - f. Some resource organisations that could be approached apart form the Forest Department would be GIDC industrial Water Supply Board; WWF Valsad and Ankleshwar Gattu Vidyalaya.
  - g. Should highlight special aspects particularly as most are working as labour or agri-business.
10. Marine Eco-systems:
- a. Importance of mangroves should be focused.
  - b. Salinity issue should also be needed to be looked in detailed.
11. Sanitation Facilities:
- a. Spitting and littering are major issue
  - b. Absence of proper toilet facilities
  - c. Basic health and hygiene issues should also be looked upon.

### **Conclusions:**

One of the key aspect focuses time and again was whether these issues are relevant for the students and if yes, to what extend. It was explain to the participants that the workshop is to understand the key concern in their district, severity of each of the concern, efforts that has undertaken till date by any individual, group or organisation. To what level each of the issues would be focus would be decided depending upon the information presented particularly the severity of the issues; the target group and the level of the students.

Two of the major concerns which were focused as most severe during the participant's presentations including the guests were lack of disaster preparedness and the deforestation.

One of the other issues which we, as resource persons felt important and need to be focus is biodiversity conservation. There is lack of awareness among the students particularly on nature, wildlife and indigenous plants as no much effort has been undertaken related to these issues. Thus, the van if possible should look at the issues and sub issues related to the same.

### **3. State Level Workshop**

27<sup>th</sup> May, 2004

#### **Introduction**

Centre for Environment Education (CEE) and BG India is jointly doing a project to develop an Environment Bus for Gujarat. This resource centre would be used by the youth volunteers in Surat, Bharuch, Ankleshwar and Ahmedabad to create awareness among the school children on the emerging environmental issues in the respective districts.

A workshop on finalizing the content for the Environment Bus was organized on 27<sup>th</sup> May 2004 at CEE from 10.00 am to 5.00 pm. The participants for the workshop were invited from various organizations and educational institutions of Surat, Bharuch, Gandhinagar, Bhavnagar and Ahmedabad.

#### *Finalizing content: Process*

The project process started with two workshops conducted in Surat and Bharuch on key environmental issues where the participants identified major concerns and gave substantial information on various environmental issues in their respective districts. Additional research work was done to compile related information and resource data from sources like Reports of Gujarat Ecology Commission, State Environment Report, environment related publications and relevant websites. A presentation of the compilation was made in the steering committee meeting held on 21<sup>st</sup> and 22<sup>nd</sup> May, 2004 at CEE, Ahmedabad.

#### **Introductory Session**

The workshop began with an introduction to the project by Ms. Madhavi Joshi, Programme coordinator, CEE. She briefed the participants about, its conceptualization and objectives.

**Mr. Kartikeya Sarabhai, Director, CEE** gave an insight into the essential features that the Environment Bus and the project must possess. He informed the workshop participants about the partnership valued by CEE and BG India due to its common interests in the environment and community development. He stressed on the following

- \* Mobile facility is exciting and has better possibilities because it reaches the community. CEE has achieved this success through mobile education for children in Surendranagar as a part of earthquake rehabilitation and developed such buses for APPCB and KPCB.
- \* He urged the participants to discuss on the management aspect of the project also. The environment bus should be a platform for several other initiatives like development of material, environment related activities.
- \* The Environment Bus should have the flexibility and a scope for modifications and having interactive models in the environment bus will work much better with school and college students and the quality of learning will become interesting.

- \* Children should be involved in the activities like PRA exercises, visual themes and encourage innovative ideas to change static thinking. He expressed the opinion that “Learning happens best when the need of learning is at the hike.” so it is essential that we create a need for learning.

**Mr. Himanshu Upadhyay, Gujarat Gas** talked about the contribution of BG and Gujarat Gas’s intervention in social development, education, health, heritage protection and environment. Gujarat Gas is also sponsoring wildlife photography, sports and recreation and girl child education. Through the environment bus BG India hopes to bring innovative education for school children.

**Ms. Jyotsna Bhatnagar, PR Officer, BG India** informed the participants about the incentives of BG India. The environment bus should add to the development of the community by highlighting the key issues of concerns. She encouraged the audience to participate and come up with important meaningful output.

#### **Workshop theme:**

The workshop was articulated around the following themes

- Make presentation on the key environmental concerns in the three districts; topics and sub topics to be covered in van and treatment to each and finalize the same.
- Identify resource agencies and resources for utilization for EE activities.
- List tasks and expected broad roles.

### **Environment Bus – Goal and Objective, Design, Issues and content**

#### **Goal**

Create an educated and aware task force of youth and school students in Gujarat on key environmental challenges and means to overcome them

#### **Objective**

- To create awareness among school children, teachers and parents
- Capacity build youth
- Provide resource material support

#### **Design of the Environment Bus**

The exterior of Environment Bus will feature renowned people and places of Gujarat on one side and natural heritage on the other side highlighting the richness in terms of biodiversity. There will be add on panels on the body of *Prakriti*, each panel will showcase an issue of environmental concern along with solutions and best practices. The environment bus will be specially designed to encourage involvement and participation of the school and college students for environment. The themes will be interactive, informative and innovative to inspire the children to learn more about environment and its issues in a creative approach. The interior of *Prakriti* will have visuals, photos, working models of some selected best practices on environment. Kiosks and Audio Visual Equipments will provide specific and detailed information on key issues. The third side of *Prakriti* will open as a scaffold for performance of stage and puppet shows, film and slide shows on burning issues of environment concerns. *Prakriti* will also make available material on environment like kits for educators, pamphlets, booklets and picture postcards. It will also have an activity corner and a space for white board for children to commence various activities and put up their opinion on environmental concerns.

### **Highlighting issues**

Based on the workshop findings, collected resource data, publications, reports and related websites, the issues were broadly categorized as

1. Pollution
  - Air pollution
  - Water pollution
  - Land pollution
  - Noise pollution
2. Threat to Biodiversity
3. Domestic Solid Waste Management
4. Energy
5. Water Management
6. Disaster Management

### **Discussion on the draft content**

The introductory session of the workshop started with a power point presentation of the draft content to the participants by Mr.Gopal Kumar Jain, Program officer. The presentation highlighted all the key issues of environmental concerns like Pollution, Biodiversity, Energy, Water, Solid waste and Disaster management along with solutions and best practices.

Prof. Arbind Sinha, MICA and Ms. Jyotsna Bhatnagar, PR Officer, BG India played moderators to lead the discussion.

### **Response and inputs from the participants**

- Each environmental issue has to be addressed and the theme can be broadly divided into three categories: Media, Area specific issues and reach to the community.
- Participation of local NGOs and youth volunteers is essential for local action projects and to get contribution and creative inputs from the community for *Prakriti*
- Build communication strategies and action oriented themes for the Environment Bus.
- Mutual empowerment, networking and community participation is essential for resource utilization.
- Disseminate information on locally available vegetation, conservation and traditional practices (water harvesting techniques).
- Arrange work stations, training camps to provide prior information about the importance of the Environment bus.
- Highlight success stories and case studies of achievements towards environment.
- Cover more topics to disseminate more information on environment issues and focus on community participation.

During the discussion participants showed keen interest in the theme and content of *Prakriti* and suggested various ideas and methods such as solar panels and water testing kits and Ambient Air Sampler for the Environment Bus.

The teams of participants were asked to choose among the three working groups to facilitate further discussions on the Environment bus.

### **Working Groups**

- Content
- Media strategy and Implementation plan
- Beyond bus

## **Content**

During the working group discussion with the participants about the content for the Environment Bus, the following are the key points of discussion.

- The Environment Bus should have a space for white board and an activity corner where the audience can put up their ideas and experiences about environment.
- Involve the community in the material development for better participation.
- The Environment Bus should have solar panels, water testing kits, herbarium and booklets on the various species of flora available locally to encourage greening and environment awareness.
- Information on locally endangered species and Man-Animal conflict.
- Formation of pressure groups to pressurize the GOs and NGOs on preventable issues like vehicular pollution and littering.
- Sharing of case studies, best practices and alternatives for community involvement.
- The need to rewrite the goal and the objective of the Environment Bus since *Prakriti* will cater to all audiences apart from youth and school children.

## **Media strategy and Implementation plan**

### **Media strategy**

- Flexibility
- The mode of communication should be both Gujarati and English.
- The Environment Bus should itself be a message to the community.
- Diversity of theme in terms of method, media and material.
- Environment bus should appeal to the interest of the community for involvement and participation.
- A method should be adopted to compile the issues and the content.
- Facilitation tool

### **Implementation plan**

- Create the environment for the pre bus activities.
- Encourage and involve community for the pre Bus, Bus and post Bus activities.
- Environment Bus should also support local NGOs core activities.
- Proper utilization of media for environment building to reach out to community.
- Form a network with local NGOs and community.
- Newsletter to disseminate information on Environment Bus Activities.
- Education structure –BRC-CRC-video conferencing.
- Route map and identification of the area to be covered.
- Resource and Coordination groups at district level to facilitate E Bus activities.
- Different levels of decision making, Linkages, Coordination and steering committee meetings to evaluate the activities.
- Team composition–Documentation/Communicator/Educator/NGO Coordinator/Driver.
- Formats for Reporting and Documentation
- Opportunity in terms of kits and resource
- Tie up with resource agencies and resource listing /WASMO
- Back up plans– Team A /Team B /NGOs
- Process indicators /impact indicators and external evaluation.
- Storage and logistics (Provision for stay, Cycle and megaphone to publicize about Environment Bus, Hardware, List of AV Aids)

## **Beyond Bus**

- Title of *Prakriti* and communication medium should relate to the community. One of the title suggested “Apno Varso – Apnu Gujarat”
- Need to form a strategy to reach the community.
- Action component for publicity and reach.
- Pre strategy and prior involvement of the community before *Prakriti* reaches.
- Feedback mechanism for future activities.
- Involvement of GOs, Media person and local network of people to carry on environment related activities after *Prakriti* leaves.
- Policy formation
- Linkages with Primary health centers, PCB and medical vans.
- Workshops at district levels at periodical gaps to identify issues of concern.
- Identify a list of NGOs and villages where *Prakriti* will reach.
- Pre-testing of *Prakriti*.
- Create a need for the Environment bus so that NGOs utilize it to the fullest in dissemination.
- Identify burning issues to be performed as stage shows.

A discussion was initiated after a member from each working group presented the points of their group discussion. Ms. Jyotsna Bhatnagar, PR Officer, BG Gas India answered queries put by the participants.

## **Conclusion**

The workshop concluded with vote of thanks addressed by Ms. Madhavi Joshi. She thanked the participants for showing such keen interest in the content development for the Environment Bus and contributing with their creative and informative inputs.

## **Annexure III: List of Resource Agencies**

### **GEER Foundation**

Indroda Park  
Sector-9  
Gandhinagar-382 009  
Gujarat

### **Gujarat Tourism**

H. K. House, Opposite to Bala Showroom  
Ashram Road, Ahmedabad-380 009  
Phone No: +91-79-26589172, 26589683  
E-mail: Ahmedabad@gujarattourism.com

### **Dhrishti Media collective**

103, Anand Hari Tower, New Sandesh Press Road  
Opposite to Chanakya Tower, Bodakdev  
Ahmedabad-380 054  
Phone No: +91-79-28014235, 26851235  
E-mail: drishtiad1@sancharnet.in

### **Wildlife trust of India**

A-220, New Friends Colony  
New Delhi-110 065  
Phone No: +91-11-2632-6025/2632-6026  
E-mail: info@wildlifetrustofindia.org

### **Gujarat Ecology Commission (GEC)**

GERI Campus, Race Course Road,  
Vadodara  
Tele: +91-265-339115, 336713.  
Fax: +91265-340036  
E-mail: [info@gec.gov.in](mailto:info@gec.gov.in)

### **Gujarat state Pollution control board (GPCB)**

Paryavaran Bhavan, Sector 10A,  
Gandhinagar 382 043  
Phone No: +91-79-23222095, 23222096, 23222756  
Fax: +91-79 23232156, 23222784, 23232161  
Website: [www.gpcb.gov.in](http://www.gpcb.gov.in)  
E-Mail: [chairman@gpcb.gov.in](mailto:chairman@gpcb.gov.in)

### **Surat Nature Club**

81, Sarjan society  
Athwalines, Parle Point  
Surat-395 007  
Phone No: +91-98251 19081  
E-mail: [secretary@natureclubsurat.org](mailto:secretary@natureclubsurat.org)  
Website: [www.natureclubsurat.org](http://www.natureclubsurat.org)

**National Institute of Design**

Paldi, Ahmedabad-380 007

Phone No: +91-79-2663 9692, 2660 5243

Fax: +91-79-2662 1167

E-mail: info@nid.edu

Website: www.nid.edu

**Forest survey of India (FSI)**

Ministry of Environment & Forests

Kaulagarh Road, P.O., IPE

Dehradun - 248 195

Phone: +91-135-756139, 755037, 754507

Fax: +91-135-759104

E-Mail: [fsidir@nde.vsnl.net.in](mailto:fsidir@nde.vsnl.net.in), [fsihq@nde.vsnl.net.in](mailto:fsihq@nde.vsnl.net.in)

**The Television Trust for the Environment (TVE)**

Centre for Environment Education (CEE)

Nehru Foundation for Development

Thaltej Tekra, Ahmedabad-380 054

Phone No: +91-79-26858002

E-mail: cmu@ceeindia.org

Website: www.ceeindia.org

## Annexure IV: Concept List

### 1. Our Land

- General Profile of Gujarat (Area, Population, No. of Districts, Density, Rate of growth, Urbanization, No. of villages, Length of coast line, Graph of monthly rain fall, and temperature)
- Land use pattern chart – Agricultural, Forests, Pasture land, Waste land
- Major crops: Rice, Jawar, Wheat, Bajra, Corn, cotton, mango, sugarcane, peanuts
- Dairy: Amul, Mother Dairy, Sagar Dairy
- Soil types: Grey brown delta alluvium, Medium black soils, Deep black coastal alluvium, Grey brown delta coastal alluvium, Deep medium black coastal alluvium
- Soil erosion: Due to water and wind
- Landfills: Ankleshwar GIDC. Vapi GIDC and Ahmedabad
- Composting plants- Agrcocel in Ahmedabad; plants in Palanpur and Yantra Vidyalaya; Surat

### 2. Our Biodiversity

- Biogeographic zones in Gujarat: Desert, Semi Arid-Gujarat Rajwara, West Coast, Western Ghats (Malabar coast and Mountains)
- Marine biodiversity: (Pictorial presentation)
  - Mangroves: example-Avicennia marina (Cher)
  - Coral reefs: example-Sponges and Johandus
  - Other aquatic species: example-dolphin; shark; turtles
- Wetlands: Fresh water swamps, reservoirs, mud flat
- Grasslands: Banni
- Forests and flora: Bamboo brakes , dry deciduous forest, moist deciduous forest, desert thorn forest, medicinal plants (Khair, Gum, Saledi, Resin), endangered plants (Andhokhimps, Karandia, Gokhru)
- National Parks- (photo representation of Gir; Marine; Velavadar and Vanasda) and sanctuaries (photo- wild ass; nalsarovar; jambughoda; narayansarovar)
- Fauna- (all four big cats; wild ass; snakes; peacock; flamingo; cranes; pelicans)
- Zoos- Kankaria; SNC
- Joint forest management: Polo forest-Sabarkantha District and Dangs district
- Habitat fragmentation and habitat loss

### 3. Our Energy

- Renewable energy sources: Location of Wind farms (Mandvi taluka)
- Fossil fuels: Oil, Natural gas, Coal, lignite, oil shale, Peat and Tar sands
- Natural Gas pipe line route
- Noncommercial energy sources consumption chart: Fuel wood, Crop residue, animal dung
- Demand and supply of commercial energy; sector wise- Industrial, domestic, Agriculture, others

- Power stations – Location and generation capacity- coal and lignite based power stations, hydro power station, Nuclear power stations, gas based power station
- Use of solar energy- chart
- Use of biogas- Methane; Sidhpur
- Per capita vehicle ownership (mode of vehicle)

#### 4. Our Water

- Water cycle
- Water Sources: Groundwater and Surface (Location of major Rivers/Reservoirs) Reservoirs: Kakrapur and Dharoi, Rivers: Sabarmati, Tapi, Mahi and Mini
- Water Quantity: Demand and supply sector wise (Domestic, Industrial, Agriculture and others), Drought prone area (Saurashtra and Kachchh) and Flood prone area (South Gujarat)
- Quality: Surface (River pollution chart-COD, BOD, DO, pH), Ground (Location of Nitrates, Fluoride, salinity contents and oil spills-Kandla and Alang)
- Economic activities: Fishing-Junagad, Ship Breaking-Alang, Salt Pans-Kachchh
- Impacts: Water related diseases-Cholera, Malaria and Typhoid. Actions: CETPs-Ankleshwar GIDC and Vatva GIDC, Watershed Management – Panchmahal and Ahmedabad district, Rainwater harvesting-Urban and Rural, micro irrigation techniques-Drip and Sprinkler

#### 5. Industrial Gujarat

- Golden corridor (Mehsana to Vapi)
- Major industrial estates and clusters location and pics (Ankleshwar, Vatva, Naroda, Surat)
- Types of industries chart (Textile, pharmaceutical, chemical, refinery. gems)
- Infrastructure location (Expressway, National highways, Ports)
- Air Pollution from Industrial estates: Ahmedabad, Surat and Ankleshwar
- Health impact due to specific air pollutants: SPM, CO, SO<sub>x</sub> and NO<sub>x</sub>
- Actions: Green Belts-Ankleshwar Industrial estate, Cleaner production and
- Technology-Naroda Industrial estate, Environmental Impact Assessment
- Hajira

## Annexure V: Method Media Matrix

### Biodiversity

Sl.No	Topics	Panel	Activities (Demonstration, games, competitions)	Model	Posters	Pamphlets	Role- plays	Films & Slide shows	Puppet shows
1.	Biogeographical zones in Gujarat (desert, semi arid- Gujarat rajwara, west coast, western ghats (Malabar coast and mountains )	-No of zones descriptions Base Map							
2.	Eco systems	-Types ecosystem and importance	Interconnectedness – Activity Limiting factors- game Ref: Act I (1,2)						
3.	Flora and forests : bamboo brakes , dry deciduous forest, moist deciduous forest, desert thorn forest, riverine forest, medicinal, endangered plants  Fauna : 3 big cats, wild ass, snakes, peacock, flaming, Cranes and pelicans (tiger is extinct in	Diversity Location and visual images	Weight of animals- game Sounds in nature – game Ref: Act I (5,7)	Bird baths Nests					

	Gujarat)								
4.	Wetlands : fresh water swamps, reservoirs, mud flat	Location							
5.	National Parks(Photo representation of Gir,Marine Velavadar and Vanasda Sanctuaries : Photo-wild ass,snakes, peacock, flamingo,cranes,and pelicans	No of parks Facts & figures Wildlife and sanctuaries Visual images			GEER Foundation Posters			A mirage for a future ( Salt pan workers in wild ass sanctuary) – 25 minutes	
6.	Traditional knowledge and practices	Richness & diversity, Examples of use of species	Natural colours - Activity  Ref: Act I (10)		Medicinal plants (300 species)				
7.	Thematic parks- Medicinal parks	-As a best practices discussions			Poster on medicinal plants	Medicinal plants			
8.	Coastal biodiversity ▪ Mangroves- Avicennia ▪ Coral reefs- sponges and Johandus and sea weeds. ▪ Other aquatic species- dolphin,shark, turtles Highlight threatened	-Threats, species found and sites -Location			Geer Foundation posters on coral reefs				

	species like whale sharks, turtles, dolphin, dugongs, whales								
9.	Local art and Craft	-Best practices some examples like Kachch. Eg.indigo dyes based textiles & tribal art.							
10.	Documenting Biodiversity		-Maintaining biodiversity register- activity -Environment change -Scrap book Ref: Act: I (8)					Drakhi	
11.	Joint forest management: polo forest –sabarkantha district, and dangs Bharuch by forest department.	Plantation reforestation and best practices Location	-Manure – important for plant growth -pollution Ref: I (11 & 2)		Deforestation			Sahabhagi jungle 27 minutes	
12.	ZOOS – Kankaria, SNC	Location							
13.	Regenerating grass land in desert areas	As a best practice- Banni							
14.	Joint forest management	As a best practice							

### Our water resources

Sl.No	Topics	Panel	Activity (Demonstration, games, competitions and others)	Model	Posters	Pamphlets	Role- plays	Films & Slide shows	Puppet shows
1.	Water cycle	diagrams							
2.	Water sources -Surface and ground water (location of major rivers/reservoirs), Reservoirs-kakarapu & dhanoi Rivers:sabarmati,tapi,Mahi and Mini.	As resource, distribution.  Location	Distribution of water Ref: Act: III (2)			No of rivers & lakes in Gujarat			
3.	Usage of water (sector wise) domestic,industrial/Agriculture	Chart				Usage of water (sector wise)			
4.	Quality: surface (river pollution chart- COD,BOD,DO,pH) Ground-(location of Nitrates,fluoride,salinity contents,and oil spills-Kandla and Alang)	-quantity -quality  Location	Solar purifier- a water quality monitoring Kit Ref: Act III (3)						
5.	Pollution of water sources – ground water, drinking water, surface water.	Info on pollution Location							
6.	Drought prone areas Flood prone areas	Location PICs							

7.	Economic activities: fishing- Junagard, Ship breaking- alang, Salt pans- Kachch,	Location Pics							
8.	Actions: Rainwater harvesting Urban and rural, micro irrigation techniques- drip and sprinkler.	As best practice  Location/Pics	Measuring rain- activity	Rain water harvesting	Pravah posters				
9.	CETP	As best practice Location/pics							
10.	Community managed water infrastructure	As best practice							
11.	Water conservation measures (a) community (b) School/Home	Importance	Importance of water conservation  Ref: Act: III (1)		Poster on water conservation	Water conservation methods		A day in a village*	Conservation of water
12.	Water audit		Audit of water wastage- leaking taps						
13.	Impacts: water related diseases- Cholera, Malaria, and Typhoid	Charts							
14.	Water shed management	As best practice  Location							

15.	Sanitation and hygiene	Importance	Demonstration of washing hands	Model of toilets			Street play		
16.	Water and energy Water as a source of energy	Importance	Water and energy- activity Ref: Act III (4)	Water testing kits					

## Our Land

Sl.No	Concepts	Panel	Activity (Demonstration, games, competitions and others)	Model	Posters	Pamphlets	Role- plays	Films & Slide shows	Puppet shows
1.	General profile of Gujarat(area, population, districts, density rate of growth , urbanization ,no of villages length of coast line, graph of monthly rainfall and temperature)	Information on land forms & types -Description in a box							
2.	Land use pattern – agricultural, settlement, forests, pasture	Description Chart	Land survey Act: IV(1)						
3.	Soil types( grey brown delta alluvium, medium black soils, deep black coastal	Base Map	Understanding soils – activity Ref: Act IV (7)						

	alluvium, grey brown delta coastal alluvium, deep medium black coastal alluvium								
4.	Major crops(rice, jowar,wheat, bajra, corn, cotton, mango, sugarcane, peanuts)	Location on the Map							
5.	Dairy (Amul,mother dairy and sagar dairy)								
6.	Soil erosion due to water and wind	Location on Map and Photographs							
7.	Land fills : Ankleshwar GIDC, VAPI GIDC and Ahmedabad	Locations and photographs on maps							
8.	Land reclamation	As a best practice							

9.	Arid area management	As a best practice							
10.	Solid waste management	Impact & best practices	Best out of waste- activity Life style and waste- activity Classification of bio & non biodegradable waste Ref: Act: IV (5,4,3)	SWM Source to disposal	Exhibition Act now posters & wall papers of CYWEN	Garbage composting	Street plays on SWM	Waste management	Waste management
11.	Organic farming	Best practices Advantages	Demonstrations & model on composting						
12.	Plantation and greening	Best practices AUDA			Act now posters				
13.	Composting plants Agrcocel in Ahmedabad; plants in Palanpur and Yantra Vidyalaya; Surat								

## Our energy resources

Sl.No	Concepts	Panel	Activity (Demonstration, games, competitions and others)	Model	Posters	Pamphlets	Role-plays	Films/Slide shows	Puppet shows
1.	Renewable and non renewable sources of energy (Location of wind farms )	Sources	Differentiate sources – activity Ref:Act II(2,3,4)						
2.	Fossil fuel: oil, natural gas, coal, lignite, oil, shale,peat and tar sands								
3.	Demand and supply of energy Consumption pattern-sector wise- industrial, domestic, agriculture others	India Vs Gujarat	Energy audit Ref: Act II (1)						
4.	Non commercial energy sources consumption chart: fuel wood, crop residue and								

	animal dung.								
5.	Natural gas	Importance, use and impact							
6.	Power stations – location and generation capacity-coal and lignite based power stations, hydro power station, nuclear power stations, gas based power station.	Pollution and cost	Quiz						
7.	Denudation of forests for fuel wood	Pollution and impact							
8.	Unclean fuel.	Pollution	Pollution				Clean Vs Unclean		
9.	Depletion of fossils and reasons.	Impact & trends over last decade							
10.	Use of biogas	Best practices		Biogas model				Biogas (23 minutes)	

11.	Energy conservation measures	Best practices							
12.	Use of solar energy	Best practices		Solar water heater Solar cooker Solar street lights Solar lamp					
13.	Energy in Eco systems		Energy link-activity Ref: Act II (5)		Energy and ecosystem	Ecosystem types			Energy efficient home
14.	Per capita vehicle ownership ( mode of vehicle)								
15.	Air and Energy	- wind farms	- make a wind farm model						

## Industrial Gujarat

Sl.No	Concepts	Panel	Activity (Demonstration, games, competitions and others)	Model	Posters	Pamphlets	Role-plays	Films & Slide shows	Puppet shows
1	Golden corridor (Mehsana to vapi)	Location							
2	Major industrial estates and clusters location and pics (Ankleshwar, Vatva, Naroda and Surat)	Location pics							
3	Types of industries chart ( Textile, Pharmaceutical, chemical, refinery, gems)	Location							
4	Infrastructure location (Expressway, National Highway & ports)	Location pics							
5	Air pollution from industrial estates: Ahmedabad, Surat and Ankleshwar.	-Status & level (SPM) - fuel	Air quality monitoring - demonstrati		-Wall paper on air pollution -impact and	Pollution			

		Charts	on		alternatives				
6	Health impact due to specific air pollutants: SPM,CO,Sox,NOx.	- pollutants -diseases charts	Chart of examples			Health and pollution	Health and pollution		
7	Actions : Green belts,-Ankleshwar Industrial estate, Cleaner production and technology – Naroda Industrial estate, Environmental Impact assessment Hajira	Location							
9	Burning of solid waste	-Impact							
10	Industrial emission & emission norms	- norms - Impact							
11	Clean fuel	- importance - impact							

		-							
12	Air – composition, properties and importance		- Composition- activity -Light objects in air – activity -wind turbine Ref: Act V(5)	Anemometer					

## Annexure VI: Presentations of the Designers

**Mr. Hari Kishan, Coordinator, Think Collaborative Design on 19<sup>th</sup> July, 2004** made presentation on the company profile of Think Design Collaborative. This company is involved in designing products for clients like Jindal group, Glitterati, Municipal commission of Mumbai and hair products like Silk 'n' shine. The company also works in collaboration with various other designers and fabricators.

He presented a brief outline of the proposed project's concept design in the following four components:

- Project brief statement
- Information presentation concept
- Information design and vehicle design
- Fabrication and design of the vehicle.

Designers from Delhi, Pune, Indore and Ahmedabad were contacted and were given the concept note, media, method and matrix and workshop reports of Environment Education (EE) Bus to conceptualize the design of *Prakriti*. Following are the designer's who made presentation on 6<sup>th</sup> August, 2004.

1. **Design Edge and Wadia Body Builders-** Mr. Amit Paul and Mr. Naushad Wadia, Ahmedabad presented their conceptualization basically on the fabrication of the body of *Prakriti*, this included collapsible display panels and the overall look of *Prakriti*. They presented a series of sketches of the look of *Prakriti*.
2. **Think Design Collaborative-** Mr. Hari Kishan, Delhi presented his holistic conceptualization like a storyline for the themes, mascot for *Prakriti*, communication material, maximum utilization of *Prakriti* exterior for more display of information.
3. **Genesisism-** Mr. Atul Manohar, Pune presented his conceptualization of portal on environment education where students can have direct access to information on various issues. He also presented games based on environment like scrabbles and quizzes.
4. **Abhikalp Design Studio-** Mr. Manish Maheshwari, Indore presented the company profile of Abhikalp Design studio and the fabrication work done for mobile exhibition vans.
5. **Cluster One-** Mr. Parag Sen, Pune presented a series of simulated sketches of *Prakriti* and also presented the profile of Cluster One.

## **Annexure VII: List of Films**

1. Drakhi, (Hindi), 30 minutes, Centre for Environment Education  
Drakhi talks about a small boy's love for Drakhi (Cow) in the drought stricken region of Kachchh. Due to extreme drought in the region, villagers send away their cattle to distant places where they are fed and properly looked after.
2. Video spots and video films on Garbage in Gujarati
  1. Garbage – Our problem, CEE
  2. Swachh aaj - Swachh bhavishya, CEE
3. Rain Water Harvesting – ensuring drinking water security
4. Urjamani, (Gujarati) – A film on energy, Gujarat Energy Development Agency
5. Urjano Jadu, (Gujarati) – A film on energy, Gujarat Energy Development Agency
6. Sonama Sugandh, Urja Vavetar, Kaliyana Kartut, Navo Jamano Navi Harifai, Atut Dosti, (Gujarati), Gujarat Energy Development Agency

## Annexure VIII: Format of Letter for school

The Principal  
Vidyalay

**Sub: 'Prakriti': Environment Education Bus, a mobile resource centre to create environment awareness**

Dear Sir/Madam,

As you may know, Centre for Environment Education (CEE) is a national institute engaged in developing programmes and materials to create awareness about the environment. Established in 1984, the Centre is supported by the Ministry of Environment and Forests, Government of India and associated with Nehru Foundation for Development.

As part of its programme with youth and schools, CEE in partnership with British Gas (BG) India and Gujarat Gas Company Limited (GGCL) has developed a mobile resource centre, 'Prakriti: Environment Education Bus' to create environmental awareness among school students, youth and general community in Surat, Bharuch and Ahmedabad districts, through youth volunteers.

It uses a multi-media approach towards environmental education which includes exhibition panels, activities, interactive models, films, slide shows, puppet shows, role-plays and take away communication material like pamphlets, brochures, school labels and postcards. Please find enclosed a pamphlet on the same.

We plan to take the resource centre to various schools and community in the above districts.

Therefore, please let us know if you would be interested in having the resource centre visit to your school.

We look forward to hearing from you. Thanks for all your support and cooperation in anticipation.

Yours Sincerely,

Programme Officer

Encl: as stated above

## **Annexure IX: Format of Letter to Octroi Superintendent and Police Commissioner**

### ***Letter to Octroi Superintendent***

Octroi Superintendent  
Kalapur Main Octroi Office  
Ahmedabad

Dear Sir,

Centre for Environment Education (CEE) is a national institute, established in 1984 as a Centre of Excellence supported by the Ministry of Environment and Forests, Government of India, and affiliated to Nehru Foundation for Development (NFD). CEE's primary objective is to improve public awareness and understanding of environmental issues with a view to promote the conservation and wise use of nature and natural resources.

CEE in partnership with BG India, and Gujarat Gas Company Limited (GGCL), has developed "*Prakriti*" Environment Education (EE) Bus – a mobile resource centre, which is being used by youth volunteers in three districts of Gujarat state namely – Ahmedabad, Bharuch and Surat to create awareness among school children, youth and general community on environmental related issues.

The bus has a broader reach and mobility, showcasing issues of environment through various media like pictorial panorama of natural and cultural heritage of Gujarat on the exterior of the bus, display panels, activities, interactive models, films and slide shows, puppet shows, role-plays and take away communication material like activity kit, pamphlets, brochures, labels, postcards etc. The bus also has audio visual equipment and other support equipments for the purpose of screening films on environment. These equipments are purely meant for the educational purpose and are NOT FOR SALE and hence of no commercial value.

The list of equipments inside the bus includes:

1. Portable PA System
2. Generator
3. LCD with screen
4. Computer system
5. Stabilizer
6. Speaker
7. Printed materials
8. Stationery
9. Activity materials for children

As a part of this project, the EE Bus will move in the Ahmedabad district from September 30, 2005 to November 30, 2005 in various schools of urban and rural and public places of the city. Therefore, we request you kindly grant us permission for taking the bus in the octroi area during the same.

Looking forward to your kind support and cooperation.

Thank you,

Yours sincerely,

Programme Coordinator  
CEE

***Letter to Police Commissioner***

To  
Additional Commissioner of Police (Traffic)  
Ahmedabad

Dear Sir,

Centre for Environment Education (CEE) is a national institute, established in 1984 as a Centre of Excellence supported by the Ministry of Environment and Forests, Government of India, and affiliated to Nehru Foundation for Development (NFD). CEE's primary objective is to improve public awareness and understanding of environmental issues with a view to promote the conservation and wise use of nature and natural resources.

CEE in partnership with BG India, and Gujarat Gas Company Limited (GGCL), has developed *Prakriti: Environment Education (EE) Bus* – a mobile resource centre, being used by youth volunteers in three districts of Gujarat state namely – Ahmedabad, Bharuch and Surat to create awareness among school children, youth and general community on environmental related issues.

The bus has a broader reach and mobility, showcasing issues of the environment through various media like the pictorial panorama of natural and cultural heritage of Gujarat on the exterior of the bus, display panels, activities, interactive models, films and slide shows, puppet shows, role-plays and take away communication material like activity kit, pamphlets, brochures, labels, postcards etc.

The bus uses a 'Swaraj Mazda' chasis and runs on **Compressed Natural Gas (CNG)**. The registration number of the bus is GJ 1 AU 3655.

As a part of this project, the EE Bus will move in the Ahmedabad district from September 30, 2005 to November 30, 2005 in various schools of urban and rural and public places of the city as per the schedule attached. Therefore, we would request you to kindly grant us permission same.

Looking forward to your kind support and cooperation.

Thank you,

Yours sincerely,

Programme Coordinator  
CEE

## Annexure X: Reporting Formats

### 1. Daily Visit

Name of the School Visited	Timings From – to	Medium of instruction	Type of school Muni/ Pvt/ Govt.	No. students participated	Activities Conducted	What was the variation tried?	Response?	Suggestions by students and teachers	Volunteer feedback on the visit (including the problem faced and solutions)

### 2. Week wise summary of visits to school

No. of Schools Visited	No. of Students Benefited	No. of Teachers Benefited	Overview of the feedback received	Action needed

### 3. Draft monthly reporting format

Activities planned	Period	Activities conducted	Status	Remarks

### 4. For individual activity

It will help in finalizing the activity module.

Name of the activity	Objective	Response	Outcome	Suggestions, if any

## **Annexure XI: Feedback and Suggestion Format**

Name:

School/ Organization:

Address:

Phone:

Email:

What do you think about today's environmental problems?

What are the major problems related to the environment today?

What are your expectations from Government and other NGOs working in the field of environment?

What will be your contribution to them?

Would you like to be a part of any environment related activity or club?

What did you like the most while visiting the Environment Education Bus?

Your suggestions, opinions or any changes needed to be noted regarding the Bus panels: Our Gujarat, Our Biodiversity, Our Land, Our Water Resources, Our Energy, Air Pollution, Industrial Gujarat and Natural Gas?

Do you need us to revisit in the future?

Signature and date: