

# GETTING TOGETHER FOR GREENING

## URBAN FORESTRY THRO' PUBLIC PARTICIPATION



Multi-faceted benefits of urban forests

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## **GETTING TOGETHER FOR GREENING**

### **URBAN FORESTRY THRO' PUBLIC PARTICIPATION**

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## PREAMBLE

If not the only solution, greening is the most effective and major solution to all the environmental calamities and problems including the most perceptible form of the environmental hazards, i.e., the pollution. The plants not only ameliorate the environment thro' their pollution resistant properties, but also act as sink for pollutants. Through effective institutional reforms that enable active involvement of the people at local, State and national levels, greening can be used a sustainable management tool for environmental conservation.

## BACKGROUND

The greening not only adds to the environmental amelioration but also contributes to the aesthetic value and health of the people, and thereby overall quality of the life of the people. The indiscriminate growth of the urban conglomerates as a result of the urbanization has caused a potential threat to the micro and macro environment of the cities. The phenomenal increase in pollution – both air and water - being caused by the industries, sewage and the vehicles has crossed the carrying capacity of the environment in many of the cities and will soon have adverse effects on the people and thus will be in conflict with sustainable development of these cities and the people. The proper combination of **green jungle** and the **concrete jungle** can mitigate the problem to a large extent. Now the development should not only be without destruction but has to be **the green development**. Previous experience at home and abroad indicate that public participation can give a breakthrough in urban greening. A serious thought with proper action in right perspective is very urgently required. **It is high time that a green strategy is evolved, adopted and implemented in all the urban areas of the State and the Country.**

## ASSUMPTIONS

In the background of about five years' experience of urban forestry, the paper has been formulated based on following assumptions –

- Greening is must and should be a continuous process in all the urban areas to combat and mitigate the increasing environmental hazards.
- There is tremendous potential of planting in the cities and around. A rough estimate indicates that in Bhopal (including outskirts) alone at least fifty thousand saplings can be planted annually up to ten years henceforth.
- There is tremendous gap between governmental agencies involved in greening and those who want / need greening. This gap can be bridged with very little effort.
- People think that the maintenance of plantations in the city is government's headache. It has to be made their pleasure (and not headache).
- Without public participation sustenance of greening on long term is not possible. Community involvement in decision making has been globally accepted as a management tool for sustainable development of greening. This has been possible in this State. This has to be made government's priority. A simple but meticulous strategy has to be evolved and intensive efforts have to be made accordingly.

## **ACTION**

Since the greening concerns all and unless all are concerned about greening, the sustainable greening cannot be achieved. Therefore, action has to be taken in all directions. Since the answers to fundamental and serious concerns are not at hand, there is no alternative but to keep on trying to find them (WCED). Some of the actions include the following efforts :

### **ONE TREE CONSERVED IS 10 SAPLINGS PLANTED**

Protection of the existing trees need special attention and require manifold attempts viz

- Awareness generation thro' regular and live interaction
- Publicity
- Creating local bodies like green communes in each colony  
(As people of a colony contribute to employ *chowkidars* for protection of property, they can similarly engage *chowkidars* for the protection of their environment)
- Motivating people thro' incentives
- Planting more and more to compensate the damage
- Involving the environment friendly NGOs
- Legislative measures, like implementation of Tree Protection Act and creation of Urban Beats for effective protection system.

### **CATCH THEM YOUNG**

Children are the most affected by the environmental deterioration and they only will face the future impacts of the present imbalance. And also they will have to be responsible for the decision making for environmental management in future. Therefore, children need to be involved actively in the greening efforts. Plantation should be a part of their curricula both in theory and practice. Ecotourism, nature camps, bush walk and forest trekking should be made compulsory in all educational institutions. Regular orientation courses for environmental education should be organized not only for the students but also for the teachers.

### **EDUCATIONAL INSTITUTIONS**

The educational institutions should be actively involved in the plantation activities. All educational institutions should have a green calendars and a nursery. Some funds of the institutions should be earmarked for planting activities. In Bhopal, there are many institutions, which are fully fenced or protected with boundary walls, but there are no or very few plants inside the premises. With very little motivation and help these institutions can grow and sustain thousands of trees. The students and the teachers should be involved in all these activities. The teachers and the students can be assigned specific number of trees for protection and maintenance. The Delhi Public School influenced by a forest officer has named the students-houses after the names of famous plant species viz., *Amaltas*, *Mahua*, *Kachnar*, *Gulmohar*. Similarly other green activities, like planting saplings in the name of scientists and teachers may be promoted and even included in the curricula. There should be a **GREEN OATH** for the students that he or she will plant at least five saplings and ensure their sustainability.

## **ACTIVE SERVICE ORGANISATIONS**

The active service organizations viz. NCC, NSS, Scouts and the Army can play a significant role in the greening mission. The Lions Clubs, Rotary Clubs and other similar organizations can also be included in this mission. These organizations are already involved in the environmental activities and plantations on regular basis. These organizations have huge task force who can make the things move. By just putting them at right place at right time thro' proper liaison, their vibrant energy can yield miraculous results. At one of the plantation venture (Van Mahotsav), three thousand cadet of CRPF and NCC prepared pits and planted more than 3000 saplings just at one time. These organizations should be properly utilized for environmental activities and be given full support and help, specially for carrying out planting activities.

## **INDUSTRIES**

Lots of industries in and around Bhopal and other big town are genuinely interested in planting activities. They need a little bit of motivation, technical support and also supply of saplings. Some of them are ready to pay, some prefer supply of saplings. Since the protection and maintenance of the saplings are ensured, therefore, providing free sapling to them is a beneficial trade off. An effective greening can be achieved thro' these industries. At the popular industrial estates viz., Mandideep and Govindpura, there are plenty of vacant lands in patches of one to five hectares or more. These patches can be put under intensive high density irrigated plantations of fuelwood species, which will yield high biomass at quick interval of time. This will, on hand cater to the fuelwood requirement of the city, on the other this will also become a source of income for the industrialists from otherwise dead source. The industrialists are interested in this venture, but are apprehensive of the possibility that when in future they might require the land for any construction, there might be some legal hassle to clear fell the planted area. Such issues need to be addressed and reconciled to gain their confidence and involvement.

## **COLONISING AGENCIES**

It should be (and it is on paper) mandatory for the colonizing agencies, both government (like BDA or Housing Board) and private to take up plantations on large scale and create green belts in and around the new colonies. The Government colonizing bodies should set precedence and example for the private colonizing bodies. A strict and constant monitoring should be done to ensure that the greening activities are being effectively implemented and there should be legal provisions for ensuring this implementation.

## **PRIVATE ENTREPRENEURS**

The private entrepreneurs, viz., Hotels, Shopping complexes can play a very important role in the greening by not only greening their own premises but also providing funds for the plantation activities at places for which funds are not available, specially for small educational institutions which do not have adequate funds. In the **Green Bhopal**

campaign of plantation these enterprises have shown their active interest in the greening activities.

### ***BIG FARMERS AROUND URBAN FRINGES***

Most of the big farmers and people having farms in around Bhopal are interested in planting. They need motivation, technical guidance and supply of good quality saplings of desired species, sometimes free of cost. These farmers might even plant ten to twenty thousand saplings at a time and success of such plantations would be very high. After ensuring that they would protect and maintain the saplings properly even free supply of saplings by Government would be good investment.

### ***A CITIZEN A PLANT A YEAR***

The citizen charter should ensure that every citizen will plant at least one sapling a year and ensure its sustenance. There should be wide publicity of such efforts and awards, like **GREEN CITIZEN**, may be given as incentives regularly.

#### ***NGOs***

The environment friendly voluntary organizations should be actively involved in the greening mission. Some of the organizations are already active in the greening activities. They need to be properly channelised, promoted and helped in right perspective. The strength and weaknesses of these organizations should be identified and they can be very well utilized for the green cause. The local NGOs should be preferred for the local issues and a confederation of the NGOs may be constituted so that the energy and talents of all the NGOs can be properly tapped and utilized.

### ***FUEL WOOD SELF SUSTAINED CREMATORIA***

The crematoria can be put under high density intensive irrigated plantations of fuel wood species. The crematoria can become self sufficient in fuel wood within five years and will be able to supply the fuel wood on subsidized rates to the people.

The relatives of the departed souls can be involved in greening of crematoria in two ways, - first they may plant a sapling in the memory of the departed soul and pay an amount for its maintenance, and secondly, they may contribute towards the greening of the crematoria.

**Similarly, memorial gardens** (Smriti Van) may also be established where people could plant saplings in the memory of their near and dear. A green fund will have to be created for the maintenance of such gardens.

### ***GREENING SLUMS***

The increasing number of the slums in the city might cause environmental hazard in the very near future. The slums, on the other hand, can become green cynosures in the city, if properly managed. Status paper for greening of slum areas has been prepared separately. If each *Jhhuggi* of the slum plants five saplings, which is not very uncommon, then there will be around seven lakhs trees in the city in and around slums. Slum dwellers have been found to be interested in greening but they want particular

type of species. In case of slums it has been observed, which may be true in other cases also, that individual benefit, rather than the common good, is often the motivating force for people to work together. In the maiden effort of the Greening Slums endeavor at Gandhi Nagar, it was observed that the saplings which were provided to and planted by the slum dwellers had cent per cent survival, whereas the saplings planted on community land had very poor survival. For greening of slum areas, saplings of desired species should be provided to the dwellers free of cost along with certain incentives, like recognition, awards etc. The local NGOs may be involved in this process.

## **GREEN FUND**

For the sustainable greening in the urban areas, creation of green fund will be a necessity, because Government alone cannot take up this activity on large scale for a very long period. The green fund will also be desirable to involve the people in creating and sustaining the green. The Government, the NGOs, the industries and all the environment friendly organizations and individuals will contribute to the green Fund. It will be handled by a body representing all stakeholders both in terms of decision and sanctions. This fund will mainly utilized to help those organizations who are genuinely interested in greening but don't have adequate financial resources, like primary schools, specially for the strengthening of the protection measures viz. fencing etc.

## **ROLE OF GOVERNMENT**

The role of Government should be as

- Facilitator
- Motivator
- Technical supervisor
- Supplier of high quality planting stock of desired species
- Monitor and evaluator
- Coordinator among different institutions including NGOs, governmental organizations and other stakeholders

The government should not at all take up any plantations. The moment the plantation is raised by the government, its sustenance becomes only government's liability. Even on government land attempt should be made to involve some local NGO or the local people's user group. The government should ensure proper publicity, awareness generation, education, regulation and incentives.

## **ROLE OF NGOs**

The NGOs need to be actively involved and their expertise should be utilized in the greening process. The local NGOs along with the local people may be assigned the greening projects under the technical supervision of the concerned departments. They can specially be used for extension work and awareness generation among the people.

## **ROLE OF CITIZEN**

The citizens have to be made responsible towards environment and green lovers. This is possible only if they are approached, helped, motivated and involved in the greening process. There is dire need for massive intensive campaign for awareness generation and motivation. Once they are involved in the decision making and implementation, they will contribute positively and immensely in the greening vision. For sustainable greening, active involvement of individual citizen is essential.

## **PROPOSED ACTIVITIES**

- Publicity through pamphlets, posters, newspapers, radio and TV.
- Awareness generation and orientation through seminars, workshops, rallies, quiz and other competitions.
- Nursery development for providing planting stock viz. seeds, saplings to the institutions and organizations.
- Greening slums – planting, income generation incentives, nursery.
- Training
- Incentives / Awards

### ***PUBLICITY THROUGH PAMPHLETS, POSTERS, EXHIBITIONS, NEWSPAPERS, THEATRES, RADIO AND TV***

*For effective dissemination of the message of urban greening among the masses, intensive publicity campaign will be resorted. Pamphlets having the message of importance of greening will be distributed among all the stakeholders, especially in the schools, colleges and other educational and research institutions. The posters will be displayed in all these institutions and also the public places. Publicity materials, technical support and facilities will be provided to the institutions for organizing exhibitions on the greening themes. NCC, NSS and Scouts and Guides camps will also be used for this purpose. Every week greening messages will be publicized through cinema halls, newspapers, radio, and television. The NGOs will be involved in this process.*

### ***AWARENESS GENERATION AND ORIENTATION THROUGH SEMINARS, WORKSHOPS, RALLIES, QUIZ AND OTHER COMPETITIONS***

Seminars and workshops will be organized involving educational and research institutions and other voluntary and involuntary organizations engaged in the field of environment regularly at least once in three months. Similarly rallies will be organized involving general people and quiz, essay, debates and general knowledge competitions will be organized on the subjects related to greening – environment interface for the educational institutions. All these activities will be implemented through the local and competent NGOs and institutions who are already involved in such ventures. Government will act as a facilitator.



## ***NURSERY DEVELOPMENT FOR PROVIDING PLANTING STOCK VIZ. SEEDS, SAPLINGS TO THE INSTITUTIONS AND ORGANIZATIONS***

The availability of good planting stock of desired and appropriate species is a very critical issue for the success of a plantation. Special attention shall be given to raise best quality saplings of desired species in required number in the existing central nurseries of the Department. Preference will be given to high – tech plants including tall plants, root trainer plants and tissue culture plants developed through high inputs and special techniques like green house and mist chambers. The institutions will be involved in the nursery development and some of the targets raising saplings may even be assigned to them under the technical guidance and supervision of the Department. The big houses like BHEL, Army wings will be helped and supported to raise their own nurseries in the long run, as they require saplings in large number every year. They may even be asked to supply planting stock to other institutions for plantations. High-tech variety seeds from clonal orchards or seed production areas will also be made available to the farmers or other institutions for either direct sowing or raising nurseries as per requirements.

## ***GREENING SLUMS – PLANTING, INCOME GENERATION INCENTIVES, NURSERY***

The increasing number of slums in the city is soon going to be an environmental hazard, if proper actions are not taken to mitigate the environmental deterioration caused by them in two ways – one by damaging their own environment and secondly by damaging the plantations of the adjoining areas for their bonafide purpose. Involving them in greening is very essential to restore and improve the environment of the slum areas. Special intensive efforts have to be made not only for the greening of these areas but also involving them through incentives and helping them in income generation activities for poverty alleviation. The women groups may be involved in the nursery and floriculture activities. Some success has been achieved in greening of the slum areas by providing free saplings to individuals and also planting in the community lands like park, temple, mosque, or graveyard areas. Plants raised by individuals had cent percent survival whereas community land plantations had very little survival. In the slum areas free saplings and a special package for each slum area depending upon the needs of the area will have to be provided.

## ***TRAINING AND EXTENSION***

Facilities for training in nursery and plantation techniques will be provided to the institutions, communities and the individuals, specially the educational institutions and other service organizations like SOS, Scouts and Guides, NCC and NSS. *In situ* trainings will be provided for practical demonstrations. Some experimental demonstration plots will also be developed for visual demonstrative impact. The NGOs will be involved in the extension work and be trained as trainers for providing training to various stakeholders as per requirement from time to time.

## ***INCENTIVES / AWARDS***

In order to maintain and promote the motivational level of the people for active participation in the urban greening it will be ensured to provide regular incentives in form of cash awards. Every year eleven awards will be given to one slum, one organization, three educational institutions, two NGOs, three individuals and one other institution. Awards will also be given for the outstanding participations of the various competitions organized as a part of the awareness generation.



**200 Nagar Vans to Come in India**  
**Urban Forestry In India**

