A Proposal for the Development of an Eco Park in Aya Nagar, New Delhi

Greha

1.0. Background

1.1. Aya Nagar is situated on the Southwestern edge of Delhi. It is the last village of Delhi on the Mehrauli Gurgaon Road which connects South Delhi with the rapidly urbanizing city of Gurgaon in the adjoining state of Haryana. Although Aya Nagar is part of the rural fringe of Delhi, it is today a settlement of nearly 100000 people, half of which are the original rural inhabitants while the other half are low-income migrants from all parts of India. The new migrants have settled on the once agricultural lands of the village in an ill- planned manner and without legal sanction.

1.2. This pattern of "unauthorized" urban expansion has become, in the last few decades, an overriding phenomenon of urban development in the country, in spite of master

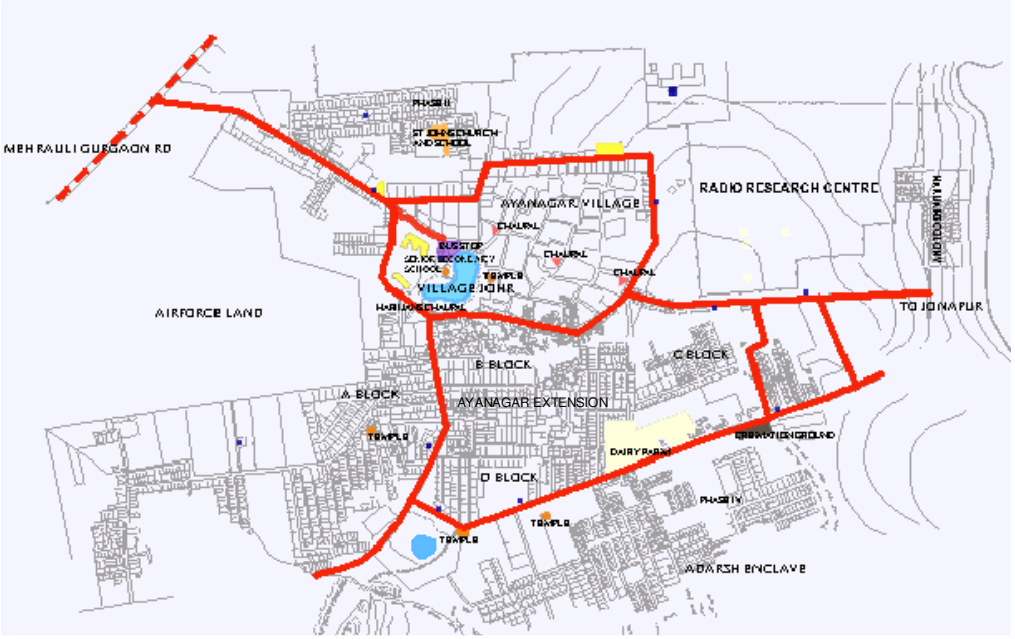
plans for urban development being prepared by the authorities for practically all the cities. The internal dynamics of this pattern, both physical and social, have not been adequately understood or addressed.

1.3. A registered non-profit voluntary organization called GREHA, which has been doing research and development work in the area of environmental planning, architecture, and building since1975, established itself in Aya Nagar in 1999 in order to work with the local community for urban transformation. An overall picture of the work done and yet to be done is sketched out in the attached document entitled 'A proposal for Comprehensive Redevelopment of Aya Nagar Village and its Proto-Urban Extension in New Delhi' (Annexure A).

1.4. In the last few decades the rapid urban growth of Delhi has radically altered the habitational morphology of its surrounding areas. Aya Nagar is a typical example of such morphological change since it is situated on one of the major growth axes of the National Capital Territory of Delhi. The inhabitants of Aya Nagar are primarily from the marginalized sections of society, the original villagers being members of the indigenous Gurjar community, while the recent migrants are largely dispossessed landless labour and low-income settlers from economically backward regions of the country. This heterogeneous mix is a good representation of the 'common (wo) man' of India, and the changing morphology of this settlement presents a vivid picture of the social implications of rapid economic growth in our times.

2.0. The Site

2.1. The original village settlement of Aya Nagar developed adjacent to a 'johar', which is a traditional rainwater harvesting structure (pond) commonly found in this part of the country. As the village habitation grew the 'johar' location became more strategic to the extended settlement and assumed symbolic significance as a central place.



2.2. The Aya Nagar 'johar' is in danger of losing its vitality and character because of ill-considered building development around it which blocks rainwater flow and replaces this with storm water drainage mixed with sewerage flowing in open brick-lined drains constructed by the Municipal Corporation. Furthermore the public transport (bus) terminus is located on one of the banks of the 'johar', thereby directly adding to environmental pollution.

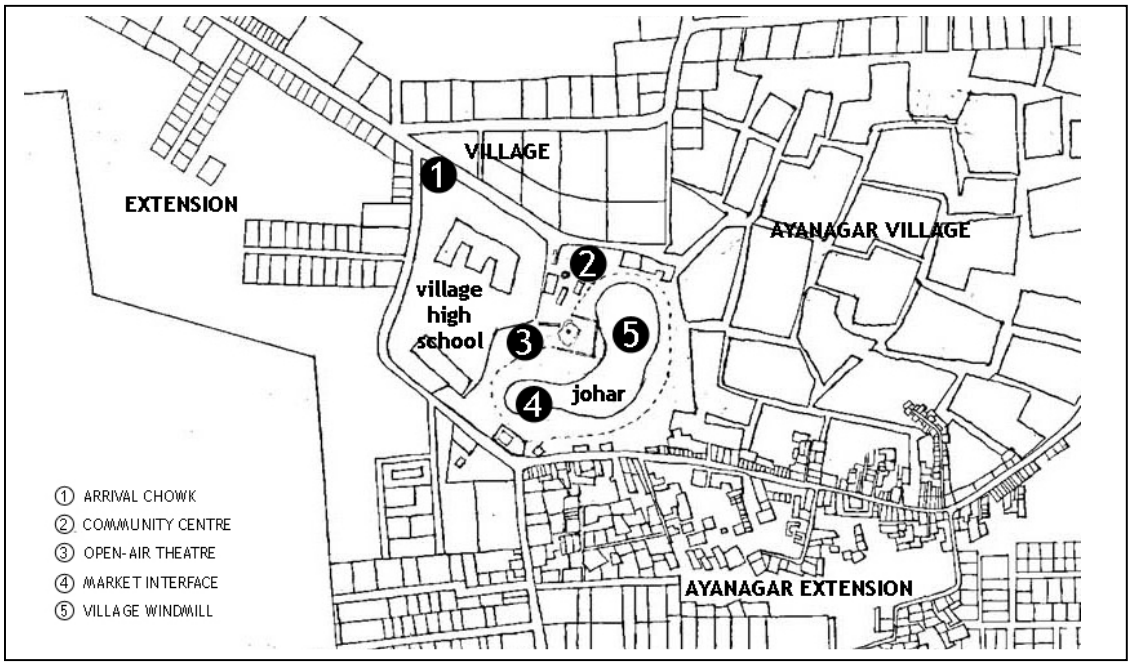
3.0. The Proposition

3.1. The present proposal seeks to transform the 'johar' into an 'eco park' which can be a vital, functioning central place of the settlement. An important part of the proposal is to carefully record the process of transformation, both physical and social, so that an audio-visual document is made available to serve as a guide and a model for other communities facing similar problems across the country.

3.2. An essential feature of this proposal is that the transformation process will be led by the inhabitant community working in partnership with the local government agencies as well as supportive private sector corporations. A team of experts drawn from relevant disciplines like architecture, environmental planning, civil engineering, social sciences, community work, media and the arts coordinated by project management experts of GREHA, will work continuously with the project partners to provide technical guidance and monitor the various interlinked exercises to ensure reasonable compliance with original intentions.

3.3. There is no existing sewerage system functioning in Aya Nagar. Rehabilitation of the 'johar' will be directly dependant on intercepting and treating the sewerage presently flowing in the open storm water drains and into the 'johar' at several places. A full drainage scheme is part of the comprehensive project proposal attached, which envisages a decentralized system of neighborhood treatment plants managed largely by the residents. The present proposal includes a demonstration of this idea in one neighborhood near the 'johar'. This is a neighborhood of 70 households who have expressed interest in being a partner in the demonstration exercise. This neighborhood will become the site for evolving appropriate sanitation and public health techniques which can be sustained by local initiative.

3.4. The physical transformation of the 'johar' will include improving the linkages with the habitation and built fabric around the 'johar', and appropriate landscaping of the water body and its edges. A preliminary schema for improving linkages has been drawn up as indicated on the drawing below.



4.0 Estimate of Cost and Time

4.1 The physical work to be done in and around the 'johar' has been arrived at after extended discussions with the inhabitants and brainstorming with concerned technical experts. A best judgment cost estimate has been made for the various components identified and represented in the schematic plan above:–

4.2 **'Johar' Works** Rupees (in lacs)

a) Arrival Chowk: 40.00

This is an important road junction between the road connecting to the Mehrauli Gurgaon Road, the village 'phirni' (ring road), and the present bus terminus; the requirement is for road widening, a new bus stop, appropriate street furniture and landscaping.

b) Community Centre: 50.00

There is a long standing demand by the inhabitants for a multi-purpose community building in a central place; the present bus terminus, located inappropriately on the edge of the 'johar' needs to move towards the southern end of the settlement so it can serve the majority of users, and the present bus terminus site would be free for use as the community centre.

c) Open Air Theatre **25.00**

The western edge of the 'johar' is adjoining the village high school playing field; an amphitheatre here would benefit the school as well as becoming a venue for celebrating festive occasions by the general public.

d) Market Interface **65.00**

The main market of the settlement starts from the southern edge of the 'johar', making a tee junction with the village 'phirni' (ring road) around the school and 'johar'; this edge is most suitable for becoming a craft work zone which can showcase the traditional crafts of the village; aligned with the market road, it is proposed to install a pylon with a large digital notice board, a modern version of the notice board placed in the central chowk of traditional villages.

e) Village Windmill **60.00**

The 'johar' water body has two significant temples, one within, under the old banyan tree, and the other on the eastern boundary within the village habitation; it is proposed to connect the temples with an earthen dam which will allow the water on its northern side to be raised in level and contain a tube well for water augmentation, and a windmill to be located on the new bund to demonstrate the benefits of eco-friendly and energy conservation practices to the local community.

f) Landscape Works **60.00**

The 'johar' has interesting existing features like the old banyan tree, other trees and small shrines; these features are to be integrated into a landscape design, after cleaning of the water body and required pitching, as well as plantation of indigenous species all around the water body.

4.3 One Neighborhood Demonstration of Sanitation Works

a) Sewerage Intercepting Plant **45.00**

One or several septic tanks with bacteria / enzyme dosing will ensure that effluent flowing in storm water drains will be safe for irrigation.

b) Solid Waste Management **15.00**

Techniques using composting methods and waste segregation practices which can be managed by the neighborhood residents will be advocated and instituted.

4.4 Survey and Audio-Visual Documentation **25.00**

4.5 Cost Estimate of Works = **Rs. 385.00 Lacs**
Total of 4.2 + 4.3 + 4.4 ***+ Taxes as applicable***

4.6 Contingency costs @ 4% = **Rs. 15.00 Lacs**

4.7 Time for Implementation

After the design / drawings have been approved by local agencies, work on ground will range from six to twelve months, depending on the various components of the scheme outlined above.

4.8 Research, Design, Supervision & Documentation Costs = **Rs. 35.00 Lacs**
+ Service Tax as applicable

The various experts required to work on the above will include

- Architects
- Environmental Planners
- Product Designers
- Communications Designers
- Artists
- Community Work Experts
- Civil Engineers
- Sanitation & Public Health Engineers
- Solid Waste Management Experts
- Project Coordination and Supervision Staff

4.9 Estimated Total Cost = **Rs. 435.00 Lacs**
+ Taxes as applicable