A. Private Public Participation in River Cleaning Project
B. Construction of Check Dams and Rain Water Harvesting

A. Private Public Participation in River Cleaning Project

13.1. Situation before the Initiative

- The riverbed of Singoda River, which passes through the center of the city, was used as a dumping site for the solid waste generated in the city for the past 25 years. This waste formed almost 10-12’ deep layer over a stretch of 700m to 800 m lengths and 150m width. This comprised of organic decomposed waste and silt.
- It created an unhygienic environment in the heart of the city. During monsoons as the sufficient depth was not available for the river to carry the rainwater, it would overflow into the surrounding areas, this lead difficulties in ground water recharge.
- The land abutting the riverbed was beginning to be encroached by shanties.

13.2. The Initiative/Innovation

- Kodinar municipality, especially the political leadership, realized the importance of holistic involvement of private sector and public participation for cleaning the riverbed.
- The municipality approached a private agency- Ambuja Cement Foundation for financial partnership.
- It also mobilized the farmers in surrounding villages to carry out the river cleaning project & various private agencies to contribute for constructing the check dams.
- This partnership initiative helped the municipality to act as financial facilitators thereby reducing the burden on self-funds to achieve the results.

13.3. Strategies Adopted

- The total cost estimated for the project was Rs. 60 lacs, of which the major cost was of excavating the garbage up to 10 to 12’ by excavators that were to be rented.
- Ambuja Cement Foundation agreed to contribute an amount of Rs. 13 lac.
- The excavated dump was to be carried away from the riverbed. This excavated waste consisted of decomposed organic waste, a good manure for agricultural fields and silt that could be used as base material for kutchha roads.
- The municipality campaigned to all the farmers in neighboring villages to collect this excavated material in their own tractors free of cost.
The entire operation was carried out in over 1 ½ month and 1.5 lac cum of waste material was excavated and distributed among the farmers who mobilized around 400 tractors.

A retaining wall was built to support the edges of the river stretch.

The existing wells on the riverbed were protected during the excavation activity and deepened later.

Three percolation wells have been constructed to increase the ground water recharge.

The encroachments (houses & shops) consisting of 32 families were relocated at the land reserved for EWS housing and provided with houses/shops up till plinth level & provided with water connection.

<table>
<thead>
<tr>
<th>Function</th>
<th>Financing Agency</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excavating the garbage</td>
<td>Ambuja Cement Foundation</td>
<td>6 Lac</td>
</tr>
<tr>
<td>Protecting the existing wells and building retaining wall</td>
<td>Ambuja Cement Foundation</td>
<td>5 Lac</td>
</tr>
<tr>
<td>Relocate 32 families and provide them with housing</td>
<td>Kodinar Municipality</td>
<td>10 Lac</td>
</tr>
<tr>
<td>Relocate the shops</td>
<td>Kodinar Municipality</td>
<td>10 Lac</td>
</tr>
<tr>
<td>River deepening</td>
<td>Ambuja Cement foundation, Bilashwar Sugar Mills co-op society and Kodinar Municipality</td>
<td>14 Lac</td>
</tr>
</tbody>
</table>

13.4. Results Achieved

- Clear channel created for the river to flow from upstream to downstream villages during monsoon.
- Improved public health and surrounding.
- Ground water recharge enhanced and flooding controlled due to increased storage capacity.
- Land at the river edges was made available for providing for various social and utilitarian activities.
B. Construction of Check Dams

13.5. Situation before the Initiative

- Increase in agricultural activity lead to lowering of ground water table causing water shortage for agriculture and domestic purpose in lean season.
- A need was felt to replenish groundwater reserves and wells located on Singoda river.
- With a clean river bed available and storage potential increased, it was decided to construct check dams on the riverbed.

13.6. The Initiative/Innovation

- Kodinar Municipality took the initiative of cleaning the riverbed and constructing check dams across river Singoda for the purpose of water harvesting with the help of private partnership. This was done to retain excess water flow during monsoons.

13.7. Strategies Adopted

- The water entrapped by the dam, surface and subsurface, was primarily intended for use in irrigation during the monsoon and later during the dry season, and also for livestock and domestic needs.
- Funds for construction were provided by Vepari Mandal, Kodinar Municipality, Sugar Mills, Union Bank, Kodinar Vepari Sangh.
- The excavation and construction material cost was borne by Ambuja Cement Foundation.
- The details of funds provided by the various other organizations for construction of check dams is shown below:

<table>
<thead>
<tr>
<th>Financing Agency</th>
<th>Expenditure (Amount in Lacs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vepari Mandal</td>
<td>5</td>
</tr>
<tr>
<td>Kodinar Municipality</td>
<td>2.5</td>
</tr>
<tr>
<td>Sugar Mills</td>
<td>5</td>
</tr>
<tr>
<td>Union Bank</td>
<td>1</td>
</tr>
<tr>
<td>Kodinar Vepari Sangh</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>14.5</td>
</tr>
</tbody>
</table>

13.8. Results Achieved

- Ground water table is being continuously augmented, resulting in availability of water for agricultural and domestic purpose in lean season.
13.9. Lessons Learnt

- A pro-active, progressive political leadership can achieve implementation of any project idea.
- Urban local bodies can mobilize resources thro’ private partnership and public participation.
- Involvement of various agencies in concert with assessment of the local needs leads to a holistic achievement of the ecologic and management goals.
- The multilateral agencies can play an important role in planning, contracting, implementation, monitoring & supervision, cost recovery and above all the management of assets created in their neighborhoods, keeping in mind long-term sustainability.
- A strong commitment and commonly shared vision by all the partners are the pre-requisite for achieving difficult targets.

13.10. Sustainability

- The public private partnership initiative of Kodinar Municipality is sustainable as private sector as well as communities are motivated to participate and benefit from the development and maintenance of natural heritage, reducing the financial burden on local bodies, and resulting in cleaner and healthier environment and conservation of natural resources.
- The process also contributes to environmental sustainability.
- An aware and progressive political leadership lends itself to sustainability of the project.

13.11. Transferability

- The initiatives of public private participation are easily transferable among other local bodies where financial and human resources are meager.