



Compliance Status Report for the Environment Clearance

No. SEIAA/GUJ/EC/7(e)/295/2009 dated 08.12.2009

(January 2021 to May 2021)

Environment Clearance for revamping of existing jetty located adjacent to the urea-ammonia complex on northern bank of Tapi river by re-commissioning and developing backup infrastructure for trans-shipment of bulk cargo brought to the Wharf through lighterage operation along the river Tapi and its estuary at Hazira, Dist Surat by M/s. Krishak Bharati Cooperative Ltd (KRIBHCO) in Category 7(e) of Schedule annexed with EIA Notification dated 14/9/2006.

S. No.	Condition	Remarks
A. SPECIFIC CONDITIONS:		
1	The provisions of the CRZ Notification, 1991, as amended from time to time, shall be complied with strictly.	Shall be complied
2	The applicant shall deploy latest navigational aids and the navigation channel shall be properly demarcated. Proper lighting shall be provided in the navigation channel. The navigational channel shall be regularly surveyed for depth availability and alignment and navigational aids shall be adjusted accordingly to prevent navigational hazards and unsafe conditions.	Required navigational aids have been deployed. Proper lighting has been provided in the navigation channel. All necessary actions are being taken to prevent any navigational hazard and unsafe condition.
3	The applicant shall strictly follow the guidelines and provisions of Vessel Transport Management System devised for Gulf of Khambhat and shall become member of the VTMS being developed for the Gulf of Khambhat by the Gujarat Maritime Board. Manual detailing management of traffic with respect to the incoming and outgoing traffic of vessels through channel shall be prepared and implemented through trained personnel in consonance with the VTMS and GMB guidelines.	All the guidelines and provisions of Vessel Transport Management System (VTMS) devised for Gulf of Khambhat are being followed. All the guidelines of VTMS & GMB with respect to the incoming and outgoing traffic of vessels through channel are also being followed.
4	A disaster management plan covering mechanism for evacuating material and people during the emergency situations like ship collision / grounding shall be prepared and implemented through trained personnel. Disaster Management Plan shall be regularly updated and necessary periodic training shall be imparted to concerned personnel to ensure its effective implementation during emergency.	Jetty operations have been included in the onsite emergency plan of KRIBHCO. Schedule for F&S training is already prepared and regular training is being imparted.
5	The applicant shall carry out continuous and comprehensive post project marine quality monitoring, at least once a year, through institute of repute like National Institute of Oceanography, in consultation with the GPCB. This shall include monitoring of water quality, sediment quality and biological characteristics covered in the EIA studies. Impacts occurred, if any, shall be assessed and requisite additional remedial measures shall be taken by the project proponent.	Comprehensive post project marine quality monitoring is being carried out periodically.
6	The project proponent shall not undertake any activity which is likely to result impact on mangroves or other ecological important areas during revamping / development and operation of the project. No activity shall spill to nearby mangrove patch and mangroves of Kadia Bet. Mangrove afforestation on at least 500-hectare area and green belt development shall be undertaken and necessary budget for the same shall be earmarked and utilized for the said purpose only.	KRIBHCO has not undertaken any activity which is likely to have an impact on Mangroves or other ecological important areas during revamping / development and operation of the project. Society had signed MoU with M/s. Gujarat Ecology Commission-Gandhinagar for planting Mangroves. Work of Mangroves plantation (Sp. Avicenia Marina) had been completed at the project site at Kanthiyajal district Hansot. Also, to

increase the biodiversity Rhizophora spp and Ceriops tagal had been planted at the site. Copy of MoU and project report below:

Copy of MOU:

**कृषक भारती कोऑपरेटिव लिमिटेड**
आकाशवाणी : कृषकी गंगा, पृष्ठ-384 515. (गुजरात)
KRISHAK BHARATI COOPERATIVE LIMITED
P. O. : KRIBHCO NAGAR, SURAT-394 515. (GUJARAT)

By Courier

Date: 30/07/2010

To:
The Director
Gujarat Ecology Commission
Gandhinagar-382011

Ref.: Signed MoU for the Mangrove plantation at Kantiyaji Village.
Ref.: GECKRIBHCOMangroveT/9/2007/2010 dt. 16/7/2010

Dear Sir,


We are enclosing the duly signed copy of Memorandum of Understanding (MoU) for the plantation of Mangrove on an area of 100 Hectare at Kantiyaji Village District Bharuch.

As per the terms and conditions of MoU, 50% of the total amount is to be released after signing of MoU. As payment will be released through Electronic Fund Transfer (EFT) System, you are requested to send us the necessary Bank account details/ document which is required for transfer of the fund through EFT.

Kindly send us the required information at the earliest so that payment can be released and the work of Mangrove plantation can be taken up at the earliest.

With regards,


P.K. Sondal
General Manager (Technical)

**Gujarat Ecology Commission**
Government of Gujarat
Block No.10, First Floor, Living Shivan, Sector-11, Gandhinagar -382011
Phone : 23257056-58-65, Fax : 279-23257657

C H Pandya, IFS,
Director

GECKRIBHCOMangroveT/9/2007/2010
Date: 16/7/2010

To:
Shri A K Sharma
Sr. Mgr. (Jr.)
KRIBHCO
Surat-394515.


Subject: Signing of MoU for the Mangrove plantation at Kantiyaji Village.

Dear Sir,

This is in reference to your e-mail dated 29th July 2010 regarding draft MoU for the plantation of mangrove on an area of 100 ha. at Kantiyaji village. In your comments.

It is therefore requested to return one copy duly signed for and on behalf of Krishak Bharati Cooperative Limited, Surat to this office soon.

With regards,

Yours sincerely,

(C H Pandya)

Encl: As above

Memorandum of Understanding
Between

Krishak Bharati Cooperative Limited,
KRIBHCO Nagar,
Surat 394 515.

And

Gujarat Ecology Commission,
Gandhinagar

For Project

Restoration, Plantation & Conservation of Mangroves at
Kantiyaji Village of Hansot Taluka, Bharuch District

Annexure A Project Description

1. **Project Title :** Restoration, Plantation and Conservation of Mangroves at Village Kariyaji, Taluka : Hansot, District : Bharuch
2. **Project Period :** 1st July 2009 to 30th June 2011
3. **Source of major involvement :** Coastal Restoration
4. **Project Location :** Sites at Village Kariyaji, Taluka : Hansot, District : Bharuch
(Total Restoration area 100 hectares)
5. **Problems or issues the Project intends to address:**
The Project will demonstrate how to address the factors that cause degradation of mangroves. These may broadly be divided into three groups:
 - 1) Over-exploitation of mangroves for fodder and fuel by local communities and *Mulberry*
 - 2) Reduced natural regeneration caused by natural as well as man-made factors. These cover reduction in freshwater inflow leading to increased salinity, violent sea action, frequent cyclones
 - 3) Disturbance of mangrove lands for other uses like salt pans, industries
5. **Project beneficiaries and target groups:**
The project beneficiaries will include a wide range from the local communities in the selected villages in the State is general. The major group of beneficiaries will be the marginal and agricultural labourers, the livestock owners and the fishing communities
6. **Assessments and risks:**
Assessments:
 1. Partners support and cooperation
 2. Industries positive response**Risks:**
 1. Non-availability of land for the implementation of the project (Medium risk).
 2. Natural Disasters (Low Risk)
 3. ~~Non-availability of funds to execute the project (Medium Risk)~~

Financial Proposal

Financial Requirement for taking up 100 hectare plantation

Budget Head	Total Amount
1. Mangrove Plantation	25,00,000/-
2. Baseline Survey	10,25,000/-
4. Awareness Creation	60,50,000/-
5. Administration (Salary, wage etc.)	17,50,000/-
6. Documentation & Dissemination	10,20,000/-
7. Travel & others	10,45,000/-
Total	1,33,90,000/-

Terms & Condition of the Payments

- > 50 % Amount after signing of MoU.
- > 20 % Amount during nursery raising i.e. in August-10
- > 20 % Amount during transplantation of nursery raised saplings i.e. in December-2010
- > 10 % during gap-filling period i.e. in March-11

Reporting & Monitoring Schedule

- > GEC will submit quarterly yearly progress reports followed by Final First Year Implementation and Outcome Report.
- > The Second & Third year maintenance reports will also be submitted to KRIHCO, Surat.
- > GEC along with proposed CBO will also be responsible for the maintenance of plantation carried out during the project.

ANNEXURE - C

Project Title A Community Based Restoration, Plantation and Conservation of Mangroves along the Gujarat Coast in association with KRIHCO, Hajira towards the sustainable Coastal Zone Management of Gujarat coastline

Name & Address of Implementing Agency
Sudesh Joshi (Contact Person)
Project Manager
 Gujarat Ecology Commission
 Govt of Gujarat
 Block-18, 1st Floor
 Udyog Bhawan, Sector-11
 Gandhinagar, Gujarat
 Tel: 079-2327866, 659, 0825021373 (M)
 Fax: 079-2327867
 Email: ges_joshi@gmail.com
 Website: www.ges.gov.in

Project Goal

- To contribute to India's capacity to promote environmentally sound development in Coastal Zone sector.

Introduction & Back Ground

In the new millennium, the development is concentrated in coastal region, resulting into migration of people towards the coast. It has been estimated that about 60% of population of USA, 25% of Canada, 60% of Netherlands, 75% of Australia, 70% of Thailand and over 20% of India live on the coastal belt. These figures speak about the importance of coastal environments in the 21st Century (Singh 2006).
 The coastal area is a place where natural disasters take place. The recent example is Tsunami on Andaman & East coast which is one of the most serious and unexpected natural disasters. The eastern coast of India, the Gujarat coast on the west and the islands of Lakshadweep and Andaman & Nicobar are frequently facing cyclonic conditions which some time cause large scale destruction of lives & property. The Super cyclone has caused massive destruction in Gujarat & Orissa in 1998 & 1999 respectively. Recent incident in the south pacific only reiterates the importance of Mangrove protection & regeneration.

Mangroves

Mangroves are salt tolerant plants growing on the coastal zone in the intertidal area, and in estuaries of rivers. These plants occur in the world in tropical and subtropical areas in many countries. In India, mangroves are found in the States of West Bengal, Orissa, Andhra Pradesh, Tamil Nadu, Andaman and Nicobar Islands, Kerala, Goa, Maharashtra, and Gujarat. The Mangroves in Gujarat are second only to the Mangroves in the West Bengal on the East Coast in terms of area, occurring in about 1024 sq. km (FSI 2005) area in Gujarat. Mangroves play a very significant role in maintaining the coastal environment, reducing the impact of wave action and

erosion in the coastal area, preventing salinity and seawater ingress into the inland agricultural area, and also providing protection to the coastline from the impact of cyclones. Apart from these ecological functions, mangroves play a very significant economic role in the lives of the coastal village communities. The villagers are dependent on mangroves mainly for fodder, fuel-wood and fishing activities.

There has been considerable degradation of mangroves in Gujarat over the years. The reasons for this are many. The encroachment of the land and nearby parallel communities on the mangroves for fodder, fuel, diversion of mangrove areas to industries, salt pans, and construction of ports, jetties, reduction in natural regeneration and dying off of rich mangroves because of decreased inflow of fresh water into the mangrove area, the construction of dams, both small and big to upstream areas.

Rationale of the Project

- Mangroves form one of the most important ecosystems of coastal and marine area. It safeguards the ecological security of the coastal areas that provides livelihood opportunities to the Fisherman & pastoral families living in coastal area.
- Gujarat is the only state having more than 1000 km long coastline in the country. It stands first among the western states of India's coastal area in terms of its area under Mangroves.
- With increase in land hunger due to phenomenal climate, there has been an ever increasing dependency over this natural resource. This coupled with coastal erosion taking place due to large tidal surges and reduction in the fresh-water inflow into the sea, mangroves have been under constant pressure leading to its degradation.
- Degradation of Mangroves hence calls for immediate attention to be paid in order to take suitable measures for its restoration/rehabilitation along the potential areas. Even Swaminathan committee has also put in special attention to the community based mangrove regeneration programme to fulfill the objectives of the coastal zone management in India.

Project Objectives

- > To create awareness amongst understanding and acceptance of the need to protect, conserve and regenerate mangroves by local communities, Government and coastal industries.
- > To contribute towards capacity building of coastal communities and Government for community based mangrove regeneration as part of integrated coastal zone management.
- > **Need for people's participation**

Mangrove afforestation programmes of the forest department, and also that of industries, suffer from a serious lacuna of completely ignoring involvement of local communities in these efforts. Traditionally, local people, especially fishermen & pastoral communities,

have been directly dependent on mangroves for their livelihood, fodder and fuel. Mangroves also provide protection to agricultural fields in the coastal areas by preventing soil erosion and salinity ingress. They have, therefore, a very important stake in protection and regeneration of mangroves. It is clear that no mangrove regeneration effort, except perhaps in some desolate and remote areas, can make any headway without their active involvement and participation. It is pertinent to note that most of the recovery of mangroves in the Gulf of Kachchh (natural as well as artificial) has been recorded on the isolated, sparsely populated interior areas where camel grazing and biotic pressures are less.

- Livestock rearing communities (Maldharis) also have a very important stake in conservation and regeneration of mangroves and can be persuaded to participate in developing systems for regeneration and sustainable use of mangroves. For realising this potential for participatory management, it is vital that local community-based institutes and organisations are vested with long-term control and responsibility for regeneration and management of mangrove areas. Only such decentralised institutions can try out and develop different systems for preservation, regeneration and sustainable use of mangroves that are well suited to local conditions. This will also mean working out suitable arrangements with Maldharis for the regulated access and usage of mangroves.

Efforts by Gujarat Ecology Commission

It is proposed to carry out said Mangrove plantation at intertidal area, falls under the revenue potties of Bhavnagar district or State district. The area of 100 ha Mangrove plantation will be finalised in above said both districts based on mutual understanding and joint field visit.

Project Locations

It is proposed to carry out said Mangrove plantation at intertidal area, falls under the revenue potties of Bhavnagar district or State district. The area of 100 ha Mangrove plantation will be finalised in above said both districts based on mutual understanding and joint field visit.

PROJECT BENEFICIARIES/TARGET GROUPS/REACH OF PROJECT

The project beneficiaries will include a wide range, from the local communities of the selected villages/ administrative units who are directly and indirectly dependent on mangroves and its resources and the State in general which will benefit in terms of enhanced capacities in

decentralised mangrove management, sustainable coastal resource management and better integration of environmental concerns in developmental planning for the coastal zone.

Major groups of beneficiaries will be marginal and agricultural labourers, livestock owners and fishermen communities. Marginal and agricultural labourers, especially womenfolk, will be benefited directly by increased employment generation through plantation and regeneration activities. Livestock rearsers will also be benefited directly by way of increased fodder availability through alternative resource creation. Increase in mangrove areas will also help fishing communities by way of enhanced fishery resources in the near-shore waters.

As a whole, the village community will also be directly benefited by way of easy access to fuel wood through sustainable harvesting of resources developed for the purpose. This, besides reducing the stress on the mangroves, will greatly help the womenfolk who spend considerable time and effort for fodder collection. The project is also likely to open up new avenues of livelihood in the long run that would strive to integrate various farm-based activities such as apiculture, silviculture and non-intensive aquaculture.

Increase in mangrove cover and species diversity will bring about other associated benefits on a wider scale, such as increased fishery and other faunal resources, control of soil erosion and salinity intrusion, development of a natural barrier against storms, cyclones, tsunamis and hurricanes etc.

Project activities & Planning

Project Outcome
Enhanced capacity to communities to regenerate and sustainably manage the mangrove resources.

Output 1 Better skills to conserve mangroves and develop alternatives to mangroves for fodder
Community Based Mangrove Plantation/Restoration/Regeneration will be developed by adopting various site specific techniques like *Nursery Preparation & transplantation, Direct Dribbling, Earthen mound preparation and Fish bone canal making*

Activity 1.1 Select and finalise sites for mangrove regeneration/conservation with Communities/CBOs, based on expert advice.

A Selection of the site will be carried out for assessing the current status of the site in terms of ecological & environmental condition. The team will survey the area and prioritise the sites based on the observations made during the visit. Apart from the technical aspects, the survey would also yield the socio-economic status of the villages. This would include results of Geographical Information System (GIS) based maps (Mangroves), Rapid Rural Appraisal (RRA), Participatory Rural Appraisal (PRA) exercises. Expert consultants will be hired and they will be entrusted with the responsibility of conducting the Base Line Survey (BLS), with the logistic support from GEC, and CBOs.

The scope of the base line survey will be identified through a consultation meeting with various experts. Through a participatory process of discussion involving all the stake holders, the entire scope for the base line survey will be identified.

Activity 1.2 Develop a baseline information for the proposed project area, with maps for existing and anticipated effluent discharge points.

The Base Line Survey will include assessment of current status of the Mangrove Ecosystem in the project sites. Apart from technical aspects, the study would also yield the socio-economic status of the villages. This would also include the results of the thematic (Mangroves) Participatory Rural Appraisal (PRA) exercise. The consultants will be hired who will be entrusted with the responsibility of conducting the BLS, with logistic support from GEC, and CBOs.

Activity 1.3 Develop Mangrove Plantation

Based on the recommendations of the BLS, the potential locations on each of the selected Project Sites will be decided. The exact area for the Restoration, Plantation and / or Conservation will be demarcated. It is planned to cover 100 ha of Mangroves in year 2009-10 by the adopting following models.

All the above activities will be carried out by the members of community based organisation with the help of Gujarat Ecology Commission. The management committee of the CBOs will be entrusted with this responsibility.

Technical Models

During the course of project implementation, different technical models will be tried in order to evolve the most cost effective model. It will also be ensured that better results are obtained. Based on the experience from REMAG project, following models will be adopted.

- 1 **Nursery Raised Seedlings** - This model is adopted due to its capacity to give better survival rate. Nursery beds will be prepared in the inter-tidal belts of the selected areas. The nursery operations will start from the Month of July and will continue till the month of November-December while nursery raised transplantation will be carried out during the Month of January-February. In the Nursery raised plantation technique 2500 plants per ha will be developed and transplanted.

- 2 **Raised Earthen Mound Technique** - This Model is adopted and preferred due to its cost effectiveness. It is also easy to implement where large areas are to be brought under mangrove cover. The model has proved to be effective in terms of survival rate in adverse ecological conditions. In this technique per ha 2500 earthen mound will be developed in one ha area.

Activity 1.4 Train CBOs in technical aspects of mangrove plantation and maintenance (Technical Trainings).

All Partner Community Based Organisations will be trained in the technical aspects of mangroves such as ecology of Mangroves, scientific aspects of the Mangrove restoration, different techniques of the plantation. The in-house capacity of GEC will be used for imparting necessary trainings.

Activity-1.5 Increase Mangrove Biodiversity in the Proposed area

The Proposed project will also address the problem related to mono species culture in the State. In this connection, propagules of different species of Mangrove will be collected from various sources, after that, collected propagules will be planted in the selected area as per technical guidelines. It is planned to introduce various species like *Rhizophora* spp, *Ceriops* Spp, *Agavecrus* spp, *Acanthus* spp and other suitable species which are already found on west coast of India.

PROJECT MANAGEMENT & ADMINISTRATION

Project Management Unit (PMU):

This will be based at GEC and will be responsible for day-to-day progress of the project. Its major activities will include preparation of detailed plan, preparation of MIS, regular site visits and interactions with project implementation partners (CBOs), literature survey, documentation, development of baseline information, develop and implement strategies for internal monitoring, report writing, organising meetings, workshops etc.

Mobilising local communities & Restoration activity through Field Functionaries:

The major strategy adopted to achieve the project purpose is to promote regeneration and maintenance of mangroves through local institutions. The village level institutions will be made responsible for protection, maintenance and controlled and sustainable use of the regenerated

resources. There would be a Field worker with the background of rural science and forestry, functioning at each of the project implementation sites/villages.

Implementation strategy

GEC will execute detailed Memoranda of Understanding (MoU) with the partner CBOs to clearly delineate the responsibilities in project implementation. Broadly, GEC will be responsible for overall co-ordination, liaison with government and industries, development of Management Information System, monitoring and reporting to Department of Forest & Environment. GEC will also obtain specialised technical inputs, work for broad-based documentation and dissemination, and conduct issue-based workshops. GEC will deploy field functionaries at project implementation sites. The Field functionaries will be responsible for development of people's institutions, awareness generation and training with regard to mangrove regeneration, protection and participatory management and project administration at the micro-level, including development of micro-plan, monitoring, reporting etc.

As a part of the project a total 100 ha of Mangroves will be developed in span of next two years i.e. 2010-11, 2011-12 in which the first year entire 100 ha Mangrove plantation will be planted, while the second year will be kept for the maintenance and gap filling if any. Before plantation activities a micro plan will be developed to implement the project with key members of CBO and company.

Sr. No.	Plantation Year	Plantation target	Possible Location
1	2010-11	100 ha (By using various technique mentioned above)	Bharuch or Surat district
2	2011-12	Gap filling and maintenance	Bharuch or Surat district

Annexure-1 Project Budget

Budget estimates for this project have been shown in following table.

Financial Requirement for taking up 100 ha plantation

Budget Head	Total Amount
1. Mangrove Plantation	20,00,000/-
2. Baseline Survey	00,75,000/-
3. Awareness Creation	00,50,000/-
4. Administration (Salary, wage etc)	02,50,000/-
5. Documentation & Dissemination	00,20,000/-
6. Travel & others	00,45,000/-
Total	23,90,000/-

Note: Above said amount is quoted as per approved rates by Government of Gujarat

Terms & Condition of the Payments

- > 50 % Amount after signing of MoU.
- > 20 % Amount during nursery raising i.e. in August-10
- > 20 % Amount during transplantation of nurseries raised saplings i.e. in December-2010
- > 10 % during gap-filling period i.e. in March-11

Reporting & Monitoring Schedule

- > GEC will submit quarterly/ yearly progress reports followed by Final First Year Implementation and Outcome Reports.
- > The Second & Third year maintenance reports will also be submitted to KRBHICO, Surat.
- > GEC along with proposed CBO will also be responsible for the maintenance of plantation carried out during the project.

Annexure 2: Activity Chart for one year

Activity	Months											
	1	2	3	4	5	6	7	8	9	10	11	12
Site Selection												
Rapid Environment Survey												
Nursery Point activity												
Nursery & Plantation												
Development												
Maintenance and Protection												
Awareness creation & workshops												

Note: Under ideal situation, Nursery preparation must take place between June – Sept, whereas plantation activity should be undertaken between January to middle of March in order to achieve better survival rate. Any avoidable deviation may result in reduction in the percentage of survival rate. Maintenance of the planted mangroves will be taken care by the GEC for another two years.

Report of GEC:



Project Background

Mangroves are salt tolerant plants growing on the coastal zone in the tidal area, and in estuaries of rivers. These plants occur in the World in tropical and subtropical areas in many countries. In India, mangroves are found in the States of West Bengal, Orissa, Andhra Pradesh, Tamil Nadu, Andaman and Nicobar Islands, Kerala, Goa, Maharashtra, and Gujarat. The Mangroves in Gujarat are second only to the Mangroves in the West Bengal on the East Coast in terms of area, occurring in about 1044 sq. km (FSI 2011) area in Gujarat. Mangroves play a very significant role in maintaining the coastal environment, reducing the impact of wave action and erosion in the coastal areas, preventing salinity and seawater ingress into the inland agricultural areas, and also providing protection to the coastline from the impact of cyclones. Apart from these ecological functions, mangroves play a very significant economic role in the lives of the coastal village communities. The villagers are dependent on mangroves mainly for fodder, fuel-wood and fishing activities. There has been considerable degradation of the mangroves in Gujarat over the years. The reasons for this are many, like the dependency of the local and nomadic pastoralist communities on the mangroves for fodder, fuel, diversion of mangrove areas to industries, salt pans, and construction of ports, jetties, reduction in natural regeneration and dying off of the rich mangroves because of decreased influx of fresh water into the mangrove areas, due to construction of dams, both small and big in upstream areas. Mangrove is one of the important ecosystems along the coast line of the Gujarat state. Considering importance of Mangroves and its surrounding environment State Government has taken up Mangrove plantation as one of the major activities in recent time. State Government has collaborated with various corporate houses under Public Private Partnership model to restore and conserve one of the important ecosystems in the state.

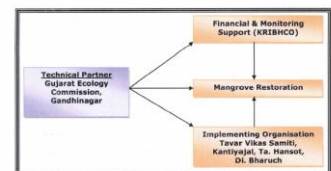
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KRISHAK BHARATI COOPERATIVE Ltd (KRIBHCO), HAJIRA is located in the South Gujarat region of the State of Gujarat at a distance of about 14 kms from the Surat city. Over the years it has evolved as a premiere multi-state fertilizer society. KRIBHCO is lifeline for the farmers of the India. Today, KRIBHCO is distinguished by its growth, financial performance and outstanding people and processes. KRIBHCO has multi-state co-operative society India is one of the largest manufacturers of Urea in India. The HAZIRA fertilizer complex was revamped in 2013 to increase its production capacity by 4.65 LMTA of Urea. HAZIRA complex has become largest single location urea plant in India.

The Company is established on the coastal region of the State, the company has decided to take measures and initiatives for coastal environmental integrity and also to fulfill compensatory eco-restoration with coastal community, a "time phased Mangrove plantation program" at Village Kantiyajal, Ta: Hansot, Dist: Bharuch.

As a part of this agreement, Commission along with representative of KRIBHCO & Village level Committee selected area at Kantiyajal village of Hansot taluka of Bharuch district with following objectives

Project Partners



3

Project Objectives

- Within the overall objective of mangrove plantation in the mudflats of ports and nearby area, the following activity-wise objectives are envisaged.
- To assess the technical suitability of the proposed land for mangrove regeneration, including physico-chemical properties of soil and water and tidal pattern.
 - To identify and select the potential native mangrove and associated species for plantation keeping in view the ecological suitability.
 - To formulate site specific plantation strategy and execute it with the active involvement of local CBO adopting appropriate techniques.
 - To prepare a plan for long term conservation and monitoring of the developed mangrove forests.

Progress

Description of Site

Based on the past experience and land availability, it was jointly decided to take up intertidal area of Kim estuary near Kantiyajal Village of Hansot taluka, of Bharuch district to carry out plantation in 100 ha. The selected site falls under the revenue boundary of the District. The Site is located between Narmada and Kim estuary at the bank of Gulf of Khambhat. The ecological status of the plantation site such as coastal vegetation, physico-chemical characteristics of water and soil, presence/absence of mangrove patch in the vicinity and its density was gathered through a rapid survey of area. This helped in understanding the general ecological situations of the plantation sites which played a crucial role to formulate the project implementation strategy. The average salinity is observed to be around 35 ppt. The Site was jointly selected by the representative of GEC, Officials of KRIBHCO along with Members of CBOs.



Selection of Species

The present coastal environmental conditions and climatic factors like rainfall, annual ambient temperature range and aridity of the zone have clearly established that in coastal Gujarat, the best candidate mangrove species for plantation are *Avicennia marina*, *Rhizophora Spp.* and *Ceriops Spp.*



Avicennia marina



Rhizophora Spp.

ACTIVITY PROGRESS DURING YEAR 2012-13 & 13-14

PLANTATION

The plantation activities were completed in the year 2010-11 and 11-12. Plantation has been maintained by the Village level CBO in association with GEC by Gap-filling activities and protection through social fencing during the year 2012-13 & 13-14.

Process of Plantation: Plantation process followed for maintaining is nursery based plantation which is described in details as below:

Seeds selection:

- The seeds were collected from the nearby natural mangroves areas by the members of CBO. Collected seeds have been kept into fresh water pond which is very small and made for the same only for 48 hours into natural sun light to shatter the seed dormancy by natural heat.
- After 48 hours, seed coat has been removed manually and those seeds are taken for nursery plantation.



Nursery Preparation:

- To maintain the plantation area, Nursery Development activity has been undertaken during the year 2012-13 & 13-14. It was conducted in the month of October in both the years.
- Treated seeds transferred into polythene bags. Seeds rose within 12 to 15 days into the nursery and plants were kept in the nursery for two and half months for their better growth. Saplings are later transplanted on the ground after reaching at the average height of 1.0 to 1.5 ft.
- Total 25 nursery beds of 10*1mt were prepared during both maintenance years.
- An average 1000 plants were raised in each nursery bed.
- Around 25,000 saplings of *Avicennia marina* planted in each year.
- The Nursery operation was completed in the month of December in both the years, after which a regular monitoring of the same was carried out by village CBO representatives and GEC officials.



Transplantation of Nursery Raised Saplings

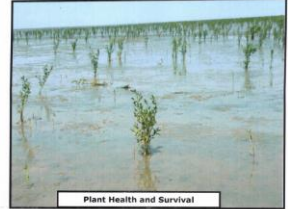
- Saplings were transplanted at the distance of 2.5 mt x 2.5mt, which comes to 25 plants per ha. In all, 25,000 plants have been transplanted on both years.
- Total area covered under gap filling through this plantation is 100 ha.
- The nursery raised saplings transplantation was initiated in middle of the month of February-March of both maintenance years and completed within 30 days time frame.





Plant Health and Survival:

- Growth and survival rate of the saplings was found satisfactory during the site visit by the CBO and GEC officials.
- The sapling attained a height of 28 cm in nursery, which is considered to be a good growth.
- 75% survival rate was recorded in the field by GEC officers.



Plant Health and Survival



Community support and man-days:

- The entire nursery operation was carried out by the Members of community based organization.

- Majority of women members had worked to raise Mangrove nursery.
- A total of more than 250 mandays were generated to raise 25,000 plants in nursery which was community contribution for the project.



Current Status of the Area:

- Currently the area is having Mangroves with more than 70% of survival at the end of third year of plantation activities.
- At the site, planted mangroves have achieved the average height of around 2.5 to 4.5 ft with good ground coverage.
- The entire 100 ha area has been covered with mangroves and started generating in the new ecosystem. Following photograph is describing the latest position of the area.
- As the three years of maintenance has been carried out hence now further no plantation or maintenance activities are required.



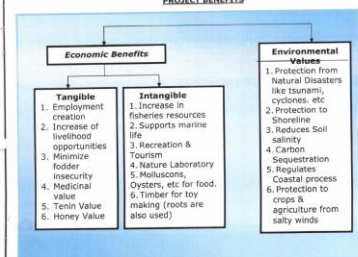
13

MANGROVE PLANTATION AT A GLANCE

- Successfully **Planted and Regenerated 100 ha** of mangroves area at Kankiyal, Ta. Harbet, Di. Bhawan for KREBHQ.
- The average heights of the plants have 38 cm.
- Ensured green belt as well as the nursery ground for the fish, crabs, mudskipper etc.
- Village community is empowered through project in the context of capacity building, gender equity and livelihood opportunities.
- Model of Industrial partnership in mangrove and restoring mangroves ecosystem is successfully established. This will help to motivate the company for replicating the model elsewhere.
- In all total 25,000 plants were planted during the span of one year.
- In all total more than 70 to 75% survival is recorded in the planted area.

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PROJECT BENEFITS



Plantation Highlights

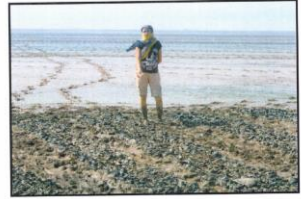
Name of the Organization	Condition For Mangrove Plantation in ha	Total Mangrove Plantation carried out in ha till date	Time Scheduled for plantation to be carried out in future	Time Series Photographs of plantation carried out
KRISHAK BHARATI COOPERATIVE Ltd [KREBHQ], HAJIRA	100	100	2010-11 to 2011-12 for plantation and 2012-13 and 2013-14 for gapfilling and maintenance	As above

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PHOTO PLATES



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A.1 REVAMPING / DEVELOPMENT PHASE:

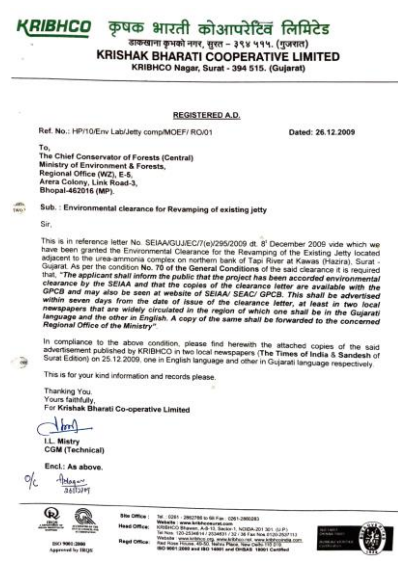
7	The area of dredging shall be confined to the minimum required and strictly as per the permissions obtained from the competent authority. The dredging activities shall be completed in the least possible time by reducing over run of duration in order to minimize adverse impacts, if any. Marine ecology monitoring shall be done during the dredging operation.	Maintenance dredging is being carried out periodically to maintain draft in front of jetty. All measures are being taken so that the dredging activities are completed in the least possible time.
8	During dredging activities, the equipments, vessels, barges required for dredging and transportation of dredged material shall be maintained in a secured area. Spillage of oil or any toxic material including paints, anticorrosive agents etc. shall not be allowed to spill in sea / coastal waters. No activity shall affect the nearby mangrove patch and mangroves of Kadia Bet.	During dredging activities, the equipment, vessels, barges required for dredging and transportation of dredged material is being maintained in a secured area. All the measures are being taken to prevent any spillage in sea /coastal water. It is being ensured that due to activity of dredging, nearby mangrove patch and mangroves of Kadia Bet are not affected.
9	The dredged material as a resultant of capital dredging shall be used for filling and levelling of around 6.07 hectares earmarked low lying backup	Dredged material as a resultant of capital dredging had been used for

	area owned by the company in consultation with the GPCB and the National Institute of Oceanography and shall be strictly as per the advice of the NIO to avoid the negative impacts, if any.	filling and levelling of low-lying backup area owned by KRIBHCO.
10	The camps of labour shall be kept outside the Coastal Regulation Zone area and sufficiently away from the estuary. Safe disposal of sewage and other wastes generated in these settlements shall be ensured and it shall not be discharged in the estuary.	The camps of labour have been kept outside the Coastal Regulation Zone area and sufficiently away from the estuary. Sewage is being collected in soak pit system and it is being emptied out periodically through tanker to the existing sewage treatment plant of KRIBHCO.
11	Adequate provisions for infrastructure facilities such as water supply, fuel (kerosene or cooking gas), lighting, sanitation etc. shall be ensured for the work force so as to avoid felling of trees/mangroves and pollution of water and the surroundings.	Adequate provisions for infrastructure facilities such as water supply, fuel, lighting and sanitation have been made.
12	Adequate personal protective equipments shall be provided for use by the construction workers at the site and their usage by them shall be ensured and supervised especially during handling of construction materials.	Adequate personal protective equipment were provided to the construction workers during the development work of jetty.
13	The project authorities must make necessary arrangements for safe disposal of solid wastes outside the CRZ area and it shall not be released to the estuary.	All necessary arrangement has been made for safe disposal of solid waste and it is being ensured that no solid waste finds its way to estuary.
14	It shall be ensured that due to the project activities, there is no adverse impact on the drainage of the area and recharge of groundwater.	There has been no adverse impact on the drainage of the area and recharge of groundwater due to the project activity.
15	It shall be ensured that project activities do not lead to any shoreline changes. Periodic monitoring shall be carried out to assess the shoreline changes.	Assessment of shoreline changes is being included in the comprehensive post project marine quality monitoring.
16	No construction work permitted under the Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area after obtaining necessary permissions from the competent Authority only.	Noted. Necessary permission from competent authority will be taken for any construction work which is to be carried out in Coastal Regulation Zone area
17	The facilities to be constructed / developed in the CRZ area as part of this project shall be strictly in conformity with the provisions of the CRZ Notification, 1991 as amended subsequently.	Noted.
18	Construction of the proposed structures shall be undertaken meticulously conforming to the existing local and central rules and regulations. All the construction designs/drawings relating to the proposed construction activities must have approvals of the concerned Government Departments/Agencies.	Approval of the concerned Government Departments/Agencies was taken for all the project activities.
19	All topsoil excavated during construction activities should be stored for use in horticultural / landscape development within the project site.	Not applicable
20	Readymade mix concrete should be used so far as possible.	Readymade mix concrete was used for construction activity as far as possible.
21	Water demand during construction should be reduced by use of curing agents, plasticizers and other best practices.	All measures were taken to reduce the water demand during the construction.
22	The back-up area around the Transit Shed shall be paved with the provision for parking of trucks.	Back-up area around the Transit Shed was paved for parking of trucks.
23	Vehicles hired for bringing construction material at site should be in good conditions and confirm to applicable air and noise emission standards and should be operated only during non-peak hours.	Good condition vehicles were hired for bringing construction material at site and it was ensured that the vehicle confirms applicable air and noise emission norms.
24	Fly ash should be used as building material in the construction as per	Building material of Fly ash was used

	provisions of Fly Ash Notification under EPA.	as far as possible.
<u>A.2 OPERATION PHASE:</u>		
25	Best possible technology and equipments shall be provided for loading and unloading operations. Spillage of cargo during loading / unloading operations shall be minimal and aimed at zero spillage. To avoid spillages, closed / covered conveyor system shall be adopted. Use of tarpaulins etc. from the barge surface to the jetty below the grab during loading / unloading operations shall be adopted to prevent the cargo spillage into aquatic environment. All loading / unloading facilities shall be equipped with drip pans or aprons to collect material spilled while loading/unloading the barges and also for loading the material onto the conveyor.	Best equipment are provided for loading and unloading operations. To avoid spillage, closed / covered conveyor system has been provided. To avoid cargo spillage into aquatic environment tarpaulin is being used from the barge surface to the jetty during unloading of cargo. Regular sweeping is being carried out to collect the spilled material. It is our endeavour that Spillage of cargo during loading / unloading operations will be minimal and aimed at zero spillage.
26	Maintenance dredging shall be carried out in consultation with Gujarat Maritime Board. Dredged material as a result of maintenance dredging shall not be disposed in the estuary or intertidal area	Maintenance dredging is being carried out in consultation with Gujarat Maritime Board. Dredged material as a result of maintenance dredging is being disposed of for filling and levelling of low-lying backup area owned by the KRIBHCO
27	The industry will set up a vessel to vessel and vessel to shore communication system to prevent any accident in the estuary.	Communication system has been provided.
28	The operators and drivers shall be trained and equipped for handling of emergencies safely and in an ecologically sound manner.	Operators and drivers are being trained for handling of emergencies safely and in an ecologically sound manner.
29	Surface run off from the jetty shall be adequately managed. To avoid oil, SS and fertilizers entering the estuarine environment, dry sweeping shall be adopted at the jetty and washing shall be avoided as far as possible.	All measures are taken to avoid surface run off from the jetty to estuarine environment. Also, regular sweeping is being carried out to collect the spilled material.
30	Sewage and garbage collection facilities through dedicated trucks shall be made available to barges to evacuate their waste when at berth. Sewage arising in the port area shall be collected in a pit and transported periodically to existing sewage treatment plant in the KRIBHCO premises for treatment and it shall not be discharged in the river/estuarine water. Safe disposal of solid waste shall also be ensured and it shall not be released to the estuary. The jetty area shall be treated as no waste discharge zone by barges. The provisions of the MARPOL in this regard shall be strictly followed.	Sewage arising in the port area is being collected in a soak pit and transported periodically to existing sewage treatment plant in the KRIBHCO premises for its treatment. When barge is at berth, necessary arrangement to evacuate their waste has been made.
31	The solid waste generated due to spillage of material shall be dry swept and recovered / reused.	Regular dry sweeping is being carried out to collect and recover the spilled material.
32	The area earmarked for the truck parking shall be used for parking only. No other activity shall be permitted in this area.	No other activity is being carried in the area which is earmarked for trucks parking.
33	No product other than those permissible in the Coastal Regulation Zone Notification, 1991 shall be stored in the Coastal Regulation Zone area.	No product other than those permissible in the Coastal Regulation Zone Notification, 1991 will be stored in the Coastal Regulation Zone area.
34	The acoustic enclosures shall be installed at all noise generating equipments and the noise level shall be maintained as per the MoEF / CPCB guidelines / norms both during day and night time.	Not applicable
<u>B. GENERAL CONDITIONS:</u>		
35	The project shall be implemented in such a manner that there is no damage whatsoever to the mangroves/other sensitive coastal ecosystems.	The project was implemented in such a manner that there was no damage to the mangroves/other sensitive

		coastal ecosystems.
36	The project shall be implemented in such a manner that there shall be no any hindrance to the movement of fishing vessels or fishermen.	The project was implemented in such a manner that there was no hindrance to the movement of fishing vessels or fishermen.
37	So as to maintain ecological features and avoid damage to the ecosystem, movement of vehicles in the Inter Tidal Zone shall be restricted to the minimum.	Noted.
38	There shall be no withdrawal of ground water in CRZ area, for this project. The proponent shall ensure that as a result of the proposed activities, ingress of saline water into ground water does not take place.	KRIBHCO is not withdrawing any ground water. The requirement of water of KRIBHCO complex is being met from Kakrapar dam through a dedicated pipeline. Requirement of water for jetty is being met through existing infrastructure of KRIBHCO.
39	The project proponent shall provide adequate funds for environment protection. The funds earmarked for environment protection measures shall be maintained, in a separate account and there shall be no diversion of these funds for any other purpose.	Provision of funds for environment protection has been kept. This fund is not being used for any other purpose.
40	Appropriate safety devices such as masks shall be provided for use by the workers at the site and their usage by them shall be ensured.	Masks are being provided for use by the workers at the site and it is being ensured that they use the same at the work place.
41	All issues raised during the public hearing shall be addressed comprehensively.	All issues raised during the public hearing were addressed comprehensively.
42	The project shall be implemented in such a manner that there shall be no any hindrance to the movement of fishing vessels or fishermen	The project was implemented in such a manner that there was no hindrance to the movement of fishing vessels or fishermen.
43	The operators and drivers shall be trained and equipped for handling of emergencies safely and in an ecologically sound manner.	Operators and drivers are being trained for handling of emergencies in a safe and ecologically sound manner.
44	To meet any emergency situation, appropriate fire-fighting system shall be installed. Appropriate arrangements for uninterrupted power supply and continuous water supply for the firefighting system shall be made.	Fire-fighting system has been installed with a provision of continuous water supply.
45	Adequate personal protective equipments shall be provided for use by the workers at the site and their usage by them shall be ensured and supervised.	Personal protective equipment are being provided for use by the workers at the site and it is being supervised for ensuring that they use the same at the work place.
46	First aid facilities and required antidotes shall be provided in adequate quantity and shall be made readily available.	First aid facilities and required antidotes are being provided in adequate quantity and are readily available.
47	Training to the staff for the first aid and firefighting along with regular mock drill shall be conducted regularly and shall be made an integral part of the disaster management plan of the project.	Training to the staff for the first aid and firefighting is being imparted. Regular mock drill is being conducted. It is an integral part of the disaster management plan of the project.
48	All necessary precautionary measures shall be taken to avoid any kind of accident during storage and handling of materials.	All necessary precautionary measures are being taken to avoid any kind of accident during storage and handling of materials.
49	Handling of materials shall be done in such a manner that minimal human exposure occurs.	Handling of materials is being done in such a manner that a minimal human exposure occurs.
50	Adequate arrangements shall be made for seeking immediate medical attention in the case of emergency.	Adequate arrangements have been made for seeking immediate medical attention in case of any emergency.

51	Occupational health surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules.	Occupational health surveillance of the workers is being done and its records are available in KRIBHCO hospital. Pre-employment and periodical medical examination for all the workers is being undertaken as per the Factories Act & Rules.
52	Transportation of hazardous chemicals shall be done as per the provisions of the Motor Vehicle Act & Rules.	Not applicable
53	Diesel generator sets, if to be used, shall be of enclosed type and confirm to EPA Rules for air and noise emission standards.	Not applicable
54	The overall noise level in and around the jetty area shall be kept well within the standards by providing noise control measures including engineering controls on all sources of noise generation. The ambient noise level shall confirm to the standards prescribed under The Environment (Protection) Act, 1986 & Rules	The overall noise level in and around the jetty area is well within the standards. The ambient noise level is as per the standards prescribed under The Environment (Protection) Act, 1986 & Rules
55	Necessary emergency lighting system along with emergency power back up system shall be provided.	Uninterrupted power supply is assured.
56	The project proponent shall explore the application of solar energy & it shall be incorporated for illumination of common areas, lighting of internal roads and passages in addition to solar water heating, if any.	KRIBHCO has installed solar panel for street lights in KRIBHCO-Jetty area.
57	The project proponent shall install the electric utilities / devises, which are energy efficient and meeting with the Bureau of Energy Efficiency norms, wherever applicable.	KRIBHCO has installed the electric utilities / devises, which are energy efficient and meeting with the Bureau of Energy Efficiency norms.
58	The energy audit shall be conducted at regular interval for the project and the recommendations of the Audit report shall be implemented with spirit.	Not Applicable.
59	A separate Environmental Management Cell with suitably qualified staff to carry put various environment related functions shall be set up under the control of the Chief Executive of the Company.	A separate Environmental Management Cell with suitably qualified staff to carry put various environment related functions has been set up under the control of the Chief Executive of the Company.
60	The project authorities shall take appropriate community development and welfare measures for the villagers in the vicinity of the project site. A separate fund shall be allocated for this purpose.	KRIBHCO has taken measures for community development. The welfare measures for the villagers in the vicinity of the project site have also being taken. A separate fund is being allocated for this purpose.
61	No further expansion or modifications or development likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority.	Noted and shall be complied.
62	The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.	Noted and shall be complied.
<u>B. GENERAL CONDITIONS:</u>		
63	The entire handling should be through pneumatic and in closed conveyer system, to avoid any kind of spillage.	The entire handling is being carried out through pneumatic and in closed conveyer system so as to avoid any kind of spillage.
64	The water quality and sediment quality of Tapi estuary should be monitored once in a year to check eutrophication happening if any to ascertain the spillage, if any.	Comprehensive post project marine quality monitoring is being carried out periodically.
65	At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	Not applicable
66	The project management shall also comply with all the environment protection measures, risk mitigation measures and safeguards	Noted and is being complied.

	recommended in the EIA / EMP report as well as other proposals made by them.	
67	The company shall develop rain water harvesting structures to harvest the run off water for recharge of ground water. Also harvesting of surface as well as rainwater from the rooftops of the building proposed in the project shall be undertaken and the same shall be used for the various activities of the projects to conserve fresh water.	Rain water harvesting is being carried out in water pre-treatment area (Filter house terrace, cooling water storage tank pump house, surrounding paved area of filter house-2 and calirifer-2, filter water pump house area and surrounding paved area of water pre-treatment sludge pit drain channel). Approximately 10450 m ³ of rain water is conserved and used in the process plant. Implementation of this scheme has not only resulted in a saving of Rs. 3.9 lacs per year but also conserved the natural resource. Further, KRIBHCO is in the process of implementing Rain water collecting scheme in plant and township. Budget provision of Rs. 2.00 crore has been kept for the year 2021-2022 to implement this scheme.
68	No further expansion or modifications in the plant shall be carried out without prior approval of the MoEF/ SEIAA, as the case may be. In case of deviations or alterations in the project proposal from those submitted to MoEF/ SEIAA/ SEAC for clearance, a fresh reference shall be made to the SEIAA/ SEAC to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted and will be complied.
69	The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as well as GPCB along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.	KRIBHCO has adequate funds to implement the conditions stipulated by SEIAA as well as GPCB.
70	The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at the Website of SEIAA/ SEAC/ GPCB. This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region one of which shall be in the Gujarati language and the other in English. A copy each of the same shall be forwarded to the concerned Regional Office of the Ministry.	<p>Complied. The copy of advertisement is attached below:</p>  <p>The advertisement is a formal letter from KRIBHCO to the Ministry of Environment & Forests, Central Regional Office (WD), E-5, Anna Colony, Link Road-3, Bhopal-462016 (MP). It is dated 26.12.2009. The letter is in Gujarati and English. It states that KRIBHCO has been granted Environmental Clearance for the Revamping of the Existing Jetty located adjacent to the urea ammonia complex on northern bank of Tapi River at Samsa (Vadrai), Surat - Gujarat. As per the condition No. 70 of the General Conditions of the said clearance it is required that the applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and may also be seen at website of SEIAA/ SEAC/ GPCB. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the Gujarati language and the other in English. A copy of the same shall be forwarded to the concerned Regional Office of the Ministry. The letter also mentions that the advertisement has been published in two local newspapers (The Times of India & Sandesh of Surat Edition) on 25.12.2009, one in English language and other in Gujarati language respectively. The letter is signed by L.L. Mehta, CSM (Technical), and is dated 26/12/09.</p>

71	It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions in hard and soft copies to the regulatory authority concerned, on 1st June and 1st December of each calendar year.	
72	The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.	KRIBHCO is submitting half yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions to the regulatory authority concerned, on a regular basis.
73	The project authorities shall inform the GPCB, Regional Office of MoEF and SEIAA about the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	Complied
74	The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not found satisfactory.	Complied
75	The company in a time bound manner shall implement these conditions. The SEIAA reserves the right to stipulate additional conditions, if the same is found necessary. The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act 1986, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.	Noted
76	This Environmental Clearance is valid for five years from the date of issue.	Noted

For Krishak Bharati Cooperative Limited