#### REGD. A/D

ACL/EMD/F-16/2014/371/

20.11.2014

The Director (s),

Ministry of Environment & Forest (MoEF), Regional Office, Western Region, "Kendriya Paryavaran Bhavan" Link Road No.3, Ravi Shankar Nagar, Bhopal – 462016, (M.P.)

**Sub.:** Half Yearly Compliance Report of Environmental Clearance of RKBA Limestone Mines.

Ref.: Environmental Clearance Order No. J-11015/221/2008-IA.II (M) dated 04.03.11

Sir,

We are pleased to submit herewith half yearly compliance status report (i.e. for the period of April'14 to September'14) of Environmental Clearance Order No. J11015/221/2008-IA.II(M) dated 04.03.2011 granted by MoEF to Rampara , Kukaras , Bhetali & Anandapara (**RKBA**) Limestone Mines, located at village — Rampara, Kukras, Bhetali, Anandapara , Taluka — Veraval & Sutrapada, District — Junagadh (Gujarat ).

In case of further clarification/information require, we shall be please to provide the same.

Thanking you,

Yours Faithfully,

For Ambuja Cements Ltd.

Dr. Anand K. Rai

**HOD (Environment)** 

Encl.: As above.

Copy to:

 Central Pollution Control Board Western Zonal Office, Synergy House-II, Subhanpura - Gorwa Road, Vadodara-390023 (Gujarat)

Member Secretary,
 Gujarat Pollution Control Board,
 Paryavaran Bhavan, Sector-10-A, Gandhinagar-382010

#### MONITORING THE IMPLEMENTATION OF ENVIRONMENTAL SAFEGUARDS

Ministry of Environment & Forests Regional Office (W), Bhopal Monitoring Report Part-I

#### **DATA SHEET**

Date: 20.11.2014

**01 Project type:** : Mining

River valley/ Mining/Industry/ Thermal/ Nuclear/ other specify

Open Cast (Limestone)

**Name of the project** : Rampara-Kukras- Bhetali and Anandpara

Limestone Mining Project

**03** Clearance letter(s) / **OM** no. : J-11015/221/2008-IA.II (M),

and date Dated 04.03.2011

04 Location :

a) District(s) : Junagadh

b) State(s) : Gujarat

c) Latitude : 20° 56′ - 20° 58′ N

d) Longitude :  $70^{\circ} 31' - 70^{\circ} 34' E$ 

05 Address for correspondence :

a) Address of concerned Project : Shri, Dinkar Dasora

Chief Engineer (with pin code : GM (Mines)

& telephone / telex / fax

Ambuja Cements Ltd.

numbers). PO : Ambujanagar , Taluka - Kodinar District : Gir Somnath (Gujarat)

District : Gir Somnath (Gujar Pin : 362715

Tel: -02795-237011

Fax: 02795 - 220328/232032

b) Address of Executive Project : Shri, Rajesh Chaubey

Engineer / Manager (with pincode / fax numbers.

Manager (Mines)

Ambuja Cements Ltd.
PO Ambujanagar-362715,

Taluka - Kodinar,

District – Gir Somnath Tel: 02795-232064

Fax: 02795 - 220328/232032

#### 06 Salient features

a) of the project:

- b) of the environmental management plans
- : Ambuja Cements Ltd. has cement manufacturing plant at Ambujanagar in Kodinar Taluka of Junagadh District. Limestone is the main raw materials for the cement plants, which is being exploited from company's own captive mines i.e. Rampara, Kukras, Bhetali & Anandpara Limestone Mine.

RKBA is located at a distance of about 30 kms in NW direction with respect to cement plant. The rated capacity of the limestone at present is 2.0 MTPA.

- : \* Mining operations would not involve drilling & blasting. Limestone excavation is being carried out by environment friendly Surface Miner supported by ripper dozer.
  - Regular monitoring of environmental parameters is undertaken as per the norms of MoEF and IBM and same will be followed.
  - Preventive maintenance of deployed HEMM is being undertaken regularly and same will be continued.
  - Dust suppression by water sprinkling on haul roads is being done regularly in working area and same will be continued.
  - Afforestation / Green belt development is being carried out concurrently along haul road, lease periphery and matured area as well as outside lease also (i.e. surrounding Mines office)
  - Mined-out areas will be converted to pasture land & also converted into water reservoir.

Rural Development and Socio-economic activities will be undertaken in the project buffer zone area.

### 07 Break up of the project area.

- a) Submergence area (forest & non-forest)
- b) Others

: Nil

: 310.3290 ha (Government waste land, Gauchar land & Private land)

- **O8 Break up of the project affected population** with enumeration of those losing houses / dwelling units only agricultural land only, both dwelling units & agricultural land & landless laborers/ artisan.
  - a) SC, ST / Adivasis
  - b) Others

(Please indicate whether these figures are based on any scientific and systematic survey carried out or only provisional figures if a survey is carried out give details & year of survey)

#### 09 Financial details

- a) Project cost as originally planned and subsequent revised estimates and the year of price reference.
- Allocation made for environmental management plans with item wise and year wise break-up.

: Project does not require any rehabilitation or evacuation of permanent settlements as 87% of land in our possession.

Not applicableNot applicable

: Project Cost: Rs. 900 Lakhs
Limestone raised from the mining lease
area will partially supplement the
requirements of existing cement units. As it
is a captive mine for the Cement Plant, no
separate project costing was prepared.

### Capital Investment

Capital investment for environment protection 57.08 Lakhs measures

### Recurring Expenditure per year

Plantation (reclamation & 10.0 Lakhs - Existing rehabilitation - (1.75lacsproposed/year)

Environmental - (3.0 Lakhs Existing (3 lacs proposed/year)

Pollution Control - (2.0 Lakhs Existing (2 lacsproposed/year)

Occupational health - 3.0 Lakhs Existing (3 lacsproposed/year)

Occupational health - 3.0 Lakhs Existing (3 lacsproposed/year)

Fotal / Year Rs.18 Lakhs (Existing)

Total/Year Rs.18 Lakhs (Existing)
(Recurring) Rs 9.75 lacs proposed

per year)

### Budget allocation for Wildlife conservation (in Lacs)

22 (Capital) Development of plantation around mine pits 1.75 (Recurring) Awareness programs & 0 (Capital) community workshops 5.0 (Recurring) Supply of Anti poaching kits 10 (Capital) and training 2 (Recurring) Vegetative propagation and 0 (Capital) restoration of plants in natural 2.0 (Recurring)

habitat in surrounding villages

Nature Conservation volunteers 6 (Capital) (6 nos) 6(Recurring) **TOTAL** 38 (Capital) 16.75 (Recurring)

c) Benefit cost (BC) ratio / Internal rate of return (IRR) and the year of assessment.

: No separate assessment made, as it is an integral part of the raw material source for the cement plants at Ambujanagar.

d) Whether (c) includes the cost of environmental management as shown in the above.

: Yes

e) Actual expenditure incurred on the project so far.

: Rs. 11.59 Crores

f) Actual expenditure incurred on : Rs. 3.72 Crores the environmental management plans so far.

#### Forest land requirement. 10

a) The status of approval for diversion of forest land for non-forestry use

b) The status of clearing felling

The project area does not comprise of any

forest land. Not applicable

: Not applicable.

c) The status of compensatory afforestation (CA), if any

: Not applicable.

d) Comments on the viability & sustainability of CA (compensatory afforestation) programme in the light of actual field experience so far. : Not applicable.

11 The status of clear felling in non-forest areas (such as submergence area or reservoir, approach roads), if any with quantitative information required.

: The project does not involve felling of trees.

12 Status of construction (Actual & or planned)

a) Date of commencement (Actual and / or **planned**)

: 4.10.2005

b) Date of completion (Actual and / or planned).

: Not applicable. As it is ongoing captive mining Project for cement plant. (Mines life is approximate 8 to 10 years based on reserves)

Reasons for the delay if the project is yet to start.

: Not applicable.

14 Dates of site visits

 a) The dates on which the project was monitored by the Regional Office on previous occasions, if any. : 12.10.10 to 13.10.10 by Dr. A. Mehrotra Regional Office, Bhopal

b) Date of site visit for this monitoring report

: 12.10.10 to 13.10.10

15 Details of correspondence with project authorities for obtaining action plans / information on status of compliance to safeguards other than the routine letters for logistic support for site visits).

: Half yearly compliance status report is being regularly submitted and last submission was on 25.05.2014 vide letter no.ACL/EMD/F-16/2014.

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S No.	Condition	Compliance Status
(A). Sp	ecific Conditions :	·
I	The project proponent shall obtain Consent to Establish and Consent to Operate from the Gujarat Pollution Control Board and effectively implement all the conditions stipulated therein.	Consent to establish & Consent to operate has already been obtained from Gujarat Pollution Control Board vide letter no. GPCB/ID17276/CTE/CCA-JNG/30(2)/71073 dated 28 January 2011 & letter no. GPCB/CCA-JNG-(30)3/ID-17276/87008 dated 19.07.2011 respectively. All the conditions stipulated therein are being effectively implemented. Copy of Consent to establish & Consent to operate has been submitted to MoEF vide our submission dated 30.12.2011 vide letter no.ACL/EMD/F-16/2011/62788.
II	The environmental clearance is subject to approval of the State Land use Department, Government of Gujarat for diversion of agricultural land for non-agricultural use.	<ul> <li>Necessary approval is being obtained from State Land use Department, Government of Gujarat for diversion of agricultural land for non-agricultural use. Details of land converted in to non-agriculture land has been already submitted to MoEF vide our last submission dated 28.06.2011 vide letter no. ACL/EMD/F- 16/2011/136/59025.</li> </ul>
III	Necessary prior permission from the Competent Authority as may be applicable for use of grazing land for mining purpose shall be obtained,	<ul> <li>Necessary prior permission as applicable has already been obtained from the Competent Authority. For grazing land village Panchayat has given resolution. Whereas Industries &amp; Mines dept. Govt. of Gujarat has also granted Mines Lease Order. Copy of Lease Grant Order has been already submitted to MoEF vide our submission dated 30.12.2011 vide letter no.ACL/EMD/F-16/2011/62788</li> </ul>
IV	The project proponent shall develop fodder plots in the non-mineralized area in lieu of use of grazing land.	Point noted and is being complied. After mining limestone in the mineralized area, part of mined out area is being converted in to pasture land/grazing land. Till September'14 20.1087 Ha. Area has been converted in to pasture land.

Vide MoEF Letter No: J-11015/221/2008-IA-II (M) dated 04.03.2011

The project proponent shall ensure that • Point noted and being complied

V	The project proponent shall ensure that no natural watercourse and/or water resources shall be obstructed due to any mining operations. The first order streams and the seasonal nallahs, if any originating from the mining lease area shall be protected.	•	Point noted and being complied.
VI	The mining operations shall be so carried out by adjusting the working schedule in different seasons in such a manner, that the working will be restricted to above water table without resorting to any pumping of groundwater. In case of working below the ground water table, prior approval of the Ministry of Environment and Forests and the Central Ground Water Authority shall be obtained, for which a detailed hydro-geological study shall be carried out.	•	Point noted and being complied.
VII	The proponent shall carry out long term studies on salinity and water levels in and around existing mining areas and the new proposed sites and submit report to this Ministry and Central Ground Water Authority within a period of 6 months.	•	Ground Water & Mineral Investigation Consultancy Centre Pvt. Ltd. (GWMICC), Jaipur has been engaged for the monitoring of ground water quality & Impact of limestone mining and salinity ingression status around RKBA Limestone Mines and around ACL Plants and Mines in Junagadh District. GWMICC is being regularly visiting our site for the study. A report on the same has been already submitted to MoEF vide our submission dated 21.05.11 vide letter no. ACL/EMD/F-16/2011 & also on 28.06.2011 vide letter no. ACL/EMD/F-16/2011/136/59025.
VIII	The top soil shall be concurrently used for mine reclamation, plantation and green belt development.	•	Point noted and being complied.  Top soil concurrently used for developing the Pasture land. The top soil being stacked separately in the ear marked site with appropriate measures.  Top Soil is stored systematically. Road side bunds are made from poor grade
			material and Top soil is used in order to improve growth of planted species and to increase survival rate.
IX	Out of the total excavated area of 268.22ha, an area of 270.47ha shall be converted into pasture land/demo	•	Details of greenbelt/reclamation are enclosed as <b>Annexure</b> – <b>1(A) &amp; 1(B)</b> . Compliance status is being submitted

	farm/plantation. There shall be no external dump(s). Monitoring and management of rehabilated areas shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forest and its regional office located at Bhopal on six monthly basis.		to the Ministry of Environment & Forest and its regional office located at Bhopal on six monthly basis.
X	The void left unfilled in an area of 9.6ha shall be converted into water body. The higher benches of excavated void/mining pit shall be terraced and plantation done to stabilize the slopes. The slope of higher benches shall be made gentler for easy accessibility by local people to use the water body. Peripheral fencing shall be carried out along the excavated area.	•	On higher benches, plantation has been done and slope of higher benches will be done gentle as mining progress. Details of greenbelt/reclamation are enclosed as <b>Annexure - 1.</b>
XI	Catch drains and siltation ponds of appropriate size shall be constructed around the working pit and temporary soil and mineral dump(s) to arrest flow of silt and sediment directly into the agricultural fields and the water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly desilted particularly after the monsoon and maintained properly. Garland drain (size, gradient and length) shall be constructed for the mine pit and temporary soil and mineral dump(s) to prevent run off of water and flow of sediments directly into the agricultural fields and the water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.	•	To collect surface run-off and arrest silt and sediment flow from the soil & mineral stacks, drain along with settling pond is constructed along the toe of the stacks, ultimately drain water collected into mined out pit. The drains are properly maintained and collected water utilized for watering the mine area, roads, green belt development etc.
XII	Dimension of the retaining wall at the toe of temporary soil and mineral dumps to check run-off and siltation should be based on the rain fall data.	•	Retaining wall has already been provided on the periphery of top soil storage area in order to prevent from run-off.

XIII	Green belt shall be raised in an area of 21.58ha including a 7.5m wide statutory barrier all around the mining lease, roads etc, by planting the native species in consultation with the local DFO/Agriculture Department. The density of the trees should be around 2000 trees per hectare. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.		Till September 2014, 9.0525 ha. area is covered under plantation and green belt development. Remaining area will also be covered under plantation as per approved mining plan. Details of greenbelt/reclamation are enclosed as <b>Annexure - 1.</b>
XIV	Effective safeguard measures, such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of particulate matter such as around loading and unloading point and all transfer points. Extensive water sprinkling shall be carried out on haul roads. It should be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.	•	Water tankers have been deployed for regular sprinkling of water on haul roads to prevent fugitive dusting in mines area. Air quality monitoring is being done regularly for the parameters prescribed by the Central Pollution Control Board. Surface miner is having an inbuilt water spraying mechanism on the faces to suppress the dust particles.
XV	The project authority should implement suitable conservation measures to augment ground water resources in the area in consultation with the Regional Director, Central Ground Water Board.	•	Water conservation measures to augment ground water resources in the area is being done by our Ambuja Cement Foundation (ACF). A glimpse about ACF & community development work done by ACF in surrounding areas is enclosed as <b>Annexure 2</b> .
XVI	Regular monitoring of ground water level and quality shall be carried out within the mine lease and in the surrounding area (up to 5 km of the mine lease) by establishing a network of groundwater monitoring stations (existing wells and installing new piezometers) during the mining operation in consultation with Central Groundwater Authority / Ground Water Board and groundwater table shall be monitored and records maintained. The periodic monitoring [(at least four times in a year- pre-monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January); once in each season)] shall be carried out in consultation with the State Ground Water Board/Central Ground Water Authority and the data thus collected may be sent regularly to the Ministry of Environment	•	Ground water level & quality monitoring is being done regularly by establishing a network of groundwater monitoring stations (existing wells and installing new piezometers). Report is submitted to MoEF regional office Bhopal on six monthly basis. Ground water level & quality monitoring report is enclosed as <b>Annexure-3</b> .

	and Forests and its Regional Office Bhopal, the Central Ground Water Authority and the Regional Director, Central Ground Water Board. If at any stage, it is observed that the groundwater table is getting depleted and salinity ingress in groundwater is observed due to the mining activity, necessary corrective safeguard measures shall be taken in consultation with the Central Ground Water Authority.		
XVII	The project proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of water (surface water and ground water), if any, required for the project.	•	No withdrawal of ground water. Water requirement for drinking met from private purchase. Whereas water requirement for dust suppression and greenbelt development is being met from harvested rain water in mined out pit.
XVIII	The project proponent shall practice suitable rainwater harvesting measures on long term basis and work out a detailed scheme for rainwater harvesting in consultation with the Central Groundwater Authority and submit a copy of the same to the Ministry of Environment and Forests and its Regional Office, Bhopal.	•	Water conservation measures to augment ground water resources in the area is being done by our Ambuja Cement Foundation (ACF).Details of water harvesting work done by ACF in and around area is enclosed as Annexure - 2.  Ground Water & Mineral Investigation Consultancy Centre Pvt. Ltd. (GWMICC), Jaipur has been engaged for the monitoring of ground water quality & Impact of limestone mining and salinity ingression status around RKBA Limestone Mines and around ACL Plants. GWMICC is being regularly visiting our site for the study. A report on the same has been already submitted to MoEF vide our submission dated 21.05.11 vide letter no. ACL/EMD/F-16/2011 & also on 28.06.2011 vide letter no. ACL/EMD/F-16/2011/136/59025.
XIX	Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in mining operations and in transportation of mineral. The mineral transportation shall be carried out through the covered trucks only and the vehicles carrying the mineral shall not be overloaded.	•	Vehicular emissions are being checked & monitored regularly.

XX	Drilling and blasting operation shall not be carried out.	•	Blast free eco-friendly machine i.e. Surface Miner is used for excavating the limestone. The noise levels are kept well within the permissible limits by system of condition monitoring of the equipment and well planned maintenance system.
XXI	Digital processing of the entire lease area using remote sensing technique should be done regularly once in three years for monitoring land use pattern and physiography of the area and report submitted to the Ministry of Environment and Forests and its Regional Office located at Bhopal.	•	Digital processing of the entire lease area using remote sensing technique is being carried out regularly once in three year, we have engaged RRSC Jodhpur for digital processing of entire lease area. Last report submitted by RRSC in June-2013. Report already submitted to MoEF vide letter no. ACL/EMD/F16/327/73118 dated 10.04.2014.
XXII	Land oustees and land losers/affected people should be rehabilitated as per the National Policy on Resettlement and Rehabilitation of project Affected Families (NPRR)/State Government norms.	•	Not applicable.
XXIII	Mineral handling area shall be provided with the adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated	•	Not applicable.
XXIV	Sewage treatment plant shall be installed for the colony. ETP shall also be provided for the workshop and wastewater generated during the mining operation.	•	There is no colony at mine site, township located at Ambujanagar, where 1500 m3 /day capacity Sewage Treatment Plant exist. At workshop buffle type oil & grease separation system has been provided, treated water from oil & grease separation system is being used for plantation/greenbelt development.
XXV	Pre-placement medical examination and periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly.	•	Pre-placement medical examination and periodical medical examination of the workers engaged in the project is being carried out regularly and records maintained.
XXVI	Provision shall be made for the housing of construction labor within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets,	•	All Workers stay at existing Mines colony and transportation facility provided for attending the duties. All necessary infrastructures facilities

	mobile STP, safe drinking water, medical		provided.
	health care, creche etc. The housing may		
	be in the form of temporary structures to		
	be removed after the completion of the		
200 (1)	project.		
XXVII	The critical parameters such as RSPM	•	Air quality monitoring and water quality
	(Particulate matter with size less than 10		monitoring is being done regularly and
	um i.e., PM10), NOX in the ambient air		report is submitted to GPCB & MoEF.
	within the impact zone, shall be monitored		Results of Air & Water quality
	periodically, Further, quality of discharged		monitoring is being uploaded on the
	water shall also be monitored [(TDS, DO,		website of the company as well as
	PH and Total Suspended Solids (TSS)].		displayed on a display board at the
	The monitored data shall be uploaded on		project site near mine office. The AAQ
	the website of the company as well as		monitoring results for the period
	displayed on a display board at the		April'14 to September'14 for SPM,
	project site at a suitable location near the		RSPM, CO, SO2 and NOx are
	main gate of the Company in public		enclosed as <b>Annexure-4</b> .
	domain. The Circular No. J-		
	20012/1/2006~IA.II(M) dated 27.05.2009 issued by Ministry of Environment and		
	Forests, which is available on the website		
	of the Ministry www.envfor.nic.in shall		
	also be referred in this regard for its		
	compliance.		
XXVIII	A Final Mine Closure Plan along with	•	Point Noted and will be complied.
70(1111	details of Corpus Fund should be		Tomit Noted and will be complied.
	submitted to the Ministry of Environment		
	& Forests 5 years in advance of final mine		
	closure for approval,		
B. Gen	eral conditions		
(i)	No change in mining technology and	•	Point Noted
, ,	scope of working should be made without		
	prior approval of the Ministry of		
	Environment & Forests.		
(ii)	No change in the calendar plan including	•	Point Noted
	excavation, quantum of mineral limestone		
	and waste should be made.		
(iii)	Conservation measures for protection of	•	"Status of Biodiversity (Flora & Fauna)
	flora and fauna in the core & buffer zone		in core and buffer zone areas of RKBA
	should be drawn up in consultation with		Limestone Mine Lease (310.32ha)
	the local forest and wildlife department		study area is prepared by Gujarat
	and effectively implemented.		Institute of Desert Ecology-Kutchh"
			and the same has been submitted to
			the office of the PCCF and the
			concurrence is obtained. Report
			already submitted to MoEF vide letter no. ACL/EMD/F16/2010/55293 dated
			25.12.2010.
			20.12.2010.
1			

(iv)	Four ambient air quality-monitoring stations should be established in the core zone as well as in the buffer zone for RSPM (Participate matter with size less than 10 micron i.e., PM10) and NOx monitoring. Location of the stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board.	•	Six ambient air quality-monitoring stations have been established in the core zone as well as in the buffer zone. The locations of the monitoring stations are decided in consultation with GPCB and renowned consultant Sh B Padmanabh Murthy, Professor of JNU and former Director of IMD Met-Dept on 5th and 6th Jan 2008. Ambient air quality is being monitored regularly and report is being regularly submitted to GPCB & MoEF. The AAQ monitoring results for the period April'14 to September'14 for SPM, RSPM, CO, SO2 and NOx are enclosed as Annexure-4.
(v)	Data on ambient air quality RSPM (Particulate matter with size less than 10 micron i.e., PM10) & NOx should be regularly submitted to the Ministry of Environment and Forests including its Regional office located at Bhopal and the State Pollution Control Board / Central Pollution Control Board once in six months.	•	Ambient air quality is being monitored regularly and report is being regularly submitted to GPCB & MoEF. Last submission was on 25.05.2014 vide letter no.ACL/EMD/F-16/2014/.
(vi)	Fugitive dust emissions from all the sources should be controlled regularly. Water spraying arrangement on haul roads, loading and unloading and at transfer points should be provided and properly maintained.	•	Water tankers have been deployed for regular sprinkling of water on haul roads to prevent fugitive dusting in mines area. Air quality monitoring is being done regularly and conform the norms prescribed by the Gujarat Pollution Control Board
(vii)	Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc, should be provided with ear plugs / muffs.	•	Blast free eco-friendly machine i.e. Surface Miner is used for excavating the limestone. The noise levels are kept well within the permissible limits by system of condition monitoring of the equipment and well planned maintenance system. Ambient noise monitoring as well as HEMM noise monitoring report is enclosed as Annexure 5 & 6.
(viii)	Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap	•	'No waste water generation from Mines ,only negligible amount of waste water generated from workshop, which is being treated at buffle type oil and grease separation system and treated water is being used for plantation/greenbelt development.

	should be installed before discharge of workshop effluents.		
(ix)	Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.	•	Dust Masks, Safety Shoes, Safety Goggles & Helmet are provided to each & every personnel working in the mine area. Periodic Health check up is being done for personnel working in mines area. Work area monitoring for air borne dust is carried out regularly on monthly basis, monitoring results enclosed as <b>Annexure 7</b> .
(x)	A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.	•	A well established Environmental Management Division (EMD) with suitable qualified personnel is exist. Head of environmental management cell directly report to the Works Head of the organization. EMD organization chart is enclosed as <b>Annexure 8</b> .
(xi)	The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Bhopal,	•	Details of capital and recurring expenditure for environmental protection measures are enclosed as <b>Annexure 9.</b>
(xii)	The project authorities should inform to the Regional Office located at Bhopal regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work,	•	Informed vide letter 16.07.2005 and first compliance report was submitted on 26.07.2006.
(xiii)	The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.	•	Point noted and being complied.
(xiv)	The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office Bhopal, the respective Zonal Office of Central Pollution Control Board the State Pollution Control Board.	•	Half yearly compliance status report is being regularly submitted to MoEF Bhopal & Central Pollution Control Board. Last submission was on 25.05.2014 vide letter no.ACL/EMD/F-16/2014.

	The preparate shall upleed the status of		o IA II (III) dated o 110012011
	The proponent shall upload the status of compliance of the environmental clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the Ministry of Environment and Forests, Bhopal, the respective Zonal Office of Central Pollution Control Board and the State Pollution Control Board.		
(xv)	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parisad/ Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	•	A copy of clearance letter has been sent to Panchayat, Zila Parisad / Municipal Corporation, Urban Local Body as applicable.
(xvi)	The State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and the Collector's office/ Tehsildar's Office for 30 days.	•	GPCB is the concern authority for the same.
(xvii)	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Bhopal by email.	•	Environmental statement is being regularly submitted to concern authority for each financial year. Last Environment Statement submitted on 16.09.2014 vide letter no. ACL/EMD/F22/2014.
(xviii)	The project authorities should advertise at least in two local newspapers of the District or State in the project is located and widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at	•	Point noted and complied.

			\ \ \
	web site of the Ministry of Environment and Forests at http://envfor.nic.in and a copy of the same should be forwarded to the Regional Office of this Ministry located at Bhopal.		
7	The Ministry or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection,	•	Point noted
8	Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.	•	Point noted
9	The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control Of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/High Court of Gujarat and any other Court of Law relating to the subject matter.	•	Point noted

## ANNEXURE 1 (A)

RKBA MINES Greenbelt & Plantation Details till September 2014						
Total Lease Area (in ha)	Opened up Area (in Ha)	Planted Area (in Ha)	Pasture land (in Ha)	Water Body (in Ha)		
310.3290	117.7862	9.0525	20.1087	0.0		

### **Green Belt in RKBA Mines**

## Annexure 1 (B)





### **Green Belt in RKBA Mines**

## Annexure 1 (B)





### Ambuja Cement Foundation - Ambujanagar Details for programme wise expenditure from April to Sept-2014

(Rs. In lakhs)

Sr.No	Programme	Funds from ACF Resources	*Funds received through Government	from other Donors / Donor Agencies	***People's Contribution	****Direct Funding to Communities	Total Exp.
	GUJARAT - Kodinar						-
1	Water Resource Mangement & Drinking Water Projects						-
	a.Water Resource Devlopment	24.96					24.96
	B .Drinking Water Programme	2.65	-	5.80	2.80	27.56	38.81
	c. Salinity Prevention (KVY III)	10.91		22.04	24.14	26.45	83.54
2	Agriculture Development( Farm Forestry &Afforesation)	1.33		2.02	28.20	28.02	59.57
3	Better Cotton Initiative (BCI)	0.30		7.68			7.98
4	Krishi Vigyan Kendra (KVK)	5.65	46.84		-		52.49
5	Health & Sanitation Programme	5.68			4.29	-	9.97
6	Skill and Enterprunership Development Programme	15.35	4.47		7.12		26.94
7	Village Knowledge Centre & Anganwadi exp	0.92			-		0.92
8	Women / Youth Development & Others	2.09					2.09
9	Integrated Community Development Programme	42.91					42.91
10	Co-ordination & Administration Expenses	29.70					29.70
11	Capital Expenditure	1.46					1.46
	TOTAL	143.91	51.31	37.54	66.55	82.03	381.34

### April'2014

### **Ground Water Quality Report of RKBA Mines (April-2014)**

S.N.	Ref.No.	IS 1050	D:1991 (F.R)			Wall	Water			Piezometers
		Desirable	Permissible			vven	water			riczonieters
	Source			W3	W7	W8	W9	W10	W13	2
	Village	]		RAMPARA	RAMPARA	RAMPARA	RAMPARA	RAMPARA	RAMPARA	RKBA Mines
	Taluka	]		VERAVAL						
	District			JUNAGADH						
1	Color Hazen Units	5	25	C.L.						
2	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
3	Turbidity NTU	1	10	0.1	0.2	0.2	0.1	0.1	0.1	0.2
4	Dissolved Solids mg/l	500	2000	420	500	540	638	658	1050	1250
5	рН	6.5 to 8.5	No Relaxation	8.4	8.31	8.35	8.4	8.31	8.35	8.06
6	Total Hardness (as CaCO3) mg/l	200	600	244	276	268	292	272	452	460
7	Calcium (as Ca mg/l	75	200	52	54	52	57	54	89	91
8	Magnessium (as Mg) mg/l	30	100	27	34	33	35	33	55	56
g	Chlorides (as Cl) mg/l	250	1000	68	104	116	176	192	312	456
10	Sulphates (as SO4) mg/l	200	400	40	44	43	46	43	72	73
11	Nitrates (as NO3) mg/l	45	No Relaxation	13.9	3.5	39.5	14.5	33.7	41.8	13.4
12	Fluorides (as F) mg/l	1	1.5	0.53	1	0.72	0.5	1.2	0.43	0.73
13	Alkalinity (as CaCO3) mg/l	200	600	156	180	172	164	120	60	164
**	Water level in mtr. from ground level									

### Oct-14

### Ground Water Quality Report of RKBA Mines (october -2014)

S.N. I	Ref.No.	IS 10500	D:1991 (F.R)		•	Wall	Water	•		Diamonatara	
		Desirable	Permissible			weii	water			Piezometers	
	Source			W3	W7	W8	W9	W10	W13	2	
1	Village			RAMPARA	RAMPARA	RAMPARA	RAMPARA	RAMPARA	RAMPARA	RKBA Mines	
I F	Taluka			VERAVAL							
T	District			JUNAGADH							
1 (	Color Hazen Units	5	25	C.L.							
2 (	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable	
3	Turbidity NTU	1	5	2.12	0.75	11.4	1.21	0.2	0.42	0.7	
4 I	Dissolved Solids mg/l	500	2000	310	370	820	390	570	704	356	
5	pH	6.5 to 8.5	No Relaxation	7.92	7.89	7.78	7.99	8.01	7.76	8.12	
6	Total Hardness (as CaCO3) mg/l	200	600	148	184	380	184	260	288	180	
7 (	Calcium (as Ca mg/l	75	200	45	67	136	51	67	70	48	
8 1	Magnessium (as Mg) mg/l	30	100	9	4	10	14	23	28	15	
9 (	Chlorides (as CI) mg/l	250	1000	72	80	208	100	140	220	80	
10 9	Sulphates (as SO4) mg/l	200	400	28	36	75	34	47	40	33	
11 I	Nitrates (as NO3) mg/l	45	No Relaxation	10.38	14.6	33.2	7.1	34.8	28.8	2.2	
12 I	Fluorides (as F) mg/l	1	1.5	0.97	0.4	0.19	0.34	0.63	0.39	0.55	
	Alkalinity (as CaCO3) mg/l	200	600	136	144	160	120	112	208	120	
	Water level in mtr. from ground level										

### Ambient Air Quality Monitoring Results (April 2014 - September 2014)

														Ambient A	ir Quality N	lonitoring	Results													
Month		W	orking Pla	ce			N	lines Offic	е			Ku	ıkaras Villa	ge			Anar	ndapara Vi	illage			В	hetali Villa	ge			R	ampara Vill	age	
	PM2.5	PM10	S02	NOx	co	PM2.5	PM10	SO2	NOx	СО	PM2.5	PM10	S02	NOx	co	PM2.5	PM10	SO2	NOx	СО	PM2.5	PM10	S02	NOx	СО	PM 2.5	PM 10	SO2	NOx	co
Unit >	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(mg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(mg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(mg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(mg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(mg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(µg/m3)	(mg/m3)
April 2014	26.00	42.00	11.70	17.40	0.50	28.00	47.00	12.50	18.00	0.30	30.00	46.00	12.70	17.60	0.50	28.00	40.00	11.20	15.70	0.40	30.00	45.00	12.40	16.40	0.50	27.00	43.00	11.80	17.50	0.40
	25.00	40.00	12.00	16.60	0.40	23.00	35.00	11.50	17.30	0.50	29.00	36.00	12.30	17.80	0.30	25.00	43.00	12.50	17.50	0.40	27.00	44.00	11.20	16.20	0.50	29.00	42.00	12.30	17.70	0.30
May 2014	22.00	39.00	12.30	16.20	0.30	25.00	45.00	11.80	17.50	0.40	32.00	41.00	11.30	17.10	0.40	31.00	38.00	11.50	16.20	0.50	33.00	43.00	12.10	17.20	0.40	29.00	40.00	11.20	17.80	0.30
	29.00	42.00	12.30	17.40	0.50	31.00	39.00	11.80	16.20	0.30	28.00	40.00	11.40	16.80	0.40	29.00	40.00	11.70	16.40	0.50	32.00	38.00	12.50	17.30	0.30	34.00	46.00	11.30	16.80	0.40
June 2014	25.00	41.00	12.80	16.60	0.50	28.00	43.00	11.50	17.20	0.30	30.00	44.00	11.70	17.50	0.50	27.00	36.00	11.70	16.60	0.40	30.00	39.00	12.40	17.60	0.50	28.00	33.00	11.70	16.80	0.40
	25.00	40.00	12.60	17.70	0.40	29.00	42.00	11.30	16.40	0.50	26.00	44.00	11.70	16.50	0.30	26.00	42.00	11.20	16.20	0.30	30.00	43.00	12.90	17.60	0.40	32.00	40.00	11.70	16.50	0.50
July 2014	27.00	42.00	12.30	16.30	0.30	24.00	45.00	11.70	17.50	0.40	28.00	47.00	11.30	16.70	0.40	25.00	28.00	11.40	16.20	0.50	28.00	41.00	12.20	17.30	0.40	24.00	35.00	11.90	16.30	0.30
	25.00	39.00	12.60	17.10	0.30	29.00	42.00	11.50	16.60	0.50	26.00	44.00	11.00	16.10	0.30	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
August 2014	22.00	44.00	12.80	16.80	0.50	26.00	41.00	11.40	17.20	0.30	25.00	42.00	11.90	16.40	0.20	27.00	30.00	11.80	16.60	0.40	23.00	35.00	12.60	17.70	0.30	20.00	37.00	11.20	16.90	0.50
	23.00	36.00	12.10	16.20	0.50	27.00	40.00	11.70	16.80	0.40	29.00	42.00	11.50	17.20	0.50	27.00	42.00	12.40	16.20	0.50	30.00	38.00	11.80	17.00	0.30	25.00	40.00	11.20	16.70	0.40
September 2014	27.00	40.00	12.30	16.20	0.40	29.00	44.00	11.70	17.70	0.50	26.00	46.00	12.60	16.00	0.30	29.00	33.00	11.20	16.10	0.50	26.00	38.00	12.90	17.30	0.40	25.00	39.00	11.70	16.50	0.30
	21.00	31.00	11.80	17.30	0.40	29.00	37.00	12.30	16.70	0.30	25.00	45.00	11.10	17.50	0.40	21.00	46.00	11.90	17.80	0.30	32.00	42.00	12.30	17.30	0.50	29.00	35.00	12.80	16.50	0.40
Minimum	21.00	31.00	11.70	16.20	0.30	23.00	35.00	11.30	16.20	0.30	25.00	36.00	11.00	16.00	0.20	21.00	28.00	11.20	15.70	0.30	23.00	35.00	11.20	16.20	0.30	20.00	33.00	11.20	16.30	0.30
Maximum	29.00	44.00	12.80	17.70	0.50	31.00	47.00	12.50	18.00	0.50	32.00	47.00	12.70	17.80	0.50	31.00	46.00	12.50	17.80	0.50	33.00	45.00	12.90	17.70	0.50	34.00	46.00	12.80	17.80	0.50
Average	24.75	39.67	12.30	16.82	0.42	27.33	41.67	11.73	17.09	0.39	27.83	43.08	11.71	16.93	0.38	26.82	38.00	11.68	16.50	0.43	29.18	40.55	12.30	17.17	0.41	27.45	39.09	11.71	16.91	0.38
Std. Deviation	2.38	3.39	0.36	0.55	0.08	2.39	3.50	0.35	0.55	0.09	2.25	3.09	0.56	0.61	0.10	2.64	5.67	0.45	0.62	0.08	2.96	3.14	0.49	0.48	0.08	3.88	3.86	0.50	0.52	0.08

Annexure - 5
Ambient Noise Level Monitoring - RKBA Limestone Mines (April-14 to September-14)

<b>84</b> 41-		Noise Levels in dB(A)														
Month	Near Surface Miner		Haul road		Mines Office		Rampara Village		Kukaras	s Village	Bhetali Village		Anandapara Village			
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max		
Apr-14	74	78	40	43	41	44	45	50	38	42	40	44	38	42		
May-14	76	79	40	44	38	42	40	44	37	41	42	43	38	40		
Jun-14	74	76	42	43	44	46	40	42	38	41	40	46	40	44		
Jul-14	72	74	36	39	40	44	46	48	40	43	40	44	38	41		
Aug-14	72	75	39	42	40	44	39	43	50	54	42	44	40	42		
Sep-14	73	75	37	39	40	43	44	48	40	44	39	42	38	42		

## **Annexure 6**

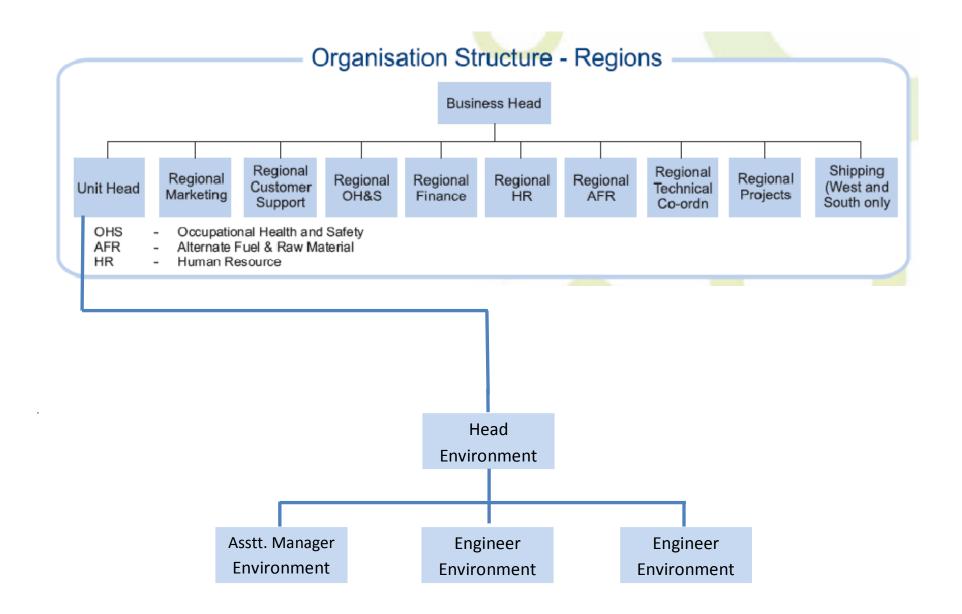
### Noise Level of HEMM - RKBA Limestone Mines (April- 2014 - September-2014)

Machine		Surfaec M	iner					Dozer							
Month	Conditions	Noise Levels (dB)			Conditions		Noise Le	vels (dB)		Conditions	Noise Levels (dB)				
Wortu	Conditions	At 5m. distance At 10m. distance		distance	Ooriditions	At 5m. distance		At 10m. distance		Ooriditions	At 5m. distance		At 1	10m. distance	
		Min	Max	Min	Max		Min	Max	Min	Max		Min	Max	Min	Max
Apr-14	While dozing the material	55	60	42	46	While loading to tipper	50	56	40	44	While mining	40	45	50	55
May-14	While dozing the material	68	70	39	42	While loading to tipper	50	56	40	44	While mining	48	50	39	43
Jun-14	While dozing the material	67	72	40	44	While loading to tipper	55	56	42	48	While mining	52	56	40	45
Jul-14	While dozing the material	60	66	42	46	While loading to tipper	50	54	39	42	While mining	55	60	43	45
Aug-14	While dozing the material	71	74	39	42	While loading to tipper	52	54	40	43	While mining	58	62	45	50
Sep-14	While dozing the material	72 74 40 42		While loading to tipper	45	50	38	40	While mining	55	59	41	45		

## Annexure - 7

## Air Borne Dust Survey - RKBA Limestone Mines (April 2014 - September-2014)

	Machine : S	urface Miner			Machine	e : Dozer		Machine : Loader				
Date	Period	Location	RSPM (mg/m3)	Date	Period	Location	RSPM (mg/m3)	Date	Period	Location	RSPM (mg/m3)	
28-Apr-14	06:00 - 14:00		0.21	29-Apr-14	06:00 - 14:00		0.24	30-Apr-14	06:00 - 14:00		0.29	
5-May-14	06:00 - 14:00	bin	0.25	6-May-14	06:00 - 14:00	Cabin	0.22	7-May-14	06:00 - 14:00	bin	0.28	
11-Jun-14	06:00 - 14:00	Cal	0.3	12-Jun-14	06:00 - 14:00		0.28	13-Jun-14	06:00 - 14:00	Cal	0.26	
24-Jul-14	06:00 - 14:00	ide	0.29	25-Jul-14	06:00 - 14:00	ide	0.21	26-Jul-14	06:00 - 14:00	ide	0.24	
21-Aug-14	06:00 - 14:00	lus	0.27	22-Aug-14	06:00 - 14:00	Insi	0.26	23-Aug-14	06:00 - 14:00	Insi	0.22	
4-Sep-14	06:00 - 14:00		0.22	5-Sep-14	06:00 - 14:00		0.26	6-Sep-14	06:00 - 14:00		0.24	



## Annexure 9

## EXPENDITURE INCURRED ON THE ENVIRONMENTAL MANAGEMENT PLANS

### (A) Capital Investment for Environmental Monitoring :

(1) Monitoring Equipments : 37.08 Lakh

(2) Environmental Laboratory : 10.00 Lakh

(3) Others (Monitoring Van & DG sets) : 10.00 Lakh

Total: Rs. 57.08 Lakh

### (B) Recurring expenditure for the period of April'14 to September'14:

(1) Green belt development & dust suppression : 19.96 Lakh

(2) Manpower Cost\* : 13.92 Lakh

(3) Operation & maintenance cost of road sweeping : 0.89 Lakh

Machine

(4) Other Env. Protection (Environmental Monitoring) : 1.05 Lakh

(5) Environment Awareness\* : 1.10 Lakh

Total: Rs. 36.92 Lakh

<sup>\*</sup>Expenditures common for all the plant & mines.

## EXPENDITURE INCURRED ON THE ENVIRONMENTAL MANAGEMENT PLANS

## (C) Community Development expenditure by Ambuja: Rs. 3.81 Crore Cement Foundation\*\*

\*\* Community development expenditure is common for all plant & mines at Ambujanagar. Programme wise Expenditure Details is as below:

	Ambuj	ja Cement Found	ation - Ambuja	nagar			
	Details for progra	mme wise expe	nditure from A	pril to Sept-20	14		
							(Rs. In lakhs)
Sr.No	Programme	Funds from ACF Resources	*Funds received through Government	from other Donors / Donor Agencies	***People's Contribution	****Direct Funding to Communities	Total Exp.
	GUJARAT - Kodinar						-
1	Water Resource Mangement & Drinking Water Projects						-
	a.Water Resource Devlopment	24.96					24.96
	B .Drinking Water Programme	2.65	-	5.80	2.80	27.56	38.81
	c. Salinity Prevention (KVY III)	10.91		22.04	24.14	26.45	83.54
2	Agriculture Development( Farm Forestry &Afforesation)	1.33		2.02	28.20	28.02	59.57
3	Better Cotton Initiative (BCI)	0.30		7.68			7.98
4	Krishi Vigyan Kendra (KVK)	5.65	46.84		-		52.49
5	Health & Sanitation Programme	5.68			4.29	-	9.97
6	Skill and Enterprunership Development Programme	15.35	4.47		7.12		26.94
7	Village Knowledge Centre & Anganwadi exp	0.92			-		0.92
8	Women / Youth Development & Others	2.09					2.09
9	Integrated Community Development Programme	42.91					42.91
10	Co-ordination & Administration Expenses	29.70					29.70
11	Capital Expenditure	1.46					1.46
	TOTAL	143.91	51.31	37.54	66.55	82.03	381.34