



SUSTAINABLE DEVELOPMENT REPORT 2011-12



CREATE • CONSERVE  
CARRY FORWARD

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यत ते विश्वनामी क्षिप्रं तदापि रोहतु ।  
मा ते मर्म विमृग्वरि मा ते हृदयमर्पिपम ॥

‘ Oh! Mother Earth, When I dig out  
trees, roots and other substances  
for food and medicines from your body,  
let your wounds heal quickly.  
Let me never hurt the essence of your vitality,  
the source of all creations and turn you barren. ’

From the Hindu Scriptures  
Atharva Veda (Circa 1000 BC)

## Message from Chairman

### Dear Stakeholders,

I am delighted to present NALCO's Sustainable Development Report which has been prepared in accordance with National Voluntary Guidelines on Business Responsibilities Principles and also addressing Global Reporting Initiative disclosure elements. With this report, NALCO takes a strong commitment to redefine and reinforce its actions on the nine principles, serve as a good-practice benchmark, and also commit to periodic annual disclosures on its sustainability performance.

In my view, these principles serve as a beacon, in guiding responsible corporate action and managing enterprise risk arising out of various social, environmental and economic aspects. The principles also make us do a course correction in our business as usual scenario as we incorporate feedback from our stakeholders on our actions.

The world's growing population, increase in GDP levels and changing lifestyles are causing consumption levels to rise globally - creating a higher and higher demand for resources. Governments and companies are becoming increasingly cognizant of the scope, importance and urgency of the scarcity of both renewable and non-renewable natural resources including energy, water, land and minerals. In our sector, we are already facing situations of scarcity in coal supply, and energy scarcity concerns. We are also witnessing enhanced action of policy makers on the issue of resource supply such as guidelines on sharing of mineral wealth, as well as regulations on efficiency of resource consumption.

In this context, our approach to sustainability has a number of material issues. These form a part of our respective functional directors and senior management responsibilities, and in turn their performance areas. Some of the key actions on these issues in the reporting period are :

- ◆ Our actions to mitigate **Climate Change** are on track as we enlarge our footprints in renewable energy generation thereby having an appropriate mix in energy sources and supply for our operations. We are also progressing with our pilot project for "**carbon sequestration**". Our Research and Development Department has also embarked on projects to monitor PFC emissions from our Smelter operations.



- ◆ We are embarking on a structured initiative to measure, benchmark and monitor our **energy performance** of various operational activities and take advantage of international standards on energy management systems. We have also launched initiatives as per Perform-Achieve-Trade Scheme of Govt. of India. This is our preparation, as we take part in energy efficiency perform-achieve-trade schemes in India.
- ◆ On the **social** front, we continue our commitment of investing **2% of our net profits** towards community development projects and activities over and above running schools for community. We do it through government appointed bodies in case of our peripheral development functions and through NALCO foundation by sponsoring worthy projects confirming to our community development activities. In recognition of our CSR initiatives, NALCO received the PSE Excellence Award 2011, in the Maharatna and Navratna category, for Corporate Social Responsibility and Responsiveness, instituted by the Department of Public Enterprises (DPE), Govt. of India and Indian Chamber of Commerce.
- ◆ We continue on our agenda of **sustainability in mining** focusing on safe and appropriate disposal of overburden and other mining wastes, adhering to biodiversity management plans and land rehabilitation, community involvement in afforestation and focus on employment generation, appropriate consultation and grievance mechanism for mining communities (public grievance cell), and a host of community development projects which are need based. We are also a part of "**Sustainable Mining Initiative**", under Federation of Indian Mineral Industries, through which we hope to contribute to and abide by good environment and social safeguard practices in mining.
- ◆ We continue our commitment towards ancillary industry development; our joint venture with Orissa Industrial Infrastructure Development Corporation (IDCO) on developing the first ever Aluminium focused industry park, the "**Angul Aluminium Park**" initiative is progressing well.

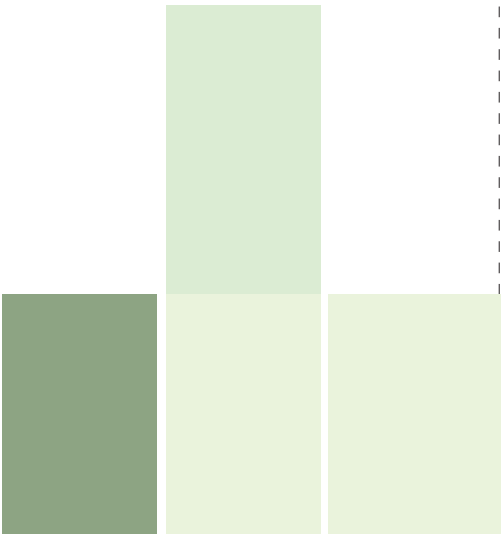
I am hopeful that this report would be engaging to you. We would welcome your feedback on this report as well as on our initiatives.

*Corporate Office: All our visitors do not come for business only*



## Overview

Incorporated in 1981 as a public sector enterprise, National Aluminium Company Limited (NALCO) is a Schedule-A Central Public Sector Enterprise (CPSE) under the administrative control of Ministry of Mines with 87.15% shareholding by the Government of India. We are an integrated and diversified mining, metal and power producer. The government’s decision to set up NALCO was a turning point in the history of Indian Aluminium industry. We were set up to tap the bauxite reserves at Panchpatmali mines in the state of Odisha for production of alumina and aluminium. This paved the way for the country to be self sufficient in aluminium metal, bringing with it associated technological edge in producing this strategic metal. With consistent track record in capacity utilization, technology absorption, quality assurance, export performance and profitability, NALCO exemplifies modern India’s industrial capability. The manufacturing units of the company are located at Damanjodi and Angul in the state of Odisha. It has bulk shipment facilities at Visakhapatnam port in Andhra Pradesh.



### VISION

To be a reputed global Company in the Metals and Energy sectors

### MISSION

- To achieve sustainable growth in business through diversification, innovation and global competitive edge.
- To continuously develop human resources, create safe working conditions, improve productivity and quality and reduce cost and waste.
- To satisfy the customers and shareholders, employees and all other stakeholders.
- To be a good corporate citizen, protecting and enhancing the environment as well as discharging social responsibility in order to ensure sustainable growth.
- To intensify Research and Development for technology development.

## Key Facts

### Production Performance

- (A) Bauxite - 50.03 Lakh MT
- (B) Alumina Hydrate - 16.87 Lakh MT
- (C) Aluminium metal - 4.13 Lakh MT
- (D) Electricity units - 6200 Million Units.

Capacity expansions planned in all operational stages i.e. Mines, Refinery, Captive Power Plant and Smelter in the country.

Pursuing investments interests and greenfield capacity addition in India and overseas.

- Top exporter award accorded by CAPEXIL continuously for 24 years

- Among the top 5 exporters of Alumina globally

- Aspirations to enter the energy sector with forays in nuclear energy, coal energy and renewable energy (wind and solar generation )

- Major efforts planned in Ancilliary development and creation of 'Angul Aluminium Park'

- Total number of employees -7705



■ Nalco's Alumina Refinery at Damanjodi, Koraput, Odisha

### The Top Management



**Director  
(Finance)**

- Overall risk management
- Ensuring appropriate internal controls, complying with external audit and government audit requirements
- Foreign exchange management
- Financial check on Corporate plan and business development activities



**CMD &  
Director  
(Commercial)**

- As CMD he is responsible for the effective functioning of the Company in pursuit of its mission, goals and objectives.
- He creates a strategic vision for the business that steams from the Company's existing strength, builds on its distinctive competitive advantages and opportunities available.
- Ensuring transparency and ethics in procurement and pricing of products and marketing
- Practices to ensure customer satisfaction
- Product diversification and market development of new products



**Director  
(Production)**

- Energy Sourcing, Conservation
- Determining appropriate energy mix
- Climate Change mitigation actions
- Occupational Health and Safety
- Environmental norms
- Sustainable mining
- Waste management, recycling
- Process improvement, efficiency and cost reduction



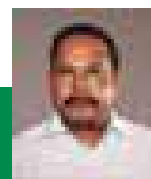
**Director  
(Project &  
Technical)**

- Technical and engineering guidance for the organisation
- Piloting and rapid scaling of technological initiatives in sustainability such as in emission control, energy efficiency, waste initiatives
- Sustainability considerations in large value capital projects (above INR 100 Corers)



**Director  
(HR)**

- Talent recruitment management, employee engagement
- Ensuring congenial work environment and harmonious industrial relations
- Compliance with Indian regulations and International declarations on labour aspects
- Community engagement, resettlement and rehabilitation
- Peripheral, social development projects



**Chief  
Vigilance  
Officer**

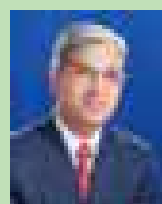
- Responsible for transparency in all policies, tendering activities.
- Proper Business ethics in all activities of the company.
- Compliance to CVC guidelines and submission of reports / returns as per requirement.
- Watch dog for the company.



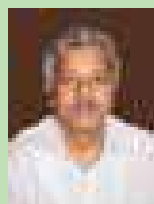
**Company  
Secretary**

- Ensuring overall compliance of the organisation
- Responsible for NALCO Foundation activities
- Leading the disclosure of information of company practices and performance in sustainability

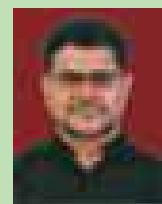
### Independent Directors



Mr. Ved Jain



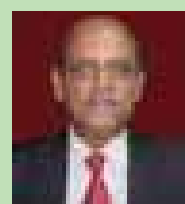
Mr. P. C. Sharma



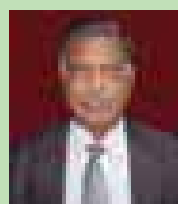
Mr. G. P. Joshi



Mr. S. S. Khurana



Mr. Madhukar Gupta



Mr. G. H. Amin



Mr. Qaiser Shamim



Mr. Sanjiv Batra



## Our Commitment to Sustainability Issues as Business Responsibility

Sustainability issues have been enshrined in our thought and actions since inception, enabling us to become a leading player in domestic and international markets in the Aluminium sector. Our business context necessitates for us to have a holistic understanding of societal concerns and a balanced approach to guide our corporate actions.



In line with our Corporate Plan and Vision 2020, we have business growth plans which are responsible and in line with government regulations and societal aspirations. We are working hard to diversify our business both in terms of geographical spread, and in terms of enhancing our functional portfolio. To this end, we have taken bold initiatives in areas of renewable energy, nuclear energy, precious metal mining/production, and having facilities in different parts of the country. In all of these ventures, we make sure that sustainability is accorded a high priority through initial community engagement, technology selection and operations.

This is our first Sustainable Development Report. The report provides a snapshot of our systems and performance on all the nine principles of Business Responsibility based on National Voluntary Guidelines. It has been prepared as a response to Securities Exchange Board of India (SEBI) press release dated November 24, 2011, which had proposed that the listed entities should publish Business Responsibility Reports in accordance with National Voluntary Guidelines.

Material Sustainability issues and their accountability

A memorandum of understanding (MoU) is executed between NALCO and Ministry of Mines, Government of India, each year. The MoU serves to define the basis for determining our corporate actions and resulting performance. This is a key accountability document which has sustainability embedded in the various performance indicators. Based on our engagement with internal and external stakeholders on sustainability issues (see Stakeholder Engagement section of this report), we evaluated material sustainability issues forming a part of our performance. The following illustrates our material sustainability issues. We have a high level commitment and assigned responsibilities to improve our performance continually on these issues.

Economic Aspects	<ul style="list-style-type: none"><li>Ethics, transparency in pricing and business relationships</li><li>Bauxite resource availability and quality</li><li>Reducing uncertainty in energy sources availability</li><li>Vendor and ancillary development</li><li>Infrastructure, shipping and logistics</li></ul>
Environment Aspects	<ul style="list-style-type: none"><li>Energy management - Energy efficiency, Renewable energy, specific energy consumption requirements as per Government of India schemes</li><li>Greenhouse Gas emissions and Climate change</li><li>Water management - fresh water withdrawal and effluent discharges</li><li>Environmental management - Noise, significant air emissions, effluent and waste</li><li>Waste management and land rehabilitation</li></ul>
Labour Practices	<ul style="list-style-type: none"><li>Talent and skill management of our workforce</li><li>Labour management relations</li><li>Occupational, Health and Safety</li></ul>

#### Human Rights

- Adherence to human rights in employee relations
- Adherence to human rights with service providers
- Adherence to human rights in investment and procurement

#### Society

- Taking appropriate operational safeguards, minimizing community impacts due to our operations in Angul, Damanjodi and Visakhapatnam.
- Peripheral development projects along with government appointed bodies
- Community projects, grants based on needs assessment

#### Product Responsibility

- Tackling the energy intensive nature of aluminium production with innovative concepts such as "Aluminium Park"
- Public policy advocacy on Aluminium recycling
- Customer satisfaction practices



R E C O G N I T I O N

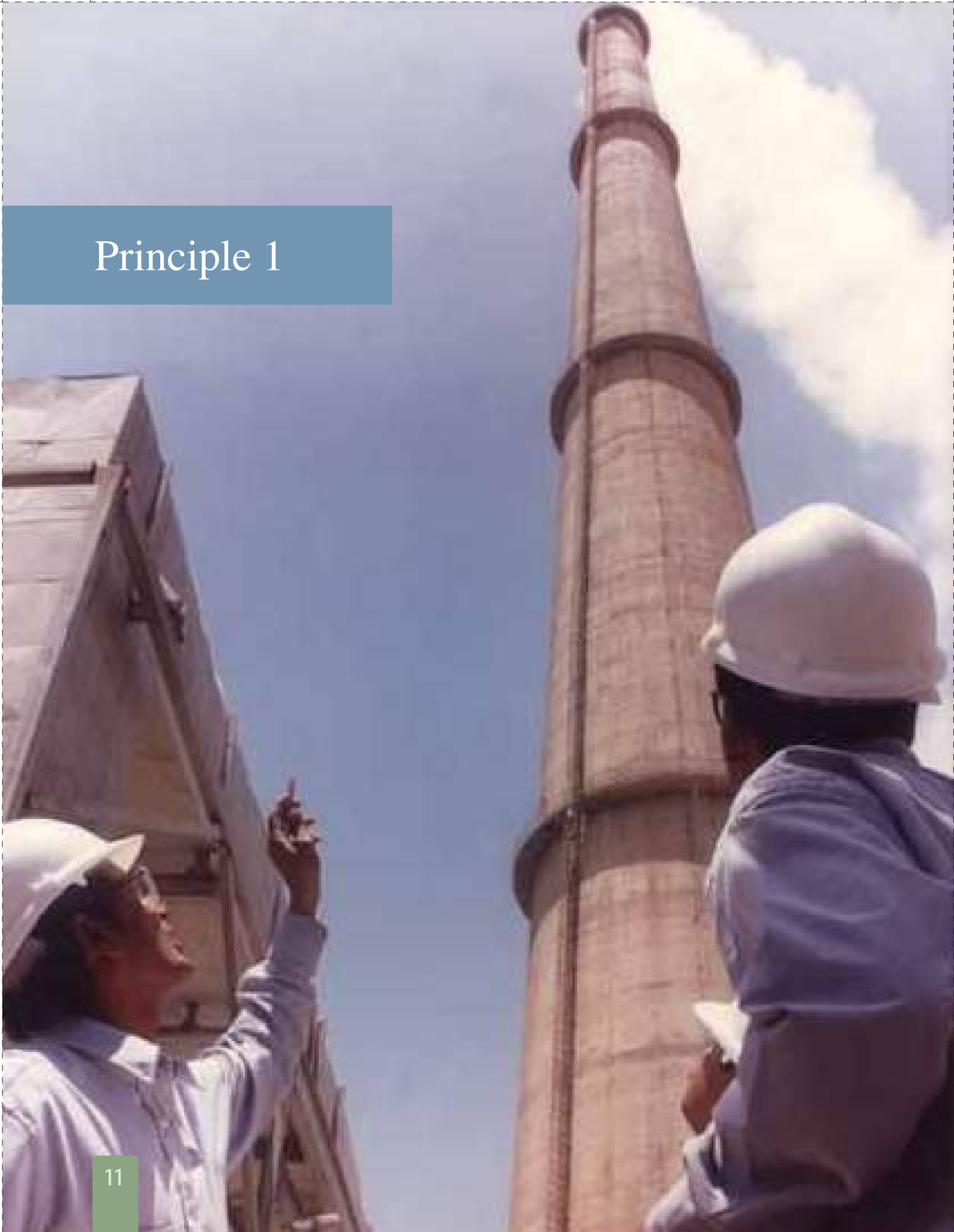
- **PSE Excellence Award 2011**, in the Maharatna and Navratna category, for **Corporate Social Responsibility & Responsiveness**, instituted by the Department of Public Enterprises, Govt. of India and Indian Chamber of Commerce.
- **Best Exporters' Award** from Directorate of Export Promotion and Marketing, Govt. of Odisha for outstanding export of Alumina and Aluminium for the year 2009-2010.
- **Top Export Award** of CAPEXIL, for outstanding export performance during 2010-2011.



- Prestigious **National Energy Conservation Award** for the year 2011 from Ministry of Power for Smelter Plant at Angul.
- Three Prestigious awards: “**CEO with HR Orientation**”, “**HR Leadership Award**” and “**Organization with innovative HR Practices**” at the Global HR Excellence Awards ceremony during World HRD Congress - 2012



## Principle 1



## Ethics, Transparency and Accountability

As a public sector enterprise, transparency and disclosure practices form a cornerstone of our business practices. The implementation of the RTI Act in our organization is reflective of this. To ensure that excellence goes hand in hand with ethical conduct, we rely on:-

- ◆ A Code of Conduct followed by our senior level management and board of directors in line with the guidelines from Securities and Exchange Board of India. We also abide by the provisions to prevent insider trading and are transparent in our disclosure of material events to our shareholders through stock exchanges
- ◆ A set of defined conduct , discipline and appeal (CDA) rules is applicable for our management and supervisory workforce. This is referred to as “Conduct, Discipline and Appeal Rules” for Officers and “Standing Orders” for all workmen of the organization.
- ◆ Internal vigilance machinery headed by Chief Vigilance Officer (CVO) , who is on deputation from Central Govt. Services, for a period of three to five years. The vigilance activities are guided by the guidelines from the Central Vigilance Commission (CVC).
- ◆ Internal Audit System is based on external independent expert inputs and assessments of our business processes.
- ◆ External statutory audit of our accounts and audit is monitored by Government Body, Comptroller and Accountant General (CAG) of India.
- ◆ Evaluation of our actions and response by various parliamentary review committees
- ◆ Documented guidelines such as Contract Manual, Purchase Manual, Stores Manual, Marketing Guidelines and Delegation of Powers which guide our business decisions and reduce doubts or risk of personal judgment.

Our Annual report details our Corporate Governance practices and Code of Conduct to be followed at senior management levels. It describes mechanisms we have in place to avoid conflicts of interest. We also have periodic investor presentation meets which are shared in our website and in the stock exchanges for wider feedback from shareholders and investors.

We have also constituted several committees on pertinent issues including sustainability. These committees have appropriate representations of independent and functional directors and are often chaired by independent directors. This enables us to be diligent and responsive to external stakeholder concerns.

We strive to adopt an open office and informal culture in our organization. Our directors and senior management representatives work in a coordinated manner leading from the front at all levels as per the demands of the situation, participating in periodic meetings with departmental representatives and visiting different units & offices. We have a well defined grievance redressal mechanism for our employees (see details in Human Rights section of this report). The Board of our company as on 31.03.2012 comprising 12 Directors, out of which 6 are independent which conforms to compliance with requirements of the listing agreement and Department of Public Enterprise guidelines on Corporate Governance. The Board has complete access to organizational information and carry out regular assessments of business activities. In our business relationships with suppliers and customers, our aim is to achieve the highest levels of quality and transparency.

The globally accepted benchmark for Aluminium metal prices is as traded in London Metal Exchange. Whereas for Alumina, there are indirect benchmarks. Our large consignment size of alumina sale as well as transparent price discovery mechanism make our determined price referred as a benchmark in various commodity reports and also used indirectly in various transactions.





## Principle 2



## Product Life Cycle Sustainability

Our business is of mining bauxite and producing aluminum, specialty chemicals, alumina and electricity. Energy efficiency and waste reduction thereby assume critical importance as product life cycle sustainability issues for us.

On the energy aspect, we continuously improve our energy performance through multiple initiatives. This has enabled us to reduce the energy required to produce a tonne of metal (Refer Annexure 1 of our Annual report which highlights the energy efficiency initiatives and savings achieved). Our smelter technology is sourced from Pechiney (now a part of Rio Tinto Alcan group) and conforms to good productivity and energy efficiency norms. On the environmental impacts of mining, refining and smelting, we have undertaken management programmes on afforestation, reduction of air emissions and good practices in minimizing effluent discharges.

### Recycling of Aluminum

Production of aluminium is energy and resource intensive. Recycling can mitigate some of these environmental impacts. By virtue of the value chain stage in which we operate (i.e. primary metal production and no downstream activities), recycling aluminium is not a feasible option. However, we strongly advocate a proper recycling system to be in place in India. Through our membership with the 'Aluminium Association of India', we have submitted our observations on how the recycling of aluminium can be enhanced in future to make the most out of this sustainable metal. We are also in conversation with governmental authorities to set up India's first dedicated aluminium recycling plant for catering to the scrap generated from automobiles at end of life.

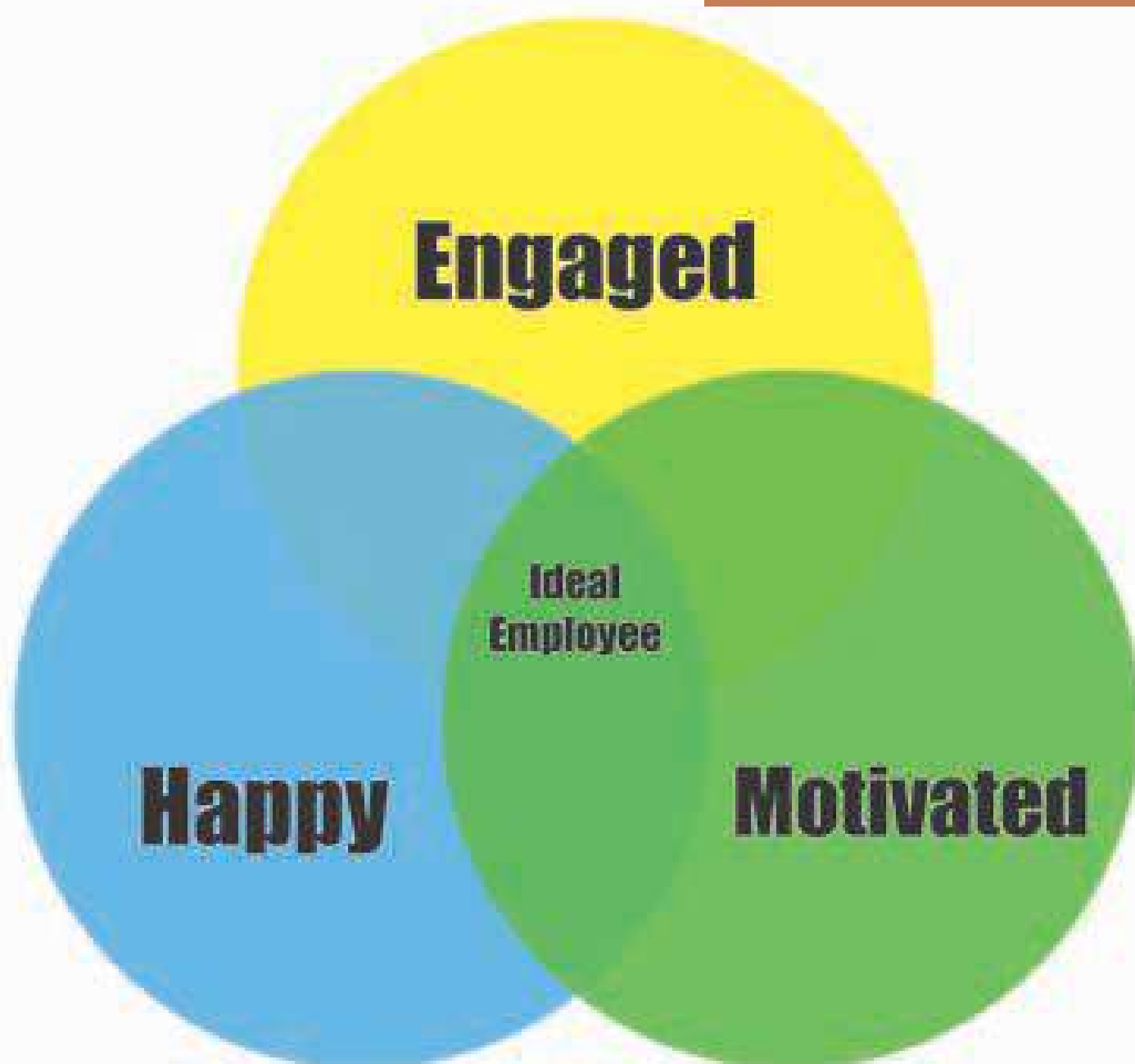
### Aluminium Park - First of its kind

It is our strategic priority to be engaged throughout the aluminium product life cycle and its sustainability. This has provided the impetus for us to go beyond our traditional business operations. We are developing 'Aluminium Park' at Angul as a joint venture with Odisha Industrial Infrastructure Development Corporation (IDCO) to promote Aluminium specific downstream and ancillary units.

Angul Aluminium Park is being designed to be the first of its kind in the Indian sub-continent. The unit will have necessary infrastructure support and facilities for directly receiving molten aluminium as well as aluminium in conventional solid forms from the adjoining smelter plant of NALCO. This is for use by the downstream units. It is planned to have a 450 acre area designated adjacent to the existing Smelter Plant of NALCO in Angul District, Odisha.

Due to proximity of the site with respect to the Smelter Unit, molten Aluminium metal may be procured directly by interested downstream industrial units within the proposed park and then utilized to form different end products as desired. In addition, Aluminium metal in conventionally available solid forms shall also be available. The benefits of using Aluminium in molten form lead to savings in terms of energy costs for the downstream industrial units and for NALCO as a whole. There is mitigation of environmental impacts due to reduction in energy requirement for the process and transportation. The downstream units can access better quality of the metal with lesser chemical impurities. Another associated benefit is efficient management of inventory with minimized requirement of stock.

## Principle 3



## Employees' Well-being

We believe that employees are the most valuable assets and empowering them is vital for our business sustainability. The continued success of our business operations owes itself to the unflinching commitment of our employees, often in difficult situations. We maintain a responsible human resources policy, encompassing aspects ranging from training and development, healthy working conditions to high standards of social accountability. Director (Personnel & Administration), a board member, is entrusted with the ultimate responsibility of talent acquisition, management and engagement.

Total manpower strength for the reporting year was 7705 as against 7714 in the preceding year. We have 355 women employees and 77 physically challenged employees.

The breakup of employee strength is given below:

Job contractors are engaged in some areas such as hospitality, maintenance, sanitation, conservancy, housekeeping

	FY 2010-11	FY 2011-12
Executives employees	1884	1851
Non Executive employees	5830	5854
Supervisory staff	839	860
Skilled/Highly Skilled supervised employees	3977	4014
Unskilled/Semi-Skilled supervised employees	1014	980

and project jobs. The contractors in turn employ their workers for discharging contractual obligations. Total numbers of workers engaged by our service providers (in relation to our contracts) in the reporting period was 10,706.

Payment to labour outsourced activities is, on the average, atleast about 16% higher than minimum prescribed by the

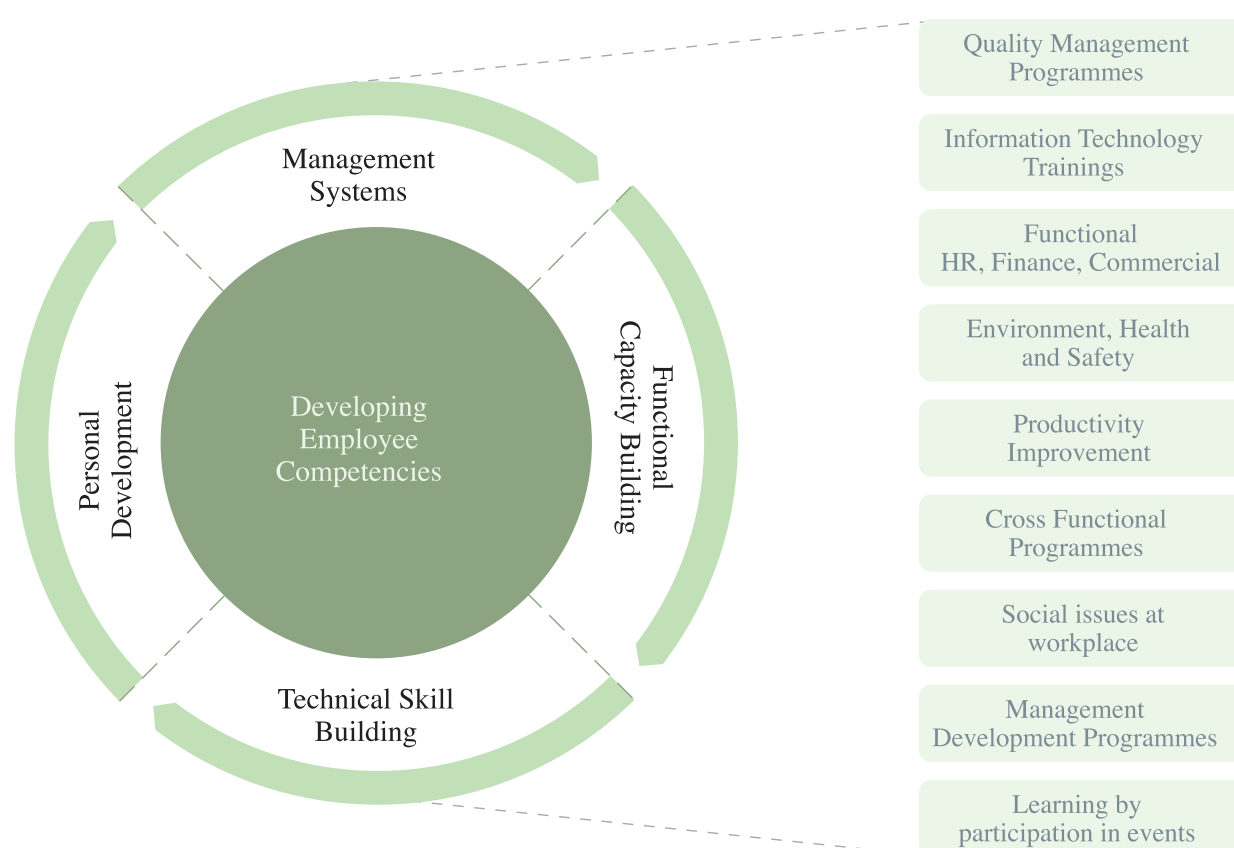
Government. An additional amount @ 4.75% of minimum wages is also paid at M&R Complex, where ESI coverage is not available.

### Training and Development

We recognize human resource development as a critical success factor. Constant efforts are being taken for functional and developmental training. The training is based on the needs identified for the individuals' career growth and organization's business requirements. Emphasis is on specific position related training and training programmes are customized to this end. We undertake training

Employee Category	FY 2010-11		FY 2011-12	
	Persons	Mandays	Persons	Mandays
Executives	2539	8114	3128	10476
Non-Executives	5840	15360	4865	10719
Total	8379	23474	7993	21195
Note : This works out to 2.65 mandays per employee against the MoU target of 2.5 mandays per employee				

effectiveness evaluation to align it with quality management systems and measure the benefits emanating.



### Socially Accountable Employment

We are committed to provide a socially accountable work environment to our employees and uphold ethical business practices by respecting employee rights. We have adopted a socially accountable policy in 2009 and are a SA 8000 compliant organization. Our Social Accountability Policy is available at our website [http://www.nalcoindia.com/download/SA\\_POLICY\\_Approved.pdf](http://www.nalcoindia.com/download/SA_POLICY_Approved.pdf).

### No Child Labour and Forced Labour

We do not employ child labour in our units directly or indirectly. We also ensure that child labour is not permitted to work in any occupation. We train our employees on the policies and procedures on prohibition of child labour. Despite this, if we observe any such occurrences, we have a remediation plan in place under which we are committed to financially supporting the loss of income as well as education of the concerned child.

We do not support any sort of forced or compulsory labour in our organization under any circumstances. Our managers are trained to understand types of forced labour, bonded labour and captive labour. Cascade occurs to all employee through awareness of the Standing Orders/ Service Rules/ CDA Rules. These are accessible to the workforce through the intranet. We communicate the terms and conditions of employment prior to recruitment, and through the induction programme. Employee handbook is also provided to employees.

In the reporting period we had no case of child or forced labour reported.



### Encouraging Collective Bargaining

We do not restrict any worker and/or contractor's worker to form or join any trade union of their choice and do not follow unfair labour practices as per I.D. Act, 1947. Workers are free to participate in all legitimate trade union activities. We involve our recognized unions in all matters of collective bargaining. Representatives of our Recognised Unions are nominated to different joint participative committees like Canteen Management Committee, Safety Committee, Grievance Committee, Welfare Committee etc. We ensure representative of unions or such personnel (Worker Representative) are not subject to any discrimination and they have access to their respective members in the workplace. We respect the rights and privilege of a registered trade union. Union Representatives also represent workmen in the shop level committees. Common issues concerning the plants and employees are also allowed to be taken up by union representatives in unit level/ complex level and apex level meetings.

In the year 2011-12, unit wise the five recognized trade unions are as follows:-

Unit	Name of RU
Smelter	Nalco Employees Sangha
Captive Power Plant	Nalco Non-executive Employees Union
Mines	Nalco Mines Mazdoor Sangha
Alumina Refinery	Bharatiya Mazdoor Sangha
Corporate Office including Port Facility & Regional Offices	Nalco Employees Central Union

### No Discrimination

We do not discriminate in hiring, compensation, access to training, promotion, termination or retirement based on race, caste, national origin, religion, disability, gender, sexual orientation, union membership, political opinion and age except for reservation and other privileges extended to weaker sections of the society under policies

of Government of India. We respect the right of personnel to observe/practice customs related to their religious rituals, tenets or practices and family responsibilities. Our HR development policy promotes systems and procedures that are free from discrimination and are well documented in the HR manual. Promotion is based on performance and appraisal. Full information is provided, when asked for, to employees regarding their performance and promotion to ensure transparency and discourage discrimination. Discriminatory behavior including gesture, language and physical contact that are sexually coercive, abusive or exploitative are strictly not tolerated.

We encourage employees to use the Grievance Handling Procedure for grievances related to discrimination. Efforts are made so that employees have access to and are familiar with procedure for filling complaints about discrimination.

In the reporting period, we had no case of discrimination reported or any grievance filed.

### Employee Health and Safety

Given the industrial context of our operations, a safe and healthy working environment is a priority. Adequate steps are taken to prevent accidents and injury to health arising out of, associated with or occurring in the course of work through minimizing, as is reasonably practicable, the causes of hazards inherent in the work environment.

We have developed an Occupational Health and Safety policy which can be referred from our website [http://www.nalcoindia.com/download/OHS\\_Policy](http://www.nalcoindia.com/download/OHS_Policy).

We have established a procedure for identifying the occupational health and safety risks of our activities, products and services and determination of the control measures. A HIRA (Hazard Identification and Risk Assessment) team has been constituted at each unit to carry out risk identification and risk control measures. The team reviews the activities through site visits and discussions with on-ground workers.

We have appointed the Head of Safety as the safety representative at each unit. The representative is responsible for the safety of all personnel and accountable for the implementation of the safety elements of OHSAS 18001 and SA 8000. Our safety committee at each unit comprises members from management and non-management staff, with equal representation of both.

Personnel receive regular and recorded health and safety training and instructions. New employees receive safety and health training. We have provided personal protective equipments to the personnel working in risky areas. In case of injuries, medical facilities and treatment are provided, and cost borne by us.

Details of injuries, fatalities, lost days for FY 11-12 is as follows:-

	Mines		Alumina Refinery		Smelter		CPP	
	Permanent	Contractual	Permanent	Contractual	Permanent	Contractual	Permanent	Contractual
Reportable injury	Nil	Nil	Nil	1	1	3	Nil	1
Non reportable injury	Nil	Nil	1	Nil	19	17	Nil	Nil
Fatality	Nil	Nil	Nil	1	Nil	Nil	Nil	Nil
Lost man days	Nil	Nil	Nil	23	43	402	Nil	65



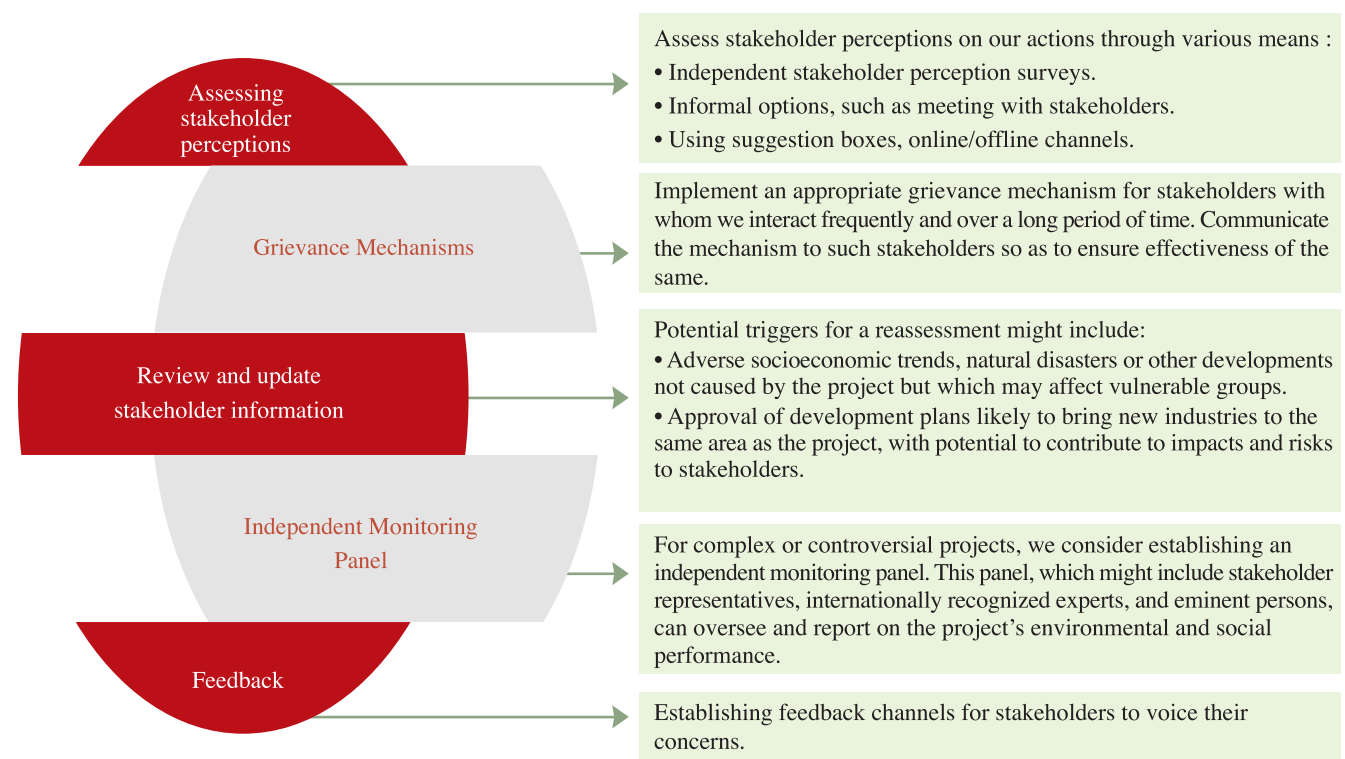
■ Control Room, Captive Power Plant, Angul

## Principle 4



## Stakeholder Engagement

Stakeholder engagement provides the enabling framework for sound risk management. Stakeholder engagement is viewed as an exercise of continuous improvement – facilitating an inclusive and sustainable business model. Through the engagement, we improve upon our understanding the pressures and challenges that will confront us and identify opportunities for constructive collaboration. We also adopt good practices in our overall stakeholder engagement framework.



The following table illustrates our key stakeholder groups, the channels of engagement and the significant material issues for these groups.

Stakeholder Groups	Approaches to Engagement	Specific Sustainability Issues
Business partners/New ventures	Meetings, official communication between the parent and joint venture entities	<ul style="list-style-type: none"> <li>• Energy saving opportunities in Angul Aluminium park</li> </ul>
Customer	Customer meets, in person customer facility visit, every six months customer satisfaction surveys, newsletters, engagement to jointly address any technical issues	<ul style="list-style-type: none"> <li>• Product quality, cost, and delivery</li> <li>• Product performance on environmental aspects</li> </ul>
Shareholders and Financial institutions	One Analyst meet & four conference calls with analysts, Analyst briefings, Quarterly results, one share holder meeting i.e. Annual general meeting, Annual report, press releases, website	<ul style="list-style-type: none"> <li>• Economic indicators and organisation health</li> </ul>
Government and their representatives and committees	Various government submissions, Working with district administration on peripheral development work, six numbers of Parliamentary Committee visits.	<ul style="list-style-type: none"> <li>• Local developmental priorities and infratructure amenities needs assessment</li> </ul>
Regulatory authorities	Communication regarding compliance with various regulations	<ul style="list-style-type: none"> <li>• Sourcing of coal</li> <li>• Renewable purchase obligations</li> <li>• Energy efficiency requirements under Perform -Achieve-Trade</li> <li>• Forest Conservation Compliance</li> <li>• Environmental compliance</li> </ul>
Intellectual community	Need based interactions and discussion with academic institutions, Internships and participation in projects	<ul style="list-style-type: none"> <li>• GHG emission estimation/ monitoring in our operations</li> </ul>

Stakeholder Groups	Approaches to Engagement	Specific Sustainability Issues
Industry associations	Participation in developing industry and issue centric programs and action plans as member of CII, Utkal Chambers of Commerce, Aluminium Association of India.	<ul style="list-style-type: none"> <li>Aluminium recycling,</li> </ul>
Local Communities and Civil Society Organizations	Project selection under peripheral development activities and NALCO foundation programs, consultation during private and government land acquisition activities, resettlement and rehabilitation. Partner on social development projects, inputs on impact assessment of our operations and CSR initiatives. 3 Press Meets were organized and 57 Press Releases were released	<ul style="list-style-type: none"> <li>Community needs on infrastructure, education and health</li> <li>Community environmental and social impacts</li> </ul>
Industries in vicinity	Industrial area development cooperation, emergency preparedness and action plan, quality circles in the state. One All Odisha Quality Circle Convention.	<ul style="list-style-type: none"> <li>Better and proper usage of common facilities</li> </ul>
Employees	Bulletin boards, Newsletters, Mailers, Grievance redressal Mechanism, Employee Committees, organisation intranet, officer's association, workmen unions. CMD addressed the employees during 9 occasions.	<ul style="list-style-type: none"> <li>Employee benefits and compensation</li> <li>Performance management</li> <li>Training and development</li> </ul>
Service providers and job contract workers	Health and safety meetings, on the job counselling and feedback, periodic meetings with production facility in charge	<ul style="list-style-type: none"> <li>Health and safety at Workplace</li> <li>Work hours and overtime</li> </ul>
Vendors	Meeting with Vendors, Exhibition - cum- One BuyerSeller Meet at Angul, Sub Plant Level Advisory Committee meets : 2 numbers, Vendor Development meets and training: 2 numbers at Damanjodi.	<ul style="list-style-type: none"> <li>Anti-corruption practices</li> <li>Resource quality</li> <li>Inventory management</li> <li>Process of adopting Integrity Pact Programme</li> </ul>

Any of our stakeholder requesting for information under the RTI Act is furnished reply as per RTI Act implementation guidelines.



## Principle 5



SAAS

## Human Rights

We comply and adhere to all the human rights laws and guidelines of the constitution of India, national laws and policies and content of various International Labour Organisation (ILO) declarations. Respecting human rights for us means acting with due diligence to avoid infringing rights of others, and preventing the harms that may result. It is a standard of expected conduct expressed in our conduct rules that guide our actions and address grievances through a well established mechanisms.

### Code of Conduct and ethics

A strong and well articulated Conduct, Discipline and Appeal rules are applicable to our executive employees which cover areas such as misconduct, accepting gifts, communicating in public and any company patronage to near relatives. The rules also refer to disciplinary authorities and procedures for imposing major and minor penalties.

Our non-executive employees are covered by standing orders which address ethical conduct and good behavioural practices at workplace and in the community.

### Redressal of employee grievances

With a view to keep our workforce contented and promote harmonious employer-employee relation, we have formulated and implemented formal grievance procedures for quick redressal of employees grievances. A proactive mechanism is in place to address matters which require collective bargaining and/or industrial disputes. In the reporting period there were no grievances from our employees related to human rights.

We regard supportive discussion with the aggrieved person and empathy as one of the most effective means for redressal of grievances.

### Providing a safe workplace

We provide a safe, healthy and conducive work environment for our employees, contractors and visitors. The OHSAS 18001:2007 specifications ensure that all our objectives and targets are measured. We have a corporate order in place to prohibit sexual harassment.

### Vendors and job contractor staff

We follow stringent procedures to ensure a safe work environment for our vendors and contractual staff. Our general terms and condition of contract which is signed with all our vendors and service providers, mandate them to follow all labour and human rights laws of the countries in which we operate.

## Principle 6

## Environment

We place sustainable development at the core of our operations philosophy, and have addressed “sustainable development” as a core element in the Corporate Plan 2020. This also resonates with our sound environmental management practices. With the growing environmental awareness and stringent statutory regulations, we achieve all statutory clearances before start of production and regularly monitor environmental impact of our activities. To this end, we have formalized an Environmental Management Plan (EMP). Strict adherence to approved EMP and constant monitoring is imbibed in our organizational DNA. We have developed an environmental policy available at <http://www.nalcoindia.com/download/EnvironmentPolicy> and implemented Environment Management System certified to ISO 14001. NALCO was also accorded with accolades like Pollution Control Excellence Award from Odisha State Pollution Control Board, Govt. of Odisha, Best Environment Management Award from Directorate of Factories and Boilers, Govt. of Odisha, Indira Gandhi Paryavaran Puraskar from Ministry of Environment and Forest, Govt. of India.

In the Energy Management Field NALCO’s efforts have been recognized by conferring of National Energy Conservation Award by Ministry of Power, Government of India.

### Energy efficiency in operational design

The cable belt conveyor at mines that supply crushed ore to our Alumina Refinery illustrates designed energy



efficiency in our operations. The conveyor connects a distance of 14.66 kilometers in a single flight and traverses hilly terrain en-route with a serpentine lay out.

Since its commissioning, this conveyor has transported more than 68 millions tonnes without any major overhaul. The uniqueness of design, operation and maintenance of this conveyor has

attracted worldwide attention. And it remains one of their best designs in the history of Cable Belt Conveying.

As it is a predominately down-hill conveying system with a net force of the bauxite material loaded on the conveyor, major portion of the frictional forces experienced by the conveyor drive system is countered by the effect of gravitational forces acted by the bauxite. Accordingly, the drive system of the conveyor needs relatively less electrical energy to transport the same amount of bauxite.

The drive system for this conveyor belt is a regenerative type and it can feed the power back into the system. Thus the drive system recovers the surplus power from the conveyor’s mechanical system.

## I. Resource Efficiency

Growing population and demand for products have significantly increased the consumption of aluminium in last decade. According to the UNEP<sup>2</sup> aluminium reserves will last at least about 200 years at current production and consumption. One of the most important raw materials in Aluminium production is bauxite with an average alumina percentage of 41 percent. Bauxite being a mineral reserve, resource efficiency in its consumption is important for reserves to last for longer periods. We take cognizance of the necessity of efficient use of bauxite for the production of Aluminium for sustainable supply of resource in future. Bauxite consumption per tonne of aluminium produced depends significantly on the bauxite ore quality. The table presents the quantities of resource use and the specific consumption.

Specific Consumption Table			
Material	Unit	2010-11	2011-12
Bauxite(Wet) per MT of Alumina	MT/MT	3.03	3.12
Alumina	MT/MT	1.93	1.961
Aluminium Fluoride	Kg/MT	18.7	20
Caustic Soda (Total) per MT of Alumina	Kg/MT	70.96	83.89
Calcined Petroleum Coke	Kg/MT	384	387
Coal tar pitch	Kg/MT	89	93

## II. Climate Change and Energy

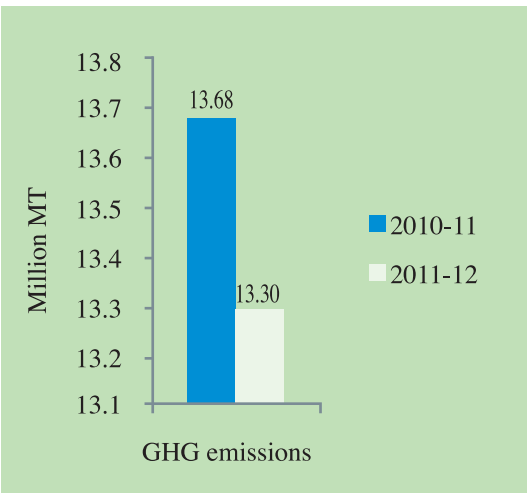
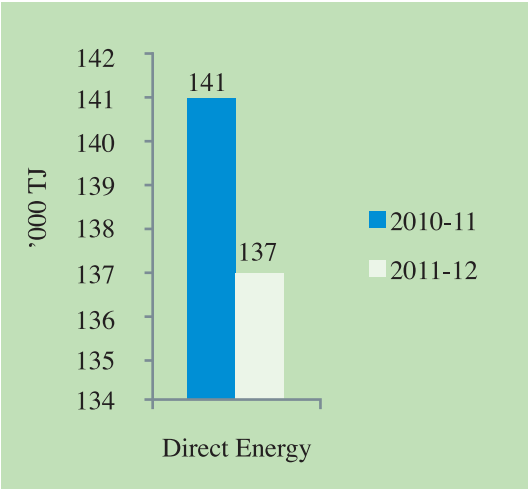
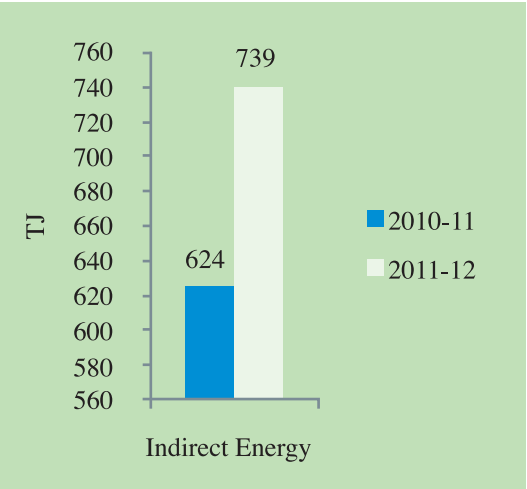
Climate change is perceived to pose unique risks for corporations in the future which include physical impacts, changing consumer habits, regulatory risks at state, national and international level. All these affect our competitiveness, influence investment decisions, plant locations, and have a bearing on the sustainability of businesses. Further, the production of aluminium is an energy intensive process and as per the International Aluminium Institute (IAI)<sup>3</sup>, new stocks of aluminium accounts for 1% of total greenhouse gas emissions. We also have a thermal captive power plant (CPP) which accounts for our emissions profile.

We are covered under the “Perform-Achieve-Trade” (PAT) scheme under the National Mission for Enhanced Energy Efficiency’. The mission has identified nine energy intensive sectors which will be subject to energy efficiency targets under PAT scheme. We have been working towards reducing our energy consumption both from primary fuels and intermediate energy. We have undertaken a detailed study to identify opportunities and define the roadmap to meet PAT targets. We have developed specific plans, such as periodic inspection and maintenance of equipments to maintain high operational efficiency, use of renewable or alternative sources and other various energy conservation measures, to reduce our energy consumption. The energy conservation measures that have been adopted for optimal utilization of energy resources in different units for the reporting year can be found in the Annual Report 11-12, Annex-I.

2- UNEP (2011): Manufacturing - Investing in energy and resource efficiency

3- International Aluminium Institute (2008): Fourth Sustainable Bauxite Mining Report IV.

We primarily use fossil fuels such as Coal, Heavy Fuel Oil, and Diesel for meeting our energy requirements. The direct energy consumption in the reporting period was 136941 TJ which is approximately 3% lesser than the previous year. In the reporting period we consumed 740 TJ of indirect energy in the form of electricity purchased from the grid. GHG emissions in aluminium production are due to fuel consumption, electricity purchased and PFC<sup>4</sup> emissions in the electrolytic process. In the reporting period GHG emissions due to our processes, fuel and purchased electricity were 13.3 million tonnes equivalent of carbon dioxide.



<sup>4</sup> To estimate PFC emissions from the electrolytic process we have used default IPCC values.



To minimize our dependence on fossil fuel and associated emissions, we are taking various renewable energy, alternative energy, carbon sequestration and GHG emission reduction initiatives:

Renewable Energy Development	<p>We are setting up a 50.4 MW wind power plant at an estimated cost of INR 274 crores in Andhra Pradesh for RPO/REC compliance and further planning to set up another 100 MW wind power project to be installed in two stages of 50 MW each. In order to harness solar energy, we are also planning to set up a 15 MW solar power plant in Rajasthan.</p> <p>Solar heaters have been installed in the common facilities like Guest Houses and Hospital in the townships at Angul and Damanjodi</p> <p>Installed roof top PV solar panels under the RPO scheme of Government of India to meet regulatory requirements</p>
Nuclear Power Plant in Joint Venture	<p>We have entered into a joint venture with Nuclear Power Corporation of India Limited for setting up a 1400 MW nuclear power plant in Gujarat at an estimated cost of INR 11,459 crore.</p>
Carbon Capture and Sequestration	<p>In our captive power plant, CPP, we have undertaken a unique pilot scale project for carbon sequestering by algae. This is a latest technology for absorbing carbon dioxide directly from flue gas and the same can be utilized for growth of algae. This in turn can be further utilized as bio-diesel, a high protein food for cattle or as a fuel to the boilers. We have engaged M/s Indo-Can Technology Solutions for providing the technical consultancy and services.</p>
GHG Emission Reduction	<p>In order to maintain the boiler Silica content, we normally give a continuous blow down of the boiler drum water. In this process, there is substantial loss of energy, carried away by the blow down water. Now, we have installed a system in one of our units to recover the heat from boiler blow down and reuse the same in our boiler. This process has the potential of generating certified emission reductions per annum under the CDM mechanism. The pilot plant has been installed in one unit and made operational. The project has been approved by Ministry of Environment and Forests as a CDM project and is under validation stage.</p>

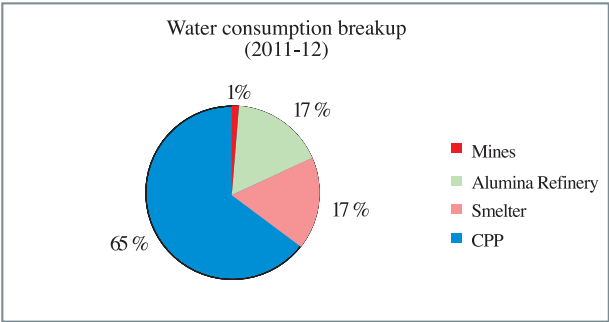
III. Water Management

In Odisha, the per-capita water availability is reducing at an alarming rate owing to increase in population and industrialization. We consider water as a strategic resource and manage it using a systemic approach. We strictly adhere to the philosophy of reduce, recycle and reuse of water. Surface water is used at our all units.

Captive Power Plant is the major water consumption source with approximately

65% of total consumption in the reporting year. Over the years, we have commenced initiatives to augment the

conservation and reuse of water. Zero discharge industrial and domestic effluent treatment plants operate across all the manufacturing units. The treated effluent and treated domestic water is recycled and used for different processes, horticulture and irrigation. It is only during the monsoon season that we discharge minimal amount of storm rain water. Various initiatives taken across units to conserve water are as follows:



Sludge Pond Recovering system	In the sludge pond recovering system, sludge, grit consisting of sand, gravel, or heavy solids are allowed to settle and around 270-290 m <sup>3</sup> per day (depending on seasons) of water is recovered and sent to the raw water reservoir.
Dust Suppression System	Clear water of around 13 m <sup>3</sup> per hour is recovered from the dust suppression system and is guided for use as ash slurry.
Sewage Treatment Plants	Treated sewage water of 175 m <sup>3</sup> per day is reused for gardening and maintaining green belts. This reduces the use of raw water from the river. The residue is used for land filling and as manure.
Ash pond Recycle System	Around 55,000 m <sup>3</sup> per day water is recycled back to the ash water pump house after treatment.
Industrial Drain Water Recycling System (IDWRS)	IDWRS has been designed to treat all liquid effluents which originate within the power station. A total of 250-300 m <sup>3</sup> per hour of water is reused for ash water make up and coal quenching.

Ground Water Charging	A recharge pond is made at our CPP to charge the ground water. The rain water harvesting systems of township charge the ground water.
Rain Water Harvesting	At our Captive Power Plant, a catchment area of 2500 square meters has been made to harvest the rainwater. Also at the RCPH a catchment area of 1250 square meters harvests the rainwater. Similar programmes are also being taken for other plant buildings. In the last three years, we have harvested about 7 Lakh cubic meters of water. At Smelter Plant, there is a rainwater holding pool of 80,000 m <sup>3</sup> capacity which is treated and used in the plant operations.
Facilities' Water Usage	We have installed sensor based low flow type water taps in toilets We regularly check pipe lines and valves for any leakages, etc.
Minimizing Water pollution	Smelter does not have any process water. However, when the water running in surface water drains as well as the rain water comes in contact with fluoride bearing material lying on the ground during transportation, the water gets contaminated with fluoride. We have installed a modern defluoridation plant using ion-exchange technology to remove fluoride from the waste water.

#### Innovative Water Management at River Brahmani

The fresh water requirement at our CPP and Smelter is fulfilled by Brahmani river during the rainy season. But the major problem arises during the summers, when the river basin is mostly dry. The small stream of water that flows goes along the left bank of the river. Currently, CPP uses a dredger to make small streams in the river bank to draw water to the right bank of river. But the small channels made by dredger are rapidly filled by the flowing sand. Hence, the dredger has to run almost 24x7 during the summer season. In the next 2 – 3 years, this small channel is going to dry out owing to charging of right canal (left canal is already charged) after completion of the job. Then, dredging won't be an option. We apprehend water scarcity in the near future. Hence, we are currently focusing on adapting the following river management strategy:-

- Jack-Jetty and submerged vane for diverting the flow towards the pumping main.
- In-stream water storage creation on the river bed by providing piano weir water storage system.

### Waste Management

The major types of wastes generated in our operations are red mud, cathode residues including pot lining, aluminium dross and fly ash. We aim to reduce, re-utilize and/or eliminate most of the wastes involved in mining, anode production, electrolysis and power generation. For waste minimization we have implemented :

- Systematic and segregated waste collection system.
- Optimum use of material.
- Philosophy of **reduce, recycle and reuse** the resources.
- Awareness and training programmes for all the employees to reduce waste generation.

Our R&D Department has taken up developmental projects to establish processes for utilizing various solid wastes generated. A project has been taken up with JNARDC, Nagpur in order to standardize a process for measurement of PFC. This project is nearing completion. Upon completion, efforts will be made to implement the same in the Smelter. With regard to Waste utilization the following projects have been taken up by us:

- Production of red bricks, blocks and artificial ceramic stone chips from red mud and flyash.
- Development of a process for production of ceramic glaze tiles using red mud and flyash.
- Development of a process for making light weight foamed brick from red mud.
- Removal of toxic cyanide from Spent Pot Lining (SPL) for its further utilization.
- Development of a process technology for manufacturing of ceramic wear resistant tiles utilizing fly ash as the main base material.

Waste	Disposal Method	Unit	Quantity Waste		Unit	Specific Waste Generation	
			FY 2010-11	FY 2011-12		FY 2010-11	FY 2011-12
Red mud	Treated for alkalinity and disposed in dedicated red mud ponds	Lakh MT	20.10	22.09	MT/MT	1.29	1.31
Fly ash (CPP)	Disposed in ash pond / Reuse for various purposes	Lakh MT	14.4	19.06	MT/KW hr	0.022	0.31
Fly ash (SPP)	Disposed in ash pond / Reuse for various purposes	Lakh MT	4.61	4.46	MT/MT	29.62	26.43
Lime Grit	Filled in low lying areas inside Plant	MT	13682.15	13844.2	MT/MT	0.0088	0.0082
Aluminium dross	Authorized reprocessor	MT	9551	8108	MT/MT	0.0215	0.0200
Cathode residue including pot lining waste	Landfill	MT	4850	5748	MT/MT	0.011	0.014
Induction furnace slag	Landfill	MT	495	285	MT/MT	0.0011	0.0007
Coke dust	Landfill	MT	74	317	MT/MT	0.0002	0.0008
Shot blasting waste	Landfill	MT	679	660	MT/MT	0.0015	0.0016
Ladle cleaning residue	Landfill	MT	150	460	MT/MT	0.0003	0.0011

V. Air pollution

The production of aluminium involves three main stages: bauxite mining, refining bauxite to alumina, and then smelting alumina to produce aluminium. We also have a captive power plant. Each process has its own set of air emissions:

Bauxite mining	Alumina Refinery (Bayer Process)	Smelter	CPP
<ul style="list-style-type: none"><li>• Particulate/dust emissions</li></ul>	<ul style="list-style-type: none"><li>• Particulates,</li><li>• SOx</li><li>• NOx</li></ul>	<ul style="list-style-type: none"><li>• Fluorides</li><li>• Particulates</li><li>• SOx</li><li>• NOx</li></ul>	<ul style="list-style-type: none"><li>• SOx</li><li>• NOx</li><li>• Particulates</li></ul>

All air emissions concentrations are well below the state and central pollution control board requirements due to several steps implemented by us.

Smelter plant	<ul style="list-style-type: none"><li>• Installation of highly efficient fume treatment plants utilizing the state of the art dry scrubbing technology for control of fluoride emission from Pot rooms.</li><li>• Installation of online Fluoride monitoring devices in the Fume Treatment plants</li><li>• Enhancement of stack heights for better dispersion of gases</li><li>• Deployment of advanced ALPSYS technology in Pot lines for reduced energy consumption &amp; reduction in green house gas emission</li><li>• Retro-fitting of AlF3 hoppers in Pot lines to reduce AlF3 consumption.</li><li>• Installation of Gas Treatment Centres utilizing the latest dry scrubbing technology in Bake Oven-2 to reduce Particulate matter, fluoride and PAH in the flue gas emission</li><li>• Revamping of pot super structure for improving better hooding efficiency to reduce fugitive emission from Pots.</li></ul>
CPP	<ul style="list-style-type: none"><li>• High efficiency ESPs with advance Intelligence Control Equipments has been provided to control of SPM in stack emission. ESP retrofitting at a project cost of INR 130 crores has been approved for limiting stack emission. For further reduction of stack ammonia dozing is done in older units.</li><li>• ESPs were technically upgraded with Advanced Intelligent Controllers Equipment (AICE) and presently the emission is within the prescribed norm.</li><li>• Dust suppression systems have been provided at all conveyer transfer points, crusher house, track hopper and mill reject's areas. Dry fog system has been installed in new crusher house.</li></ul>

	<ul style="list-style-type: none"><li>• To phase out CFC, steps have been taken for replacing the CFC chillers compressor. All the three Chiller compressors using CFC-11 have already been replaced with Vapour Absorption Machine (VAM).</li><li>• On-line monitoring system for SPM, SOx and NOx has been provided for some of the units. Installation of on line monitoring system for SPM is underway.</li></ul>
Refinery	<ul style="list-style-type: none"><li>• ESPs of all Calciners &amp; Boilers have been provided with intelligence controllers to maintain the SPM in stack within the permissible limit of 50mg/Nm<sup>3</sup> respectively.</li><li>• All the units have been provided with on line SPM monitoring system for on line continuous monitoring and controlling.</li><li>• Ammonia dosing system is installed in all the old boiler ESPs to maintain emission level within the norm.</li><li>• There are 16 nos. of Water Sprinklers installed in coal handling area to control the fugitive dust during the handling operation.</li><li>• De-dusting units (Bag filers) have been provided in alumina transfer conveyor to Silo and in the Alumina handling area.</li><li>• Water sprinkling is being done on the road during the dry season to control the dust during vehicular movement.</li><li>• Transport of Fly ash and spilled bauxite inside plant is being carried out in covered trucks/ tippers/ tractors. The fly ash takers are encouraged to transport in containers to avoid dust pollution so as to comply to the statutory guidelines.</li></ul>
Mines	<ul style="list-style-type: none"><li>• Regular water sprinkling is done on haul roads with mobile as well as fixed sprinklers (PLC Controlled) to minimize generation of dust from movement of vehicles.</li><li>• Dry fog dust suppression system has been employed in the crushing system to minimize dust generation.</li><li>• The conveyors have been fully covered to control dust emission.</li><li>• Ripper dozers are used to minimize blasting.</li><li>• Water injection blast hole drills are used to suppress dust emission.</li><li>• Peripheral barriers are maintained along plateau boundary with thick vegetation to arrest dust spreading to adjacent areas.</li></ul>



Unit	Parameter	Unit	Norm	Average during 2011-12
Alumina Refinery	SPM (Avg)	mg/M <sup>3</sup>	500	200.41
	PM 10	mg/M <sup>3</sup>	100	57.41
	PM 2.5	mg/M <sup>3</sup>	60	35.41
CPP	Nox	mg/M <sup>3</sup>	80	6.7
	SOx	mg/M <sup>3</sup>	80	6.0
	PM10	mg/M <sup>3</sup>	100	77.1
	PM2.5	mg/M <sup>3</sup>	60	22.90
Smelter	Fluoride (FTP stack)	Kg/T	0.3	0.169
	Fluoride (Bake oven stack)	Kg/T	0.1	0.046



## Principle 7



## Policy Advocacy

Infrastructure is a critical growth element for us, and our policy advocacy emanates from this. A strategy document by Ministry of Mines identifies logistics as a main concern for improving efficiencies. It goes on to state that at 2007 levels, the Indian mining industry lost USD 2 Billion on account of logistics inefficiencies in mining and quarrying. In our case, the total finished product (export and domestic) of over 1.2 million metric tons comprising metal and chemicals was transported through a mix of rail and port infrastructure services. We also expect Alumina export to attain a peak of 2.7 MTPA by 2014-15. Considering our projected growth and the overall regional growth, we have taken up the issue of augmentation of these infrastructure issues with Indian Railways. The issues discussed include railway siding availability, track augmentation, priority movement of rakes, power and crew availability.

We are also revamping our Visakhapatnam Port Facility to meet the present and projected ship loading requirements for alumina trade. The revamp is also to enable the facility to exceed the recommended dust mitigation measures and emission norms provided by the respective State Pollution Control Board. In this regard, we have a continued dialogue with the Government Port Authorities on the areas of harbour deepening, container management, and air/ water pollution aspects.

As a part of the country's prominent industry association for Aluminium, we are involved in preparing a comprehensive Aluminium Mission Plan for India. This involves providing recommendations for improving the usage of Aluminium in various sectors and thrust on recycling. While formulating the mission plan, the association would interact with important stakeholders, government ministries so as to develop an effective plan. In December 2011, the Aluminium Association of India (AAI) has also entered in a memorandum of understanding with US Aluminium Association to exchange information on reuse programmes in transportation, packaging, and the building and construction markets, and also outlined plans to reinforce information exchange on end-use demand in the same sectors, as well as data gathering techniques to improve timeliness and accuracy of reports. Additional co-operation will occur in the area of health and safety benchmarking ñ again involving the swapping of information on programmes to promote, and improve on, best practices.

Our CMD and Director (Commercial) Shri Ansuman Das is at the helm of affairs at Aluminium Association of India and is the Vice President of Aluminium Association of India. He is also a Special Invitee in Regional Committee of EEPC India (Formerly Engineering Export Promotion Council) and a Member of Committee on Trade with ASEAN plus three (China, Korea and Japan) of EEPC India. Also he is a Member of CII Eastern Regional Council.

Our Director (Finance), Shri B. L. Bagra was at the helm of Confederation of Indian Industries (CII), Odisha and has carried out several skill development, outreach, knowledge events and advocacy activities for the betterment of industry and its stakeholders in Odisha. As member of Development Council of CII, he also contributed towards affirmative action programme for weaker sections of the Society.

Our Director (Production) Shri S. S. Mahapatra, is member of the Managing Committee and Vice Chairman of the Standing Committee for Non-Ferrous Mineral of Federation of Indian Mineral Industries (FIMI), representing the entire non-fuel mining and mineral processing activities of the country. He is also member of the Board of Governors of National Institute of Foundry & Forge Technology (NIFFT), an Autonomous Institute of Govt. of India under Ministry of HRD. He participates in the meetings of the National Institute of Miners Health (NIMH) and is involved in recommendation of various developmental steps related to miners' health.

Shri N. R. Mohanty, Director (Project & Technical), NALCO participates in the Governing Council (Research Advisory Council) of Jawaharlal Nehru Aluminium Research Development & Design Centre (JNARDDC), Nagpur. As a member of Council of Govt. of India's Committee for selection of Science & Technology projects, he is involved in recommendation of various developmental projects on sustainability like Waste utilization, Product development etc. He is involved in monitoring R&D Projects of JNARDDC and also as a member of SSAG (Standing Scientific Advisory Group) recommends similar developmental R&D projects in the Ministry of Mines. Shri S. C. Padhy, Director (HR), NALCO, Vice President of National Institute of Personnel Management, Central Region, is deeply involved in taking leadership for Inclusive Growth and Employee Engagement initiatives. He firmly believes in the concept of sharing a part of the profits generated by an organisation in the peripheral villages as well as in employability development, for maintaining good relations amongst the directly and indirectly affected people around the industry.

In the 12th five year Plan working groups, Shri K. S. Sreedhara, ED (Production) and Shri P. K. Mohapatra, ED (Projects & Technical) were members of the Sub-Group of Mining Sustainability and Aluminium Industries Specific respectively.

We are also an active member of Utkal Chamber of Commerce.

Lastly, we support Government of India with information on unfair dumping of commodities in our sector so as to enable them to take an informed decision and promotion of fair trade practices.

## Principle 8



## Inclusive Growth

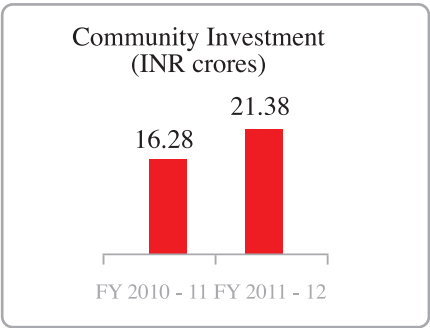
Since our inception in 1981, the corporate social responsibility agenda is focused on working with the community on extensive social development projects to foster inclusive growth.

Our efforts have over years ensured a better quality of life for communities residing in the vicinity of our production plant and facilities. There are two key elements which drive our inclusive growth agenda. Firstly, to manage impacts on local communities from our operations, assessment and planning to understand the impacts is necessary. Secondly, engagement with local communities enables us to understand their expectations and needs, and align actions accordingly. We have a well defined and transparent policy and guidelines on community impact assessment in line with national regulations on social and environmental aspects.

Rehabilitation and resettlement are at the convergence of our business and inclusive growth agendas. Complying with the regulatory norms on resettlement and rehabilitation provides the starting point. Building on it, we strive to promote an equitable society co-existing with our operations. Another aspect is support to relief measures in wake of natural calamities and disaster management. In 2011, we contributed INR one crore to the Chief Minister’s relief fund for the victims of flood in Odisha.

**Facts**  
How do walk the talk on inclusive growth? In Odisha, we are operating on 7980.98 acres of land at Damanjodi in Koraput district for our mine and alumina refinery complex and 4103.56 acres at Angul for aluminium smelter and captive power plants. Apart from compensation, we have strived to provide direct employment opportunities to all 653 families from 53 villages that were displaced. We have also offered employment opportunities to families who have not been displaced but affected by means of partial land hand over.

Presently, our inclusive growth efforts are pursued through two mechanisms, a) peripheral development activities and b) NALCO foundation projects. The total committed expenditure towards these activities amounts to 2% of net profit every year, besides running Schools & Hospitals for community.



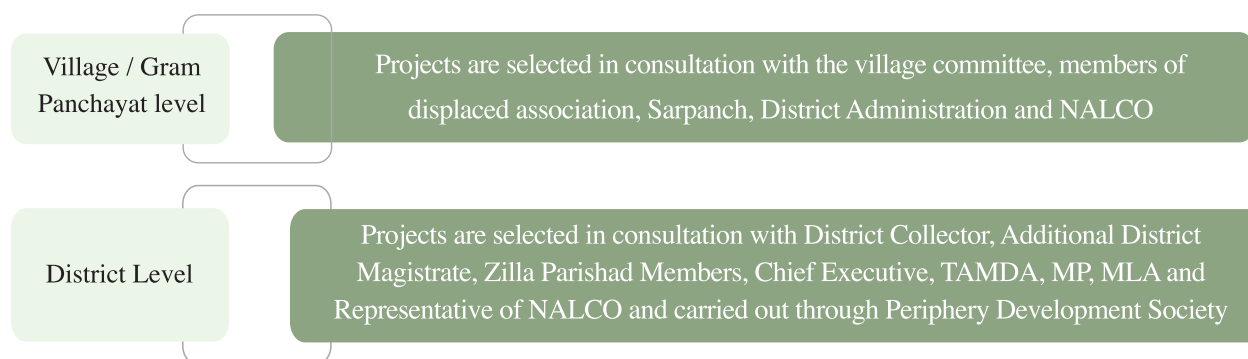
### Peripheral Development

Our aim is to bridge the gap in infrastructure, health, and education services, access to basic needs and income generating opportunities for our peripheral communities. We are one of the pioneers in our sector to have a well established peripheral development policy. We are contributing 1% of our net profits every year for developmental works for betterment of communities in peripheral<sup>6</sup> areas. We define periphery as an area of 10 km radius from the plants areas. We work as partners to the state government constituted “Rehabilitation and Peripheral Development Advisory Committees” which prioritizes the development projects and monitors their implementation. Our Director (Personnel and Administration), has the assigned responsibilities for ensuring efficient peripheral development activities. An institutional mechanism has been formalized for planning, execution and decision making on periphery development activities.

<sup>6</sup> We define periphery as an area of 10 km radius from the plants



During the reporting year, we have financially supported 76 development projects as selected by the district and village level authorities.



#### Impact assessment of our peripheral development activities :

We recognize that engagement, impact assessments, and development programs, combined with the consistency of application, provide insight into the overall quality of our efforts. We have carried out impact assessment for our initiatives

- In 2008 in association with National Institute of Rural Development (NIRD), we conducted a study to assess the impact of various social development activities taken by us in Angul area. Findings of study reinstate the positive impact of the development activities.
- Study conducted by I-land Informatics Limited for Damanjodi indicates landmark change in quality of life due to NALCO community development activities.

• **Ensuring access to medical advice and treatment** - We are providing regular mobile health services with team of doctors and paramedical staff. During the reporting year, 1109 health camps have been organized in peripheral villages in Angul and Damanjodi sector where 50938 patients received advice and treatment at no cost.

• **Provide support to Police force** - We donated 10 numbers of PCR vehicles to the Commissionerate Police, Cuttack – Bhubaneswar, in addition to 25 such vehicles provided earlier.

• **Community amenities** - For construction of Sports stadium at Sukindagarh in Jajpur District, we provided financial assistance of INR fifty lakhs.



■ Delhi Public School, Damanjodi



■ Nalco Hospital

Area	Impact in peripheral areas in Angul	Impact in peripheral areas in Damanjodi
Road Network	Road construction increased the access to basic health services, essential commodity and connectivity to nearby markets.	All weather black-topped approach roads connecting the branch roads with necessary culverts have been constructed inside Ambedkar Nagar and Sahid Laxman Nayak Nagar rehabilitation colonies and are maintained regularly.
Education facilities	Area has experienced positive changes with regard to increase in attendance of school children, improvement in quality of teaching, protection of school campus from trespasser and animals and motivation of parents to send their children for higher education and skill development training.	Better access to education. There are primary schools in the resettlement colonies. Children from the colonies are provided free education till class XII. Remuneration expenses of teachers, infrastructure expenditure etc. for these centers was provided by NALCO, in addition to contribution of 2% of Tax.
Health care facilities	Improvement in quality of health care. Improvement has been observed in areas of treatment of commonly occurred diseases, distribution of essential medicines, minimizing the loss of working days and doorstep services by doctors. Improvement has also been noticed in child, women and elderly health.	Improved health and access to health care services. Safe drinking water, hygienic living conditions have reduced instances of diseases like diarrhoea. Villagers avail of health care and treatment facilities in the NALCO hospital. NALCO's 50-bedded well-equipped hospital is located at a distance of 4 kms away from Ambedkar Nagar and about 3 kms away from Sahid Laxman Nayak Nagar rehabilitation colony. To and fro transport facility is provided to the inhabitants of the colony requiring medical assistance.
Safe drinking water	Adequate availability of drinking water for all the peripheral villages.	Permanent supply of treated water to Dr Ambedkar Nagar has been provided through 523 taps. In addition, 13 tube wells, 2 dug wells and 2 overhead water storage tanks have been constructed inside the colony. Similarly at Sahid Laxman Nayak Nagar rehabilitation colony, 8 tube wells have been provided for 75 displaced families. A project to provide piped drinking water to the colony is in the advanced stage of completion.
Promoting Culture	Promotion of sports activities through district and state level competition. Construction of community halls and "Kalyan Mandaps" create a sense of togetherness by encouraging common place to meet, discuss and celebrate.	52% of the community population has indigenous (tribal) origin and customs. We recognize the importance attached to these customs and support our workforce by granting leave from workplace as required. Community self help groups are also promoted to manage the common amenities. Recreation centres have been provided in both the colonies. Four playgrounds have been developed inside both the colonies. Sports tournaments are conducted every year.
Electricity	Street lighting facilitated movement of common citizens at late hours of night.	100 nos. of streetlights and power grid have been provided for external electrification at Ambedkar Nagar. The cost of internal electrification undertaken by the residents has been reimbursed. The power grid capacity has been improved from 100 KVA to 300 KVA.

### NALCO Foundation

NALCO foundation has been set up to implement the Guidelines on Corporate Social Responsibility for Central Public Sector Enterprises, issued by the Department of Public Enterprises, Government of India. The Foundation will discharge its responsibilities within the guidelines issued by the Government of India from time to time. NALCO Foundation is managed by a registered Trust headed by Chairman-cum-Managing Director, NALCO and the activities are overseen by our Company Secretary. The Foundation has been registered under the Indian Trusts Act in the year 2010 and we contribute 1% of net profit of the company every year to it.

#### Vision

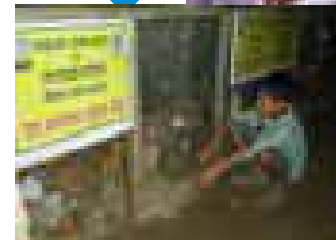
“To be an Agent to Engineer Holistic Development”.

#### Mission

- To work with communities in the vicinity of the Company's projects as partners for sustainable development;
- To take up sustainable development projects to support education, health, drinking water and basic amenities along with income generation programmes;
- To empower women to find a rightful place in Nation building;
- To empower children, differently abled persons (including physically and/or mentally challenged), old and destitute persons for a dignified living;
- To promote art, culture, heritage and sports with emphasis on tribal art and culture in the vicinity of Company's projects; and
- To promote environmental conservation measures.

The Foundation is focused on development of villages located within 15 kilometers radius of our mines and plants in Damanjodi and Angul. It is also proposed for mining areas in Pottangi (Koraput) and Visakhapatnam district in the state of Andhra Pradesh.

The Foundation started 28 projects, mostly in the tribal-dominated Damanjodi sector, at a financial contribution of INR Eight cores and sixty four Lakhs. During the reporting period, nine projects have been completed. The emphasis was on projects which provide safe and potable water, better access to medical facilities, livelihood trainings to foster better income generation opportunities, providing appliances to physically challenged persons, and renovation of infrastructure facilities etc.



Area (As per Schedule VII of Companies Bill 2011)	Project Details
Completed Projects	Community Welfare
	Establishment of Village Information Centres, promotion of Self Help Groups of women and setting up Grain Banks in Nuagan Gram Panchayat (Pottangi)
	Drinking Water
	Providing drinking water facility at Putraghati by hand pumps (Damanjodi) Providing drinking water facility through dug-well at Choaugaon (Damanjodi)
	Education
Projects in Progress	Renovation of Kanyashram, a residential Girls' School in Nuagan (Pottangi)
	Distribution of Sports Kits and Educational Kits in 16 periphery villages (Damanjodi)
	Health
	Camps for identification of physically-challenged persons and distribution of equipment (Angul)
	Health check-up programme for children and women, including expectant mothers (Angul)
	Livelihood
	Backyard poultry farming in collaboration with OPOLFED (Angul)
	Livelihood oriented training programmes like Mushroom Farming, Backyard Poultry and Vermicompost conducted at Khagodara (Damanjodi)
	Promotion of Renewable Energy
	Promotion of solar energy at household level by distributing 1800 lamps (Damanjodi)
	Drinking Water
	Propagate safe drinking water and distribution of 1800 water filters (Damanjodi)
	Renovation of existing community water structures at Badapadu village (Pottangi)
	Provision of drinking water through tube well in Kartalmaudi village (Pottangi)
	Drinking water provision in Eklavya Model Residential School (EMRS), Pungar (Pottangi)
	Provision of drinking water through community-managed Gravity Fed Water Supply Systems (GFWSS) in Gudem Kotha Veedhi mandal (Visakhapatnam)
	Sports & Education
	Funding Rs 4.08 Cr for setting up an Industrial Training Institute (ITI) at Marichamalo enhance the employability of tribal youth (Damanjodi)
	Sponsoring formal education of children living in 16 periphery villages (Damanjodi)
	Setting up remedial schools for drop-out children in 10 villages (Damanjodi)
	Health
	Malaria eradication through awareness building and distribution of 3600 Mosquito Nets (Damanjodi)
	Extended service of existing Mobile Health Unit (MHU) (Damanjodi)
	Started a new MHU at Damanjodi with the help of Wockhardt Foundation, Mumbai
	Livelihood
	Economic development of rural poor through goat rearing in Bhitargarh and Kapsiput villages (Damanjodi)

Area (As per Schedule VII of Companies Bill 2011)	Project Details
Other Approved Projects	
Drinking Water	Construction of check-dam and repair of canal at Karidiguda (Damanjodi) Construction of natural stream-based drinking water system at Khagodara (Damanjodi) Construction of spring-based drinking water system at Bhitarbhejaput, dugwells at Kandhaputraghati and Bhitarbhejaput and bore wells in 18 villages (Damanjodi)
Education	Renovation of Malu Santa Govt. High School ( Damanjodi)
Livelihood	Training on Integrated Agriculture practices to 250 farmers (Damanjodi) Livelihood intervention through Mushroom Cultivation (Angul)



■ Mobile Healthcare Van, Damanjodi

## Sustainable Mining Practices

Our Corporate Plan 2009-2020, guides us to take a comprehensive view in our extractive practices, so that needs of development as well as needs of protecting the forests, environment, ecology and community interests are protected. NALCO is also Founder Member of Sustainable Mining Initiatives (SMI) under Federation of Indian Mineral Industries (FIMI).

We adopt a holistic approach in managing impacts of our mining operations by assessing and managing the potential impact of operations throughout their lifecycle across social, environmental and economic spheres. We have implemented an Environmental Management Plan across the lifecycle of the mining process. The plan focuses on reclamation of mined out areas. We also rehabilitate reclaimed area through plantation and afforestation activities.

Dust minimization is achieved through water sprinkling on haul roads for dust suppression. We monitor ambient air quality, water quality and noise level. Some of our practices are described:-



■ Bauxite Mines, Panchpatmali, Koraput, Odisha



## Safe Disposal of Overburden

One of the major impact in any open cast working is land degradation. Backfilling of overburden into the mined out areas and plantation with suitable soil is necessary in making the land useful after mining. Unless the overburden is suitably rehabilitated, there will be risk of erosion of overburden dumps and resultant siltation of water bodies. At NALCO, no separate overburden dumps are created except for the initial years and now a days the rehabilitation of mined out area is done concurrently with mining utilizing the top soil and overburden generated. The safe disposal of overburden is done in the following manner.

- Dumping the overburden into mined out area layer by layer.
- Dozing it to make a flat terrain.
- Spreading of fertile topsoil over the backfilled area, suitable soil treatment to regain the fertility of the land and making it worthy for plantation and
- Plantation on top and stabilization.



■ Mechanised dust suppression system working at our Bauxite Mine



## Mine Closure Plans

In India, in order to address the concerns on proper mine closure before the mining operation is ceased, with effect from April 2003, the government has introduced the concept of progressive mine closure plan and final mine closure plan for proper reclamation and rehabilitation of the area held under mining lease. Our Bauxite mines called as “Panchpatmali Mines” are situated atop five mountains called Panchpatmali. We have lease-hold over the Central and North Block and South Block of Panchpatmali Hills in Damanjodi, Koraput District of Odisha. We have mine closure plans for both the mines i.e. one for Central and North Block and the other for South Block in accordance with the regulatory requirements.



■ Reclamation of Mined - out Area at Panchpatmali

## Operations and community engagement

Our approach is to launch our social development projects at very initial stages of our operations i.e. even before the land is acquired. We have identified six areas of focus for social development activities. These areas have been identified in consultation with stakeholders including district administration, gram panchayats and other community voices



■ Admirable 'Shramdaan' by local villagers in Andhra Pradesh : Voluntarily digging 12 KMs for laying pipelines for water.

### Green Belt and Afforestation

We carry out extensive afforestation activities in Panchpatmali Hills and surrounding areas. In the reporting period, we planted 70,000 trees of species Pongamia, Jamun, Rose apple, Mango, Silver Oak, Tamarind, Arjun, Jaffra, Guava, Bahunia, Aonla, Bahada, etc. in the 28 hectare area. Local people collect oil from Karanj trees already grown besides collecting fuel from fallen trees and branches. Number of local people were engaged in raising seedlings and plantation activities which also provides a source of employment. In Ambedkar Nagar, fruit bearing saplings have been supplied to the land displaced persons (LDP) families for back yard plantation in the colony. Vegetable seeds and seedlings were also supplied to encourage kitchen gardening.

### Rehabilitation

600 displaced families (due to Mines and Refinery) of 14 villages have been rehabilitated in Dr. Ambedkar Nagar and Sahid Laxman Nayak Nagar with infrastructure facilities such as all weather roads, housing, drinking water, electricity, recreation, education, sanitation, etc. The inhabitants of the nearby area are mostly tribal people which are benefited by the regular incomes through direct as well as indirect engagement. In addition to these, educational, medical, transport, communicational facilities have also been improved. As per existing policy one able-bodied person from each displaced family is given employment, subject to suitability of the candidate and availability of vacancy. Out of 600 displaced families, 598 LDPs have already been offered regular employment in NALCO. Out of the total work force, the LDPs constitute about 24% of the workmen and 96% of unskilled /semi-skilled workers.



■ Empowering women through employment generation

## Principle 9

## Principle 9

DIFFERENCE  
MARKET  
SERVICE  
PROPOSITION  
PRICE  
CONCEPT - TO - COMMISSIONING  
CUSTOMERS  
PERFORMANCE  
CUTTING EDGE TECHNOLOGY  
COMPETITIVE PRICING  
PURCHASE  
DIFFERENTIAL PRICING  
IMPORTANT  
QUALITY  
CONTRACTUAL SUPPLY  
COST  
ACTIONABILITY  
BUSINESS MODEL  
BENEFITS  
TARGET  
CUSTOMER  
VALUE  
PROPOSITION  
PRODUCT  
OFFERING  
MARKETING  
KNOWLEDGE  
BUSINESS  
SALES  
ADDED  
PROACTIVE  
ON TIME DELIVERY  
NEEDS  
ACTIONABILITY

53

## Customer Value

Our core driving principle is to identify and meet the needs of the customer. Considering customer importance at all stages of the production, sales and marketing processes helps to enhance customer satisfaction and increase repeat business. We engage with our customers on regular basis and take mutually beneficial steps.

### Engaging Customers

We cater to two broad markets, export market and domestic market. Our metal and alumina is exported through a transparent global competitive bidding process to registered customers. The registration of customers is an on-going process and the registration details are available on the website. By means of this process, we have been able to expand customer base both in alumina and aluminium metal for the export market.

For enhancing the service depth to our domestic customers, we have a multi-tiered representative structure. The structure comprises our Corporate Marketing Department at Bhubaneswar, Regional Offices at New Delhi, Kolkata, Chennai, Mumbai and a branch office at Bengaluru. These offices stay in constant touch with the customers and such regular interaction enables us to be receptive about changing market preferences. The geographical spread of our stockyard facilities leads to increased convenience for the customers. Our stockyards are located in nine states and territories in India: Himachal Pradesh (Baddi), Rajasthan (Jaipur) and Haryana (Faridabad) in northern India; West Bengal (Kolkata) in eastern India; Andhra Pradesh (Vizag), Tamil Nadu (Chennai) and Karnataka (Bengaluru) in southern India; and Maharashtra (Bhiwandi) and Silvassa in western India.

Customer requirements are the nucleus around which the entire sales and production life cycle evolve. At the start of each financial year, we sign an MoU with the customers in the domestic market for their annual requirements. We have been entering into MoUs with domestic customers for nearly a decade, by offering various MoU rewards and facilities like priority in dispatch, loyalty reward etc. The practice of signing MoUs has yielded increased loyalty and trust amongst our customers and has been primarily instrumental in Aluminium production & evacuation of metal.

Our constant endeavour is to meet the requirements of customers through continuous supply of metals all year round, resulting in higher customer retention. We remain in regular touch with the customers throughout via our marketing channels. Our product mix and production is finalized based on these requirements.

Feedbacks received from customers regarding various policies, quality of products and services etc. has instigated corrective as well as preventive actions on our part. We have been reworking the terms and conditions of MoU scheme, based on customer feedback.

### Transparent pricing

We follow a transparent pricing policy for sale of all products in the export and domestic markets. Export contracts are finalized through the process of e-tendering. E-Tenders are floated to the registered overseas customers, and are also hosted on our website ( "<http://www.nalcoindia.com>"). These are now also hosted in Central Public Procurement portal. The prices obtained in the tenders for export of Alumina act as a benchmark price in the international market, and are often quoted in trade journals.

Prices for domestic sale are reviewed periodically by the Pricing Committee and the approved price is published in our Website

### Customer Complaints

On receipt of complaint from customers, the complaint is duly recorded in a complaint register maintained at corporate office. Depending on the category of the complaint, it is referred to the concerned section for their views and prompt feedback. Based on this, an intimation / response are sent to the customer.

In case of complaint regarding quality / quantity, representative from our Regional Offices and / or technical personnel from the plant may visit the customer premises to examine the complaint and make on the spot assessment for early resolution.



### Measuring Customer Satisfaction

We measure customer satisfaction through a Customer Satisfaction Index (CSI). CSI are being conducted half-yearly to evaluate our performance with regard to product quality, quantity, packaging, chemical composition and other services rendered. Based on the results, we have identified improvement opportunities for remedial action.

### Product Labeling

All the company's ingots, sows and T-ingots have the logo embossed on them. For wire coils, the packaging consisting of VCI coated HDPE sheet has our logo printed on it. Our stickers are being put on the packed Rolled Products, besides HDPE sheet with NALCO logo printed on it.



■ Port Facilities, Visakhapatnam



## Sustainability Issues : Business Responsibility Parameter Index

The following index table provides the relevant references and page details for the explanation of the Business Responsibility Report principles provided in the guidance document published by SEBI. It also points out the relevant indicators as per Global Reporting Initiative's G3 guidelines for sustainability reporting.

### Principle 1 – Ethics, Transparency and Accountability

Core parameter	GRI Disclosure	Page Number
Governance structure of the business, including committees under the Board responsible for organizational oversight. In case no committee is constituted, then the details of the individual responsible for the oversight	4.1	12
Mandate and composition (including number of independent members and/or non-executive members) of such committee with the number of oversight review meetings held	4.1, 4.2, 4.3, 4.9	12
State whether the person/committee head responsible for oversight review is independent from the executive authority or not. If yes, how.	4.2	12
Mechanisms for shareholders and employees to provide recommendations or direction to the Board/ Chief Executive	4.4	12
Processes in place for the Board/ Chief Executive to ensure conflicts of interest are avoided.	4.6	13
Internally developed statement on Ethics, Codes of Conduct and details of the process followed to ensure that the same are followed	4.8	13
Frequency with which the Board/ Chief Executive assess BR performance.	4.9	13

### Principle 2 – Products Life Cycle Sustainability

Core parameter	GRI Disclosure	Page Number
Statement on the use of recyclable raw materials used	EN2	15
Statement on use of energy-efficient technologies, designs and manufacturing/service-delivery processes	EN5, EN6, EN7	15
Statement on use of sustainable practices used in the value chain	EC8, EN28, HR1, HR2	15

**Principle 3 – Employee's well-being**

Core parameter	GRI Disclosure	Page Number
Total number of employees with percentage of employees that are engaged through contractors	LA1	17
Statement on non-discriminatory employment policy of the business entity	HR4, LA14	17
Percentage of employees who are women	LA13	17
Number of persons with disabilities hired	LA13	17
Amount of the least monthly wage paid to any skilled and unskilled employee	EC5	17
Number of training and skill up-gradation programmes organized during the reporting period for skilled and unskilled employees	LA10, LA11	17
Number of incidents of delay in payment of wages during the reporting period	-	18
Number of grievances submitted by the employees	HR4	19

**Principle 4 – Stakeholder Engagement**

Core parameter	GRI Disclosure	Page Number
Statement on the process of identification of stakeholders and engaging with them	4.14, 4.15,	22
Statement on significant issues on which formal dialogue has been undertaken with any of the stakeholder groups	4.16, 4.17	23 - 24

**Principle 5 – Human Rights**

Core parameter	GRI Disclosure	Page Number
Statement on the policy of the business entity on observance of human rights in their operation	HR1, HR2, HR5, HR6, HR7	26
Statement on complaints of human rights violations filed during the reporting period	HR2, HR4 and HR9	26

#### Principle 6 – Environment

Core parameter	GRI Disclosure	Page Number
Percentage of materials used that are recycled input materials	EN 2	29
Total energy consumed by the business entity for its operations	EN3, EN4	30
Statement on use of energy saving processes and the total energy saved due to use of such processes	EN5	30
Use of renewable energy as percentage of total energy consumption	EN3, EN4	31
Total water consumed and the percentage of water that is recycled and reused	EN8, EN10	32
Statement on quantum of emissions of greenhouse gases and efforts made to reduce the same	EN16, EN17, EN18	35
Statement on discharge of water and effluents indicating the treatment done before discharge and the destination of disposal	EN21, EN25	32
Details of efforts made for reconstruction of bio-diversity	EN11, EN12, EN13, EN14, EN15	31

#### Principle 7 – Policy Advocacy

Core parameter	GRI Disclosure	Page Number
Statement on significant policy advocacy efforts undertaken with details of the platforms used	4.13, SO5	39 - 40

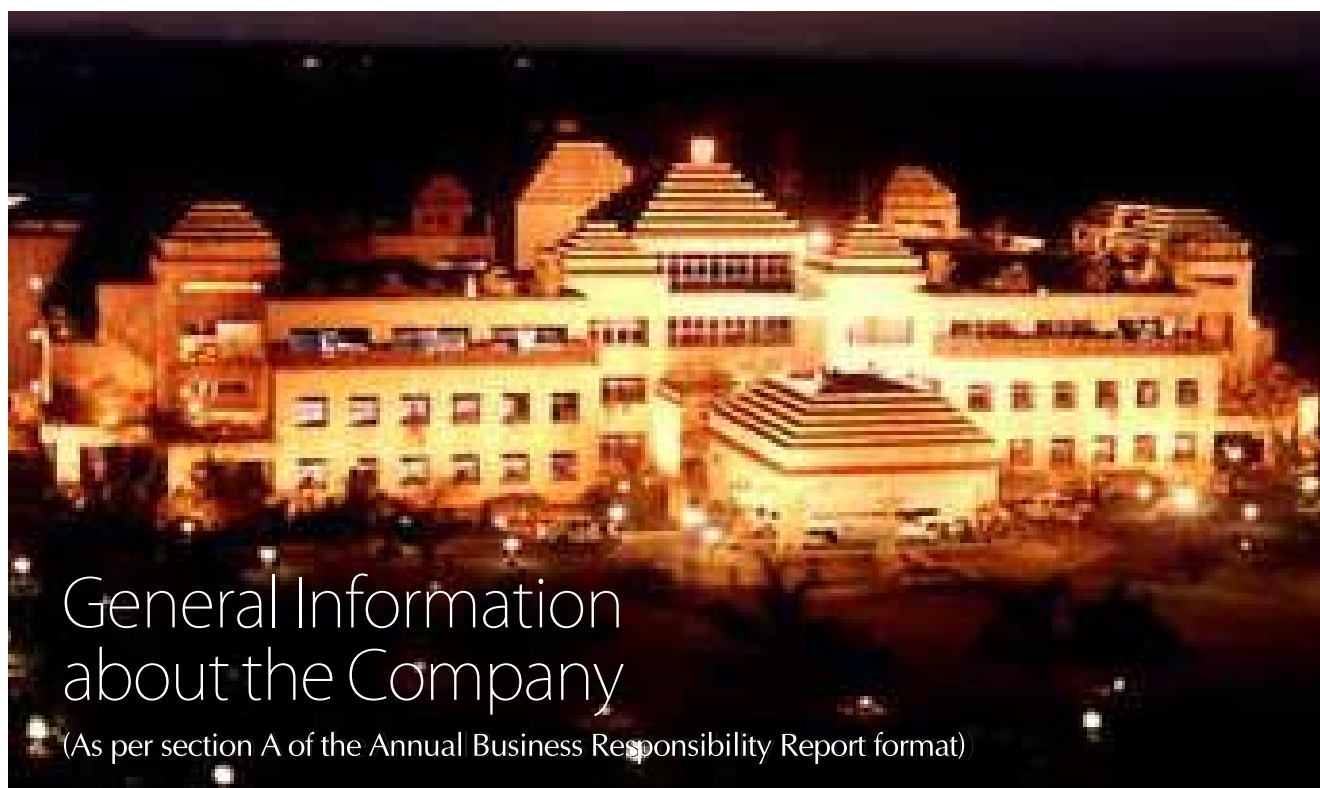
#### Principle 8 – Inclusive Growth

Core parameter	GRI Disclosure	Page Number
Details of community investment and development work undertaken indicating the financial resources deployed and the impact of this work with a longer term perspective	SO1, EC8	42 - 47
Details of innovative practices, products and services that particularly enhance access and allocation of resources to the poor and the marginalized groups of the society		48 - 52

Principle 9 – Customer Value

Core parameter	GRI Disclosure	Page Number
Statement on whether the labeling of their products has adequate information regarding product-related customer health and safety, method of use and disposal, product and process standards observed	PR3	56
Details of the customer complaints on safety, labeling and safe disposal of the products received during the reporting period	PR4	55





## General Information about the Company

(As per section A of the Annual Business Responsibility Report format)

Corporate Identity Number (CIN) of the Company	L27203OR1981GOI000920
Name of the Company	National Aluminium Company Limited (NALCO)
Registered address	NALCO Bhawan Plot No. P/1, Nayapalli Bhubaneswar - 751061, Odisha, India
Website	<a href="http://www.nalcoindia.com/">http://www.nalcoindia.com/</a>
Financial Year reported	2011-12
Sector(s) that the Company is engaged in	Bauxite Mines, Alumina Refinery, Smelter, Captive Power Plant, Port Facilities
List three key products/services that the Company Manufactures / Provides (as in balance sheet)	Alumina <ul style="list-style-type: none"> <li>• Calcined Alumina</li> <li>• Alumina Hydrate</li> <li>• Specialty Alumina &amp; Hydrates</li> <li>• Detergent Grade Zeolite</li> </ul>

	<div>Aluminium</div> <ul style="list-style-type: none"><li>• Standard Ingots</li><li>• Sow Ingots</li><li>• Wire Rods</li><li>• Billets (in four sizes)</li><li>• Cast Strip</li><li>• Flat Rolled Products (coils &amp; sheets)</li><li>• T-Ingots</li><li>• Chequered Sheet</li></ul>
Total number of locations where business activity is undertaken by the Company (national locations)	<div>Plant Locations</div> <div><b>Mines &amp; Refinery</b> Mines and Refinery Complex Damanjodi - 763008 Dist. Koraput, Odisha</div> <div><b>Smelter Plant</b> NALCO Nagar Angul - 759145, Odisha</div> <div><b>Captive Power Plant</b> Angul - 759122, Odisha</div> <div><b>Port Facilities</b> Opposite Ore Handling Complex Port Area Visakhapatnam - 530035, Andhra Pradesh</div> <div><b>Regional Offices</b> - New Delhi, Chennai, Mumbai, Bengaluru, Kolkata, Paradip</div>
International Locations	<p>NALCO has given the country a new identity in non-ferrous sector and has a formidable presence in the international market. NALCO, one among the largest producers of alumina and aluminium in the country is today one of the top five exporters of alumina in the world. Some of the countries where our products are exported are Srilanka, Bangladesh, Malaysia, Singapore, Indonesia, Vietnam, Thailand, Taiwan, China, South Korea, Japan, Russia, Egypt, UAE, Bahrain, Iran, Romania, Georgia and Ukraine.</p>

## Financial Details of the Company

( As per section B of the Annual Business Responsibility Report format)

Paid up Capital (INR)	1288.62 crores
Total Turnover (INR)	6926.93 crores
Total profit after taxes (INR)	849.50 crores
Total Spending on Corporate Social Responsibility (CSR)	21.38 crores
a. In terms of Section 135 of Company's Bill, 2011 (INR)	10.64 crores
b. As percentage of profit after tax (%)	2% + Rs. 10.93 Crores on School Education of Local Communities
List the activities as per Schedule VII of Company's Bill, 2011 in which expenditure in CSR above has been incurred.	Refer to section on Principle 8 - Inclusive growth

## Other Details

( As per section C of the Annual Business Responsibility Report format)

Does the Company have any Subsidiary Company / Companies?	NALCO has no subsidiary company
Do the Subsidiary Company/Companies participate in the BR Initiatives of the parent company? If yes, then indicate the number of such subsidiary company(s)	Not Applicable
Do any other entity/entities (e.g. suppliers, distributors etc.) that the Company does business with, participate in the BR initiatives of the Company? If yes, then indicate the percentage of such entity/entities? [ Less than 30%, 30-60%, More than 60% ]	No



## Business Responsibility Information

( As per section D of the Annual Business Responsibility Report format)

### 1. Details of Directors responsible for Sustainable Development & CSR (CSR & SD)

NALCO constituted CSR & SD Committee on 19.10.2011. The terms of reference include:

- i) Overseeing peripheral development activities being under taken by the Company through the respective Rehabilitation and Periphery Development Advisory Committees (RPDAC) and proposed to be taken under proposed MMRDA Bill.
- ii) NALCO Foundation.
- iii) Environment Protection & Pollution controls.

The Committee comprises of 2 functional directors and 3 independent directors. One of the Independent directors is chairman of the Committee.

The Committee met once on 31st January, 2012 during the year.

- a) Details of the Directors responsible for implementation of the CSR & SD initiatives :

Name	Designation	DIN Number
Shri P. C. Sharma	Independent Director	00513921
Shri G. P. Joshi	Independent Director	00603925
Shri G. H. Amin	Independent Director	02284350
Shri S S Mahapatra	Director (Production)	03619725
Shri S. C. Padhy	Director (HR)	02594088

- b) Details of the CSR & SD head

S. No.	Particulars	Details
1	DIN Number	00513921
2	Name	Shri P. C. Sharma
3	Designation	Independent Director / Chairman of the Committee
4	Telephone No.	09435046236
5	Email id	pcsharma31@gmail.com

The details of policies have been disclosed when elaborating our performance against each principle.

2. Principle wise Sustainable Issues Business responsibility policies (Please refer to NALCO web site for further details at <http://www.nalcoindia.com/Policies.aspx>, [http://www.nalcoindia.com/rti\\_new.aspx](http://www.nalcoindia.com/rti_new.aspx) )

Principle	Relevant Policy (ies)
P1: Ethics, Transparency and Accountability	<ul style="list-style-type: none"> <li>• Code of Conduct for Senior Management</li> <li>• Conduct, Discipline and Appellate Rules for Officers, Standing orders for workmen</li> <li>• Fraud Prevention Policy</li> <li>• Whistle Blower Policy</li> <li>• Marketing Policy and Guide Lines</li> <li>• Procurement policy and Purchase Manual</li> </ul>
P2: Product Life Cycle Sustainability	<ul style="list-style-type: none"> <li>• Ancillary development policy</li> <li>• Environment, Health and Safety Policy</li> </ul>
P3: Employee Well being	<ul style="list-style-type: none"> <li>• Policies on Human resource aspects - Employee benefits, Recruitment, Job rotation</li> </ul>
P4: Stakeholder Engagement	<ul style="list-style-type: none"> <li>• Corporate Vision and Plan (2009-2020)</li> </ul>
P5: Human rights	<ul style="list-style-type: none"> <li>• Social Accountability Policy as a part of SA8000 management system to ensure adherence to relevant human rights laws of the land and adherence to labour issues of international importance</li> </ul>
P6: Environment	<ul style="list-style-type: none"> <li>• Environment, Health and Safety Policy</li> </ul>
P7: Public Policy Advocacy	<ul style="list-style-type: none"> <li>• Policy on participation of individuals ad company as a whole in associations and partnerships for profession development and policy advocacy</li> <li>• Conduct, Discipline and Appellate rules for interacting with Media</li> </ul>
P8: Inclusive growth	<ul style="list-style-type: none"> <li>• Vision, Mission and focus areas of social development for Peripheral Development and NALCO Foundation</li> <li>• Policy of committing to 2% of net profits every year for social development projects</li> </ul>
P9: Customer Value	<ul style="list-style-type: none"> <li>• Policies on conducting customer satisfaction surveys</li> <li>• Pricing and demand management policy</li> </ul>

Questions	P1	P2	P3	P4	P5	P6	P7	P8	P9
Has the policy being formulated in consultation with the relevant stakeholders?	Y	Y	Y	Y	Y	Y	Y	Y	Y
Does the policy conform to any national /international standards? If yes, specify? (50 words)	Y	Y	Y	Y	Y	Y	Y	Y	Y
Has the policy being approved by the Board? Is yes, has it been signed by MD/owner/CEO/appropriate Board Director?	Y	N	Y	Y	N	N	Y	Y	N
Does the company have a specified committee of the Board/ Director/Official to oversee the implementation of the policy?	Y	N	Y	N	N	N	Y	Y	N
Indicate the link for the policy to be viewed online? We have implemented the Right to Information Act and the manual available online mentions some of these policies and details may be requested.	N	N	N	N	N	N	N	N	N
Has the policy been formally communicated to all relevant internal and external stakeholders?	Y	Y	Y	Y	Y	Y	Y	Y	Y
Does the company have in-house structure to implement the policy/policies.	Y	Y	Y	Y	Y	Y	Y	Y	Y
Does the Company have a grievance redressal mechanism related to the policy/policies to address stakeholders' grievances related to the policy/policies?	Y	Y	Y	Y	Y	Y	N	Y	Y
Has the company carried out independent audit/evaluation of the working of this policy by an internal or external agency?	N	N	N	N	N	Y	Y	Y	Y

## C O N C L U S I O N

An attempt has been made to consolidate the Sustainable Development progress made in Nalco as per National Voluntary Guidelines, as advised by Security Exchange Board of India. This is the first report of its kind and has been prepared based on various Sustainable Development initiatives for the year 2011-12. Since it has been made mandatory by Department of Public Enterprises for all organizations to prepare their Sustainable Development Reports from 2012-13, we will be attempting to prepare one in 2012-13, a comprehensive report addressing Global Reporting Initiative(GRI G3) guidelines.

We hope this year's report will be the launching pad for a more detailed report next year opening up larger vistas for further strengthening our efforts towards Sustainable Development.