



## PROCEEDINGS



**Central Mine Planning and Design Institute Limited**  
**Gondwana Place, Kanke Road**  
**Ranchi, Jharkhand - 834008**

## **NATIONAL SEMINAR ON CSR & SUSTAINABILITY AT CMPDI ON 22.01.2014**

### **“CARING TODAY FOR BETTER TOMMOROW”**

A National Seminar on ‘Corporate Social Responsibility and Sustainability’ was organized by CMPDI on 22.01.2014 at Mayuri Auditorium of CMPDI. The theme of the Seminar was “Caring Today for a better Tomorrow”. All General Managers, representatives of Regional Institutes and JCC members of CMPDI were present in the seminar. Authors from IIT, New Delhi, TISCO, NTPC, Birsa Agricultural University, BIT, Mesra, Jharkhand Aids Control Society, MECON, CCL, ECL & CMPDI presented their papers on the theme. The seminar was conducted in four sessions. First session was inaugural session followed by tea, Second & Third sessions was Technical session followed by lunch and fourth session was valedictory session.

### **INAUGURAL SESSION**



Shri A.K. Debnath, CMD, CMPDI is inaugurating the seminar



Inaugural session is in progress

The seminar was inaugurated by Sri A.K. Debnath, Chairman-cum-Managing Director, CMPDI Ranchi. The Functional Directors of CMPDI, Director (T/O) CCL, DP (HEC), eminent speakers from different Institutions/agencies of national and international fame were present in the seminar. Concerned officials from subsidiaries of CIL, All RIs of CMPDI, JCC members, Representatives of CMOAI, Representatives of WIPS, HODs of CMPDI (HQ) as well as RI-3 and other dignitaries were also present on this occasion.

Dr. Anindya Sinha, Regional Director, RI-III and Nodal Officer (CSR & Sustainability) CMPDI welcomed the guests and explained about various CSR activities undertaken by CMPDI. He has stated that CMPDI views of Corporate Social Responsibility (CSR) as a way of conducting business, with a view for creation and distribution of wealth for the betterment of its stakeholders, through the implementation and integration of ethical systems and sustainable management practices. He has further explained that the thrust of CSR and Sustainability at CMPDI is on capacity building, empowerment of communities, inclusive socio-economic growth, environmental protection, promotion of green and energy efficient technologies, development of backward region, and upliftment of the marginalized and under-privileged section of the society.

Inaugurating the seminar CMD, CMPDI Sri A.K.Debnath emphasized on the importance of CSR for the benefit of the society. He also stressed on the need for integrating CSR activities with rehabilitation and resettlement of locals in mining areas.

While addressing the workshop Sri D. K. Ghosh Director (T/ ES) stated that CSR & Sustainability activities are very important for the society, stakeholders and our Business.

Col. Subhro Banarjee, D(P),HEC has stated about the evolution and importance of CSR activities.

Sri T K Nag ,Dir(T/O) CCL stated that by extending the CSR activities of the company in true sense generates a tremendous sense of confidence among the stakeholders specially in Project Affected People (PAP) and land ousties which leads the company for further extension of the business. He quoted the name of the project like Magadh and Amrapali where CCL has adopted their CSR policy involving the stakeholders.

The inaugural session was ended by giving vote of thanks by Sri Parag Majumdar, GM (E&M/CSR) RI-III, CMPDI, Ranchi.

The seminar was conducted in a series of three technical sessions. Thirteen papers were presented during technical sessions.

### TECHNICAL SESSION-I



Dr. A.K.Singh of BAU  
presenting his paper



Sri Chinthala Suman of IIT,  
Delhi during his presentation

Chairman of the session : Col. Subhro Banerjee, D(P), HEC  
Rapporteur : Shri Pushkar, CM(Environment), CMPDI, RI-III

A.K.Singh, Senior Agriculture Scientist of Birs Agriculture University (BAU) has presented paper on “Study of physiological and biological parameters of abandoned coal quarries”. He has discussed about the possibility of fish culture in mined out areas. The analysis of four coal quarries have been done from 2008

to 2010. The findings revealed that Physico-chemical parameters are within favorable range of fish culture except the low alkalinity and poor concentration of plankton (natural food of fish). The heavy metals were present in sediment, water, plankton and fish muscle. Heavy metals of water can be decreased by adding alkaline substance or organic matter in the water and can be made suitable for fish culture. It was concluded in the question answer session that depth of water body should be limited to 15-20 feet for fish culture and cage culture method for greater depths. The paper was jointly contributed by Dr. A.K.Singh, Professor, Department of Aquaculture, Ranchi Veterinary College, Birsa Agricultural University, Ranchi, Sri Arvind Kumar, Asstt. Professor, Department of Soil Science, Birsa Agricultural University, Ranchi & Sri Jyoti Choudhary, Society for Rural Industrialization, Ranchi from Birsa Agriculture University.

Dr. Rana S Chakraborty, Chief of corporate Services, Mecon presented the paper on "MECON overview on CSR & Sustainability". He discussed about the various activities done in MECON's C.S.R and their effects on life of local people. Skill development of people is an important activity under C.S.R, rural women are being provided with the sewing machine and they are trained to develop their skills and exhibitions held annually to provide market to their products. In the field of Sustainability development, they have installed energy efficient LED Lighting system as "Power Saving Measure" and conducted awareness programmes on Sustainability. MECON has MoU with SULABH for their CSR activities.

Shri Chintala Suman presented his paper on "Estimation of in pit retention in open pit Coal Mine". In the paper he discussed about implementation of two stage methodology. In the first stage, investigations were performed in an open pit coal mine in Ghugus, Chandrapur. Air temperature at different levels has been estimated to elucidate the air temperature distribution within the open pit mine from the bottom to the top. This data has been used to determine the state of the atmosphere and explains the mechanism and character of disturbance of air exchange. In the second stage, modeling methodology has been developed to estimate the pit retention in an open pit coal mine using numerical methods using the field data. The model takes in to account of the effect of vertical temperature variation within the open pit mine along with the meteorological and topographic factors. This paper helps in finding out the impact of pit retention on miners and can be used for further research. The paper was jointly authored by Sri Mukesh Khare, Sr. Professor, Civil Engineering Deptt., IIT Delhi and Sri Chintala Suman Sr, Research Fellow IIT Delhi.

Shri Amarjeet Singh, Assistant Manager (Environment), CMPDI, RI- II, Dhanbad presented paper on CSR an obligatory requirement for inclusive growth of coal mining Area". He discussed about CSR and sustainability activities conducted in villages or surrounding human settlements which are influenced socially, economically and environmentally. People in these locations are taken as first neighbor of the company and a peaceful relationship is built up by helping them in fulfilling their aspirations of development. Activities for Social and Inclusive development include education, skill building for livelihood of people, health, cultural and social welfare etc., particularly targeting at disadvantaged sections of society. Unless a local community is made partners in growth story and maintain ecological security in these areas, life will be difficult both for coal mining companies and local communities.

Hence by effective implementation and utilization of the fund allocated under the CSR head it may be possible the inclusive growth of coal mining areas, the PAP's and the Company as well. The paper was co-authored by Sri V K Sinha, RD, CMPDI, RI-II & Sri Amit Roy, CM(Mining), RI-II.



## TECHNICAL SESSION-II



Sri K.A.Pandian of CMPDI, RI-IV  
presenting his paper



Smt. Rashmi Verma of NTPC, Delhi  
during her deliberation

Session Chairman: Sri D.Bhattacharjee, RD, RI-VII, CMPDI  
Rapporteur : Sri Bharat Gajersen, CM(Geology), RI-III, CMPDI

During the second technical session, one of the important presentations was on environmental sustainability, a joint work by NTPC, NOIDA and IIT New Delhi. This study was co-authored by Sri R.P. Dahia, Mr. Shushil and Mrs. Rashmi Verma, Addl. GM, NTPC, NOIDA, who has presented the paper. The paper shows a system of dynamic model to generate outputs under different scenarios to analyze the energy data to converge to various issues as Society, Economy and Environment for next 35 years. The authors envisage that gas will become more expensive in the future. At the same time, power demand will rise significantly and only a solid energy mix will provide India with energy security.

Coal will be central to Indian power generation for the foreseeable future, but domestic production will struggle to keep pace, as well infrastructure for imports and distribution. Gas can provide a relatively reliable energy source, with high thermal content, and the potential for domestic unconventional production. Increasing the share of gas as well as other sources, in particular renewable, will be good for Indian energy security. And this will have environmental benefits, not just in terms of atmospheric CO<sub>2</sub> levels, but also for the millions of people affected by local pollution. Mobilizing investment will be crucial. It will be crucial to unlocking Indian unconventional gas potential, to building generation capacity across all fuels, and to meet infrastructure needs for transmission and distribution of both primary fuels and electricity.

Dr. A.K.Chakraborty a senior scientist in faculty of forestry at Birsa Agriculture University, Ranchi has shared his view on 'Strategies for Rehabilitation and livelihood in mine spoil Area'. He emphasized on adoption of cost effective energy efficient technology such as hydro power in electricity generation for reduction in local pollution and green house gas emission. In his paper Dr. A. K. Chakraborty shows the opportunity to generate income from activities like Agro forestry. The Livelihood improvement is not just about the positive change towards better quality of life and human well being, but it takes into account the local and global change which determines the livelihood. Appropriate policy response combining agro

ecosystems as key assets can strengthen adaptation and help build the resilience of communities and households to local and global change. There is a need for intensified conservation efforts as well as growing products and generating services in agro ecosystems.

Agro forestry as a land use may potentially support livelihood improvement through simultaneous production of food, fodder and firewood as well as mitigation of impact of climate change.

Third paper was based on “code of sustainability for Mining”. The paper was jointly Authored by Ms. Priyajit Pandit ,Sr. Research Fellow IIT New Delhi and Sri Mukesh Khare, a Senior professor and faculty of civil Engineering, IIT New Delhi. In absentia of authors, Shri Chintala Suman presented the paper. This paper seeks to develop a code of sustainability for the mining sector which will not only maximize the development benefits of mining but also promote sustainability through improvement of the environmental and social sustainability of the mining sector.

The above code/ strategies may help the mining companies successfully integrate sustainability into their overall strategies by:

- Building trust with their key stakeholders through balanced reporting on their activities
- Actively managing their risks
- Maximising the positive effects of their operations
- Local economic development
- Beneficiation
- Environmental management
- Climate change strategies

One of the case studies of impact of CSR in Vidarbha Region was presented by Sri K.A. Pandian Chief Manager (Civil), RI-IV, CMPDI, Nagpur. The paper was co-authored by Shri K A Pandyan and Shri I D Narayan, CM(Mining) of CMPDI, RI-IV. The presentation shows utilization of the CSR/sustainability fund allocated in the four major sectors to develop the Vidharbha region economically by gainful utilization of mine water to the nearby agriculture areas. Vidarbha region is facing major threat of farmer's suicide and it is having economically backward areas i.e. Below Poverty line (BPL) is varying from 41.1% to 47.5% with 30% to 35% of SC/ST on this region. He stressed for relation of infrastructure for artificial ground recharge to in relate the ground water level. He also emphasized need of concerted effort by joining all stake holders to provide comprehend sustainable development in his study for Vidarbha region. He has suggested that Coal India Ltd is a major coal producing Maharatna Company and operating in four major district of Vidarbha region. It is a responsibility as a major corporate sector to join hands to develop this region more economic viable. The CSR/Sustainable development fund allocated by the CIL companies shall be utilized in the following four major sectors to develop the region economically rich by gainful utilization of Mine water to the nearby agriculture sector in the former suicide areas along with state government scheme in a strategic manner with latest technological development:

- Creation of infrastructure for artificial ground recharge to increase the ground water level in the region based on CGWB recommendations so that output of crops can be increased to achieve more income by farmers.
- To supply mine water to nearby irrigation canals/ponds to assist the agriculture sectors for a gainful utilization to fight against economically weak people in Vidarbha region.
- Development of renewable energy /energy conservation in Vidarbha region for long term beneficial to these region.
- Development of green houses for PAPs under rehabilitation scheme.

### TECHNICAL SESSION-III



Sri S. Bakshi of CCL speaks about CSR activities of CCL



Sri R.K. Srivastav of ECL elaborating CSR activities of ECL

Chairman of the session: Sri S.K. Jagnania, RD, RI-IV, CMPDI  
Rapporteur : Sri Jayant Bhattacharya, CM(Excv), RI-III, CMPDI

The first paper in the last (third) technical session was presented by Sri S Bakshi, Chief Manager (P) of CCL on 'CSR in changing scenario'. He talked about triple bottom line approach for sustainability. The thrust areas in CSR have been identified as per CSR policy of CIL. He highlighted various activities carried out by CCL in skill development in villages of Jharkhand. He has also presented methodology and impacts of one case study on Farmers' training for the villagers of Chene, Namkom and another case study on Bringing back eye sight of hyper matured cataract patients of Lupungtoli through Operation Jyoti.

In his paper "CSR and Education in Tata Steel" Mr. Rajesh Kumar of Tata Steel said that their focus is on education as it improves the quality of lives of people. In his paper, an attempt is made to decode the Tata Steel Ltd CSR framework through visiting the directives set up by its great leaders (as a management idea), its practice for the last 100 years and using the explanatory case studies of the programmes run by Tata Steel Ltd under its 'Education' portfolio. The in-depth study of the two 'Residential Camp Schools for the never enrolled / dropout children' in the state of Jharkhand has been used. Tata Steel CSR has been running these schools, a need based intervention in partnership with the Jharkhand Government under Sarva Siksha Abhiyan Program for the past 6 years. The first camp school was initiated in the year 2005-06 at Pipla village in Jamshedpur, Jharkhand. These schools aim at mainstreaming those girl children from marginalized rural communities and so far, they have successfully mainstreamed more than 1400 children to formal schooling system. He stated that the term CSR necessitates that the concept be understood and encoded / decoded both as a management idea and as an academic concept.

Shri Anupam Ghosh, Asstt Professor, Deptt of Management, of BIT Mesra presented the paper titled "Evolution of CSR and influence of United Nations in India". He gave the various definitions of CSR by

different Management Gurus. He explained the multilayered CSR goal of corporate and Millennium Development Goals(MDG) of United Nations to be affected by 2015. He emphasized Gandhiji's ideas of trusteeship in business .His study was an attempt to comprehend the true essence of corporate social responsibility (CSR) as a concept and tries to visualize the role of United Nation in reshaping the direction of CSR in the millennium.

In his paper “Valuing CSR: An Approach to enhance faster Sustainability and inclusive growth”, Dr. Debashish Chakraborty of Jharkhand AIDS Control Society emphasized on the awareness of prevention of AIDS as one of CSR goals to improve the productivity since people in the age group of 15-49 are most vulnerable to HIV. He has further explained that CSR is a strategic business management concept. It can make a valuable contribution to poverty reduction. Now it is the urgent need of the time to value Corporate Social Responsibility for a sustainable growth and development for national building.

CSR in ECL was the last paper presented by Shri D Ramdeo Rao GM(P)ECL and Shri R K Srivastava, Dy GM (Civil/Welfare) ECL titled, ‘CSR initiative and strategies’, They highlighted the CSR activities being carried out in ECL like up- gradation of eye hospital, skill development of women, construction of ITI building etc. They have explained that CSR is a social investment because socially responsible workforce is an asset that leads a long term values for both the company as well as community

### **VALEDICTORY SESSION**



Shri V.K.Sinha, D(T), RD&T speaks in valedictory session



Valedictory session in progress

Valedictory session was presided by Sri V.K.Sinha, D(T), RD&T. In his speech, he has emphasized the importance of CSR for achieving company goals. Retired CGM (Environment), Sri V K Singh was also present on this occasion.

The Seminar was ended by giving vote of thanks by Sri Parag Majumdar, GM (E&M/CSR) RI-III, CMPDI, Ranchi.



