

**Indian Delegation Team led by Dr. V.K. Bahuguna, IFS, Director General, ICFRE
meeting with the Rio Tinto Officials of Perth and Kings Park and Botanical
Garden, Perth Australia on 07-03-2013**

Dr. V.K. Bahuguna, IFS, Director General, ICFRE with the delegation of team, visited the office of the Rio Tinto at Perth, Western Australia for developing capacity building for ICFRE Scientists and Officers and to have a long term collaboration with the Australian Government and Mining Industries which have substantial experience in the field of reclamation and rehabilitation of mined out areas.

A meeting was held at office of the Rio Tinto mining company, Perth. The following officials of the mining company attended the meeting along with the ICFRE delegation:

Rio/Tinto mining company:

- (1) Mr. Barry Jilbert, Manager, CCWF, Perth
- (2) Ms. Beiha-Malen Yanez, Rehabilitation Advisor
- (3) Ms. Cassie White, External Relations, Rio Tinto, Perth

ICFRE Delegation, Dehra Dun, India

- (1) Dr. V.K. Bahuguna, IFS, Director General, ICFRE (Team Leader)
- (2) Mr. Saibal Das Gupta, IFS, Dy. Director General
- (3) Dr. Sudhanshu Gupta, IFS, Secretary
- (4) Mr. Pankaj Agrawal, IFS, ADG (EM)
- (5) Mr. Sudhir Kumar, Scientist-F and Special Director (EM)
- (6) Dr. H.B. Vasistha, Scientist-E
- (7) Dr. N. Rama Rao, Scientist-G
- (8) Dr. V. Mohan, Scientist-F

At the outset, the Director General, ICFRE thanked the officials of Rio Tinto mining company for giving the opportunity to the delegation of ICFRE to have a detailed discussion in respect of mining activities of the company in Western Australia. After the introduction, officials of Rio Tinto mining company presented the status of Pilbara open cast iron ore mining operations and rehabilitation measures carried out by them in iron ore mines of Western Australia.

- The Rio Tinto Pilbara Operations, Perth is having very good R & D facilities with subject matter experts required in different processes of reclamation and rehabilitation works including afforestation of mined out areas and pasture land development for sustainable mining practices
- The company addressed all the rehabilitation aspects right from top soil and sub soil management and seed collection and handling and rehabilitation of native plant species in the mined out areas.
- The success of reclamation and rehabilitation process is monitored by the subject matter experts through identifying the suitable parameters such as vegetation cover, density etc.
- The company is also supports the Research and Development activities of R and R through various Research Organizations and Universities which are competent in the respective fields.
- Reclamation and Rehabilitation aims safe and stable landforms, self sustaining vegetation, supports intended land use and meets site specific commitments that is ecologically sustainable land use in the long term.

Reclamation and Rehabilitation is an essential part of the business of Rio Tinto Pilbara Operations. The monitoring is an integral part of Reclamation and Rehabilitation process that allows to evaluate the successional development of the rehabilitation over time. The DG, ICFRE emphasized that such practices should become an integral part of scientific and sustainable mining in India.

Thereafter the delegation team visited Kings Park and Botanical Garden, Perth who are associated with the R and D works of reclamation and rehabilitation of mined out areas in Australia and other countries. Mr. Mark Webb, Chief Executive Officer of the Kings Park and Botanical Garden welcomed the delegation and highlighted about the background and major activities being carried out by them. He also informed about the major initiatives of Kings Park and Botanical Garden such as implementation of Biodiversity Conservation Plan, Ecological Restoration strategies on the designated land to reduce threats to native biodiversity, improve bushland conditions and maintain resilient ecological communities and these strategies also cover the rehabilitation of disturbed and degraded ecosystem like mined out areas etc. He pointed out that the Kings Park and Botanical Garden also undertake and promote research and investigation into matters related with the care, control and management of the designated land, for biodiversity conservation and other related aspects. He emphasized that the R and D division of the park is also associated with developing of suitable protocol for restoration of mined out areas in Australia. Later the team visited bushland, glass house and laboratories of seed science research, tissue culture and genetic conservation and had interaction with the concerned scientists.

The following points emerged in the context of reclamation and rehabilitation of mined out areas after visiting and interacting with the concerned scientists of Kings Park and Botanical Garden, Perth, Western Australia

- The Kings Park and Botanical Garden developed protocols for restoration of mined out areas in arid semi-arid areas in Australia and other countries.
- They have well equipped specialized laboratories in the fields of Seed Science, Tissue Culture, Genetic conservation.

The Director General, ICFRE is in view that such facilities should be developed in ICFRE to provide R & D support to the mining sector in India for reclamation and rehabilitation of mined out areas and monitoring thereon. The visit ended with vote of thanks and commitment for long term future collaboration and cooperation between two countries.