Summary Record of Discussions in the Meetings of Working Group (Sub-Group-I to IV) on Mineral Exploration and Development (other than coal and lignite) for Twelfth Five Year Plan (2012-17) held under the Chairmanship of Secretary (Mines) on 30th June, 2011 and 1st July, 2011.

(List of participants is at annexure-A.)

Secretary (Mines) welcomed all the Members of Working Group on Mineral Exploration and Development who gathered to facilitate discussion on potential lines of further development of the four sub-group reports namely, sub-group-I relating to mineral exploration, technological gaps in exploration of deep seated deposits, private sector participation in exploration, mining tenement system, resource inventorisation and development of offshore mining; sub-group-II relating to status of Indian mining industry, growth forecasts, import substitution, value addition and exports, strategies for raw material security and technological assets acquisition; sub-group-III relating to review the present investment, taxation, trade policies and FDI etc.; and sub-group-IV on Policy measures for ensuring modernization, automation in mining sector, development of R&D, strengthening of regulatory agencies, State DGMs, IBM etc. Secretary (Mines) indicated that deliberations on the cross cutting issues and suggestions should ensure consistency across all the reports of the subgroups while completing the required gap filling. The Chairman briefly defined the role of working group and also the thrust area of the working group. He explained the importance of mineral development under manufacturing sector and indicated that there is huge untapped potential in the manufacturing sector in India. The contribution of manufacturing sector to the GDP is low compared to the Rapidly Developing Economies (RDEs). He suggested that working group while making recommendation/suggestions should keep in mind the long term goals and vision for next 20 years to have competitive advantage for the sector and for the country in the changing economic environment of the world.

2. The Chairman stated that there is a need to step up the value addition process and manufacturing in the country with enhanced exploration efforts for the development of new reserves. He told that thrust area of the 12th plan should be the issues and challenges likely to be encountered during the next 20-30 years. He advised that the sub groups should give recommendations after examining the competitive advantages of the countries as compared to India and define strategic focus areas. He also stressed on the fact that mineral development has to be our main focus and we need to ascertain what India needs to do as a strategy in view of global activities. This may lead us to think and venture into new areas and geographies. He also emphasized on National Mineral Policy, 2008 and Hoda Committee Report and stated that due deliberations need to be carried out on the following points:

- What mechanisms are necessary to find the solutions to bridge the existing gaps in our current mineral policy? Decide on the strategies and policies requiring initiatives from both the private and government sectors.

- A lot of issues thrown up in mining sector have long gestation period, in some cases extending to 13th and 14th plan, the sub-groups are requested to have a larger vision rather than focusing on 12th plan only. He advised the sub-groups that since we don’t have access to funding and also huge existing technology gap, the policy initiatives and the recommendations of the sub-groups should focus on overcoming these challenges.
Each sub groups should give stand alone document, i.e. a self contained note covering the entire issues with their recommendations. These may be compiled as Vol.I to Vol.IV for each sub-group. The reports are to be vetted by an editorial committee for sake of uniformity.

The reports may look into strategic and technology minerals/metals as well, such as rare earths including Gallium and Magnesium etc. to formulate a plan for exploration efforts in India and access to these resources abroad.

The Chairman advised that State Govts should also help us for mechanism to expand exploration activities and sort out problems either in R&D or other areas of mineral/mining sector.

Sub-Group-I

3. Thereafter, a presentation was made by Additional Secretary (Mines) on Sub-Group-I in matters relating to mineral exploration, technological gaps in exploration of deep seated deposits etc. He emphasized on role of GSI and pointed out relationship of GSI along with 3rd parties. He stated that feedback from State Govts is not received though it is required for formulation of a comprehensive report. He stated that the State DGMs need to be strengthened and also indicated on private sector participation in exploration. The presentation was later carried out by Shri S.K. Wadhawan, Director (Technical), Ministry of Mines. The ensuing discussion which took place put forward the following points as suggested by the members of working group which were subsequently replied/discussed by Chairman & AS(mines):

- Concern was raised that RP, PL and ML may be granted on first come first serve basis rather than competitive basis.
- Exploring the waste deposits with lower grade cut off may be considered keeping in view the current high prices of the commodities and conservation of mineral resources.
- GSI may constitute a sub-group for coordinating generation of base-line data by different agencies such as AMD, ONGC etc., to avoid duplicacy.
- Ministry of Defense may be approached for reviewing Govt. to Govt. data transfer as some of the data gathered by aerial surveys etc. may be of strategic and security importance.
- Bidding methodology may not suit to precious metals like gold or base metals like copper, lead-zinc. It may be suitable for iron ore, bauxite or limestone etc. that occur as blanket type stratabound deposits.
- High resolution air-borne mapping is the need of the hour and outsourcing of airborne geophysical-geological survey, like the one done successfully by Govt of Orissa in 1993-94 be examined for the entire country to search for deeper level mineral deposits.
- Shortage of DAP/Fertilizers and strategy for development of DAP industry.
- Outsourcing/PPP model of airborne geophysical survey for rapid coverage of different terrain domains in India.
- GSI scientists should conduct summer camps for Universities scholars and students for their training and capacity building.
- Any market mechanism for absorption of exploration cost through market and encourage juniors to participate in exploration.
- Contribution of Mining Sector to GDP and the size of investment resultanty.

4. During the course of discussion, the Chairman pointed out that our knowledge is historically deficient in scarce minerals and desired information from the participants on it. He opined that outsourcing for collection of data may have to be understood more deeply keeping into view the scope of work, type of process and other related issues. GSI has started integrating data and putting up the same on public domain. He also said that the Data gathered during LAPL and other air-borne surveys must be digitized and stored well and must be shared among different agencies. He stated that GSI must take initiatives on these lines and could save itself from lot of hassle by deftly coordinating with different agencies, both govt. and private for carrying out such an exercise. The Chairman also suggested that following important points must be looked into while formulating the report:

- Incentivising the juniors for bringing them into exploration and development must be incorporated in the draft.
- First Come-First Serve (FCFS) is kind of a competitive process. Where there is no data we can’t go for bidding.
- Chairman observed that for attracting private investment for mineral exploration the base-line data generation has to be speeded-up, for which outsourcing has to be resorted to, particularly to cover Obvious Geological Potential (OGP) areas in the country. He emphasized that GSI has to gear-up and position itself to supervise progress and effectively monitor quality checks on such surveys for base line data generation.
- GSI must prioritize search for scarce and deficit minerals such as REE, PGE, Antimony Molybdenum, Nickel, Cobalt etc.
- For Aeromag Surveys for the country GSI has suggested 500m spacing at 120m attitude for the flight paths. However, it should take into consideration the terrain conditions before finalizing the optimum spacing and flight paths. It may be different for OGP in Peninsular India (at 250m spacing), Indo-Gangetic plains and the Himalayas (at 500 to 1000 in spacing).
Sub-Group-II

5. During the second half of the meeting Shri G. Srinivas, Joint Secretary, Ministry of Mines and Chairman of Sub-Group-II made a presentation on the matters relating to status of Indian Mining Industry, growth forecasts, mineral-wise availability forecast, constraints, potential and recommendations for 12th Five Year Plan after review of previous Five Year Plan. The ten minerals on which discussions were held are – (i) Aluminium (ii) Copper (iii) Lead and Zinc (iv) Diamond and precious stones (v) Cement and limestone (vi) Industrial/non-metallic minerals (vii) Beach sand minerals (viii) Strategic minerals (ix) Dimensional and decorative stones; and (x) Gold and precious metals. The ensuing discussion which took place put forward the following points to be further elaborated in the final report of the sub-group for 12th Five Year Plan.

- The Chairman opined for bringing closer concerned ministries and organizations to focus on securing the continuous availability of strategic metals and minerals and has advocated for adopting Technology Mission Approach for achieving this. The Chairman supported the method of focusing on individual metals and minerals for effective policy formulation. Further, he said that in case of the strategic minerals, most of which are by-products, there is a need to look into what are the difficulties associated with their production, exploration and R&D issues involved and how to overcome these obstacles.

- As far as Zinc is concerned it is comfortably placed vis-à-vis global scenario due to good performance by Zinc industry in the country. He directed that similar effort need to be made in Lead also wherein India’s production is low.

- In case of Copper, it was felt that there is a need to increase exploration as well as improving technology to use small deposits of copper. There is a need to attract a lot of private investments in this sector by incorporating policy changes for increasing the pace of exploration and mine development etc.

- Representative of Tata Steel opined that new iron ore exploration activity must be taken up by GSI on priority basis as it is very vital for our infrastructure planning and future growth. In response, the GSI says that iron ore deposits have been explored but due to policy issues PLs or MLs could not be granted in time which is an impediment to the growth of this sector and must be looked into by the concerned ministries.

- Need for a separate precious metals initiative is felt for exploration and development of new/existing resources/deposits.

- Acquire assets abroad for different minerals through joint venture/ investment route. The Chairman stated that we have to compete for getting overseas mineral resources and Union Government is ready to help, direct and assist in this direction but the individual industries have to come up to that level on their own as far as global competition is concerned.

- Though India has lot of potential in Aluminium exploration, mine development and production, there are delays in grant of mineral concessions. Unless Greenfield projects come up in aluminium sector there can be a shortage of 12 million tonnes by 2016-17 and there will be a need for imports. There is urgent need for early clearances
of the mining projects by appropriate policy directives and early passage of MMDR Act.

6. The Chairman in his concluding remarks on the meeting opined that today’s discussion shall have deep and very positive impact on formulating the policies by the Govt. Also, detailed study is needed to be carried out in this area. He also stated that greater inter-ministerial coordination shall be required for enhanced synergy in our efforts for formulating a progressive and futuristic Mineral and Mining policy. Greater transparency and inter-linkage must be established in exploration and development of new/existing resources. The Chairman was of the view that we need to draw timelines for disposal of application for RPs, PLs & MLs as suggested by different participants during the course of discussion. He also emphasized that Strategic Minerals needs to be focused on and we may need a special vehicle to sensitize the state Govts as well as the industry in this regard. He also requested that GSI must look into its functioning w.r.t. the strategic minerals and devise new plans keeping in view the importance of these minerals.

7. The Chairman opened the session on 1st July, 2011 with his introductory speech and stated that the Govt managed mineral development doesn’t work too well and thus requires greater participation of private sector. He focussed on financing of the mines sector.

Sub-Group-III

8. The Joint Secretary & Financial Advisor, Ministry of Mines presented the report by Sub-Group-III on matters relating to review the present investment, taxation, trade policies and FDI etc. Subsequently, the presentation was carried out by Shri R.N. Meshram, Chief Mineral Economist, IBM, Shri Chandramani Sharma, Director, Ministry of Mines and Shri Ranjan Sahay, IBM. The main feature of the entire presentation was detailed recommendations for specific infrastructure creation and improvement of the existing ones. The ensuing discussion which took place put forward the following points as suggested by the participants:

- To start the discussion on the report, the Chairman stated that recommendations for infrastructure improvement need to be incorporated into the draft report. He also felt that Committee on infrastructure development of Planning Commission should be intricately linked with the Mineral and Mining Sector Development and it should be a part of all such activities as such, without which the infrastructure development in mineral rich areas/belts may not acquire required pace which is surely the need of the hour. He also stressed that not only we may go for the Public-Private Partnership (PPP) model for creation of new infrastructure; we can also use the same model for maintenance and upgradation of the existing infrastructure. The Secretary was also of the view that the royalties collected from mining activities by the Govts. as well as freight fares thus collected by Railways etc. may be judiciously invested back for infrastructure development into the areas/sectors from which they have been collected though the percentages could be deliberated upon taking on-board all stakeholders, but this issue needs to be looked into seriously as not much is happening on this front which can be termed as satisfactory. He also stressed on the fact that any such investment shall be decided upon by the legislature and under the framework of constitution only as it is the legislative prerogative of the Govt. how to use that fund and where to utilize that fund. He also said that we must fund the infrastructure development by any means as it’s important and must not look only towards such
royalty/levies for local development. He also expressed that there is a need for rationalisation of tax structure for fuelling the growth of the sector.

- Tax rates on mining sector are exorbitant. Central Excise Duty, Addnl. Customs Duty, VAT etc shall be replaced after GST comes into effect. The Report presented has specific rates of taxes as implemented by different states on Miners depending on the type of mineral they are extracting.

- Financing of mining sector through cash flow through shares, listing mining companies on stock exchanges like wise Australian and Canadian stock exchanges also emphasized. In this regard, it was felt that SEBI and stock exchanges should develop mechanism for it.

- The Additional Secretary, Mines opined that we may exclude the Oil and Gas exploration expenditure from the overall expenditure on exploration so as to have a realistic picture for mineral and mining industry and related expenditure on exploration.

- Several participants stressed on the need for developing infrastructure in mineral rich areas as it is a very important aspect which needs to be addressed for growth of mineral and mining industry. Govt.’s active intervention and speedy act is the need of the hour.

- Establishment of dedicated freight corridors is required.

- We need to prioritize the infrastructure development rather than going for all such projects in one go. We may put them into a sequential order as per the priority and develop them in a phased manner.

- Rajasthan Govt. has adopted PPP model in the development of infrastructure in mining areas and this could be replicated elsewhere too.

- We may look into the option of setting up dedicated pipelines for specific industries which employs slurry concentrate transportation through such pipelines. This could be a futuristic way for reducing transportation costs and spillage issues. Govt. / Industry need to carry out a feasibility study in India and Federation of Indian Mineral Industries (FIMI) may take initiative.

- The Chairman stated that we shall put proposals for detailed framework on mining plans and mine closure plans relating to minor minerals so as to put a mechanism for sustainable development of such a mineral rich area. He also observed that port and rail charges in India are highest in the world and why should not we pay stakeholders instead of carriage charges.

- The representative of Ministry of Steel stated that in the presentation there is over emphasis of iron ore in general and exports of iron ore in particular. Equal weightage for other minerals should be given in the report. By 2015, 35 MT additional iron ore capacity would be added in the country which require specific infrastructure
requirement internally for its transportation. Provision for the same may be done. There should be provision for electricity and water in the draft report.

Sub-Group-IV

9. Shri Sundeep Kumar, Nayak, Joint Secretary, Ministry of Mines presented the report by Sub-Group-IV on matters relating to policy measures for ensuring modernization, automation in mining sector, development of R&D etc. The presentation was later carried on by Shri Haldhar, Director (Technical), MECL. The main feature of the entire presentation was detailed recommendations for each of the areas discussed in the report. The ensuing discussion which took place put forward the below mentioned points as suggested by the participants:

- While opening the discussions, the Chairman desired that we must ensure most optimal utilization of strategic minerals. R&D comes into play when we have to decide whether we need to use such minerals ourselves or export them for realizing their potential. R&D shall play a big role in deciding such policy issues, which are also governed to a large extent by global scenario. He opined that banning of Iron Ore exports provide us with an interesting study opportunity wherein we need to ascertain how to use the produce (MIC) domestically as energy costs for its pelletisation is currently very high. Hence R&D has to play a greater role if we need to take a call on such issues. He also stressed on the need to employ functional recycling processes rather than those being driven by pollution considerations as we must look into the commercial viability of recycling and devise sustainable processes for such operations. Also, there should be special attention on illegal mining and the same should be incorporated in the report.

- Shri Sundeep Nayak, Joint Secretary, Mines opined that we may set up Centers for Excellence for studies and R&D in mineral sector through partnership of industry, educational institutes and Govt./Semi-Govt institutions.

- The Chairman stressed on the need of Process Research and that commercialization of such processes must happen in a proper manner.

- Proposal for devising a Rating system of mining companies must be incorporated into the draft proposal and some credit rating system may be established with the help of Ministry of Mines and other concerned Ministries.

- The Chairman opined that we must distinguish between Govt sponsored research and private research. He asked the participants to ensure that Pvt. Research should also come up to desired levels and its huge untapped potentials get realized. He also asked for suggestions on how to incentivize these researches. Another very important observation made by the Secretary-MoM was that the mining sector has suffered as the mining is viewed as suboptimal and wasteful and this has to be addressed. He said that this can be achieved by adding value to the entire process and for this we need to look inward as well as outward for employing measures to improve the entire process.

10. The meeting ended with the vote of thanks to the Chair.

*****