भारत सरकार Government Of India
रेल मंत्रालय Ministry Of Railways
(रेलवे बोर्ड) (Railway Board)

Record Notes of Discussion During 4th Meeting of Advisory Group of Experts on Upgradation of Technology and Leveraging 'Make in India' on Railways

Held on 17th December, 2015 at NITI Aayog, New Delhi

1. In terms of letter no. 2015/CE-I/Innov./6, dated 04.12.2015; fourth meeting of the Advisory Group of Experts on "Upgradation of Technology and Leveraging 'Make in India' in the Railways" was held on 17.12.2015 at NITI Aayog, New Delhi.

2. Following were present :

A. Advisory Group of Experts :

1. Dr. V. K. Saraswat
   Chairman Designate and Member/NITI Aayog
2. Shri P. K. Srivastava
   Director General, RDSO
3. Prof. N. S. Vyas
   Chairman, Technology Mission for IR
4. Shri Jeet Sondhi
   Former World Bank and Rail Expert
5. Prof. Prem Vrat
   Pro Chancellor, NCU
6. Shri N.K. Gupta
   Ex. Project Director, ISRO
7. Shri Alok Kumar
   ***Convenor** and EDCE(G), R.Bd.*
8. Dr. Madhukar Sinha
   ***Co-Convener** and ED(Innov.), R.Bd.*

B. Other Participants :

9. Shri Ravi. S. Kochak
   Addl. Member, PU, R.Bd.
10. Shri Nikhil Pandey
    ED (E&R), R.Bd.
11. Shri Ravinder Gupta
    EDME(Proj.), R.Bd.
12. Shri V.K. Aggarwal
    ED/Research, RDSO
13. Shri Anil Kumar
    Director CE(G), R.Bd.
14. Shri Ashutosh Kumar Singh
    Director, RDSO
15. Shri Rishi Gangwar
    Director, RDSO
16. Shri C.P. Sharma
    Representative of FICCI
17. Shri Kishore Desai
    Regional Marketing Leader, LGE
18. Shri Raja Bhattacharjee
    Dy. Director, CII

3. Brief recounting of activities since previous meeting :

3.1 Chairman gave a brief on the past activities of the Group, for the benefit of the new participants.

3.2 Chairman/Technology Mission for Indian Railways (TMIR) elaborated on the work being done by TMIR.

3.3 DG/RDSO explained the various efforts being made by RDSO to promote research activities through association with academic and research institutions, both Indian and foreign. He referred to the visit of President, Korean Rail Research Institute (KRRI) recently to RDSO and MOU signed by RDSO with Railway Technical Research Institute (RTRI).

4. Items of discussion –

4.1 An opinion was expressed that Indian Railways should associate with International Transport Forum, which has association with many other countries.

4.2 It was agreed that RDSO should be the platform for development and introduction of new technology and for its effective use.

4.3 It was seen that Railway's PUs were not able to compete in tenders for supply of metro coaches, due to qualifying criteria being loaded against them. This needed to be corrected.

4.4 It was also agreed that effort should be made to collate all ideas, both short term and long term for making Indian Railways more productive, which would lead to all around development.

4.5 Ideas needed to have some detailing and cost benefit evaluation. However, such cost benefit evaluation should take into account both the tangible and intangible costs (like the decrease in road traffic which might lead to overall energy saving, decongestion of roads, improvement in environment etc.).

4.6 Known solutions to the problems being faced by Railways needed to be catalogued.

5. Discussion on report for "Enhancing passenger and freight throughput on existing network" :

5.1 It was agreed that this report should, *inter alia*, cover -

i. Assets/systems required to be upgraded for increasing the throughput, including inputs required for upgradation of track to 25 t axle load

ii. Terminal facilities for induction and evacuation of the increased number of trains, both freight and passenger (including decongestion of existing ones)

iii. Costs benefit analysis of investments required for inputs for upgradation

iv. Effect on the unit cost of transportation

v. Possible source of funding

vi. Strategy for implementation

vii. A holistic approach to be taken to cover all factors involved in making use of increased line capacity

5.2 The Committee could consider introduction of efficient assets (both moving & fixed) and even consider premature phasing of the old inefficient assets.

5.3 For preparation of this report, following sub-committee is appointed :

i. Shri, N.K. Gupta, Member/AGE and Ex. Project Director, ISRO - Chairman

ii. Dr. Madhukar Sinha, Member/AGE and ED/Innovation/R.Bd. - Convenor

iii. Shri Ravinder Gupta, EDME/Proj/R.Bd. - Member

iv. Shri Manoj Kumar, ED/Traffic/RDSO - Member

v. Prof. N.S. Vyas, Member/AGE & Chairman/TMIR - Member

vi. Shri Kishore Kumar - GE representative

6. Items identified for discussion in the next meeting :

6.1 Restructuring of RDSO into a Railway Research Institute making it a truly "Technology Hub of Indian Railways".

6.2 A presentation on the recently signed contracts for manufacturing of diesel and electric locos would be given by the concerned EDs of Railway Board.

In this presentation, technological aspects, such as what technology was coming and what not, keeping in view the need to attain self sufficiency in design of critical items would also be addressed.

6.3 An indigenization target team, consisting of officials from RDSO and DLW/CLW need to be put in place who should get associated with the manufacturing of the locomotives from the beginning for the first hand experience and later on absorb the technology, both of design & manufacturing, for the purpose of design & development of next generation locos.

The required team would be decided after the presentation.

6.4 Similar target team needs to be put in place for DFC, so that Indian Railways are in a position to design & develop new DFCs on their own. RDSO should also associate with this team. A presentation for this purpose needs to be arranged.

6.5 In High Speed Rail Contract also, similar team needed to be put in place to ensure that Indian Railways would be able to indigenously manufacture high speed trains and upgrade it to run a higher speeds.

6.6 A presentation on recently conducted Management Audit of RDSO to be given to the Group.

6.7 Shri N.K. Gupta, Member/AGE will discuss with ED/Wagon/RDSO regarding possibility of using a modular 25 t axle load wagon, which can be designed in such a way that with minimum alteration, it can be made fit for carrying 32.5 t axle load.

6.8 Presentation on projects being undertaken under TMIR and strategy for implementation may also be arranged.

7. Visit to Railway's production units – Rail Coach Factory, Raebareli and Diesel Locomotive Works, Varanasi will be arranged for the Advisory Group of Experts.

8. Next meeting of the Advisory Group will be held in RDSO, Lucknow.

(No. 2015/CE-I/Innov./6, New Delhi, Dated 09.02.2016)

09/02/16

(आलोक कुमार)
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Distribution for information and necessary action :

1. The Chairman and all the Members of the Advisory Group of Experts.
2. The General Managers, All Zonal Railways.
3. Directors General – RDSO/Lucknow and NAIR/Vadodara.

Copy to:

- PS/MR and PS/MoSR for kind information of Hon'ble MR and MoSR please.
- EDPG/MR and Adv.(PG)/MoSR.
- PSO/Sr.PPS to CRB, ME, MM, ML, MT, FC, MS and Secretary for kind information of CRB, ME, MM, ML, MT, FC, MS and Secretary please.
- Dr. Madhukar Sinha, ED/Innovation, MoSR and Co-Convenor of 'Advisory Group'.