**RCC-142**

# 16 RAILWAY CONVENTION COMMITTEE

# (2014)

**(SIXTEENTH LOK SABHA)**

**MINISTRY OF RAILWAYS**

**(RAILWAY BOARD)**

# TRACK UPGRADATION & MODERNISATION


**LOK SABHA SECRETARIAT**

**NEW DELHI**

*August, 2017 /Shravana, 1939 (Saka)*

**SIXTEENTH REPORT**

# RAILWAY CONVENTION COMMITTEE

## (2014)

**(SIXTEENTH LOK SABHA)**

## MINISTRY OF RAILWAYS

## (RAILWAY BOARD)

## TRACK UPGRADATION & MODERNISATION

**Presented to Lok Sabha on 10.8.2017**

**Laid in Rajya Sabha on 10.8.2017**


**LOK SABHA SECRETARIAT**

**NEW DELHI**

*August, 2017/ Shravana, 1939 (Saka)*

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# CONTENTS

# COMPOSITION OF RAILWAY CONVENTION COMMITTEE (2014)

**Shri Bhartruhari Mahtab, MP - Chairperson**

## Members

## Lok Sabha

2. Shri Abhishek Banerjee
3. Shri Sanganna Amarappa Karadi
4. Shri K. Ashok Kumar
5. Shri Kamalbhan Singh Marabi
6. **Vacant***
7. Shri Nana Patole
8. Shri Janak Ram
9. Shri Rahul Ramesh Shewale
10. Shri Bharat Singh
11. Shri Liladharbhai Khodaji Vaghela
12. Shri K.C. Venugopal

## Rajya Sabha

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14. Shri T.K. Rangarajan
15. Shri Prem Chand Gupta
16. Shri Abdul Wahab
17. Smt. Vandana Chavan
18. Shri Ranvijay Singh Judev

## Secretariat

1. Shri M. K. Madhusudhan - Director
2. Shri D. R. Mohanty - Additional Director
3. Shri J.S. Patiyal - Committee Officer

***Vacancy occurred w.e.f. 05th July, 2016 vice Smt. Anupriya Patel was appointed MOS**

## INTRODUCTION

I, the Chairperson, Railway Convention Committee (2014), having been authorized by the Committee, present this Sixteenth Report on 'Track Upgradation & Modernisation'.

2. The Committee obtained background material and written information from the Ministry of Railways (Railway Board) in connection with the examination of the subject. The Committee also took oral evidence of the representatives of the Ministry of Railways (Railway Board) on 7th September, 2016 and 7th June, 2017. The Committee express their thanks to the representatives of the Ministry of Railways (Railway Board) for appearing before the Committee and also for furnishing requisite written information on the subject, as desired by the Committee.

3. The Committee considered and adopted this Report at their sitting held on 3rd August, 2017. The Minutes of the sitting of the Committee are appended to the Report.

4. For facility of reference and convenience, the Observations/ Recommendations of the Committee have been printed in bold letters in the Report.

New Delhi:
4 August, 2017
**13 Shravana, 1939 (SAKA)**

**BHARTRUHARI MAHTAB**
CHAIRPERSON
RAILWAY CONVENTION COMMITTEE

# REPORT

## PART - I

## I. INTRODUCTORY

1. Indian Railways, the premier transport organization of the country, is one of the largest rail networks in the world. Apart from providing safe and economical travel to passengers, it also plays a crucial role in the development and operation of key sectors such as coal, power, steel, cement etc.

2. Track is subjected to heavy wear and tear and are required to be renewed periodically on the basis of the traffic carried (Gross Million Traffic) and the condition of the track. Fatigue life of Rails, in terms of Gross Million Tonnes (GMT) of traffic carried, wear of rails, incidences of rail failures, maintainability of track, condition of sleepers, condition of fittings, etc. are governing factors to decide about renewal of track. On an average, 4000-5000 kms of track needs to be renewed every year to keep the system in a healthy state.

3. In order to meet the increased traffic demands, Indian Railways have gone for technology intensive modernization initiatives, which have enabled it to sustain traffic demand on existing network. The track modernization initiatives witnessed the development of PSC sleepers for all feasible locations such as Plain Track, Turnouts, Level crossings, Switch Expansion Joints (SEJs), Bridge approaches etc., introduction of heavier section of Rails viz. 52 Kg/m and 60 Kg/m with increased Ultimate Tensile Strength (UTS) i.e 90 UTS. Use of heavier track and development of welding technology facilitated the laying of continuously Welded Rails at majority of locations. The heavier track structure was not suitable for manual maintenance leading to introduction of On Track Maintenance machines, which have improved the maintenance of track. Mechanized track

monitoring systems were introduced for objective assessment of track.

4. The increased traffic and projected future traffic requirements would necessitate further track modernization. An Expert Group for modernization of Indian Railways constituted by the Ministry of Railways under the Chairmanship of Shri Sam Pitroda, have recommended modernization of 19,000 kms of existing track.

5. With a view to assessing the effective measures taken by the Indian Railways towards Track Upgradation/Modernization/Renewal as well as mechanised maintenance and monitoring of track, the Committee took up the subject for examination and report. In the process, the Committee obtained background notes, written replies and other relevant documents from the Ministry of Railways. The Committee also took evidence of the representatives of the Ministry of Railways (Railway Board) on two occasions. The Committee undertook on-the-spot Study Visits to various Zonal Railways and obtained first-hand knowledge on the subject matter. Based on the written and oral depositions of the Ministry of Railways as well as the inputs gathered during the field visits, the Committee have deliberated on the issues concerning the subject matter in the succeeding paragraphs.

## II. TRACK UPGRADATION/MODERNISATION/RENEWAL

6. The Committee were informed that over the years, the traffic on Indian Railways network have increased considerably as can be seen from following tables:

**Expansion of Rail Network**

| S.N. | Broad Gauge | | Meter Gauge | | Narrow Gauge | | Total | |
|---|---|---|---|---|---|---|---|---|
| | 1950-51 | 2014-15 | 1950-51 | 2014-15 | 1950-51 | 2014-15 | 1950-51 | 2014-15 |
| Route Km | 25258 | 58825 | 24185 | 4908 | 4153 | 2297 | 53596 | 66030 |

**Increase in Traffic**

| S.N. | Index | 1950-51 | 2014-15 | % Increase |
|---|---|---|---|---|
| 1. | Revenue Loading in Million Tonnes(MT) | 73.2 | 1095.2 | 1396 |
| 2. | Net Tonne Kilometers(NTKM) per Running Track Km | 1.47 | 8.28 | 463 |
| 3. | Gross Tonne Kilometers (GTKM) per Running Track Km | 5.48 | 25.08 | 358 |

7. The Ministry then submitted as under:

"From above it may be noted that the increase in the level of traffic in period 1950-51 to 2014-15 have been more than 14 times, while track infrastructure have not increased with that pace. The increase in freight traffic have been sharp during last decade since 2000-01 i.e. from 504 MT in 2000-01 to 1095 MT in 2014-15. This have been feasible by permitting increase in axle loads, which is 20.32T prior to 2005 have been increased in 2005 to 22.82T initially as a Pilot Project and now extended on a track length of 40,000 kms (approximately)."

8. In the above context, the Committee desired to be apprised of the precise reasons for development of track infrastructure not keeping pace with the increase in traffic between 1950-51 and 2014-15. In response the Ministry submitted as under:

> "Indian Railway has suffered from chronic and significant under investment. However, to accelerate the track infrastructure, 13014 Km of doubling/3rd/4th line works have been included in Railway Budget since 2014-15. In addition to these works, two Dedicated Freight Corridors (DFC) i.e. Eastern Corridor 1885 Km and Western Corridor 1504 Km are also under execution."

9. The Committee then asked about the percentage of traffic increase on the Indian Railways *vis-a-vis* track expansion/renewal during the last five years. In reply, the Ministry furnished the following comparative data:

> Increase of traffic on the Indian Railways network both passenger and freight vis-à-vis track renewal is as under:

| **Year** | **Passenger Traffic Numbers (Million)** | **% Variation over previous year** | **Freight Traffic NTKM in Millions** | **% Variation over previous year** | **Track km** | **% increase over previous year** | **Track Renewal (in Km)** | **% change over previous year** |
|---|---|---|---|---|---|---|---|---|
| 2010-11 | 7651 | | 926.43 | | 114037 | | 3465 | |
| 2011-12 | 8224 | +7.49 | 975.16 | +5.26 | 115062 | +0.90% | 3300 | -4.76 |
| 2012-13 | 8421 | +2.40 | 1014.15 | +4.00 | 115833 | +0.67% | 3296 | -0.12 |
| 2013-14 | 8397 | -0.29 | 1058.81 | +4.40 | 116765 | +0.80% | 2885 | -12.47 |
| 2014-15 | 8224 | -2.06 | 1101.09 | +3.99 | 117996 | +1.05% | 2424 | -15.98 |
| 2015-16 | 8107 | -1.42 | 1108.62 | +0.68 | 119630 | +1.38% | 2794 | +15.26 |

10. Asked to state the Railways' specific plan of action for track expansion in order to cope up with the increased traffic, the Ministry submitted as under:

> "Railway has planned for capacity expansion on saturated/oversaturated routes. To cope up with increased traffic requirements, new lines, doubling, 3rd/4th line on such routes have been sanctioned and taken up. Railway tracks are upgraded through track renewal works which is an ongoing process. Track renewal works are undertaken as and when stretch of track becomes due for renewal on the basis of criteria laid down in Indian Railway Permanent Way Manual on age cum condition basis viz. traffic carried in terms of gross million tonnes & incidence of rail fracture/failure, wear of rails, and maintainability of track as per standards etc.
> Indian Railways has adopted robust track structure consisting of Pre-stressed Concrete (PSC) Sleepers, higher Ultimate Tensile Strength (UTS) rails, fan-shaped layout on Pre-stressed Concrete (PSC) Sleepers and Steel Channel Sleepers on girder bridges. Further improvement in track structure by use of 60kg rails, Thick Web Switches etc. is progressively adopted during primary track renewals."

11. The Committee then desired to be apprised of the total Network of Indian Railways as on March, 2017 and the Route Kms of the existing track requiring upgradation/renewal. In response the Ministry stated as under:

> The details of total network of Indian Railways as on 31.03.2016 are as under.

| Year | BG | | MG | | NG | | Total | |
|---|---|---|---|---|---|---|---|---|
| | Route km | Track km | Route km | Track km | Route km | Track km | Route km | Track km |
| 2015-16 | 60551 | 112388 | 3880 | 4747 | 2297 | 2495 | 66687 | 119630 |

The details of total network as on March'2017 are not available. These details are compiled by the end of the next financial year i.e. by Feb'18.

12. The Ministry further stated as follows:

> "Track is subjected to heavy wear and tear and is required to be renewed periodically on the basis of the traffic carried (Gross Million Traffic) and the condition of the track. Fatigue life of

Rails, in terms of Gross Million Tonnes(GMT) of traffic carried, wear of rails, incidences of rail failures, maintainability of track, condition of sleepers, condition of fittings, etc. are governing factors to decide about renewal of track. As on 01.4.2017, 7546 km track is sanctioned for renewal in addition to renewal of other P-way components viz. Turnouts, Bridge timber, fittings, ballast etc. It has been planned to modernize track of Golden quadrilateral and its diagonals. Around 5 % track (750 km) on 'A' route is on 52 kg rails. All the 52 kg rails of 'A' route are planned to replace with 60 kg rails. Similarly, around 47% i.e. 9300 km track on 'B' route is on 52 kg rails which will be replaced subsequently. Thick web switches and improved Switch Expansion Joints (SEJs) are being provided on 'A' routes in lieu of conventional curved switch and ordinary SEJs respectively."

13. Asked to throw light on the short-term and Long-term Plannings of the Railways for Track upgradation/modernisation/renewal, the Ministry submitted as under:

"Short term Planning – For year 2017-18, 3600 km Track renewal has been planned. Remaining sanctioned track renewal will be taken up next year. But Track renewal is a continuous activity. The track renewals are sanctioned as and when stretch of track becomes due for renewal on criteria laid on Indian Railways Permanent Manual (IRPWM). The execution of track renewal works depend on availability of fund, availability of resources, availability of traffic blocks, etc.. The works are prioritized based on condition of track and importance of track etc."

"Long Term Planning - It has been planned to modernize track of Golden quadrilateral and its diagonals. All the 52 kg rails on these routes will be replaced with 60 kg rails. Thick web switches, weldable CMS crossings and improved SEJs will be provided on these routes in lieu of conventional curved switch, ordinary CMS crossings and ordinary SEJ respectively. Progressive upgradation is also being carried out on other high density routes as per availability of funds. In addition, following items have been planned:

| SN | Item |
|---|---|
| 1 | Vehicular Ultrasonic testing system for Rail/ Welds |
| 2 | Provision of Broken Rail detection system |
| 3 | Adoption of Flash Butt Welds & Weld quality improvement |
| 4 | Isolation of track from surrounding area |
| 5 | Provision of Ballast less Track at critical locations |
| 6 | E-monitoring of Engineering Assets for timely preventive action |
| 7 | Arrangement for movement and unloading of P-way Materials |
| 8 | Adoption of wider sleepers |
| 9 | Use of higher productivity track machines |

14. In response to a specific query regarding methodology adopted for track renewal every year, the Ministry apprised as under:

> "Track renewal is a continuous activity, which is to be undertaken as and when a stretch of track becomes due for renewal on age-cum-condition basis. Track renewals are planned in advance every year and their execution is prioritized according to the condition of track and overall availability of funds ensuring all the time that the track is in a sound condition for safe running of trains. In case, if any stretch of track is not renewed in time due to various reasons including scarcity of funds, material etc., suitable speed restriction is imposed to ensure safe running of trains. As on 01.04.2017, sanctions for 7546 kms Track Renewal and related works were available, out of which 3600 kms Track Renewal has been targeted for completion during 2017-18. As per norms, track renewals works are to be completed within two to three years of sanction. This, however, also depends on budget availability."

15. The Committee asked whether track renewals were being completed within the stipulated time of two to three years of allocation of funds. In reply, the Ministry stated that every effort was made by the Railways to complete the track renewal works within the stipulated time of two to three years subject to availability of funds. The Ministry further stated that non-completion of track renewal

works within two to three years might be attributed to non-availability of funds, material, traffic blocks, etc.

16. Asked to clarify the position of renewal of 4000 to 5000 kms track every year to keep the system in a healthy state, the Chairman, Railway Board deposed in evidence:

> "...Track overdue for renewal as on 1.4.2016 is only 5,900 kms. We have running length of track of over 1 lakh kilometers and we say that we renew around, say, 4,000 kms every year, it is not done straightaway. If I may submit for your consideration, 1 lakh divided by 4000, it does not work this way. The rack renwal becomes due based on the traffic that is carried on the rails and conditions. It is 800 GMT of traffic which once is carried on that rail, only then it becomes overdue. So, the branch lines will take 20 years or even more for becoming due for renewal whereas main line will come up for renewal, say, in five to six years time. It also depends upon the condition of the climate. If it is a coastal area where there is more corrosion or things like or any other factor which affects the rails, it becomes due for renewal. We have tracks and we take 30 to 40 years to renewing them. Perhaps, it is not correct. In the past, for the track renewal, we may not be getting adequate funds. This year, allocated funds are around Rs. 9,000 crore. Based on per km. cost I think we will be able to do track renewal of 4,000-5,000 km."

17. The Committee then queried about the track modernisation measures envisaged by the Indian Railways in view of the traffic demands, changing socio-economic environment and technological advancements. In reply, the Ministry submitted as under:

> "The present day track on Indian Railways has by and large served the growing traffic needs so far. Track structure will have to be improved in order to meet the future traffic demands and scenario, thus necessitating further Upgradation and modernization of track. The changing socio-economic environment in the country coupled with technological Upgradation also necessitates track modernization. The

modernization shall cover all the aspects of track ranging from track structure, inspection & maintenance practices and deployment of technological aids with overall aim of having safe, reliable and cost effective systems commensurate with traffic needs."

18. The Ministry further stated as follows:

"A comprehensive review of existing system and practices has been carried out; and required Upgradation of track structure as well as modernization in track monitoring & track maintenance practices have been envisaged."

19. In response to another specific query regarding the actual implementation of the track modernisation programme, the Ministry stated as under:

"The sustained emphasis on modernization of Track has paid dividends and majority of Track has been improved. The implementation is evident from following statistics as on 01.04.2016:

(i) Around 99% of Broad Gauge track is laid with 52 kg/m or 60 kg/m, 90 UTS rails on PSC sleepers and balance (around 1 %) on Steel/Cast Iron/wooden sleepers.
(ii) About 89% main line track is provided with LWR (Long Welded Rails) and balance track is non-LWR, being not suitable for LWR at present
(iii) About 44 % Track is laid with 60 kg/m Rails and balance is laid with 52kg/m rails
(iv) Out of total 90524 turn outs on Indian Railways, 81260 (89.76%) have been laid on PSC sleepers.

Mostly all the main line Track (except few unimportant lines) and standard layout Turnouts on Broad Gauge are laid on concrete sleepers except at special locations such as special turnout layouts, steel Girder Bridges etc. Steel Girder Bridges have been provided with steel Channel sleepers."

20. The Committee then enquired about the accidents/derailments occurred on account of poor maintenance or non-renewal of track during the years 2014-15 and 2015-16. In reply, the Ministry furnished the following data:

> There were 65 consequential train derailments over Indian Railways during the year 2015-16 in comparison to 63 derailments in 2014-15 registering a rise of 3.1%.

| **Year** | **Total consequential train derailments** | **Total number of derailments on account of track** | **Total number of derailments on account of engineering department in combination with other departments** |
|---|---|---|---|
| 2015-16 | 65 | 24 | 12 |
| 2014-15 | 63 | 23 | 8 |

21. The Committee desired to know whether the Railways had identified segments of rail track that were most prone to accidents. In reply, the Ministry stated as under:

> "There is no such patch/ segment which is most prone to accidents as Railway Tracks are changed as and when a stretch of track becomes due for renewal on age-cum-condition basis i.e. on the basis of traffic carried over the track and physical condition of track etc. In case, if any stretch of track is not renewed in time due to various reasons including scarcity of funds, materials etc., and such track is showing sign of degradation suitable speed restriction is imposed to ensure safe running of trains."

22. Asked to state the measures taken for proper monitoring and maintenance of tracks, the Ministry deposed as under:

> "Indian Railways have a system of scheduled inspections by Railway officials which, inter alia, includes daily inspection by Keyman, inspection/monitoring at predefined interval by various levels of inspecting officials and measurement/monitoring of track parameters by Track Recording Cars (TRCs) and

Oscillation Monitoring Systems (OMS) for ensuring long life of railway tracks. The Track Management System already implemented on Indian Railways is utilized for monitoring track inspection, maintenance, track machine working and judging track degradation based on inputs from track recording cars and other inspections under prevailing operating conditions. The repair of track is planned based on degradation of track and laid down schedules."

23. Highlighting the constraints faced in the maintenance of tracks, the Chairman, Railway Board submitted in evidence:

"...But maintenance remains a constraint, particularly on high density routes where we have been introducing the trains, and there is no sufficient time and that has been the bottleneck rather than anything else."

24. Asked to state the steps taken to remove the constraints, the Chairman, Railway Board deposed:

"Now with the investment that is coming by way of additional lines particularly on the major diagonals and four quadrilaterals and two diagonals, we are going in a big way for third line and we have additional line, perhaps we can take the block on a line and easily do the maintenance or renewal works which may be due..."

## III. MECHANISED MAINTENANCE OF TRACKS AND OPTIMAL UTILISATION OF MACHINES

25. As regards efforts made by the Railways towards mechanised maintenance of tracks, the Ministry apprised as under:

"The systematic maintenance of Railway track is being done with the help of large on-track machines and the intermediate attention and other patrolling activities are normally done by Track Maintainers as per guidelines contained in Indian Railway

Permanent Way Manual (IRPWM). The track machines deployed on Indian Railways are having state of the art technology."

26. The Committee then desired to know the details of machines available for track upgradation/renewal. In response, the Ministry apprised that as on 31 March, 2017 the Railways had 834 machines as under:

| **Track Machines on IR as on 31.03.2017** | | |
|---|---|---|
| **Activity** | **Machine Type** | **Qty** |
| **Planned Maintenance** | HOT-3X | 18 |
| | HOT-CSM | 77 |
| | UNIMAT | 90 |
| | SBCM | 33 |
| | RGM | 2 |
| | **Total** | **220** |
| **Renewal Machines** | BCM | 104 |
| | WST | 125 |
| | DTS | 118 |
| | BRM | 69 |
| | TLE | 36 |
| | T-28 | 25 |
| | TRT | 9 |
| | RT | 3 |
| | **Total** | **489** |
| **MMU** | MPT | 18 |
| | UTV | 104 |
| | RBMV | 2 |
| | **Total** | **125** |

27. Asked to state whether the available machines were adequate to cater to the needs of the Railways, the Ministry replied in the negative and submitted that full mechanization required 2805 machines. The Ministry elaborated as under:

"To expedite process of mechanization of track maintenance and renewal, a Master Plan for complete mechanization by 2024 has been prepared involving procurement of 1971 machines (in

addition to existing fleet of 834) at a cost of about Rs. 18,760 crores. RSP sanctions of about Rs. 4,000 crores per year are envisaged."

28. The Committee then asked whether the machines inducted for track modernisation were optimally utilised. In reply, the Ministry submitted as under:

"Most of the routes of Indian Railways are oversaturated with traffic and availability of assured corridor blocks for utilization of machines for track maintenance has become a big challenge. However, track machines are optimally used by Zonal Railways within the traffic blocks as available on the Railways."

29. The Ministry further stated:

"At present, due to induction of new trains and heavy traffic (passenger as well as goods) most of the important routes are over saturated with traffic and is able to arrange blocks as and when possible in the natural margin available between trains or minor regulation, which is grossly inadequate for planned maintenance of the assets resulting in overdue maintenance tamping and deep screening over large length of track. To adopt complete mechanization, the assured corridor maintenance blocks are necessarily required and efforts are being made in this direction. Instructions for assured corridor blocks for maintenance/renewal of track have been issued time and again. In this regard, recently a Joint Procedure Order (JPO) has been issued for arrangement of assured traffic blocks for track maintenance & renewal on Zonal Railways."

30. Explaining the reasons for sub-optimal utilisation of machines, the Chairman, Railway Board deposed in evidence:

"…Our utilisation of machines is definitely not optimum and the reason is that machines have to be used on the running tracks by giving the blocks. We are not able to give adequate blocks. We give blocks of small number of hours, two hours, in that, effective utilisation is only for one hour. An hour is required to

move the machine to the site, setting up of the machine, etc. Instead of two hours, if I get a block of three hours, may be the productivity will develop, because in two hours, I am effectively utilizing the machine for only one hour, in three hours, I would utilize the machine for two hours. For utilizing on the main line for two hours means, stopping the traffic..."

31. The Chairman, Railway Board further submitted:

"...I cannot afford to block the traffic for three hours as trains would have to be stopped at different places. People get agitated. But as I mentioned, on main corridors we are going for multiple lines; whatever works we have sanctioned in the last few years, would get completed in another three years, which would give a lot of relief. And one additional line would give us the flexibility to block a line completely from maintenance. We would be able to improve the utilization and track health, if I get sufficient time from maintenance. That is the biggest constraint today than anything else."

32. Asked to state the specific measures taken/proposed to increase both passenger and freight services, the Chairman, Railway Board responded as under:

"We are working on various things. One thing which can increase the speed is right powering of the trains. At present, there is one thing called the power to trailing load ratio which is one or marginally less than one whereas in the world the average is more than 2. So, we will have more powerful locomotives or multiple locomotives so that power to trilling load improves. We will be able to maintain the balancing speeds which are much more.

The second thing which will contribute to increasing speed is reducing the congestion in the network. Today, the passenger trains are time-table trains. They obviously have to be given preference by stopping the freight trains at various stations. When you travel, you will find freight trains stopping at various stations as they are stopped purposely to give way to fast moving passenger trains. So, where there are double line main corridors, we can go for constructing another third line or

wherever there are three lines, we are going for even a fourth line. If we have more capacity in the network, both passenger and freight trains can move at higher speeds.
There are various speed restrictions which we have to remove so that they can move at a higher speed. There are many things on infrastructure side as well as operation side which we have to work on so as to increase the speed. The same thing applies to passenger services."

33. The Chairman, Railway Board further submitted:

"…One big thing that we are doing is the dedicated freight corridor on eastern and western side. Once we are able to divert the freight traffic on dedicated fright corridor, that would release the capacity of existing routes, and that will help us in improving the passenger services, and improving the capacity of passenger traffic, etc."

34. In response to a specific query regarding monitoring mechanism developed to ensure timely disposal of condemned machines, the Ministry submitted that disposal of condemned machines were being done through the existing system of Stores Wing of the Indian Railways and being monitored regularly in joint meetings. The Ministry further stated that the extant system was functioning satisfactorily.

35. The Committee then desired to know whether the Railway Board had any comprehensive action plan for indigenous development of track machines in a time bound manner. In reply, the Ministry apprised as under:

"Track Machine manufacturers are encouraged for indigenized manufacturing.. 100% indigenization is achieved in simpler machines such as PQRS, RBMV, UTV, RCV, RT, MDU & WST and 22% to 68% in complex machines. Developmental orders on 5 Indian manufacturers for indigenized manufacturing of machines has been placed."

## IV. PHYSICAL TARGETS AND ACHIEVEMENTS

36. As regards the physical targets fixed Zone-wise for track upgradation/renewal during the last five years and achievements made thereagainst, the following detailed information was furnished to the Committee:

Units (in Km)

| Railway | Year | | | | |
|---|---|---|---|---|---|
| | **2012-13** | **2013-14** | **2014-15** | **2015-16** | **2016-17** |
| Central | Target: 244<br>Achievement: 201 | Target:156<br>Achievement:153 | Target:200<br>Achievement:205 | Target:222<br>Achievement:185 | Target:220<br>Achievement:195 |
| Eastern | Target:207<br>Achievement:207 | Target:195<br>Achievement:217 | Target:183<br>Achievement:185 | Target:200<br>Achievement:162 | Target:196<br>Achievement:178 |
| East Central | Target:200<br>Achievement:221 | Target:149<br>Achievement:241 | Target:171<br>Achievement:203 | Target:152<br>Achievement:202 | Target:188<br>Achievement:180 |
| East Coast | Target:71<br>Achievement:90 | Target:70<br>Achievement:154 | Target:62<br>Achievement:60 | Target:110<br>Achievement:116 | Target:104<br>Achievement:119 |
| Northern | Target:627<br>Achievement:634 | Target:359<br>Achievement:441 | Target:385<br>Achievement:383 | Target:388<br>Achievement:387 | Target:533<br>Achievement:281 |
| North Central | Target:257<br>Achievement:301 | Target:203<br>Achievement:318 | Target:130<br>Achievement:152 | Target:151<br>Achievement:164 | Target:167<br>Achievement:112 |
| North Eastern | Target:112<br>Achievement:201 | Target:48<br>Achievement:61 | Target:68<br>Achievement:45 | Target:86<br>Achievement:80 | Target:78<br>Achievement:81 |
| Northeast Frontier | Target:76<br>Achievement:76 | Target:53<br>Achievement:76 | Target:27<br>Achievement:34 | Target:51<br>Achievement:95 | Target:37<br>Achievement:43 |
| North West | Target:58<br>Achievement:78 | Target:24<br>Achievement:39 | Target:24<br>Achievement:24 | Target:50<br>Achievement:59 | Target:71<br>Achievement:80 |
| Southern | Target:133<br>Achievement:134 | Target:90<br>Achievement:118 | Target:102<br>Achievement:135 | Target:151<br>Achievement:187 | Target:198<br>Achievement:207 |
| South Central | Target:285<br>Achievement:393 | Target:197<br>Achievement:297 | Target:175<br>Achievement:208 | Target:188<br>Achievement:278 | Target:119<br>Achievement:151 |
| South Eastern | Target:156<br>Achievement:192 | Target:111<br>Achievement:180 | Target:110<br>Achievement:168 | Target:148<br>Achievement:209 | Target:103<br>Achievement:190 |
| South East Central | Target:84<br>Achievement:96 | Target:71<br>Achievement:85 | Target:102<br>Achievement:107 | Target:126<br>Achievement:119 | Target:174<br>Achievement:123 |
| South Western | Target:117<br>Achievement:106 | Target:105<br>Achievement:110 | Target:102<br>Achievement:96 | Target:110<br>Achievement:118 | Target:105<br>Achievement:117 |
| Western | Target:194<br>Achievement:218 | Target:143<br>Achievement:202 | Target:165<br>Achievement:194 | Target:184<br>Achievement:229 | Target:216<br>Achievement:241 |
| West Central | Target:179<br>Achievement:247 | Target:126<br>Achievement:193 | Target:194<br>Achievement:225 | Target:182<br>Achievement:204 | Target:168<br>Achievement:193 |

37. Observing shortfalls in the achievements of targets by some Zonal Railways during the years 2015-16 and 2016-17, the Committee desired to be apprised of the reasons therefor and measures taken for optimal achievements of physical targets. In response, the Ministry submitted as under:

"Every effort is taken by the Railways to achieve track renewal targets subject to availability of funds, materials, traffic blocks etc. In the year 2016-17, track renewal progress of 2487 km has been achieved against the target of 2668 km. The shortfall in target of Rail Renewal was due to inadequate supply of Rails from SAIL. The requirement of rails for 2016-17 was 10 lac MT against which SAIL has supplied 6.2 lac MT rails only."

## V. FUND ALLOCATION, UTILISATION AND MOBILISATION

38. As regards fund allocation to and utilisation by various Zonal Railways during the last five years, the following detailed information was furnished to the Committee:

(Rs. In Crore)

| Rly/ Unit | 2012-13 | | 2013-14 | | 2014-15 | | 2015-16 | | 2016-17 | | 2017-18 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | RE | Actual | RE | Actual | RE | Actual | RE | Actual | RE | Actual | BE |
| CR | 329.32 | 299.36 | 280.00 | 289.39 | 372.00 | 391.25 | 427.70 | 426.66 | 515.70 | 441.11 | 808.66 |
| ER | 337.00 | 319.55 | 250.00 | 268.13 | 364.00 | 368.39 | 314.90 | 288.60 | 513.48 | 458.63 | 543.85 |
| NR | 885.00 | 951.91 | 690.00 | 763.21 | 650.00 | 780.91 | 616.64 | 675.82 | 780.00 | 753.33 | 1400.70 |
| NE | 159.00 | 140.46 | 199.00 | 202.15 | 145.00 | 132.79 | 141.00 | 174.85 | 212.00 | 223.20 | 316.08 |
| NF | 171.00 | 208.48 | 127.88 | 125.48 | 152.00 | 149.23 | 225.18 | 204.37 | 257.97 | 313.07 | 258.90 |
| SR | 309.15 | 346.38 | 272.00 | 302.23 | 290.00 | 317.57 | 347.80 | 398.23 | 499.48 | 464.92 | 1066.02 |
| SC | 527.00 | 507.84 | 500.00 | 498.53 | 421.00 | 428.65 | 500.20 | 431.33 | 435.27 | 361.16 | 604.66 |
| SE | 364.00 | 340.06 | 430.00 | 434.17 | 308.00 | 427.16 | 384.20 | 383.42 | 515.00 | 478.97 | 594.24 |
| WR | 360.02 | 358.46 | 290.00 | 317.58 | 411.00 | 431.30 | 390.10 | 363.89 | 514.00 | 519.20 | 712.54 |
| ECR | 348.00 | 379.46 | 220.00 | 259.36 | 318.24 | 319.05 | 398.30 | 447.87 | 470.00 | 436.46 | 652.97 |
| ECOR | 164.00 | 166.46 | 138.30 | 154.02 | 160.00 | 157.80 | 217.30 | 299.90 | 229.05 | 271.22 | 738.92 |
| NCR | 456.00 | 471.36 | 445.00 | 472.20 | 330.00 | 351.45 | 376.20 | 390.82 | 433.02 | 384.40 | 433.16 |
| NWR | 109.51 | 120.78 | 110.00 | 137.23 | 86.00 | 98.67 | 95.66 | 121.54 | 192.87 | 194.95 | 442.03 |
| SECR | 201.00 | 201.44 | 180.00 | 209.83 | 326.00 | 320.40 | 283.28 | 254.78 | 277.51 | 260.18 | 382.09 |
| SWR | 213.00 | 205.08 | 170.00 | 190.89 | 160.00 | 138.92 | 181.48 | 187.54 | 255.54 | 214.17 | 386.01 |
| WCR | 397.00 | 389.83 | 340.00 | 346.13 | 531.00 | 535.07 | 520.36 | 527.19 | 632.56 | 594.84 | 602.80 |
| Metro Rly Kolkata | 8.50 | 8.56 | 9.00 | 8.44 | 10.00 | 10.70 | 5.29 | 5.30 | 5.02 | 5.08 | 10.23 |
| CLW | 1.68 | 8.19 | 3.20 | 3.20 | 1.00 | 0.96 | 0.47 | 0.41 | 0.72 | 0.05 | 6.50 |
| ICF | 0.75 | 1.24 | 0.98 | 0.81 | 0.78 | 0.79 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 |
| RWF | 1.00 | 1.27 | 2.82 | 2.37 | 10.50 | 10.49 | 0.00 | 3.48 | 0.60 | 0.54 | 0.40 |
| Total | 5341.93 | 5426.17 | 4658.18 | 4985.35 | 5046.52 | 5371.55 | 5426.06 | 5586.03 | 6739.79 | 6375.48* | 9960.76 |

39. Asked to state the steps taken for optimum utilisation of funds, the Ministry submitted as under:

"The optimum utilization of funds has generally been noticed under this plan head as the utilization of funds was

comparatively higher than the allotments made in Revised Estimates during the years, except in 2016-17. Expenditure in 2012-13, 2013-14, 2014-15, 2015-16, is more than Revised Estimate Expenditure in 2016-17 is less than R.E. mainly due to short supply of Rails from SAIL, as new Universal Rolling machine under installation could not be commissioned. Track renewal target have been kept 3600 km for 2017-18 for maximum utilization of funds."

40. The Chairman, Railway Board submitted in evidence:

"... On track renewal, on an average, we were spending about Rs. 5,000 crore. For the first time, we had increased the allocation to Rs. 7,000 crore. This year we are targeting around Rs. 9,000 crore. On an average, our track of 2,000 to 2,500 km. would become due for track renewal. Depending on the availability of funds, we were doing the renewals. With around Rs. 5,000 crore we were renewing around 3,000 to 3,500 km."

41. In response to a specific query of the Committee regarding allocation of funds from Rashtriya Rail Suraksha Kosh (RRSK) for track upgradation/renewal, the Ministry stated that out of Rs. 20,000 crore allocation from RRSK, the allotment for track renewal plan head was Rs. 9960.76 crore.

42. Referring to the above allocations, the Chairman, Railway Board apprised in evidence:

"...So now with this allocation going up to around Rs. 10,000 crore, I think we will be able to renew as it becomes due. So, with the measures that we are taking, I hope we will be able to improve the track geometry and maintain the track in good position."

43. The Committee then desired to be apprised of the immediate plans of the Railways to mobilize funds for laying of new Railway lines as well as expansion and strengthening of the existing Railway lines in the country. In reply, the Ministry stated as follows:

"For construction of new railway lines, gauge conversion, doubling/electrification of lines and other activities relating to expansion and strengthening of railway lines including investment in Dedicated Freight Corridors, Budget provision under Capital segment of Demand No.80-Ministry of Railways, is made from Capital (Budgetary Support) and Railway Safety Fund. Finance from extra budgetary resources like Borrowing from LIC under EBR(IF) is also utilised for financing mainly doubling and electrification works. A new Fund 'Rashtriya Rail Sanraksha Kosh (RRSK)' has been introduced in 2017-18, of total Rs.1 lakh crore for a period of five years for expenditure on critical safety works. In Budget Estimates 2017-18, Rs.20000 crore have been provided out of 'RRSK' for safety related works, which include Rs. 5000 crore from Capital (Budgetary Support), Rs.10000 crore from Railways' share of CRF Funds and Rs.5000 crore out of internal resources. Further, finance is provided under 'DRF' for other works of replacement/renewal of assets, and under 'DF' for developmental works, out of Railways' internally generated resources.

Ministry of Railways has embarked upon cooperative federalism through formation of Joint Venture Companies with the State Government. These JV Companies would undertake Project Development works which will inter-alia includes surveys, preparation of DPRs, obtain requisite clearances, approvals of sanctions. It will also arrange financial support and resources from various stakeholders of the project and wherever feasible from Banks/multi lateral agencies/financial institutions also. However, individual projects shall be taken up through specific Project SPV only after their viability/financing is ensured by way of debt/equity, upfront grant/subordinate debt and traffic/commercial revenue through downstream developments.

No specific mobilization of funds can be projected as this will become known only after a particular project through any State JV is sanctioned and its finances are tied up."

## VI. MANPOWER AND OTHER CONSTRAINTS

44. During the Study Visit of the Committee to various Zonal Railways, they were informed that there had been shortage of staff adversely affecting the track maintenance work. In that context, the

Committee desired to be apprised of the remedial measures taken by the Railway Board to overcome the constraints/impediments. In reply, the Ministry submitted as under:

> "Zonal railways have time and again been representing against shortage of manpower (trackman) for carrying out manual maintenance of existing tracks as well as of newly created assets through commissioning of new railway lines and doubling. The problem has mainly been due to (i) non-filling up of existing vacancies (ii) non-creation of additional posts of track maintainers as per Manpower Cost Norms for Track Maintenance(MCNTM) formula required for maintenance of new assets mainly due to policy of providing matching surrender. As on 01.01.2017 there are 50608 (18.7%) vacancies of Track Maintainers. Further, Railways have been experiencing difficulty in creation of additional manpower due to limited resource available in the vacancy banks of concerned zonal railways. The matter has also been taken up highlighting the aforesaid difficulties and increased manpower requirement given the commissioning of new lines, gauge conversion and doubling in near future. Some track maintenance activities have been outsourced without compromising the safety of train operations."

45. The Committee then asked whether the Indian Railways were facing any other problems, apart from the shortage of manpower. In response, the Ministry deposed as follows:

> "The difficulties being faced towards track upgradation and modernization presently is shortfall in supply of rails from SAIL and traffic blocks. Due to oversaturation of section capacity, the availability of traffic blocks for execution of track renewal/modernisation works is not adequate."

46. Asked to express the views/suggestions for smooth implementation of track renewal and maintenance activities, the Ministry submitted as under:

> "No new trains should be introduced on saturated/over saturated sections. For other sections also, new trains should be introduced only after keeping provision for stipulated corridor blocks for track maintenance. The availability of traffic blocks for minimum 3-4 hours per day for execution of track

maintenance, renewal & upgradation works should be ensured. The vacancies in safety categories should be filled up expeditiously. Posts of maintenance staff for new assets should be created by redeployment of vacancies of Non safety category".

***

# PART-II

## OBSERVATIONS/RECOMMENDATIONS

1. **The Committee are deeply concerned to note that while the increase in the level of traffic between the period 1950-51 and 2014-15 has been more than 14 times, the track infrastructure has not increased with that pace. According to the Ministry, such a scenario has arisen due to chronic and significant under investment in the Indian Railways. However, to accelerate the track infrastructure, 13014 km of doubling/3rd/4th line works have been planned in addition to the execution of two Dedicated Freight Corridors (DFCs) i.e. Eastern Corridor (1885 km) and Western Corridor (1504 km). Since track is subjected to heavy wear and tear and is required to be upgraded/modernized/renewed periodically on the basis of fatigue life of rails, Gross Million Tonnes (GMT) of traffic carried, incidents of rail failures, maintainability of the track etc., the Committee are of the firm opinion that track structure will have to be improved in order to meet the current and future traffic demands and scenario. They, therefore, impress upon the Railway Board to appropriately address the problems of availability of funds, resources, blocks etc. so that periodical track upgradation programme is carried out as per plannings.**

**2. The Committee note that as on 31st March, 2016, the Indian Railways have a total network of 66,687 Route Kms and 1,19,630 Track kms out of which Broad Gauge consists of 60551 RKM and 1,12,388 TKM. According to the recommendation of an Expert Group Chaired by Shri Sam Pitroda, modernization of 19,000 Route Kms of the existing track is required. According to the Ministry, on an average 4,000 to 5,000 kms track needs to be renewed every year to keep the system in a healthy state. In this context, the Committee observe that as on 1st April, 2017, 7546 km Track has been sanctioned for renewal in addition to the renewal of other P-way components *viz.* Turnouts, Bridge Timber, Fittings, Ballast etc. It has also been planned to modernize track of quadrilateral and its diagonals. As a short term measure, 3600 kms Track has been planned for renewal during 2017-18 and the remaining sanctioned track renewal would be taken up during 2018-19. In view of the imperatives involved, the Committee impress upon the Railway Board to accord top priority and sustained emphasis to track renewal based on the assessment and planning so as to ensure the completion of the targeted track renewals during 2017-18 and beyond.**

**3. As per norms, track renewal works are to be completed within two to three years of sanction. The Ministry have submitted that non-completion of track renewal works within the stipulated period might be**

**attributed to non-availability of funds, materials, traffic blocks, etc. The Ministry have further deposed that in case any stretch of track is not renewed in time due to various reasons, suitable speed restriction is imposed. The Committee are not satisfied with such stop gap arrangements and they recommend that the Railways should take all requisite measures so that track due for renewal is invariably renewed within the stipulated period of two to three years of its sanction to keep the system safe and in a healthy state.**

**4. The Committee appreciate that a comprehensive review of the existing system and practices has been carried out by the Indian Railways and required upgradation of track structure as well as modernization in track monitoring and maintenance practices have been envisaged. In view of the changing socio-economic scenario and technological upgradation, these are steps in right direction and should continue unabated. As assured, the Committee also desire that the modernization programme should encompass all the aspects of track involving track structure, inspection and maintenance practices and deployment of technological aids with the overall aim of having safe, reliable and cost effective systems commensurate with growing traffic needs.**

**5. The Committee are concerned to find that there were 128 derailments/accidents during 2014-15 and 2015-16 out of which 47 derailments were due to poor**

**maintenance or non-renewal of track. The Ministry have submitted that the Indian Railways have a system of scheduled inspections by Railway Officials and the Track Management System (TMS) is utilized for monitoring track inspection, maintenance, track machine working and judging track degradation based on inputs from track recording cars and other inspections under prevailing operating conditions. The Committee are surprised that despite having such a system in place there were substantial derailments during the above said two years. According to the Committee, some of the primary causes for such derailments may be attributed to the Ministry's inability to identify patches/segments of Railway route/track which are more risk prone, non-renewal of track in time, lapses in monitoring and constraints in maintenance activities. Needless to say, the Indian Railways should make concerted efforts to identify the most risk prone lines/routes, strengthen the monitoring system and repair/renew the track in time based on its degradation. Now with the investment that is coming by way of additional lines, as deposed by the Chairman, Railway Board, the Committee hope that constraints in maintenance activities, particularly on high density routes would be overcome.**

**6. The Committee note that systematic maintenance of Railway track is being done with the help of large on-track machines and as on 31st March, 2017 there were 834 machines factor with the Indian Railways for track**

**renewal, maintenance etc. According to the Ministry, full mechanization of track requires 2805 machines for which a Master Plan for complete mechanization by 2024 has been prepared for procurement of the additional 1971 machines at a cost of about Rs. 18,760 crore. The Committee desire that the process of procurement of the requisite additional machines be expedited so as to ensure complete mechanization of track maintenance/renewal activities by the envisaged date. The Committee would simultaneously impress upon the Railway Board to ensure that there is a prudent distribution of track machines among the Zonal Railways after a judious assessment of their requirement.**

**7. The Committee are concerned to observe that the utilization of track machines by the Indian Railways is definitely not optimum because most of the routes of the Railways are oversaturated with traffic for which availability of assured corridor blocks for utilization of machines for track maintenance has become a big challenge. In order to overcome the problems, the Ministry are concentrating on a number of things on the infrastructure and operation sides which inter-alia include introduction of powerful/multiple locomotives, reducing the congestion in the network, creation of DFCs etc. While appreciating the efforts made by the Indian Railways, the Committee desire the Railway Board to ensure that the machines available with the Zonal Railways are utilized to**

**the optimum extent possible so as to minimize extra expenditure and avoidable consumption of scarce maintenance blocks.**

**8. According to the Ministry, disposal of condemned machines are being done through the existing system of Stores Wing of the Indian Railways and being monitored regularly in joint meetings. The Committee desire that the monitoring system be strengthened to ensure timely disposal of the condemned machines across the Zonal Railways by avoiding delays in the submission of their proposal for the purpose to the Railway Board.**

**9. According to the Ministry, track machine manufacturers are encouraged for indigenized manufacturing as a result of which hundred percent indigenization has been achieved in simpler machines whereas in complex machines, developmental orders has been placed on five Indian manufactures. The Committee recommend that a comprehensive action plan be chalked out by the Railway Board for ensuring indigenous development of track machines in a time bound manner.**

**10. The Committee note that there have been shortfalls in the achievement of physical targets for track upgradation/renewal by some Zonal Railways during the years 2015-16 and 2016-17. Reasons for such shortfalls have been attributed to inadequate supply of rails from Steel Authority of India (SAIL). The Committee exhort the**

**Railway Board to look into the matter with a sense of urgency so that the problems are sorted out to enable the Zonal Railways to accomplish the physical targets to the optimum extent in the coming years.**

**11. The Committee appreciate to note that fund utilization for track related activities has been optimal by the Zonal Railways during the years 2012-13 to 2015-16. However, there have been some shortfalls in fund utilization during the year 2016-17 mainly due to short supply of rails from SAIL, as mentioned earlier. As such deficient supply from SAIL has been affecting both fund utilization and achievement of physical targets, the Committee reiterated that onus lies with the Railway Board to appropriately address the issues involved.**

**12. As regards mobilization of funds for track renewal/maintenance activities, the Committee find that Rs. 9960.76 crore has been allocated for the purpose from the Rashtriya Rail Suraksha Kosh (RRSK) apart from the regular allocations from the Budget Grant and Railway Safety Fund. Further funds are being mobilized through Railways' internal resources as well as formation of Joint Venture Companies with the State Governments. In view of the chronic under investment in Railway infrastructure, attempts to mobilize funds through various sources are prudent steps by the Railways and the Committee are hopeful that with the availability of adequate funds, the**

**Indian Railways would be able to further expand and strengthen the lines/tracks including implementation of the DFCs.**

**13. The Committee are deeply concerned to note the acute shortfall of manpower (trackman) in Indian Railways i.e. vacancies of as many as 50,608 trackman as on 1st January, 2017 which have arisen due to non-filling up of existing vacancies and non-creation of additional posts. As the shortage of trackman is adversely affecting the track maintenance work, the Committee urge the Railway Board to take up the matter at the appropriate level so that vacancies are filled up expeditiously and track maintenance activities carried out smoothly.**

**14. As suggested by the Railway Board, the Committee desire that no new trains should be introduced on saturated/over-saturated sections. In fact, for other sections also, new trains may be introduced only after keeping provision for stipulated corridor blocks so that track maintenance activities are not inconvenienced and compromised for larger interest.**

New Delhi:
4 August, 2017
**13 Shravana, 1939 (SAKA)**

**BHARTRUHARI MAHTAB**
CHAIRPERSON
RAILWAY CONVENTION COMMITTEE

**APPENDIX-I**

## RAILWAY CONVENTION COMMITTEE (2014)

## MINUTES OF THE TWENTIETH SITTING OF THE COMMITTEE

The Committee sat on Wednesday, the 07th September, 2016, from 1500 hrs. to 1620 hrs. in Room No.-G-074, Parliament Library Building, New Delhi.

**PRESENT**

**Shri Bhartruhari Mahtab - Chairperson**

**Members**

**Lok Sabha**

2. Shri K. Ashok Kumar
3. Shri Janak Ram
4. Shri Nana Patole
5. Shri Rahul Ramesh Shewale

**Rajya Sabha**

6. Shri Prem Chand Gupta

**Secretariat**

1. Sh. M. K. Madhusudhan - Director
2. Sh. D. R. Mohanty - Additional Director

**Witnesses**

**Representatives of the Ministry of Railways (Railway Board)**

1. Sh. A.K. Mital - Chairman, Railway Board
2. Sh. K.B. Nanda - Financial Commissioner, Railways
3. Sh. Aditya Kumar Mittal - Member (Rolling Stock)

2. At the outset, the Chairperson welcomed the Members and the representatives of the Ministry of Railways (Railway Board) to the sitting of the Committee, convened to have a briefing on the subject "**Track Upgradation and Modernisation".** Impressing upon the witnesses to keep the proceedings of the Committee **"Confidential",** the Chairperson asked the Chairman, Railway Board, to brief the Committee on various measures undertaken/proposed by the Indian Railways for track upgradation and modernisation.

3. The Chairman, Railway Board, accordingly gave a brief overview of the various measures taken/proposed by the Ministry towards track upgradation and modernization highlighting *inter-alia* the methodology of track categorization and classification, pace of track upgradation and renewals *vis-à-vis* the current traffic trends, mechanization of track maintenance, modernization measures envisaged, technological advancement in the field, fund requirements and investment plan in track upgradation and modernization etc. The representatives of the Ministry of Railways also responded to the queries raised by the Members. As some queries required detailed and statistical reply, the Chairperson asked the Chairman (Railway Board) to furnish written reply thereon within 15 to 20 days. The Chairman (Railway Board) assured to comply.

4. The Chairperson thanked the witnesses for appearing before the Committee and furnishing the available information that the Committee desired in connection with the examination of the subject.

The witnesses then withdrew.

A verbatim copy of the proceedings was kept on record.

***The Committee then adjourned***.

**APPENDIX-II**

## RAILWAY CONVENTION COMMITTEE (2014)

## MINUTES OF THE THIRTY SECOND SITTING OF THE COMMITTEE

The Committee sat on Wednesday, the 07th June, 2017 from 1500 hrs. to 1630 hrs. in Committee Room-G074, Parliament Library Building, New Delhi.

**PRESENT**

**Shri Bhartruhari Mahtab - Chairperson**

**Members**

**Lok Sabha**

2. Shri Sanganna Amarappa Karadi
3. Shri K. Ashok Kumar
4. Shri Janak Ram
5. Shri Bharat Singh
6. Shri K.C. Venugopal

**Rajya Sabha**

7. Shri Derek 'O' Brien
8. Shri T.K. Rangarajan
9. Shri Ranvijay Singh Judev

**Secretariat**

1. Sh. M.K. Madhusudhan - Director
2. Sh. D. R. Mohanty - Additional Director

**Witnesses**

**Representatives of the Ministry of Railways (Railway Board)**

1. Sh. A.K. Mittal - Chairman, Railway Board
2. Sh. B.N. Mohapatra - Financial Commissioner
3. Sh. Anirudh Jain - Addl.Member (Works)

2. At the outset, the Chairperson welcomed the Members and the representatives of the Ministry of Railways (Railway Board) to the sitting of the Committee, convened to have further evidence on the subject "**Track Upgradation and Modernisation".** Impressing upon the witnesses to keep the proceedings of the Committee **"Confidential",** the Chairperson asked the Chairman, Railway Board, to brief and update the Committee about the new developments in the field of Track Upgradation and Modernisation.

3. Accordingly, the Chairman, Railway Board, highlighted the current targets set for the renewal and upgradation of tracks, achievements made during the last year, new research and development activities in the field, technological upgradation and optimum utilisation of the machinary, classification of routes and tracks for them becoming eligible for upgradation and renewal, fund allocation and utilisation especially after formation Rashtriya Rail Suraksha Kosh (RRSK), training and capacity building of manpower. The representatives of the Railway Board also responded to various queries raised by the Members on the subject matter. The Chairperson asked the Chairman, Railway Board, to furnish written replies to those queries, which remained unanswered, within a period of 15 to 20 days. The Chairman, Railway Board, assured to comply.

4. The Chairperson thanked the witnesses for appearing before the Committee and for furnishing the available information that the Committee desired in connection with the examination of the subject.

The witnesses then withdrew.

A verbatim copy of the proceedings has been kept on record.

***The Committee then adjourned***.

**APPENDIX-III**

## RAILWAY CONVENTION COMMITTEE (2014)

## MINUTES OF THE THIRTY SEVENTH SITTING OF THE COMMITTEE

The Committee sat on Thursday, the 3rd August, 2017, from 1015 hrs. to 1035 hrs. in Committee Room-D, Parliament House Annexe, New Delhi.

**PRESENT**

**Shri Bhartruhari Mahtab - Chairperson**

**Members**

**Lok Sabha**

2. Shri K. Ashok Kumar
3. Shri Kamalbhan Singh Marabi
4. Shri Nana Patole
5. Shri Janak Ram
6. Shri Rahul Ramesh Shewale
7. Shri Bharat Singh

**Rajya Sabha**

8. Shri T.K. Rangarajan
9. Shri Ranvijay Singh Judev

**Secretariat**

1. Sh. M. K. Madhusudhan - Director
2. Sh. D. R. Mohanty - Additional Director

*2.* At the outset, the Chairperson welcomed the Members to the sitting of the Committee, convened to consider and adopt two draft Reports on the subjects (i) Safety Provisions at Unmanned Level Crossings and (ii) Track Upgradation & Modernisation. Giving an overview of the important Recommendations contained in the Draft Reports, the Chairperson solicited the views/suggestions of the Members.

3. The Committee then took up for consideration of the said Draft Reports and adopted them after some discussions.

4. The Chairperson thanked the Members for their valuable suggestions and active participation in the deliberations of the Committee.

5. The Committee, then, authorized the Chairperson to finalize the Reports in the light of consequential changes that might arise out of factual verification of the Draft Reports and present the same to both the Houses.

**The Committee then adjourned.**