

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS**

**LOK SABHA
UNSTARRED QUESTION NO. 3660
TO BE ANSWERED ON 02.01.2019**

GO GREEN INITIATIVES

**3660. SHRI RAHUL SHEWALE:
SHRI SANJAY DHOTRE:
SHRI BHARTRUHARI MAHTAB:**

Will the Minister of RAILWAYS be pleased to state:

- (a) whether the Railways has undertaken major initiatives to Go Green;**
- (b) if so, the details of areas/activities identified and achievements made since 2016, zone-wise;**
- (c) the present status of Go Green initiatives;**
- (d) the details of training programmes conducted by the Railways for its employees and relevant stakeholders on environmental awareness and going green along with number of participants of such training programmes since 2016, zone-wise;**
- (e) whether the Railways is considering to float green bonds to fund its clean energy projects; and**
- (f) if so, the details and objectives thereof?**

ANSWER

**MINISTER OF STATE IN THE MINISTRY OF RAILWAYS
(SHRI RAJEN GOHAIN)**

(a) to (c) Yes, Madam. Railways have undertaken some major initiatives to Go Green. The details of the areas/activities identified

and their present status are as under:

- (i) Ministry of Railways has planned to set up 1000 Mega Watt (MW) solar power by 2020-21 which would help Railways to source about 10% of its electrical energy from renewable source. Indian Railways have already installed about 71.19 MW of Solar plants over rooftops at Railways stations and service buildings.**
- (ii) Wind energy plants of 36.5 MW have been installed out of which, 26 MW at Jaisalmer was installed in 2015-2016.**
- (iii) Use of LED lights on electrified railway stations and service buildings. All electrified Railway stations (except those under gauge conversion) and 99% of service buildings have been fitted with 100% LED luminaries over Indian Railways.**
- (iv) Blending of 5% bio-diesel in High Speed Diesel (HSD) for diesel locomotives was started in June, 2015.**
- (v) 20% Compressed Natural Gas (CNG) substitution in diesel engines of 23 Diesel Power Cars of Diesel Electric Multiple Unit (DEMU) trains and introduction of Solar energy based DEMUs.**
- (vi) Tree plantation to increase green cover in Railway Premises. Track side boundary plantation also started in 2016. On Indian Railways, 1.25 crores saplings were planted during 2016-17, 88.96 lakh in 2017-18 and 97.33 lakh during 2018-19 upto November, 2018.**
- (vii) Towards better Water Management, Water Audits at major consumption centres as well as proliferation of Water Recycling Plants and Rain Water Harvesting (RWH) Systems**

are undertaken. Water Policy of Indian Railways was issued in March, 2017.

(viii) Assessment and rating of Indian Railway's Production Units and major Workshops as Green Industrial Units started with 'GreenCo' certification of 2 Workshops and 1 Production unit in 2016-17. 31 more Workshops, 4 more Production Units, 2 Diesel Sheds, one Stores depot and 2 Supervisors Training Centres have been 'GreenCo' certified since then. Eight Railway Stations, two Railway Schools and one Railway Hospital have also achieved Green Certification.

(ix) Pace of installation of environment friendly bio-toilets in passenger coaches has been increased. Nearly 163,000 bio-toilets have been installed in around 44,500 coaches, out of which more than 127,000 bio-toilets were installed in around 33,500 coaches since April, 2016.

(x) Pace of electrification has been increased. As on 1st April, 2018, 30,212 Route Kilometers (RKM) of Indian Railways are electrified out of which 5,733 RKM was done in two years 2016-17 and 2017-18. Electrification work is in progress on 33,658 Route Kilometers.

(xi) In 2016, a policy decision was taken for allocating 1% cost in all sanctioned works for execution of environment related works.

(d) The various training programmes of Indian Railways include sessions on environmental awareness. Number of Railway employees who have undergone Initial and Refresher Training in 2016-17 and 2017-18 (zone-wise) is appended as Appendix - I and II

respectively. Centralized Training Institutes are conducting courses/sessions on environment awareness for officers.

(e) and (f) The Indian Railway Finance Corporation (IRFC), a Public Sector Undertaking under the Ministry of Railways, has issued bonds worth USD 500 million in the offshore market in December, 2017 which has been certified as 'Green Bonds' by the Climate Bond Initiative. The proceeds of the Green Bonds issue were utilized for acquisition of electric locomotives which help in reducing carbon footprints.

APPENDIX - I REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 3660 BY SHRI RAHUL SHEWALE, SHRI SANJAY DHOTRE AND SHRI BHARTRUHARI MAHTAB TO BE ANSWERED IN LOK SABHA ON 02.01.2019 REGARDING GO GREEN INITIATIVES

(d) Number of Railway employees who have under gone Initial and Refresher Training in 2016-17 (zone-wise):

Number of Staff Trained during 2016-2017 (Provisional)		
RAILWAY/PSU	INITIAL	REFRESHER
CENTRAL	4883	8249
EASTERN	3263	12146
EAST CENTRAL	2150	3269
EAST COAST	3136	6110
METRO RAILWAY KOLKATA	78	458
NORTHERN	5623	11803
NORTH WESTERN	5528	12054
NORTH EASTERN	2912	2267
NORTH EAST FRONTIER	3030	4914
NORTH CENTRAL	2586	4286
SOUTHERN	6656	11156
SOUTH CENTRAL	5761	11897
SOUTH EASTERN	5658	9361
SOUTH EAST CENTRAL	1244	5399
SOUTH WESTERN	2240	2018
WEST CENTRAL	5318	5991
WESTERN	10619	17088
CHITTARANJAN LOCOMOTIVE WORKS	60	1767
DIESEL LOCOMOTIVE WORKS	882	905
DIESEL LOCO MODERNIZATION WORK	26	508
INTEGRAL COACH FACTORY	657	1670
RAIL COACH FACTORY	720	369
RESEARCH DESIGNS AND STANDARDS ORGANISATION	268	434
RAIL WHEEL FACTORY	10	1312
MODERN COACH FACTORY	254	137
TOTAL	73,562	135,568

APPENDIX - II REFERRED TO IN REPLY TO PART (d) OF UNSTARRED QUESTION NO. 3660 BY SHRI RAHUL SHEWALE, SHRI SANJAY DHOTRE AND SHRI BHARTRUHARI MAHTAB TO BE ANSWERED IN LOK SABHA ON 02.01.2019 REGARDING GO GREEN INITIATIVES

(d) Number of Railway employees who have under gone Initial and Refresher Training in 2017-18 (zone-wise):

Number of Staff Trained during 2017-2018 (Provisional)		
RAILWAY/PSU	INITIAL	REFRESHER
CENTRAL	6134	9929
EASTERN	3900	13867
EAST CENTRAL	2150	3269
EAST COAST	3136	6110
METRO RAILWAY KOLKATA	78	458
NORTHERN	9256	15898
NORTH WESTERN	5185	9875
NORTH EASTERN	2912	2267
NORTH EAST FRONTIER	2687	6405
NORTH CENTRAL	5140	8259
SOUTHERN	6656	11897
SOUTH CENTRAL	5761	9361
SOUTH EASTERN	5658	5399
SOUTH EAST CENTRAL	2808	6922
SOUTH WESTERN	2240	2018
WEST CENTRAL	5318	5991
WESTERN	6155	9882
CHITTARANJAN LOCOMOTIVE WORKS	60	905
DIESEL LOCOMOTIVE WORKS	882	508
DIESEL LOCO MODERNIZATION WORK	54	435
INTEGRAL COACH FACTORY	802	1026
RAIL COACH FACTORY	936	708
RESEARCH DESIGNS AND STANDARDS ORGANISATION	340	381
RAIL WHEEL FACTORY	10	1312
MODERN COACH FACTORY	254	137
TOTAL	78,512	133,219