



“Capacity building for developing Trauma Care Facilities in Govt. Hospitals on National Highways”

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Magnitude of the problem

Global Scenario:

According to WHO's Global Burden of Disease Project, road traffic accidents (RTA) cause over 1.27 million deaths an year. Traffic injuries affect all age groups, but their impact is most striking among the young. Road Traffic injuries are consistently one of the top three causes of death for the people aged 5 to 44 years.

While road traffic death rates in many high income countries have stabilized or declined in the recent decades, data suggest that in most regions of the world the global epidemic of RTAs still increasing. It is estimated that unless immediate actions are taken road deaths will be the fifth leading cause of death by 2030, leading to estimated 2.4 million deaths per year. In addition to mortality, Road traffic crashes injure or disable 20 million and 50 million people a year.

Over 90% of the world's fatalities on the roads occur in low-income and middle-income countries, which have only 48% of the world's vehicles.

India Scenario:

In India, accidental injury is one of the leading causes of mortality and morbidity. Road traffic crashes are one of the major causes of disability, morbidity and mortality in India, India has just one per cent of total vehicles in the world but accounts for six per cent of total road accidents. In India, 4, 50,898 road accidents caused 1, 41,526 deaths during 2014. As per, World road statistics 2010, by 2020 road accidents will be a major killer in India accounting for 546,000 deaths and 15,314,000 disability-adjusted life years lost.

Background:

This programme was started on pilot mode under the 9th & 10th FYP and the name of this programme was "Pilot Project for strengthening emergency facilities along the highways". During the 11th Plan, the programme named as "Assistance for capacity building for trauma care for up gradation and strengthening of emergency facilities in Govt. hospitals located on National Highways. The 11th FYP was approved with a total outlay of Rs.732.75 crore with 100 % central funding provision for developing a network of **140** trauma care facilities in the Govt. Hospitals along the Golden Quadrilateral highway corridor covering 5,846 Kms connecting Delhi-Kolkata-Chennai-Mumbai-Delhi as well as North-South & East-West Corridors covering 7,716 Kms connecting Kashmir to Kanyakumari and Silchar to Porbandar respectively.

Under this 11th FYP 118 trauma care facilities in the Govt. Hospitals were identified and funds were released to 116 trauma care facilities.

The scheme has been extended to the 12th plan period and the proposal for extension of scheme during 12th plan has already been approved by CCEA with total budget outlay of Rs 899.29 crore. The name has been changed as “Capacity building for developing Trauma Care Facilities in Govt. Hospitals on National Highways”, under which there is a proposal for development of another 85 new trauma care facilities

Salient Features:

- Through the scheme, the designated hospitals were to be upgraded for providing trauma care facilities. It was envisaged that the network of trauma care facilities along the corridors will bring down the morbidity and mortality on account of accidental trauma on the roads in India by providing trauma care within the ambit of golden hour concept.
- The trauma care network is so designed that no trauma victim has to be transported for more than 50 kms to a designated hospital having trauma care facilities. For this purpose an equipped basic life support ambulance is to be deployed by NHAI (Ministry of Road Transport and Highways) at a distance of 50 KMs on the designated National Highways.

Objectives:

- To establish a network of trauma centres in order to reduce the incidence of preventable death due to road traffic accidents by observing golden hour principle.
- To develop proper referral and communication network between ambulances and trauma centres and within the trauma centres for optimal utilization of the services available.
- To develop National Trauma Injury Surveillance and Capacity Building Centre for collection, compilation, analysis of information from the trauma centres for the use of policy formation, preventive interventions.
- To develop trauma registry centres for improvement of quality control.

The criteria for identification of State Govt. hospitals on the national highways is as follows:-

- ❖ Connecting two capital cities.
- ❖ Connecting major cities other than capital city
- ❖ Connecting ports to capital city
- ❖ Connecting industrial townships with capital city

- During the 12th FYP, preference is being given to states which were not covered during 11th plan, and to the Hilly and North Eastern states.

Funding pattern:

Table I: Financial Assistance during 11th FYP:

Level wise Unit Cost: (Rs. in Crores)

S. No.	Activities	Unit cost L-I	Unit cost L-II	Unit cost L-III
1	Manpower	Rs. 4.30	Rs.3.80	Rs. 2.100
2	Construction	Rs. 1.50	Rs.0.80	Rs. 0.650
3	Equipment	Rs. 10.0	Rs. 5.00	Rs. 2.000
4	Communication	Rs. 0.020	Rs. 0.02	Rs. 0.020
5	Legal Assistance & Data Entry	Rs. 0.010	Rs. 0.01	Rs. 0.005
6	Training	Rs. 0.10	-	-
Total		Rs. 15.93	Rs.9.630	Rs. 4.775

Table II (a) and (b): Financial Assistance during 12th FYP:

(a) Non-recurring cost

(Rs. in crore)

Cost estimation				
S. No.	Items wise non-recurring cost	L-III	L-II	L-I
1	Building	1.0000*	1.5000*	2.0000*
2	Equipment	2.4000	6.0000	12.0000
3	Communication	0.0240	0.0240	0.0240
4	Legal Service & Data Entry	0.0060	0.0120	0.0120
Total non-recurring cost		3.4300	7.5360	14.0360

(b) Recurring cost per year

(Rs. in crore)

S. No.	Items wise recurring cost	L-III	L-II	L-I
1	Manpower cost per year **	0.5040	0.9120	1.0320

*Building cost shall not to exceed Rs. 30,000 per square meter.

****Manpower cost will be provided only for three years.**

- a) Unlike 11th plan, the scheme is no more 100% centrally sponsored. The proposed amount of assistance will be shared between Central and State Governments in a ratio of 70:30. The ratio of sharing for North Eastern states and hilly states of Himachal Pradesh, Uttarakhand and Jammu & Kashmir will be 90:10. Further, as per the decision of the Niti Aayog, the financial assistance will be shared between Central and State Governments in a ratio of 60:40, from April, 2015 onwards; the ratio of sharing for North Eastern states and hilly states of Himachal Pradesh, Uttarakhand and Jammu & Kashmir will be 90:10; for UTs there will be 100% Central funding.

Progress- physical and financial:

- MoU for implementation of the programme has been concurred by IFD and circulated to the States and are being signed with State Govt.
- List of manpower and equipment to be recommended for Trauma care facilities to be established in States has been revised by the Technical Resource Group (TRG).
- The schematic design diagram of trauma care facility has been designed for L-III, L-II, and L-I in collaboration with Central Design Bureau.
- Operational Guidelines for the programme have been finalized and circulated to the States and UTs.
- A Screening Committee for Trauma & Burn Programmes has been formed. The terms of reference of the Committee is to screen proposals of the scheme, prioritize the sites across States / UTs and monitor the physical and financial progress made in the development of Trauma Care Facilities and Burn Units.
- 58 Medical Colleges/District Hospitals (LI-1, LII-15 & LIII-42) have been approved by the Screening Committee till June, 2016.
- A Core committee between Ministry of Health & Family Welfare and Ministry of Road Transport and Highways has been constituted for better coordination in order to provide effective pre-hospital trauma care. Meetings are being held regularly for the same.
- National Injury Surveillance, Trauma Registry and Capacity Building Centre is being established at Dr. RML Hospital. NIC has developed software for the same.
- ATLS & BLS training is being conducted at Dr. RML Hospital for Doctors and Nurses posted in trauma care facilities.

- The pre-hospital trauma technician course initiated during 2007 has been revised by an Expert Group through an Agreement for performance of work (APW) with WHO. 300 copies of the revised PTT Course Curriculum have been printed.
- As per the Hon'ble Supreme Court's Directive, an advisory has been issued to all the States to implement the PTT course curriculum in their respective State for capacity building and training of para-medical personnel for ambulances, as there is an acute shortage of the same in States.
- Under the IEC activities, print material, audio-video spots and documentary film on Good Samaritan/ First Aid have been developed.
- In respect of the Gazette notification issued by the Ministry of Road Transport & Highways on Good Samaritan, the Ministry of Health & Family Welfare has issued guidelines to all States/ UTs on the same specific to the Health care facilities.
- A committee has been constituted in the Dte. GHS, MoHFW to work on the "Report of the Working group on Emergency Care in India, 2011" as directed by the Hon'ble Supreme Court of India. Several meetings of this committee have been held so far to develop various documents as per the recommendations of the "Report of the Working group on Emergency Care in India, 2011." The Committee is in the process of undertaking various activities as per the report, including framing of a National trauma system plan, for which all the States/UTs have been requested to submit State trauma care action plan. 3 Regional 2-day workshops have been held with the state representatives to augment in developing their State trauma care action plan.
- The Committee has also finalized the technical specifications of the medical equipment component of the ambulances.
- A 6-months course curriculum on Neuro-trauma is being developed for General Surgeons.

State wise and corridor wise list of 118 Trauma Care Facilities
identified during 11th FYP

Sl. No.	Corridor wise	Name of Trauma Care Facilities	Level
A – HOSPITALS UNDER STATE GOVERNMENT			
		ANDHRA PRADESH	
1	N-S	Rajeev Gandhi Institute of Medical Sciences, Adilabad	II
2		Distt. Hqr Hospital, Nizamabad	II
3		Area Hospital, Kamareddy	III
4		District Hospital, Mehboobnagar	III
5		Govt. General Hospital & Medical College, Kurnool	II
6		Govt. General Hospital & Medical College, Anantapur	II
7		Community Hospital, Penukonda	III
8	G-Q	Taluka Hospital, Tekkali,	III
9		District Hospital, Srikakulam	II
10		King George Hospital & Andhra Medical College, Visakhapatnam	II
11		Taluk Hospital, Tuni, East Godavari	III
12		District Hospital, Rajahmundry, East Godavari	II
13		District Hospital, Eluru, West Godavari	III
14		Medical College, Guntur	II
15		District Hospital, Ongole,	III
16		Dist. Hospital, Nellore	II
17		Taluk Hospital, Nayadupet	III
		ASSAM	
18	E-W	Medical College & Hospital, Silchar.	II
19		Civil Hospital, Haflong.	III
20		Civil Hospital, Diphu.	III
21		District Hospital, Naogaon.	II

22		Medical College & Hospital, Guwahati.	II
23		District Hospital, Nalbari.	III
24		Civil Hospital, Bongaigaon.	III
		BIHAR	
25	E-W	Civil Hospital, Kishanganj.	III
26		District Hospital, Purnia.	II
27		Civil Hospital, Madhepura.	III
28		Darbhanga Medical College Hospital, Darbhanga.	II
29		S.K. Medical College Hospital, Muzaffarpur.	II
30		Civil Hospital, Gopalgunj.	III
31		Civil Hospital, Jhanjarpur.	III
32	GQ	Sadar Hospital, Sasaram, Rohtas	III
33		AN Magadh Medical College Hospital, Gaya	II
		GUJARAT	
34	E-W	Civil Hospital, Palanpur.	II
35		Civil Hospital, Radhanpur.	III
36		S.A. Hospital, Bachau, Kutch	III
37		General Hospital, Morbi.	II
38		Pt. Deen Dayal Upadhyaya Hospital, Rajkot.	II
39		CHC, Jetpur.	III
40		General Hospital, Porbandar.	II
41	G-Q	General Hospital, Valsad	II
42		Govt. Medical College, Surat	II
43		District Hospital, Bharuch	III
44		SSG Hospital & Medical College, Vadodara	II
45		District Hospital, Himmat Nagar	III
		HARYANA	
46	N-S	Dist Hospital, Ambala	II
47		Civil Hospital, Panipat	III
48	G-Q	District Hospital, Rewari	III
		JAMMU & KASHMIR	

49	N-S	MMAM District Hospital, Anantnag	III
50		Trauma Hospital, Batote, Doda	III
51		Govt. District Hospital, Udhampur	II
		JHARKHAND	
52	G-Q	Distt. Hospital, Hazaribagh	III
53		Patliputra Medical College, Dhanbad	II
		KARNATAKA	
54	G-Q	Tumkur Dist Hospital, Tumkur	III
55		Taluk Hospital, Sira	III
56		Civil Hospital, Chitradurga	II
57		Civil Hospital, Devangere	III
58	G-Q	Karnataka Institute of Medical Sciences, Hubli, Dharwad	II
59		District Hospital, Haveri	III
60		District Hospital, Belgaum	III
61	N-S	Medical College, Chickballapur	III
		MADHYA PRADESH	
62	E-W	Civil Hospital, Shivpuri.	II
63	N-S	G R Medical College Hospital, Gwalior	II
64		District Hospital, Sagar	II
65		District Hospital, Narasimhapur	III
66		Indira Gandhi District Hospital, Seoni	III
		MAHARASHTRA	
67	G-Q	Govt. Medical College Hospital, Kolhapur	II
68		District Hospital, Satara	III
69		BJ Medical College, Pune	II
70		Municipal Hospital, Vashi	III
71		Sub District Hospital Danau, Thane	III
72	N-S	Sub District Hospital, Hinganghat, Wardha	III
		ORISSA	
73	G-Q	District Hospital, Balasore	II
74		District Hospital, Bhadrak	III
75		SCB Medical College, Cuttack	I
76		District Hospital, Khurda	III
77		MKCG Medical College, Behrampur	II

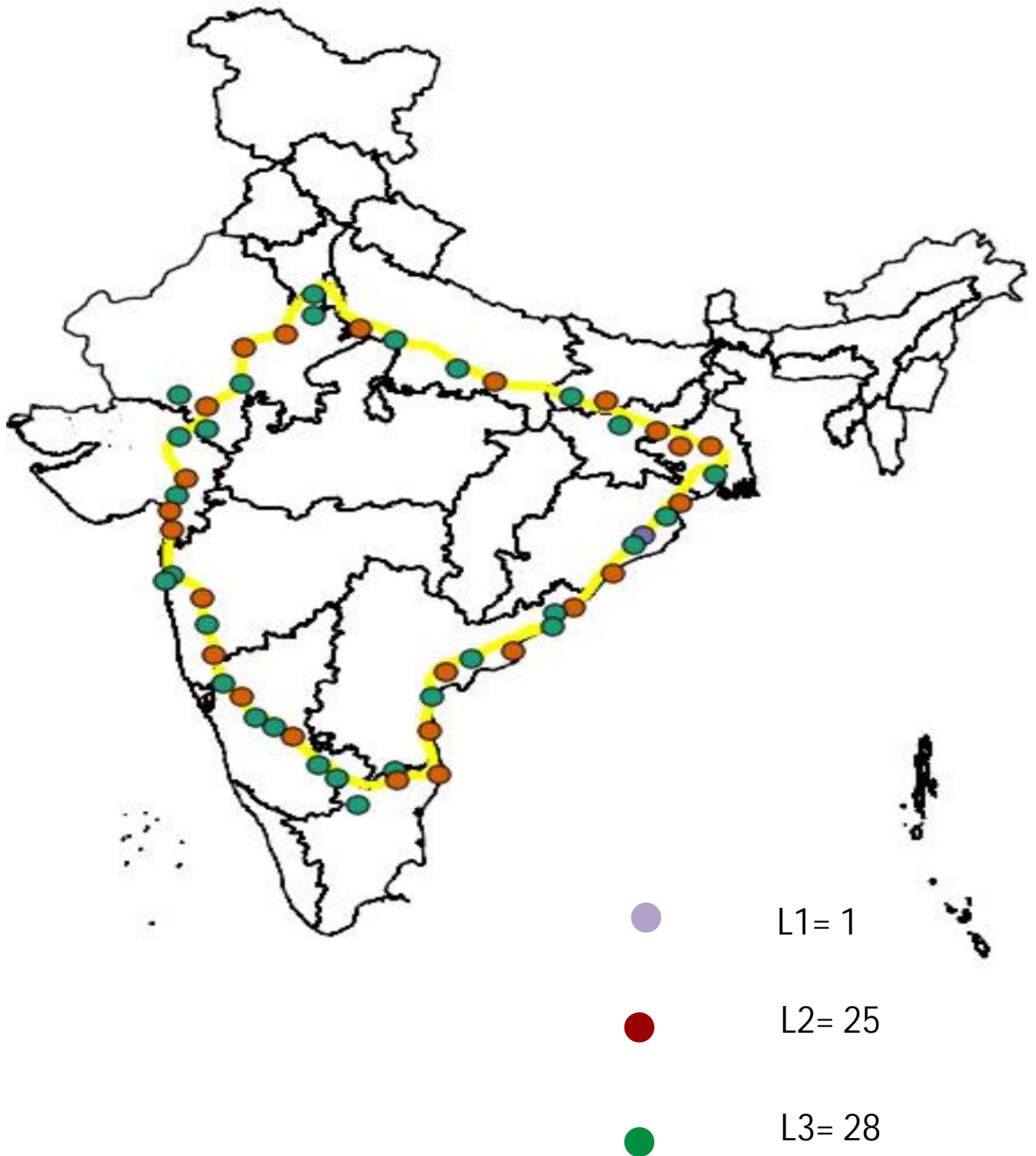
		PUNJAB	
78	N-S	Sub-District Hospital, Pathankot, Gurdaspur	III
79		Dist Hospital, Jalandhar	II
80		Dist Hospital, Khanna	III
		RAJASTHAN	
81	E-W	Govt. Hospital, Baran.	III
82		New Medical College Hospital, Kota.	II
83		SS Hospital, Chittorgarh.	III
84	G-Q	Civil Hospital, Dungarpur, Sabarkantha	III
85		RNT Medical College, Udaipur	II
86		District Hospital, Bhilwara	III
87		JLN Medical College, Ajmer	II
88		SMS Medical College, Jaipur	II
89		Taluk Hospital, Kotputli, Alwar	III
90		Govt. Hospital, Sirohi	III
		TAMIL NADU	
91	GQ	Kilpauk Medical College, Chennai	II
92		Government Medical College and Civil Hospital, Vellore	II
93		Taluk Hospital, Krishnagiri, Dharmapuri	III
94	N-S	Govt. District Hqr. Hospital, Karur	III
95		Dist Hospital, Dindigul	II
96		Govt. Rajaji Hospital & Medical College, Madurai	II
97		District Hqr. Hospital, Kovilpatti	III
98		Govt. Medical College Hospital, Tirunelveli	II
99	N-S	Kanyakumari Govt. Medical College Hospital, Asaripallam, Nagarcoil	II
		UTTAR PRADESH	
100	E-W	BRD Medical College, Gorakhpur.	II
101		Distt. Hospital, Faizabad.	III
102		KGM College, Lucknow.	II
103		LLR Hospital & GSVM Medical College, Kanpur.	II
104		District Hospital, Jaluan, Orai.	III
105		MLB Medical College, Jhansi.	II
106		District Hospital, Basti	III

107	G-Q	SN Medical College, Agra	II
108		Shri B.A. District Hospital, Etawah	III
109		District Hospital, Fatehpur	III
110		MLN Medical College, Allahabad	II
111	N-S	LLRM Medical College, Meerut	II
112		District Hospital, Mathura	III
113		District Hospital, Lalitpur	II
		WEST BENGAL	
114	E-W	North Bengal Medical College & Hospital, Siliguri	II
115		Islampur SD Hospital, Uttar Dinajpur	III
116	GQ	Sub Divisional Hospital, Asansol	II
117		Burdwan Medical College & Hospital, Burdwan	II
118		Sub-District Hospital, Kharagpur	III

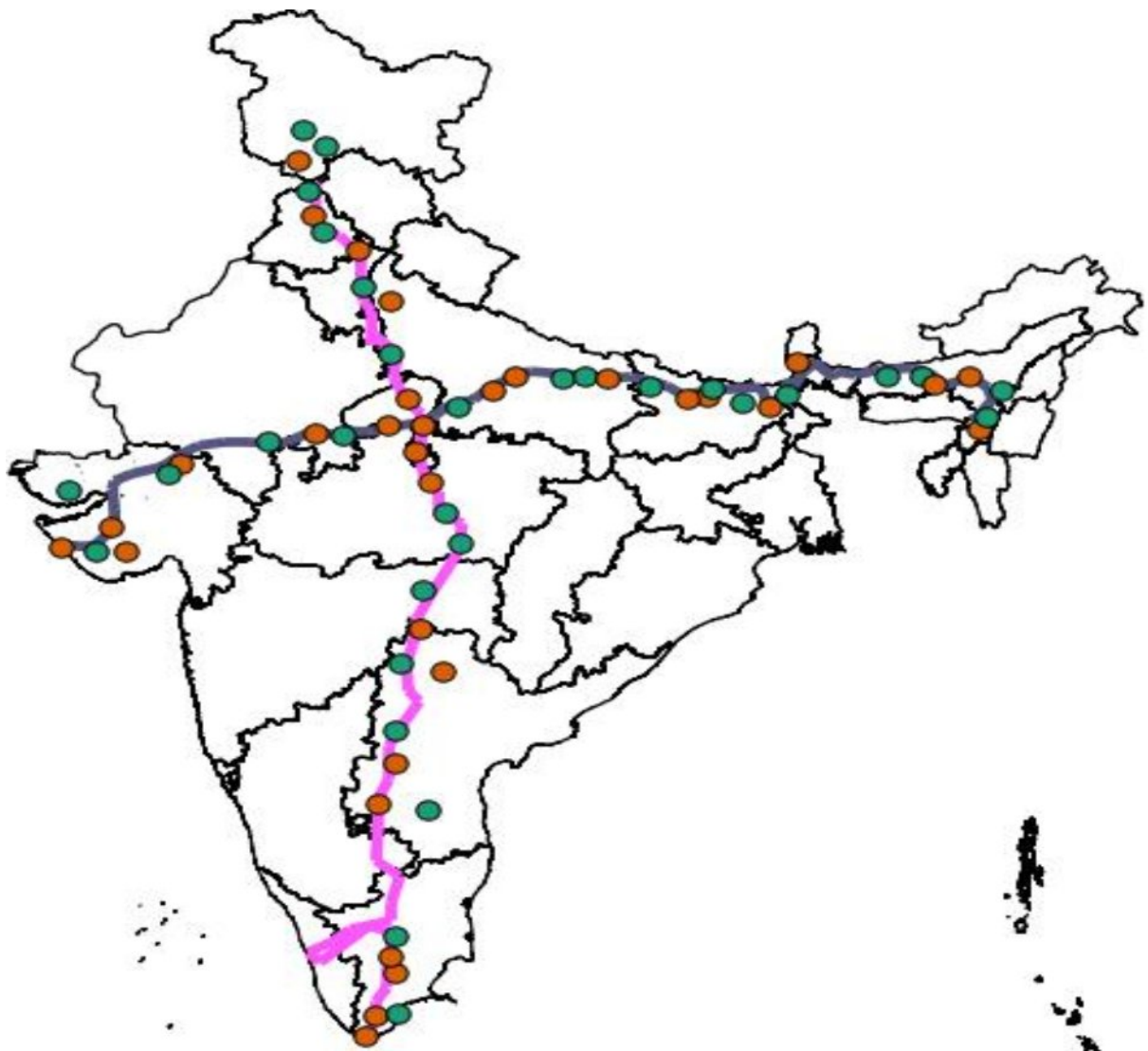
Distribution of Trauma care Facilities under 11th FYP

Geographical distribution of Trauma Care Facilities along Golden Quadrilateral

(n=54)



Geographical distribution of Trauma Care Facilities along North-South & East-West Highway (n=64)



● L2

● L3

North-South: 31

East-West: 33

List of the Hospitals approved by the Screening Committee for establishing Trauma Care Facilities under Trauma Care Programme during 12th FYP, till Dec, 2015

S. No.	State	Name of Hospital	Level
1.	Andaman & Nikobar	Dr. R P Hospital, Mayabunder	L-III
2.	Arunachal Pradesh	General Hospital, Bomdila	L-III
3.		District Hospital, Roing	L-III
4.		District Hospital, Tezu	L-III
5.		District Hospital, Khonsa	L-III
6.	Chhattisgarh	BR Ambedkar Memorial Hospital, Raipur	L-II
7.		Chhattisgarh Institute of Medical Sciences, Bilaspur	L-II
8.		Govt. Komaldeo District Hospital, Kanker	L-III
9.		District Hospital, Raigarh	L-III
10.		Baliram Kashyap Memorial Medical College, Jagdalpur	L-II
11.		District Hospital, Ambikapur	L-III
12.	Dadar & Nagar Haveli	CHC Khanvel	L-III
13.	Himachal Pradesh	District Hospital, Chamba	L-III
14.		Regional Hospital Hamirpur	L-III
15.		RP Medical College, Tanda,	L-II
16.		Zonal Hospital Mandi	L-III
17.		Regional Hospital Rampur, Shimla	L-III
18.	Jharkhand	District Hospital, Koderma	L-III
19.	Kerala	Govt. Medical College, Alappuzha	L-II
20.		General Hospital, Ernakulam	L-III
21.		District Hospital, Kannur	L-III
22.		District Hospital, Palakkad	L-II
23.	Manipur	Regional Institute of Medical Sciences, Imphal	L-I
24.		District Hospital, Churachandpur	L-III
25.		District Hospital Senapati	L-III
26.		District Hospital Bishunpur	L-III
27.		Thoubal District Hospital	L-III
28.		Chandel District Hospital	L-III
29.	Meghalaya	Civil Hospital, Tura	L-III

30.		Civil Hospital, Shillong	L-II
31.		Civil Hospital, Nongpoh *Subject to an understanding by the State Govt. to deploy required manpower for the Trauma Care Facility, as per the norms of the Trauma Care Programme	L-III
32.	Mizoram	Civil Hospital, Aizawal	L-II
33.		District Hospital, Lawngtlai	L-III
34.		District Hospital, Saiha	L-III
35.		District Hospital, Lunglei	L-III
36.	Nagaland	District Hospital, Tuensang	L-III
37.		District Hospital, Kiphiri	L-III
38.		District Hospital, Mon	L-III
39.		Naga Hospital, Kohima	L-II
40.		District Hospital, Dimapur	L-III
41.	Odisha	District Hospital, Puri	L-III
42.	Puducherry	IGI PGIMER, Puducherry	L-II
43.	Uttarakhand	District Hospital, Baurari, New Tehri	L-III
44.		Government Medical College, Haldwani	L-II
45.		Combined Hospital Roorkee	L-III
46.		Medical College Doon Hospital, Dehradun	L-II
47.	Tripura	Dharma Nagar, Sub-Divisional Hospital	L-III
48.		Santirbazar PHC, Divisional Hospital	L-III
49.		District Hospital, Gomati	L-III
50.		Agartala Govt. Medical College	L-II
51.	Sikkim	District Hospital Namachi	L-III
52.		District Hospital, Singtam	L-III
53.		District Hospital, Mangan	L-III
54.		STNM, Gangtok *Recommended for financial assistance towards equipment and manpower component only	L-II
55.	West Bengal	Alipurduar District Hospital	L-III
56.		Murshidabad Medical College & Hospital	L-II
57.		Diamond Harbour District Hospital	L-III
58.		Ranaghat Sub Divisional Hospital, Nadia	L-III