2021 INSC 885

Reportable

IN THE SUPREME COURT OF INDIA
CIVIL APPELLATE JURISDICTION

Miscellaneous Application No 1925 of 2020

In

Civil Appeal No 10930 of 2018

Citizens for Green Doon & Ors. **…Appellants**

Versus

Union of India & Ors. **…Respondents**

With

Miscellaneous Application No 2180 of 2020

In

Civil Appeal No 10930 of 2018

J U D G M E N T

Dr Dhananjaya Y Chandrachud, J

This judgment has been divided into sections to facilitate analysis. They are:

A The Project

1 The present case has a history fraught with litigation, with multiple proceedings before the National Green Tribunal[1] and this Court. Before going into the history of the litigation, it is important to provide context for the public project in question in the case.

2 The Chardham Mahamarg Vikas Pariyojna[2] is a program of the Ministry of Road Transport and Highways[3], which was announced on 23 December 2016. The Project aims to widen the roads of approximately 900 kms of national highways, in order to ensure safer, smoother and faster traffic movement. As the name suggests, these highways connect the holy shrines which have been labelled as the "Chote Char Dham" in the State of Uttarakhand – Yamunotri (NH-94/134 up to Janki Chatti), Gangotri (NH-108), Kedarnath (NH-109, up to Sonprayag), Badrinath (NH-58) and the Tanakpur-Pithoragarh stretch of the Kailash Mansarovar Yatra route (NH-125).

3 These shrines represent different traditions of the Hindu religion – with Yamunotri and Gangotri being Shakti or goddess shrines, Kedarnath being a Shaiva temple, and Badrinath a Vaishnava site. They are located in an area called Kedarkhand (largely today's Garhwal) in the Skanda Purana. The locations of these shrines were earlier considered to be occupied by glaciers (named Champasar, Gangotri, Chorabari and Satopanth) in their entirety, which have

[1] "**NGT**"
[2] "**Project**"
[3] "**MoRTH**"

since started melting. Even today, they are stated to be located in paraglacial zones, which are considered to be ecologically sensitive.

4 Till the 1950s, access to these shrines was limited and they could only be accessed on foot. Hence, worshippers often undertook long and arduous journeys to reach the shrines. However, since the 1960s, road connectivity to the shrines has improved, where vehicles now ply up to the Badrinath and Gangotri temples while Yamunotri and Kedarnath are 6 to 14 kms away from the nearest motorable road. The improved connectivity has resulted in a greater influx of worshippers. The four shrines typically open for worship in and around late April or early May, and close in and around late October to early November.

5 The Project was conceptualized with the aim of improving accessibility to these shrines by widening the existing roads, making travel safer, smoother and faster. The Project seeks to widen the existing highways into a double lane with paved shoulder configuration[4] with 16 bypasses, realignments and tunnels, 15 flyovers, 101 small bridges and 3516 culverts. The MoRTH has divided the Project into 53 individual projects, the length of each project being less than 100 kms, traversing the following national highways:

(i) NH-58 - Rishikesh to Rudraprayag - 141 kms;

(ii) NH-58 - Rudraprayag to Mana Village (Badrinath) - 140 kms;

(iii) NH-94 - Rishikesh to Dharasu - 120 kms;

(iv) NH-94 - Dharasu to Yamunotri - 75 kms;

(v) NH-108 - Dharasu to Gangotri - 110 kms;

[4] "**DL-PS**"

(vi) NH-109 - Rudraprayag to Gaurikund (Kedarnath) - 77 kms; and

(vii) NH-125 - Tanakpur to Pithoragarh - 161 kms.

A pictorial representation of the connecting routes of the Project is provided below, as taken from the report of the High Powered Committee[5] dated 13 July 2020[6]:

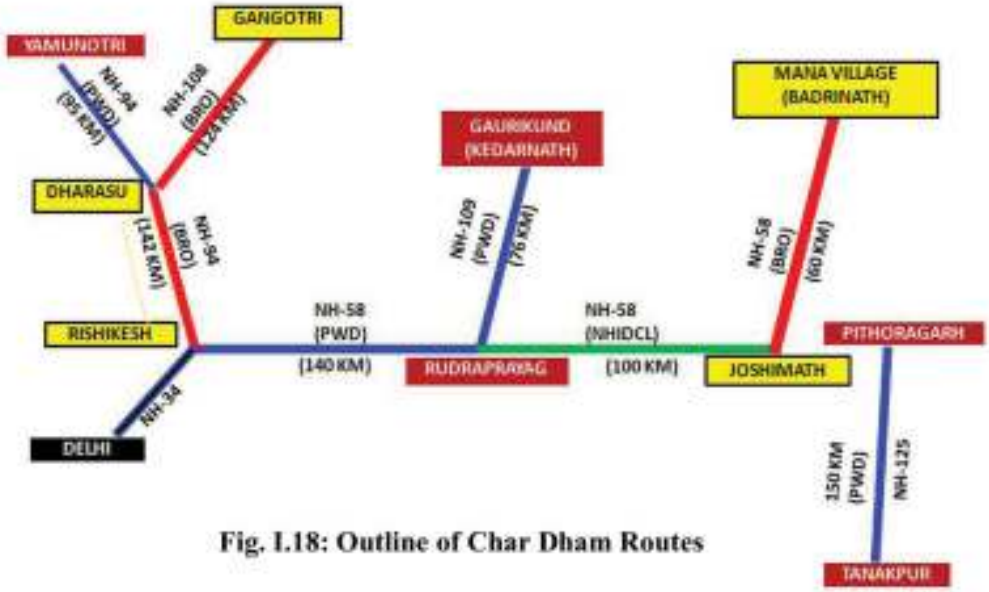

Fig. I.18: Outline of Char Dham Routes

Source: BRO

B Proceedings before the National Green Tribunal

6 An Original Application[7] was filed before the Principal Bench of the NGT on 27 February 2018 in public interest, challenging the construction under the Project on the ground that the development activity has a negative impact on the Himalayan ecosystem. The applicants argued that the Project will lead to deforestation, excavation of hills and dumping of muck, which will lead to further

[5] "**HPC**"
[6] "**HPC Report**"
[7] OA No 99/2018

landslides and soil erosion, in an already sensitive environment. It was also alleged that an Environment Impact Assessment[8] under the Environment Impact Assessment Notification 2006[9] had not been conducted and that to obviate the requirement of conducting an EIA, the Project had been divided into smaller stretches. The application alleged violations of the EIA Notification, Forest (Conservation) Act 1980, Wildlife Protection Act 1972, Environment (Protection) Act 1986 and Articles 14, 21 and 48A of the Constitution. Another Original Application[10] was filed seeking directions to take precautions for muck disposal and for ensuring the stability of slopes.

7 In its order dated 26 September 2018, the NGT observed that the bypasses and realignments to be made to the national highways, which cumulatively fall under the Project, have been considered as stand-alone projects. The length of each of these projects is less than 100 kms and thus, the NGT held that the projects did not require an EIA approval or Environment Clearance[11] under the EIA Notification. However, given the fragile ecosystem within which the Project was to be developed, the NGT directed the constitution of an 'Oversight Committee' to monitor the environmental safeguards for the execution of the Project.

8 The Oversight Committee was to be headed by a former Judge of the Uttarakhand High Court, and had representatives from the Wadia Institute of Himalayan Geology; National Institute of Disaster Management; Central Soil

[8] "**EIA**"
[9] "**EIA Notification**"
[10] OA No 431/2018
[11] "**EC**"

Conservation Research Institute; GB Pant Institute of Himalayan Environment; Forest Research Institute; the Secretary to the Forest Department, Uttarakhand; and District Magistrates, who were to act as co-ordinators. The task of the Oversight Committee, *inter alia*, was to oversee the implementation of the Environment Management Plan to be prepared by an agency of the Ministry of Environment, Forests and Climate Change[12]. The relevant portion of the order of the NGT is produced below:

> "54. Accordingly, we direct constitution of the following Oversight Committee:—
>
> 1. Justice U.C. Dhyani, Former Judge, Uttarakhand High Court, Chairman Public Service Tribunal, Dehradun.
>
> 2. Representative of Wadia Institute of Himalayan and Geology.
>
> 3. Representative of National Institute of Disaster Management.
>
> 4. Representative of Central Soil Conservation Research Institute with expertise in Natural disasters, landslides, etc.
>
> 5. Representative of G.B. Pant Institute of Himalayan Environment.
>
> 6. Representative of Forest Research Institute, Dehradun.
>
> 7. Secretary of Environment and Forest Department, Uttarakhand, Dehradun to be Member Secretary/convener/coordinator of the Committee.
>
> 8. Concerned District Magistrates of the Districts concerned will act as co-coordinator and for arranging visits and meetings at local level."

[12] "**MoEF&CC**"

C Proceedings before the Supreme Court

9 An appeal[13] was filed to challenge the NGT's order dated 26 September 2018 before this Court. By an order dated 8 August 2019, a two-judge Bench, comprising of Justice Rohinton F Nariman and Justice Surya Kant, modified the order of the NGT and instead constituted an HPC to be chaired by Professor Ravi Chopra, who would replace Justice UC Dhyani, and also added representatives from various other bodies. The HPC was directed to make its decisions on the basis of majority vote. The relevant portion of the order of this Court is as follows:

> "We constitute a High Powered Committee (HPC) consisting of the persons who are mentioned in para 54 of the said order. However, the Committee is to be headed by Prof. Ravi Chopra, who will replace Justice U.C. Dhyani, and will be the Chairman of the Committee. In addition to this, we add a representative of the Physical Research Laboratory, Department of Space, Government of India, Ahmedabad; a representative of the Wildlife Institute of India, Dehradun; a representative of MoEF&CC, Regional Office, Dehradun; and a representative of the Ministry of Defence dealing with Border roads, not below the rank of Director. We direct MoEF&CC to constitute the High Powered Committee within two weeks from the date of this order. **The HPC may co-opt member(s) for effective discharge of its functions. The MoEF&CC shall provide venue and secretarial assistance to the HPC, who will make decisions by majority voting.**"
>
> (**emphasis supplied**)

The terms of reference of the HPC were also revised in the following terms:

> "I. The Committee shall consider the cumulative and independent impact of the Chardham [P]roject on the entire Himalayan valleys and for that purpose, the HPC will give directions to conduct EIA/rapid EIA by the Project Proponent/MoRTH.

[13] CA No 10930/2018, CA Nos 8518-8520/2018 and MA No 2678-2680/2018

II. The HPC, with the help of the technical body and engineers of implementation agency (MoRTH) should consider whether revision of the full Chardham [P]roject (about 900 Kms) should at all take place with a view to minimize the adverse impact of the project on environment and social life.

III. The HPC shall identify the sites in which work (i.e. hill-cutting) has started and the stretches in which the work has not yet started. As far as the sites in which work has started, the High Powered Committee should recommend the measures which are required for stabilizing the area where hill-cutting has taken place, among others, the environmentally safe disposal of muck which has been generated so that it does not adversely affect the flora and fauna of the catchment area of the river.

IV. As regards the stretches where work has not started, the HPC will review the proposed project and recommend measures which will minimize the adverse impact on environment, social life and bring the project in conformity with the steep valley terrain, carrying capacity, thus avoiding any triggering of new landslides and ensuring conservation and protection of sensitive Himalayan valleys.

V. The HPC will assess the environmental degradation in terms of loss of forest land, trees, green cover, water resources, dumping of muck and impacts on the wildlife and will direct the mitigation measures. Specific attention will be laid on protecting wildlife corridors, and rare and endangered flora and fauna.

VI. The HPC will assess and quantify the impact on social infrastructure/public-life due to triggering of fresh landslides, air pollution, frequent road blocks etc. and will suggest necessary measures for its redressal, including preparation of disaster management plans prior to the monsoon season.

VII. In Bhagirathi Eco Sensitive Zone (Gangotri to Uttarkashi), the HPC will make special provisions in its report keeping in mind the guidelines given under the Notification of the Bhagirathi Eco Sensitive Zone so as to avoid violations and any environmental damage.

VIII. The HPC will also suggest the areas in which afforestation measures should be taken. It will also suggest the kind of saplings which have to be planted in different terrains of Himalayas. A separate Committee be constituted by the Forest Department of Uttarakhand to continuously monitor and report on the website that the saplings which have been planted have survived and grown. In case of non-survival of any sapling, further plantation should be done.

> Compensatory afforestation should be ten times the number of trees which have been cut. The HPC shall prepare an effective afforestation plan ensuring its proper implementation.
>
> IX. The HPC will invite experts from different fields and consult local people or hold public meeting in the local areas to take recommendations and suggestions, as it deems fit.
>
> X. The HPC shall consider giving specific directions to the concerned agencies to put in the public domain the landslide-prone areas, and their treatment by the Project Proponent, the total muck generated, and the places where it has been disposed of in an environmentally sound manner."
>
> (**emphasis supplied**)

The HPC was directed to submit its report of recommendations in four months. Following the submission of the report, the Court directed MoRTH to implement its recommendations. For this purpose, the Court observed:

> "The reports prepared by the HPC with its recommendations shall be given to the project Proponent i.e. MoRTH for implementation. The HPC shall hold quarterly meetings thereafter to ensure timely and proper compliance of its recommendations. The HPC may suggest any further measure which may be required, in the interest protection and conservation of environment, after each quarterly review meeting."

10 Pursuant to the order of this Court, a report dated 13 July 2020 was submitted by the HPC to this Court. By an order dated 8 September 2020, a three-judge Bench of this Court comprising of Justice Rohinton F Nariman, Justice Navin Sinha and Justice Indira Banerjee took cognizance of the Report, and noted that the conclusions in the HPC Report were unanimous, except for the issue relating to the width of the road. A majority comprising thirteen members of the HPC was in favour of applying a Circular dated 5 October 2012

issued by MoRTH[14], which stipulates that in all new projects of widening/bypass/realignment, the width of the carriageway will be at least two-lane with paved shoulder (DL-PS), irrespective of the traffic. According to the 2012 MoRTH Circular, the road-way width would be 12m comprising of 7m for the double-lane carriageway, a 1.5m paved shoulder on either side of the highway, and a 1m earthen shoulder on either side of the highway. A minority comprising of 5 members, including the Chairperson, was of the view that a subsequent Circular dated 23 March 2018 issued by the MoRTH[15] should govern the Project. The 2018 MoRTH Circular provides that in hills and mountainous terrains, where the traffic volumes range from 3,000 to 8,000 Passenger Car Units[16] a day, the carriageway width should be of intermediate lane configurations (Intermediate Width[17] standard), *i.e.*, of 5.5m width with two-lane structures. The order of the Court accepted the view of the minority and observed:

> "We have perused the conclusions and recommendations of the report, in particular, from pages 90-93 in Part I. **We are of the view that it is correct that the 2018 MORTH circular should apply for the reasons given at page 93 of the report. Consequently, the 2018 circular alone will apply.** The other directions that were issued by us on 08.08.2019 must be strictly complied with, including the holding of quarterly meetings to ensure timely and proper compliance of the recommendations."
>
> (**emphasis supplied**)

[14] "**2012 MoRTH Circular**" - No. NH-14019/6/2012-P&M
[15] "**2018 MoRTH Circular**" - No. NH-15017/ 28/ 2018 - P&M
[16] "**PCU**"
[17] "**IW**"

11 Following the above order, a letter dated 5 October 2020 was received by the Registry of this Court from the Chairperson of the HPC. Professor Chopra highlighted the steps he had taken to notify MoRTH of the order of this Court. He stated that he had requested MoRTH to submit a plan to bring the Project in conformity with the 2018 MoRTH Circular and suspend all fresh hill-cutting activities. The letter also highlighted that Professor Chopra had received reports of tree-felling and fresh hill-cutting on various stretches on NH-58, NH-94, *et al*, which was being carried out on the basis of the old road-width standard, *i.e.*, DL-PS with a 10m tarred road. The Chairperson stated that on 27 September 2020, he had read a news report indicating that MoRTH had informed the Government of Uttarakhand that the 2018 MoRTH Circular would be applicable only to the proposed 13 projects where work had not yet begun. Through this letter, Professor Chopra urged that the directions in the order of this Court dated 8 September 2020 should be strictly followed. The letter dated 5 October 2020 was converted into MA No 1925 of 2020, which is the subject-matter of this judgment. Further, another letter dated 2 November 2020 was received from Professor Chopra, where he highlighted the non-compliance of the order of this Court and raised issues regarding the functioning of the HPC.

12 An affidavit was filed by the seventh appellant (Swami Samvidanand) seeking, *inter alia*, directions to MoRTH to:

(i) stop hill-cutting, tree-felling and activities in violation of the 2018 MoRTH Circular;

(ii) compensate for hill-cutting beyond the IW standard with tree plantations and footpath; and

(iii) render full secretarial assistance to the HPC.

13 An interlocutory application, IA No 6097 of 2021, was later filed by the sixth appellant (Deepak Chand Ramola) seeking the following directions:

(i) that the amendment to the 2018 MoRTH Circular through the Circular dated 15 December 2020[18], should be revoked;

(ii) that the IW standard be adhered to for the entire Project, both prospectively and retrospectively, as mentioned in this Court's order dated 8 September 2020;

(iii) that the Bhagirathi Eco Sensitive Zone[19] be given special protection;

(iv) that the HPC be strengthened to ensure proper implementation of its functions; and

(v) on the basis of the findings of the HPC, a committee be set up to direct an inquiry against the persons responsible for wilful violations of the laws in force.

14 Another miscellaneous application, MA No 2180 of 2020, was then filed by the Union of India[20], through the Ministry of Defence[21], seeking modification of this Court's order dated 8 September 2020, which is also the subject matter of this judgment. This application seeks permission for the widening of the national highways from Rishikesh to Mana, Rishikesh to Gangotri, and Tanakpur to Pithoragarh to a two-lane, DL-PS configuration. The application avers that a minority of the members of the HPC, whose view was adopted by this Court in its

[18] "**2020 MoRTH Circular**" – No. NH-15017/28/2018-P&M
[19] "**BESZ**"
[20] "**UOI**"
[21] "**MoD**"

order dated 8 September 2020, relied on a statement of the then Chief of Army Staff which confirmed that the requirements of the Indian Army are fulfilled by the existing roads. However, according to the Union Government, there has been a material change in circumstances, necessitating an improvement of roads to enable movement of troops and equipment to Army stations on the Indo-China border. Thus, the application has urged that a double lane road having a carriageway width of 7m (or 7.5m) is necessary to meet the Army's requirement. The relief which has been sought in the application, is extracted below:

> "Modify the Order dated 08.09.2020 and direct that the national highways from **Rishikesh to Mana, from Rishikesh to Gangotri and from Tanakpur to Pithoragarh** may be developed to 2 lane configuration in the interest of the security of the nation and for the defence of its borders".
>
> (**emphasis supplied**)

15 By an order dated 2 December 2020, a three-judge Bench comprising of Justice Rohinton F Nariman, Justice Navin Sinha and Justice KM Joseph directed the HPC to consider the issues raised by its Chairperson in his letters and applications, including the application by the MoD, and to submit a detailed report. Pursuant to the order of this Court, the 11th meeting of the HPC was held on 15 and 16 December 2020. The report[22] of the deliberations and submissions of the HPC was received by the Registry from the Secretary, Forest Department, State of Uttarakhand through a letter dated 31 December 2020.

[22] "**HPC Report II**"

16 This is where the matter stands presently. We shall consider the submissions urged by the parties.

D Submissions

17 Mr Colin Gonsalves, Senior Counsel appearing on behalf of the appellants, urged the following submissions:

(i) **Issues concerning the functioning of the HPC:** The HPC was not allowed to function independently and was given inadequate assistance by the UOI:

(a) The HPC consisted of 8 District Magistrates, 5 State Government officials, 2 Union Government officials and 5 representatives from institutions funded by the State and Union Governments. The members of the HPC linked to the government voted *en bloc* and toed the 'official line', rather than basing their judgment on a scientific basis; and

(b) The Chairperson of the HPC faced opposition from the UOI, as they were unwilling to cooperate with the work of the HPC. The Chairperson had repeatedly written to MoRTH, regarding the plan of action for slope stabilisation, muck disposal and restoration of damaged slopes; to the State, pointing out that the original order of the NGT did not stipulate District Magistrates to be members of the HPC and that their role was limited to coordination with the local population; to the UOI, to provide inventory of vulnerable slopes and muck; and to the MoEF&CC, regarding the continuing hill-cutting

activities. However, no concrete action was taken by any of the parties;

(ii) **Violations committed by MoRTH:** MoRTH has been constructing roads and widening the highways in violation of the 2018 MoRTH Circular and the order of this Court dated 8 September 2020:

(a) MoRTH started widening the highways according to the DL-PS standard, in violation of the 2018 MoRTH Circular which provided for adherence to the IW standard;

(b) During the deliberations of the HPC, massive hill-cutting and deforestation activities were undertaken, which have caused irreversible damage to the Himalayan environment;

(c) After the order of this Court dated 8 September 2020, MoRTH has continued to undertake hill-cutting, tree-felling, tarring and unrelated activities;

(d) Despite the order of this Court, MoRTH has taken a stand that the order will only be implemented for the 13 projects where the work has not yet started. However, the order of 8 September 2020 stated that the 2018 MoRTH Circular alone has to be followed and will apply retrospectively, *i.e.*, it will be applicable to the entire Project, even where the work had already been initiated;

(e) MoRTH, in a recent notification dated 10 September 2020 which was advertised in the newspapers, proposed the acquisition of land for a toll booth. The toll is only applicable on roads of DL-PS standard;

(iii) **Road-width:** The minority view, adopted by this Court in its order dated 8 September 2020, to construct the highways with an IW standard must be upheld as:

(a) According to the Manual of Specifications and Standards for Two Laning of Highways with Paved Shoulder[23] published by the Indian Roads Congress[24] in June 2015, the vehicle size in India cannot exceed a width of more than 2.4m. Thus, an intermediate lane of 5.5m on a linear profile and 7m on curves, is sufficient for two large vehicles to cross each other;

(b) The fragile environment of the Himalayas will be severely damaged if the DL-PS standard is adopted. As opposed to this, the IW standard will ensure reduction of green cover loss, reduce landslides, land loss, and tree loss by 80-90 per cent;

(c) The 2012 MoRTH Circular is inappropriate for mountain roads as it can cause massive instability and environmental damage. As opposed to this, the 2018 MoRTH Circular is specific to hilly and mountainous areas, and should be adopted instead; and

(d) The amendments made by the 2020 MoRTH Circular are arbitrary as they reinstate the 2012 MoRTH Circular without engaging with the rationale of having an IW standard for mountainous areas;

(iv) **Security concerns:** The national security concerns regarding the widening of the strategic roads are also met as:

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[23] "**2015 IRC Guidelines**"
[24] "**IRC**"

(a) The arguments raised by the MoD were considered by the HPC Report. It was after consideration of these views that the Court had passed the order dated 8 September 2020;

(b) To meet the defence requirements, it is essential that disaster-resilient roads be built, instead of disaster-prone roads;

(c) The Project was not an initiative of the MoD, and was a project to increase the tourist inflow to over 9,000 vehicles per day. The HPC Report has noted that this projection is an exaggeration as Badrinath, which has the maximum tourist inflow, has only 1000 vehicles per day and has already reached its carrying capacity; and

(d) The Chief of Army Staff in an interview had commented on the all-weather road project and stated that the needs of the Army are being met by the existing infrastructure.

18 In opposition to this, Mr KK Venugopal, Attorney General for India, made submissions in support of the application filed by the UOI and the MoD. The application seeks a modification of the order dated 8 September 2020 to allow the national highways from Rishikesh to Mana, Rishikesh to Gangotri, and Tanakpur to Pithoragarh to be developed with a DL-PS standard. The following submissions were urged:

(i) **Requirement of DL-PS standard for strategic border roads:**

(a) The national highways from Rishikesh to Mana, Rishikesh to Gangotri, and Tanakpur to Pithoragarh act as feeder roads to the Indo-China border and have strategic importance;

(b) The minority opinion in the HPC Report relied on the statement of the Chief of the Army Staff, according to which the present infrastructure was adequate for the needs of the Army. However, there has been a change in the circumstances since, and it is necessary that personnel and equipment move swiftly to Army stations at the Indo-China border points. The movement requires that vehicles returning from the border are able to cross vehicles going in the opposite direction without causing road-blocks or coming to a dead halt. Thus, a carriageway with a width of 7m is necessary to meet the security concerns of the country;

(c) These road-posts have been in use since the war with China in 1962. With the increase in defence capability; the nature of weapons, tanks and machinery; and the conditions at the border, wider roads with a DL-PS standard are required;

(d) Neither the 2012 MoRTH Circular nor the 2018 MoRTH Circular deal with the security needs of the country. The 2018 MoRTH Circular, which is general in nature, is based on PCU traffic and is applicable to all the hilly areas. However, it did not consider the strategic requirement for movement of military vehicles in the Himalayan regions, closer to the border areas;

(e) The Armed Forces have sufficient human-power, machinery and equipment to deal with landslides on any of these roads and can clear the way for movement of Army vehicles, machinery, tanks and artillery;

(f) Prior to 2017, the development of these roads was under the Border Roads Organization[25]. However, in 2017, to develop these roads in a timebound manner, a portion was handed over to the Public Works Department[26] and the National Highways and Infrastructure Development Corporation[27]. Before the commencement of the Project, the road from Rishikesh-Mana already had a 7m wide carriageway, except in some stretches where the width was 3.75-5.5m;

(g) The Guidelines for the Alignment Survey and Geometric Design of Hill Roads[28] adopted by the IRC in 2019 also recommend a two lane uniform design for strategic border roads; and

(h) This need is further highlighted, given that across the border in China, Tibet, Nepal and in the China-Pakistan corridor, strategic roads are built with the DL-PS standard;

(ii) The BESZ was notified by the Union Government through a notification dated 18 December 2012. However, in 2018, the notification was amended to state that work related to national security infrastructure can be implemented without due study of environmental impacts;

(iii) All-weather roads are also necessary for connectivity of persons living in remote border areas;

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[25] "**BRO**"
[26] "**PWD**"
[27] "**NHIDCL**"
[28] "**2019 IRC Guidelines**"

(iv) **Mitigation measures:** The following mitigation steps have been undertaken to ensure that least environmental and ecological damage is caused by the Project:

(a) The Geological Survey of India[29] and MoRTH have signed a Memorandum of Undertaking to conduct geological studies of strategic roads near the Indo-China border;

(b) Tehri Hydroelectric Development Corporation[30] is being engaged for project management consultancy services for restoration of slopes;

(c) The Defence Geo-Informatics Research Establishment[31] is providing sustainable mitigation measures for snow avalanches and other natural calamities; and

(d) Slope stabilisation works and protection measures and landslide protection measures using soil nailing, 'shotcreting', secured drapery, *et al*, are being undertaken;

(v) **Compliance with the directions of this Court:** No hill-cutting activities for road-widening have been carried out by the executing agencies. In fact, MoRTH took the following steps to comply with the order of this Court:

(a) Directions were issued to all executing agencies, such as BRO and NHIDCL, to implement the order of this Court;

(b) A Draft Rapid EIA Report was submitted to the HPC on 16 September 2020;

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[29] "**GSI**"
[30] "**THDC**"
[31] "**DGIRE**"

(c) Details of vulnerable slopes and muck disposal sites were submitted to the HPC on 25 September 2020;

(d) A committee has been formulated to develop a permanent landslide mitigation strategy;

(e) 12,75,813 plants have been planted in 797.28 hectares as compensatory afforestation, and 5,45,268 plants are to be planted in future;

(f) Secretarial assistance was provided to the HPC by the State of Uttarakhand under an order dated 7 October 2020; and

(g) Out of the 40 sanctioned projects within the Project, 12m formation cutting has already been carried out in 537 kms out of the total sanctioned length of 662 kms, prior to the order of this Court dated 8 September 2020. In such a situation, where hill-cutting has already been carried out for 12m formation and 10m tarred road has been laid down, a substantial reduction of the width to 5.5m will result in non-uniform carriageway in short stretches.

19 Having addressed the rival submissions, we shall now analyse them.

E Framework of Analysis

20 Before we analyse the specific issues raised in the context of the Project, it is important to consider the framework within which this Court must consider them. It is important for us to take note of the relevant judicial pronouncements on the subject, as well as understand the requirements of the circulars and guidelines which have been issued in regard to these issues. However, given the specific setting of the Project in the heart of the Himalayas, our framework has to take into account the unique ecology of the Himalayas. The appellants have provided this Court with examples from the past and the recent history of the Himalayas, which demonstrate that a lack of foresight in development has led to significant environmental harm.

21 Speaking about the Himalayas, the obvious place to begin is their majesty. The Himalayas are considered to be India's border in the north, just as the vast Indian ocean is in its south. In laypersons' geographical terms, it is difficult to imagine that these majestic mountains are nothing more than the debris created during the collision of the Indian and Eurasian tectonic plates several million years ago. While the debris has solidified into rock in many places, it continues to be soil and rubble in others. In comparison to many others, the Himalayas are actually very young (when the point of reference is a comparison of ages in the millions). This lends to them a comparative fragility[32]. The HPC Report notes that "the still evolving Himalayan ranges consist of thrusted, jointed or sheared, fissured or twisted rock material interspersed with soil. Shorn of

[32] Michael P Searle and Peter J Treloar, "Introduction to Himalayan tectonics: a modern synthesis" in Peter J Treloar and Michael P Searle (eds), *Himalayan tectonics: A Modern Synthesis* (The Geological Society, 2019)

green cover, their slopes [are] even more fragile. When exposed to the monsoon rains, weakened slopes often collapse"[33].

22 The Himalayan range is in itself diverse and cannot be characterized through one common idea or pattern. Broadly speaking, it is divided into three categories: the Higher Himalayas (called "Himadri"), which contain some of the highest mountain peaks, are often snowbound through the year and are sparsely populated; the Lower Himalayas (called "Himachal"), which contains medium-sized mountains and highly populated regions; and the Sub-Himalayas (called "Shivalik"), which are the southernmost ranges of the Himalayas. Each of these have their own ecology, rainfall and snowfall distribution, flora and fauna. The concerns associated with each of them are different and have to be accounted for while adjudicating upon environmental issues raised with development projects.

23 In a 2018 report published by the NITI Aayog, these concerns were noted with pointed reference to the effects of the tourism industry. The report noted[34]:

> "Current forms of tourism in the [Indian Himalayan Region] are unsustainable. They replace traditional and aesthetic architecture with inappropriate, non-aesthetic and often dangerous constructions, and compound other challenges such as poorly designed roads and associated infrastructure, inadequate solid waste management, air pollution, degradation of watersheds and water sources, loss of natural resources, biodiversity, and ecosystem services."

Similarly, relying upon the NITI Aayog's conclusions, the HPC Report also notes[35]:

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[33] HPC Report, page 34

[34] "Contributing to Sustainable Development in the Indian Himalayan Region" (August 2018, *NITI Aayog)* available at <http://164.100.94.191/niti/writereaddata/files/document_publication/doc6.pdf> accessed on 6 December 2021

> "…the Himalaya call for a new development paradigm in which development must be fully embedded in the environmental, socio-cultural and sacred tenets of the IHR. It has been observed that the present demand-driven, uncontrolled economic growth has led to haphazard urbanization, environmental degradation and increased risks and vulnerabilities, seriously compromising the unique values of Himalayan ecosystems."

It is In the backdrop of these observations that we must consider the principles applicable to the judicial review which this Court must undertake in the present case.

E.1 Principles of Sustainable Development and Environmental Rule of Law

24 Sustainable development is a common benchmark through which all development projects are judged. Arguably finding its origin in global policy from the Bruntland Report in 1987, it is often defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs"[36]. Adopted globally as the standard for development by nations, it is the bedrock upon which the Sustainable Development Goals[37] have been laid out. Their latest iteration, consisting of 17 SDGs, was adopted by all United Nations member States in 2015. Titled as the "2030 Agenda for Sustainable Development"[38], these SDGs are broad, with their focus being on overall development of society in a manner which comports with environmental

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[35] HPC Report, page 43
[36] "Report of the World Commission on Environment and Development: Our Common Future" (1987) available at <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf> accessed on 6 December 2021
[37] "**SDGs**"
[38] Available at <https://sdgs.un.org/2030agenda> accessed on 7 December 2021

preservation now and in trust for the future. SDG13 specifically focuses on "Climate Action", which is to be balanced with the other SDGs (such as SDG9, which encourages "Industry, Innovation and Infrastructure").

25 The principle of sustainable development has found consistent application in matters of environmental law. Sustainable development has a multi-dimensional approach, with a focus on the development of the economy, protection of individual rights and environmental concerns, while ensuring both inter and intra-generational equity. This allows the principle of sustainable development to look beyond creating policy *goals* (which necessarily seek specific outcomes) towards creating policy *approaches* (which rather seek to provide better frameworks)[39]. The principle of sustainable development has been explicitly recognized in multiple judgments of this Court.

26 In **Indian Council for Enviro-Legal Action** v. **Union of India**[40], a three-judge Bench of this Court described the principle of sustainable development in the following terms:

> "31…While economic development should not be allowed to take place at the cost of ecology or by causing widespread environment destruction and violation; at the same time, the necessity to preserve ecology and environment should not hamper economic and other developments. Both development and environment must go hand in hand, in other words, there should not be development at the cost of environment and vice versa, but there should be development while taking due care and ensuring the protection of environment. This is sought to be achieved by issuing notifications like the present, relating to developmental activities being carried out in such a way so that unnecessary

[39] J B Ruhl, 'Sustainable Development: A Five-Dimensional Algorithm for Environmental Law' (1999) 18 Stanford Environmental Law Journal 31
[40] (1996) 5 SCC 281

> environmental degradation does not take place. In other words, in order to prevent ecological imbalance and degradation that developmental activity is sought to be regulated."

27 In **Essar Oil Ltd.** v. **Halar Utkarsh Samiti**[41], a two-judge Bench of this Court referred to the Stockholm Declaration while elucidating on the principle of sustainable development. It noted that while socio-economic needs could be fulfilled through development, environmental concerns will always remain. However, these concerns should not be seen as a deadlock between development and the environment but as an opportunity to harmonize both, through the principle of sustainable development. Speaking through Justice Ruma Pal, this Court observed:

> "27. This, therefore, is the aim, namely, to balance economic and social needs on the one hand with environmental considerations on the other. But in a sense all development is an environmental threat. Indeed, the very existence of humanity and the rapid increase in the population together with consequential demands to sustain the population has resulted in the concreting of open lands, cutting down of forests, the filling up of lakes and pollution of water resources and the very air which we breathe. However, there need not necessarily be a deadlock between development on the one hand and the environment on the other. The objective of all laws on environment should be to create harmony between the two since neither one can be sacrificed at the altar of the other…"

28 In **N.D. Jayal & Anr** v. **Union of India & Ors**[42], a three-judge Bench held that a balance between developmental activities and environmental protection could only be maintained through the principle of sustainable development. Doing

[41] (2004) 2 SCC 392
[42] (2004) 9 SCC 362

this was held to be necessary, without which the future generations could be in jeopardy. Justice S Rajendra Babu (speaking for himself and Justice Mathur) held:

> "22. Before adverting to other issues, certain aspects pertaining to the preservation of ecology and development have to be noticed. In Vellore Citizen'' Welfare Forum v. Union of India [(1996) 5 SCC 647] and in M.C. Mehta v. Union of India [(2002) 4 SCC 356] it was observed that the balance between environmental protection and developmental activities could only be maintained by strictly following the principle of "sustainable development". This is a development strategy that caters to the needs of the present without negotiating the ability of upcoming generations to satisfy their needs. The strict observance of sustainable development will put us on a path that ensures development while protecting the environment, a path that works for all peoples and for all generations. It is a guarantee to the present and a bequeath to the future. All environment-related developmental activities should benefit more people while maintaining the environmental balance. This could be ensured only by strict adherence to sustainable development without which life of the coming generations will be in jeopardy."

Justice Babu also noted that while the right to a clean environment is guaranteed as an intrinsic part of the fundamental right to life and personal liberty, the right to development can also be declared as a component of Article 21:

> "24. The right to development cannot be treated as a mere right to economic betterment or cannot be limited as a misnomer to simple construction activities. The right to development encompasses much more than economic well-being, and includes within its definition the guarantee of fundamental human rights. The "development" is not related only to the growth of GNP. In the classic work, Development As Freedom, the Nobel prize winner Amartya Sen pointed out that "the issue of development cannot be separated from the conceptual framework of human right". This idea is also part of the UN Declaration on the Right to Development. The right to development includes the whole spectrum of civil, cultural, economic, political and social process, for the improvement of people'' well-being and realization of their full potential. It is

> an integral part of human rights. Of course, construction of a dam or a mega project is definitely an attempt to achieve the goal of wholesome development. Such works could very well be treated as integral component for development."

29 More recently, in **Rajeev Suri** v. **Delhi**[43], a three judge Bench of this Court had to decide on the permissibility of the Central Vista Project. In considering the use of the principle of sustainable development, Justice A M Khanwilkar observed that the principle of sustainable development necessarily incorporates within it the principle of development – development which is sustainable and not environmentally degrading. He holds thus:

> "507. The principle of sustainable development and precautionary principle need to be understood in a proper context. **The expression "sustainable development" incorporates a wide meaning within its fold. It contemplates that development ought to be sustainable with the idea of preservation of natural environment for present and future generations. It would not be without significance to note that sustainable development is indeed a principle of development–- it posits controlled development. The primary requirement underlying this principle is to ensure that every development work is sustainable; and this requirement of sustainability demands that the first attempt of every agency enforcing environmental rule of law in the country ought to be to alleviate environmental concerns by proper mitigating measures. The future generations have an equal stake in the environment and development. They are as much entitled to a developed society as they are to an environmentally secure society.** By Declaration on the Right to Development, 1986, the United Nations has given express recognition to a right to development. Article 1 of the Declaration defines this right as:
>
> "1. The right to development is an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realized."

[43] 2021 SCC OnLine SC 7

> 508. The right to development, thus, is intrinsically connected to the preservance of a dignified life. It is not limited to the idea of infrastructural development, rather, it entails human development as the basis of all development. **The jurisprudence in environmental matters must acknowledge that there is immense inter-dependence between right to development and right to natural environment.** In International Law and Sustainable Development, Arjun Sengupta in the chapter "Implementing the Right to Development [International Law and Sustainable Development–- Principles and Practice, Edn. 2004, pg. 354]" notes thus:
>
> "… Two rights are interdependent if the level of enjoyment of one is dependent on the level of enjoyment of the other…""
>
> (**emphasis supplied**)

30 Similarly, in **Municipal Corporation of Greater Mumbai** v. **Ankita Sinha**[44], another three judge Bench of this Court ruled on the powers of the NGT under the National Green Tribunal Act 2010. This Court noted the significance of environmental justice and environmental equity, and highlighted how environmental harms cause disproportionate implications for the economically or socially marginalized groups. Thus, it was considered important to ensure that environmental equity was achieved, through the use of principles such as sustainable development. In this regard, speaking through Justice Hrishikesh Roy, the Court held:

> "XI. ENVIRONMENTAL JUSTICE AND ENVIROMENTAL EQUITY
>
> 82. The conceptual frameworks of environmental justice and equity should merit consideration vis-à-vis the NG''s domain and how its functioning and decisions can have wide implications in socio-economic dimensions of people at large. The concept of environmental justice is a trifecta of distributive justice, procedural justice and justice as

[44] 2021 SCC OnLine SC 897

> recognition.[Schlosberg D, Defining Environmental Justice : Theories, Movements, and Nature (Oxford University Press 2009)] **Environmental equity as a developing concept has focused on the disproportionate implications of environmental harms on the economically or socially marginalized groups.** The concerns of human rights and environmental degradation overlap under this umbrella term, to highlight the human element, apart from economic and environmental ramifications. **Environmental equity thus stands to ensure a balanced distribution of environmental risks as well as protections, including application of sustainable development principles.**
>
> 83. Voicing concerns about the disproportionate harm for the poor segments, Lois J. Schiffer (then Assistant Attorney General, Environment & Natural Resources Division (ENRD), U.S. Department of Justice) and Timothy J. Dowling (then Attorney at ENRD) in their Reflections on the Role of the Courts in Environmental Law, wrote the following evocative passage on the concept of environmental justice,
>
> "Environmental Justice, which focuses on whether minorities and low-income people bear a disproportionate burden of exposure to environmental harms and any resulting health effects. In the past ten to fifteen years, this issue has crystallized a grass-roots movement that combines civil rights issues with environmental issues, with a goal of achieving "environmental justice" or "environmental equity", which is understood to mean the fair distribution of environmental risks and protection from environmental harms."[Schiffer, L. J., & Dowling, T. J. (1997). Reflections On The Role Of The Courts In Environmental Law. Environmental Law, 27(2), 327-342]"
>
> (**emphasis supplied**)

31 The principle of sustainable development is deep-rooted in the jurisprudence of Indian environmental law. It has emerged as a multi-faceted principle, which does not prohibit development, but structures it around what is sustainable. Sustainable development incorporates two related ideas – development which not only ensures equity between the present and the future generations but also development which ensures equity between different sections of society at present. However, while the principle has deep roots, there

is a lack of consensus on how to ascertain whether a particular developmental project abides by the principle of sustainable development. Without a common benchmark or standard being applied by the Court in its analysis of the impact of development projects, the principle of sustainable development may create differing and arbitrary metrics (depending on the nature of individual projects). This not only creates uncertainty within the law, but makes the application of the principle of sustainable development selective, taking away from its potential to drive sustained change.

32 A cogent remedy to this problem is to adopt the standard of the 'environmental rule of law' to test governance decisions under which developmental projects are approved. In its 2015 Issue Brief titled "Environmental Rule of Law: Critical to Sustainable Development", the United Nations Environment Programme[45] has recommended the adoption of such an approach in the following terms[46]:

> "Environmental rule of law integrates the critical environmental needs with the essential elements of the rule of law, and provides the basis for reforming environmental governance. It prioritizes environmental sustainability by connecting it with fundamental rights and obligations. It implicitly reflects universal moral values and ethical norms of behaviour, and it provides a foundation for environmental rights and obligations. Without environmental rule of law and the enforcement of legal rights and obligations, environmental governance may be arbitrary, that is, discretionary, subjective, and unpredictable."

[45] "**UNEP**"
[46] Available at <https://wedocs.unep.org/bitstream/handle/20.500.11822/10664/issue-brief-erol.pdf?sequence=1&amp%3BisAllowed=> accessed on 7 December 2021

33 UNEP has further reiterated the importance of the 'environmental rule of law' in its 2019 report titled "Environmental Rule of Law: First Global Report", where it notes:

> "Environmental rule of law is key to achieving the Sustainable Development Goals. Indeed, it lies at the core of Sustainable Development Goal 16, which commits to advancing "rule of law at the national and international levels" in order to "[p]romote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels."
>
> […]
>
> Environmental law and institutions have grown dramatically in the last few decades, but they are still maturing. Environmental laws have taken root around the globe as countries increasingly understand the vital linkages between environment, economic growth, public health, social cohesion, and security. Countries have adopted many implementing regulations and have started to enforce the laws. Too often, though, there remains an implementation gap.
>
> Environmental rule of law seeks to address this gap and align actual practice with the environmental goals and laws on the books. To ensure that environmental law is effective in providing an enabling environment for sustainable development, environmental rule of law needs to be nurtured in a manner that builds strong institutions that engage the public, ensures access to information and justice, protects human rights, and advances true accountability for all environmental actors and decision makers…"

34 Within the Indian context, environmental rule of law was first applied by this Court in **Hanuman Laxman Aroskar** v. **Union of India**[47]. In that case, the Government of Goa had mooted a new international airport at Mopa in Goa in 1997. While the MoEF&CC gave it an EC, it ultimately came to be challenged before this Court. In its decision, a two-judge Bench of this Court found a lack of

[47] (2019) 15 SCC 401

information transparency in the disclosures filed by project proponents, and directed a fresh exercise for a rapid EC to be carried out. In emphasizing on environmental governance within a rule of law paradigm, Justice DY Chandrachud observed:

> "J. Environmental Rule of Law
>
> […]
>
> 144. **The environmental rule of law provides an essential platform underpinning the four pillars of sustainable development — economic, social, environmental and peace** [United Nations Environment Programme, First Environmental Rule of Law Report. Available at <https : //wedocs.unep.org/bitstream/handle/20.500.11822/27279/Environmental _rule_of_law.pdf?sequence=1&isAllowe d=y>] . **It imbues environmental objectives with the essentials of rule of law and underpins the reform of environmental law and governance** [United Nations Environment Programme, First Environmental Rule of Law Report. Available at <https : //wedocs.unep.org/bitstream/handle/20.500.11822/27279/Environmental _rule_of_law.pdf?sequence=1&isAllowe d=y>] . The environmental rule of law becomes a priority particularly when we acknowledge that the benefits of environmental rule of law extend far beyond the environmental sector. While the most direct effects are on protection of the environment, it also strengthens rule of law more broadly, supports sustainable economic and social development, protects public health, contributes to peace and security by avoiding and defusing conflict, and protects human and constitutional rights [United Nations Environment Programme, First Environmental Rule of Law Report. Available at <https : //wedocs.unep.org/bitstream/handle/20.500.11822/27279/Environmental _rule_of_law.pdf?sequence=1&isAllowe d=y>] . **Similarly, the rule of law in environmental matters is indispensable "for equity in terms of the advancement of the Sustainable Development Goals (SDGs), the provision of fair access by assuring a rights-based approach, and the promotion and protection of environmental and other socioeconomic rights** ["UN Environment, Environmental Rule of Law". Available at <https : //www.unenvironment.org/explore-topics/environmental-rights-and-governance/what-we-do/promoting-environmental-rule-law-0>] ."

> **145. […] Thus35pprox.35terizedd, it encompasses the preservation, and when possible even the expansion of the substantive freedoms and capabilities of people today without compromising the capability of future generations to have similar — or more — freedoms. The intertwined concepts of environmental rule of law thus further intragenerational as well as intergenerational equity.**
>
> (**emphasis supplied**)

Thus, the Court acknowledged that consistent decision-making on its behalf was a crucial factor in upholding the environmental rule of law.

35 In **Bengaluru Development Authority** v. **Sudhakar Hegde**[48], a two-judge Bench of this Court observed that there was no winner in environmental litigation, since both – development and protection of environment – are necessary. The Court clarified that a framework created by environmental rule of law has to balance both these considerations by creating transparent and accountable institutions, while allowing for participatory democracy. Justice DY Chandrachud, speaking for the Court, held:

> "94. The adversarial system is, by its nature, rights based. In the quest for justice, it is not uncommon to postulate a winning side and a losing side. **In matters of the environment and development however, there is no trade-off between the two. The protection of the environment is an inherent component of development and growth.**
>
> 95. The protection of the environment is premised not only on the active role of courts, but also on robust institutional frameworks within which every stakeholder complies with its duty to ensure sustainable development. **A framework of environmental governance committed to the rule of law requires a regime which has effective, accountable and transparent institutions. Equally important is responsive,**

[48] (2020) 15 SCC 63

> **inclusive, participatory and representative decision-making. Environmental governance is founded on the rule of law and emerges from the values of our Constitution. Where the health of the environment is key to preserving the right to life as a constitutionally recognised value under Article 21 of the Constitution, proper structures for environmental decision-making find expression in the guarantee against arbitrary action and the affirmative duty of fair treatment under Article 14 of the Constitution. Sustainable development is premised not merely on the redressal of the failure of democratic institutions in the protection of the environment, but ensuring that such failures do not take place.**"
>
> (**emphasis supplied**)

36 In **H.P. Bus-Stand Management & Development Authority** v. **Central Empowered Committee**[49], a three-judge Bench held that environmental rule of law was no panacea which allowed for a clear set of solutions in every case, since every case was unique and with differing levels of actual evidence. However, it did provide a framework within which any case could be adjudicated in a predictable manner, keeping in mind the principles of sustainable development at its core. Justice DY Chandrachud, speaking for the Court, held:

> "52. **The need to adjudicate disputes over environmental harm within a rule of law framework is rooted in a principled commitment to ensure fidelity to the legal framework regulating environmental protection in a manner that transcends a case-by-case adjudication. Before this mode of analysis gained acceptance, we faced a situation in which, despite the existence of environmental legislation on the statute books, there was an absence of a set of overarching judicially recognised principles that could inform environmental adjudication in a manner that was stable, certain and predictable.**
>
> 53. However, even while using the framework of an environmental rule of law, the difficulty we face is this — when adjudicating bodies are called on to adjudicate on

[49] (2021) 4 SCC 309

> environmental infractions, the precise harm that has taken place is often not susceptible to concrete quantification. While the framework provides valuable guidance in relation to the principles to be kept in mind while adjudicating upon environmental disputes, it does not provide clear pathways to determine the harm caused in multifarious factual situations that fall for judicial consideration. The determination of such harm requires access to scientific data which is often times difficult to come by in individual situations.
>
> 54…**the environmental rule of law calls on us, as Judges, to marshal the knowledge emerging from the record, limited though it may sometimes be, to respond in a stern and decisive fashion to violations of environmental law.** We cannot be stupefied into inaction by not having access to complete details about the manner in which an environmental law violation has occurred or its full implications. Instead, **the framework, acknowledging the imperfect world that we inhabit, provides a roadmap to deal with environmental law violations, an absence of clear evidence of consequences notwithstanding.**"
>
> (**emphasis supplied**)

37 Having now established the framework of judicial principles necessary for this Court to adjudicate the present matter, it is important to consider the specific set of circulars and guidelines which are applicable.

E.2 Circulars and Guidelines

38 A combined reading of Article 246 along with Entry 23[50] of List I of Schedule VII of the Constitution of India indicates that national highways fall entirely within the ambit of the Parliamentary domain. The executive power of the Union is co-extensive with the power of Parliament. In accordance with Section 2(2) of the National Highways Act 1956, the Union Government is empowered to

[50] "23. Highways declared by or under law made by Parliament to be national highways."

declare any road as a national highway and issue directions for its development and maintenance[51]. Within the Union Government, the specific responsibility lies with MoRTH. Hence, we must first begin by analyzing the relevant circulars which have been issued by MoRTH.

39 The first of these is the 2012 MoRTH Circular, which was titled "Capacity building and lane width of National Highways". It stated:

> "**I am directed to inform that Ministry intends to take up development of such National Highways having carriageway width less than the two lane width. These roads are to be developed to a minimum level.**
>
> 2. Generally, the carriageway width is dictated by the expected traffic. National Highways which are the primary route have higher expectation from the consideration of level of service as well as from safety consideration. This aspect was deliberated in the Ministry, and observed that the NHs are serving the mixed traffic. Besides, India has the dubious distinction in terms of fatalities on roads and there is need to segregate slow moving traffic from fast moving traffic. ·
>
> 3. In the above back ground to ensure safe and smooth traffic on NHs, **it has been decided that efforts be made to convert all the NHs to a minimum level of two lane with paved shoulders. Towards implementation of this, henceforth whenever new projects of widening/bypass/realignment are taken up, the width of the carriageway shall be at least two lane with paved shoulders irrespective of the traffic thereon.**"
>
> (**emphasis supplied**)

The 2012 MoRTH Circular provides that every national highway, if it was presently less than of a two-lane width (*i.e.*, less than 7m) or if it was under development, had to henceforth meet the requirement of the DL-PS standard in

[51] **Project Implementation Unit** v. **P.V. Krishnamoorthy**, (2021) 3 SCC 572

order to ensure safety and the smooth flow of traffic. Accompanying this circular, was the following pictorial representation of the new national highway width:

As we can note from the above depiction, the highway would be of a two-lane width (*i.e.*, 7m) with each of its sides being flanked by 1.5m of paved shoulders, which would be followed by 1m of earth/granular shoulders.

40 Following the 2012 MoRTH Circular, the IRC (an apex body of engineers in relation to road development) issued its 2015 IRC Guidelines in relation to the standards to be followed while developing highways with the DL-PS specification. Section 13 of the Guidelines dealt with the special requirements for hilly roads. While it is not necessary for us to explain the specific requirements, the 2015 IRC Guidelines highlight that highways with the DL-PS standard could be constructed for hilly roads.

41 The 2012 MoRTH Circular was modified by the 2018 MoRTH Circular, which was titled "Standards for Lane width of National Highways and roads developed under Central Sector Schemes in Hilly and Mountainous terrains". As the name suggests, the 2018 MoRTH Circular modified the 2012 MoRTH Circular to the extent that it applied to national highways in hilly and mountainous terrains. The relevant portions of the Circular read as follows:

> "On the subject of "Capacity building and lane width of National Highways", it has been stipulated vide this Ministry's letter No. NH-14019/6/2012-P&M dated 05.10.2012 [2012 MoRTH Circular] that width of carriageway shall be at least

two lane with paved shoulders irrespective of the traffic thereon in new projects undertaken for widening of carriageway/ bypasses/realignments.

2. However, challenges have come to the fore in adhering to these standards in the context of National Highways and roads in hilly and mountainous terrains. These challenges arise on account of destabilization of hill slopes and progressive damaging effects on road alignments and structures in higher contours on hills due to excavation works, requirement for large-scale felling of precious trees, associated environmental damages. Resultantly, there arises need to provide largescale protection works, acquisition of additional land for Right of Way (ROW), etc.

[…]

4. The provisions of Ministry's letter No. NH-14019/6/2012-P&M dated 05.10.2012 [2012 MoRTH Circular], have, accordingly, been reviewed and it has been decided with the approval of the Competent Authority that the following provisions shall be applicable henceforth for National Highways and roads under Central Sector Schemes in hilly and mountainous terrains until further orders:

[…]

4.4 Following specific provisions shall be made for traffic volumes ranging from 3,000 PCUs/day to about 8,000/day:-

(i) The carriageway width shall be of intermediate lane configurations, i.e. of 5.5 m width (18 ft), with two-lane structures (23 ft.).

(ii) The passing places may have widths of 2.5 m and 12 m length and these may be provided on alternate sides of the road. The length of the tapered section may be 6 m on either side of their approaches. Accordingly, the length of the passing places may be 24 m inclusive of the tapered length.

[…]

(vii) The Roadway width for Hilly and Mountainous Terrain as per IRC: SP-2015 (Manual of Specifications and Standards for Two laning of Highways with paved shoulder) [2015 IRC Guidelines] would stand amended accordingly.

4.5 For traffic volume of more than 10,000 PCUs/day or the existing traffic volumes likely to witness a fast growth to reach this level within a period of 3 to 5 years, the

> **carriageway width shall be of two lane NH configurations, i.e. of 7 m width. The carriageway widths shall be of two lane NH configurations with paved shoulders only in cases where the traffic is likely to increase at about more than 10 % per annum.**
>
> 5. The provisions of Ministry's letter No. NH-14019/6/2012-P&M dated 05.10.2012 [2012 MoRTH Circular] shall continue to be applicable in all other cases."
>
> (**emphasis supplied**)

The 2018 MoRTH Circular modifies its precursor of 2012 for hilly and mountainous terrains in the following ways: *(i)* for areas where the PCUs are in the range of 4,000-8,000 PCUs per day, the carriageway width cannot be of DL-PS configuration but has to be of IW standard (*i.e.*, 5m); *(ii)* along with this, adequate passing places with 2.5m width have to be included; *(iii)* the 2015 IRC Guidelines stood amended; *(iv)* for areas where the PCUs are more than 10,000 per day (or expected to reach that level within 3 to 5 years), the carriage way width could be of double lane configuration (*i.e.*, 7m); and *(v)* where the traffic is likely to increase by more than 10 per cent per annum, the width could be of DL-PS configuration.

42 Subsequently, the IRC issued its 2019 IRC Guidelines in relation to hilly roads. Of particular importance is Clause 6.2.2, which reads as follows:

> "6.2.2 Width of carriageway, shoulders and roadway for various categories of roads are given in Table 6.2.
>
> Table 6.2 Widths of Carriageway, Shoulder and Roadway
>
> […]

In Mountainous and Steep Terrain (in Hilly Area)							
Highway Classification	**Type of Section**		**Shoulder Width (m)**				**Roadway Width (Carriageway + Shoulders) excluding extra width on horizontal curves, side parapet and drain & median (m)**
			Paved (m)	**Earthen (m)**	**Total width of shoulders on one side (m)**	**Total width of shoulders on both sides (m)**	
National Highways and State Highways MDRs/ODRs	Open country with isolated built up area	Hill Side	1.5 m	-	1.5 m	4.00 m	11.00
		Valley Side	1.5 m	1.00 m	2.50 m		
i. Double Lane (7.00 m)	Built up area and approaches to grade separated structures bridges	Hill Side	0.25 m + 1.5 m (Raised)	-	1.75 m	3.5 m	10.50
		Valley Side	0.25 m + 1.5 m (Raised)	-	1.75 m		

Notes:

[…]

6. On roads subject to heavy snow fall, where snow clearance is done over long periods, roadway width may be increased by 1.5 m. However, the requirement of such widening may be examined with reference to ground conditions in each case considering terrain traffic and other influencing conditions and factors.

[…]

8. Strategic and border roads for military/paramilitary/security forces operations/movements shall be constructed for not less than two lane carriageway alongwith paved shoulder on hill side + paved and earthen shoulder on valley side on same lines of national highway."

Clause (8) of the Notes attached to Clause 6.2.2 provides that if a road is a strategic or a border road and is going to be used for "military/paramilitary/security forces operations/movements", then it must be of DL-PS configuration (along with earthen shoulders), "on the same lines" as other national highways.

43 Finally, the 2020 MoRTH Circular modifies the 2018 MoRTH Circular, in view of the suggestions received from the MoD. The circular, titled "Standards for Lane width of National Highways and roads developed under Central Sector Schemes in Hilly and Mountainous terrains", provides as follows, in so far as is material:

> "MoRT&H had issued circular on "Standards for Lane width of National Highways and roads developed under Central Sector Schemes in Hilly and Mountainous terrains" vide this Ministry's letter of even number dated 23rd March, 2018 [2018 MoRTH Circular]. **The standards prescribed therein have been further reviewed in the Ministry in light of the issues raised by Ministry of Defence.** A committee of Chief Engineers considered the suggestions received in this regard and have recommended modifications to the standards prescribed in the circular referred above.
>
> 2. It is observed that the standards prescribed in the circular referred above does not address the issues concerning strategic roads as stipulated in clause 6.2.2 of IRC: 52-2019 (Guidelines for the Alignment Survey & Geometric Design of Hill Roads) [2019 IRC Guidelines].
>
> 3. Accordingly, in partial modification of the circular cited above, the following additional guidelines are notified with immediate effect.
>
> "***For roads in hilly and mountainous terrain which act as feeder roads to the Indo-China border or are of strategic importance for national security, the carriageway width should be 7m with 1.5m paved shoulder on either side.***""
>
> (**emphasis supplied**)

The 2020 MoRTH Circular amends the earlier circular of 2018 since its directions were incompatible with the recommendations under Clause (8) of the Notes attached to Clause 6.2.2 of the 2019 IRC Guidelines, according to which every strategic and border road has to be of DL-PS configuration along with earthen shoulders. Hence, the 2020 MoRTH Circular provides that roads which may be located in hilly and mountainous regions but serve as feeder roads to the Indo-China border or are of strategic importance for national security should also be of DL-PS configuration.

44 On a combined reading of the 2012, 2018 and 2020 MoRTH Circulars and 2015 and 2019 IRC Guidelines, it emerges that a road shall be of a DL-PS configuration in the following circumstances: *(i)* if it is a national highway, other than in hilly or mountainous terrain; *(ii)* in hilly or mountainous terrain, a national highway can be double-laned if there are more than 10,000 PCUs per day or that level will be reached in 3 to 5 years; *(iii)* in hilly or mountainous terrain, a national highway can be of DL-PS configuration if the traffic is likely to increase more than about 10 per cent per annum; and *(iv)* in hilly or mountainous terrain, any road (including a national highway) can be of DL-PS configuration if it is strategic or a border road serving as a feeder road to the Indo-China border or if it is of strategic importance to national security.

F Issues and Analysis

F.1 Road-Width Issue

45 The issue that arises for consideration is regarding the road-width to be adopted for the three strategic border roads, as indicated in MA No 2180 of 2020 filed by the MoD, namely: Rishikesh to Gangotri (NH-94 and NH-108), Rishikesh to Mana (NH-58), and Tanakpur to Pithoragarh (NH-125). Broadly speaking, the appellants have argued that the present road infrastructure is sufficient to meet the needs of the Indian Army. Any further development, it has been urged, must be balanced keeping in mind the fragility of the Himalayas, the excessive damage caused to the environment and the need to ensure disaster-resilient roads. On the other hand, the UOI has stressed on the necessity of developing these feeder roads, for the security of the nation. Given the proximity of the roads to the Indo-China border, and the necessity of free movement for transport of trucks, machines, equipment and personnel of the Indian Army, double lane configuration must be allowed, according to the UOI. To analyse the issue, we shall first advert to the findings of the HPC.

F.1.1 HPC Report dated 13 July 2020

46 The HPC report was finalized by its members functioning under Professor Ravi Chopra as its Chairperson. For the preparation of the HPC Report, the members conducted site-visits, held meetings, interacted with the officers of MoRTH, district officials and the local communities. The Report is divided into

twelve chapters, each of which touches upon various aspects of the Project such as road-widening; hill cutting; bypasses; muck dumping; environment quality; loss of forests and green cover; impact on wildlife; managing water courses; disaster management and socio-cultural perspectives. For the purpose of the issue for consideration, *i.e.*, the width of roads on the national highways, Chapter II is of utmost relevance. The remaining chapters have been briefly summarized in Section F.2.1 of this judgment.

47 Chapter II of the HPC Report titled 'Road Widening' deals with the construction of highways and the width of roads. For determining the width of the road, the HPC highlighted the following factors are to be borne in mind: ecological concerns, social concerns, traffic surveys, capacity of roads, geometric design, terrain classification, design speed, sight distance or visibility, right of way and setback distance at horizontal curves.

48 According to the Indian Roads Congress Hill Roads Manual 1998[52], the following type of roads have been indicated, based on traffic volumes:

Sl. No.	Type of Road	Design service volume in PCU/day		
		Carriageway Width (CW)	For low curvature (0-200 degrees per km)	For high curvature (above 200 degrees per km)
1	Single lane	3.75 m	1,600	1,400
2	Intermediate lane	5.5 m	5,200	4,500
3	Two lane	7 m	7,000	5,000
4	Two lanes with paved shoulder (NHDL with PS)	7 m	9,000	-

[52] "**IRC Manual**"

49 The 2012 MoRTH Circular, however, provided that for new projects of widening/bypass/realignment, the width of the carriageway will be at least two lane with paved shoulders, irrespective of the traffic.

50 During the field visit, the HPC observed that though the routes for the Project are designed for the DL-PS standard, in certain stretches the formation width varies from 12m to 20m depending on the geometric requirements. Further, many of the existing stretches, which were already developed to an IW standard, are being widened. Due to the uniform standard, in some areas large hill-cutting has been undertaken resulting in vertical slopes without adequate slope protection measures. This has led to landslides and reflects inadequate assessment of slope vulnerability.

51 The discussion of the HPC revolved around the road-width that should be adopted for the highways comprising of the Project. Factors such as the road geometrics, traffic volume, ecological considerations (such as steep terrain, loss of forest cover, *et al*) guided the discussion of the HPC. At present, the project requirement envisages a DL-PS standard as given below:

Type of Section	Carriageway (m)	Paved Shoulder		Earthen Shoulder		Roadway Width (m)
		Hill Side (m)	Valley Side (m)	Hill Side (m)	Valley Side (m)	
Open Locations	7.0	1.5	1.5-1.9	1.0 (drain + utility duct)	0.6-1.0 (including parapets)	12.0
Built-up Area	7.0-10.0 (with paved shoulder)	1.0–- 1.75 (foot path cum drain raised)	1.0–- 1.75 (foot path cum drain raised)	-	-	9.0-12.0

Thus, all the highways were to be widened to reflect a width between 9 – 12m.

52 A majority consisting of thirteen members of the HPC was of the opinion that the DL-PS standard must be applied uniformly throughout the Project for the following reasons:

(i) The IRC Manual recommends a uniform application of design standards and any adjustments that need to be made to factor in the variability in slopes, must be intended for short distances;

(ii) The roads of the hills require protective works such as retaining walls, breast walls, catch drains, *et al*, which form a substantial part of the construction cost. Once the roads have been constructed, the widening of roads in the future is expensive, and at times impossible. Thus, the highways must be widened bearing in mind the traffic volumes for the next 20-25 years;

(iii) Some of the highways of the Project are important feeder roads leading towards border areas. The BRO has highlighted that the terrain in border areas is in a snow bound region and feeder routes such as Helong-Mana and Barethi-Gangotri must be double-laned. Further, the roads beyond Joshimath and Uttarkashi are operationally sensitive and fall within 100 kms of the Line of Actual Control. Single-lane roads are closed during the winter season due to accumulation of snow and hinder the movement of logistics and medical aid to the Indian Army;

(iv) The 2019 IRC Guidelines also suggest that strategic border roads for military and paramilitary forces be not less than two lanes with paved shoulders; and

(v) Suitable adjustments can be made to the standard design after considering vulnerability of slopes, identification of stretches vulnerable to floods, mapping wildlife corridors and providing adequate safeguards.

53 A minority consisting of five members of the HPC, including the Chairperson, was in favour of adopting the IW standard for the Project. Their opinion was based on the following reasons:

(i) The type of road must be determined based on traffic surveys, capacity of roads, and ecological considerations. The 2012 MoRTH Circular, however, recommended only an operational standard;

(ii) The detailed project reports for the Project have based the choice of road-width on traffic survey data. However, the data is insufficient as the traffic volume count of only April-May, which is a non-peak period, was taken into account. Additionally, no traffic surveys were conducted for the Higher Himalayas, which suggest that the DL-PS standard is extremely wide;

(iii) The current standard ignores the overall environmental considerations such as geological fragility, slope de-stabilization and recurring landslides, climate change and soil organic carbon loss. MoRTH has not conducted an EIA for the Project which would suggest site-specific mitigation measures;

(iv) Although border security concerns are a relevant factor, not all routes lead to the international borders. To ensure that national security concerns are addressed, more disaster-resilient highways are needed which would not be achieved by cutting fragile slopes. Further, the Chief of Army Staff on

20 September 2019 had made a statement that the current roads adequately fulfilled the needs of the Army; and

(v) The 2018 MoRTH Circular acknowledges that the DL-PS standard has led to issues in the mountainous terrains and recommended that road design be based on traffic volume. The 2018 MoRTH Circular was not brought to the notice of the members of the HPC during the discussion and was received later, after the voting had taken place. It was circulated by the Chairperson, after which two voting members and the Chairperson recommended the adoption of the IW standard in all stretches where widening remains to be done.

54 Since the 2018 MoRTH Circular, which was central to the discussion on road-width, was inadequately considered by the HPC, it was suggested by the Chairperson that a final decision on this issue must be taken by the Supreme Court. Apart from the issue of road-width, the majority of members also recommended that:

(i) To avoid the possibility of slope failures, valley side filling must be given importance;

(ii) A footpath for walking along the highways of the Project must be made for the pilgrims; and

(iii) In built-up areas where road side facilities and establishments exist, the width of the roads should be kept at 10.5m (7m carriageway and 1.75m paved shoulder on either side).

55 With regard to the BESZ, the HPC noted that the Project has five unsanctioned projects which run through it. MoRTH plans to upgrade 100.5 kms from Uttarkashi to Gangotri to conform to the DL-PS standard. The following recommendations were made:

(i) BRO, which is the implementing agency, must obtain all requisite clearances under the relevant notifications of the MoEF&CC;

(ii) Road widening activities should only be undertaken after detailed EIAs and mitigation measures;

(iii) The felling of deodar trees should be avoided;

(iv) Feasibility studies should be conducted in the short tunnels proposed within the highways, and

(v) Vulnerability evaluations and terrain assessments must be conducted.

F.1.2 HPC Report dated 31 December 2020

56 Following the filing of MA No 1925 of 2020 and MA No 2180 of 2020, this Court by an order dated 2 December 2020 directed the HPC to consider the issues raised by Professor Ravi Chopra and the MoD, and submit a detailed report. The HPC Report-II was thereafter submitted. In relation to MA No 2180 of 2020 filed by the MoD, a majority of 21 members recommended that further work to be undertaken by the MoRTH should be according to the 2020 MoRTH Circular, as it is necessary for the security of the nation. A minority of three members was not persuaded that the order of this Court dated 8 September 2020 should be modified. One member recommended that the work on the national

highways from Rishikesh to Gangotri, Rishikesh to Mana, and Tanakpur to Pithoragarh may be carried out according to the 2020 MoRTH Circular. However, a flexible approach should be adopted where necessary, to minimize damage to the forests and wildlife habitats. On the letters filed by the Chairperson, a majority of members recommended that the letters be withdrawn.

57 The majority report indicates that:

(i) The concerns raised by the MoD had been deliberated by the HPC and the majority view in the HPC Report indicated the adoption of the DL-PS standard. However, the majority report was overridden by the views of 4 members;

(ii) The HPC Report discussed the strategic importance of the three national highways: NH-34 (previously NH-94 +NH-108), NH-07 (previously NH-58) and NH-125;

(iii) The District Magistrates of Uttarkashi, Chamoli and Champawat District expressed concern that the local people wanted an all-weather reliable road along with the requirement of the MoD; and

(iv) The Rapid EIA reports of the Rishikesh-Rudraprayag stretch indicated that the impact of the Project is 32.25 per cent, which falls in the medium impact category. Thus, from an EIA perspective, the widening of the highways should be permitted.

58 The minority of members stated in their report that:

(i) On the three feeder highways mentioned by the MoD in their application, 161 landslides/vulnerable zones were created. Due to the new landslides, the entire project would be counter-productive for defence-preparedness;

(ii) The requirement of the MoD for the feeder roads should be considered in the context of the need for disaster resilient roads, capacity of roads to ensure swift movement of Army vehicles, minimizing environmental and social impact and long-term feasibility of the roads; and

(iii) The difference between the recommendation of the minority and the MA filed by the MoD is in regard to the reduction of carriageway by 1.5m, with due regard to the requirement of a footpath of 1.5m for the local population and pilgrims.

F.1.3 Analysis on the width of road

59 Pursuant to the order of this Court of 8 September 2020, the issue of the width of the national highways that are a part of the Project has been raised in MA No 2180 of 2020 filed by the MoD, which seeks modification of the order itself. The grounds listed in the MA indicate that the national highways from Rishikesh to Mana, Rishikesh to Gangotri and Tanakpur to Pithoragarh are feeder roads to border areas and are vital from the perspective of national security. Thus, it has been urged that development of these highways should be according to the two-lane configuration.

60 The details of these roads and their proximity to the international border has been provided in the MA by the MoD, and is reproduced below:

"Table A

Feeder Road	Distance from the Chinese border	Details of Connecting Border Road (Not part of Char Dham Project)
Rishikesh to Gangotri (NH-94 and NH-108) **231 kms**	• Bhaironghati (close to Gangotri) to Muling La Pass is 54 kms	**(i) Bhaironghati to Nilapani (enroute to Muling La Pass on Chinese Border) 42 kms:** Bhaironghati to Naga- 32 kms (Being developed to double lan[e] specifications. Tarring is yet to be completed for 11 kms and only hill cutting has been completed in 1 km) Naga to Nilapani- 10 kms (Already developed to double lane specifications) Nilapani to Muling La Pass – 54pprox.x. 34 kms (no road at present, only a track)
	• Bhaironghati (close to Gangotri) to Thagla Pass is 78 kms	**(ii) Bhaironghati to Sumla (enroute to Thangla Pass on Chinese Border) 64 Kms: [Under construction]** Bhaironghati to Sonam- 44 kms (Being developed to double lane specifications- 32 kms tarring done, 11 kms formation cutting completed, 1 km under progress) Sonam to Sumla- 23 kms (Single lane completed) Sumla to Thangla Pass- 11 kms (foot track)
Rishikesh to Mana (NH-58) **281 kms**	• Distance from Mana to Mana Pass is 54 kms.	**(i) Mana to Mana Pass:** Mana-Ghastoli: 21 Kms (Already Double Laned) Ghastoli – Rattakona: 18 Kms (Existing Single Lane, planned for double laning under Bharatmala) Rattakona-Mana Pass: 16 Kms (Hill

		Cutting completed for 12m wide formation for double laning, tarring yet to be done)
	• Distance from Joshimath to Niti Pass is 82 kms.	**(ii) Joshimath to Niti Pass:** Joshimath-Malari: 62 Kms (Already Double Laned) Malari-Niti Pass: 56 Kms (Existing single lane is being upgraded to Double Lane upto Niti village, i.e., for 20 kms. Ahead of Niti village, single lane road under development upto Geldung).
	• Distance from Joshimath to Tunjun La Pass is 103 kms.	**(iii) Joshimath to Tunjun La Pass:** Joshimath-Malari: 62 kms (Already double [laned]) Malari-Girthidobala: 19 Kms (First 9 kms is already double laned; and 10 Km thereafter is a single lane) Girthidobala – Rimkhim: 22 Kms (Existing single lane road) Rimkim-Tunjun La Pass55pprox.x. 5 kms (no road)
Tanakpur to Pithoragarh (NH-125) **162 kms**	• Distance from Pithoragarh to Lipulek pass is55pprox.x. 209 kms	**(i) Pithoragarh to Lipulekh Pass:** Pithorgarh to Tawaghat- 108 Kms (Under development to double lane specifications, of which 51 Kms completed) Tawaghat to Ghatiabgarh- 20 Km (Under development to double lane specifications) Ghatiabgarh to Lipulekh- 79 Km (Formation cutting to 10 to 12 m width is under progress)

61 Based on the above description, it is evident that the national highways provide vital connections to the establishments of the Armed Forces along the Nelong Axis, Mana Pass, Rimkhim Pass, Niti Pass and Lipulekh Pass. The

importance of the requirement of double-laned highways has been emphasized as it is necessary for the movement of trucks, equipment and personnel of the Armed Forces.

62 The above table also indicates that the MoD does not seek to widen only the three national highways which act as feeder roads. Instead, the roads connecting the national highways from Gangotri, Mana and Pithoragarh to the Army establishments across the border are also in various stages of development and attempts have been made to ensure double-laned highways as far as possible. The MoD has also highlighted that these feeder roads from Rishikesh to Gangotri and Joshimath to Mana were initially included in the Long-Term Roll on Works Plan 2018-19 to 2022-23 of the BRO. This plan seeks to upgrade the national highways to double lane specifications to meet the operational requirements of the Indian Army. Prior to 2016, these roads were under the purview of the BRO, which is an arm of the MoD. It is only after 2017 that portions of these roads were handed over to PWD and NHIDCL for speedier development, given the expansive works to be undertaken for the Project.

63 At the outset, therefore, we find that there are no *mala fides* in MA No 2180 of 2020 filed by the MoD. The allegation that the application filed by the MoD seeks to re-litigate the matter or subvert the previous order of this Court are unfounded inasmuch as MoD, as the specialized body of the Government of India, is entitled to decide on the operational requirements of the Armed Forces. These requirements include infrastructural support needed for facilitating the movement of troops, equipment and machines. The *bona fides* of the MoD are also evident from the fact that the issue of security concerns was raised during

the discussions of the HPC and finds mention in the HPC Report. Thus, the MoD has maintained the need for double-laned roads to meet border security concerns.

64 The appellants have referred to a statement made by the Chief of the Army Staff in 2019 in a media interview regarding the adequacy of infrastructure for troop movement. We do not find it necessary to place reliance on a statement made to the media, given the consistent stand of the MoD during the deliberations of the HPC and before this Court. The security concerns as assessed by the MoD may change over time. The recent past has thrown up serious challenges to national security. The Armed Forces cannot be held down to a statement made during a media interaction in 2019 as if it were a decree writ in stone. Similarly, the appellants have also raised a challenge to the 2020 MoRTH Circular and have sought a direction that this circular be revoked, on the ground that it recommends the DL-PS standard without application of mind.

65 This Court, in its exercise of judicial review, cannot second-guess the infrastructural needs of the Armed Forces. The appellants would have this Court hold that the need of the Army will be subserved better by disaster resistant roads of a smaller dimension. The submission of the appellants requires the Court to override the modalities decided upon by the Army and the MoD to safeguard the security of the nation’s borders (it is important to remember that the MoRTH issued the 2020 MoRTH Circular based upon the recommendations received from the MoD). The submission of the appellants requires the Court to interrogate the policy choice of the establishment which is entrusted by law with the defence of the nation. This is impermissible.

66 We shall now advert to the position of law regarding the construction of double-laned roads. The 2012 MoRTH Circular stipulated that all national highways were to have a carriageway width of two lanes. While this circular acknowledged that, generally, the carriageway width is dictated by the traffic volume, but in an attempt to ensure smooth flow of traffic, all highways were henceforth to be converted to two lanes with paved shoulders. Thus, according to the 2012 MoRTH Circular, all highways were to conform to the DL-PS standard.

67 The 2018 MoRTH Circular modified the 2012 version. The Circular of 2018 stipulated that:

(i) In hills and mountainous terrains, for areas where the PCUs are in the range of 4,000-8,000 PCUs per day, the carriageway width cannot be of double lane configuration but has to be of intermediate configuration (*i.e.*, 5m); along with this, adequate passing places with 2.5m width have to be included;

(ii) For areas where the PCUs are more than 10,000 per day (or expected to reach that level within 3 to 5 years), the carriageway width could be of double lane configuration (*i.e.*, 7m); and

(iii) Where the traffic is likely to increase “at about more than” 10 per cent per annum, the width could be of DL-PS configuration.

Thus, the 2018 MoRTH Circular did not entirely bar the construction of double-laned highways in hilly and mountainous terrains. It only made the DL-PS standard contingent on the current and projected traffic volume for the road.

68 The 2019 IRC Guidelines, in relation to the width of carriageway for national highways, provided that that DL-PS standard should be adopted. More specifically, the 2019 IRC Guidelines dealt with national highways in hills and mountainous terrain that serve as strategic roads and border roads for military and paramilitary operations. It provided that such roads should be constructed with not less than a two lane carriageway with a paved shoulder on the hill side and an earthen shoulder on the valley side. The relevant clause is reproduced below:

> "6.2.2 Width of carriageway, shoulders and roadway for various categories of roads are given in Table 6.2.
>
> Table 6.2 Widths of Carriageway, Shoulder and Roadway
>
> […]
>
> Notes:
>
> […]
>
> 6. On roads subject to heavy snow fall, where snow clearance is done over long periods, roadway width may be increased by 1.5 m. However, the requirement of such widening may be examined with reference to ground conditions in each case considering terrain traffic and other influencing conditions and factors.
>
> […]
>
> 8**. Strategic and border roads for military/paramilitary/security forces operations/movements shall be constructed for not less than two lane carriageway alongwith paved shoulder on hill side + paved and earthen shoulder on valley side on same lines of national highway.**"
>
> (**emphasis supplied**)

69 Given the lack of clarity on this issue in the MoRTH circulars, the 2020 MoRTH Circular was brought in. The Circular of 2020 reiterates the 2019 IRC

Guidelines and states that roads in hilly and mountainous terrain, which act as feeder roads to the Indo-China border should be of DL-PS standard, with a 7m carriageway and 1.5m paved shoulder.

70 Neither the 2012 nor the 2018 MoRTH Circulars specifically addressed the issue of strategic border roads. The considerations for development of national highways in plains and in hilly and mountainous regions are not identical. Similarly, the considerations governing the construction of highways that are strategic roads from a defence perspective, and may be used by the Armed Forces of the nation, cannot be the same as those for other roads in hilly and mountainous regions. We must therefore arrive at a delicate balance of environmental considerations such that they do not impede infrastructural development, specifically in areas of strategic importance crucial to the security of the nation.

71 Based on the above analysis, we find that the need for the development of national highways of a DL-PS standard is proportionate to the object of fulfilling the security concerns of the nation as assessed by the MoD. This is reinforced by the fact that the roads beyond the highways in the Project, beyond Gangotri, Mana and Pithoragarh are being developed by the MoD as double laned highways.

72 Additionally, the current status of works for the three highways in question is as follows:

Road	Distance of Road	Hill Cutting for 12m formation completed	Double Laning/ black topping completed
Rishikesh to Gangotri (NH-94 & NH-108)	231 kms	119 kms (51.50%)	75 kms (32%)
Rishikesh to Mana (NH-58)	281 kms	215 kms (76.50%)	151 kms (54%)
Tanakpur to Pithoragarh (NH-125)	162 kms	127 kms (78%)	123 kms (76%)

From the above tabulated statement which has been provided by the MoD, it appears that more than 50 per cent of the hill cutting has already been completed in each of these national highways, and over 50 per cent of double-laning has been completed on NH-58 and NH-125. In view of this, partial development of the highway compliant with the IW standard and the remaining in conformity with the DL-PS standard would not be suitable for the needs of the Armed Forces and will, in fact, prolong the movement of troops and equipment.

73 We shall now turn to the findings and recommendations of the HPC regarding the issue of road-width. As reflected by this Court's order dated 8 August 2019, the HPC comprised of representatives from governmental bodies, including the MoD who could highlight the requirements of border roads. The broad terms of reference of the HPC were as follows:

(i) To consider the cumulative and independent impact of the Project on the entire Himalayan valleys;

(ii) To consider whether revision of the full Project (about 900 kms) should at all take place with a view to minimize the adverse impact of the Project on the environment and social life;

(iii) To identify the sites in which work (*i.e.*, hill-cutting) has started and the stretches in which the work has not yet started. As far as the sites in which work has started, the HPC was to recommend the measures which are required for stabilizing the area where hill-cutting has taken place, including the environmentally safe disposal of muck which has been generated so that it does not adversely affect the flora and fauna of the catchment area of the river;

(iv) As regards the stretches where work has not started, the HPC was to review the proposed project and recommend measures which would minimize the adverse impact on the environment and social life; bring the project in conformity with the steep valley terrain and carrying capacity and avoid triggering new landslides; and ensuring conservation and protection of sensitive Himalayan valleys;

(v) To assess environmental degradation in terms of loss of forest land, trees, green cover, water resources, dumping of muck and impacts on the wildlife and direct mitigation measures; and

(vi) To asses and quantify the impact on social infrastructure/public-life due to triggering of fresh landslides, air pollution, frequent road blocks, *et al*, and suggest measures for redressal, including preparation of disaster management plans prior to the onset of the monsoon.

74 While the HPC was empowered to assess the environmental and social impact of the Project, it was not competent to address, assess or review the security needs of the nation. The work of the HPC was limited to giving recommendations to improve the Project in terms of its environmental impact and to suggest mitigation strategies to implement the Project. The competing interests that the HPC had to evaluate were environmental concerns as against infrastructural development, the primary reason of which in this Project was focused on increasing tourism, providing an impetus to the economy, and ease of transportation for undertaking the Char Dham pilgrimage. Balancing the interests of defence as against environmental considerations was outside the ambit of the HPC.

75 Be that as it may, the HPC Report does highlight that certain highways (NH-94, 108, 58 and 125) form the feeder roads to border locations in the districts of Uttarkashi, Chamoli and Pithoragarh. An extract of the relevant portion of the HPC Report is reproduced below[53]:

> "Roads beyond Joshimath and Uttarkashi are operationally very sensitive as they fall within 100 Km of the LAC. The border terrain lies in high altitude, snow bound regions. Indian Army and ITBP units maintain continuous vigil on the borders and important passes. To ensure better national security, the Government of India has given impetus for the development of double lane roads towards the border. Roads beyond Bhaironghati and Mana are already double-laned but the important feeder roads Helong-Mana and Barethi-Gangotri are generally single lane (except some intermittent stretches which are improved to two lane) with steep gradients, sharp curves, narrow hairpin bends, avalanche prone locations and weak bridges which pose major challenges to vehicle movements in these areas. The single lane roads get closed due to snow accumulation and hinder the movement of

[53] HPC Report, pages 82-83

> soldiers even by foot for provisions of logistic and medical aid."

Bearing the above observations in mind, a majority of the members of the HPC recommended the adoption of the DL-PS standard as road-width for the Project. This opinion was reiterated in HPC Report II, which considered the MA No 2180 of 2020 filed by the MoD.

76 We find ourselves to be in agreement with this finding of the HPC. Based on the above reasons, we modify the order of this Court dated 8 September 2020 to the extent that the national highways from Rishikesh to Mana, Rishikesh to Gangotri, and Tanakpur to Pithoragarh be developed according to the double-lane carriageway width with paved shoulder standard as provided in the 2020 MoRTH Circular.

77 An ancillary issue regarding the width of the roads of the Project, apart from the above highways which are strategic feeder roads to border areas, is regarding the interpretation of the order dated 8 September 2020. This Court in its order held that:

> "We have perused the conclusion and recommendations of the report, in particular, from pages 90-93 in Part I. **We are of the view that it is correct that the 2018 MORTH circular should apply for the reasons given at page 93 of the report. Consequently, the 2018 circular alone will apply.** The other directions that were issued by us on 08.08.2019 must be strictly complied with, including the holding of quarterly meetings to ensure timely and proper compliance of the recommendations.
>
> Shri Tushar Mehta, learned Solicitor General, persisted with his arguments that the 2018 circular is only prospective in nature. We are well aware of the distinction between something which is retrospective in the sense that it applies for the first time to projects which are already completed as

> opposed to ongoing projects, where it is necessary to take stock of the current situation and then move forward. Having taken stock of the current situation and of the fragility generally of the eco system in mountain terrain, we are of the view that this argument has no legs to stand on."
>
> (**emphasis supplied**)

78 One of the arguments raised by the appellants in their MA 1925 of 2020 is that pursuant to this order, MoRTH has stated that the order will only be implemented for the 13 projects which have not been sanctioned and where work has not been initiated. In its affidavit dated 15 February 2021, MoRTH has stated:

> "3. […] showing the status of road construction work in the Chardham Pariyojna which would show that in almost every sanctioned project of the Chardham Pariyojna, hill cutting has been carried out at various stretches as the old formation width of 12 mts, leaving unfinished stretches in between. It is submitted that in a particular sanctioned project, due to operational difficulties, hill cutting and laying down of a tarred road is often not carried out simultaneously and/or in linear form. Thus, reducing the width of the road to 5.5 mts in the those unfinished stretches at this stage would cause a serious road safety hazard. The details of the same is also reproduced hereinbelow:

SNO.	PARTICULARS	LENGTH
1.	Total Length of The Chardham Pariyojna	825 KMS
2.	Total Sanctioned Length	662 KMS
3.	Hill Cutting (Keeping 12 Mts in Mind) Completed As On 08.09.2020	537 KMS
4.	Tarred Road With 10 Mtr. Width Completed As On 09.09.2020	365 KMS
5.	The Length For Which Hill Is Already Cut Prior to 08.09.2020 But Tarred Road With 10 Mts Width is Yet To Be Laid	172 KMS
6.	The Length For Which Hill Cutting Is Yet Be Commenced (Which Stopped On 08.09.2020)	125 KMS

4. It is further stated that out of the total length of 825 kms of the Chardham pariyojna, only 151 Kms consist of non-strategic roads, whereas the rest of the pariyojna having a length of 674 Kms have immense strategic importance being feeder roads to the Indo-china border roads under the control of Ministry of [D]efence. The details of the same are also reproduced hereinbelow:

<table>
<tr><td>1.</td><td colspan="3">Total Length of The Chardham Pariyojna</td><td>825 Kms</td></tr>
<tr><td>2.</td><td colspan="3">Total Length Of Roads With Strategic Importance/Defence Roads</td><td>674 Kms</td></tr>
<tr><td>3.</td><td colspan="3">Total Length Of Non-Defence Roads</td><td>151 Kms</td></tr>
<tr><td rowspan="2"></td><td>Dharasu To Janaki Chatti</td><td>75 Kms</td><td>36 Kms (Hill Cutting Done)</td><td rowspan="2"></td></tr>
<tr><td>Rudraprayag To Gauri Kund</td><td>76 Kms</td><td>53 Kms (Hill Cutting Done)</td></tr>
</table>

79 The order of this Court dated 8 September 2020 clarified that the 2018 MoRTH Circular will hold the field, regardless of whether works on a highway had been completed or were ongoing. By allowing the MA filed by the MoD for modification of this order, we have permitted the widening of the national highways from Rishikesh to Mana, Rishikesh to Gangotri, and Tanakpur to Pithoragarh, which are strategic feeder roads to border areas. To this extent, the order dated 8 September 2020 will stand modified. However, we grant liberty to the respondents to pursue appropriate legal proceedings and seek reliefs in the event that it is necessary to implement the DL-PS standard for the entire Project.

F.2 Environmental Issues

80 While we have permitted the UOI and MoD to apply a DL-PS configuration to the highways mentioned in MA No 2180 of 2020, it is not the end of this matter. There may have been a disagreement between the members of the HPC in relation to the road-width issue but they unanimously agreed on other environmental issues in the manner in which the Project was being implemented by MoRTH. Some of these issues have also been pointed out by the appellants in MA No 1925 of 2020 and their affidavits thereafter, often based upon news reports in relation to the Project. We shall first note these issues as flagged by the HPC, consider their recommendations and based on that, we will issue directions to MoRTH and MoD.

F.2.1 HPC Report dated 13 July 2020

81 The environmental and social concerns arising from the Project have been dealt with in Chapter III-XI of the HPC Report, along with the recommendations and conclusions in Chapter XII. Apart from Chapter II on the issue of road-width as provided in Section F.1.1 above, the findings of the HPC on all other issues have been unanimous.

82 Chapter III of the HPC Report deals with hill cutting and highlights that slope instability is one of the most frequent disasters in mountains. Hill cutting in the Himalayas is also a major reason for landslides and rockfalls. During field visits, the HPC observed that there were large stretches of hill-cutting with steep

slopes and no protection measures, no slope drainage measures had been taken, the debris was falling downhill, further destabilizing the slope. The HPC recommended the following measures which could be adopted to mitigate the damage and prevent landslides:

(i) In many locations, hill-cutting can be avoided by filling material on the valley side to widen the road;

(ii) Sufficient vulnerability analysis must be conducted before further hill-cutting and plans for maintenance of slopes must be made;

(iii) Roadside drainage measures and protection against toe-erosion must be undertaken;

(iv) In case of near vertical to vertical cutting, a breast wall may be erected to avoid landslides; and

(v) Damaged gabion structures must be repaired through back-filling, *et al*.

83 Chapter IV of the HPC Report concerns the 20 bypasses, realignments and tunnel projects that have been proposed for some segments of the national highways as they are geologically unstable or in congested passages. The HPC observed that geological infirmities and the felling of deodar and oak trees are a critical issue in these bypasses. It recommended that feasibility studies may be conducted for some of the bypasses, along with their impact on local area residents.

84 Chapter V of the HPC Reports concerns a critical area of the Project – muck dumping. Muck-dumping or muck management requires safe disposal of the muck generated due to the material excavated, tunneled, and dislodged.

Within the Project, 435 muck-dumping sites have been identified for the 53 projects. However, the following issues were identified by the HPC in relation to muck-disposal:

(i) Most of these projects do not have adequate muck dumping capacity. In 5 out of the 7 packages, the authorized muck dumping capacity is below the muck volumes anticipated. In one-third of the projects, the expected generation of muck is more than the carrying capacity of the sites;

(ii) Most of the muck dumping sites are located in gorges or natural drains, along the concave sections of rivers, in or adjacent to forests, near agricultural fields or habitations which may not have been authorized;

(iii) There are many large and tall sites, with high slope angles but attempts to stabilize them have not been made; and

(iv) There is no financial provision for environmentally safe disposal of muck and no guidelines have been provided by MoRTH to the EPC Contractors regarding its proper management, leading to variations in selection of sites and adoption of environmentally safe disposal practices by contractors, who also dump it on private land on request.

85 For adequate disposal of muck, the HPC recommended the following measures to be taken:

(i) Muck dumping should generally be located downwind of habitation;

(ii) Topsoil should be kept separately in a proper manner for later use in rehabilitating muck disposal;

(iii) A large quantity of boulders (locally available) should be checked for their mechanical properties and used appropriately;

(iv) Before muck is dumped at identified locations and construction of protection measures, it should be ensured that the substratum has enough shear strength to sustain the load without creating a slip hazard. The gabion/protection walls should preferably be constructed along the contours for better stability and above the highest flood level at a safe distance;

(v) Muck dumping sites should not be located on the concave side of river meanders. Gorges and natural drainage also need to be avoided;

(vi) Plantation of locally available plant species should be preferred for rehabilitation of dump sites along with help from local people and forest department;

(vii) MoRTH and the implementing agencies must immediately coordinate with district authorities to acquire additional muck dumping sites and necessary clearances to ensure that muck generation equals carrying capacities of muck dumping sites;

(viii) Capacities of sites fully utilized must be stabilized at the earliest, preferably before the onset of the rainy season;

(ix) Muck which has fallen on roads after landslides must not be pushed down slope; and

(x) All natural drains/streams blocked with dumped muck should be cleared before the monsoons.

86 Chapter VI of the HPC Report deals with the environment quality of the Project, which can be divided into short-term and long-term impacts. Short-term impacts occur due to road construction activities like land clearing, ground excavation and cut and fill operations, and are visible in the vicinity of the construction activity. Meanwhile, long-term impacts include climate warming due to soil organic carbon loss as a result of road construction and traffic problems. During their field visits, the HPC were unable to assess the impact of the project on the environmental quality due to stoppage of work prior to the visit. However, it observed dust pollution where debris had not been cleared from the road. The HPC also identified long-term impacts such as vehicular pollution, black soot emission, soil erosion from hill-cutting and muck-dumping and soil organic carbon loss, due to the Project.

87 On the basis of its observations, the HPC made the following recommendations:

(i) Reliable data should be obtained to formulate strategies to control pollution during the construction phase effectively;

(ii) Continuous air quality monitoring stations must be placed at each of the Char Dham locations;

(iii) A reduction in diesel and petrol vehicles is warranted in view of the ecological sensitivity of the Higher Himalayas; and

(iv) Robust stabilization measures are needed in the Lesser Himalayas and the Shivaliks to conserve their vast forests and SOC, as they are major carbon sinks.

88 Chapter VII of the HPC Report deals with the loss of forests, trees and green cover. Cutting of mountain slopes to widen roads leads to a reduction in the green cover in the State. A total area of 689.23 hectares has been diverted from forest land for the Project. This loss of green cover leads to a loss of riverine vegetation, top soil, wildlife habitats, ecosystem services, *et al*. To redress the loss of forest cover, the Uttarakhand Forest Department raised a plantation as part of the Compensatory Afforestation program. In addition to this, a Draft Action Plan focusing on afforestation on degraded waste land and forest land along the national highways, restoration of muck disposal, soil conservation works, rejuvenation of existing water resources, and landscaping has also been proposed. The HPC has also recommended the following measures to be taken:

(i) Felling of deodar trees should be avoided;

(ii) Road-width in dense forest patches may be reduced;

(iii) In stretches that are yet to be widened, the top soil must be separately stored from the remaining muck to facilitate regeneration;

(iv) Regeneration of riverine vegetation should be included in the Draft Action Plan; and

(v) The Net Present Value rates of forests needs to be revised.

89 Chapter VIII of the HPC Report discusses the impact of the Project on wildlife habitats. The Project lies close to the wildlife protected areas of Gangotri National Park, Kedarnath Wildlife Sanctuary, Govind National Park and Wildlife Sanctuary and Rajaji National Park. These protected areas have four highly endangered species – snow leopard, Tibetan Argali, Eurasian lynx, Himalayan brown bear and Western Tragopan. Other threatened species include the Asiatic

black bear, Tibetan wolf, Himalayan musk deer, pheasant and Cheer pheasant. The Alaknanda and Bhagirathi river basins also host a wide range of habitats.

90 During the field visits, the HPC observed that improper muck management resulted in destruction of vegetation cover, which has threatened aquatic habitats. Accordingly, it recommended the following measures:

(i) Safe wildlife passage should be maintained and included in road building;

(ii) Gentle slopes shoulders on either side of the road, particularly around sharp bends/blind curves should be avoided. Box-type pre-fabricated culverts could be used by wildlife;

(iii) A comprehensive study of the carrying capacities of the uppermost stretches of the Project and the wildlife movement should be conducted;

(iv) Opening of Char Dham locations in the winter season should be considered only after a thorough wildlife impact study;

(v) Road widening work on NH-109, NH-94, NH-94/134 and NH-07/58, which are located in the eco-sensitive zones, should be conducted after due approvals; and

(vi) Deterrent action must be taken against unauthorized muck dumps and compensatory afforestation should be carried out.

91 Chapter IX of the HPC Report, titled ‘Managing Mountain Water Courses’ pertains to the management of springs, streams and surface drainage. The HPC observed that there was poor management of subsurface flows at many locations due to improper structures. In places where perennial flow of water is there, toe drains had not been constructed. Further, due to the huge quantity of muck

generated because of the cut and dump method and disposal into water courses, the water has been deemed unfit for human consumption. Accordingly, the HPC recommended that:

(i) Culvert design should be based on hydrological investigation in order to avoid under designing or over designing of the structure;

(ii) Immediate action be taken to clear all natural drains/streams blocked with muck dumping;

(iii) The perennial streams should be managed properly by constructing adequate structures;

(iv) A diversion drain should be provided above the head of the hill cut area to safely drain out the water away from the unstable or landslide prone areas;

(v) Toe drains or catch-drains must be provided on the uphill side of a road and connected to a culvert or a main drain to dispose of the water into a natural valley. Additionally, a breast wall or a toe wall should be provided to prevent blockage of toe drains by accumulation of fallen over burden soil/boulders from the uphill slope; and

(vi) There must be safe disposal of heavy runoff and debris through discharge channels/gullies.

92 Chapter X of the HPC Report concerns the disaster management measures that must be taken to prevent any disasters owing to the infrastructure activity from the Project. These disasters include natural hazards such as slope failures, flash floods, avalanches, forest fires; engineering hazards when poor quality protection measures are taken; and mass tourist hazards. The significant disaster in the Project has been due to the vulnerability of slopes. One of the

main reasons for this occurrence is muck-dumping which results in landslides, toe-erosions and other consequences. Further, no effort has been made to stabilize the slopes already cut. Additionally, in a number of locations, such as at Badrinath, the carrying capacity (that is the number of biological species that can survive in a particular environment) has been reached. In view of this, the HPC recommended the following measures:

(i) A comprehensive study regarding the carrying capacity at various locations in the Project must be conducted;

(ii) Given the large number of tourists, Char Dham Early Warning System Network, connecting all villages, should be developed such that timely action can be taken in case of a disaster;

(iii) A survey of vulnerable muck dumping sites must be undertaken, natural streams must be cleared, slope protection measures should be taken;

(iv) Climate vulnerability risk assessment must be conducted; and

(v) Protective measures such as well-constructed breast walls, retaining walls, soil nailing, geotextiles sheathing, negative slopes and half-tunnels in hard rock areas should be observed.

93 Chapter XI of the HPC Report focusses on socio-cultural perspectives. During the field visits, the HPC members observed that there was broad support for the Project as it would economically benefit the people of the State. However, some of the issues that have not been addressed are the lack of footpaths for the traditional *padyatra* or pilgrimage, impact on traditional forest conservation methods, loss of livelihoods due to hill-cutting without adequate safeguards,

increase in threat to lives and agriculture in case of heavy rainfall or cloud burst, and damage to schools and infrastructure due to slope failures.

94 Based on these concerns, the HPC, *inter alia*, recommended the following:

(i) Project authorities should initiate formal mechanisms to facilitate dialogue and receive feedback and grievances from the local community;

(ii) A comfortable pathway for the pilgrims must be constructed; and

(iii) Conservation of traditions should be encouraged.

95 In Chapter XII of the HPC Report, the HPC summarized the conclusions and recommendations made in each of the preceding chapters.

F.2.2 Analysis of the Environmental Issues

96 The analysis conducted by the HPC in the unanimous segment of its report is not only comprehensive, but it is based upon empirical and scientific data. The HPC took time to visit all project sites, and individually identified a variety of issues with them. While these have been divided into chapters in the HPC Report (as noted in Section F.2.1), the underlying themes of all them are evident:

(i) In many instances, MoRTH has gone ahead with the Project based on its assertions that the Project is compatible with environmental guidelines or that its developmental benefits are proportionate to the harm. However, to reality-test these assertions, the HPC has recommended that the State carry out relevant studies to ascertain the true reality (such as for creation

of bypasses, maintenance of environmental quality, protection of wildlife habitats and disaster management preparedness);

(ii) The HPC Report also notes that best-practices are not being followed in some areas of concern (such as hill cutting or muck dumping). It has thus recommended best practices for the MoRTH to implement;

(iii) In other areas of concern, the HPC has noted the harms which have already been caused due to the Project, has recommended remedial measures (such as protection of wildlife habitats (especially in context of ecologically-sensitive zones) and maintenance of water resources) and has also suggested future action to reduce its effects (such as for hill cutting, muck dumping and protection of forest cover);

(iv) For some areas, the HPC has highlighted that constant monitoring by the MoRTH would be required and necessary systems should be set up (such as for maintenance of environmental quality and for disaster management preparedness); and

(v) The HPC has also noted the Project's effect on socio-cultural communities, and has mandated MoRTH to create avenues for dialogue through which concerns can be understood and resolved.

97 The verdict of the HPC in its report indicates that the Project is riddled with environmental issues, which need to be resolved in order to make it environmentally sustainable. Unfortunately, due to the ongoing litigation in relation to the road-width issue, these concerns seem to have taken a back seat. However, that cannot be the case, going forward.

98 The Attorney General has informed the Court that MoRTH and MoD are presently undertaking measures to address the concerns raised by the HPC, which have been noted in paragraphs 18(iv) and (v) of our judgment. While we appreciate the measures which have been initiated, they are limited in scope and have been late in coming. In comparison to the issues which have been raised by the HPC in its Report, the measures adopted have only begun to scratch the surface. Indeed, they do not address crucial issues such as muck disposal, which not only affects the environment directly but also causes issues for wildlife and availability of water resources. Even the remedial measures in relation to hill-cutting and landslides have been tardy and limited and, from the submissions, seem to have been limited only to the roads which are the subject matter of the MoD's MA No 2180 of 2020, which only concerns the roads which are of strategic importance to India's national security. However, it is important to remember that the Project consists of 53 individual projects, not all of which are such roads. However, that does not mean that the environmental effect on these roads and their surroundings will be any less important and does not need to be remedied. The State has tried to justify the efficacy of its current measures solely by noting their benefits directly to the Armed Forces. Indeed, while that is a crucial factor (as this judgment acknowledges in Section F.1.3), it is not the only thing at stake in a Project of this scale, which was conceived to provide a more efficient route for those undertaking the Char Dham pilgrimage. What is at stake in this Project is also the health of the environment, and its effects on all individuals who inhabit the area.

99 It is thus important that there must be a significant alteration in the approach to this Project by adopting sustainable measures. Piecemeal implementation of some mitigation measures for protection of the environment, without any concrete strategy in place, cannot pass muster. While we have granted our approval to the DL-PS configuration for the roads mentioned in MoD's MA No 2180 of 2020, it is made conditional upon MoRTH and MoD implementing the recommendations made by the HPC, which have been outlined by this Court in Section F.2.1. These recommendations are unanimous. A majority of the members of the HPC comprised of government officials and experts. In line with the HPC's recommendations, there has to be an assessment of the nature of the problem by obtaining actual data through relevant studies for all individual projects. Specific mitigation measures then should be implemented for all projects, keeping in mind their unique concerns. In doing so, the general recommendations issued by the HPC should form the baseline, *i.e.*, they should be implemented at the very least, along with anything over and above that is deemed necessary based on the studies so conducted.

100 More than anything else, this requires a concerned shift in the approach which has been adopted till date. Making the Project environmentally compliant should not be seen a "checkbox" to be obtained on the path to development, but rather as the path to sustained development itself. Thus, the measures adopted have to be well thought out and should actually address the specific concerns associated with the Project. Understandably, this may make the Project costlier, but that cannot be a valid justification to not operate within the framework of the environmental rule of law and sustainable development. In its bid to make the

project more environmentally conscious, it is also imperative that the MoRTH and MoD be transparent in the measures they adopt, in order for them to be held publicly accountable by spirited citizens. Thus, we direct that the MoRTH and MoD can proceed with the Project subject to the condition that it addresses *all* the concerns which have been raised by the HPC and enumerated by this Court in Section F.2.1 of this judgment, through the recommendations mentioned accompanying these concerns (in paragraphs 82, 83, 85, 87, 88, 90, 91, 92 and 94 of this judgment).

G Conclusion

101 We thus allow MoD's MA No 2180 of 2020 by permitting the DL-PS configuration for the three strategic highways in respect of which relief has been claimed. At the same time, we have also taken note of the environmental concerns which have been raised by the HPC for the entirety of the Project. We have noted the HPC's unanimous recommendations for taking remedial measures and direct that they have to be implemented by the MoRTH and MoD, going forward. These specific recommendations have been mentioned in Section F.2.1 and are not being repeated here for the sake of brevity.

102 Further, in order to ensure implementation of these recommendations, we also set up an 'Oversight Committee', which shall report directly to this Court. This Committee shall be chaired by Shri Justice Arjan Kumar Sikri, former Judge

of this Court. In order to enable the Chairperson to receive technical assistance, he shall be aided by:

(i) A representative of the National Environmental Engineering Research Institute ('**NEERI**') to be nominated by the Director; and

(ii) A representative of the Forest Research Institute, Deemed to be University, Dehradun to be nominated by its Director General.

The Oversight Committee shall receive all logistical and administrative assistance from the UOI, the Government of Uttarakhand, MoRTH, MoD and MoEF&CC. The Secretary of the Environment and Forest Department, Uttarakhand shall ensure that logistical assistance is provided to the Committee. MoRTH, MoD and MoEF&CC shall also nominate nodal officers for rendering assistance to the Committee, providing information and co-operating with the work of the Committee. The District Magistrates for the Districts forming a part of the Project shall also provide facilitation and assistance to the Committee.

103 The objective of this Oversight Committee is not to undertake an environmental analysis of the Project afresh but to assess the implementation of the recommendations already provided by the HPC (which we have noted in Section F.2.1). A formal notification in terms of these directions shall be issued by the UOI within two weeks. Within four weeks thereafter, MoRTH and MoD shall place before the Committee the steps taken by them to adhere to the HPC's recommendations, along with a projected timeline for complying with the

remaining recommendations. Monthly reports of this nature shall be placed before the Oversight Committee by MoRTH and MoD. The Oversight Committee shall then report on the progress undertaken to this Court every four months. In case of any issues with the implementation of the recommendations, the Chairperson of the Committee shall be at liberty to approach this Court. The honorarium for the Chairperson and members of the Oversight Committee shall be determined by the Chairperson and the payment shall be disbursed by MoRTH.

104 We further note that by the order dated 8 August 2019 of this Court, the HPC was tasked with overseeing the implementation of its recommendations and to suggest any further measures which may be required. To avoid any overlap between the scope of work of the HPC and the Oversight Committee formed above in paragraph 102 and 103, we clarify that the HPC shall continue with its work on overseeing the implementation of its recommendations for the Project, except for the national highways from Rishikesh to Mana, Rishikesh to Gangotri, and Tanakpur to Pithoragarh, which shall now fall under the purview of the Oversight Committee.

105 With these directions, we allow MoD's MA No 2180 of 2020, conditional upon the fulfillment of the conditions outlined above in our judgment and accordingly, MA No 1925 of 2020 is disposed of.

PART G

106 Pending application(s), if any, shall stand disposed of.

…….....J.
[Dr Dhananjaya Y Chandrachud]

…….....J.
[Surya Kant]

…….....J.
[Vikram Nath]

New Delhi;
December 14, 2021