BEFORE THE NATIONAL GREEN TRIBUNAL

AT PRINCIPAL BENCH, NEW DELHI

(under Section 18 read with Section 14 and 15 of the

National Green Tribunal Act 2010)

ORIGINAL APPLICATION NO: _____ OF 2017

IN THE MATTER OF:

RIDHIMA PANDEY
AGED ABOUT 9 YEARS
THROUGH HER NEXT OF FRIEND
DINESH CHANDRA PANDEY
S/O SHRI. NB PANDEY
AGED ABOUT 40 YEARS,
R/O VILLAGE HARIPUR, BACHEE POST,
HALDUCHAUR DISTRICT, NAINITAL,
UTTARAKHAND

... **APPLICANT**

VERSUS

1. **UNION OF INDIA**
   THROUGH THE SECRETARY
   MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE
   INDIRA PARYAVARAN BHAWAN,
   JOR BAG ROAD
   NEW DELHI - 110 003

2. **CENTRAL POLLUTION CONTROL BOARD**
   THROUGH THE MEMBER SECRETARY,
   PARIVESH BHAWAN
   CBD-CUM-OFFICE COMPLEX,
   EAST ARJUN NAGAR,
   DELHI, 110032

...RESPONDENTS

MOST RESPECTFULLY SHOWETH:

I. That the address of the Counsels of the Applicant is given below for the service of notices of this Application.

II. That the addresses of the Respondents are given above for the service of notices of this Application.

III. That the present Application is being filed under Section 14 of the National Green Tribunal Act, 2010 seeking intervention of this Hon'ble Tribunal to direct the Respondents to take effective, science-based action to reduce and minimize the adverse impacts of climate change in the country. The Applicant is invoking the principle of sustainable development and precautionary principle, as envisaged under Section 20 of the National Green Tribunal Act, 2010, as well as the inter-generational equity principle and the Public Trust Doctrine. The application also raises the issue of non implementation of various environmental laws, more particularly non implementation of the Forest (Conservation) Act, 1980, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, and the Environmental Impact Assessment Notification, 2006, which has led to adverse impacts of climate change across the country.

FACTS IN BRIEF:

1. That the Applicant herein is a 9-year-old resident of the State of Uttarakhand and is directly affected by the adverse impacts of climate change and rising global temperatures. As a young person, the Applicant is part of a class that amongst all Indians is most vulnerable to changes in climate in India yet are not part of the decision making process. The government has failed to take any effective science-based measure, and there is a huge gap in implementation of the environmental legislations. It is submitted that without action by governments around the world to

immediately start reducing carbon dioxide (CO_2) emissions and other greenhouse gases (GHGs) that cause climate change, in line with achieving global climate stabilisation, children of today and the future will disproportionately suffer the dangers and catastrophic impacts of climate destabilisation and ocean acidification. The Applicant is represented by her Legal Guardian and Father, Mr. Dinesh Pandey.

2. That the Respondent No. 1 is the Ministry of Environment, Forests and Climate Change which is the nodal agency in the administrative structure of the Central Government and has been entrusted with the task of implementation of policies and programs relating to conservation of the country's natural resources. It is submitted that the State and its machinery is a trustee of vital natural resources on which human survival and welfare depend, bound by a fiduciary duty under the Public Trust Doctrine to mitigate climate change so as to protect such resources for the benefit of current and future generations. The Applicant and others of a similar age are beneficiaries of these natural resources held in trust by their government. Any decision taken, action or inaction, on behalf of the State that impacts these vital natural resources must be based on the best available climate science. The best climate science provides a prescription for climate recovery that requires States to decrease atmospheric CO_2 levels to below 350 parts per million (ppm) by 2100 and stabilise the long-term average global temperature increase at no higher than 1 degree Celsius (°C). The Respondent No. 2 is the Central Pollution Control Board.
3. That the instant Application is being filed under Section 14 of the National Green Tribunal Act, raising substantial questions relating to the environment where the community at large is affected and is likely to be affected by the adverse environmental consequences. The issue herein raised, is that of non effective measures taken by the Respondent No. 1 to

mitigate adverse impacts of climate change in India and the actions taken by Respondent that have helped create and intensify the climate crisis, as well as the various binding obligations under the Paris Agreement, 2015 which entered into force on 4.11.2016. India ratified the Agreement on 2.10.2016. It is submitted that the definition of the term 'environment' as per Section 2 (a) of the Environment (Protection) Act, 1986 would necessarily include climate within its ambit and scope. It is further submitted that such impacts can be averted, minimised and mitigated if effective, science-based measures are taken under the existing environmental legal framework in India, including the following enactments:

i. Forest (Conservation) Act, 1980 and the rules made thereunder.
ii. Air (Prevention and Control of Pollution) Act, 1981 and the rules made thereunder.
iii. Environmental (Protection) Act, 1986 and rules made thereunder.
iv. Biological Diversity Act, 2002 and rules made thereunder.

It is pertinent to note that these enactments are also listed in the Schedule I of the National Green Tribunal Act, 2010. Therefore, it is humbly submitted that this Hon'ble Tribunal has jurisdiction to decide upon the instant Application.

4. That climate change has become a worldwide concern in the recent years caused by anthropogenic activities, such as the burning of fossil fuels, and leading to a substantial rise in global temperatures. It has been the centre of global negotiations and has culminated in various international conferences and agreements, the most recent and the most successful

one being the Paris Agreement, which was adopted in 2015 and entered into force within a period of 1 year.

5. That as per the report titled "Trends in Global CO_2 Emissions: 2016 Report" by the PBL Netherlands Environmental Assessment Agency, in 2015, India emitted 7% of the total global CO_2 emissions (2.3 billion tons), making it the third most climate polluting country in the world. It is submitted that presently, India is the third largest emitter of fossil fuel CO_2 emissions in the world, after China and the USA. Copy of the relevant pages of the report titled "Trends in Global Emissions: 2016 Report" is annexed herewith as **ANNEXURE A-1**

6. That India is one of the most vulnerable countries to adverse climate change impacts, and the people of India are already experiencing adverse climate change impacts across the country. These include rising sea levels, extreme weather events, and adverse impacts due to rising temperatures.

OBLIGATIONS UNDER THE PARIS AGREEMENT, 2015

7. That the Paris Agreement was adopted at the 21st Conference of Parties of the UN Framework Conference on Climate Change ("UNFCCC") on 12.12.2015. The Agreement acknowledges that climate change is a common concern of humankind and recognises the importance of the conservation and enhancement of carbon sinks and reservoirs of the greenhouse gases referred. It further notes the importance of ensuring the integrity of all ecosystems, including oceans and the protection of biodiversity, and the concept of "climate justice" when taking action to address climate change. The Agreement also recognised the importance of the engagements of all levels of government and various actors, in accordance with respective national legislations of Parties, in addressing

climate change. Thus, it is submitted that national laws play an important role in addressing climate change.

8. That as per Article 2 of the Agreement, the following aims have been recognised:-

> *"1. This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:*
>
> *(a) Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;*
>
> *(b) Increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production; and (c) Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development."* (Emphasis Supplied)

9. That it must be noted that the 2°C and 1.5°C targets in the Paris Agreement are the result of political negotiations and compromise and are not based in science. Unfortunately, even the lowest of those targets, 1.5°C, is dangerously high, since current science indicates that, to prevent catastrophic ecological harm, warming must be limited to a long-term maximum of 1°C above preindustrial temperatures. To meet this scientific prescription of limiting global temperature increase to a maximum of 1°C, atmospheric CO_2 must be reduced to less than 350 ppm by the end of this

century. It is submitted that the worst impacts can be averted, minimised and mitigated if effective, science-based measures are taken in line with this clear scientific prescription and that such measures can be taken under existing environmental legal framework in India.

10. That as per Article 5 of the Paris Agreement, Parties must take action to conserve and enhance carbon sinks and reservoirs of greenhouse gases, including forests. Further, as per Article 15 of the Agreement, the State parties shall take measures to enhance public participation and public access to information as these are important tools to enhance the actions envisaged under the Agreement.

11. That as per the provision under Article 21 of the Paris Agreement, the Agreement would enter into force on the thirtieth day after the date on which at least 55 Parties to the Convention accounting in total for at least an estimated 55 per cent of the total global greenhouse gas emissions have deposited their instruments of ratification, acceptance, approval or accession. It is submitted that the Paris Agreement entered into force on 4.11.2016 when the condition under Article 21 was fulfilled. Thus, the Paris Agreement and the various provisions made thereunder are binding upon all State Parties which have ratified the Agreement.

    A copy of the Paris Agreement is annexed herewith as **ANNEXURE A-2**

12. That on 2.10.2016., India ratified the Paris Agreement which was adopted at the 21st Conference of Parties of the UN Framework Conference on Climate Change ("UNFCCC") with the following declaration:-

> *"The Government of India declares its understanding that, as per its national laws; keeping in view its development agenda, particularly the eradication of poverty and provision of basic needs for all its citizens, coupled with its commitment to following the low carbon path to progress, and on the*

assumption of unencumbered availability of cleaner sources of energy and technologies and financial resources from around the world; and based on a fair and ambitious assessment of global commitment to combating climate change, it is ratifying the Paris Agreement." (Emphasis supplied)

Thus, India is bound by the provisions of the Paris Agreement. Further, India has committed to follow a low carbon path to progress. However, it is submitted that the Respondent No. 1 has not made any effort to integrate its international commitments into the domestic framework of law.

INDIA'S POLICY ON CLIMATE CHANGE

13. That the National Environmental Policy adopted by the Respondent No. 1 in 2006 recognised that anthropogenic climate change will likely have adverse impacts on India's precipitation patterns, ecosystems, agricultural potential, forests, water resources, coastal and marine resources, in addition to increase in range of several disease vectors. It was further noted that large-scale resources would clearly be required for adaptation measures for climate change impacts, if catastrophic human misery is to be avoided and the following were found essential to India's response to climate change:-

"a) Adherence to the principle of common but differentiated responsibilities and respective capabilities of different countries in respect of both mitigation of GHGs, and adaptation measures.

b) Reliance on multilateral approaches, as opposed to bilateral or plurilateral or unilateral measures.

c) Equal per-capita entitlements of global environmental resources to all countries.

d) Over-riding priority of the right to development.

e) Identify key vulnerabilities of India to climate change, in particular impacts on water resources, forests, coastal areas, agriculture, and health.

f) Assess the need for adaptation to future climate change, and the scope for incorporating these in relevant programmes, including watershed management, coastal zone planning and regulation, forestry management, agricultural technologies and practices, and health programmes.

g) Encourage Indian Industry to participate in the Clean Development Mechanism (CDM) through capacity building for identifying and preparing CDM projects, including in the financial sector.

h) Participate in voluntary partnerships with other countries both developed and developing, to address the challenges of sustainable development and climate change, consistent with the provisions of the UN Framework Convention on Climate Change."

A copy of the relevant pages of the National Environmental Policy is annexed herewith as **ANNEXURE A-3**

14. That a high-level advisory group on climate change namely, the Prime Minister's Council on Climate Change was constituted in June 2007 and reconstituted in November 2014 with the following objectives:

(i) Coordinate national action plans for assessment, adaptation and mitigation of climate change.

(ii) Advise government on pro-active measures that can be taken by India to deal with the challenge of climate change.

(iii) Facilitate inter-ministerial coordination and guide policy in relevant areas.

15. That in June 2008, the Prime Minister's Council on Climate Change

released its National Action Plan on Climate Change ("NAPCC"). This plan sets forth eight national "missions" regarding climate change:

i. National Solar Mission,

ii. National Mission for Enhanced Energy Efficiency,

iii. National Mission on Sustainable Heat,

iv. National Water Mission,

v. National Mission for Sustaining the Himalayan Ecosystem,

vi. National Mission for a Green India,

vii. National Mission for Sustainable Agriculture, and

viii. National Mission on Strategic Knowledge for Climate Change.

16. That each of the above-mentioned missions is to be dealt with by a particular ministry. Each ministry is given discretion to come up with its own evolving objectives. However, it is submitted that none of these missions require reduction of GHG emissions, nor does the NAPCC set standards for the mitigation of the effects of climate change in line with its various legal obligations. Rather, the NAPCC identifies development as its primary objective and addressing climate change as a "co-benefit." According to the NAPCC, "it is not desirable to design strategies exclusively for responding to climate change."

A copy of the relevant part of National Action Plan on Climate Change is filed and annexed as **ANNEXURE A-4.**

17. That the 12th Five Year Plan of the Planning Commission recognised the need for dealing with climate change in India. It was admitted as follows:-

"1.43. We cannot, however, abstain from taking action to deal with climate change until an international solution is found. It is known that India will be one of the countries most severely affected if global warming proceeds unchecked and as such

appropriate domestic action is necessary. A National Action Plan for climate change has been evolved with eight component Missions. Implementation of these missions must be an integral part of the Twelfth Plan. Policies should be closely monitored to ensure that we achieve the stated objective of reducing the emissions intensity of our GDP by 20 per cent to 25 per cent between 2005 and 2020."

18. That under the obligations of the UNFCCC, India put forth its Intended Nationally Determined Contribution on October 1, 2015. In this communication, the Indian government has committed to reduce the emissions intensity of GDP by 33-35 per cent by 2030 from the 2005 level. Other important goals include achieving about 40 per cent cumulative electric power installed capacity from non-fossil fuel based energy resources, and creating an additional carbon sink of 2.5 to 3 billion tonnes of CO_2 equivalent through additional forest and tree cover by 2030.

    A copy of the India's INDC dated 1.10.2015 is annexed herewith as **ANNEXURE A-5**

POLICIES NOT REFLECTED IN THE LEGAL FRAMEWORK AND LACKS IMPLEMENTATION

19. That it is submitted that even though the Respondent No. 1 has announced several initiatives to tackle climate change, none of them have been translated into effective measures. In fact, the actions of the Respondent No. 1 have been inconsistent with the stated objectives of such initiatives.

20. That as per the 34th Report of the Comptroller and Auditor General of India titled "Performance Audit on Renewable Energy Sector in India Union Government, Ministry of New and Renewable Energy", it was

reported that the Central Government had failed to meet its targets for scaling up use of renewable energy sources under the NAPCC. The NAPCC envisages raising renewable energy sources to 8 per cent of the national energy mix for electricity by 2012-13 and 9 per cent by 2013-14. However as per the CAG report, the national achievement for purchase of electricity from renewable energy sources in those 2 years was only 4.28 per cent and 4.51 per cent, respectively.

A copy of relevant pages of the 34th CAG report of 2015 is annexed herewith as **ANNEXURE A-6**

21. That it is submitted that there are various environmental legislations and rules/notifications made thereunder existing in India which, if effectively implemented in its true spirit, would aid in tackling the issue of adverse climate change impacts as mentioned above. These include the Acts mentioned in the Schedule-I of the National Green Tribunal Act, 2010-

Forest (Conservation) Act, 1980

Environment (Protection) Act, 1986

Air (Prevention and Control of Pollution) Act, 1981

Biological Diversity Act, 2002

LEGAL FRAMEWORK ON FORESTS-

22. That the Forest (Conservation) Act, 1980 gives legal protection to the forests in India. Under Section 2 of the Act, no State Government can "de-reserve" a reserved forest or any portion thereof, or permit the diversion of forestland for any non-forest purpose, without the prior approval of the Central Government. Over the years, the provisions of the Forest Act have been used to divert lakhs of hectares of forests for non-forest purposes. However, the rate of compensatory afforestation in lieu of such diversion and monitoring of the same has been abysmal.

23. That the National Forest Policy, 1988 established that "the principal aim of Forest Policy must be to ensure environmental stability and maintenance of ecological balance including atmospheric equilibrium which are vital for sustenance of all lifeforms, human, animal and plant". The Forest Policy also states "economic benefit[s] must be subordinated to the principal aim". In **Lafarge Umiam Mining Private Limited v. Union of India & Ors.** [2011] 7 SCC 338, the Hon'ble Supreme Court made the Forest Policy part of the Forest (Conservation) Act, 1980, and ruled that the National Forest Policy, 1988 should be read as part of the provisions of the Environment (Protection) Act, 1986 read together with the Forest (Conservation) Act, 1980. Relevant portions of the National Forest Policy is annexed herewith as **ANNEXURE A-7**

24. That as per the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, deforestation is the second largest source of anthropogenic carbon emissions after fossil fuels. It is submitted that deforestation in India contributes to climate change because forests are carbon sinks, i.e., forestland captures carbon that would otherwise be released into the atmosphere. Further, the act of deforestation in itself is a source of emissions in addition to the loss of the carbon sink. Thus, when trees are cut down or destroyed, more carbon is emitted into the atmosphere and the forest shifts from being a carbon sink that actively removes CO_2 from the atmosphere, to a carbon source that contributes CO_2 to the atmosphere.

Large Scale Forest Diversion

25. That as per article dated 27.12.2016, more than 10,000 ha of forest land was permitted to be diverted for non-forest activities by the Respondent No. 1 in the past one year. It is pertinent to note that this figure only represents the forest land which has been allowed to be diverted for non-

forest purposes, and the figure would rise exponentially if the illegal tree felling is accounted for. A copy of the article dated 27.12.2016 is annexed herewith as **ANNEXURE A-8**

26. That it is submitted that on an analysis of the deliberations made by the Forest Advisory Committee (FAC) and the various Regional Empowered Committees (RECs), there is minimal discussion on climate change issues arising out of such large scale forest diversion. Even though the Paris Agreement was ratified on 2.10.2016, the deliberations of such appraisal committees do not reflect any discussion on the importance of carbon sinks and greenhouse gas reservoirs. The committees also do not look into renewable energy alternatives, or alternatives for the project in consideration.

27. That in fact, it is submitted that subsequent to the ratification of the Paris Agreement on 2.10.2016, ten Regional Empowered Committees across the country have recommended 87 proposals out of 137 in 20 meetings whereas the FAC has recommended 17 proposals out of 58 in two meetings in the same period. These projects involve linear projects like roads, railways canals, transmission lines coming for appraisal before the RECs and non-coal mining projects like Iron ore, bauxite, etc. before the FAC, which involve large scale diversion of forest land which in itself is a source of huge carbon emissions in addition to causing a net loss of the carbon sink in the country.

28. That such large scale diversion of forests is also not in line with the targets set forth in the INDC submitted by India or the binding obligations under the Paris Agreement, much less the scientific standard necessary to achieve climate stabilisation. Further, afforestation as a response to diversion of pristine natural forests which support large ecosystems is also problematic. As per article dated 17.10.2016 titled "*How Odisha is cutting*

old forests for new" published in the Times of India, under the guise of Green India Mission, the State Forest Department of Government in Orissa had cleared nearly 50 acres of natural forests — very old trees of mahua, asan, saal, harida, amla, chiraunji, creepers, grasses and small shrubs to plant acacia, teak and chakunda. This is clearly indicative of the apathy as well as lack of understanding of ways of addressing climate change in the various State instrumentalities. A copy of the article dated 17.10.2016 is annexed as **ANNEXURE A-9**

29. Therefore, there is a need for proper directions to the appraisal committees of its legal obligations to restrict the amount of diversion of forest land for various non-forest purposes in light of the various commitments made by the Respondent No. 1 in the INDC.

LEGISLATIONS COVERING EMISSIONS IN INDIA

30. That the Government of India enacted the Air (Prevention and Control of Pollution) Act, 1981 considering the necessity to implement the decision taken in the United Nations Conference on the Human Environment held in Stockhom in June 1972 in which India participated. Under the provisions of this Act of 1981 standards for emissions of various air pollutants, including greenhouse gases, into the atmosphere from industrial plants and automobiles or for the discharge of any air pollutant into the atmosphere from any other source have been laid down.

31. That under the provisions of the Air Act, 1981 the Central Pollution Control Board shall advise the Central Government on any matter relating to improvement of the air quality and prevention, control or abatement of air pollution. The Board also has been given the function of laying down standards for the quality of air. Further, under Chapter IV of the Act, the Board has powers with respect to prevention and control of Air Pollution.

32. That increased air pollution from greenhouse gases contributes to global

warming, and deteriorating air quality exacerbates and increases the adverse impacts of global warming, in particular the human health impacts. In fact as per research article titled, "*Global Air Quality and Health Co-benefits of Mitigating Near-Term Climate Change through Methane and Black Carbon Emission Controls*", it has been noted that:

> "*Controlling methane emissions may be a promising means of simultaneously mitigating climate change and reducing global ozone concentrations, compared with controlling shorter-lived ozone precursors [nitrogen oxides (NOx), carbon monoxide (CO), and non-methane volatile organic compounds (NMVOCs)] (West et al. 2006, 2007). The latter may have larger and more immediate air quality and health benefits near the areas with emission reductions but smaller benefits (CO, NMVOC) or net disbenefits (NOx) for climate. Major anthropogenic sources of methane include fossil fuel production and distribution, landfills, livestock, rice cultivation, and wastewater treatment. BC is a product of incomplete combustion from sources such as biomass burning, transportation (mainly diesel vehicles), residential combustion, and industry, and is coemitted with other pollutants, including NOx, NMVOCs, CO, sulfur dioxide (SO2), and organic carbon. Climate benefits of reducing BC may be partially offset by associated reductions of coemitted pollutants that may have a net cooling effect on climate (and a net warming effect when reduced), either directly (organic carbon) or after chemical transformation in the atmosphere (organic carbon, SO2, and NOx). However, all emission reductions leading to reduced ozone and PM2.5 concentrations would be expected to have health benefits.*"

A copy of the research article titled "*Global Air Quality and Health Co-benefits of Mitigating Near-Term Climate Change through Methane and Black Carbon Emission Controls*" is annexed herewith as **ANNEXURE A-10**

33. That apart from the primary greenhouse gases, which directly contribute to global warming, Carbon monoxide, sourced mainly from vehicular emissions contribute indirectly to increasing temperatures. As per the research paper titled "*On the climate forcing of carbon monoxide*", published in 1998 in the Journal of Geophysical Research, it has been found that Carbon monoxide contributes to global warming, even if it is indirectly. The article concludes as follows:-

> *"It is apparent that the emission of CO into the atmosphere may have a significant impact on climate forcing in spite of the relatively short lifetime of CO. This is due to the chemical impact of CO on CH_4, CO_2, and perhaps O_3. Our calculations suggest that the emission of 100 molecules of CO into today's atmosphere will have the same effect on methane as the direct emission of about 8 molecules of methane. When the effects of CO emissions on CH_4 and CO_2 are considered, it is estimated that the current global annual CO emissions may be affecting integrated climate forcing by more than the annual emission of N_20 for at least 10 years after the emission."*

A copy of the research article titled "*On the climate forcing of carbon monoxide*" is annexed herewith as **ANNEXURE A-11**

34. That the Respondent No. 1 notified revised emission standards for coal-based thermal power plants vide notification dated 7.12.2015 under the provisions of Section 6 and Section 25 of the Environment (Protection) Act, 1986 whereby limits have been introduced for the first time on emissions of sulphur dioxide (SO_2), Oxides of Nitrogen (NOx) and Mercury (Hg). Standards for particulate matter (PM), SO_2, NOx and Hg for new power plants installed from January 1, 2017 have been set at 30, 100, 100 and 0.03 (mg/Nm3) respectively. Existing power plants are required to achieve the revised standards within a period of two years. However, it is submitted that although the time frame provided in the said Notification

for implementation of the Standards prescribed therein is two years from the date of notification, no efforts to date have been made by the Respondent No. 1 to enforce these standards. Indeed, without a directive from this Hon'ble Tribunal, there is all likelihood that the Respondent No. 1 will continue to fail to enforce these standards and proceed in this matter in a time bound manner.

Copy of the notification dated 7.12.2015 is annexed herewith as **ANNEXURE A-12**

35. That the government of India has made commitments in its Intended Nationally Determined Contribution with respect to power generation in India. Despite its admission that coal will "continue to dominate power generation," the document states that power plants are required to improve their efficiency and refers to the new emission standards. The government further commits to "[p]romoting renewable energy generation and increasing the share of alternative fuels in overall fuel mix." These commitments are further evidence of the obligation of the Respondent No. 1 and India to decrease GHG emissions, especially from the power generation sector.

Climate Impact Assessment under the Environment (Protection) Act, 1986

36. That Government of India enacted Environment (Protection) Act, 1986 on 23 May 1986 considering the necessity to implement the principles in the Stockholm Declaration. Under the provisions of the Environment Protection Act, 1986 the Respondent No. 1 issued the Environmental Impact Assessment Notification ("EIA Notification") in 1994, requiring anyone seeking to undertake a new project in India or to expand or modernise any existing industry or project must first receive environmental clearance from MOEF. Projects only required an EIA if they

fell within one of thirty-two types laid out in Schedule-I of the EIA Notification.

37. That the said notification was superseded by the EIA Notification, 2006. As per this notification, all the projects listed in the Schedule are required to go through the process of screening, scoping, public consultation and appraisal. In this process the projects are required to be assessed on the basis of their threats to the environment and based on that assessment, a decision can be taken either to allow or not to allow any project.

38. That under the EIA Notification, 2006, the Expert Appraisal Committee ("EAC") is required to give "detailed scrutiny" to such information "in a transparent manner", requesting from the project proponent any necessary clarifications.

39. That as per the Form 1 of the Notification of 2006, the project proponent seeking environmental clearance is required to disclose information with respect to various ecological parameters as required in this Form. Serial No. 12 under heading III Environmental Sensitivity of Form 1 requires the project proponent to provide following information.

> *"12. Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)"*

It is submitted that under the head of "Environmental Sensitivity", the project proponent has to give information regarding the location of the proposed project. As per Item 12, the project proponent is obligated to give detailed information as to whether the project would present environmental problems and whether the location is already susceptible to adverse or extreme climatic conditions. Thus, under the EIA Notification,

the project proponent must divulge information as to how the proposed project would impact the climate.

40. That after perusal of some of the available documents on the website of the Respondent No. 1, it is very apparent that the attitude of both the Respondent No. 1 and the Expert Appraisal Committee is one of absolute neglect and negligence towards the issue of climate change. After scrutinizing a few thermal power projects and coal-mining projects which have been granted environmental clearance by the Respondent No. 1 and perusing the information given against "Serial No. 12" with respect to impact on climate, it was found that no such information is ever provided. Such projects were checked because these activities have a huge impact on the climate of the area.

41. That upon analysis of the minutes of the meetings of the various appraisal committees before and after the ratification of the Paris Agreement, it has been found that there has been no change at all in the approach of these bodies while appraising the viability of the various projects. There is no discussion at all, with respect to climate change. Further, these committees do not deliberate upon alternatives, no project option, or even renewable energy alternatives.

Impact of industries not covered under the EIA Notification, 2006

42. That it is submitted that many industries and activities are still outside the purview of the EIA Notification, 2006. These industries are merely required to obtain necessary consents from the respective State Pollution Control Boards without conducting impact assessments, on environment or climate. It is submitted that industries like brick kilns are a major contributor to the deteriorating air quality, especially in the Northern parts of the country. Further, it must be noted that such small-scale industries contribute to climate change to a great extent, and sometimes at par with

large projects when the cumulative impact is considered. It is further submitted that linear projects including roads, power transmission lines, as well as railways are also to be brought under the purview of the Notification of 2006, in as much as they lead to increased greenhouse gas emissions, involve huge diversions of forest land and/or adversely impact wildlife through the fragmentation of wildlife habitats and corridors.

Further dilution of EIA process in contravention to INDCs and obligations under Paris Agreement

43. That in complete contravention to the binding obligations under the Paris Agreement as well as the targets set by India in its INDC, the Respondent No. 1 through notification dated 9.12.2016 has removed the construction sector up to 1, 50, 000 sq. meters in size from the purview of EIA Notification completely. That it is well documented that construction sector is a huge contributor to air pollution as well as climate change. In fact the same has been categorically accepted in the Model Building By Laws which were notified by the Ministry of Urban Development in March 2016 in the following words:-

> "*The building construction sector is a major contributor towards carbon footprints which affects climate change. India is committed towards mitigating the effects of climate change and moving towards internationally accepted norms for environmental friendly building construction....*"

A copy of the notification dated 9.12.2016 is annexed herewith as **ANNEXURE A-13**

Climate Change and Impact on Biological Diversity

44. That India is a unique country in its physiographic, landscape, climatic

regime and biodiversity. The country has diverse climatic conditions because of the sharp variations in temperature and precipitation patterns from place to place and season to season. The climatic variation in the country provides a wide range of biological resources in their natural habitat. There is a long list of flora and fauna in the account of the subcontinent due to the favorable climatic conditions.

45. That due to global warming and other climate induced changes, various studies have found that there will be a huge impact on the biological diversity in India. That as per report titled "*Climate Change and India: Impacts, Policy Responses and a Framework for EU-India Cooperation"*, the projected impact on biological diversity due to climate change is as follows:

> *"Biodiversity is likely to be impacted under the projected climate scenarios due to the changes or shifts in forest or vegetation types in 57% to 60% of forested grids, forest dieback during the transient phase, and different species responding differently to climate change without change in forest type."*

Copy of the relevant pages of the report titled "Climate Change and India: Impacts, Policy Responses and a Framework for EU-India Cooperation" is annexed herewith as **ANNEXURE A-14**

46. That further as per report titled "Forests and climate change in India", the following has been projected:-

> *"It is expected that there would be large scale shifting of forest biomes throughout India. The highest impact is expected on the teak and sal forests of central and eastern regions and the temperate Himalayas. 85% of the forest grids of the country would change their type"*

Copy of the report titled "Forests and climate change in India" is annexed herewith as **ANNEXURE A-15**

Impact assessment under the Biological Diversity Act, 2002

47. That as per provision of Section 36, the Central Government has to develop National Strategies, plans etc. for the conservation of biological diversity. Further, as per Sub Section (4) of Section 36 it is mandatory that:-

The Central Government shall undertake measures,-

(i) wherever necessary, for assessment of environmental impact of that project which is likely to have adverse effect on biological diversity, with a view to avoid or minimize such effects and where appropriate provide for public participation in such assessment;

(ii) to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology likely to have adverse impact on the conservation and sustainable use of biological diversity and human health.

48. That even though such provisions are existing under the legal framework, no such impact assessment is ever conducted with respect to impact on biodiversity.

GROUNDS

That the instant Application is being filed on the following grounds amongst other which the Applicant may take up at the time of hearing:-

A. Because the instant Application is being filed under Section 14 of the National Green Tribunal Act, 2010 raising substantial questions relating to

the environment where the community at large is affected and is likely to be affected by the adverse environmental consequences.

Section 2 (m) of the Act states as follows:-

"(m) ***"substantial question relating to environment"*** *shall include an instance where,-*

(i) there is a direct violation of a specific statutory environmental obligation by a person by which,-

(A) the community at large other than an individual or group of individuals is affected or likely to be affected by the environmental consequences; or

(B) the gravity of damage to the environment or property is substantial; or

(C) the damage to public health is broadly measurable;

(ii) the environmental consequences relate to a specific activity or a point source of pollution;"

It is submitted that the issue herein raised, is that of non effective measures taken by the Respondent No. 1 to mitigate adverse impacts of climate change in India and the actions taken by Respondent that have helped create and intensify the climate crisis, as well as the various binding obligations under the Paris Agreement, 2015 which entered into force on 4.11.2016. Such adverse climate change impacts will affect the community at large. It is further submitted that such impacts can be averted, minimised and mitigated if effective, science-based measures are taken under the existing environmental legal framework in India including the enactments enlisted in the Schedule I of the National Green Tribunal Act, 2010.

B. Because the definition of the word 'environment' as defined under Section 2 (a) of the Environment (Protection) Act, 1986, states as follows:-

> ""*environment*" *includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property*;"

It is submitted that the term 'environment' as defined above inherently includes climate within its scope. Therefore, the issue of Climate change and its adverse impacts on the environment would squarely come within the jurisdiction of this Hon'ble Tribunal.

C. Because the Applicant as well as the entire class of children and future generations have the right to a healthy environment under the principle of intergenerational equity. It is submitted that the Applicant is part of a class that amongst all Indians, is most vulnerable to changes in climate in India and yet are not part of the decision making process. Further it is to be noted that current and future generations of children will disproportionately experience the harms of climate change, due to the progressive nature of climate change impacts and the unique life phase of childhood. Furthermore, given the nature of the climate threat, children and their caregivers have no meaningful way of protecting themselves from the dangerous situation in which States have placed them. Therefore, only States, i.e. Respondent No.1 in the instant case, by initiating an emissions reduction trajectory and soil and forest restoration effort that will satisfy the clear scientific prescription of reducing global atmospheric CO_2 levels to below 350 ppm by 2100 can reverse the danger.

D. Because the harms of climate change start at the emissions level and impact all aspects of a child's life. Children are more vulnerable than adults to pollution from the burning of fossil fuels that causes global climate change, since exposure to climate pollution results in, among

other things, increased infant mortality, asthma, developmental disorders and impaired lung function. The harm from climate pollution is compounded by climate change impacts. Children are particularly susceptible to injury and death as a result of extreme heat, drought, floods and other disasters caused by climate change. They are also at an increased risk from food and water shortages caused by crop failure, ocean acidification, water and soil salinization, and species extinction. Further as per estimates of the World Health Organization, children suffer more than 80 percent of the illness and mortality attributable to climate change. The UNICEF expands on this point and highlights that

> *"because of climate change, children in developing countries already face a greater risk of climate-linked diseases like malaria and cholera, increased risk of food and water shortages, and disruption to their education. It is estimated that more than 88 percent of the existing global burden of disease due to climate change occurs in children under the age of five."*

Copy of the relevant pages of the 2013 UNICEF study titled "*Climate Change: Children's Challenge*" is annexed herewith as **ANNEXURE A-16**

E. Because children will suffer profoundly from social, emotional, and cognitive impacts of climate change. Displacement from rising sea levels, extreme weather events, and conflict related to food and water insecurity disrupts and destroys family and community structures, as well as access to education, health care, and adequate nutrition. The loss of family and home and the sense of imminent danger and disruption suffered by children in the face of climate change also threaten cognitive and emotional development. Therefore, it is incumbent upon Respondent No.1 to take appropriate, effective and science based measures to ensure that the Applicant and the class that she represents do not disproportionately

suffer the dangers and catastrophic impacts of climate destabilisation, rising temperature and sea levels.

F. Because the issue of climate change is no longer of the nature of an academic debate. Its adverse impacts are already being experienced across the world. It is submitted that India, in particular, is highly vulnerable to the adverse impacts of climate change. Following are the impacts seen across India, which can only be attributed to climate change:-

i. **Destruction of Mangroves**: That it is submitted that mangroves store high amounts of carbon, which means that when mangroves are destroyed they emit a disproportionately high amount of CO_2 compared to other trees. Indeed, mangrove losses may contribute to 10% of the world's total carbon emissions from deforestation, even though mangroves make up far less than 10% of total forest cover. In addition to being valuable carbon stores, they further serve ecosystems by protecting vulnerable coasts, fisheries, timber, and biodiversity. As per as per research article titled "*Mangrove Area Assessment in India: Implications of Loss of Mangroves*" published in 2015 in the journal 'Earth Science & Climate Change', India lost 40% of its mangrove area during the last century and such a loss would exacerbate the climate change impacts in coastal regions since reduced mangrove area and health will increase the threat to human safety and shoreline development from coastal hazards such as erosion, flooding, storm waves, cyclones and tsunami. A copy of the article titled "*Mangrove Area Assessment in India: Implications of Loss of Mangroves*" is annexed herewith as **ANNEXURE A-17**

ii. **Rise in Sea Levels:** That one of the largest and most visible impact of the climate change is rise in the global sea level. According to the Intergovernmental Panel on Climate Change, average sea levels have

been rising at an average rate of 3.2 millimetres ("mm") per year based on measurements from 1993 to 2010. Rising seas, brought about by the melting of polar icecaps and glaciers (as well as by thermal expansion of the warming oceans) have caused and will cause flooding in coastal and low-lying areas. In this regard, it is pertinent to note that over 40 million Indians live near the coastline. Further, most of these communities rely on climate-dependent activities such as marine fisheries and agriculture for their livelihood. That as per the report titled "*Climate Change and India: A 4x4 Assessment, A Sectoral And Regional Analysis For 2030s*" published in 2010, by the Indian Network for Climate Change Assessment (INCCA), India's coasts experience an average mean sea level rise of 1.3 mm/year. This is only subject to increase, given that the sea level rise is directly related to the increase in global temperatures. A copy of the relevant pages of the INCCA Report of November 2010 is annexed herewith as **ANNEXURE A-18**

iii. **Impacts on Sunderbans and Other Mangroves:** That certain regions in east India, such as the Sunderbans, are especially vulnerable to sea level rise. As a collection of over 100 small islands in the Bay of Bengal, the Sunderbans are highly susceptible to the dangers of rising seas. For example, the relative mean sea level rise of the Sagar Island Delta in the Sunderbans was 12mm/year from 2002–2009. It is submitted that as per WWF-India report titled "Indian Sunderbans Delta: A Vision" published in 2011, this increase is significantly faster than the 3.14 mm/year during the previous decade. It is pertinent to note that Sunderbans ecosystem is high in biodiversity and is also home to some of the last Royal Bengal Tigers which is also India's national animal. The relevant pages of the report titled "Indian Sunderbans Delta: A Vision"is annexed herewith as **ANNEXURE A-19**.

iv. **Climate induced Refugees:** That India already has climate refugees. As reported in a news article titled "Hungry Tide, Homeless People", published in December 2009 in the Times of India, since the 1970s the area of Ghoramara Island in the Sunderbans area has shrunk from 9 sq km to less than 3.7 sq km, while two smaller islands nearby have already sunk beneath the sea. Further, an article published in The Guardian in February 2013 titled "Eyewitness: Ghoramara Island, India" reports that two-thirds of the island's population has been forced to leave. This is just one example. The rapid disappearance of other islands in India and Bangladesh has created tens of thousands of climate refugees in the Bay of Bengal. As per the WWF India report annexed at ANNEXURE A-19, the economic cost of this initial wave of climate refugees is estimated to include property damage of 1,035 million Rupees. This economic damage will worsen if the number of refugees continues to grow. Indeed, 1.35 million people in India are currently at high risk from sea level rise, storm surges, and coastal flooding. A further 2.4 million people are exposed to moderate risk. Copies of the news articles published in Times of India and The Guardian are filed and annexed as **ANNEXURE A- 20 (COLLY)**.

v. **Extreme rainfall events:** That India has seen an increase in "extreme rainfall events" over the last five decades due to global warming. Extreme events are associated with the increasing sea surface temperatures of the Indian Ocean. It is submitted that according to the research article titled "*Analysis of variability and trends of extreme rainfall events over India using 104 years of gridded daily rainfall data*" published in 2008, the relationship between higher temperatures and extreme rainfall events suggests an increased risk of major flooding in India. It is submitted that both precipitation and flooding are expected to increase in frequency and

magnitude as global warming increases. Copy of the article titled "*Analysis of variability and trends of extreme rainfall events over India using 104 years of gridded daily rainfall data*" is annexed herewith as **ANNEXURE A-21**

vi. **Melting of Glaciers and Snow Packs:**

a. That glacial and ice cap melting is one of the major causes of global sea level change. That as admitted by the INCCA report, glacier-fed Himalayan rivers are immensely important to India's people and environment. Water from Himalayan glacier melt sustains stream-flow in these rivers through the dry season. This water from the Himalayas is crucial for the mountain people as well as Indians living downstream.

a. That the Indus basin has 7,997 glaciers with a total glacier cover of 33,679km^2 and total ice volume of 363.10km^3. The Ganga basin has 968 glaciers with a total glacier cover of 2,857km^2 and total ice volume of 209.37km^3. The contribution of snow to the runoff of major rivers in the eastern Himalayas is about 10%, but is more than 60% in the western Himalayas.

b. It is estimated that Himalayan mountains cover a surface area of permanent snow and ice of about 97,020km^2, with a volume of 12,930km^3. Estimates show that 10–20% of the total surface area of these mountains is covered with glaciers, while an additional area ranging from 30–40% has seasonal snow cover.

c. That according to the INCCA report, most of the glaciers in the western Himalayas are receding as a result of rising temperature and reduced snowfall. Climate change is also causing a general reduction in the quantity of available runoff from Indian river basins. This

reduction in surface runoff can lead to severe drought conditions.

ii. **Change in Precipitation Patterns:**

a. That as per the findings of the Environment Protection Agency (EPA), USA, in report titled "Technical Support Document on Endangerment Findings", precipitation patterns have changed due to increases in atmospheric moisture levels and changes in atmospheric air circulation patterns. As the Earth warms, moisture levels are expected to increase when temperature increases because warmer air generally holds more moisture. In more arid regions, however, higher temperatures lead to greater evaporation.

b. That, the abovementioned report concludes, on the basis of laws of physics and the past climate record, that precipitation events will increase globally. This is particularly true in tropical and high latitude regions. It is submitted that India has both.

c. Further, the Report finds that precipitation is likely to decrease in subtropical and mid-latitude regions, with longer periods between normal heavy rainfalls. Other changes consistent with climate modeling resulting from global warming have been observed not just in the amount, intensity, and frequency of precipitation, but also in the type of precipitation.

d. It has been found that in higher altitude and latitude regions—including mountainous areas—more precipitation is falling as rain rather than snow. It is submitted that due to early snow melt as a consequence of climate change, the reduction in snowpack can aggravate water supply problems in the country, especially in the Great Indian Plains.

iii. **Reduction in Freshwater Supply:** That according to the INCCA,

although India has 16% of the world's population, it only has 4% of the world's fresh water. As per the research article titled "Climate Change and India" published in 2009, only 60% of India's available supply is surface water; and water usage in the majority of India's river basins is already between 50–95% of available supply. India's current water supply is approximately 740 billion cubic metres ("m^3"), and the country's population is expected to continue growing until around the year 2050. If water availability remains at current levels, per capita water availability will be approximately 700 m^3 per year. By 2030 demand for water in India will grow to almost 1.5 trillion m^3. In fact, as per the news article titled "Rains or Not, India is Falling Short on Drinking Water" published in December 2013 in the New York Times, India will require double its current water-generation capacity. A copy of the said news article is annexed herewith and marked as **ANNEXURE A-22**. Moreover, the executive summary of the report titled "Charting Our Water Future: Economic Frameworks to Inform Decision-Making" by the 2030 Water Resources Group published in 2010, predicts that most of India's river basins could face severe water deficits by 2030. It is submitted that climate change dramatically worsens the already-existing crisis of water scarcity in India. The relevant pages of the report titled "Charting Our Water Future: Economic Frameworks to Inform Decision-Making" has been annexed and marked as **ANNEXURE-23**.

iv. Impacts on Agriculture:

a. That agriculture is another area which is extremely susceptible to climate change because higher temperatures reduce yields of desirable crops while promoting pest and weed proliferation. That the report titled "Food Policy Report: Climate Change- Impacts on Agriculture and Costs of Adaptation" by the International Food Policy

Research Institute, published in October 2009, finds that global climate change is predicted to decrease crop yields, increase crop prices, decrease worldwide calorie availability, and increase child malnutrition 20% by 2050. Therefore it is submitted that climate change threatens global food security and thus any effort to mitigate global warming is to effectively promote secure food supply. The relevant pages of the Report titled, "Food Policy Report: Climate Change- Impacts on Agriculture and Costs of Adaptation" is filed and annexed herewith as **ANNEXURE A-24.**

b. That it is submitted that monsoons are an integral component of India's agricultural cycle. About 80% of India's rainfall occurs during the summer monsoon, providing water for rain-fed crops as well as replenishing groundwater for irrigated crops.

c. That according to the report titled "The Impact of Climate Change on Indian Agriculture" by Raymond Guiteras published in 2009, climate change is estimated to have "significant negative impacts" on India's agricultural yields. Over the next few decades (2010–2039) climate change is predicted to reduce yields by 4.5–9%. By the end of the century India's agricultural yields are predicted to fall by at least 25%. Such negative yields are likely have a dire economic impact and "could significantly slow the pace of poverty reduction in India." About 55–60% of Indian workers are engaged in agriculture; and around 70% of Indians live in rural communities. Therefore it is submitted that low agricultural yields directly impact the majority of Indian citizens and indirectly impact all of India.

v. **Extreme Weather Events:** That according to the US EPA, changes in the Earth's water cycle increase the potential for and severity of storms, flooding and droughts. Storm-prone areas are already experiencing a

greater chance of severe storms. Even in arid regions, increased precipitation is likely to cause flash flooding, and will be followed by drought. That increased droughts due to climate change will have a negative impact on India's environment and people. On one hand, climate change will increase drought; on the other hand, climate change will cause more moisture and rain to collect in the atmosphere. Globally, this additional rain tends to fall in the far northern or southern countries, which means less rain fall in countries such as India.

vi. **Impact on economy:** That climate change is already having a negative effect on India's gross domestic product ("GDP"). In recent years, the global damage caused by of climate change and its effect on drought has been nearly $4 billion annually. That according to the Executive Summary of report titled "Climate Vulnerability Monitor: A Guide to the Cold Calculus of a Hot Planet" by Matthew McKinnon, ed. published in 2012 (hereinafter referred to as "DARA Report"), this damage is predicted to increase as a share of GDP; and by 2030 average annual losses would reach close to $20 billion per year.

vii. **Ocean Acidification, Coral Reefs, Species Extinction:**

a. That increased CO_2 emissions are having a severe negative impact on the health of our oceans. The oceans absorb approximately 25-30% of global CO_2 emissions, resulting in a 30% increase in surface ocean acidity. Ocean acidification has been rising at a geologically unprecedented rate. Currently, acidity is rising at least 100 times faster than at any other period during the last 100,000 years, threatening marine life, including human food sources. The loss of species threatened by ocean acidification can cause entire food webs to collapse. That as per the Report titled "Coral Reefs of India: Review of their Extent, Condition, Research and

Management Status", India has major coral reef formations in the Gulf of Kutch, Palk Bay, Andaman and Nicobar Islands, the Lakshadweep Islands, and the Gulf of Mannar. Further patches of reef can also be found in the inter-tidal areas of the central west coast of the country in Ratnagiri, Malvan and Redi, Gaveshani Bank, south of Mumbai, and west of Mangalore. Hermatypic corals along the shore are reported in Quilon in Kerala and Enayem in Tamil Nadu. Corals are also found between Parangipettai (Porto Novo), south of Cuddalore, and in Pondicherry.

b. That it is submitted that climate change and ocean acidification are threatening the survival and wellbeing of plants, fish, wildlife, and biodiversity. As many as one in six species are threatened with extinction due to climate change. Many more species that do not face extinction will face changes in abundance, distributions, and species interactions that cause adverse impacts for ecosystems and humans.

viii. **Impacts on Human Health:**

a. That climate change causes human deaths and is estimated to cause more deaths in the future. As per the DARA Report, climate change is already estimated to contribute to around 400,000 deaths every year, mostly due to hunger and communicable diseases in developing countries. In addition to these deaths, the world's carbon-intensive energy system causes an estimated 4.5 million deaths each year due to air pollution, hazardous occupations, and diseases such as cancer. The IPCC predicts that climate change will exacerbate existing health problems, as well as increasing poor health in developing countries such as India.

b. That it is submitted that climate change harms human health.

Burning fossil fuels already causes increased asthma, cancer, cardiovascular disease, stroke, heat-related morbidity and mortality, food-borne diseases, and neurological diseases and disorders. The World Health Organisation ("WHO") concluded in its report titled "Climate and Health Fact Sheet" in July 2005 that "the health effects of a rapidly changing climate are likely to be overwhelmingly negative." Moreover, another WHO Report titled "Protecting Health from Climate Change: Connecting Science, Policy, and People" in 2009, climate change will not only affect the basic requirements for health (such as clean air and water, sufficient food, and adequate shelter), but will likely present new challenges for controlling infectious disease. Climate change has the potential to "halt or reverse the progress that the global public health community is now making against many of these diseases." The aforementioned reports of WHO has been filed and annexed as **ANNEXURE A-25** (**COLLY**).

G. Because even though the Respondent No. 1 has introduced several programmes and policy regarding climate change, the status of their implementation remains abysmal. These steps are merely cosmetic and are neither science based nor effective in preventing or mitigating the inevitable adverse impacts of climate change as discussed at paragraph F above. It is pertinent to note that even though the Prime Minister's Council on Climate Change was constituted in the year 2007 and subsequently reconstituted in January 2015, no meetings have been held since 19.01.2015 showing the laxity toward the issue by the Respondents. Copy of the minutes of the meeting dated 19.01.2015 is annexed herewith as **ANNEXURE A-26**

H. Because the policies have not been reflected in the existing legal framework of the environmental legislations. Further, these issues are not

discussed while projects are appraised for the purpose of grant of forest and environmental clearances under the provisions of the Forest (Conservation) Act, 1980 and the EIA Notification, 2006 respectively.

I. Because on an analysis of the minutes of the meetings of the Expert Appraisal Committee constituted under the EIA Notification to appraise and recommend projects for the purpose of granting environmental clearance, it was found that even after ratifying the Paris Agreement, no discussions were undertaken with respect to climate change issues. The following issues of concern can be culled out from the analysis:**-**

   i. **Sustainable Agriculture:** As part of the adaptation strategy, the country has undertaken to address the vulnerability that results from the climate extreme events. One such adaptation policies of the country is focused at sustainable agriculture, as agriculture is the source of livelihood for nearly two thirds of the population of India. The various measures adopted under this practice include production expansion, organic farming, technology innovation and so on to ensure National Food Security Mission. Therefore, the conversion of agricultural land for increased industrial practice in no way supports India's INDC commitment.

   ii. **CSR Commitment:** As part of the mitigation strategies under INDC commitment, citizens and private sector's participation has been expected in combating climate change. Corporate Social Responsibility is one such plan, wherein it is expected that a fare share of about INR 220 billion will be invested annually in environmental initiatives. However, the committee had hardly pushed for any specific environmental initiative beyond existing-cum-expansion project, which includes village-wise, sector-wise

(Health, Education, Sanitation, Health, Skill Development and infrastructure requirements such as strengthening of village roads, avenue plantation, etc) activities, while granting environmental clearance and/or Terms of Reference (TOR) for further conducting EIA study.

iii. **Voluntary Disclosure Scheme of Industry on Carbon Management Plan Vs Carbon Budgeting:** As part of the INDC commitment, voluntary carbon disclosure programme has been encouraged wherein Indian industries have been encouraged to report their carbon management strategy and GHG emissions. Another programme, namely India GHG programme is also a voluntary programme whereby corporate are encouraged to measure their carbon footprints.

Upon appraisal of the project approval process, it was found that nothing of this kind was given due consideration by the expert committee; rather in case of some of the projects they asked for the carbon budgeting from the existing and expansion project.

iv. **Sustainable Water Consumption and Utilisation:** An in depth analysis of the environmental appraisal procedure of industrial projects raised serious doubts on the INDC commitment of National Water Mission. As part of this mission, efficient utilisation of water, minimization of wastage and equitable distribution of water are the mandates. However, the various projects considered during pre and post Paris commitment had hardly focused on any of these mandates. It is pertinent to note that most of the projects from across the country have just talked about the necessary permission taken

from the respective authority/department; none of them were concerned about the over exploitation of water resources. For example - 1582m^3 of water to be sourced from Kharoon river- approved by Water Department of Government of Chattisgarh; 2200m^3/day of water will be withdrawn from Swarnarekha river for an expansion of an integrated steel plant project at Saraikela Kharsawan district, Jharkhand; fresh water requirement of 15,098 m^3/day for the existing and expansion project integrated steel plant at Bhandara dist, Maharastra will be obtained from Wainganga river and rain water harvesting; expansion of iron ore beneficiation plant at Kendujhar, Odisha will demand 28800 KLD of water, which will be sourced from Baitarani River.

v. **Clean and efficient Energy System:** India has already committed to move towards renewable with pre-dominance over solar and wind power and shifting towards super critical technologies for coal based power plants. Therefore, it is not clear as to why 8 out of 10 projects were recommended by the EAC- Coal, post Paris Agreement ratification by India. As per the findings of the Power Ministry assessment which have also been reiterated in the Draft National Electricity Plan 2016 as released by the Central Electricity Authority (CEA), existing thermal (specifically, coal) power plants with the capacity to generate 300 GW were operating at just 64% below the peak utilisation rate of 79% that was experienced in 2007-08. In addition to the currently underutilised plants and given the upcoming 175 GW of renewable energy and 50 GW that is under various stages of construction and that demand for electricity is not likely to rise substantially in the next three years, India is expected to be

power sufficient without any addition. Therefore, given that current capacity is sufficient to meet the requirements, no further coal capacity addition is required.

vi. ***Planned Afforestation:*** Under the compensatory afforestation commitment, made in INDC, India has committed to focus on sustainable forest management, afforestation and regulating diversion of forest land for non-forest purposes. An analysis of this commitment, its practical application and the EAC appraisal proceeding revealed that the government has blissfully ignored the need for sustainable forest management; rather they allowed industries and mining giants to go for conversion of forest land for non-forest purposes by taking a lumpsum money in the name of compensatory afforestation programme. For example - 160 Ha of forest land will be used for expansion of Jharkhand OCP at Ramgarh, Jharkhand for which Stage I FC has been granted and proponent submitted afforestation plan; Basundhara coal washery project of Sundargarh, Odisha involve 29 Ha of forest land for which stage I forest clearance obtained; Forest land conversion of 82Ha will happen for Jagannath re-organisation OCP at Angul, Odisha, for which forest clearance have been received.

vii. On the contrary, a look into the status of implementation of CAMPA revealed number of difficulties in implementing the compensatory afforestation programme, availability of non forest land being one such them. Also there are numerous reports and studies which showcased that, even though a fund has been deposited for the purpose of compensatory afforestation, the money remain unutilized in most of the states.

viii. To add to it, the very purpose of the money collected under this head has also got diluted by the recently passed Compensatory Afforestation Fund (CAF) Bill 2015, which had listed a number of other activities for which this money can be utilized for. Some of these even include Forest protection, forest management, forest and wildlife related infrastructure development, wildlife conservation, even facilitating the relocation of people from protected wildlife areas, are proposed to be made valid expenditure from this account. This will obviously take the focus away from the prime objective of compensating the forest cover that has been lost to industrial or infrastructure development.

J. Because the Respondent No. 1 is bound under the Constitution to take effective and science based measures to ensure that climate change impacts are mitigated and prevented. Article 48A of the Constitution of India, states that:

> *48A. Protection and improvement of environment and safeguarding of forests and wild life. The State shall endeavour to protect and improve the environment and to safeguard the forests and wild life of the country.*

It is submitted that since climate is an inherent part of the environment and climate change impacts can be mitigated only by protecting and safeguarding the environment and the forests of the country, the State has failed in its duty to do so by not taking effective, science based measures to tackle climate change impacts across the country.

K. Because the right to life under Article 21 would necessarily include right to a healthy environment. In the matter of **M.C.Mehta vs. Union of India & Ors. [(2004) 12 SCC 118],** the Hon'ble Apex Court has held that:

"…..*by 42nd Constitutional Amendment. Article 48A was inserted in the Constitution in Part IV stipulating that the State shall endeavour to protect and improve the environment and to safeguard the forest and wildlife of the country. Article 51A, inter alia, provides that it shall be the duty of every citizen of India to protect and improve the natural environment including forest, lakes, rivers and wildlife and to have compassion for living creatures. Article 47 which provides that it shall be the duty of the State to raise the level of nutrition and the standard of living and to improve public health is also relevant in this connection. The most vital necessities, namely, air, water and soil, having regard to right of life under Article 21 cannot be permitted to be misused and polluted so as to reduce the quality of life of others.*"

L. Because under the Public Trust Doctrine as well as the Intergenerational Equity Principle, the State has the duty to ensure that the environment and ecology is protected from adverse impacts of climate change. The doctrine of Public Trust was recognised as a foundation of environmental law by the Hon'ble Apex Court as early as 1997 when it was observed by the Hon'ble Court in the matter of **M. C Mehta v. Kamal Nath (1997) 1 SCC 388** that:

"*Thus, the public trust is more than an affirmation of state power to use public property for public purposes. It is an affirmation of the duty of the state to protect the people's common heritage of streams, lakes, marshlands and tidelands, surrendering that right of protection only in rare cases when the abandonment of that right is consistent with the purposes of the trust.....*"

This doctrine has been further interpreted and expanded in its scope by the Hon'ble Supreme Court in the matter of **Fomento Resorts & Hotels**

Ltd. V. Minguel Martins, (2009) 3 SCC 571, the Hon'ble Apex Court held that:-

> *"The heart of the Public Trust Doctrine is that it imposes limits and obligations upon government agencies and their administrators on behalf of all the people and especially future generations. For example, the renewable and non-renewable resources, associated uses, ecological values or objects in which the public has a special interest (i.e Public lands, waters etc.) are held subject to the duty of the state not to impair such resources, uses or values, even if private interests are involved. The same obligations apply to managers of forests, monuments, parks, the public domain and other public assets.*
>
> *The Public Trust Doctrine is a tool for exerting long-established public rights over short term public rights and private gain. Today, every person exercising his or her right to use the air, water, or land and associated natural ecosystems has the obligation to secure for the rest of us the right to live or otherwise use the same resource or property for the long-term and enjoyment by future generations. To say it another way, a landowner or a lessee and a water right holder has an obligation to use such resources in a manner as not to impair or diminish the people's rights and the people's long term interests in that property or resource, including down slope lands, waters and resources.*"

Further in the matter of **Natural Resource Allocation In re, Special Reference No. 1 of 2012**, (2012) 10 SCC 1, the Hon'ble Apex Court observed as follows:-

> *"Public Trust Doctrine does not prohibit alienation of natural resources held on public trust by state for commercial exploitation*

by private persons – Public Trust Doctrine provides for a high degree of judicial scrutiny of any action of state in allocating/ dispensing/ alienating natural resource held on Public Trust, no matter how consistent with existing legislations – Constitution of India, Arts. 14, 39(b), 298, 299 and Preamble."

In the matter of **Centre for Public Interest Litigation v. Union of India**, (2012) 3 SCC 1, it was held as follows:-

"Natural Resources belong to the people but the State legally owns them on behalf of its people and from that point of view natural resources are considered as national assets, more so because the State benefits immensely from their value. The State is empowered to distribute natural resources. However, as they constitute public property/ national asset, while distributing natural resources, the state is bound to act in consonance with the principles of equality and public trust and ensure that no action is taken that is detrimental to public interest. Like any other action, constitutionalism must be reflected at every stage of distribution of natural resources. No comprehensive legislation has been enacted to generally define natural resources and a framework for their protection through environment laws enacted by Parliament and State Legislatures deal with specific natural resources such as forest, air, water, coastal zones, etc. (Paras 74 and 75).

...

As natural resources are public goods, the doctrine of equality which emerges from the concepts of justice and fairness, must guide the State in determining the actual mechanism for distributing natural resources. In this regard, the doctrine of equality has aspects: first it regulates the rights and obligations of

the states vis a vis its people and demands that the people be granted equitable access to natural resources and/ or its products and that they are adequately compensated for for the transfer of the resource to the private domain; and second it regulates the rights and obligations of the State vis a vis private parties seeking to acquire/ use the the resource and demands that the procedure adopted for distribution is just, non-arbitrary and transparent and that it does not discriminate between similarly placed private parties. The State is the legal owner of the natural resources as a trustee of the people and although it is empowered to distribute the same, the process of distribution must be guided by constitutional principles including the doctrine of equality and the larger public good. (Paras 85 and 89)"

M. Because various Courts across the globe have recognized the constitutional and public trust rights of citizens and directed States to take appropriate steps to tackle climate change. The following case laws from various national jurisdictions are of relevance in this regard:-

i. In the matter of Juliana v. United States, the United States Federal District Court, vide order dated 10 November 2016, denied the U.S. government and fossil fuel defendants' motions to dismiss the case, allowing the youth plaintiffs' constitutional and public trust claims to proceed to the merits. In identifying the fundamental right at issue in the case and in need of protection, the Court held:-

"Exercising my 'reasoned judgment,' I have no doubt that the right to a climate system capable of sustaining human life is fundamental to a free and ordered society. . . . a stable climate system is quite literally the foundation 'of

society, without which there would be neither civilization nor progress.' . . . (without 'a balanced and healthful ecology,' future generations 'stand to inherit nothing but parched earth incapable of sustaining life.')."

The Court described the public trust obligations of government as "inherent attributes of sovereignty" and stated:

"the sovereign's public trust obligations prevent it from 'depriving a future legislature of the natural resources necessary to provide for the well-being and survival of its citizens.'"

The Court also emphasised the intergenerational equity aspects of the Public Trust Doctrine and quoted from the Philippines Supreme Court decision in Minors Oposa v. Sec'y of the Dep't of Envt'l & Natural Res., G.R. No. 101083, 33 I.L.M. 173, 187 (S.C., Jul. 30, 1993) (Phil.):

"the right of future generations to a 'balanced and healthful ecology' is so basic that it 'need not even be written in the Constitution for [it is] assumed to exist from the inception of humankind.'"

A copy of the order of the U.S. District Court is annexed herewith as **ANNEXURE A-27**

ii. The Green Bench of the Lahore High Court, Pakistan in the matter of Ashgar Leghari v. Federation of Pakistan (W.P. No. 25501/2015) observed as following vide order dated 4.09.2015:-

"*Climate Change is a defining challenge of our time and has led to dramatic alterations in our planet's climate system. For Pakistan, these climatic variations have primarily resulted in heavy floods and droughts, raising serious concerns*

regarding water and food security. On a legal and constitutional plane this is clarion call for the protection of fundamental rights of the citizens of Pakistan, in particular, the vulnerable and weak segments of the society who are unable to approach this Court."

It is pertinent to note that the Hon'ble Court in the matter had observed that even though a National Climate Change Policy was in effect in Pakistan, no effective steps were being taken on the ground to tackle the adverse impacts of climate change in the country. It is submitted that this is exactly the situation faced in India as well. The Respondent No. 1 has on paper formulated policies after policies, however, no effective, science based measures have been taken in pursuance of such policies. The Hon'ble Lahore High Court, vide final order dated 14.09.2015, formally constituted a Climate Change Commission in the Province of Punjab for the effective implementation of the National Climate Change Policy of 2012. A copy of the orders dated 4.09.2015 and 14.9.2015 passed by the Hon'ble High Court of Lahore, Pakistan is annexed herewith as **ANNEXURE A-28 (COLLY)**

iii. In the matter of Urgenda Foundation v. The State of the Netherlands, C/09/456689/HA ZA 13-1396, the Hague District Court, vide judgment dated 24 June 2015, held that the Netherlands "must do more to avert the imminent danger caused by climate change in view of its duty of care to protect and improve the living environment." In addressing the fact that Dutch contribution to global climate emissions is only 0.5%, the Court said:

"[I]t has been established that any anthropogenic greenhouse gas emission, no matter how minor, contributes

to an increase in CO_2 levels in the atmosphere and therefore to hazardous climate change."

It is further submitted that the District Court analysed in detail various scientific studies presented to the Court as well as the existing legal framework on climate change law coming to the conclusion:

"*Due to the severity of the consequences of climate change and the great risk of hazardous climate change occurring – without mitigating measures – the court concludes that the State has a duty of care to take mitigation measures. The circumstance that the Dutch contribution to the present global greenhouse gas emissions is currently small does not affect this*."

In addition, the Court found a sufficient causal link "can be assumed to exist" between Dutch emissions, global climate change, and the effects. The Court ordered the Dutch government to reduce CO_2 emissions by a minimum of 25% (compared to 1990) by 2020 to fulfill its duty of care to protect and improve the living environment against the imminent danger caused by climate change.

A copy of the English translation of the judgment of the Hague District Court is annexed herewith as **ANNEXURE A-29**

LIMITATION

That the present Application is being filed within the period of limitation as given under Section 14 of the National Green Tribunal Act, 2010. It is submitted that the Applicant has analysed the minutes of the meetings of the Expert Appraisal Committee and the Forest Advisory Committee since October 2016 to look into whether there are specific discussion on issues relating to climate change. Even

though the Paris Agreement entered into force on 4.11.2016, the Applicant has found that the said committees have not discussed or issued specific directions with respect to the issue of Climate Change. Further, these Committees have not taken into account the various commitments made under the Paris Agreement and the INDC submitted by India. Therefore, there is a continuous cause of action in the present case.

PRAYER

In light of the facts and circumstances stated above, it is most respectfully prayed that this Hon'ble Tribunal may be pleased to pass the following orders: -

i. Direct the Respondent No. 1 to issue directions under the provisions of the Environment Protection Act, 1986 to all appraisal bodies including the Expert Appraisal Committee ("EAC"), State Expert Appraisal Committee ("SEAC"), State Environmental Impact Assessment Authority ("SEIAA"), District Expert Appraisal Committee ("DEAC") and District Environment Impact Assessment Authority ("DEIAA") to assess the climate related issues while appraising projects for grant of Environmental Clearance.

ii. Direct Respondent No. 1 including the Forest Advisory Committee and the Regional Empowered Committee to undertake a realistic, holistic and detailed assessment of every single case of forest diversion, including the impact on climate and not just limiting to local factors.

iii. Direct Respondent No. 1 including the Forest Advisory Committee and the Regional Empowered Committee that while considering diversion of forest land for any State, to first ensure compliance of compensatory afforestation to be done for past clearances in light of the obligations and

targets under the Paris Agreement and the INDC submitted by India.

iv. Direct the Respondent No. 1 to prepare an accounting and inventory of each and every substantial source of GHG emissions in India.

v. Direct the Respondent No. 1 to prepare quantifiable targets or a "Carbon budget" for the total amount of CO_2 emissions that can be released until 2050 ensuring that India does its share as a responsible member of the global community to achieve global climate stabilisation and reduce atmospheric CO_2 to below 350 ppm by 2100, limiting the long-term average global temperature increase to no more than 1 °C

vi. Direct the Respondents that while assessing the projects for Environmental and Forest Clearance, it must be ensured that such projects are tiered to achieving the emission standards in India's carbon budget.

vii. Direct the Respondent No. 1 to create a time bound national climate recovery plan within the existing legal framework that includes interim CO_2 reduction targets and mitigation actions tiered to achieving India's carbon budget, with priority actions aimed at reducing GHG emissions by transitioning away from the development and use of fossil fuels; protecting forests, peatlands, grasslands, soil, mangroves, and other natural resources that store carbon; and engaging in massive reforestation and other methods of natural carbon sequestration such as improved agricultural and forestry practices.

viii. Constitute a Committee to monitor and present quarterly compliance

reports to this Hon'ble Tribunal of the directions passed in the instant application.

ix. Pass any other order as the Hon'ble Tribunal may deem fit and proper in facts and circumstances of the case.

APPLICANT

THROUGH

RITWICK DUTTA RAHUL CHOUDHARY MEERA GOPAL
ADVOCATES
COUNSELS FOR THE APPLICANT
N-71, LOWER GROUND FLOOR GREATER KAILASH-I
NEW DELHI-110048

VERIFICATION

I, Dinesh Pandey, S/o, Shri. NB Pandey aged about 40 years, R/o Village Haripur, Bachee Post, Halduchaur District, Nainital, Uttarakhand, do hereby verify that the contents of the Paras 1 to __ are true to my personal knowledge and that I have not suppressed any material fact.

APPLICANT

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

SITTING AT NEW DELHI

ORIGINAL APPLICATION NO. _____ OF 2017

IN THE MATTER OF:

RIDHIMA PANDEY ...APPLICANT

VERSUS

UNION OF INDIA & ANR. ...RESPONDENTS

AFFIDAVIT

I, Dinesh Pandey, S/o, Shri. NB Pandey aged about 40 years, R/o Village Haripur, Bachee Post, Halduchaur District, Nainital, Uttarakhand, do hereby solemnly affirm and declare as under:

1. That I am the father and legal guardian of the Applicant in the above titled Application and I am conversant with the facts and circumstances of the case and competent to swear this affidavit.
2. That the contents of the Original Application are true and correct and nothing material has been concealed therefrom.

DEPONENT

VERIFICATION

Verified on this ____ day of March 2017 that the contents of the present Application are true and correct to my knowledge and belief and nothing material is concealed therefrom.

DEPONENT