Environmental Justice Atlas (EJAtlas.org): India reaches the top while mapping the ecological conflicts and environmental injustices

The Environmental Justice Atlas or EJAtlas.org is a freely accessible on-line interactive information portal that helps academic scholars and public policymakers across the world in identifying exemplary cases of peoples' resistance against climate change and environment degradation. EJAtlas.org is conceived by the EJOLT project – an acronym for the 'Environmental Justice, Liabilities and Trade' project. EJOLT is a European Commission FP7 programme-funded global research project operated during 2011–2015 and concluded recently. It represents a global distribution map of the ecological conflicts, resistances and environmental injustices, which are mostly located in the Global South. The stated purpose of the project is: 'EJOLT is a global research project bringing science and society together to catalogue and analyse ecological distribution conflicts and confront environmental injustice'[1]. The Atlas records local or national-level conflicts on account of nuclear energy, thermal power plants, mining, land acquisition and infrastructure, among other parameters. India is top on the list having recorded the greatest concentration of such conflicts. The detailed accounts of environmental and ecological conflicts in South Asia were recorded, documented and submitted by a small research team from Jawaharlal Nehru University, New Delhi[2,3].

Figure 1 indicates the top 11 countries with respect to the number of cases reported to the EJAtlas database. The first three countries are respectively, India with 201 cases, Colombia with 101 cases and Nigeria with 71 cases. Other countries included in this list are United States of America, Brazil, Spain, Ecuador, Turkey, Argentina, Peru and Chile. Out of total 1604 cases reported (as on 24 October 2015), 764 (about 47.63%) belong to the top 11 countries, and the remaining cases are reported from 114 countries. However, the number of cases reflected in a country profile does not imply that this database is a comprehensive one. Due to non-representation, cases from many countries may not be reported at all or may be under-reported in this database. Figure 2 identifies places of environmental conflicts and

resistances in India, which are located across the country in almost every state and union territory. Table 1 shows the

first-level categorization of conflicts in India. Conflicts related to the 'water management' category appear highest
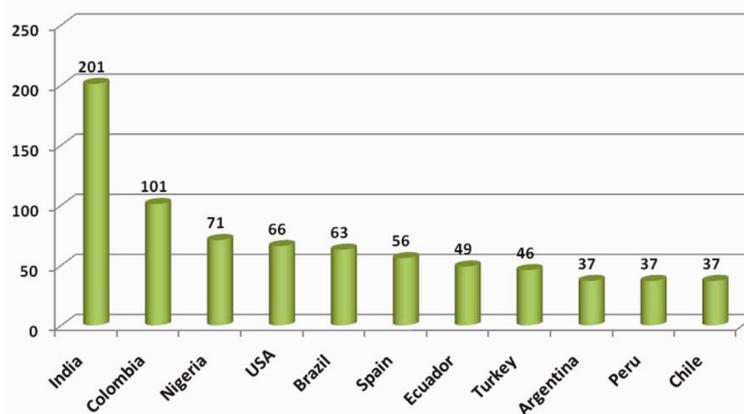

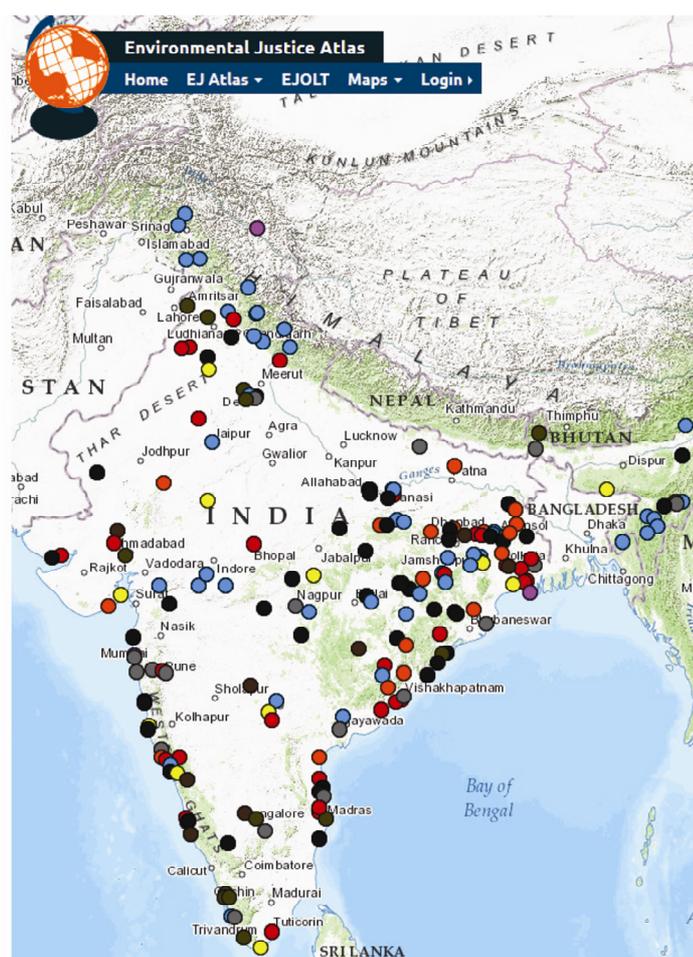**Figure 1.** Top 11 countries reporting environmental conflicts on EJAtlas.org portal.

Figure 2. Places of environmental conflicts in India.

Table 1. Category-wise sources of conflicts or injustices

Type of conflict/injustice	Number of cases	Example
Water management	59	Srinagar hydro electric project on Alaknanda River, Uttarakhand
Fossil fuels and climate justice	47	Kusum Tola, Jharkhand
Industrial and utilities conflicts	36	Bhopal gas tragedy, Madhya Pradesh
Mineral ores and building extractions	18	Niyamgiri-Vedanta bauxite mining, Odisha
Infrastructure and built environment	18	Dr Babasaheb Ambedkar International Airport MIHAN Project, Maharashtra
Waste management	16	Kodungiayur garbage dump site in Chennai, Tamil Nadu
Nuclear	11	Kudankulam nuclear power plant, Tamil Nadu
Biomass and land conflicts	8	Eucalyptus conflict, West Bengal
Tourism recreation	4	Sahara India eco-tourism project in Sundarbans, West Bengal
Biodiversity conservation conflicts	1	Shrimp farming at Chilika Lake, Odisha

with 59 cases, followed by the conflicts in the 'fossil fuels and climate justice' category with 47 cases and 'industrial and utilities conflicts' category with 36 cases. Other categories of conflicts include cases related to mineral ores and building extractions; infrastructure and built environment; waste management; nuclear; biomass and land conflicts; tourism recreation and biodiversity conservation conflicts. As indicated in Table 1, EJAtlas also includes the retrospective cases such as the one on the Bhopal gas tragedy.

Each of the cases includes a structured detail of information such as description, basic data, source of conflict, project details and actors, the conflict and the mobilization, impacts, outcome, sources and materials, meta information and comments. Many of these cases can be studied thoroughly, particularly by the doctoral and pre-doctoral students in Indian universities, to assess their impact on the environment, ecology and society. In September 2015, the United Nations General Assembly introduced a set of Sustainable Development Goals, achievable by the year 2030 replacing the Millennium Development Goals, which include several targets and indicators related to climate change, biodiversity, ecological and environmental security. EJAtlas will help us in benchmarking some of the global development agendas. EJAtlas also facilitates us in learning from the past mistakes for avoiding potential environmental or eco-logical conflicts in future public policy-making.

1. Global Development Professionals Network, Mapping the global battle to protect our planet. *The Guardian*, 3 March 2015; http://goo.gl/ylBFxL
2. Patra, S. K. and Krishna, V. V., *Indian J. Geo-Mar. Sci.*, 2014, **44**(4), 1–9.
3. Martínez Alier, J., Demaria, F. and Temper, L., *Indialogs: Spanish J. India Stud.*, 2014, **1**, 51–83.

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Sustaining the Himalayan ecosystem*

On the occasion of International Earth Day, a joint programme on the Himalayan ecosystem was organized which was attended by over 100 participants from different walks of the life. For 2015, the

Earth Day theme 'It's our turn to lead' calls for sustainable economic development by reducing poverty, fossil-fuel use and carbon emissions. The world is looking to agree for a binding climate change treaty in Paris at the end of the year and advocating for sustainability as the best answer to development. Deliberations are going on to address the issue of sustainability for different ecosystems and landscapes. In recent years the world mountain systems (including the Himalayan region) have gained significant attention for the goods and services they provide, that are considered most desirable to the survival of the global ecosystems. It is therefore strongly desired to have adequate and sound discussion on the developmental approach of such areas.

The Himalayan ecosystems represent a complex and interrelated ecology of planet earth. It is one of the longest, loftiest and dynamic mountain chains on earth, spreading over a length of 2500 km covering five countries (Pakistan, India, Nepal, Bhutan and Bangladesh), and is a huge reservoir of resources – flora, fauna, water and fresh air. The Indian Himalayan region (IHR) extends over an area of 594,427 sq. km (18.15% of India) covering ten states fully and two states partially. The region supports 6.36% of India's population (2011 census). It is also considered a regulator of Indian monsoon and is categorized as the