

Statements from Rovaniemi 2018 Observer Special Session: Observer States

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Statement by India
Senior Arctic Officials Meeting
2 November 2018, Rovaniemi

India became an Observer in the Arctic Council in 2013. Environmental developments in the Arctic region have an impact much beyond its geographical limits. Studies have shown a connection between the Arctic region and the intensity of monsoon in India which in turn has a direct impact on the agricultural sector and our economy. India believes that the wealth of knowledge available with the Arctic indigenous communities will be beneficial in developing strategies to study and mitigate the impacts of climate change on biodiversity.

India has a research station called Himadri in the Arctic and an atmospheric laboratory in Svalbard, Norway. We are presently working on three scientific projects related to biodiversity.

1. Bacterial community dynamics in the Arctic community – started in 2016 and ongoing. The study will lead to a better understanding of microbial processes controlling carbon cycling in permanently cold marine environment; and understand heavy metal resistance of bacteria from Arctic marine environment. The study will help understand modes, mechanisms and ways of metal mitigation in Polar Regions.
2. Long term monitoring of vertical migration of zooplankton / started in 2017 and ongoing. Zooplankton are a major component of marine ecosystems and have a significant impact of oceanic biogeochemical cycles of carbon and other elements. The project will provide an insight into the seasonal regulation of vertical migration of mesozooplankton and the major migrant community in the Arctic fjord of Kongsfjorden.
3. Survival of mesophilic health significant bacteria in Kongsfjorden - started in August 2016 and ongoing. The project revealed the entry of mesophilic health significant bacteria into the environment through two possible routes – Atlantic warm water influx from lower latitudes during summer; and migratory birds such as barnacle goose. Our research so far indicates considerable presence of diverse E.Coli serotypes in the tundra environment and mesophilic health significant bacteria in the water from Kongsfjorden. We presume that these organisms have developed capabilities to survive in the Arctic. Migratory birds like the Arctic terns and Barnacle goose which have a major presence in the Arctic act as potential carriers of such health significant mesophilic bacteria and when they co-exist with bacteria of the Arctic, it results in dissemination of antibiotic resistant genes into the pristine Arctic environment, which could pose a potential danger to living forms there.

India is actively pursuing multidisciplinary research in the Arctic and is committed to contribute to the holistic understanding of the Arctic environment. We look forward to

broadening our scientific initiatives in the Arctic with a pan-Arctic perspective. We are also committed to working with the priorities of the International Arctic Science Committee and with the Arctic Council.