

PRESS RELEASE NOTE

SACEP

Colombo, Sri Lanka

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The UK Government announced on January 22, 2019, its commitment to fund ‘**the South Asian Nitrogen Hub**’ a major international research programme and partnership to tackle the challenge that nitrogen pollution poses for the environment, food security, human health and the economy in South Asia.

The South Asia Co-operative Environment Programme (SACEP) has initiated the process to establish “**the South Asian Nitrogen Hub**”, in collaboration with the Centre for Ecology & Hydrology and many other organizations across the UK and South Asia. The Hub will be funded by UK Research and Innovation (UKRI) under its Global Challenges Research Fund (GCRF).

The Hub will be awarded £19.6 million over the next five years, comprising £17.1 million from UKRI and £2.5m from UK and international partners, including the SACEP. Contributions in-kind worth a further £7 million are being provided by partners of the UKRI GCRF South Asian Nitrogen Hub.

With Supports of UK GCRF, South Asian Nitrogen Hub will study the impacts of the different forms of pollution to form a coherent picture of the nitrogen cycle. In particular, it will look at nitrogen in agriculture in eight countries – Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. The Hub’s recommendations will support cleaner and more profitable farming, as well as industrial recycling of nitrogen, fostering development of a cleaner circular economy for nitrogen.

Director General of the SACEP, Dr Abas Basir, who is also the Hub Co-Director for Policy, says: “SACEP, as an international organization, has the responsibility to embrace Strategic Development Goals (SDGs). Considering the impacts of nitrogen on climate change, air and water, addressing nitrogen pollution through the hubs will help us to

mobilize major progress towards multiple SDGs globally, starting from the South Asia region, to meet the global needs.”

Professor Mark Sutton of the Centre for Ecology & Hydrology, an international nitrogen expert who will head the UKRI GCRF South Asian Nitrogen Hub, says: “As a global society, we struggle with the intractable problems of air pollution, climate change and declining water quality, biodiversity and health. However, better nitrogen management will provide solutions to all of them and offers a triple win – for the economy, health and environment. Joining up across the nitrogen cycle will catalyze change for a cleaner, healthier and more climate-resilient world.”

About nitrogen

- Nitrogen is a naturally occurring element that is a component of all proteins and essential for all life – humans, animals and plants. Unreactive nitrogen gas (N₂) makes up 78 per cent of the air we breathe
- Human activities contribute to various forms of nitrogen pollution such as ammonia, nitrate, nitrogen dioxide and nitrous oxide, which worsens air, water and soil quality and contributes to climate warming, with multiple threats for health of people, animals and plants.
- South Asia, home to a quarter of the world’s population, is critical to the global nitrogen cycle. By 2050, its population of 1.8 billion is expected to rise by 20 per cent, while its use of fertilizers could double.
- Around 12 million tonnes of nitrogen are used in fertilizers across South Asia to support food production, but the efficiency is low, with around 80% wasted which contributes to multiple forms of nitrogen pollution.
- About 10 billion USD worth of nitrogen is lost as pollution in South Asia. In India alone, the total societal cost of nitrogen pollution on human health, ecosystems and climate is estimated at about 75 billion USD annually.

- Atmospheric nitrogen pollution stimulates growth of certain plants at the expense of more sensitive species with a high conservation value. There is a significant risk to global biodiversity hotspots such as the Himalayan foothills, especially as the Indo-Gangetic Plain (IGP) has the highest ammonia (NH₃) concentrations in the world, arising mainly from livestock excreta and urea fertilizer used in agriculture.
- Government subsidies of the fertilizer industry in South Asia are around 10 billion US dollars a year (including 7 billion USD in India). In his Mann ki Baat address of 26 November 2017, India Prime Minister **Narendra Modi** asked the country's farmers to cut urea fertilizer consumption by half by 2022.