

Biogeosciences (BG) Section AOGS

REGIONAL SCIENTIFIC CO-OPERATION INITIATIVES IN GEOSCIENCES

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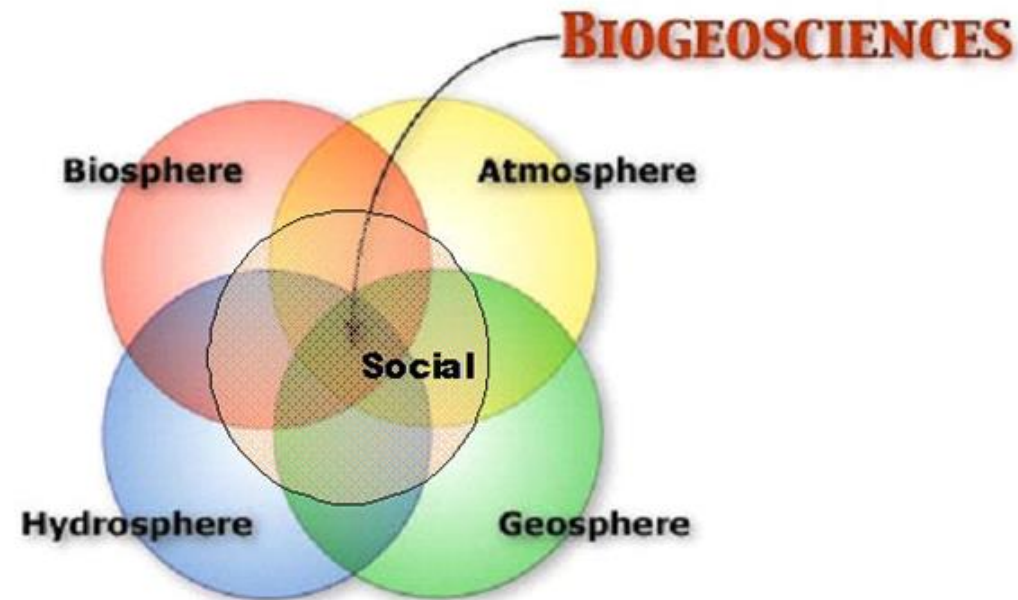


What is Biogeoscience?

Biogeoscience section encompasses interactions between biological, geological, hydrologic and atmospheric systems that govern diverse functions of the Earth system. Including global cycling of carbon, nutrients, and other trace elements elements, feedbacks within the climate system, the origins and impacts of early life, and interactions across physical, biological, and human interfaces.

Specific topics within the scope of the section include

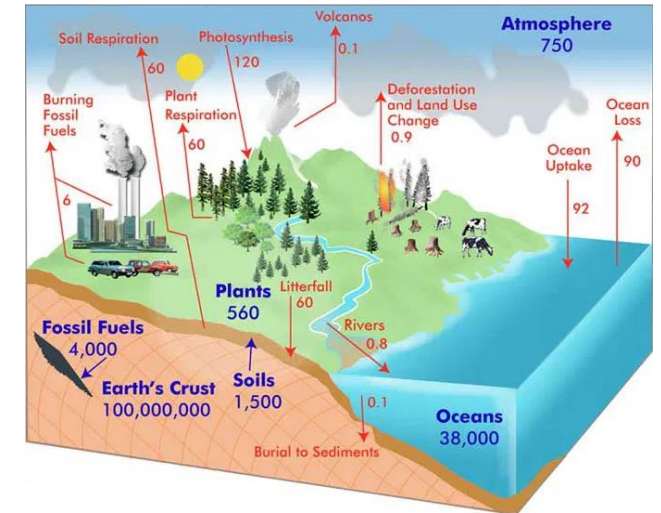
- ☐ biogeochemistry,
- ☐ biogeophysics,
- ☐ atmosphere-, land-, and ocean-ecosystem interactions,
- ☐ biomineralization,
- ☐ soil processes,
- ☐ life in extreme environments,
- ☐ astrobiology,
- ☐ microbial processes,
- ☐ geomicrobiology, and evolutionary geobiology.



Role of Biogeoscience in Society

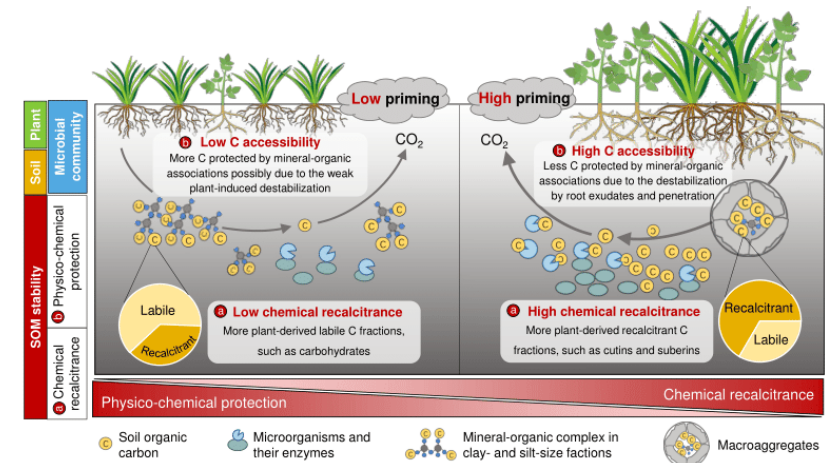
Global and Regional Scale

- ❑ Climate Change – feedbacks in a warmer world
- ❑ Global Nutrient Cycling



Local to Molecular Scale

- ❑ Microbe-mineral Interactions
- ❑ Circular BioEconomy - waste to high value products



Regional Scientific Co-operation Initiatives in BG @ Global and Regional Scale

When: 24 July to 5 Aug, 2018

Where: Kolkata, India

Participants from

South East Asia

East Asia

Europe



Organizer:

BG-President, Prof. Bhadury

International Capacity Building Workshop



An improved understanding of the land-ocean-atmosphere interactions will allow better management of terrestrial and coastal resources to maximise benefits on people's livelihood and environmental protection.

Scientists from India and SAARC countries discussed topics of terrestrial biosphere, oceanic processes and atmospheric trace gases and aerosols.

**International Workshop on Land-Ocean-Atmosphere
Interaction, Greenhouse Gases and Coastal Processes**

Regional Scientific Co-operation Initiatives in BG @ Global and Regional Scale

When: 26-29 January, 2020

Where: Kolkata, India

Participants from

South Asia

South East Asia

Bangladesh, India, Malaysia,
Myanmar, Philippines, Sri Lanka,
and Thailand

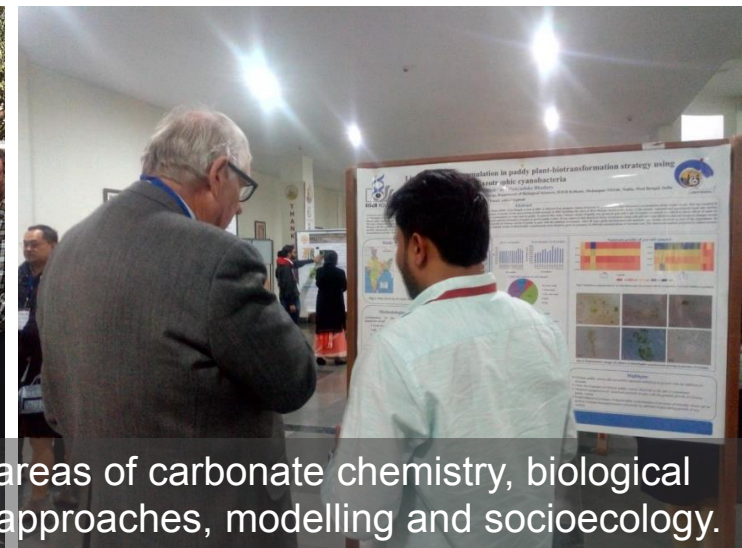
Organized by:

Centre for Climate and
Environmental Studies
IISER Kolkata

BG-President, Prof. Bhadury

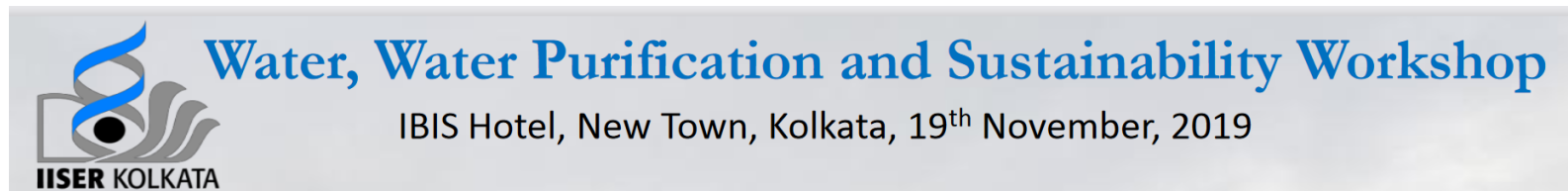


Lectures and training focused on key areas of carbonate chemistry, biological effects, experimental setup, monitoring approaches, modelling and socioecology.



International Capacity Building Workshop on Ocean Acidification
supported and trained scientists from ASEAN and SAARC member
countries. The workshop was supported by UNESCO and IAEA.

Regional Scientific Co-operation Initiatives in BG @ Local to Molecular Scale



When: Nov, 2019

Where: Kolkata, India

Participants from

South East Asia

Europe

Organized by:

BG-President, Prof. Bhadury

Scientists from academic institutions and industries as well as policy makers working on aspects of basin level management, hydrology, ground water aquifer biogeochemistry and microbiology, sustainable waste management solutions, health, potable water purification approaches, sustainability of ground water and river basins.



Regional Scientific Co-operation Initiatives in BG @ Local to Molecular Scale

When: April, 2020

Where: Kolkata, India

Participants from

South East Asia

Europe

South Asia

Organized by:

BG-President, Prof. Bhadury

AOGS supported Satellite Meeting on Biogeochemistry
to foster collaboration between scientists from India,
ASEAN and Europe.

CANCELLED

Regional Scientific Co-operation Initiatives in BG

General Pathways for Education & Research

- ☐ Commonwealth Fellowships for split-site PhD
- ☐ Study Abroad Programs (including one at University at Leeds)
- ☐ ASEAN PhD and Postdoctoral Fellowships for short term and long term exchanges
- ☐ Marie-Curie Fellowships (any applicants?)
- ☐ Royal Society International Collaboration Awards
- ☐ Newton Fund



Recovery of Gold
from E-waste



Regional Scientific Co-operation Initiatives in BG

Future Plans & Possibilities

❑ AOGS BG Workshop at EGU?



❑ AOGS BG Satellite Meetings

❑ UK-Malaysia-India hub on
**Sustainable Pollution Control
using Algal Biomass**



Thank
you

LET'S
DISCUSS



AOGS
2021 18th
Annual
Meeting

Asia Oceania Geosciences Society

*A Brand New Virtual & In-Person
Presentation Experience*

01 - 06 August 2021, Singapore

