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			<b>Dr. C. Raghunathan</b>
<b>Organizing Secretaries</b>	:	<b>Dr. Awnindra K Singh</b>	<b>Dr. A. Velmurugan</b>
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<b>Dr. Prashant Mohanraj</b> , Director, ICAR-NBAIR, Bengaluru	<b>Dr. Ravindra Kumar</b> , Director, ICAR-NBFG, Lucknow
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**LOCAL ORGANIZING COMMITTEE**

<b>Chairman</b>	:	<b>Dr. A. Kundu</b>		
<b>Co-Chairman</b>	:	<b>Dr. Lalji Singh</b>		
<b>Members</b>		<b>Dr. B. Augustine Jerard</b>	<b>Dr. N.V. Vineeth Kumar</b>	<b>Dr. R. Mohan Raju</b>
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		<b>Mrs. Divya Parisa</b>	<b>Dr. N.C. Choudhuri</b>	<b>Dr. Shailesh Kumar</b>
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		<b>Mr. Dibakar Khan</b>		
<b>Member Secretary</b>	:	<b>Dr. K. Lohith Kumar</b>		
		<b>Dr. A. Anuraj</b>		



*International Conference on*  
**CLIMATE CHANGE ADAPTATION AND BIODIVERSITY:  
ECOLOGICAL SUSTAINABILITY AND RESOURCE  
MANAGEMENT FOR LIVELIHOOD SECURITY**

*Date : 08<sup>th</sup> to 10<sup>th</sup> December, 2016*

*Organized by*  
**Andaman Science Association, Port Blair, A & N Islands**

*in Association with*

**Indian Council of Agricultural Research, New Delhi**  
**ICAR - Central Island Agricultural Research Institute, Port Blair**  
**Zoological Survey of India, Kolkata**  
**Society for Plant Research, SVPUAT, Meerut**  
**Indian Ecological Society, Ludhiana**  
**Society for Community Mobilization for Sustainable Development, IARI, New Delhi**  
**Bioversity International for South Asia, New Delhi**  
**Protection of Plant Varieties & Farmers Rights Authority, New Delhi**  
**National Biodiversity Authority, Chennai**  
**Indian Society of Genetics & Plant Breeding, New Delhi**  
**Department of Environment, Forest & Climate Change, A&N Administration, Port Blair**

*Venue*  
**ICAR - Central Island Agricultural Research Institute, Port Blair**  
**ANRC - Zoological Survey of India, Port Blair**



Background

Climate change, biodiversity and livelihood are inter-linked therefore any drastic changes in climate affect the biodiversity which also include changes in spatial distribution, extinction rates, length of growing season and reproduction timing. Human activities aggravate these changes which may lead to loss of some of the biodiversity. The impact of climate change on biodiversity and livelihood varies across the globe. It is generally believed that the islands will be more impacted by the climate change than the mainland. The magnitude of impact of such changes on islands and coastal ecosystems are very high as these regions are constantly exposed to vulnerability emanating from sea level rise, shore line changes and coastal community disasters. Pollution from anthropogenic activities, invasive alien species, over fishing and decreasing forest cover can also reduce the resilience of island ecosystem. It is well established that oceans act as a major sink for carbon emissions but absorption of carbon dioxide by oceans may potentially cause ocean acidification which could disturb the calcifying marine organisms. Wetlands are also the world's primary carbon sequestration mechanism and their management and conservation are very important for future. Another major sink for atmospheric CO<sub>2</sub> is agricultural soils by way of alternate land management practices which promote carbon sequestration.

The primary threat for island and coastal ecosystem emanates from sea level rise as it could potentially displace the livelihood and engross the terrestrial cover. Increase in sea surface temperature could also possibly interact with marine fauna, particularly coral reefs as corals are at constant pressure due to climate change. Since coral reefs named as 'tropical rainforests of the ocean' are the natural break waters of the coast and it also offers innumerable services to support livelihood. Similarly, sea grasses and mangroves also provide significant valuable ecosystem services and acts as shields against natural disasters like tsunami, cyclones and floods. Therefore, it is of paramount importance that the changes and impact of climate on biodiversity are quantified and properly understood to ensure the livelihood of people particularly in the developing world.

Andaman & Nicobar Islands

Andaman and Nicobar Islands (ANI) comprises of 572 Islands, Islets and rocks situated in the east of Bay of Bengal, oriented in the north-south direction like an arc. Most of these Islands have originated due to volcanic eruption in the sea and few of them originated by coral reef formation. ANI situated between two major biodiversity hot spots viz., the Indian sub-continent and the Malaysia- Indonesia region. Forests cover about 87% of the islands' geographical area with their uniqueness that lies in high degree of endemism, particularly, in avifauna. The coastline of the islands is bordered with luxuriant mangroves and fringing coral reefs. A clean and pollution-free environment and lush green forests of the islands surrounded by blue sea water make Andaman & Nicobar Islands one of the most favoured destinations for eco-tourism. The presence of over 2500 indigenous and 500 non-indigenous angiospermic species within an area of 8300km<sup>2</sup> is a significant feature of A & N Islands making them a cynosure for research and conservation.

About Andaman Science Association (ASA)

Andaman Science Association (ASA) was established in 1984 with its headquarters at ICAR-Central Island Agricultural Research Institute, Port Blair by the scientific community working in this island with the main objective of promoting research and development without affecting this unique Island ecosystem. It also acts as a common platform for researchers and other stakeholders working in these islands representing different scientific organisations. ASA periodically organizes National and International seminars, conferences, knowledge sharing meets to promote scientific research and development apart from publishing a peer reviewed research journal.

Relevance of the Conference

Increasing trends of climate change patterns over the last decade has caused significant changes in land use pattern, rainfall, shoreline changes and imbalance of ecosystem. The 2004 tsunami and earthquake in Indian Ocean is an eye opener for scientists and policy makers which eventually made a major reformation in ocean alarming system and earthquake predictions. Islands like Andaman and Nicobar Islands, east coast of India and South East Asian countries are worst affected which resulted in severe displacement of population, loss of livelihood and loss of valuable ecosystem and its services. Bleaching of coral reefs was observed in 2003, 2005 and 2010 which caused a major devastation to coral reefs and associated fisheries and subsequently tourism. Occurrence of cyclones like Phailin, Hud-hud, and Lehar are most frequently observed in the past. Acute water shortage during pre-monsoon period with more number of non-rainy days has been a concern in the last few years. Burgeoning tourism and anthropogenic activities is another growing concern which diffused the ecosystem with economy. Warning on 2016 being the warmest year with increased sea surface temperature has already alarmed the marine biologists to predict and analyze the ecosystem with ground reality. Such concerns have created the situation to predict and stream line the future course of action to sustain the fragile ecosystem which offers several livelihood services to the Islanders. ANI is one of the global hot spots of biodiversity and more prone to natural disasters and climate change events like tsunami, earthquake, cyclones etc. therefore this place offers a suitable platform to discuss the growing global concern like climate change and biodiversity management in collaboration with ICAR-CIARI being a premier institute for agricultural and allied sciences in its 37 years of existence. The conference will bring all the stakeholders together to discuss on climate change and its antagonistic effects of biodiversity and livelihood with suitable action plans for building a future in harmony with climate and biodiversity.

Call for Papers

Climate change poses a major threat to the biotic communities and their habitats which needs to be discussed and understood. The impact of climate change has already been felt and has been a great concern in ensuring livelihood security. Oceans are becoming more acidic, water supplies are shrinking, agricultural yields are reducing and forests are deteriorating. The field of Agriculture, Horticulture, Plant Sciences, Ocean and Marine Biology, Social

Sciences, Zoological Sciences is advancing rapidly while climate change is having harmful impacts and hampers their development. Therefore, scientists and other stakeholders are invited to discuss and deliberate on these issues by submitting their papers/research works and to prepare a road map to address the issues of biodiversity, ecological sustainability and resource management for livelihood.

Topics of Interest for Submission include

Agriculture, Horticulture, Plant Sciences, Animal Science, Fisheries Science, Ocean and Marine Biology, Social Sciences, Zoological Sciences, Plant Biotechnology, Agricultural Engineering and Environmental Sciences etc., fitting to the following themes given below.

Conference Theme

S. No.	Sectional theme of the Conference
A.	Climate change and impacts
1.	Global Climate change and regional scenarios
2.	Impacts of climate change and weather extremes on Islands and Coastal ecology
3.	Improving adaptive capacity and resilience to climate change
B.	Adaptive Management of Biodiversity
1.	Biodiversity, Conservation and its sustainable use
2.	Assessment and strategic management of aquatic resources
3.	Protection of Plant Varieties, Farmers Rights and community assets
C.	Adaptation and livelihood security
1.	Farming Systems and Ecosystem management for livelihood security
2.	Technologies for enhancing productivity and livelihood security
3.	Socio-economic and policy issues
D.	Special Session on Island agriculture and Eco-tourism
1.	Innovations in ecology and resource management
2.	Biodiversity and sustainable livelihood of tribes
3.	Eco-tourism and youth : Role of Institutions and awareness
	Special Session on Indigenous knowledge for climate change adaptation

Dates to Remember

Abstract Submission	05 <sup>th</sup> October, 2016
Full length Research Paper	15 <sup>th</sup> October, 2016
Notification of acceptance	25 <sup>th</sup> October, 2016
Electronic Submissions should be sent in MS Word format to: secretaryasa84@gmail.com; technicalsecretaryasa@gmail.com; asaiccb2016@gmail.com	

Article Types for Submission

All submitted full-text articles should report original, previously unpublished research results, experimental or theoretical. Articles submitted to the conference should meet these criteria and must not be under consideration for publication elsewhere. The types of

articles should be submitted to the conference are full length articles, short communications and research articles. All manuscripts are subject to peer-review and are expected to meet the scientific criteria of significance and academic excellence.

Manuscript Format and Style (Writing Guide)

While submitting manuscript for publication in the conference proceedings, please submit an original editable file following the JASA guidelines (attached).

Conference Registration Fee

Registration category	Date of registration on or before	Registration Fee	
		Indian delegates (INR)	Foreign delegates (USD)
Early Bird Registration	10 <sup>th</sup> November, 2016	Rs.6000.00	90 USD
On-spot Registration	08 <sup>th</sup> December, 2016	Rs.7000.00	110 USD
Life Members (ASA)	07 <sup>th</sup> December, 2016	Rs.6000.00	90 USD
Research Fellows / Student	08 <sup>th</sup> December, 2016	Rs.3000.00	50 USD
Industry partners	10 <sup>th</sup> November, 2016	Rs.30,000.00	-

Mode of Payment

Registration fee can be paid through online (NEFT) transfer, multicity cheque/ draft and or in cash in favour of the Andaman Science Association, Port Blair (A & N Islands). After payment, the details of the transaction may be intimated to secretaryasa84@gmail.com

Account Details

Account Name : Andaman Science Association  
Account No : 11108496460,  
IFSC code : SBIN0009670  
Name of Bank and Branch : State bank of India, Garacharma, Port Blair, South Andaman

How to Reach

Andaman and Nicobar Islands is located 1200 km away from mainland India and located in proximity with South East Asian countries. Port Blair is the capital city which is connected through Air (daily flights to Chennai, Kolkata, Bengaluru and New Delhi) and Sea (Chennai, Kolkata and Vishakhapattanam).

Accommodation

Accommodation for the participants/ delegates will be arranged on request to Mr. K Lohith Kumar, Joint Secretary, ASA, e-mail jointsecretaryasa@gmail.com, Mobile No. 9531845377& Dr. A. Anuraj, Member Secretary Local Organizing Committee, e-mail anuraj4ciari@gmail.com, Mobile No. +91-9531956459

### REGISTRATION FORM

Please complete and return this form on or before November 10, 2016 with payment to ASA: ICCB-2016.  
Conference Secretariat: Mr. K. Lohith Kumar, Joint Secretary, Andaman Science Association, Port Blair C/o ICAR-CIARI, Post Box No. 181,  
Port Blair- 744 105. Andaman & Nicobar Islands, India. e-mail: jointsecretaryasa@gmail.com & Mobile No. +91-9531845377

#### 1. Delegate Information (Please print clearly in capital letters)

Name of the delegate : Prof./ Dr./ Mr./ Mrs./ Miss .....  
 Organization : .....  
 Designation / Position : .....  
 Complete Postal Address : .....  
 City ..... State .....  
 Country ..... PIN .....  
 Telephone Nos. : Country code (+) ..... Fax .....  
 Mobile : Country code (+) .....  
 Email : .....  
 Name to be appeared on name badge: .....

#### 2. Manuscript details:

Title of the paper submitted :		
Authors:		
Sectional Theme:		
Article Types	Mode of Presentation	# Please tick (✓)
Abstract Submitted for	Poster Presentation	
Full length Research Paper Submitted for	Oral Presentation	
Full length Research Paper Submitted for	Poster Presentation	
Concept paper	Oral Presentation	

# (Mode of presentation will be finalized by the conference secretariat on recommendation of sectional coordinators comments)

#### 3. Delegate Registration

Registration category	Date of registration on or before	Registration Fee		Please tick (✓)
		Indian delegates (INR)	Foreign delegates (USD)	
Early Bird Registration	10 <sup>th</sup> November, 2016	Rs.6000.00	90 USD	
On-spot Registration	08 <sup>th</sup> December, 2016	Rs.7000.00	110 USD	
Life Members (ASA)	07 <sup>th</sup> December, 2016	Rs.6000.00	90 USD	
Research Fellows/ Student	08 <sup>th</sup> December, 2016	Rs.3000.00	50 USD	
Industry partners	10 <sup>th</sup> November, 2016	Rs.30,000.00	-	

#### 4. Accommodation (Please reserve the following accommodation)

Hotel type	Range (per room per day)	Date of occupancy		Accommodation type		
		Check-in	Check-out	Single	Double	Sharing
Luxury hotels	Rs.5000 – 7500					
Deluxe Hotels	Rs.3000 – 5000					
Semi-Deluxe Hotels	Rs.2000 – 3000					
Budget Hotels	Rs.1000 - 2000					

#### 5. Payment Summary (Please indicate the mode of payment of registration fee)

Payment type	Details of transaction (indicate the name of bank)	Amount (INR/ USD)	Date of transaction
NEFT transfer			
Cheque/ Draft payment			
On-spot payment			

Date : Signature : .....

Place : Name : ..... Designation : .....



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