



14th IFSDAA International Conference

on

**Sustainable Agriculture for
Food Security under Climate Change**

September 27-29, 2023

**Celebration for Excellence of AASF for 64 years
and IFSDAA for 16 years**

organized by



International Foundation for Sustainable
Development in Africa & Asia

<https://www.aasf.de/ifsdAA/international-conference-2023/>

in:



African-Asian Studies Promotion
Mahatma Gandhi House, Theodor Heuss Str-11
37075 Goettingen / Germany

www.aasf.de

in collaboration with



HAWK University of Applied Sciences and Arts
Von-Ossietzky-Str. 99
37085 Goettingen, Germany

<https://www.hawk.de>



Society for Sustainable Agriculture
and Resource Management / SSARM
Hisar / India



International Office - Georg August University
37075 Goettingen / Germany

<https://www.uni-goettingen.de/en/international-office/59497.html>

INVITATION

Dear Colleagues,

World food security depends on food production, access to food and its availability at affordable costs. Food production in turn is determined by the genetic potential of crop varieties, their agronomic management, growing environment and genotype x environmental interactions. Often, crop plants witness environmental stresses, which could be either short or long term, intermittent or persistent. These stressors like drought, heat, salinity and flooding may occur singly or in combination. Both genetic and management solutions are needed to cope up with such stresses to infuse tolerance/resilience for sustainable agriculture and food security.

Climate changes are witnessed globally which are marked by erratic changes in diurnal regimes, rainfall patterns, frequent droughts, floods and high and low temperatures. The average global temperature has risen by 0.9 °C since the nineteenth century, mainly due to greenhouse gas (GHG) emissions. This rise is expected to be 1.5 °C by 2050 or may be even more. Due to deforestation, GHG emission is increasing and as a result soil, water bodies and air are being polluted. The resultant land degradation, deforestation and desertification may pose serious threat on crop productivity hence food security.

World population is ever increasing and is expected to be about 8 billion in 2025 and stabilizing at about 10 billion people by 2050. Currently around 1 billion people suffer from hunger and 2 billion children are malnourished due to deficiency of minerals and vitamins. Food production needs to be doubled by 2050 from less land area and shrinking water and other natural resources to meet the needs of growing world population.

Consequently, the ever increasing demand for food has led to pressure on land and water resources, intensive cropping and livestock generation, extensive use of agro chemicals, mechanization, secondary salinization and nutrient deficiency due to over mining and hence to grey patches. All these factors cumulatively have aggravated the increased release of GHG which needs to be tackled to mitigate adverse effects of climate change on agricultural production. There are two major strategies to combat climate change effect on agricultural production that includes a) mitigation through agronomic and environment management and b) adaptation through genetic resilience against climate change for stress tolerance and higher crop yield.

Prudent technologies including plant breeding, biotechnology, agri-technologies for crop production and plant protection can pay dividends. Resource optimization, conservation, increased input use efficiency and development of crop varieties with enhanced resilience and tolerance to biotic and abiotic stresses are key deterministic factors for higher crop production and productivity. Application of bio fertilizers, bio stimulants and organic farming to improve soil agro ecosystem would be worthwhile. Use of artificial intelligence, GIS, GPS technology will pay dividends towards climate smart precision agriculture.

In view of the above facts and the urgent need to develop climate change resilient agriculture, the International Foundation for Sustainable Development in Africa and Asia (IFSDDA) and Afro - Asian Studies Promotion Association (AASF) are jointly organizing this international conference in collaboration with the HAWK University of Applied Sciences and Arts, Goettingen, Germany and the Society for Sustainable Agriculture and Resource Management (SSARM), India. This conference shall also embark on innovation ignition through idea competition for young scientists to develop useful products and processes that can contribute positively to the welfare of human society.

Policy planners, researchers, scholars and NGOs in science & technology, agriculture, biotechnology, healthcare, economics, environment, skill development and entrepreneurship, social research streams are welcome to participate. The organizers will be happy to welcome the participants to the conference venue at AASF center at Mahatma Gandhi House, in Goettingen, Germany.

Er. Dawit Bereket-Ab
Co-Convener

Dr. K. Wolde-Giorgis
Convener

Prof. A. Riedacker
Co-chair

Prof. A. Ibenhal
Chair

Information about the Conference

The International Conference includes oral and poster presentations and demonstration, from well-acclaimed research and development functionaries from academia, technology experts and industry representatives for knowledge enhancement in real time through revealing and reflecting experiences and ideas on recent innovations in Science Technologies and entrepreneurship.

Venue: Mahatma Gandhi House, Theodor Heuss Str-11,
37075 Goettingen, Germany

Dates: September 27-29, 2023

Conference Language: English

Objectives:

- To assess impacts of climate change on agriculture and environmental sustainability.
- To promote Science and Technology Innovations for harnessing genetic and management options for combating adverse effects of climate change on agriculture, food and nutrition security.
- To promote prudent technologies including bio-technologies and farm mechanization for precision agriculture, food processing, value addition, resource optimization and conservation of natural resources for sustainable development in Africa and Asia.
- To develop and promote AI based forewarning and management systems to mitigate the effect of climate change on sustainable agriculture using inputs from drones, GPS, GIS for climate resilient precision agriculture.
- To promote innovation through ignition of pragmatic ideas in science and technology and resource management including bio-diversity, natural resources including land, nutrients and water, conceptual knowledge, hands on practice through financial assistance framework to facilitate youths and entrepreneurs in Africa and Asia.
- To create a network of technocrats and management experts in cooperation with IFSDAA-AASF for promoting research and development in Africa and Asia.

Mission: This conference shall disseminate latest results on the application of science and technologies for climate resilient agriculture in Africa and Asia. Examples include development and use of agri & biotechnologies, resource management for increased input use efficiency, digital crop management, logistics artificial intelligence, food processing, value addition, nutrition and agriculture, environment and health sustainability.

Themes for Contributory Papers: Contributors are requested to specify the topic of their intended presentation from among the following themes and related topics. Poster presentations of reference projects will also be appreciated.

1. Bio-diversity and germplasm characterization for infusing resilience in crops to climate change, Phenomics and Genomics.
2. Plant breeding and biotechnologies for higher crop yield and quality, tolerance to abiotic and biotic stresses and climate resilience.
3. Resource management, climate smart practices and mechanization for production and processing of field, horticultural and agro-forestry crops.
4. Land use patterns and land use efficiency under climate change.
- 5. Crop production under saline condition and desalinization of saline and brackish water.**
6. Natural / Organic Farming, agri waste management, bio-fertilizers, bio stimulants, bio-herbicides and agrochemicals in sustainable agriculture.
7. Integrated farming systems including livestock and rainwater harvesting to

Patrons

Prof. W. Merbach, Germany Prof. N. El Bassam, Germany Prof. B. R. Kamboj, India

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Registration and Contact

Please send the registration form to e-mail ifsdAA2023@aasf.de with a copy to ifsdAA2023@gmail.com, and the registration fee through Bank demand draft, pay orders to IFSDAA c/o Afro Asian Studies Promotion Association, Mahatma Gandhi Haus, Theodor-Heuss-Str. 11, 37075 Goettingen, Germany. On the conference venue, payments can be made in cash at the registration counter also.

Contact:

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Schedule

Abstract submission:	August 31, 2023 or before
Acceptance notification:	One week after abstract submission
Online Registration:	September 22, 2023 or before
Conference:	September 27-29, 2023
Pre Conference Excursion:	September 24-26, 2023
Post Conference Excursion:	September 30 to October 02, 2023

REGISTRATION FORM

International Conference on

Sustainable Agriculture for Food Security under Climate Change

September 27-29, 2023

1	Name (in block letters):	
2	Position:	
3	Mailing Address:	
4	Phone & fax:	
	Email:	
8	Title of paper:	
9	Registration Fee	EUR 150 normal, EUR 75 for students
10	Accommodation required	<input type="checkbox"/> None <input type="checkbox"/> Mahatma Gandhi House (without breakfast) <input type="checkbox"/> Hotel (rooms will be blocked, self-registration required)
11	Mode of arrival (bus/rail/car/other):	
12	Arrival time/date:	
13	Departure time/date	
14	Statement: Place & date: Signature:	I agree with the online publication of abstracts and pictures made on the conference venue. <input type="checkbox"/> Yes <input type="checkbox"/> No