



14th International Conference on

Sustainable Agriculture for Food Security under Climate Change

July 11-13, 2023

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

Organized by



International Foundation for Sustainable
Development in Africa & Asia



Afro-Asian Studies Promotion
at
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, India

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: July 11-13, 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 practice sand mechanization for production and processing of field, horticultural and agro-forestry crops.
4. Land use patterns and land use efficiency under climate change.
5. Natural / Organic Farming, agri waste management, bio-fertilizers, bio stimulants, bio-herbicides and agrochemicals in sustainable agriculture.

6. Integrated farming systems including livestock and rainwater harvesting to increase resource use efficiency and farmer's income.
7. Reform foods including millets and pseudo-cereals, food processing for higher nutritional & end use value for livestock and human health.
8. Renewable energy sources and their applications in agriculture, food processing, allied agro-industries.
9. Skills development, capacity building, agri-entrepreneurship, agribusiness towards women empowerment for food security and sustainability.
10. International cooperation's for developing strategies to cope up with climate change for food security and environmental health sustainability in Africa and Asia.

Keynote lectures by distinguished professors/researchers/development functionaries from Europe, North & South America, Asia, Africa and Oceania.

Abstract: Maximum one page up to June 10, 2023. Abstracts as well as full paper of registered participants will be published. Please submit your abstract via email to ifsdaa2023@asf.de with a copy to ifsdaa2023@gmail.com. One registrant can submit only one paper.

Innovative Idea Competition: In order to encourage innovation ignition among young scientists and scholars from Africa and Asia, an Innovative Ideas Competition will be arranged during the conference. The unique idea leading to prototype, product, and process development for human welfare will be awarded with limited research initiation grants. The unique ideas should be submitted in a prescribed format attached as an annexure with conference broacher as an annexure for uniform evaluation. The selection of unique idea will be made by acclaimed international scientists (ifsdaa2023@gmail.com)

Registration Fee (before June 30, 2023): Euro 150 normal, Euro 75 for research scholars and students. Registration fee includes book of abstracts, session tea, lunch and dinner during the conference.

After July 01, 2023 or in case of on spot registration the fee will amount Euro 175 normal and Euro 90 for research scholars and students.

Accommodation:

Hotels (bed & breakfast):	Single room EUR 50 - 80 Double room EUR 75 - 100.
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Accommodation for students/scholars:	Mahatma Gandhi House Hostel: EUR 20 Box Hotel: EUR 25 (Without breakfast)
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Scientific Excursions will be organised for the participants before conference (July 08-10, 2023) and after conference (July 14-16, 2023), to scientific institutions, historical museums and other seen worthy places.

About Goettingen: Goettingen university town lies in the southern part of Lower Saxony. A number of museums and scientific industrial enterprises and high-tech university laboratories are seen worthy.

About Weather: Weather in beginning of July is hot. The day temperature between 25-38 ° and night temperature between 15-22 ° are expected. Short but heavy rainfall is possible and an umbrella as well as light woollens for colder nights are recommended.

Patrons

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Prof. Nasir El Bassam, Germany

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Registration and Contact

Please send the registration form to e-mail ifsdaa2023@aaaf.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, 37075Goettingen, Germany. On the conference venue, payments can be made in cash at the registration counter also.

Contact:

Dr. K. Wolde-Giorgis (+49 1638823672), Germany

Er. Dawit Bereket Ab (+49 1737487424), Germany

Dr. Elhadi Morzog (+49 15213340366), Germany

Mrs. Heidemarie Dössel (+49 15166275002), Germany

For Bank Transfer

Name of the Bank:

Sparkasse Goettingen / Germany

Bank Branch /City:

Goettingen / Germany

Bank Account No.:

DE 14 2605 0001 0000 1537 67

IFSC/IBAN:

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Schedule

Abstract submission:	June 10, 2023 onwards
Acceptance notification:	One week after abstract submission
Online Registration:	July 01, 2023 onwards
Conference:	July 11-13, 2023
Pre Conference Excursion:	July 08-10, 2023
Post Conference Excursion:	July 14-16, 2023

REGISTRATION FORM

International Conference on
Sustainable Agriculture for Food Security under Climate Change
July 11-13, 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