







# Building Africa's Future

Crop Research and Innovation for Agricultural Transformation, Resilience, and Inclusion

16<sup>th</sup>-19<sup>th</sup> **September** 

**Venue:** Eduardo Mondlane University Main Campus Maputo, Mozambique



























# **13th African Crop Science Society Conference**

"Building Africa's Future: Crop Research and Innovation for Agricultural Transformation, Resilience and Inclusion"

# **Programme**

Eduardo Mondlane University Main Campus Maputo – Mozambique 16th – 19th September 2024



See Abstracts in this QR

# **MONDAY, September 16**

Activity	Room							Tin	ne						
Activity	NOOIII	7am	8am	9am	10am	11am	12am	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm
Registration	CPII														
Pre-Conference Symposium (by invitation only) Building Agri-Food Systems & Climate Action in Mozambique (Organized by PASET Rsif, MOZSKILLS)	CPI 1501														
Chairs and moderators meeting															

# **TUESDAY, September 17**

A california	D							Tim	e						
Activity	Room	7am	8am	9am	10am	11am	12am	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm
Registration	CCMC														
Opening Session	CCMC														
Keynote Address	CCMC														
Cultural Moment	CCMC														
Launch of the The Centre of Excellence in Agri-Food Systems and Nutrition (CE-AFSN)	ССМС														
Group Photo and Coffee Break	CCMC														
Symposium I	CCMC														
Agricultural production systems for a sustainable, viable and efficient production	CCMC														
Lunch Break (self-service)	CPII														

#### **Acronyms**

CPI\_ Complexo Pedagógico I

CPII\_Complexo Pedagógico II

**CCMC**\_ Centro Cultural Moçambique China

# PROGRAMME | CONFERENCE AT A GLANCE

a calcular.	D							Tim	e						
Activity	Room	7am	8am	9am	10am	11am	12am	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm
Oral Presentations Sessions															
Session 1: Gender, Youth and Market Inclusiveness	CPI 1501														
Session 2: Plant Breeding and Biotechnology	CPI 2501														
Special Session I	CPI 2502														
Opportunities and constraints for the adoption of irrigation as a resiliency enhancing technology (Organized by FTF RESINA)															
Exhibition	CPII 101 & 102														
Coffee Break	СРІ														
Poster Session I	СРІ														
Welcome Cocktail															

# **WEDNESDAY, September 18**

Activity	Room														Tin	ne													
Activity	ROUIII	7aı	m	8a	ım	98	ım	10	am	11	am	12	am	1p	m	2p	m	3р	m	4p	m	5p	m	6p	m	<b>7</b> p	m	8p	m
Registration	CCMC																												
Symposium II	CCMC																												
Resilience for reduced impact of climate change, natural hazards and climate related stresses																													
Coffee Break	CP II																												
Oral presentations Sessions																										,			

Activity	Room							Tir	ne						
Activity	Room	7am	8am	9am	10am	11am	12am	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm
Session 3: Soil Health, Fertility and Management	CPI 1501														
Session 4: Climate Change and Resilience	CPI 2501														
Special Session II	CPI 2502														
Agricultural Innovations for a Sustainable and Resilient Agri-Food System (Organized by The International Agricultural Research Centers in Partnership with AID-I Mozambique)															
Lunch Break (self-service)	CPII														
Oral Presentations Sessions															
Session 5: Agriculture Policies	CPI 1501														
Session 6: Crop Protection	CPI 2501														
Special Session III	CPI 2502														
Resilient and Inclusive Agrifood systems: The work of SOCODEVI with cooperatives in Africa (Organized by SOCODEVI)															
Exhibition	CPII 101 & 102														
Coffee Break	CP II														
Poster Session II	СРІ														

# **THURSDAY, September 19**

A CTIVITY	2001													Т	IME												
ACTIVITY	ROOM	78	am	8a	m	9a	m	10	am	11a	am	12	am	1p	m	2pn	n	3pm	4	pm	5p	om	бр	m	7pm	8p	m
Registration	CCMC																										
Symposium III	ССМС																										
Inclusion for market involvement of women and youth in agriculture																											
Coffee Break	CPI																										
Oral Presentations Sessions																											
Session 7: Knowledge Systems	CPI 1501																										
Session 8: Food Security and Food Safety	CPI 2501																										
Special Session IV	CPI 2502																										
Agriculture insurance: Ongoing efforts to strengthen rural farmers resilience in local food systems (Organized by FTF RESINA)																											
Special Session V	CPII 202																										
Biotechnology and OFAM- Mozambique (Organized by ATTF)																											
Lunch Break (self-service)	CPII																										
Closing Keynote address	ССМС																										
Closing Session	ССМС																										
Coffee Break																											
Exhibition	CPII 101 & 102																										
Gala Dinner	CPI																										

	MONDAY, September 16 Room: Complexo Pedagógico UEM
11:00 – 16:00	Registration Room: Secretariat Office CPII
08:00 – 17:00	Pre-Conference Symposium (by invitation only) Building Agri-Food Systems & Climate Action in Mozambique (Organized by PASET Rsif, MOZSKILLS) Room: CPI 1501
15:30 – 16:30	Session moderators and workshop organizers meeting Room: CPII 104
BUILDING	-CONFERENCE SYMPOSIUM (BY INVITATION ONLY) G AGRI-FOOD SYSTEMS & CLIMATE ACTION IN MOZAMBIQUE (ORGANIZED BY PASET RSIF) Dom: CPI 1501, Complexo Pedagogico, UEM Main Campus
08:15 - 08:45	Session 1: Welcome and Setting the Tone
08:45 - 09:45	Session 2: Insights on doctoral programs in Agri- Food Systems & Climate Change from African Universities
09:45 – 10:15	Family photo and coffee break
10:15 – 11:00	Session 3: Enhancing doctoral programs in Agr Food Systems & Climate Change (Continued)
11:00 – 11:30	Session 4: Perspectives from Emerging Science Leaders
11:30 – 12:30	<b>Session 5:</b> Panel Discussion on Strategies for strengthening Doctoral Training Programs in Agri-Food Systems and climate resilience within African Universities
12:30 – 13:00	Session 6: Collaborating for resilient agri-food systems in Africa
13:00 – 14:00	Lunch Break
14:00 – 14:30	<b>Continued-</b> Group Discussions on potential areas of collaboration: 3 Groups based on the sub- themes

14:30 – 15:15	<b>Plenary</b> Feedback of joint areas of collaboration including next steps
15:15 – 15:30	Session 6: Closing Statements
15:30 – 16:00	Tea Break
16:00 – 17:00	Session 7: Experiential Knowledge Exchange

# TUESDAY, September 17

7:30-08:30	Registration
	OPENING SESSION  Room: CCMC
08:30	Arrival of his Excellency Minister of Science Technology and Higher Education, Mozambique
08:30 - 08:35	National Anthem   UEM Choral Group
08:35-08:40	Objectives and programme of the conference   Prof. Amélia Sidumo, LOC Coordinator
08:40 - 08:45	<b>Welcome Remarks</b>   <b>Prof. Ernesto Uetimane Júnior,</b> Dean of the Faculty of Agronomy and Forestry Engineering
08:45 - 08:50	ACSS Remarks   Prof. Luísa Santos, President of ACSS
08:50 - 08:55	EDUARDO MONDLANE UNIVERSITY ADDRESS
	Prof. Manuel Guilherme Júnior Rector of Eduardo Mondlane University

08:55

09:05

09:05

09:35

#### **OFFICIAL OPENING ADDRESS**



**Prof. Daniel Nivagara**His Excellence Minister of Science Technology and Higher Education, Mozambique

# KEYNOTE ADDRESS BUILDING AFRICA'S FUTURE: CROP RESEARCH AND INNOVATION FOR AGRICULTURAL TRANSFORMATION, RESILIENCE, AND INCLUSION

**Dr. Canisius Kanangire**Executive Director of African
Agricultural Technology
Foundation (AATF)

Dr Canisius Kanangire is the Executive Director of African Agricultural Technology Foundation (AATF) since 2021. Dr Kanangire has over 20 years' experience in leadership roles across the African continent and over 20 years in Academia including as Dean of the Faculty of Agriculture, University of Rwanda, and Scientific Chairman of the Nile Basin Research Program, a post-doc program at the University of Bergen (Norway). He holds a PhD in Aquatic Sciences, with specialization in Aquaculture, from the University of Namur (Belgium).

09:35-09:45 | CULTURAL MOMENT

LAUNCHING O	FTHE CENTER OF EXCELLENCE IN AGRI-FOOD SYSTEMS AND NUTRITION (CE-AFSN)  ROOM: CCMC
09:45 – 10:15	Presentation about the Center and depoiments   Prof. Rogério Chiulele, Director of the Center
10:15 – 10:25	<b>World Bank Adress</b>   Dr. Iain Shuker, Regional Director for Agriculture, climate Environment, Social Inclusion For Eastern and Southern Africa Region at the World Bank
10:25-10:40	<b>UEM Rector Adress</b>   <b>Prof. Manuel Guilherme Júnior</b> , zRector of Eduardo Mondlane University
10:40 – 11:00	Official Launching Address   Prof. Daniel Nivagara, Hon Minister of Science Technology and Higher Education
11:00-11:03	Eduardo Mondlane University Anthem   UEM Choral Group
11:00-11:30	COFFEE BREAK

11.00	1.50	COTTEL DILEAR
		SYMPOSIUM I Room: CCMC
	AGRIC	ULTURAL PRODUCTION SYSTEMS FOR A SUSTAINABLE, VIABLE AND EFFICIENT PRODUCTION
		Room: CCMC
TIME	Mode	rator: Dr. Zélia Menete, Director of the Agricultural Researh Institute
		of Mozambique
11:30	Intro	duction
	Keyn	note speakers
		AGROECOLOGICAL INTENSIFICATION OF MIXED CROP LIVESTOCK PRODUCTION SYSTEMS OF SUBSAHARAN AFRICA: THE NEED FOR BIOPHYSICAL AGRONOMY TO ENGAGE MORE INTO INTEGRATED ASSESSMENTS OF AGRICULTURAL SYSTEMS.

11:40 S1 -01



**Dr. François Affholder**Principal Investigator
and Project coordinator,
CIRAD. France

Dr. François Affholder developed his career across more than 30 years, mostly as a permanent staff at CIRAD, with long term assignments in partner research institutions of Senegal, Brazil, Vietnam (then as seconded by Cirad to IRRI), and currently Mozambique. His main area of interest is on integrated assessment of sustainability of agricultural systems with special attention to climate-related risks, through interdisciplinary collaborations with social sciences and sciences of the ecosystem.

#### **CROP SCIENCE FOR AGROECOLOGICAL INTENSIFICATION OF AFRICAN AGRICULTURE: LESSONS AND PERSPECTIVES** Dr. Sarraj has an extensive 12:00 **S1** experience in research and development and occupied several 02 positions in various international research centres and organizations such as IRRI, IAEA, ICRISAT. He is an expert in crop physiology, agronomy, precision farming and Dr. Rachid Serraj agri-food systems innovation. His Director of Africa Initiative and research has focused on crop stress Strategy for agriculture, water tolerance, resource use efficiency and climate at Mohammed VI Polytechnic University (UM6P), and adaptation to climate change. Morocco THE ROLE OF AGRICULTURAL SYSTEMS RESEARCH IN MOZAMBIQUE AND THE NEED FOR AN INTEGRATED APPROACH TO GUARANTEE ADOPTION BY SMALL **SCALE FARMERS: RESEARCH, EXTENSION, MARKETS** 12:20 **S1** Dr. Marcos Freire works in agriculture 03 since 1982. He has 20 years of teaching experience in researching at UEM. For 3 years he was the Operations Manager at a Cotton Company (Dunavant Mocambique Lda) and after that worked as an agricultural development expert in several projects/programs (ARD, USAID, WB, MCC, AGRA). Over his professional life he has been contributing to the education and training of farmers and **Dr. Marcos Freire** of the new generations of agriculture Mozambique professionals. Discussion 12:40 12:55 Closing remarks LUNCH 13:00 - 14:00

	SPECIAL SESSION I Room: CPI 2502
TIME	OPPORTUNITIES AND CONSTRAINTS FOR THE ADOPTION OF IRRIGATION AS A RESILIENCY ENHANCING TECHNOLOGY (ORGANIZED BY FTF RESINA)
14:00 - 16:00	Justification  The impact of climate change highlights the importance of finding affordable irrigation technologies that can promote water conservation and increase farm production and productivity. They are however numerous constraints and opportunities that must be recognized and addressed in the promotion of irrigation as a resilience enhancing technology for climate adaptation.  These factors include the need for appropriate technology demonstration and demand activation, development of inclusive financing mechanisms, promotion of an enabling environment that includes service provision for technology installation, operation, and maintenance. There is need also to strengthen public private partnerships to unlock investments and cooperation between the market actors in this sector.
	Objectives  This session will highlight the main constraints and opportunities in the adoption of irrigation as a resilience-enhancing technology in rural communities. Specifically, the session will highlight private sector innovation involving the operationalization of pay as you go facilities as a financing mechanism for irrigation technologies targeting rural entrepreneurs.

#### **Expected Results**

The session will provide participants with improved understanding of the structure of the irrigation sector. The opportunities and constraints related to adoption of irrigation technologies in rural communities will be discussed. Lessons learnt from private sector led innovative financing models will also be shared positioning the participants to be able to better design and implement climate adaptation interventions that include promotion of irrigation technologies.

#### **Format**

This session will include a special presentation from a private sector actor, followed by a panel discussion with key experts in irrigation both from public and private sectors. A plenary session will be provided to allow participants to add technical inputs and present any issues that require clarification.

### **ORAL PRESENTATION SESSIONS**

TIME	THEME: INCLUSION  Session 1 – Gender, Youth and Market Inclusiveness  Room: CPI 1501  Chair: Prof. Nícia Givá		
14:00	Introduc	tion by the Chair	
14:05	01-1	<b>Mpho Tshikororo,</b> T. A. Nefale and A. J. Netshipale	Economic Dynamics Shaping Climate Change Adaptation Patterns: Lessons From The Agricultural Market Performance Trends Among Youth Agripreneurs
14:20	01-2	Edgar Francisco E. Munda R. Muassabo A. Naico and J. Ricardo	Role of farmer to farmer extension approach in incresing orange fleshed sweet potato productivity and marketing in Massinga districts of Mozambique.
14:35	01-3	<b>Tomás Sitoe</b> and C. Vilanculos	Effect Of Contract Farming On Farmers' Income: Empirical Evidence From Smallholder Farmers In Magude District, Southern Mozambique
14:50	01-4	O. O. Aminu and B. E. Olanipekun	Gender Analysis Of The Challenges To Rural And Urban Youth Engagement In Agriculture-Based Livelihood Activities In Ondo State, Nigeria
15:05	01-5	<b>Vilma Tsembane,</b> N. Givá and J. Bila	"Munasi", The Heart Of Zambezia: Gender Based Impact Of Coconut Lethal Yellowing On Rural Livelihoods

15:20	01-6	Henry Kamowa	Can Structured Markets Play A Critical Role In Malawi's Drive For Agricultural Commercialisation? A Case Of Agricultural Commodity Exchange For Africa (Ace)
15:35	01-7	Dionecleciano C. Alexandre, A.Tocoloa, H. V. Colial, V. Salegua, S. I. Somueque, B. Divage and M. Donça	Analysis Of Economic And Financial Profitability In The Production And Marketing Of Cowpea [(Vigna Unguiculata (L.) Walp.] In Small Farmers Of Mogovolas And Ribaué District.

TIME	THEME: PRODUCTION SYSTEMS  Session 2 – Plant Breeding and Biotechnology  Room: CPI 2501  Chair: Dr. Celestina Jochua and Prof. Custódio Tacarindua		
14:00	Introduc	ction by the Chair	
14:05	02-1	Bento Filipe Francisco, A. Kondwakwenda, J. Sibiya and A. C. Houdegbe	Assessment of genetic diversity using SNPs Markers and marker-trait association studies in local Mozambican cultivated tomatoes
14:20	02-2	Stella E. C. Nhanala, Bode A. Olukolub and G. Craig Yenchoc	Identification Of Tas14 As A Candidate Gene For Drought Tolerance By Rna-Seq In Sweet Potato
14:35	02-3	Bakang K. Kgasudia, S. Ngwakoa, G. Malambanea, M. Pholo-Taitb And L. Lekgaric	Inheritance Of Seed Coat Colour Patterns And Antioxidant Activity In Cowpea Parental Genotypes And Their F1 Crosses
14:50	02-4	Lourenco Caunganha, E. Munda, R. Pereira, J. Ricardo, E. Francisco, P. L. Thumbo, E. Namanja, F. Meireles and L. Enriques	Evaluation Of Adaptability And Stability Of Eight Potato Clones In Niassa Province, Mozambique
15:05	02-5	Gervancio Covele, A. Chichango, G. Madroba, H. Joao and G. S. Makunde	Performance of High Iron Sweetpotato Clones from Elite Crosses Across Mozambique Environments

## **CONFERENCE** PROGRAMME

15:20	02-6	M. P. Maleia, J. João, S. A. M. Salé, C. M. Domingos, J. O.Teca, A. Raimundo J. Ussene, B. B. Irénio, V. Kimeles, A. F. Chicola, T. A. Perar, H. F. De Sousa, D. B. Guedes, E. C. Jamal, O. Carimo, D. E.Muhala, P.Tebulo and C. C. André	Genotype By Environment Interaction, Adaptability And Stability Analysis Of Cotton (Gossypium Hirsutum L. Race Latifolium H.) In Northern Mozambique
15:35	02-7	Aldo Mabureza	Unlocking The Potential Of Sorghum: A Comparative Study Exploring The Physical, Chemical, Technological, And Digestibility Properties Of New Cultivars From Mozambique
16:00 - 16:30		COFFEE BREAK	

# **POSTER SESSION I**

CODE	AUTHORS	TOPIC
P1-01	Helena Moisés João	Determinants Of The Use Of Vegetable Production Systems In Kamamota District: Case Study Of The Armando Guebuza Association
P1-02	<b>Vilma Rosa Tsembane</b> , N. Givá and J. Bila	Differences In The Level Of Knowledge About Coconut Lethal Yellowing Between Men And Women Coconut Farmers In Zambezia Province.
P1-03	<b>Michael Olwarotimi Olojugba</b> , I. Mendy and F. T. Ayodele	Study On Performance Of Cow Manure (CM), Poultry Manure (PM), Tap Water (TW) And Their Efficiency On The Production Of Maize Fodder Under Low Cost Green House Hydroponic Fodder Production System In Westcoast Region, The Gambia.
P1-04	H.A. Miteca, E. T. F. Conceição, M. Naimoa, H. M. Baya, O. M. DA Paz, A. Jorge, N.S. Mussá, M. Meneses, P. Hinrichsen, C.Muñoz and L.Prat	Morphological Characterization Of Papaya Germplasm (Carica papaya L.) Collected In Different Locations Along The Nacala Corridor, Nampula Province - Mozambique.
P1-05	Salvado K. M. Mropes, L. D. Moiana, L. A. Alberto, J. M. Andreque	Morphological characterization of 18 rice varieties
P1-06	<b>Z. Quadri</b> , M.T. Abberton, O.J. Oyatomi and O. J. lawuyi	Variability Studies On Qualitative And Quantitative Characters Of <i>Phaseolus</i> <i>Junatus</i> L. (Lima Bean) Accessions

CODE	AUTHORS	TOPIC
P1-07	Lopes Neves, H. Malia, R. Afonso, A. Taula and C. Ecole (virtual)	Evaluation Of Different Sowing Dates On The Agronomic Performance Of Onion Varieties ( <i>Allium cepa</i> L.) At The Umbeluzi Research Station
P1-08	Cyntia Miguel, Í. Victorino, R. Abobacar, M. Pinho, S. Guilundo, C. Martins, O. Quilambo	Insecticidal Potential Assessment Of Coffee ( <i>Coffea arabica</i> L.) In Cabbage Cultivation ( <i>Brassica oleracea</i> L. Var. Acephala D.C
P1-09	Shelcia Mery Sérgio Nhacudine	Effect of consociate cultivation of cotton (Gossypium hirsutum L.) and cover crops [peanut (Arachis hypogaea L.) and labe labe (Dolichos lab-lab) ] on yield and incidence of cotton pests
P1-10	<b>Muhamman M. A.</b> , I. Mohammed and I. H. Lakun	Performance Of Potato (Solanum tuberosum L.) Varieties With Different Levels Of Farmyard Manure Under The Cold Harmattan Weather Of Gombe, Sudan Savanna, Nigeria
P1-11	P. T. Owombo	Effect Of Integrated Pest Management Technologies On The Yield Of Maize In Nigeria
P1-12	Cassamo Mahomed Ismail, Alberto Alaniz Baeza and Carlos Valdivia Prats	Agricultural Land Use Is Increasing Soil Loss In The Lugenda River Basin, Part Of One Of Africa's Largest Conservation Areas: A Multitemporal Analysis
P1-13	Y. Mustapha, I. Manu and H. Saleh	Effect Of Different Rates Of Inorganic And Organic Fertilizer On Growth And Yield Of Onion ( <i>Allium cepa</i> L.) In Gombe, Nigeria

CODE	AUTHORS	ТОРІС
P1-14	<b>Binaissa U. L. Castiano</b> , Paul K. Kimurtob and Pascal P. O. Ojwang	Stability And Genetic Analyses Of Common Bean ( <i>Phaseolus vulgaris</i> L.) For Root Traits And Seed Yield In Marginal Environments In Central Mozambique
P1-15	<b>Jennifer Langa</b> and A. Sidumo	Evaluation of the efficiency of biopesticides in pest control in sustainable cotton production in regenerative agriculture systems
P1-16	L. A. Sani, K. M. Umar, S. R. Babura, M. M. Abdulmalik, I. S. Usman, L. B. Hassan, A. A. Muhammad and A. M Hamza	Molecular Technique For Sex Identification At Early Developmental Stage In Date Palm ( <i>Phoenix dactylifera</i> L.)
P1-17	<b>Ogunsusi</b> , Kayode	Urban Agroforestry: Case Study Of Forest Garden As A Resilient Agricultural System For Food Production
P1-18	<b>Teresa Mutemba,</b> A. M. Mondjana, J. Bila, C. Ecole and S. Nhanala	Evaluation Of The Effects Of Potassium Top Dressing Fertilization On Strawberry Yield And Plant Gray Mold ( <i>Botrytis</i> <i>cinerea</i> ) Disease Severity
P1-19	<b>Lum Ayeoffe</b> and D. Chikoye	Effect Of Weed Interference On The Performance Of Cabbage ( <i>Brassica</i> <i>oleracea</i> L.) In Buea, Cameroon
P1-20	H. S. Hamisu, M.F. Ishiyaku, S. M. Mohammed, M. M. Abdulmalik., M.M. Umar and A. Usman	Inheritance Studies Of Heat Tolerance Traits In Tomato ( <i>Solanum lycopersicum</i> Mill.) Genotypes Under Field Condition

## **CONFERENCE** PROGRAMME

CODE	AUTHORS	TOPIC
P1-21	Eliah Munda, R. Muassabo E. Francisco J. Ricardo and C.Samuel	Effect of the cutting frequency on smeet potato root yield components in southern Mozambique
P1-22	Orlando Mabureza Tuco-Tuco, D. Chongo, Z. Menete and R. Brouwer	Combined Effect Of Diferent Levels Of Potassium And Boron On The Yield And Quality Of Orange Fleshed Sweet Potato (Ipomoea batatas L.)
P1-23	Mosamarea Motladi, T. S. Moroke, Ut. Batlang, B. K. Sebogisi, T. Mathowa	Comparative Effects Of Bioslurry And Chemical Fertilizer On Soil Properties And Perfomance Of Spider Plant ( <i>Cleome</i> <i>gynandra</i> L.)
P1-24	<b>M.M. Abdulmalik</b> , M.L. Umar And L.A. Sani	Biotechnology Strategies For The Conservation Of Plant Genetic Resources
P1-25	Knowledge Mutodi	Small-Scale Irrigation: Constraints And Opportunities For Adoption In Mozambique.
P1-26	M. K. Maduna, S. S. Thosago, M. P. Bopape-Mabapa M.P And F. R. Kutu	Effect Of Varying Phosphorus Application Rate
P1-27	E. Joseph, I. Saifudeen and A. N. Baba-Kutigi	Potentially Toxic Element Pollution Level And Risk Assessment Of Sediments In A Local Fertilizer Blending Plant At Kankara, Katsina – Nigeria
P1-28	Ronaldo Zunguze, C. Monjane, M. Mazivele, N. Hogberg, A. Berlin And J. Bila1	First Report Of Banana Bunchy Top Virus Disease Alternate Hosts In Mozambique

CODE	AUTHORS	TOPIC
P1-29	Hamdino M. I. Ahmed, Kawther K. Dawa, Mahmoud M. Zaghloul And Khadja M.Hamad	Optimization Of Tomato ( <i>Solanum lycopersicum</i> L.) Productivity Under Water Stress Conditions Using Some Different Protective Foliar Treatments
P1-30	N. A Okoli. and M. C. Nwaemesi	Utilization Of Food Waste-Cow Dung Compost As Substrates For Two Pawpaw Varieties In The Nursery
P1-31	O. J. Guambe, M. Andrade, G. Makunde, M. Moyo, D. Ndere and L. Tivana	Relationship between textural and sensory properties of sweet potato [ <i>Ipomea batatas</i> (L.) LAM] genotypes grown in Mozambique
P1-32	Tomás Massingue	Rice seed production and management practices of smallholder farmers in southern Mozambique
P1-33	Samuel Alves Camilo	Shoot traits associated with drought stress tolerance in common beans ( <i>Phaseolus vulgar</i> L.)
P1-34	Domingos Machava	Sustainability analysis of fire management in Niassa Province
P1-35	Ricardo Macia	Effect Of Different Concentrations Of Sucrose On The In Vitro Growth Of Cassava Cultivars ( <i>Manihot esculenta</i> Crantz)
P1-36	Angelo Cumbane, C. Jorge, G. Braga and H. Malia	Efficiency and selectivity of insecticides and some biopesticides frequently used in the control of <i>Spodoptera frugiperda</i> in Manica Cumbane province

CODE	AUTHORS	TOPIC	
P1-37	Alcídio Vilanculos, C. Jeque, L. Joaquim, T. António, I. Maluleque, T. Alves, D. Chiar, F. Tavares, M. Francisco, F. Mandlate, S. Moiane, V. Cossa, X. João and F. Semba	Syntropic Agroforestry Systems As An Alternative To Climate Change Mitigation And Adaptation	
P1-38	H. Abade, N. Munguambe, H. Duarte, J. Popisk, B. Casimiro, J. Matimbe, J. Magia, J. Fagema, and M. Langa	Development of Improved Rice Varieties for Rainfed Lowland Ecosystem	
P1-39	O. Chichongue, J. Mudema, and D. Munguambe	Increasing resilience of smallholder farmers to Climate change through adoption of climate Smart Agriculture practices in Mozambique	
P1-40	Eric Gyasi, E. Osei Owusu, B. A. Adongo, F. A. Karim, V. Sackey and D. A. Kotey	Antifungal Activity Of Five Botanical Extracts On Storage Rot Fungi Of Taro (Colocasia esculenta (L.) Schott)	
P1- 41	Jossias Vilanculo, A. Chichongue, António A. Nguambe and Herminio Vaso	Low Cost Irrigation System	
18:30 – 20:00 WELCOME COCKTAIL			

# **WEDNESDAY, September 18**

### **SYMPOSIUM II** Room: CCMC

TIME	RESILIENCE FOR REDUCED IMPACT OF CLIMATE CHANGE, NATURAL HAZARDS AND CLIMATE RELATED STRESSES  Room: CCMC  Moderator: Kemal Torcato Vaz   Universidade Eduardo Mondlane e	
	Verde Azul Consult	
08:30	Introduction	
	Keynote speakers	

## S2 08:40

01

#### AGRICULTURAL CHALLENGES IN THE FACE OF CLIMATE CHANGE IN AFRICA



**Prof. Almeida Sitoe** Eduardo Mondlane University

Almeida A. Sitoe is a full Professor of Tropical Forest Ecology and Silviculture at UEM. He is the Chairholder of the Oliver Tambo Africa Research Chair on Ecosystem based Adaptation to climate change in arid and semiarid zones. His research is focused forest ecosystems, on including ecosystem services and the role of forests in climate change adaptation and mitigation. He is a

key element in climate change policy development in Mozambique, as he drafted the national strategy for climate change adaptation and mitigation, the national strategy for reduction of emissions from deforestation (REDD+), the national adaptation plan (NAP), and the nationally determined contributions (NDC).

09:00 **S2** 03

## AFRICAN AGRICULTURE IN A CHANGING CLIMATE: CHALLENGES FOR **ADAPTATION AND RESILIENCE** (Virtual)



Dr. Makoala Marake

Prof. Makoala V. Marake has over 39 years of experience as a teacher and trainer in both academic and community development initiatives. He has researched and consulted broadly in climate change adaptation, natural resource management and transitions in a changing climate entails National University of Lesotho soil fertility/plant nutrition,

conservation agriculture systems, land evaluation and environmental impacts of land use and participatory approaches to resource conservation, environmental management, rural Development, biophysical and ecosystems interactions in relation to people's livelihoods, agro-biodiversity for sustainable agriculture and adaptation to climate change.

09:20 **S2** 

03

#### WHY BIODIVERSIY IS IMPORTANT



Dr. Mathew Cassete Executive Director JRS **Biodiversity Foundation** 

Dr. Matthew Cassetta joined JRS in 2021 as the Foundation's third Executive Director. He brings over two decades of diverse experience in international diplomacy and project management, much of it focused in Africa on capacity-building and development partnerships. Matthew's work in Africa began Regional Environment Officer for Central and West Africa, and later as Facilitator

		of the multilateral Congo Basin Forest Partnership. Matthew has developed collaborations with partners in civil society, academia, the private sector, and national governments for impactful programs to advance development while valuing unique biodiversity and enhancing environmental stewardship.
09:40 S2 -		CARBON TRADING OPPORTUNITIES IN AGRICULTURE: EXPERIENCE FROM TANZANIA (Virtual)
	04	Prof. Zahabu teaches and carry out research and consultancy services in the areas of Forest Resources Assessment and Management; Climate change and Forestry. He is also a Coordinator of the National Carbon Monitoring Centre (NCMC) since January 2016 to date. NCMC provides technical support to the government on Measuring, Reporting and Verification of GHGs Inventory, REDD+ and Nationally Determined Contributions (NDC). Prof. Zahabu has published a number of scientific articles, book chapters and reports on forestry issues and climate change.
10:00		Video – Integrated Resilience in Nutrition and Agriculture, FTF RESINA Organic fertilization as one of the bets to increase the production and productivity of small producers
10:05	Discussion	
10:30	Closing remarks	
10:30 – 11:00		COFFEE BREAK

## SPECIAL SESSION II Room: CPI 2502

TIME	AGRICULTURAL INNOVATIONS FOR A SUSTAINABLE AND RESILIENT  AGRI-FOOD SYSTEM  Organized by The International Agricultural Research Centers in  Partnership with AID-I Mozambique
11:00 - 13:00	Rapid population growth has exerted increasing pressure on available agricultural land and in countries such as Mozambique where land is available, the predominate use of human labor on smallholder farms limit opportunities for land expansion. However, there are significant opportunities for improved germplasm, climate smart agriculture and sustainable intensification to increase yields and narrow the yield gaps. The International and National Research partners have developed proven technologies and innovations in the past decades that can be deployed to enable farmers to improve productivity and adaptive capacity. Panelists will discuss some of these innovations, innovation packages and bundling that have the potential to sustainably increase agricultural productivity, profitability and resilience of smallholder households and communities.  Objectives  Discuss proven agricultural innovations for sustainable and equitable increase in smallholder productivity, market access and improve consumption of nutritious food Discuss ways to increase availability and accessibility of proven agricultural innovations to men, women and young farmers Show-case technologies and innovations available and bundling of innovations for climate adaptation

Promote platforms and linkages that bring together key stakeholders to enable context-based problem identification, contextualization of solutions, adoption and scaling of feasible technologies

#### **Expected Results**

Through the panel discussion and exhibition, participants will learn, share experiences and broaden their knowledge on available technologies and innovations with the greatest potential to reduce the severity of climate change and improve agricultural productivity and profitability of smallholder farmers.

#### **Format**

Panel discussion and exhibition of agricultural innovations

#### Presentations

SSIV C.Malita, A. Naico, M. Andrade, J. Mwololo, W. Leonardo And A. Ndayiragije		Agricultural Innovations For A Sustainable And Resilient Agri- Food System	
SSIV - 02	<b>M. I. Andrade</b> , and A. Naico	Sweetpotato Research And Innovations For A Sustainable And Resilient Food System	

	ORAL PRESENTATION SESSIONS			
TIME		THEME: RESILIENCE Session 3 – Soil health, Fertility and Management Room: CPI 1501 Chair: Prof. Armindo Cambule and Dr. Oscar Chichongue		
11:00	Introduc	tion by the Chair		
11:05	03 - 01	Winnie Nchoko, T. Scott Moroke, G. Malambane and U. Batlang	Optimizing Nitrogen Fertilizer Rate For Upland Rice ( <i>Oryza</i> sativa L.) Varieties In Southeastern Botswana, Gaborone	
11:20	03 - 02	Matias S. Junior, J. Herrmann, A. Luís and S. Famba	Evaluation Of SPAD Leaf Greenness Index As A Yield Indicator For Leafy Vegetables Grown In Salt-Affected Soil	
11:35	03 - 03	N.C Adikuru, C.C Nwaugo, O.M Nnebue and R.A Alagba	Influence Of Planting Date And Mulching On African Eggplant (Solanum macrocarpon L.) During Early Season In Owerri Nigeria	
11:50	03 - 04	Domingos Feniasse, R. Borguete, A. Vilanculos, C. Jorge, A. Lumbela, L. Savanguane and V. Massango	Improving Soil Health, Food Security And Income Of Smallholder Farmers In Mozambique Through The Development And Use Of Appropriate Fertilizer Formulations For Maize And Soybean In The Beira Corridor	

12:20	03 - 06	D. O. Ogutu, R. Njoroge, A. N. Otinga, J. Wanjiku, D. Priest and P. Seward	Effect Of Wondergro- A Soil Conditioner-For Enhancing Fertilizer Use Efficiency In Maize Production
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Senewa Kealeboga

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12:05

Effects Of Water Deficit Stress On

The Physiological Parameters Of

Six Corchorus olitorius Accessions.

TIME	THEME: RESILIENCE  Session 4 – Climate Change and Resilience  Room: CPI 2501  Chair: Dr. Nocy Bila and Dr. Samuel Camilo		
11:00	Introdu	ction by the Chair	
11:05	04 - 01	Sammy Agili, I. Njagi, E. Munda, E. Kagete, T. Wanyoike, P. N. S. Amboga and G. Muriithi	The effect of spatial arrangement on the yield and cropping efficiency of maize and sweetpotato inter-crop in lower and upper midland agro- ecological zones in Embu, Kenya
11:20	04 - 02	Mitiku A. Handiso, Z. Asfaw, B. Glasser, T. Bromm and B. Lemma	Effects Of Canopy Management Of <i>Terminalia brownii</i> (Fresen) On Microclimate And Yield Of Maize ( <i>Zea mays</i> L.) In Parkland Agroforestry Of South Ari District, Southern Ethiopia
11:35	04 - 03	Robert Mangania, K. M. Gunnb and N. M. Creuxa	The Predicted Effect Of Climate Change On Planting Date And Cultivar Choice For Maize Production In South Africa
11:50	04 - 04	Deborah Thayo	Exploring Common Bean ( <i>Phaseolus vulgaris</i> L.) Plants Resilience: Screening For Drought And Salinity Stress Tolerance And Optimizing Pre-Treatment Strategies For Enhanced Abiotic Stress Resistance In Different Bean Lines
12:05	04 - 05	<b>Jaime Pechiço</b> and R.Brito	Modelling Impacts Of Climate Changes On Yield And Water Requirements Of Sugarcane (Saccharum officinarum L.) In Incomati River Basin: Case Of Manhica District

12:20	04 - 06	Mesfin M. Feleke , S. G. Gebrehiwot, Z. A. Dejen and T. Derib	Water Availability And Future Demand Dynamics In Awash Basin With Climate Change Projections
12:35	04 - 07	Ayansina S. Ayangbenro and O. O. Babalola	Plant-Growth-Promoting, Drought-Tolerant Rhizobacteria
13:00 -	14:00	LUNCH	

# SPECIAL SESSION III

Room: CPI 2502

## TIME

# RESILIENT AND INCLUSIVE AGRIFOOD SYSTEMS: THE WORK OF SOCODEVI WITH COOPERATIVES IN AFRICA Organized by:

Josina Nhantumbo, Coordinator for Gender Equality SOCODEVI Mozambique; Andreé-Anne Cotê-St-Laurent, Policy and Advocacy Adviser, SOCODEVI Canada

#### 14:00

#### Introduction

16:00

SOCODEVI, committed to strengthening cooperatives and community resilience, works in different regions of Africa so that agri-food systems are not only resilient, but also inclusive. Through programs that aim to train and empower women and young people, SOCODEVI contributes significantly to food security and sustainable development on the continent. In Mozambique and other African countries, the organization supports the creation of value throughout the food chain, helping communities to face and overcome current and future challenges. Special attention is given to the differentiated impact of agri-food systems on women, highlighting their crucial role and the need of training for enhancing their resilience and reducing the inequalities. An approach focused on resilient agri-food systems aims to balance economic, social and environmental interests with improved, sustainable food security, thus supporting their effort to adapt to future challenges.

### **Objectives**

With this panel, SOCODEVI seeks to:

Explore and share strategies (and perspectives) with the public to build (or strengthen) agri-food systems that are not only resilient but also inclusive, ensuring that women, youth and other vulnerable groups are actively engaged and benefited. Together we can build a more sustainable, equitable and prosperous future for everyone. Position cooperatives as key actors to generate resilient and inclusive agri-food systems

#### **Expected Results**

It is expected that SOCODEVI and the cooperatives will be recognized as relevant interlocutors in the promotion and development of resilient and inclusive agri-food systems

#### **Format**

Presentations by project leaders, farmers, district officials will be made regarding the experiences and results followed by discussion. At the end, the main issues arising from the debate and the recommendations that should be followed to consolidate ongoing actions will be globalized.

# **ORAL PRESENTATION SESSIONS**

TIME	THEME: INCLUSION AND RESILIENCE  Session 5 - Agricultural Policies  Room: CPI 1501  Chair: Dr. Egas Nhamucho and Prof. Sebastião Famba		
14:00	Introduc	ction by the Chair	
14:05	05 - 01	<b>Wedson Phiri</b> , J. Dzanja, M. Limuwa and H. Phiri	Exploring Incentives And Disincentives Of National Agriculture Policy In Malawi On Value Addition, Job Creation, And Performance Of Smes Within Soybean Value Chain: Evidence From Mchinji, Dowa, Mzimba, And Rumphi
14:20	05 - 02	Rui Benfica, M. Hossain, K. Davis, S. Boukaka and C. Azzarri (IFPRI)	The true costs of food production in Kenya: The role of environmental and social externalities
14:35	05 - 03	Frank Wesonga and F. Keya	Fencing Lands To Enhanced Climate Change Resilience, Promoting Biodiversity Regeneration And Improved Livelihoods Of Climate Change In Makueni County
14:50	05 - 04	Gabriel Viegas, A. Marta-Costa, R. Fragoso and E. Cambaza	Assessing Sugarcane Production Sustainability In Mozambique: Integrating The Sustenagro Approach With The Entropy Weight Method

15:05	05 - 05	T. Ouma, P. Agredazywczuk, M. Barthel, A. Otinga, R. Njoroge, S. M. Leitner, Y. Zhu, C. Oduor, F. Perez- Cruz, J. Six and E. Harris	Improving Nitrous Oxide Emissions Accounting In Kenya: Insights And Measurement Results From Fertilizer Practices, Environmental Drivers, And N₂O Isotopic Composition In Uasin Gishu County.
15:20	05 - 06	Loveline Ndzi, A. Nkuh, D. Tarla, B. Tatah, E. Ngeh and G. Tanga	Agricultural Cooperative: A Catalyst For Rural Development
15:35	05 - 07	Constantino T. Senete, P. Fato, P. S. Chaúque, E. Nhamucho and J. Massitela	Challenges Of Plant Breeding In Mozambique

## **CONFERENCE** PROGRAMME

TIME	THEME: PRODUCTION SYSTEMS AND RESILIENCE  Session 6 – Crop Protection  Room: CPI 2501  Chair: Dra Celsa Macandza and Mr. Emmanuel Malai		
14:00	Introduc	tion by the Chair	
14:05	06 - 01	<b>K.N. Ntidi</b> and H. Fourie	Nematode Problems In Subsistence Grain Production Areas Of South Africa
14:20	06 - 02	Taonga Chasweka	Identification Of Candidate Microbe For The Development Of Biological Fungicides Against <i>Phytophthora infestans</i>
14:35	06 - 03	Stanlous J. Waswa, J. W. Waceke and M. Mwangi	Compatibility Of Endophytic Fungus (Colletotrichum nigrum) With Velum   *(Synthetic Nematicide) Against Root-Knot Nematode (Meloidogyne spp.) On Tree Tomato
14:50	06 - 04	<b>Ali Ussene</b> , A. Chamuene and F. José	Co-Occurrence And Niche Differentiation Of Lepidopteran Pests And Their Earwig Predator ( <i>Doru luteipes</i> ) In Maize Under Conservation Agriculture In Nampula, Mozambique (virtual)
15:05	06 - 05	Venâncio A. Salegua	Grain Yield, Stability And Bacterial Brown Spot Disease Of Dark Red Kidney Dry Bean ( <i>Phaseolus Vulgaris</i> L.) Genotypes Across Six Environments In South Africa
15:20	06 - 06	Jamisse Amisse, E. Chaur, E. Xerinda, E. Zuber and F. Matavele	Screening Of F1 Cassava Population From Two Elite Cassava Varieties (Mokhalana And Colicanana) Using Grafting Inoculation As Rapid And Accurate Method For Field Screening Clone For Cassava Brown Streak Disease Resistance.

15:35	06 Egas Nhamucho, J. Sibiya, S. Mugo	Gene Action And Heritability Controlling Maize Weevil And Larger Grain Borer Resistance In Tropical Maize Germplasm
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# **POSTER SESSION II**

CODE	AUTHORS	TOPIC
P2-01	Abel P. Mataveia Júnior	Analysis of the integration of common bean prices between the markets of Maputo, Maxixe, Angónia, Gurúè and Lichinga
P2-02	<b>Derço Manhice</b> , L. Artur	Socio-economic impact of the Covid-19 pandemic in Boane District, Maputo Province
P2-03	<b>C.R.Bila Mussane</b> and T.F. Chiconela	Adaptability Of The Formosana Banana Variety In The Southern Agroecological Zone
P2-04	Amade Muitia, M. J. Mopecane and V. Salegua	Stability Analysis Of Bambara Groundnut ( <i>Vigna subterranean</i> Verdc) Gentypes In Northern Mozambique Using Ammi And Gge Biplot
P2-05	Luís Domingos Bota, D. Jequessene, Marc De Meyer, D. R. Cugala and L. Canhanga	Potential Of Waste Brewer's Yeast As Food Based Attractant For Monitoring Of Fruit Flies ( <i>Diptera: Tephritidae</i> ) In Central Mozambique
P2-06	<b>Ângelo José</b> , B. Rachid, L. César, J. Coelho and L. Goulão	Evaluation of sowing dates and wheat genotypes for optimization of rainfed production in the Lichinga Plateau

CODE	AUTHORS	TOPIC
P2-07	Agisanyang Tautsagae, M. Mwajita, A. Kavoo and A. Nyende	Evaluation Of Safflower Genotypes As Leafy Vegetable In Two Agro- Ecological Zones In Kenya
P2-08	M. Mativavarira, K. Simango, E. Gasura, C. Ziyomo, Paul Kimwemwe, M. Kyallo and D. Savadye	Dartseq SNP-Based Genetic Diversity And Population Structure Of Spider Plant ( <i>Cleome gynandra</i> L.) Accession Populations From Zimbabwe
P2-09	<b>Jeje Mangue</b> , I. Esperança and L. Tivana	Effect Of Different Harvest Ages On The Structure And Chemical Composition Of The Roots Of Six Varieties Of Cassava (Manihot esculenta Crantz)
P2-10	<b>Nyamwamu N. Charles</b> , P. Jeruto, E. Njenga, P. F. Arama and R. Mwanza Mulwa	Delimitation Of Cassava Germplasm Clusters In Kenya Based On Phenotypic Traits
P2-11	Kolawole, Opeyemi Saheed and Bello, Munir Sikiru	Comparative Effectiveness Of Different Animal Manure And The Phytotoxicity Evaluation On The Growth And Yield Of <i>Abelmoschus esculentus</i> L. (Okra) Vegetable
P2-12	<b>Ufuoma Lydia Akpojotor</b> , Jelili Opabode, Oyatomi Olaniyi and Michael Abberton	Screening Of Winged Bean ( <i>Psophocarpus tetragonolobus</i> (L.) Dc.) Seedlings For Drought Tolerance
P2-13	R.A. Alagba, I.I. Ibeawuchi, N.C. Adikuru, N.A. Okoli and L.C. Emma-Okafor	Influence Of Poultry Manure Mixed With Palm Bunch Ash On Growth And Yield Of <i>Amaranthus cruentus</i> In Owerri South Eastern Nigeria.

CODE	AUTHORS TOPIC	
P2-14	<b>Idris Z. Kiri</b> and B. Ado	Influence Of Drought Stress On Crop Growth And Development: A Review
P2-15	<b>Manuel A.Temo</b> , P. Fato and F. A. Amela	Evaluation of the effectiveness of the use of synthetic and inorganic organic fertilizers in the performance of maize varieties introduced from Spain at the Sussundenga Agricultural Station.
P2-16	K.N. Ntidi and Z. Bello	Preliminary Study: Association of Nematode Assemblages on Pigeon Pea with special reference to <i>Meloidogyne</i> spp.
P2-17	Rabiu Sani Shawai, M. A. Ibrahim, I. M. Bello, Umar Haruna Gaya and Kabiru Dauda Dawaki	Molecular And Morphological Characterization Of Wheat Genotypes Under Drought Condition In Nigerian Sudan Savannah
P2-18	<b>Dércio Romão</b> , D. Cugala and L. Canhanga	Evaluation Of The Suitability Of Agro-Ecological Conditions For The Development Of Fall Armyworm ( <i>Spodoptera frugiperda</i> ) In Mozambique
P2-19	Domingos Feniasse, R. Borguete, A. Vilanculos, C. Jorge, A. Lumbela, L. Savanguane and V. Massango	Improving soil health, food security and income of smallholder farmers in Mozambique through the development and use of appropriate fertilizer formulations for maize and soybean in the Beira corridor
P2-20	A. Abdullahi, M.M. Abdulmalik and M.S. Mohammed	Correlation And Path Coefficient Analysis In Tomato (Solanum lycopersicum Mill.) Genotypes Under Water Stress

## **CONFERENCE** PROGRAMME

CODE	AUTHORS	TOPIC
P2-21	Henriques Colial, M. Chipeta, J. Kampanje, B. Divage, A. Chamuene, V. Salegua, L. António, S. Somueque, D. Alexandre, C. Bambo, C. Pedro, M. Donça, L. Lampião, Y. Langa, and I. Napita	Evaluation Of Cowpea Elite Lines ( <i>Vigna unguiculata</i> ) For Drought Tolerance In Nampula – Mozambique
P2-22	N. Boodia, J. Govinden-Soulange and N. Ludidi	Comparative Phenotypic And Physiological Responses Of Pigeon Pea ( <i>Cajanus cajan</i> L. Millsp.) Genotypes To Water Deficit
P2-23	N. A. Okoli, E.S. Udoh and C. M. Lambert	Influence Of Fertilizer Types On Vitamins, Phytochemical And Proximate Contents Of Ocimum gratissimum L.
P2-24	Rhodrick Kusamba, J. Dzanja, B. Kamwana and D. Chiumia	Are Smallholder Dairy Cooperatives In Malawi Efficient? Examining Dairy Cooperatives Performance In Central Region Of Malawi
P2-25	Franklin N. Mabe, Ayuba Dauda and Dominic T. Konja	The Supply Of Labour To Artisanal Small-Scale Mining And Household Food Security In Ghana
P2-26	<b>E.M. Shikoli</b> , J.O. Ogweno , M. Saidi And F.W. Obuoro2	Effect Of Bunching Onion Crude Extract Concentrations And Irrigation Levels On Quality Of Tomato
P2-27	K.C. Oluoch, A.N. Otinga, R. Njoroge, T. Ouma, P. Agredazywczuk , M. Barthel, J. Six, S. M. Leitner and E. Harris	Fate Of N-Fertilizer In Maize Mono- Crop Systems Of Tropical Highlands

CODE	AUTHORS	TOPIC	
P2-28	Victor Vedasto Ngaiza	Antifungal Potential Of Plant Bioactive Compounds, Sulphur And Copper Formulations Against Alternaria Leaf Spot In Kales, Kenya.	
P2-29	<b>Ihejirika, G. O.,</b> Ogbedek, K. O., Akalazu, J. N. and Ezenwoke, E. O.	Assessment Of Animal Manure Types And Levels As Protectants Against Field Disease Development And Yield Of Pepper	
P2-30	Hipólito Malia, A. Cumbane, A. Chamuene, A. Momade, N. Garrine and D. Cugala	Research Into Sustainable Management Methods Of The Fall Armyworm, <i>Spodoptera frugiperda</i> In Four Regions Of Mozambique	
P2-31	Elias Secretário Armando Ferreira	Contributions to the Floristic and Knowledge of Maputo National Park, Mozambique	
P2-32	J. G. Jamisse, J. Ndunguru, F. Tairo, L. M. Boykin, M. A. Kehoe, E. Ateka, C. Rey and P. Sseruwagi	Population Genetic Analysis Of Cassava Brown Streak Virus In Mozambique, Tanzania And Kenya And Genetic Differentiation Of CBSD Associated Virus Species	
P2-33	<b>Lateiro Salvador de Sousa</b> and I. A. Chaúquez	Modeling Parameters a, b, c, & d Relevant For Generating Intensive Rain Equations	
P2-34	Carlos Filimone, A. Humulane And A. Alage	Factors That Influence The Consumption Of Biofortified Yellow Maize Provitamin A	
P2-35	<b>Albertina Alage</b> and A. A. Humulane	Sustainable Development: Women's Participation And Challenges In Agriculture	

CODE	AUTHORS TOPIC	
P2-36	Tapaça Inocência da P. E., L. Mavuque L., J. Pinheiro, I. Maquia, D. Brito, C. Cassamo, C. Tongai, M. Romeiras, J. Ramalho, I Marques and A. Ribeiro-Barros	Genetic Diversity Of Coffea spp. In Mozambique
P2-37	Luis C. Savanguane, I. Tokumoto, T. Sato, H. Cho, D. Feniasse, V. L. Massango.	Wood Ash Recycling For Restauration Of Acidic Soil Fertility In Mozambique. A Geochemist's Workbench (Gwb) Predictive Model Use
P2-38	<b>Dauto Ibramaugy</b> , E. Mungoi and J. Francisco	Evaluation of the sensory, physical- chemical and microbiological quality of soy milk of the variety Zambone TGZ 19046F
P2-39	Hailekiros Tadesse Tekla, Y. Tsehaye, G. Atsbeha, F. A. Abera and R. M. Chiulele	Investigation of genotype x environment interaction for <i>Hordeum vulgare</i> L. ssp. vulgare recombinant inbred lines in multi-environments of Tigray, Ethiopia
P2-40	Melvis C. Vilanculos Cossa, João P.M. Rocha, Rafael M. Al. de Assis, Jeremias J. F. Leite, L. F. Texeira, Suzan K. V. Bertolucci and José Eduardo B. P. Pinto	Impact Of Photon Flux Density And Light Spectral Quality On Biomass Production And Arbutin Compound Accumulation In Origanum majorana L. Plantlets

# **THURSDAY, September 19**

### SYMPOSIUM III Room: CCMC

INCLUSION FOR MARKET INVOLVEMENT OF WOMEN AND

TIME

YOUTH IN AGRICULTURE

Room: CCMC

Moderator: Prof. João Mosca - OMR

08:30 Introduction

Keynote speakers

08:40 S3 - 01

#### YOUTH IN AGRIFOOD SYSTEMS: MORE THAN THE LEADERS OF TOMORROW

(virtual)



**Dr. Geena Tesdall,**Director of Young
Professionals for Agricultural
Development
(YPARD)

Dr. Geena Tesdall is an agriculture systems thinker taking on projects to sustain the environment and people, striving to be a servant-leader in order to foster equality between generations (and all delimiters of privilege). Before joining YPARD, she was the federal agricultural policy officer at the German Rural Youth Association (Bund der Deutschen

Landjugend) (2020). She focused on youth involvement in agricultural policy, and was the former president (2013-14) of the International Association of Agriculture and Related Sciences Students (IAAS). 09:00 S3 -

# INCLUSION FOR MARKET INVOLVEMENT OF WOMEN AND YOUTH IN AGRICULTURE



**Fatima Dias,** FTF RESINA

Dr. Fatima Dias is the, Youth and Social inclusion expert at FTF RESINA. She has over 10 years as a higher education lecturer, teaching courses in Gender Studies, Sexual and Reproductive Health, Life Skills, Scientific Research Methodologies, Marketing and Management, Corporate Social Responsibility, and Public Relations. She also has Extensive experience in

coordinating and managing gender and advocacy projects focused on Sexual and Reproductive Health, Economic Empowerment of Women and Girls, and Multisectoral Mechanisms for Women Victims of Violence.

09:20 S4 -

# INVESTMENT PRIORITIES FOR DRIVING INCLUSIVE AGRICULTURAL TRANSFORMATION



**Dr. Rui Benfica,** IFPRI

Rui Benfica is a Senior Research Fellow at the International Food Policy Research Institute (IFPRI). Prior to joining IFPRI in 2019 he served as Lead Economist at the International Fund for Agricultural Development (IFAD), Associate Professor of International Development at Michigan State University, and Senior Poverty Economist (Africa Region) and Economist with the Gender and Development Group at the World Bank.

09:40

**S5-04** 

# ACTION RESEARCH IN ESTABLISHING LOCAL GOVERNANCE: OPPORTUNITIES AND CHALLENGES BASED ON PROSULI PROJECT EXPERIENCE



**Prof. Nícia Givá,** Eduardo Mondlane University

Prof. Nícia Givá is an Assistant Professor at Faculty of Agronomy Forest Engineering, Eduardo Mondlane University in Mozambique. Her research scope expands from rural sociology, aender and community based participatory rural development to environmental politics of conservation areas, governance of protected areas, environmental communication and sustainable natural resources management in the complex conservation-rural livelihoods nexus.

10:00 Discussion10:30 Closing remarks

10:30 – 11:00

COFFEE BREAK

# **SPECIAL SESSION IV**

Room: CPI 2502

# TIME

# AGRICULTURE INSURANCE: ONGOING EFFORTS TO STRENGTHEN RURAL FARMERS RESILIENCE IN LOCAL FOOD SYSTEMS

(Organized by: FTF RESINA)

#### Justification

11:00 -13:00 Climate-related threats such as droughts, floods, pests and diseases increasingly threaten crop yields and negatively impact productivity. Smallholder farmers are especially vulnerable as they are highly dependent on agriculture and have limited capacity to deal with climate change's impact on their yields or large increases in input prices. Climate change poses a formidable threat to agriculture, leading to unpredictable yields as farmers contend with shifting weather patterns, extreme temperatures, and altered precipitation levels. As a result, they are increasingly struggling with food insecurity and their livelihoods are more at risk than ever. Insurance serves as a crucial tool for farmers, acting as a financial shield that not only safeguards against unforeseen risks such as extreme weather events but also fosters resilience, stability, and long-term prosperity in agricultural communities. Insured farmers are better equipped to withstand shocks, contributing to overall global food security by maintaining stable agricultural production. Insurance is also a lowhanging fruit that can de-risk agricultural transactions, mobilize and secure public investment, and make food systems more resilient by helping smallholders adapt to climate volatility, retain access to inputs from Agri-enterprises, and ensure productivity.

#### **Objectives**

This session seeks to provide improved stakeholder understanding of the Area Yield Index Insurance (AYII) as a product that can be operationalized to promote resilience of agri systems actors particularly farmers.

#### **Expected Results**

The session will promote networking by actors interested in agriinsurance and provide opportunities for the replication and scaling of the pilot intervention that is being implemented by PULA in partnership with FTF RESINA in northern Mozambique

#### **Format**

This session will include a special presentation from PULA, followed by a panel discussion with key experts in the insurance industry. A plenary session will be provided to allow participants to add technical inputs and present any issues that require clarification.

### **SPECIAL SESSION V**

Room: CPII 202

TIME	<b>Biotechnology and OFAM-Mozambique</b> Organized by: African Agricultural Technology Foundation (AATF) and IIAM
11:00 - 13:00	Justification Agricultural biotechnology is still a relatively little explored science, and its benefits are little utilized, especially in Africa. For greater advocacy on Biotechnology, the Open Forum on Agricultural Biotechnology in Africa (OFAB) Project was established, which facilitates the conduct of constructive dialogues between key actors and decision-makers on agricultural biotechnology. For both policymakers and the general public, OFAB facilitates quality commitments on the safety and benefits of modern biotechnology. OFAB is an African Agricultural Technology Foundation (AATF) project funded by the Bill and Melinda Gates Foundation that is being implemented in ten African countries – Kenya, Uganda, Tanzania, Nigeria, Ghana, Burkina Faso, Ethiopia, Mozambique, Malawi and Rwanda. AATF is a leading non-profit organization that provides farmers in Sub-Saharan Africa (SSA) with practical technology solutions to overcome constraints to agricultural productivity.  Objectives The objective of the Side Event on Biotechnology and OFAM-Mozambique at the conference is to share the importance of biotechnology in agriculture with scientists, innovators, farmers, agribusiness entrepreneurs and operators, educators and policymakers involved in agriculture-related value chains who will participate in the conference, including sharing the research carried out and results achieved using biotechnology.

#### **Expected results**

- Improved knowledge and understanding about biotechnology and its benefits in development, especially for agriculture;
- Contribution to more constructive dialogues on Biotechnology;
- Shared the path of research on agricultural biotechnology conducted by IIAM in Mozambique and shared some regulatory instruments, and
- The OFAB-Mozambique network was publicized and greater awareness was created for the participation of various actors in the discussion, dissemination for the consolidation of information and the use of Biotechnology in the country

#### **Format**

Presentations and discussion will be made around the topics presented. Space will also be created for clarifications on questions presented. At the end, the main issues arising from the debate and the recommendations that should be followed to consolidate ongoing actions will be globalized

# **ORAL PRESENTATION SESSIONS**

TIME	THEME: INCLUSION  Session 7 – Knowledge Systems  Room: CPI 1501  Chair: Prof. Eunice Cavane and Dr. Arsénio Jorge		
11:00			
11:05	07 - 01	<b>Arsénio Jorge</b> , L. Artur and A. Pinto	Sharing Information And Knowledge With Urban Farmers To Build Agricultural Practices: The Case Of The Infulene Valley, Mozambique
11:20	07 - 02	Meshack Oriama	Investigation Of Information Assymetry In Agricultural Extension Services In The Wake Of Agriculture Digitization In Kenya: Case Study Of Kirinyaga County
11:35	07 - 03	Martin P. Moyo, A. Magaisa and F. Dube	Assessing The Differential Impact Of Conservation Agriculture Techniques On Crop Productivity, Adoption Levels And Farmer Preferences
11:50	07 - 04	João Bila, C. Mucuamule, A. Bombe, M. I. Ribeiro, A. Venâncio, S. Afonso and P. Rodrigues	Assessment Of Farmer's Knowledge About Fungi And Mycotoxin In Southern Mozambique

12:05	07 - 05	Mathews L. Kambani, Christopher O. Gor and Monica A. Ayieko	Traditional Knowledge, Beliefs And Practices On Collection Of Lake Flies ( <i>Chaoborus sp.</i> And <i>Chironomus sp.</i> ) And Their Implications On Food Security
12:20	07 - 06	Wafula Carolyne Khalayi, L. E. Chimoita, J. M. Kinama, P. M. Nyangweso and S. Gudu	Evaluation Of Sorghum Seed Systems And Sources Of Agricultural Knowledge In Farmer Research Networks In Homabay And Tharaka Nithi Counties, Kenya Counties, Kenya
12:35	07 - 07	Amade Muitia, M. J. Mopecane and V. Salegua	Understanding Bambara Groundnut ( <i>Vigna subterranean</i> Verdc ) Crop In The Northern Region Of Mozambique: Production, Uses And Myths

## **CONFERENCE** PROGRAMME

TIME	THEME: PRODUCTION SYSTEMS  Session 8 – Food Security and Food safety  Room: CPI 2501  Chair: Prof. João Bila and Dra Sandra Inguane		
11:00			
11:05	08 - 01	Zecas C. Gomate	Factors That Contribute To The Food And Nutritional Security Of Households In The District OfMeconta, Nampula Province
11:20	08 - 02	Paula Rodrigues, C. Matusse, A. Tolentino, Z. Lucamba, S. Afonso, A. Venâncio, J. Bila and C. Macuamule	Occurrence Of Aflatoxins In Food Commodities Produced And Consumed In Angola And Mozambique
11:35	08 - 03	Tariro Munyaria, N. Nleyab, K. Chitindinguc and M. Ndemeraa	Effect Of Biofertilizers On Productivity And Aflatoxin Production In Groundnuts (Arachis hypogaea)
11:50	08 - 04	Theoneste Hagenimana, Joseph O. Anyango, Patrick S. Muliro and Clement Bitwayiki	Processing Practices And Acrylamide Levels Of French Fries From Commercial Food Service Establishments In Rwanda (virtual)
12:05	08 - 05	<b>C. O. Echereobia</b> , E. F. Asawalam, K.C. Emeasor and K. Sahayaraj	Efficacy Of Ultraviolet (Uv) Irradiation On The Postharvest Control Of Cowpea Bruchid
12:20	08 - 06	<b>Tamara T. Chirambo</b> and A. Mwangwela	Physical, Cooking Characteristics And Consumer Acceptance Of Whole And Dehulled Pigeon Peas ( <i>Cajanus</i> <i>cajan</i> L) Cultivars Grown In Malawi

12:35	08 - 07	Edson C. Bambo, Yanick L. Langa, A. S. Hassane, J. Atanásio, C. R. J. C. Pastola, Henriques V. Colial, Porfírio A. N. Rosa and F. J. Tanleque-Alberto	Evaluation of the Nutritional Quality of sunflower ( <i>Helianthus</i> annuus I.) genotypes of different colors of achene produced at IIAM – Nampula
13:00 – 14:00		LUNCH	

# CLOSING SESSION Room: CCMC Moderator: Prof. Amélia Sidumo

14:00 - 14:30

#### **CLOSING KEYNOTE ADDRESS**

# INVESTING IN QUALITY TO POTENTIATE RESEARCH AND INNOVATION AND NETWORKS OF EXCELLENCE ACROSS THE REGION



Roberta Malee Bassett, The World Bank Roberta Malee Bassettis Global Lead for Tertiary Education and Senior Education Specialist at the World Bank, where she provides coordinated support to the World Bank's \$7b global lending and analytical efforts supporting postsecondary education reforms. She leads operational teams implementing projects across a variety of tertiary and higher

education projects, addressing issues such as finance and quality assurance reform, internationalization, equity and access, research and competitiveness, and skills development. Prior to joining the World Bank, Dr. Bassett held several positions in university administration, teaching, and research at institutions in the US and UK. She is the author/editor of numerous publications on topics related to international higher education.

14:30 - 14:45

Conference Final Communiqué

Prof. Luis Artur, Local Organizing Committee

# **CLOSING ADRRESS**



**Prof. Manuel Guilherme Júnior**Rector of Eduardo Mondlane University

14:55 - 15:00 African anthem | UEM Choral Group

15:00 – 15:30 **COFFEE BREAK** 

19:00 – 21:00 DINNER GALA

14:45 - 14:55

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# **LIST OF EXHIBITORS**

#### **Higer Education Institutions**

- Superior Politechnic Institute of Gaza (ISPG)
- 2. Centre of Excellence in Agri-food Systems and Nutrition (CE-AFSN), **Eduardo Mondlane University**
- 3. Faculty of Agronomy and Forestry Engeneering, Eduardo Mondlane University (FAEF, UEM)
- University of Save (UniSave)

#### Research institutions

- Agrarian Research Institute of Mozambique (IIAM)
- 6. International Agricultural Research Centers in Partnership with AID-I Mozambique

#### **Development projects**

- 7. PASET Rsif
- 8. Feed The Future Resilience Integrated In Nutrition And Agriculture (FTF RESINA)
- Socodevi

#### **Private companies**

- 10. BIOCHEM-Biológicos, Medicamentos & Químicos, Lda
- 11. Vellsam
- 12. AOI
- 13. Government institutions
- 14. Instituto Oleaginosas
- 15. SeedCo Mozambique
- 16. NUTAGRI, Lda
- 17. Tecap Tecnologia e Consultoria Agro Pecuaria, Lda
- 18. ETGWorld

#### Others

19. Better Cotton Initiative

#### **ORGANIZERS**









#### WITH SUPPORT FROM:













































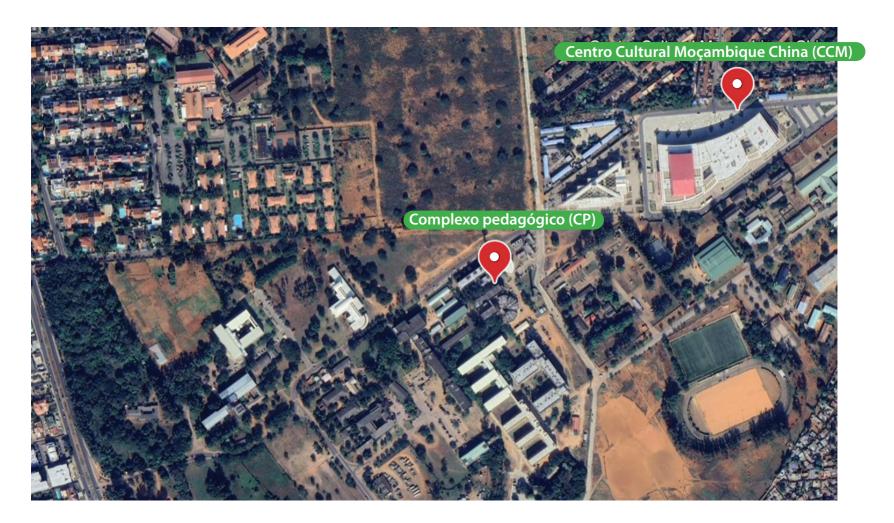




CONFERENCE PROGRAMME

CONFERENCE PROGRAMME

# MAP – EDUARDO MONDLANE CAMPUS



CONFERENCE PROGRAMME CONFERENCE PROGRAMME

# MAP – COMPLEXO PEDAGÓGICO (CP) Rooms





























