

THE FIVE CORE CONFERENCE THEMES REFLECT AN INTEGRATED APPROACH TO IDENTIFYING SOLUTIONS TO THE COMPLEX GLOBAL CHALLENGE OF FOOD SECURITY

Each of the conference themes, presented in tabular form on the following pages, have been organised according to core aspects for discussion with associated subthemes. Cutting across each of these five themes are the three concerns – societal change, innovation and technology, and gender. In addition, to illustrate the interconnected nature and relevance of each theme, the SDGs linked to a particular theme are summarised in the table.

An example of the thematic table is illustrated below:

THEME	CORE ASPECTS	SUB-THEMES	CROSS-CUTTING ISSUES			SDG ALIGNMENT
THEME NAME	The core aspects indicate the key topical areas for discussion.	The sub-themes outline the areas of interest within the core aspects.	The cross-cutting issues highlight the core intersections between global trends and the specific thematic areas. Oral presentations will be selected based on their direct relevance to the key topical areas, with a focus on including representation across all the cross-cutting issues.			Each of the thematic areas selected for the conference have been linked to one or more of the Sustainable Development Goals (SDGs). The SDGs articulate our shared global challenges and the focus of the conference is on identifying local solutions and solutions that are interconnected and contribute to solving the challenges related to one goal without compromising the others.
	Each of the core aspects outlines the primary issues which will be discussed in the oral presentations within the theme.	Paper presentations covering any of the sub-themes will be considered if they are directly linked to one or more of the core aspects.	Innovation Technological, social, systemic or institutional.	Societal Dynamics Population demographics, urbanisation etc.	Gender Under-resourced and vulnerable women in the food system.	

Knowledge sharing and ideas cross-fertilisation: The purpose of this integrated approach is to ensure that the Conference creates platforms for dialogue that are truly multi- and interdisciplinary in their focus, allowing disciplinary experts to present their work on platforms that cut across boundaries.

Fresh ideas and new networks for collaboration: The themed approach of the conference aims to provide exposure to participants to a wide range of approaches, opportunities and networks, which in turn have the potential to lead to new and creative ideas or partnerships. Designers of new technologies are brought into conversation with gender specialists and technical disciplinary experts are exposed to alternative approaches in thinking. The potential synergy of this is catalytic.

Challenging thinkers to make new connections: The cross-cutting themes create a channel through which local approaches to the topical areas under discussion can be showcased. At the same time, the integrated nature of the themes is a challenge to potential participants to think about their work in the context of its relevance to the SDGs. The challenge is for the academic community increasingly towards a connected approach to fixing the food system.

ONE

CORE ASPECTS

SUB-THEMES

CROSS-CUTTING ISSUES

SDG ALIGNMENT

FOOD CREATION

The core aspects indicate the key topical areas for discussion.

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Innovation

Societal Dynamics

Gender

Sustainable intensification

Farm-Save-Seed

Water-energy-food nexus

Plants for Food

Climate change

Livestock Systems

Agricultural production systems.

Fish Harvesting

Food Production

New technologies and innovative approaches that help to overcome the core challenges associated with food creation.

Strategies for managing food security in the context of shifting demographics.

The role of women in food production systems – challenges, successes and innovative approaches.



Example: A session on the impact of **CLIMATE CHANGE** in the context of **INTEGRATED CROPS SYSTEMS** could include a presentation on successful approaches to improving **the role of women** in crop production systems, a presentation on **technologies to improve crop yields** without compromising water availability in surrounding communities and a presentation on **innovative programmes to increase youth participation** in agricultural production through agri-preneurship.

THEME COORDINATOR:

Professor Ndiko Ludidi, Management Committee, Centre of Excellence in Food Security, University of Western Cape

SUPPORTED BY:

Professor Voster Muchenje, SARChI Research Chair, University of Fort Hare

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TWO

CORE

SUB-THEMES

CROSS-CUTTING ISSUES

SDG ALIGNMENT

FOOD SAFETY &
BIO SECURITY

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Innovation

Societal Dynamics

Gender

Potable water for food production

Sanitary and Phytosanitary challenges

Technologies to more rapidly detect hazards in diverse environments & food matrixes.

Social, economic, demographic, trade and political impact on biosecurity and SPS.

Reviving indigenous food safety knowledge.



Soil and plant health

Emerging Foodborne Pathogens

Chemicals in the food chain

Food trade wars.

Women as traditional custodians of safe food.

One Health

Antibiotic resistance in agricultural systems

Next generation metagenomics, plant microbiomes and big data to address one health and food safety.

Impact of food standards.

Female capacity building in technical & regulatory fields of plant health and food safety.



Bio-security

Biological and natural crop protectants

Fairness of global trade in the context of regulations and SPS Agreements.

Food Safety

Risk assessment in plant, animal and public health, as well as in food safety

Example: Transdisciplinary focus on foodborne pathogens within the water-plant-food-animal and human health nexus. Microbes know no boundaries and migrate between water, soil, plant, animal and human cut habitats sharing genetic traits that impact on human health and wellbeing. Antibiotic resistance and virulence genes are moving within microbial populations in ecosystems and impact on agricultural production, food safety and human health. Showing the linkages between the different systems will provide innovative solutions using novel technologies for sustainable food security, health and well-being.

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THREE CORE SUB-THEMES CROSS-CUTTING ISSUES SDG ALIGNMENT

FOOD LOSS AND WASTE

The core aspects indicate the key topical areas for discussion.

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Innovation

Societal Dynamics

Gender

Farm-to-Fork losses

Low yield and crop losses
The lost harvest

Economic models to assess and predict losses.

Indigenous knowledge to save food.

Empowering women in food decisions to reduce losses and waste.



Postharvest losses

Food rot, decay and waste
Food destruction

Technical and social innovation for loss and waste reduction.

Slow food

Enable women as homemakers to use traditional knowledge linked with smart food decisions to purchase, store and prepare food with minimal waste and nutritional loss.

Food waste

Sell-by-date food "losses"
Economic impact of losses

Urban food gardens.

Post-consumption waste

Nutritional food losses

Managing the cold chain and distribution- and storage systems to reduce waste.

Social dynamics.

Example: Actual food waste and losses has a significant economic impact on the health and wealth of society. Linking losses throughout the supply chain and establishing innovative models to reduce waste can empower governments and woman to feed families and the nation. How losses link across many spectrums of society reflect on the urgency to address this critical element if true food security is to be achieved.











THEME COORDINATOR:

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FOOD IN A CHANGING SOCIETY	FOUR	CORE	SUB-THEMES	CROSS-CUTTING ISSUES			SDG ALIGNMENT			
		The core aspects indicate the key topical areas for discussion.	The sub-themes outline the areas of interest within the core aspects.	The cross-cutting issues highlight the core intersections between global trends and the specific thematic areas.			Each of the thematic areas has been linked to one or more of the SDGs.			
				Innovation	Societal Dynamics	Gender				
		Food sovereignty and the democratisation of food	Public policy and governance	Innovative approaches to govern, agri-business-science-community approaches, or protecting sustainable livelihoods.	Policies, strategies and practices to ensure food security in a rapidly urbanising society with vulnerable sub-groups such as waste pickers, the homeless, child families and the urban poor including rural poverty and exclusion.	Enhancing the role of women in the governance of food, strengthen their role in agri-business and approaches to empower women in family nutritional security.				
		Social Protection	Agri-Business-Science-Community approaches							
		Food access and markets								
		Sustainable livelihoods								
		Human capital development	Value chain approaches							
		<p>Example: A session on the impact of SUSTAINABLE LIVELIHOODS could include a presentation on successful POLICIES AND PRACTICES to improving the role of women in decision making processes at community and local government level, a presentation on a successful agri-business-science-community project which focused on market access for rural women farmers and propose innovative models of urban food management.</p>								
		THEME COORDINATOR:		Dr Joyce Thamaga-Chitja, African Centre for Food Security, University of Kwazulu-Natal						
	SUPPORTED BY:		Professor Lorenzo Fioramonti, Director Centre for the Study of Governance Innovation, University of Pretoria							
			Professor Andreis du Toit, CoE Food Security, University of the Western Cape							

FOOD UTILISATION

FIVE	CORE ASPECTS	SUB-THEMES	CROSS-CUTTING ISSUES			SDG ALIGNMENT
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			Innovation	Societal Dynamics	Gender	
	Smart Foods	Smart Food technology & indigenous foods	Innovative approaches and technologies to improve food quality, nutritional content, palatability and shelf-life. Food knowledge; traditional foods, food cultures, ethical food, food values etc.	Foodways, nutrition and health in the context of shifting demographics and changing diets.	The role of women and men in food choices, preparation consumption, custodianship and expertise.	<div><div>9</div><div>INDUSTRY INNOVATION AND INFRASTRUCTURE</div><div></div></div> <div><div>17</div><div>PARTNERSHIPS FOR THE GOALS</div><div></div></div>
	Nutrition security	Under-nutrition, hidden hunger and obesity				
	Water, sanitation and hygiene	Maternal health and child development				
		Environmental enteropathy and the physiology of nutrition				
	Food literacies, cultures and politics	Informality and the urban food system				
Contesting food security						
EXAMPLE: A session on Water Sanitation and Health could use a gendered lens to link falling prevalence of exclusive breastfeeding to urban food environments that are both risky due to poor WASH, and that encourage early weaning of infants, proposing ways in which information technologies can foster choices that are likely to result in better nutrition outcomes						
THEME COORDINATOR:		Professor Julian May, Director CoE Food Security, University of the Western Cape				
SUPPORTED BY:		Professor Rina Swart, Deputy Dean of the Faculty of Community and Health Sciences, University of the Western Cape (TBC) Professor Naushad Emmambux, Food Science, University of Pretoria				