

THE 4TH AFRICA ANIMAL WELFARE CONFERENCE

SESSION3: Food Security and Food Systems

Presentation on using nature-based solutions to tackle Food Security Challenges in Africa.

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Introduction of Food security and insecurity concepts

- **As FAO defined a food security concept is:** a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Culturally and religiously accepted
- Based on this definition, four food security dimensions can be identified: food availability, food accessibility, food utilisation and stability over time

Four main Dimensions of food security

1. Physical food Availability:
2. Food accessibility and affordability: *existence of* Reasonable food commodity prices, this component is centrally concerned with the purchasing power of households, individuals and the social dynamics governing access
3. Food Utilization and bioavailability.
4. Food Stability, implies continues supply,

Food insecurity

- **Food insecurity is a**
 - lack secure access to sufficient food
 - no safe food and nutritious food for normal growth,
 - Inadequate food for development and an active and health life.
- There are three types of Food insecurity which are chronic, seasonal or transitory.

Levels and Types of food insecurity

- **Chronic food insecurity:** A long-term and persistent condition of food insecurity and occurs when people are unable to meet their minimum food requirements over a sustained period of time
- **Transitory food insecurity:** it is a short-term and temporary condition of food insecurity. It refers to a sudden drop in the ability to produce or access enough food to maintain a good nutritional status
- **Seasonal food insecurity:** occurs when there is a cyclical pattern of inadequate access to food (e.g. food shortages in pre-harvest period)

Food security is ensured in a country only if

- Enough food is available for all the persons
- All persons have capacity to buy food of acceptable quality and
- There is no barriers on access to food

Why food insecurity has been chronic in many African countries

- (1) insecurity and political instability and crises
- (2) climate changes effects
- (3) global politics and economics
- (4) Endemic diseases
- (5) laboratory for all power politics such slavery, colonization, neo colonization,

Food security challenges in Africa.

1. Rapid population growth,
2. poverty and urbanization
3. Illiteracy and lack of education
4. Lack of integrated Africa policy for food security
5. Lack of encouragement for Traditional farming system
6. Limited experience farming exchange among African countries
7. Lack Policy Framework on Food Security

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- Global climate change include frequency of drought, floods, fire and desertification

Understanding nature based solutions

Nature Based Solutions defines nature-based solutions as “actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits”.

Nature Base Solution to tackle food security challenge in Africa

1. Understanding ecosystems in Africa
2. Understanding African societal and social dynamics
3. Understanding agro-systems
4. Understanding land and soil conservation, rotations of farms, nomadic movements,
5. Understanding Water harvesting to improve water security

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- minimizing soil erosion
- preserving agrobiodiversity
- Setting sustainable agriculture as a priority;
- maintain ecological stability;
- optimize utilization of the different soil nutrients;
- Use agroecological farming system to replace external inputs that so called “agroecosystem”
- Governments should subsidies for fertilizers and other agricultural inputs to the poor farmers

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- Restoring and protecting forests and wetlands in catchments
- Consistent Policy Framework for food security
- Ensure responsible and effective governance mechanisms
- Financing for water resources management must be sustainable
- planting forests: to mitigate climate change, and reduce soil erosion and avoid likelihood of landslides

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- Increasingly, people understand and recognize that biodiversity and ecosystem services are the basis for societies' natural capital.
- Develop & select tolerant crop varieties and cultivars through adaptive research for drought, heat and flood situation
- encourage traditional farming systems