



THE UNIVERSITY OF
WESTERN AUSTRALIA
Achieving International Excellence

Food Security

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Outline

- Definition of food security
- Political responses
- The right to food
- Sustainable development



Food and Agriculture
Organization of the
United Nations



Global Forum
on Food Security
and Nutrition

Food Security Defined

Food security exists when all people, at all times,
have physical and economic access
to sufficient, safe and nutritious food
to meet their dietary needs and food preferences
for an active and healthy life.

World Food Summit, November 1996

DEFINITION OF FOOD SECURITY



Food Security exists when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.

This definition introduces four main **dimensions** of food security:



Physical **AVAILABILITY** of food

Economic and physical **ACCESS** to food

Food **UTILIZATION**

STABILITY of the other three dimensions over time

Four dimensions of food security

availability

- domestic production
- import capacity
- food stocks
- food aid

access

- poverty
- purchasing power
- transport and market infrastructure
- food distribution

stability

- weather variability
- price fluctuations
- political factors
- economic factors

utilization

- food safety & quality
- clean water
- health & sanitation

AVAILABILITY

The first World Food Conference (1974) focused on the problem of **global production, trade and stocks**.

Hence, the original food security debate focused on adequate supply of food and ensuring stability of these supplies through food reserves.

Subsequent food security efforts focused primarily on food production and storage mechanisms to offset fluctuations in global supply and ensure the ability to import food when needed.

Food availability addresses the “supply side” of food security and is determined by the level of food production, stock levels and net trade.

ACCESS

From the early 1980's, the importance of **food access** was increasingly recognized as a key determinant of food security.

Hence, food production is just one of several means that people have to acquire the food that they need.

Concerns about **insufficient food access** have resulted in a greater policy focus on incomes and expenditure in achieving food security objectives. This has brought food security closer to the **poverty reduction** agenda.

UTILIZATION

A third dimension – **food utilization** – has become increasingly prominent in food security discussions since the 1990s.

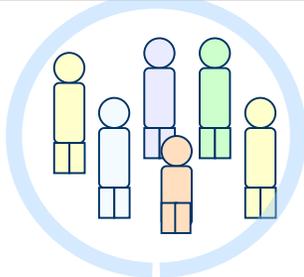
Utilization is commonly understood as the way the body makes the most of various nutrients in the food. This food security dimension is determined primarily by people's health status.

Food security was traditionally perceived as consuming sufficient protein and energy (**food quantity**). The importance of micro-nutrients for a balanced and nutritious diet (**food quality**) is now well appreciated.

STABILITY

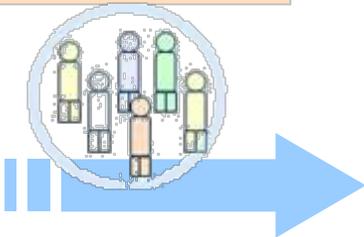
The phrase "*all people, at all times*" is integral to the definition of food security, and is key to achieving national food security objectives.

"All people"



Different people are food secure to varying degrees and will be affected by adverse events differently.

"All times"



People's food security situation may change. Adverse weather conditions, political instability, or economic factors may impact on your food security status.

"*At all times*" refers to the **stability** dimension of food security. It emphasizes the importance of having to reduce the risk of adverse effects on the other three dimensions: food availability, access or utilization.

For food security objectives to be realized, **all four dimensions must be fulfilled simultaneously.**

For example, even if people have money (**access**), if there's no food available in the market (**availability**), people are at risk of food insecurity.

Furthermore, food security is also about quality, and that your body must be healthy to enable the nutrients to be absorbed (**utilization**).

These 3 dimensions should be **stable** over time and not be affected negatively by natural, social, economic or political factors.

Food security *and* nutrition: key determinants

- food availability
- stability
- food access
- utilisation of food
- care and feeding practices
- health and sanitation conditions

food security
dimensions

determinants
of good/poor
nutrition

Food insecurity and malnutrition world-wide

- **805 million** people suffer from chronic hunger (undernourishment)
- **161 million** children are stunted (low height-for-age) and **51 million** wasted (low weight-for-height)
- **2 billion** people suffer from micronutrient deficiencies, or “hidden hunger” due to a lack of vitamins and minerals in the diet
- **> 500 million** adults are obese, while an estimated **42 million** children under the age of five are overweight; this has increased the incidence of non-communicable diseases related to diet, such as heart disease, stroke,

International food Policy Research Institute, FOOD POLICY IN 2017–2018

UPWARD TREND IN HUNGER AND FOOD INSECURITY

Global hunger increased after nearly a decade of prolonged decline. The number of undernourished people globally rose from 777 million in 2015 to 815 million in 2016. Much of the worsening trend in global hunger can be linked to persistent conflicts, which have been exacerbated by climate shocks.

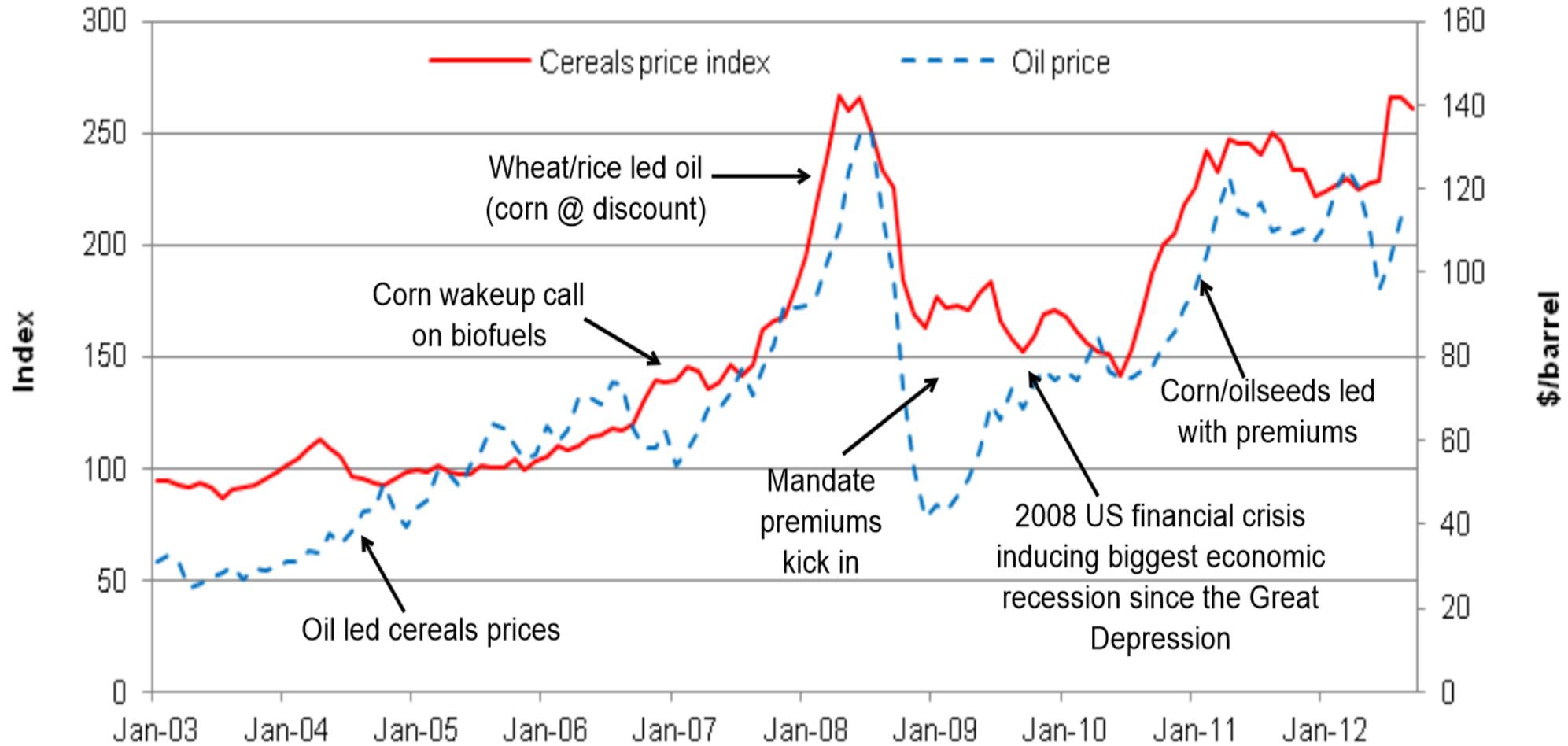
Challenges

- Increasing global population
- Climate change
- Potable water shortage
- Loss of arable land, urbanization
- Increasing food wastage
- Food related issues
 - Malnutrition
 - Obesity

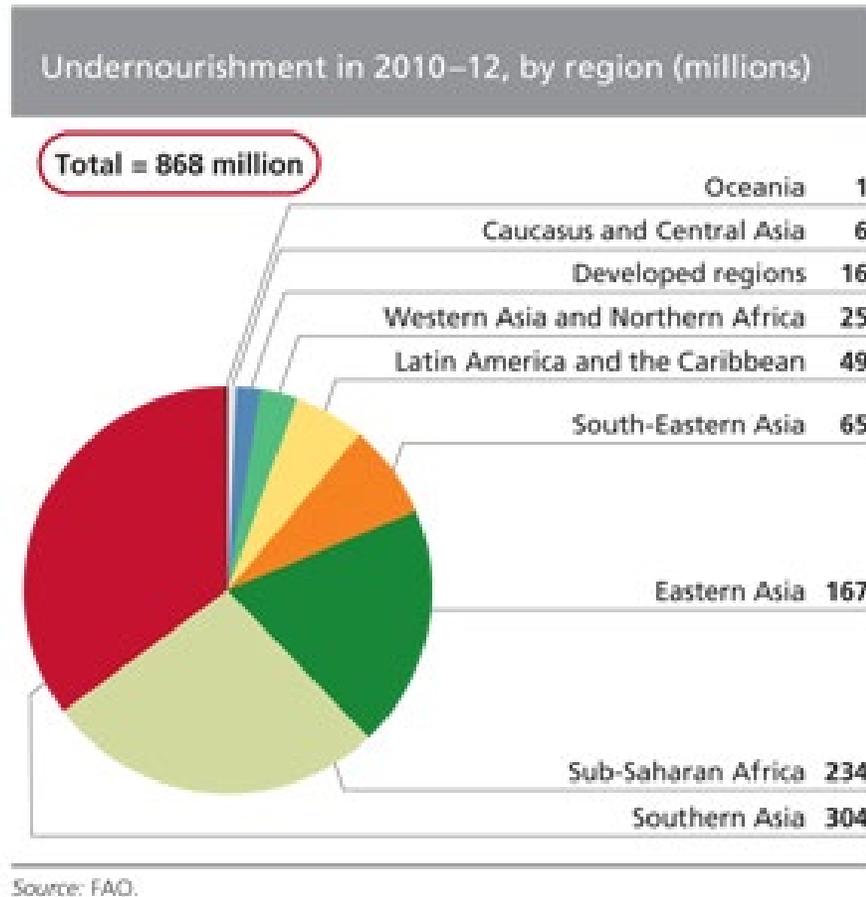
Challenges

- An increasing global population, in combination with climate change, poses a threat to food security as arable land becomes more scarce
- **Global population:** 4.4 billion → 6.1 billion from 1980-2000
 - Projected 9 billion 2050
- **Food production:** 50% increase from 1980-2000
- **Degradation of arable land:**
 - 75% in Central America
 - One-fifth in Africa
 - 11% in Asia

Growing our Energy for Security – Food v Fuel?



Malnutrition Worldwide



World

Number and percentage of undernourished persons

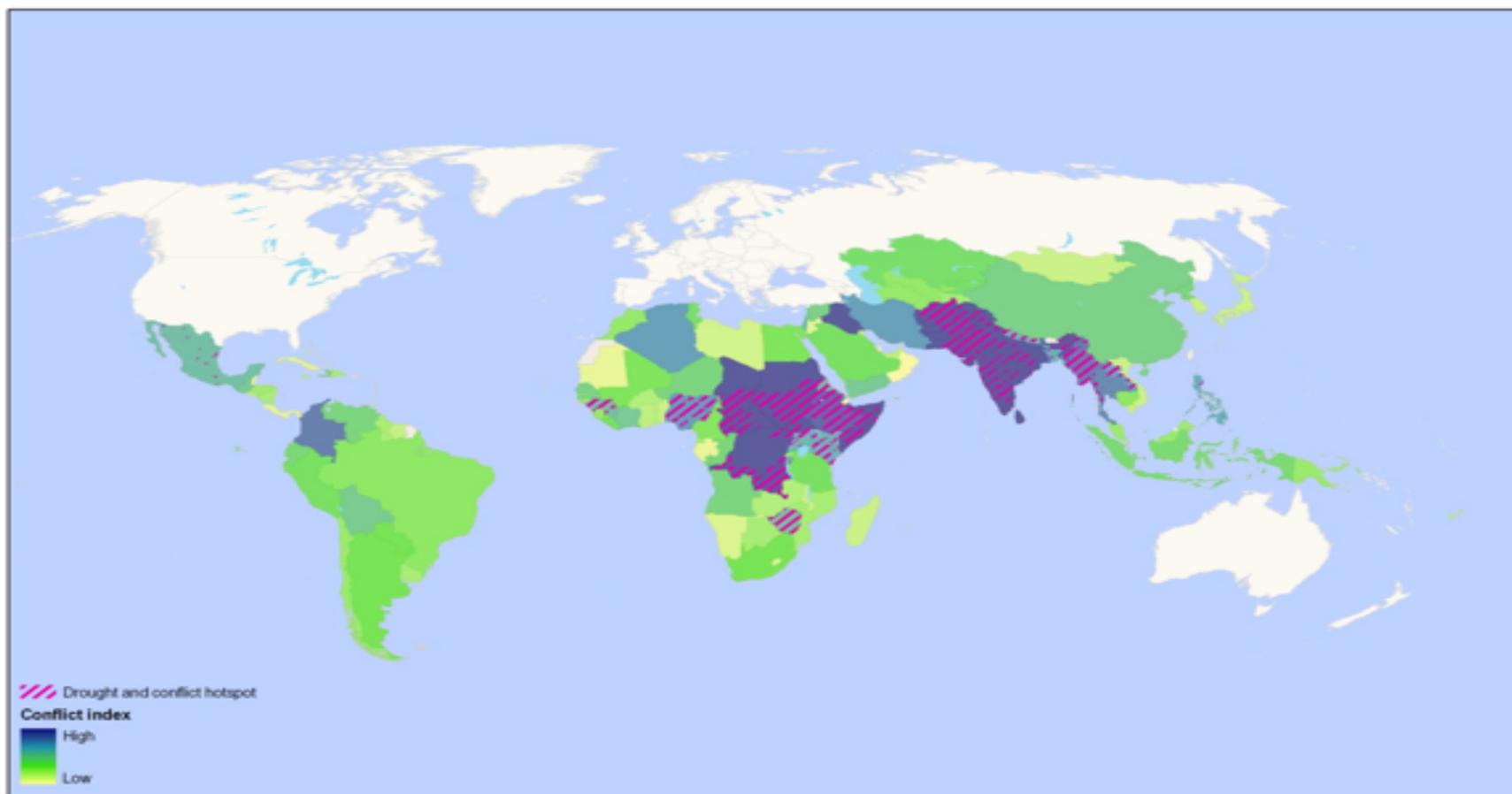
2010-2012	868	million (12%)
2007-2009	867	million (13%)
2004-2006	898	million (14%)
1991-2001	919	million (15%)
1990-1992	1000	million (19%)

The FAO defines **undernourishment** as the state of consistently consuming less energy, in the form of protein and calories, to maintain a weight appropriate for height, and for mild activity.

Vitamin/Mineral deficiencies

- Vitamin A
 - Approximately 250000 – 500000 children that are Vitamin A deficient develop blindness each year
- Iron
 - Affects approximately 30% of people in the world
- Zinc
 - As of 2009, it was estimated that approximately 2 billion people were deficient in zinc

Conflict and drought hotspots



Source: http://www.careclimatechange.org/files/reports/Implications_overall_vulnerability_south_asia_2.jpg

Food Security – Political Responses

Food Insecurity

World Food Summit convened in Rome in 1996, by the FAO reported that more than 800 million people, particularly in developing countries, do not have enough food to meet their basic nutritional needs. It was estimated that some 400,000 people were killed by malnutrition daily.

World Food Summit, 5 Years Later, June 2002

Noted “that the average annual rate of reduction in the number of undernourished people in the world was eight million and that if this trend continues, the WFS target of reducing the number of the undernourished by half by 2015, reaffirmed by the Millennium Declaration, will not be attained”

High Level Conference on World Food Security, convened by the FAO in June 2008

Noted that during the first three months of 2008, international nominal prices of all major food commodities reached their highest levels in nearly 50 years while prices in real terms were the highest in nearly 30 years.

The High Level Conference observed that the constriction of food supplies was caused by the shift of farmers into the production of biofuels and also the impact of global warming on food supplies. The Declaration issued by the High Level Conference requested an immediate response to requests for food assistance by affected countries and in the longer term to enhance investment in agriculture.

L'Aquila Joint Statement on Global Food Security, 10 July 2009

<http://www.ifad.org/events/g8/statement.pdf>

1. We, Heads of State, Government and International and Regional Organizations convened in L'Aquila, remain deeply concerned about global food security, the impact of the global financial and economic crisis and last year's spike in food prices on the countries least able to respond to increased hunger and poverty.

L'Aquila Joint Statement on Global Food Security

4. Food security is closely connected with economic growth and social progress as well as with political stability and peace. The food security agenda should focus on agriculture and rural development by **promoting sustainable production, productivity and rural economic growth.**

L'Aquila Joint Statement on Global Food Security

10. Sustained efforts and investments are necessary for enhancing agricultural productivity and for livestock and fisheries development.

Priority actions should include **improving access to better seeds and fertilizers**, promoting sustainable management of water, forests and natural resources, strengthening capacities to provide extension services and risk management instruments, and enhancing the efficiency of food value chains.

L'Aquila Joint Statement on Global Food Security

12. We are determined to translate these principles into action and take all the necessary measures to achieve global food security....in particular to increase food production, improve access to food and empower smallholder farmers to gain access to enhanced inputs, **technologies**, credit and markets.

Muskoka Declaration, G8 Meeting, Canada, 25-26 June 2010

16. Food security remains an urgent global development challenge, exacerbated by climate change, increasing global food demand, past underinvestment in the agricultural sector, and extreme price volatility which has strong damaging impacts on the most vulnerable.

In 2009 we launched the L'Aquila Food Security Initiative (AFSI) mobilized with US\$22 billion for sustainable agriculture development over three years.

We underline the key contribution of research to fight hunger and poverty, notably by increasing sustainable agricultural productivity and reiterate our support to the ongoing reform of the global research networks.

G8 meeting, Camp David, May 2012

- Engaged national governments and private businesses in a New Alliance for Food Security and Nutrition to accelerate agricultural growth and productivity in Africa
- **Technology Platform** - Assess the availability of improved technologies to achieve sustainable yield, resilience, and nutrition impacts, identify current constraints to adoption, and create a roadmap to accelerate adoption of technologies.
- **Scaling Seeds & Other Technologies** - Strengthen the seed sector and promote the commercialization, distribution and adoption of key technologies as related to seeds.

The first APEC Ministerial Meeting on Food Security, October 2010

Agreed that APEC economies would collectively pursue the shared goals of (1) sustainable development of the agricultural sector, and (2) facilitation of investment, trade and markets, which includes, in particular, the support for responsible agricultural investment.

Ministers also endorsed an APEC Action Plan on Food Security, which identifies specific activities to be implemented by APEC economies to strengthen regional food security.

Deauville Accountability Report. *G8 Commitments on Health and Food Security: State of Delivery and Results*

www.g20-g8.com/g8-g20/root/bank_objects/Rapport_G8_GB.pdf

Beyond financial commitments, the G8 firmly supports the Rome Principles which advocate a common approach to improving food security: investing in country-owned plans, fostering strategic coordination at national, regional and global level, striving for a comprehensive approach, ensuring a strong role for the multilateral system and ensuring a sustained and substantial commitment to invest in agriculture, food security and nutrition.

EU Food Security Thematic Programme (FSTP) 2011-13

With a budget of €750 million, the FSTP will focus on three main priorities:

(i) research, technology transfer and innovation to enhance food security;

(ii) Strengthened governance approaches for food security; and

(iii) addressing food security for the poor and vulnerable in fragile situations.

http://ec.europa.eu/europeaid/how/finance/dci/food_en.htm

International Legal Responses

The Right to Food

- Article 25, Universal Declaration of Human Rights 1948 recognises that everyone has the “right to a standard of living adequate for the health and well-being of himself and his family, including food”.
- Article 11(2), International Covenant on Economic, Social and Cultural Rights 1966 (ICESCR) details the measures state parties to the ICESCR should take once they have recognised the “fundamental right of everyone to be free from hunger”.
- State parties should “improve methods of production, conservation and distribution of food by making full use of technical and scientific knowledge” and “ensure an equitable distribution of world food supplies in relation to need”.

World Food Conference, November 1974

- in response to the devastating famine which had afflicted Bangladesh over the previous two years. It issued the Universal Declaration on the Eradication of Hunger and Malnutrition which was adopted by the General Assembly of the United Nations on 16 November 1974.
- It provided in paragraph (g) of the preamble that “the well-being of the peoples of the world largely depends on the adequate production and distribution of food....”

World Food Summit, November 1996

- The Rome Declaration of the World Food Summit recited the commitment by 186 nations to reduce the number of people with inadequate food by 2015.
- The Rome Declaration recognised seven broad commitments which formed the basis of the World Food Summit Plan of Action.

Rome Declaration

- we will pursue participatory and sustainable food, agriculture, fisheries, forestry and rural development policies and practices in high and low potential areas, which are essential to adequate and reliable food supplies at the household, national, regional and global levels, and combat pests, drought and desertification, ...;
- we will strive to ensure that food, agricultural trade and overall trade policies are conducive to fostering food security for all through a fair and market-oriented world trade system;
- we will endeavour to prevent and be prepared for natural disasters and man-made emergencies ...;
- we will promote optimal allocation and use of public and private investments to foster human resources, sustainable food, agriculture, fisheries and forestry systems, and rural development, in high and low potential areas;

UN Special Rapporteur on the Right to Food

- 17 April 2000, the UN Commission on Human Rights passed a special resolution establishing a special rapporteur on the right to food with the tasks of gathering relevant information concerning “the realization of the right to food, including the urgent necessity of eradicating hunger; establishing cooperation with governments, intergovernmental organizations and non-governmental organizations on the promotion and effective implementation of the right to food, and “identifying emerging issues related to the right to food worldwide.”
- (Commission on Human Rights resolution 2000/10).

Global Strategic Framework for Food Security and Nutrition, 2008

- The Committee on World Food Security (CFS) was established in 2008 as “an international and intergovernmental platform for all stakeholders to work together in a coordinated way to ensure food security and nutrition for all”.

Sustainable Development

- *Brundtland Report* of the World Commission on Environment and Development was a comprehensive study of the intersection between the environment and both economic and social development.
- It argued that for development to be sustainable it must include aspects of environmental, social, and economic sustainability.
- On the subject of social sustainability, development was required to meet essential human needs such as employment, food, energy, water, and sanitation.

Rio Earth Summit, 1992 adopted an action plan: Agenda 21

In chapter 4.7. it was stated that action was needed:

- a. To promote patterns of consumption and production that reduce environmental stress and will meet the basic needs of humanity;
- b. To develop a better understanding of the role of consumption and how to bring about more sustainable consumption patterns.

UN Secretary General report on *Agriculture development and food security, 2014*

- a world free from poverty, hunger and malnutrition “cannot be achieved without a shift to resilient, diverse and productive agriculture and food systems, including sustainable natural resources management and reduction of food losses and waste along the value chain”
- “a sustainable food system is one that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised, but enhanced”

United Nations Sustainable Development Summit. September 2015

- Adopts 17 Sustainable Development Goals
- Goal 2 committed UN Members to: “End hunger, achieve food security and improved nutrition and promote sustainable agriculture”.
- Goal 12 was to "ensure sustainable consumption and production patterns" including to "halve per capita global food waste at the retail and consumer level and reduce food losses along production and supply chains by 2030"