The UN’s Sustainable Development Goal 2 seeks sustainable solutions to ending world hunger in all its forms by 2030 and achieving food and nutritional security.

About food and nutrition security

Food and nutrition security involves:

- food availability including production, food stocks and food imports
- access to food through business, food stocks, employment and social protection
- food and nutrition interventions for vulnerable groups and nutrition education

Further, the affordability of food promotes good societal health.

Sustainable fisheries, mariculture and aquaculture are well placed to meaningfully contribute to the achievement of this objective.

The hunger situation

Despite progress toward global food and nutrition security in the past 2 decades, almost 1 billion people remain undernourished and deficiencies in vitamins and minerals persist. This increases morbidity and mortality among the billions of people who suffer from this "hidden" hunger.

World-wide, 1 in 8 people are affected by the life-long negative impacts of under-nutrition. Children are impacted the most, with effects including:

- poor health
- learning disabilities
- delayed cognitive development
- increased morbidity and mortality
Given these various forms of malnutrition, the hunger situation in many developing countries remains serious. It negatively impacts economic growth by compromising human capital, productivity and development.

**Climate change effects**

Climate change compromises food security and has increased the vulnerability of the poor. Developing countries are expected to suffer most from the negative effects of climate change, and may bear up to 80% of the costs.

By 2050, climate change may reduce food availability per capita, resulting in general well-being falling below current levels. Estimates project that the number of malnourished children could increase by about 20%.

Women

Women bear a disproportionate share of the food insecurity burden. Their coping capacity is limited by barriers that are social, political and economic.

For example, if women had access to resources to the degree men do they could increase yields on their farms by 20 to 30%. This would boost food security and family health.

**Addressing food insecurity**

Addressing availability and access to food and nutrition involves:

- decentralization and price stabilization
- market-based economic development, including finance, inputs and outputs and aquatic land resources
- helping communities to withstand shocks and strengthen their resilience

All of these issues must be mediated to a significant degree by local influences and processes. They need to be addressed in specific local contexts with a view of incorporating global good practices.

**Food security interventions**

Food security can also be strengthened through interventions such as:

- safety nets
- opening up regional and international markets
- improving early warning systems to detect risks and hazards
- boosting agricultural productivity, including integrating smart and appropriate technologies for storage and transport of water-derived food resources

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Food and nutrition security can be tackled through:

- land reclamation
- water harvesting and storage
- combating desertification/land degradation
- rehabilitation of arid areas through afforestation
- tapping of renewable energy adaptable technology
- prevention of soil erosion, including the optimum utilization of water bodies
- promoting participation of vulnerable groups, such as youth, women and people with disabilities

Food and nutrition security can also be strengthened through interventions like:

- value addition
- reducing food wastes and post-harvest losses
- accessing credit facilities by small scale fishers and farmers

It can also be strengthened through opening up more arable land and water bodies through application of high water-saving irrigation technologies. This reduces over-dependence on rain-fed agriculture.

In addition, policies to address chronic food insecurity must embrace economic growth (raising incomes) and social protection to reduce the variance of incomes and thus vulnerability. This will protect the consumption patterns of the chronically poor, and improve access to basic services.

Food and nutrition security can be achieved through:

- information
- evidence-based interventions
- agricultural production diversification
- enhancing fisheries resources utilization

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Opportunities

Healthy oceans and water bodies have a central role to play in solving one of the biggest challenges of the 21st century: how to feed 9 billion people by 2050.

Currently, 70% of the globe constitutes oceans which provide only 2% of the food required – highlighting the need to find ways to increase the production and harvest of edible aquatic resources. This can be done through sustainable fisheries and enhanced aquaculture practices to feed and provide livelihoods to growing populations.

Globally, fish supply is expected to reach 190 million tonnes in 2030. This is an increase of 36 million tonnes from 2011.
There should be deliberate and concerted efforts to increase utilization of these fish supplies through promotion of sustainable aquaculture and small scale fisheries to bridge the gap of food insecurity. In order to achieve this, attention must be given to appropriate storage and transportation of edible fisheries resources.

Depletion of food stocks and destruction of breeding grounds has a detrimental impact on food and the economic security of local populations. This includes Indigenous communities living along or around bodies of water.

Mainstreaming risk reduction and enhancing resilience for food security requires focusing efforts on recovery, response, preparedness and developing policies for all stakeholders including:

- local communities
- non-governmental organizations
- national and regional governments
- humanitarian and development agencies

Ensuring mutual learning and collaboration is vital for advancing a coherent and coordinated reduction of food and nutrition security risks and vulnerabilities.

**Forecasting**

Forecasting and response capacities must be strengthened and the dissemination of early warnings must be improved locally and globally. Advance warning enables the necessary actions to reduce people’s exposure to risk while preparing for effective responses and recovery.

Populations can better understand food and nutrition security risks with community-based early warning and monitoring systems and adaptable, innovative methods of disaster prediction and hazard mitigation. These can play a critical role in saving lives and livelihoods. Crucial tools for reducing vulnerability include those that help predict and monitor price volatility, natural disasters and extreme weather events.
Questions

Panelists will guide discussions on:

1. What strategies can be employed to protect the aquatic environment from pollution that impacts fisheries resources (food safety and fish stocks)?

2. What government opportunities can promote aquaculture through inclusion and empowerment of women, youth and people in vulnerable situations?

3. To tackle food and nutrition insecurity and improve livelihoods in vulnerable communities, what business models can be adopted to promote sustainable business-oriented fisheries and aquaculture production?

4. What clean technologies can be adopted to ensure safe and appropriate food storage and transportation over waterways?

5. Women play a critical role in food systems but are the most vulnerable to, and affected by, malnutrition and health issues. How can we:

   • involve women as key stakeholders as we seek sustainable solutions?
   • make sure that solutions are sensitive to women's specific needs and constraints?
   • support and strengthen the role that women already play in food and health systems?

6. How can governments leverage blue economy opportunities to enhance global food security with water harvesting and increased percentage of irrigated lands?