



Nutrition in brief

Improving nutrition and ensuring humanity's freedom from hunger has been at the heart of FAO's work since its founding

Focusing on the distinctive relationship between agriculture, food and nutrition, FAO's mission is to ensure food and nutrition security for all, improve diets and combat micronutrient deficiencies and all forms of malnutrition. We work to protect, promote and improve food systems - the way we produce, collect, store, transport, transform and distribute foods - as the sustainable solution to hunger and malnutrition. We ensure that agricultural development is people-centred and leads to the improved availability, access to and consumption of safe and diverse foods for better nutrition.

Nutrition today

Good nutrition is our first defence against disease and our source of energy to live and be active. While young children are the most vulnerable to malnutrition, the right to adequate food is universal and good nutrition is essential for all. Problems of malnutrition – undernutrition, micronutrient deficiencies and obesity – exist in all countries and cut across socio-economic classes. Emerging challenges, such as climate change, environmental sustainability and rapid technological shifts, are transforming the food system and raising questions about how to feed a growing world population in sustainable ways. At the same time, uneven economic growth, social and economic transformations and other factors are shaping food systems and diets. As a result, the prevalence of overweight, obesity and related non-communicable diseases are increasing while undernutrition and micronutrient deficiencies persist.



FAO's work in nutrition

We envision a world free from hunger and malnutrition, where food and agriculture contribute to improving the living standards of all people in an economically, socially and environmentally-sustainable manner.

Our role in achieving this vision is to support countries in improving nutrition across the life cycle through better food and agriculture systems, working with partners at global, regional and national levels.

What FAO does

We facilitate high level dialogue between sectors and nations, seeking a common agenda on nutrition, agriculture, sustainable food systems and healthy diets. A prime example is the FAO/WHO joint Second International Conference on Nutrition - ICN2, held at FAO headquarters, 19-21 November 2014.

We help countries to develop capacities to evaluate and monitor nutrition, assess options, devise policies and run programmes that will improve nutrition.

We share knowledge, skills and expertise to help implement food-based nutrition policies through nutrition education and consumer awareness using a vast range of multimedia products.

We review evidence, offer guidance and scientific advice on all aspects of nutrition: food composition, assessing diets, human requirements and food-based indicators, while supporting WHO health initiatives and Codex Alimentarius norms.





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Our strategy for nutrition

We build our strategy around people, families and their lives, focusing on strengthening the contribution of food and agriculture systems to raising levels of nutrition, is based on four guiding principles:

- Shape food and agriculture systems to be more nutrition-sensitive in order to produce good nutritional outcomes.
- Have greater impact at country level by harnessing knowledge and experience across the Organization, and by aligning work to build upon and serve country initiatives, policies and programmes.
- Work in partnership, as well as across sectors.
- Promote economically, socially, environmentally-sustainable and gender-sensitive policies, programmes and investments.

The Zero Hunger Challenge...

In 2012, the UN Secretary-General launched the Zero Hunger Challenge to galvanize efforts to end hunger and ensure the fundamental right to food and adequate nutrition for all. The five goals of the Zero Hunger Challenge all fall within FAO's mandate:



Mainstreaming nutrition throughout FAO's work

We harness knowledge and experience across sectors and mainstream nutrition throughout the **FAO 5 Strategic Objectives**, providing unique technical and scientific advice on agriculture-nutrition linkages and diets in all contexts worldwide.

Partnering for nutrition

Improving agriculture for better nutrition demands genuine partnership, no single group or organisation can achieve this on its own. FAO works in close partnership with governments, international bodies such as the European Union, the African Union and the Association of Southeast Asian Nations, as well as our sister UN agencies and other organisations who share our vision.



Online resources

FAO publishes reference publications and manuals, as well as videos and e-learning tools, on topics related to nutrition, from policies to nutrition assessment, nutrition education and food composition.

To view nutrition-related videos online, visit the FAOoftheUN channel on YouTube and select the Nutrition playlist.

In nutrition, we also work on the development and release of reference materials at regional and country levels.

For more information

Contact: nutrition@fao.org

Publications and resources: www.fao.org/nutrition

Nutrition policies and programmes, nutrition assessment, school food and nutrition, healthy diets and food composition are some of the leading areas of interest



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POLICIES AND PROGRAMMES

Why they matter

Our world faces many challenges today: the persistent high levels of malnutrition, climate change, degraded natural resources, urbanization, disasters and crises. There are as many opportunities, in food systems, for agriculture and other sectors to work together and find sustainable solutions to overcome these challenges.

Evidence-based policies are important to design and implement robust programmes that deliver optimum food and nutrition security, while ensuring inclusive social and economic growth for all. Harnessing knowledge, scaling up proven interventions to reach more people in all countries, monitoring the impact of programmes towards Zero Hunger and sustainability is at the helm of our strategic outlook.



Making agriculture work for nutrition

We help governments to make nutrition a national priority. We do this by augmenting food and nutrition policies; by supporting high-level coordination to insert nutrition goals and targets into existing policies, to improve diets; and by making the most of all resources available.

How we do this

Africa: investing in agriculture for nutrition

With NEPAD, the African Union's New Partnership for Africa's Development, we work in 47 countries in sub-Saharan Africa, to harness agriculture for better nutrition through the Comprehensive Africa Agriculture Development Programme (CAADP).

Asia: nutrition in agriculture and forestry

We support the commitment of the Association of Southeast Asian Nations (ASEAN) to integrate nutrition into its 2015-2020 Strategic Action Plan for Food Security. This involves developing ASEAN's vision for nutrition-enhancing agriculture and forestry. An example is the recently published report "Promoting Underutilized Indigenous Food Resources in Asia and the Pacific for Food Security and Nutrition".

Latin America and the Caribbean

Family farms make up 80 percent of all farming activity in the region and represent a vital route to achieving Zero Hunger and sustainable development. In the Dominican Republic, El Salvador, Guatemala, Haiti, Honduras and Nicaragua we help to embed nutrition in the day to day work of agricultural services in training and farming schools.





References and guidelines

We develop, publish and share reference and training materials for policy-makers and programme managers to help them boost the nutritional benefits of food and agriculture.

Recommendations for agriculture and nutrition

An international review of guidance on agriculture programming for nutrition with key recommendations on linking agriculture and nutrition.

Improving diets and nutrition

A series of discussions on policy, strategy, methods, technical and programme issues of nutrition-sensitive, food-based approaches to tackling hunger and malnutrition. Also suggests ways to improve diet and nutrition.

Joint planning tools

Rooted in the local situation, this manual offers a simple methodology to plan joint action to achieve better nutrition.

Combating micronutrient deficiencies: food-based approaches

A compilation of available knowledge, success stories and lessons learned focusing on practical, sustainable actions for overcoming micronutrient deficiencies through increased availability, access to and consumption of adequate quantities and appropriate varieties of safe, good quality food.



For more information

Contact: nutrition-policies@fao.org

Publications and resources: www.fao.org/nutrition

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HEALTHY DIETS

Why they matter

Promoting nutritionally adequate diets is a major aim of FAO. We provide technical support to countries to increase public awareness of the importance of eating well, foster food environments that enable healthy food choices and build capacities for food and nutrition practices that promote good health.

Supporting national dietary guidelines

Dietary guidelines, based on sound science and communicated through a variety of media, provide consumers with practical, easy to understand advice on healthy eating. National dietary guidelines are available online on our website.

Leading the way on dietary guidelines

FAO's Nutrition Division, together with the World Health Organization, has elaborated a methodology which is the key reference work on the topic. We have held regional consultations and workshops, training over 300 nutritionists from 100 countries on how to develop national dietary guidelines.

Strengthening country capacity

FAO assisted the Government of South Africa in developing a food guide to help consumers understand the principles of healthy eating, with recommendations on quantities and types of foods to eat for a balanced diet. FAO is currently assisting the Governments of Afghanistan and Sierra Leone in developing similar food-based dietary guidelines.



Improving nutrition knowledge and skills

We assist governments to develop nutrition education and communication programmes that help people to make the best possible food choices for themselves and their families. The Nutrition Division supports food and nutrition education in schools, communities, workplaces, food security programmes and emergency projects. We develop manuals, teaching and training materials and use a variety of channels - agriculture and health extension services, community and youth leaders, teachers, websites, radio, practical demonstrations - to help provide people with the information and skills they need to improve their diets.

Education for Effective Nutrition in Action (ENACT)

In collaboration with national universities in Botswana, Ethiopia, Ghana, Kenya, Nigeria, Tanzania and Uganda, we have developed an undergraduate nutrition education module of 10 course units, which covers nutrition education basics, nutrition education intervention design and implementation, and nutrition education institutional framework. A training-of-trainers course is available for tutors, as well as an optional preliminary course in basic nutrition. The module is adaptable to local demand and will soon be available online, as well as in French for francophone sub-Saharan universities. To find out more, go to: www.fao.org/nutrition/education/professional-training.

Raising awareness among youth

We help inform young people about hunger, nutrition and healthy diets, encouraging them to adopt healthy eating habits and be active in improving health and nutrition in their families and communities. By working with the World Association of Girls Guides and Girl Scouts (WAGGGS) and with the Youth and UN Global Alliance (YUNGA), we are able to reach over 40 million young people in 161 countries, through targeted information material and events such as cartoon books, animated websites, youth group badges and competitions.

Empowering communities

FAO's publications Family Nutrition Guide and Eating Well for Good Health help community health professionals, nutritionists, agricultural extension workers, teachers and community groups share with families and the community knowledge and skills to prepare nutritious and safe meals.





Linking agriculture and nutrition education

Improving diets and nutrition

To improve the diets of young children in poor, rural families, we are integrating nutrition education into family food production activities. We support the cultivation of nutrient-rich foods, supply farming inputs, and provide training to community workers in basic nutrition and in the selection, preparation and consumption of nutritious meals. Nutrition education is integrated into community-based education sessions, cooking demonstrations and Farmer Field and Business Schools. In Afghanistan, Cambodia, Laos, Malawi and Zambia we have assisted in the development of simple complementary feeding recipe guidelines for community nutrition workers and mothers that focus on the preparation of culturally acceptable, locally available micronutrient-rich foods for young children.

Supporting research

Research is underway to evaluate the effectiveness of combining education in good child feeding practices with agriculture activities that improve local diets. In Cambodia and Malawi, preliminary findings indicate that nutrition-sensitive agriculture combined with community-based dietary promotion and education is more effective than either activity alone in addressing malnutrition among children under two years of age.



For more information

Contact: nutrition-education@fao.org

Publications and resources: www.fao.org/nutrition

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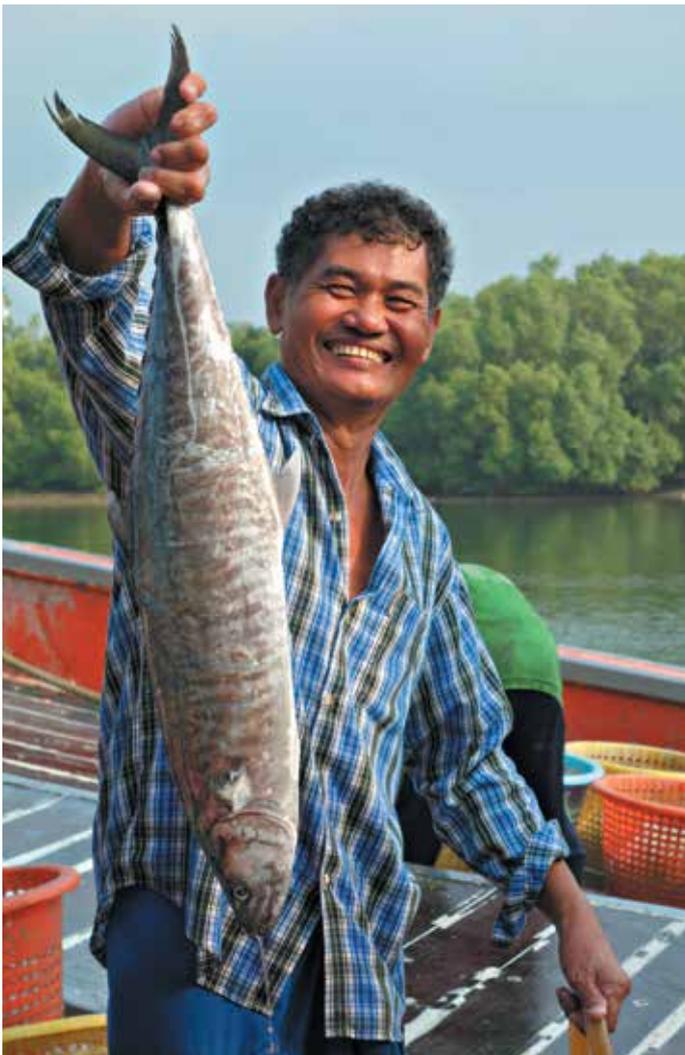
Nutrition in brief

FOOD COMPOSITION

Why it matters

Food composition describes what is in a given food, in terms of energy, protein, fat, carbohydrates, fibre, minerals, vitamins and also non-nutrient components that can affect health, such as contaminants, additives or bioactive compounds.

Data on food composition are necessary for almost all work in nutrition, from ensuring that a person, family or population's nutrient needs are met, to informing consumers through dietary guidelines and food labelling, carrying out research and informing policies.



Influencing factors

Many factors affect the nutrient contents in foods, such as environment, storage, processing or genetics. Food composition data link agriculture and nutrition, a way to ensure that food production is nutrition-sensitive and meets people's nutritional and health needs.

Objectives

Our aim is that reliable food composition data are available for all foods - including traditional, wild or processed foods - to ensure that nutrition, health, food security and agriculture programmes and policies are rooted in accurate data.

International network of food data systems

FAO works on food composition since the 1940s. Since 1999, the Nutrition Division operates through the International Network of Food Data Systems (INFOODS). We set standards, publish food composition tables and databases, provide training material and assistance to countries and academia, and advocate in policy for the generation and use of food composition data.

The three pillars of food composition

- **Setting standards:** FAO provides standards and tools for countries to generate, compile and use food composition data accurately.
- **Ensuring data are available and regularly updated:** We provide inventories of available food composition tables and databases. Where particular needs are identified, we develop tailored resources such as the bilingual West Africa Food Composition Table, the Density Database or the Food Composition Database for Biodiversity.
- **Training and e-learning:** We provide a range of services and tools for face-to-face and distance training as well as e-learning, for universities around the world as well as for on-the-job training for professionals working in agriculture and nutrition.





Some ongoing projects

Fish and shellfish database

Fish and shellfish are highly nourishing, a rich source of protein, vitamins, selenium, iodine and potassium, all of which help to fight malnutrition and reduce the risk of non-communicable diseases. INFOODS is developing uFISH, a global user database on fish and shellfish, offering free access to data on the composition of many different species of fish and shellfish in raw, cooked or processed form, including under-utilized species. Factors such as life-cycle, habitat and environment, catch season, feed, size and the parts of the fish consumed will be considered. The first edition will be published in 2015 and will provide the opportunity to make better and more informed use of these valuable food resources.

Local foods for children

Every child needs the right nutrition during infancy and early childhood to develop their full potential. FAO is developing a booklet on local foods from sub-Saharan Africa that are suitable for complementary feeding. The booklet will inform mothers and nutrition workers of the nutritional value of many local foods and of how to use these to prevent malnutrition, also illustrating how recipes can be improved through biodiversity or addition of ingredients. The booklet will be published in 2015, and should be successively adapted to other regions.

Biodiversity

Biodiversity matters for nutrition and agriculture. The food composition can be as different among varieties of the same food as among different foods. For example, a banana can provide less than 1% or more than 200% of the recommended daily vitamin A intake, depending on the variety. This means that consuming one or the other variety can make the difference between nutrient deficiency and adequacy in populations and individuals.

We collect and compile analytical data on the composition of biodiverse foods. We also work with universities - such as the IOWA University or the University of Sao Paulo - where students apply the latest academic knowledge to food composition data collection, compilation and analysis. Our Food Composition Database for Biodiversity is regularly updated to better serve a vast range of users, among which the Commission on Genetic Resources for Food and Agriculture (CGRFA).



For more information

Contact: food-composition@fao.org

Publications and resources: www.fao.org/nutrition

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NUTRITION ASSESSMENT

Why it matters

To grow, learn, prosper and lead healthy and productive lives, we need good nutrition, and good nutrition starts with what we eat, the products of agriculture. FAO provides the data and evidence on human nutrient requirements [what we need], and food consumption [what we eat], thus leading the way for nutrition assessment.

Nutrition assessment is the best way to determine whether or not people's nutritional needs are effectively being met, once food is available and easily accessible. Nutrition assessment provides information for setting targets, for monitoring and evaluation and for advocacy in food, agriculture and public health programmes.



Human nutrient requirements

Governments need a good understanding of nutritional requirements to plan nutrition programmes. FAO convenes global experts to conduct this vital research and provides free access to recommendations on intake of dietary energy, proteins, carbohydrates, dietary fats, vitamins and minerals.

Food consumption

In partnership with WHO and other international partners, FAO is building a pilot Global Individual Food consumption data Tool (GIFT). It will be developed based on the needs of stakeholders in the field of nutrition and food safety.

The objective is to collect, harmonize and disseminate – through a web-platform – data on individual food consumption all over the world. Through this platform, users will be able to access micro-data and compute food-based indicators (such as the average consumption of leafy vegetables, the main food sources of vitamin A intakes or the high levels of fish consumption) allowing comparisons between different population groups and geographical areas.





Tools to assess nutritional needs and diets

Dietary diversity score

For many countries, assessing the diets of individuals and households takes a long time and can be expensive and difficult. The dietary diversity score is an easy-to-use, fast, low cost assessment tool, which counts the food groups consumed by an individual or a family over 24 hours. This reveals the variety of foods eaten and serves as an indicator of diet quality.

New global dietary diversity indicator for women

A brand new global dietary diversity indicator for women is being developed to respond to the need for simple yet valid indicators of women's diet quality, with a specific focus on micronutrient adequacy. Guidelines for users will be released in early 2015.

The KAP manual: knowledge, attitudes and practices in nutrition

Nutrition knowledge, attitudes and practices (KAP) surveys provide insights into the social, psychological and behavioural determinants of nutritional status. The KAP manual is a reference guide for planning and conducting nutrition and health related KAP surveys at the community level. It is written for people in charge of planning, implementing and evaluating food security and nutrition projects.



Scientific advice

FAO and the WHO created the Codex Alimentarius (Latin for "Food Code") to promote safe, healthy food for all by setting agreed food standards to protect consumer health and ensure fair practice in food trade. FAO provides scientific advice on human nutrient requirements and on food composition. This work contributes to developing harmonized international food standards, guidelines and codes of practice that protect consumers' health.

For more information

Contact: nutrition-assessment@fao.org

Publications and resources: www.fao.org/nutrition/assessment

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SCHOOL FOOD AND NUTRITION

Why they matter

Schools are an ideal setting for children and their families to acquire knowledge and skills in food, nutrition and health. Combining sound nutrition education with healthy school meals involving parents, teachers, food producers, processors and vendors helps young people establish healthful dietary habits.

When children are well fed and enabled to make good food choices, they can develop healthful eating habits that will benefit them throughout their lives. FAO assists countries to develop policies and school programmes that improve the diets and food security of schoolchildren and their families.



Improving the nutrition of schoolchildren

We work to broaden primary school feeding activities to embrace nutrition education, school gardens and community participation. We do this by helping to plan integrated food and nutrition activities and by developing teaching, training and resource materials for schools.

Nutrition in the school curriculum

With our support, eighteen countries in Latin America and the Caribbean and four in Africa have developed a nutrition education curriculum for children in grades 1-6, publishing materials for students and teachers and modules to involve parents and older students. In El Salvador, nutrition education has been inserted into the training curriculum for primary school teachers.

Linking classroom learning with practice

Learning through practice is at the heart of our approach to nutrition education in schools. Schoolchildren learn and retain far more about food, diets and health when they combine classroom learning with practical experience: growing vegetables and fruits in school gardens, planning meals and preparing food.

Promoting school “learning” gardens

We work with government ministries, communities and schools to set up school gardens with a strong educational component. In Latin America and the Caribbean, we support garden-based learning programmes for nutrition education, training schoolchildren as young master gardeners and certifying parents as master gardeners to promote family and community gardens. Produce from these gardens enriches school meals and is used in cooking demonstrations, food fairs and training sessions on food production and processing.



Involving families and communities

We go beyond the classroom to promote a “whole school” approach that encourages everyone to participate in the school’s activities to improve health and nutrition – the school garden, canteen, tuck shop, water and sanitation facilities – to the benefit of the whole family and the broader community.

Improving school foods in Latin America

We support programmes to improve the quality and diversity of school meals and foods served in tuck shops and canteens. This involves assessing school food and hygiene; using foods and produce from school, family and community gardens; providing training in food safety, handling and preparation; and setting dietary standards for school canteens and tuck shops, based on children’s nutritional needs and in line with national dietary guidelines.

Developing educational materials

We work with ministries of education, health and agriculture to develop educational materials on food, health and nutrition for schools. Classroom lessons and teaching materials have been developed for schools in Argentina, Bahamas, Barbuda, Chile, Dominican Republic, El Salvador, Honduras, Guatemala, Nicaragua, Paraguay, Mozambique, The Gambia, South Africa and Zambia. Countries can refer to reference resources developed by the FAO such as:

- *Nutrition education in primary schools: a planning guide for curriculum development*
- *Setting up and running a school garden*
- *Eating well for good health*



Working together: integrating interventions

Multi-component school programmes maximize the benefits to child health and nutrition. Working in collaboration with governments, donors, partner agencies and communities, we support programmes that integrate nutrition education, school gardens, school meals and a healthy school environment, and encourage smallholders and family farmers to supply their produce for school foods and meals.

Partnering with Brazil for school nutrition in Africa

We are working with partners in Brazil to strengthen school food and nutrition strategies and programmes in Africa, building on the Brazilian experience. Starting in Ethiopia, Malawi and Sao Tome and Principe, the project aims to strengthen school activities to improve child nutrition by integrating nutrition education into school feeding programmes and linking to local agriculture. The joint WFP/FAO/Brazil “Purchase from Africans for Africa” initiative in five African countries promotes food and nutrition security and supports family income-generation through home-grown food supply of school feeding programmes.

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