

RESPONSIBLE CONSUMPTION AND PRODUCTION

The Role of Dietitian-Nutritionists in Contributing to the United Nations Sustainable Development Goals

GOAL #12

Target: Ensure sustainable consumption and production patterns (1)

GLOBAL TARGETS

- ▶ By 2030, achieve sustainable management and efficient use of natural resources
- ▶ By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses
- ▶ Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production
- ▶ Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

This brief will outline the importance of implementing this goal, the role of dietitian-nutritionists in achieving it, and provide examples of current initiatives. The growth of the global material footprint is rapid and exceeding both population and economic growth (1). By 2050, if the global population were to reach 9.6 billion, almost three planets would be required to provide the natural resources needed (1).

The food sector accounts for **30%** of the world's total energy consumption (1).

How Does Responsible Consumption And Production Impact Nutrition, and How Does Nutrition Impact Responsible Consumption and Production?

The food sector has one of the biggest impacts on the world's total energy consumption by accounting for 30% of energy consumed (1). The food sector is highly dependent on energy for production, processing, packaging and distribution of food (2), and accounts for approximately 22% of the total greenhouse gas emissions (1). Food service operations alone are intensive users of natural gas and electricity and on average consume more than 2.5 times the energy needed for other activities (2). Dietitian-nutritionists must understand the production patterns within their workplaces and recognize opportunities to conserve energy (2). The amount of food that is wasted every year could feed an extra three billion people (3). Clearly, the current methods of food production and consumption yield unsustainable economic, social and environmental outcomes (4).



One third of the food produced each year for consumption is wasted⁽¹⁾

It is important to note that neither conventional, organic nor highly technical agriculture alone can address all aspects of a sustainable food system (5). All aspects are interrelated and different across countries and regions (5). Therefore, integrated approaches are needed that involve all stakeholders - starting from producers and ending with final consumers (1).

Framework for Action

Ensuring sustainable consumption and production patterns requires action at the policy, health-systems, academic, and community levels, and there are opportunities for action from dietitian-nutritionists in each. Establishing trusting relationships with colleagues and clients at all of these levels is key to success.

Academic Level

For dietitian-nutritionists to play their role in improving sustainable consumption and production, more information on such must be included in their undergraduate and graduate training (6), and onwards as continuing education opportunities (2). The importance of responsible production and consumption must be emphasized both in the classroom and in experimental learning opportunities, so that in

practice dietitian-nutritionists can pass the information on to consumers (7). In their education students could both explore, and contribute to improving, real-life sustainability problems (7), such as was done in the BINK project. BINK is a German acronym meaning 'Education Institutions and Sustainable Consumption'. In the BINK project researchers partnered with practitioners from 6 universities to invent and experiment with new ways to make the organizational structure of an educational institution more sustainable (7). Assessment techniques can also be taught in food service management courses, to help students develop the skills to identify and assess levels of sustainability in operations and demands, and work to optimize such.

Farm to Cafeteria Canada⁽⁸⁾

Farm to Cafeteria is a three year evidence-based initiative that works to put healthy, local foods into the minds and onto plates of students in Canada. Their vision is "vibrant and sustainable regional food systems that support people, place and planet." They bring local, healthy, and sustainable foods into public institutions and work with partners across Canada to educate, build capacity, and influence food policy. They are currently running Farm to School programs and working on implementing Farm to Campus and Farm to Healthcare programs.

Policy Level

Dietitian-nutritionists have the skills to advocate for and implement policies that support responsible consumption and production, and circular economy* approaches. These may be programs and policies that are put in place by overarching governing bodies, such as those that conserve genetic resources and soil, protect farmland, air and water quality, or encourage waste reduction (2). Dietitian-nutritionists can also work to improve access to, and availability of, sustainable food by developing multi-organization sustainable policies (6). This requires collaboration between government, local authorities, farmers, producers and non-government organizations (6). By increasing involvement from multiple levels, there will be an increased awareness of the barriers at each level.

New assessment and measurement techniques are also needed, in order to more effectively document unsustainable aspects of production and consumption, and develop policies that improve such (4).

**A circular economy is a system of ultimate resource utilization where reducing, reusing and recycling is widespread. A common example in a nutrition context is the practice of using surplus bread, fruit, and vegetables as feed for animals (3).*

Health-Systems Level

It is crucial that dietitian-nutritionists are educated on food sustainability at all levels of production and consumption so they can act as advocates for this when working with clients. This may involve encouraging consumption of a variety of food types and emphasizing locally produced foods (2), in particular, heirloom varieties (2,5). Heirloom varieties are important in maintaining food

resilience (equitable and optimal access to food now and into the future) and withstanding diseases in the long term (9,5). Dietitian-nutritionists can also encourage the consumption of fresh or minimally processed foods, in turn, reducing packaging waste (2). Care must be taken by dietitian-nutritionists making such recommendations as they tend to be more costly. Making financially-conscious suggestions such as bulk-purchasing and discount food shopping are ideal. Dietitian-nutritionists can also provide tools and resources to assist clients in making such changes, for example, by providing handouts about food storage practices and cooking in bulk. This will not only help financially, but also teach clients how to make fresh food last longer and reduce waste.

Community Level

There are a number of strategies that dietitian-nutritionists can use to begin to restructure food environments to support healthy and sustainable diets. These may include becoming familiar with local agriculture and seasonal shopping, and promoting businesses that sell local products (2). In addition to improving awareness of the local system, dietitian-nutritionists can work to increase the availability of healthier and more sustainable foods (6) by, for example, starting buy-local campaigns in communities (2).

Supporting and implementing programs like farm-to-school and school food gardens are also great opportunities. Farm to school programs involve schools purchasing locally grown food for their cafeterias and providing educational activities in the classroom (8). School food gardens provide children with experiential learning opportunities and experience in agriculture. Both such programs create opportunities for children to learn about sustainable food systems at a young age.



BRITISH DIETETIC ASSOCIATION SUSTAINABLE DIET POLICY STATEMENT⁽¹⁰⁾

The British Dietetic Association believes that:

- sustainability should be part of dietetic training for all dietitian-nutritionists
- dietitian-nutritionists should be lead advocates for healthy and sustainable diets
- meat and dairy producers are leading contributors to greenhouse gases.

The Sustainable Diet Policy Statement was developed to provide dietitian-nutritionists with the nutritional, sustainable, and economic components of sustainable diets, so they are better positioned to support consumers to take action. It emphasizes pricing, policy issues, and eat well guides, and a toolkit is available as an additional support. The policy was produced by the Association of UK Dietitians and published in 2017.

KEY POINTS

- ▶ The food sector has one of the biggest impacts on the world's total energy consumption by accounting for approximately 30% (1)
- ▶ Responsible consumption and production can alleviate pressure from some of the environment's major resources like energy, water, and food
- ▶ Increasing responsible consumption and production in a sustainable food system has to be supported at various levels

- ▶ Collaborate with organizations and professionals to create policies and programs that support sustainable consumption and production of food at the consumer level.
- ▶ Support clients in learning how they can be mindful about sustainability when purchasing and consuming food.

Key Roles for Dietitian-Nutritionists

- ▶ Advocate for policies and programs that support responsible consumption and production, from the industry to consumer level.

Alleviating Poverty in Agro- biodiversity Hotspots⁽¹¹⁾

The Alleviating Poverty in Agro-biodiversity Hotspots is a program that investigated how sustainable food production was mobilized among small scale farmers and labourers. To address rates of malnutrition and poverty, as well as to study knowledge mobilization of sustainable practices, nutrition gardening and pond fish farming programs were introduced. Researchers found that there were advantages in merging informal and formal knowledge systems for sustainable agricultural development, and knowledge mobilization of



sustainable practices built more resilient agriculture. The program was made in collaboration with the M. S. Swaminathan Research Foundation (MSSRF) and the Faculty of Agriculture, Life and Environmental Sciences at University of Alberta.

Recommendations for Further Reading

[Nordic Best Practices: Relevant for United Nations Environment Programme 10 Year Framework of Programmes on Sustainable Consumption and Production](https://www.greengrowthknowledge.org/case-studies/nordic-best-practices-relevant-unep-10yfp-sustainable-consumption-and-production)

<https://www.greengrowthknowledge.org/case-studies/nordic-best-practices-relevant-unep-10yfp-sustainable-consumption-and-production>

[Position of the American Dietetic Association: Food and Nutrition Professionals can Implement Practices to Conserve Natural Resources and Support Ecological Sustainability](https://pubmed.ncbi.nlm.nih.gov/17571455/)

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[One Blue Dot Toolkit – the BDA’s Environmentally Sustainable Diet Project](https://www.bda.uk.com/resource/one-blue-dot.html)

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Text modified from original, which was created by Emma Kaye, Acadia University.

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