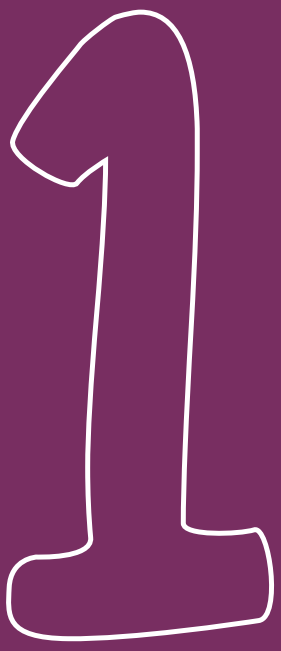
SECTION 1

Defining Sustainability and the Guiding Principles used in this Guide



Defining sustainability and the guiding principles used in this guide

Food, human health and planetary health are deeply interconnected.[3] In 2019, the FAO and WHO brought together international experts to define what a sustainable diet that meets people's nutrition needs looks like.

What the FAO and WHO defined

'Sustainable healthy diets', as defined by FAO and WHO include foods and meals that provide people with the nutrients they need while having a low impact on the environment. They are nutritious, safe, affordable, accessible, equitable and culturally appropriate. Sustainable healthy diets support growth and development, help prevent all forms of malnutrition, reduce the risk of diet-related chronic disease, and help protect biodiversity and the health of the planet. Importantly, all of these dimensions need to be considered together, as focusing on one dimension in isolation can lead to unintended consequences.

In plain terms

Food that gives people the nutrients they need, is safe, is affordable and available, fits their culture, and is produced in a way that does not damage the planet. No one of these can be traded off against the others.

The Guiding Principles

The Sustainable Healthy Diets Guiding Principles[3], (referred to as 'The Guiding Principles' hereafter) consists of 16 principles – developed by leading United Nations agencies – across three domains (health, environmental impact, and sociocultural aspects). Together, these principles provide a framework for balanced food decisions that support both human and planetary health.

The Guiding Principles

Domain: Health	Domain: Environmental impact	Domain: Sociocultural
1 Support breastfeeding	9 Minimise greenhouse gas emissions	14 Value local culture, practices and knowledge, values ways food is sourced and produced (local, seasonal, respecting cultural diversity)
2 Prioritise minimally processed foods	10 Support biodiversity	15 Consider whether the food is accessible and desirable
3 Provide a variety of plant-based foods	11 Minimise the use of antibiotics and hormones in food production	16 Avoid gender-related impacts
4 Provide age-appropriate amounts of animal-based foods	12 Minimise the use of plastics in food packaging	
5 Provide safe and clean drinking water	13 Minimise and manage food waste	
6 Provide nutritionally adequate meals, meeting and not exceeding needs		
7 Reduce non-communicable disease risk		
8 Provide safe food		

A change in one domain can affect another, so it helps to think about all three together.

Potential impacts of the guiding principles in ECEC

The Guiding Principles contribute to several of the United Nations Sustainable Development Goals, particularly Goal 2 (Zero Hunger), Goal 3 (Good Health and Well-being), Goal 12 (Responsible Consumption and Production), Goal 13 (Climate Action), and Goal 15 (Life on Land).

Children consume at least 50% of their daily food requirements in ECEC, therefore even small changes to food provision and food education within ECEC settings to be more aligned with the Guiding Principles can have impacts on:

- The environmental impacts of food provided and consumed in ECEC services, which can be substantial given the large volumes of food prepared, served and consumed
- Food waste
- Greenhouse gas emissions
- Conservation of natural resources and biodiversity
- Procurement practices and demand for more sustainable food products
- Children's food preferences and acceptance of a wider variety of nutritious and environmentally sustainable foods
- Children's understanding of where food comes from and how it is produced
- Children's understanding of how food choices affect the environment
- Environmentally responsible behaviours from an early age
- Children's appreciation for caring for people and the planet
- Cultural appreciation and inclusion through diverse food experiences
- Equitable access to nutritious and culturally appropriate foods
- Family food practices through shared learning between ECEC services and home

Note: Language used in this section

This section uses the same words as the rest of the Guide. Food is described as nutritious, not healthy. When talking about children it says wellbeing. It talks about children's relationship with food, their participation, and their sense of belonging. The official title of the FAO and WHO framework and its formal definition, which are quoted exactly as published, contain the word "Healthy". After the first mention, this section refers to them simply as the "Guiding Principles".

EARLY YEARS LEARNING FRAMEWORK
Outcome 1, Outcome 2, Outcome 3, Outcome 4

NATIONAL QUALITY STANDARD
QA1, QA2, QA3, QA6

The sustainability guiding principles and relevance to ECEC settings

Table 2 provides a summary of the 16 Guiding Principles relating to health, environmental, and sociocultural considerations. It briefly describes each principle, outlines its relevance to ECEC food environments, and provides links to relevant sections within this module and other modules of the Best Practice Guide where practical strategies and further guidance are provided.

Health

List of Guiding Principles within the Health Domain. Principles marked with a star (★) are explored in more detail later in this module).

1. Support breastfeeding
2. Prioritise minimally processed foods ★
3. Provide a variety of plant-based foods ★
4. Provide age-appropriate amounts of animal-based foods
5. Provide safe and clean drinking water
6. Provide nutritionally adequate meals, meeting and not exceeding needs
7. Reduce non-communicable disease risk
8. Provide safe food

TABLE 2: *Summary of the Guiding Principles relating to health, environmental, and sociocultural considerations*

Principle	Description	Relevance to ECEC
1 **Support breastfeeding** Initiation of breastfeeding, exclusive breastfeeding until 6 months and continuing until 2 years and beyond combined with appropriate complementary feeding	Many mothers return to paid work before they are ready to stop breastfeeding.[3,4] Returning to paid work is one of the most commonly cited reasons that mothers stop breastfeeding earlier than they had planned.[4-6] Where possible, breastfeeding is recommended as it provides optimal health benefits for infants and is a sustainable feeding option. However, families should be supported to make infant feeding decisions that are appropriate for their individual circumstances.[7] **RELATED GUIDANCE IN THE BEST PRACTICE GUIDE** *See Menu and Meal Quality, Section 3, page 32*	ECEC services can play an important role in supporting working mothers to continue breastfeeding for the first six months and beyond, including up to two years and longer, where desired. **NATIONAL QUALITY STANDARD** **QA2, QA6, QA7**

Principle	Description	Relevance to ECEC
2 **Prioritise minimally processed foods** Whole foods and minimally processed foods and beverages are recommended, whilst limiting highly processed foods	Some food processing can be beneficial in high quality diets, making food available and safer in some situations. However, some forms of processing can lead to high amounts of salt, added sugar, saturated fats and can undermine diet quality when consumed in high amounts.[3,8] Highly processed foods can also negatively affect planetary health through higher greenhouse gas emissions, greater energy use, and increased packaging and waste.[9,10] **RELATED GUIDANCE IN THE BEST PRACTICE GUIDE** *See Section 2, page 34*	ECEC services are well placed to support children's exposure to whole or minimally processed foods as well as building awareness of food processing through a whole-of-service approach. **NATIONAL QUALITY STANDARD** **QA2, QA7**
3 **Provide a variety of plant-based foods** Whole grains, nuts*, seeds legumes, and a variety fruits and vegetables	Diets containing plant-based foods, including fruits, vegetables, nuts, seeds, legumes and wholegrains can have positive human and planetary health outcomes.[3,11] Research in Australian ECEC services suggests that these foods are often not included often enough on service menus[12,13] or in lunchboxes brought from home.[14] Whilst there should be no judgement on what is provided in lunchboxes from families, some examples and guidance might be useful. **RELATED GUIDANCE IN THE BEST PRACTICE GUIDE** *See Menu and Meal Quality, Section 2, page 20* *See Section 2, page 27* *See Staff and Family Engagement, Section 4, page 51*	ECEC services can provide opportunities to increase children's exposure to a variety of plant-based foods and foster curiosity and awareness of these foods across the service. **NATIONAL QUALITY STANDARD** **QA2, QA6, QA7**
4 **Provide age-appropriate amounts of animal based foods** Moderate amounts of eggs, dairy, poultry, fish and small amounts of red meat	The guiding principles outline that diets should be age-appropriate and meet the needs for growth and development of children, paying attention to avoid micronutrient deficiencies.[3] A key sustainability principle is the reduction of red meat and an increase of plant-based protein.[3] Sustainable diets however emphasises that animal-source foods can be important sources of essential nutrients, especially for young children.[15] Current Australian Dietary Guidelines and related guidance for ECEC recommends red meat to young children as a good source of iron and other nutrients.[16] **RELATED GUIDANCE IN THE BEST PRACTICE GUIDE** *See Menu and Meal Quality, Section 2, page 20* *See Staff and Family Engagement, Section 4, page 51* *See Quality, Leadership and Governance, Section 1, page 10*	Animal-based foods such as eggs, dairy, poultry, fish and some red meat are important sources of nutrients, including protein and iron, which supports young children's growth and development. ECEC services are required to provide nutritionally adequate food to children in line with dietary requirements, which include a variety of animal-based food. **NATIONAL QUALITY STANDARD** **QA2, QA7**

Principle	Description	Relevance to ECEC
5 **Provide safe and clean drinking water**	For exclusively breastfed infants under 6 months of age, no additional fluids are required.[7] For formula-fed infants, cooled boiled tap water may be used if additional fluids are needed. [7] From around 6 months of age, cooled boiled tap water can be offered in a cup alongside breastmilk/formula.[7] After 12 months of age, water and milk/milk alternatives should be the only drinks offered in ECEC settings.[7,17] **RELATED GUIDANCE IN THE BEST PRACTICE GUIDE** *See Menu and Meal Quality, Section 2, page 20*	Requirement under National Regulations 78, 168. In the ECEC setting, safe drinking water should always be readily available to children. **NATIONAL QUALITY STANDARD** **QA2, QA7**
6 **Provide nutritionally adequate meals meeting and not exceeding needs**	As children consume a substantial proportion of their daily food intake while attending ECEC, services have an important role in supporting nutritionally adequate food and beverage consumption that promote growth, development, learning, and wellbeing.[7,16,17] **RELATED GUIDANCE IN THE BEST PRACTICE GUIDE** *See Menu and Meal Quality, Section 2, page 26* *See Menu and Meal Quality, Section 4, page 44* *See Menu and Meal Quality, Section 5, page 50*	Meeting needs is a requirement under National Regulations 78-79, 168. **NATIONAL QUALITY STANDARD** **QA2, QA7**
7 **Reduce non-communicable disease risk** Consistent with dietary guidelines to prevent non-communicable disease	Eating patterns established during early childhood can influence lifelong health.[18] Regularly offering a variety of nutritious foods can help reduce the risk of diet-related non-communicable diseases, including cardiovascular disease later in life.[18] **RELATED GUIDANCE IN THE BEST PRACTICE GUIDE** *See Menu and Meal Quality, Section 1, page 16* *See Menu and Meal Quality, Section 2, page 20*	Current Australian Dietary Guidelines that underpin recommendations in the MMQ module of the Best Practice Guide focus largely on dietary requirements for non-communicable disease risk reduction. **NATIONAL QUALITY STANDARD** **QA2, QA7**
8 **Provide safe food –** that will not cause foodborne diseases by ensuring food safety risks are adequately managed	Safe food is a fundamental component of the Guiding Principles.[3] Young children aged 0–5 are considered vulnerable, and therefore at greater risk of foodborne illness.[19] **RELATED GUIDANCE IN THE BEST PRACTICE GUIDE** *See Section 6, page 81* *See Menu and Meal Quality, Section 8, page 80*	Requirement under National regulations 77, 168 which requires health hygiene and safe food practices. ECEC services have an important responsibility when it comes to food safety. **NATIONAL QUALITY STANDARD** **QA2, QA7**

Environmental impact

List of Guiding Principles within the Environmental Impact Domain. Principles marked with a star (★) are explored in more detail later in this module).

9 Minimise greenhouse gas emissions

10 Support biodiversity ★

11 Minimise the use of antibiotics and hormones in food production

12 Minimise the use of plastics in food packaging ★

13 Minimise and manage food waste ★

Principle	Description	Relevance to ECEC
9 **Minimise greenhouse gas emissions**	About a third of greenhouse gas emissions are linked to food.[20] Greenhouse gas emissions can be attributed to the types of foods (e.g. fruits and vegetables and plant foods produce the lowest greenhouse gas emissions), but also to the processing and food transport (food miles) and food waste practices.[21] Therefore, multiple principles discussed in this section are related to greenhouse gas emissions. For example, lowering discretionary products can have significant impacts.[21] **RELATED GUIDANCE IN THE BEST PRACTICE GUIDE** *See Food Education, Section 5, page 99* *See Section 3, page 40*	From an ECEC perspective the opportunity of reducing greenhouse gas emissions lies in menu planning and food procurement, where even small changes, such as considering food miles and purchasing some foods locally, considering the level of processing, choosing producers that support agricultural sustainability and food waste practices can make a substantial difference over time. For food education, children's activities can involve understanding where food comes from, gardening projects, stories and games related to understanding greenhouse gas emissions in a way that is not anxiety provoking for the children. **Note:** It is acknowledged that some of these components (such as food miles) are not feasible in regional/remote ECEC settings. EARLY YEARS LEARNING FRAMEWORK Outcome 2, Outcome 3, Outcome 4 NATIONAL QUALITY STANDARD QA1, QA2, QA3
10 **Support biodiversity**	The guiding principles refer to preserving biodiversity, which includes biodiversity of crops, livestock and aquatic resources, with consideration of choosing foods that are not derived from overfishing or overhunting.[3] **RELATED GUIDANCE IN THE BEST PRACTICE GUIDE** *See Menu and Meal Quality, Section 5, page 49* *See Section 3, page 40*	In ECEC this relates to diverse menus where fruits, vegetables, grains and legumes are rotated, supporting diverse farming systems. It also relates to food education where children can increase their understanding of biodiversity. EARLY YEARS LEARNING FRAMEWORK Outcome 2, Outcome 4 NATIONAL QUALITY STANDARD QA1, QA2, QA3
11 **Minimise the use of antibiotics and hormones in food production**	The guiding principles recommend the minimisation of the use of antibiotics and hormones in food production.[3]	The use of antibiotics and hormones in food production is highly regulated in Australia, with regulatory authorities overseeing their use to help ensure that food is safe for consumption.[22] EARLY YEARS LEARNING FRAMEWORK Outcome 2, Outcome 4 NATIONAL QUALITY STANDARD QA1, QA2, QA3

Principle	Description	Relevance to ECEC
12 **Minimise the use of plastics in food packaging**	In some cases, packaging is required to preserve food and ensure food safety, however packaging beyond this can place higher demands on natural resources.[3,23] **RELATED GUIDANCE IN THE BEST PRACTICE GUIDE** *See Section 3, page 44*	This principle is relevant in food procurement practices for MMQ and can be embedded into Food Education or centre Quality Improvement Plan. **NATIONAL QUALITY STANDARD** **QA1, QA3**
13 **Minimise and manage food waste**	The sustainable development goals and Australia's national food waste strategy aims to halve food waste by 2030.[24,40] There are two aspects to food waste: 1. Reducing the amount of food wasted and 2. Food waste management to reduce environmental impacts (e.g., composting/ worm farms).[25,26,27] In addition to this, in services that provide food onsite, there are four types of food waste – inedible food waste (bones, watermelon peels), kitchen preparation waste, serving waste (food that was prepared but never plated) and plate waste (food that was plated but not eaten).[25-27] **RELATED GUIDANCE IN THE BEST PRACTICE GUIDE** *See Section 4, page 50* *See Mealtime Environment and Practices, Section 2, page 20*	Addressing food waste in this setting can have impacts at scale. It is estimated a service catering for 200 children typically produces around 1.7 tonnes of food waste annually.[28] This can be halved by implementing food waste reduction strategies, which can have substantial impacts. There are specific strategies that ECEC services can implement to reduce and manage. This can also contribute to more efficient budget management by preventing large amounts of purchased food from being thrown away. Recent Australian research suggests that, on average, ECEC services throw away more than one quarter of the food they prepare, with total waste ranging from 9% to 67%. Within this, serving waste (food prepared but not plated) accounted for a higher proportion than plate waste (food left on children's plates).[27]

Sociocultural

List of Guiding Principles within the Sociocultural Domain. Principles marked with a star (★) are explored in more detail later in this module).

14 Value local culture, practices and knowledge, values ways food is sourced and produced (local, seasonal, respecting cultural diversity) ★

15 Consider whether the food is accessible and desirable

16 Avoid gender-related impacts

Principle	Description	Relevance to ECEC
14 **Value local culture, practices and knowledge, values ways food is sourced and produced (local, seasonal, respecting cultural diversity)** Cultural diversity of meals – built on respect for culture and culinary practice.	ECEC services purchase large amounts of food and is an important food procurement setting that can have environmental and local economy impacts at scale.[29] Purchasing some food from local food producers or community food enterprises can not only have human and environmental health benefits, but also support local food economies, making them more sustainable in the long term.[30,45] Internationally, local food purchasing is supported through Farm to ECEC programs that interconnect local food procurement, gardening, and food, nutrition & agriculture education for children attending ECEC settings.[30] The guiding principles explicitly includes cultural acceptability and respect for food cultures and traditions.[3] **RELATED GUIDANCE IN THE BEST PRACTICE GUIDE** • The Best Practice Guide focuses on cultural inclusion throughout, including the consideration of culturally inclusive menus. *See Section 5, page 68* *See Menu and Meal Quality, Setting the scene, page 13*	In Australia, we do not currently have a formal program that supports local food purchasing or farm to ECEC programs. Services may engage in elements of these approaches through purchasing from local producers, community food hubs or growing some food in their service garden. Seasonal purchasing can support food quality and variety, lower transport costs and reduce food costs.[25,29,31] In addition, there is an educational opportunity for children to explore, experience and learn about local and seasonal foods through the meals they eat, gardening and cooking experiences, play, stories and conversations.[1,3] The EYLF and NQS emphasise cultural inclusion throughout. In food environments, this includes recognising and valuing diverse cultural food practices by offering culturally appropriate foods, respecting cultural and religious dietary practices, facilitating conversations about food traditions and cultural practices during mealtimes, and avoiding assumptions that one cultural food practice is inherently more acceptable than another. **EARLY YEARS LEARNING FRAMEWORK** **Outcome 1, Outcome 2, Outcome 3, Outcome 4, Outcome 5** **NATIONAL QUALITY STANDARD** **QA1, QA6**

Principle	Description	Relevance to ECEC
15 **Consider whether the food is accessible and desirable**	Accessible refers to food that can be physically obtained and is affordable.[3,32] Desirable refers to eating food that children enjoy, are culturally familiar and socially meaningful.[32]	The Guiding principles outline that it must be within the context of what is available, affordable, and desirable for children and families. In the Australian ECEC context, accessibility is important because of the geographical context, where some services may be operating in areas with limited access to fresh, affordable food[33] and therefore fewer choices when it comes to the procurement of sustainable food.
	RELATED GUIDANCE IN THE BEST PRACTICE GUIDE • Accessibility is considered throughout this module on pages 32, 40, 44, 47, 57, and 72. *See Menu and Meal Quality, Section 6, page 56* *See Menu and Meal Quality, Section 7, page 76* *See Mealtime Environment and Practices, Section 3, page 31*	
16 **Avoid gender-related impacts** Especially with regard to time allocation of meal purchasing and preparation	This principle has particular relevance in global contexts where women and girls may take on a greater share of food purchasing and preparation responsibilities.[3] More broadly, it highlights the importance of implementing sustainable food practices in ways that are fair, inclusive and responsive to the needs and circumstances of different communities.	In ECEC settings, this principle aligns with the equity and inclusion principles embedded within the NQF and EYLF recognising the importance of implementing sustainable food practices in ways that are fair, inclusive and responsive to the diverse needs of children, families and communities. **NATIONAL QUALITY STANDARD** **QA6**

Reflective questions

Educators

- *How do we make sure conversations about food don't carry assumptions about who does the cooking or shopping at home? When we notice these assumptions coming up, how do we address them without singling anyone out?*