Bundesministerium
für Ernährung
und Landwirtschaft

Shaping change together

The Federal Ministry of Food and Agriculture's 2022 Sustainability Report on Implementation of the 2030 Agenda

bmel.de

"Protecting our natural resources – climate, soil, water, air and biological diversity – is an integral part of our mission and political action."

Dear Readers,

Sustainable food and agricultural systems are not just necessary to achieve the right to adequate food worldwide; they are also vital to be able to implement the 17 sustainability goals contained in the United Nations 2030 Agenda. These sustainability goals – also known as Sustainable Development Goals (SDGs) – are a guideline for the Federal Government's policies.

This report details how the Federal Ministry of Food and Agriculture (BMEL) contributes towards achieving the SDGs. Protecting our natural resources – climate, soil, water, air and biological diversity – is an integral part of our mission and political action.

We therefore aim to make agriculture resource-conserving, environmentally sound and able to continue to safeguard our food supply in the future. We are therefore pressing ahead with making livestock farming more climate-friendly and more animal welfare-oriented, and are supporting farmers in this process. Reducing livestock numbers, improving husbandry conditions, eating a plant-based diet based on sustainably produced food – this has great potential to reduce greenhouse gas emissions and to help people stay healthy as they grow older.

The climate crisis poses an immense challenge to our agriculture and forests. On the one hand, agriculture in Germany is responsible for around eight percent of greenhouse gas emissions. On the other, it is an important part of the solution, as using land sustainably can remove carbon dioxide from the atmosphere and bind it as organic carbon. Soils, forests and peatland can store huge quantities of carbon. Our future depends on them for climate change mitigation – this is another reason why we must protect and strengthen them.

This report gives an up-to-date overview of the specific measures which we are taking to unleash the transformative power of the food, agricultural and forestry sectors, and shows that the transition towards more sustainability in the fields, in the forests and on our plates has long since begun. See for yourself!

Best wishes,

Cem Özdemir
Federal Minister of Food and Agriculture

17 goals for sustainable development

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1

Introduction

The BMEL's contribution to sustainable development in Germany and worldwide

Implementing the United Nations (UN) **2030 Agenda** presents the international community with major challenges. The Federal Ministry of Food and Agriculture's aim is to create the political framework for a sustainable and future-proof food and agricultural system and to sustain the many and diverse functions performed by our forests. For the food and agricultural sectors this means a system that permanently safeguards an adequate supply of healthy food, ensures that farmers can earn a livelihood, protects the environment and animals, and mitigates climate change.

The BMEL is shaping this change and contributing holistically to realising the **17 global sustainability goals** – also known as "Sustainable Development Goals" (SDGs). These goals were adopted unanimously by all UN Member States in 2015 and serve worldwide to ensure sustainable economic, social and ecological development. The BMEL's work focuses in particular on SDG 2 ("zero hunger"), SDG 3 ("good health and well-being"), SDG 12 ("responsible consumption and production"), SDG 13 ("climate action"), SDG 14 ("life below water") and SDG 15 ("life on land").

The other SDGs also provide an important guideline for BMEL activities, as the SDGs are indivisible, universally valid and interrelated in many different ways.
Germany's Sustainable Development Strategy (Deutsche Nachhaltigkeitsstrategie – DNS) has also been based on these 17 global goals since 2016.
The Federal Cabinet decided on 10 March 2021 to extend the term of this strategy. By incorporating the 17 SDGs, Germany's Sustainable Development Strategy has been internationalised.

This means that the Federal Government will focus not only on Germany but also worldwide regarding the implementation of these goals by 2030.

Making food systems resilient

The BMEL's aim is to bring global food security, climate action and the protection of biodiversity into line with each other. The Russian war of aggression against Ukraine, and not least the coronavirus pandemic, have increased the pressure to **transform food systems.** The upheavals caused by these crises are having an enormous impact on Germany, Europe and the entire world. The climate and biodiversity crises also remain virulent and, according to forecasts, are set to worsen in the coming years. The BMEL is therefore working continually on transforming food systems in Germany and the European Union (EU) to meet the SDGs and, in doing so, to achieve the aims of the European Commission's Green Deal and Farm to Fork Strategy.
The transformation of the food and agricultural systems is one of the six main areas of transformation the Federal Government has defined in the German Sustainable Development Strategy.

The term **"food systems"** describes the complex web of activities involving the production, processing, transportation, consumption and handling of agricultural raw materials. The term is in line with the UN Food and Agriculture Organisation's integrated approach, which the BMEL supports.

Shaping transformation together

The development towards greater sustainability in food systems can only succeed if politics, industry, science, civil society and consumers share responsibility and tackle the challenges together. The BMEL welcomes the recommendations provided by the Competence Network on Livestock Farming and the Commission on the Future of Agriculture (Zukunftskommission Landwirtschaft – ZKL) on how necessary changes to create more animal welfare, environmental protection and climate action can be made while ensuring that the agricultural sector remains economically and socially viable in the long term.
There are also a large number of initiatives by industry and civil society which are setting good examples, for example initiatives for promoting climate-friendly,

environmentally sound and fair production or strengthening regional producers, but also for promoting sustainability in diets and reducing food waste within the entire food system.
In developing specific measures, the BMEL therefore strives to actively involve all relevant actors in dialogue formats and hearings. One example of this is the **BMEL Sustainability Conference on 4th May 2023,** which will pick up on the results of the National Dialogue on Food Systems and act as a starting-point and opportunity to participate in drafting a report and resolution on the transformation of the food and agricultural systems. The resolution is to be presented to the State Secretary Committee on Sustainable Development in late 2023.

Climate action and adaptation to the climate crisis

The climate crisis represents an existential challenge to humanity, but also and in particular to agriculture and forestry. Agriculture is responsible for approximately eight percent of greenhouse gas emissions in Germany. At the same time, agriculture is also part of the solution, as sustainable land use removes carbon dioxide from the atmosphere and can bind it as organic carbon.
Our forests, peatland and soils are important for climate change mitigation and we must protect and strengthen them. In 2019, the Federal Government adopted a series of measures under the **2030 Climate Action Programme;** the measures within the BMEL's remit aim to reduce emissions in agriculture. The ambitious measures were affirmed once again by the **amendment to the 2021 Climate Change Act** and will be expanded by the **2022 Climate Action Programme.** The focus is on improving fertiliser management, expanding organic farming and reducing animals stocks, which go hand in hand with promoting sustainability in diets. Besides increasing the energy efficiency of buildings and machines in agriculture, support will also be provided for alternative drive technologies. The CO_2 storage and sink function of natural ecosystems will also be strengthened through the measures under the **Action Plan on Nature-based Solutions for Biodiversity and Climate (Aktionsprogramm Natürlicher Klimaschutz – ANK)** which is currently being drawn up under the coordination of the Federal Ministry for the Environment (BMUV).
The Action Plan includes measures to promote carbon storage in soils, protect and rewet peatland, and convert and regenerate forests.
It is also imperative that agriculture and forestry adapt to the already foreseeable consequences of the climate crisis, including extreme weather events such as heavy rain or aridity. Society must actively support the ecosystems in this regard. The BMEL initiated the **Agenda for Climate Change Adaptation in Agriculture, Forestry, Fisheries and Aquaculture,** which has since been adopted by the Agriculture Ministers' Conference. This agenda designates topics that are suitable for carrying out measures.

Changes to livestock farming

The Federal Government plans to make livestock farming in Germany more climate-friendly and more animal welfare-oriented, and to support farmers in making these changes. The transition to area-based livestock farming, coupled with a shift in human diets to include more sustainably produced food, has considerable potential in this regard. One important element is to have a **binding animal husbandry label.** A label such as this will provide consumers with transparent information on how the respective animals were kept. This will enable consumers to create a more targeted demand for animal-friendly production in the longer term. Farmers who wish to do more for animal welfare will also receive support for investments that may be necessary and the ongoing expenses for animal welfare-oriented husbandry. Of the additional one billion euros in funds provided for these changes to livestock farming, a first instalment of 150 million euros will be made available in the 2023 BMEL budget, subject to the adoption of the 2023 Budget Act. In the budget, the governing coalition agrees that, ultimately, all economic operators must contribute towards to the funding of the changes to livestock farming.

Strengthening and expanding organic farming

Organic farming is the government's guideline for agricultural policy as an overall system of sustainable value generation, all the way from agricultural production and processing to marketing. It is a particularly resource-conserving and environmentally sound farming method based on the principle of sustainability. The coalition agreement therefore formulates the goal of expanding organic farming in Germany to 30% of total agricultural land by 2030. Organic farming offers farmers sustainable and profitable prospects. In order to achieve this more ambitious goal of 30%, it is planned to convert the BMEL's **Strategy for the Future of Organic Farming (Zukunftsstrategie ökologischer Landbau – ZöL)** into a strategy for the whole of the Federal Government. Targeted promotion schemes, aimed at strengthening both demand and supply, will make it easier for farmers to convert to organic farming. These measures – flanked by targeted **research into organic farming** – will help ensure that there is a stable market for organic products. The **Federal Organic Farming Scheme (Bundesprogramm Ökologischer Landbau – BÖL)** also focuses support for organic farming schemes so that there are now more funds available for this area. Organic farms also profit from the 180 million euros in EU adaptation grants for agricultural enterprises that have been particularly badly hit by the impact of the war.

Finally, the 30 percent goal is also enshrined as one of the Federal Government's expansion targets in the 2023–2027 **Strategy Plan for the Common Agricultural Policy (CAP).**
It is important, for the further expansion of organic farming, to make the conditions attractive enough to give farms an incentive to change their production methods accordingly. In addition to this, the comprehensively revised **EU Organic Regulation,** which entered into force in early 2022, gives the sector clear guidance for its business decisions. National regulations are also being prepared, including regulations on the revised legal framework for the use of organic products in away-from-home catering.

Climate-resilient forests

Roughly 30 percent of the earth's surface is covered by forests – just under four billion hectares. In Germany, forests make up thirty-two percent of the total land area. Forests are indispensable for biodiversity and climate change mitigation; they also protect soil and provide healthy air and clean water. They provide jobs and income and are important areas for recreation; they also supply wood, which is a valuable renewable resource. Forests, and sustainable, close-to-nature forest management, play an important role in implementing the SDGs. Forest conservation, sustainable forest management and the efficient use of wood are therefore key topics at the BMEL. Forest owners must be put in a position where they can conserve their forests, improve their forests' climate resilience and, if necessary, adapt them or carry out afforestation or reforestation measures. The 2022 and 2023 **Climate and Transformation Fund** and the budget plan for the period up until 2026 contain a total of 900 million euros in funds for these purposes. Applications to receive funds for "climate-adapted forest management" measures can be made to the BMEL's Forest-Climate Package. This package supports municipal and private forest owners who undertake – depending on the size of their forestland – to comply with eleven or twelve climate-adapted forest management criteria over ten or twenty years.

More plant protein from domestic sources

The BMEL's goal is also to expand the supply of regionally produced forage crops, and consequently to increase Germany's independence regarding a GM-free and deforestation-free supply of protein feed. The importance of this is shown by the supply bottlenecks caused by the Russian war of aggression against Ukraine. The Protein Crop Strategy is a means of achieving this goal and will continue to be expanded and provided with greater funding (cf. p. 14 on SDG 2). Improving the supply of plant protein will also enhance the range of plant-based alternatives to meat for human nutrition.

Transformation of the European Agricultural Policy

The reform of the CAP is a first step towards transforming food and agricultural systems. Support will be dependent on greater, climate change mitigation, environmental and biodiversity services than previously. The new overall CAP architecture, which will apply from 2023, will support farms which commit to use land management methods conducive to environmental protection and climate change mitigation. It is, however, clear that the CAP must in future have an even clearer added value for environmental conservation and climate change mitigation. The goals of the **European Commission's Farm to Fork Strategy** and the **Biodiversity Strategy** will also play a role in this regard. The BMEL will therefore develop a concept for the reliable reform of **the CAP from 2027** and present it by the middle of the legislative term. The focus will be on replacing direct payments with a system of remunerating climate and environmental services.

The Federal Government's Food and Nutrition Strategy

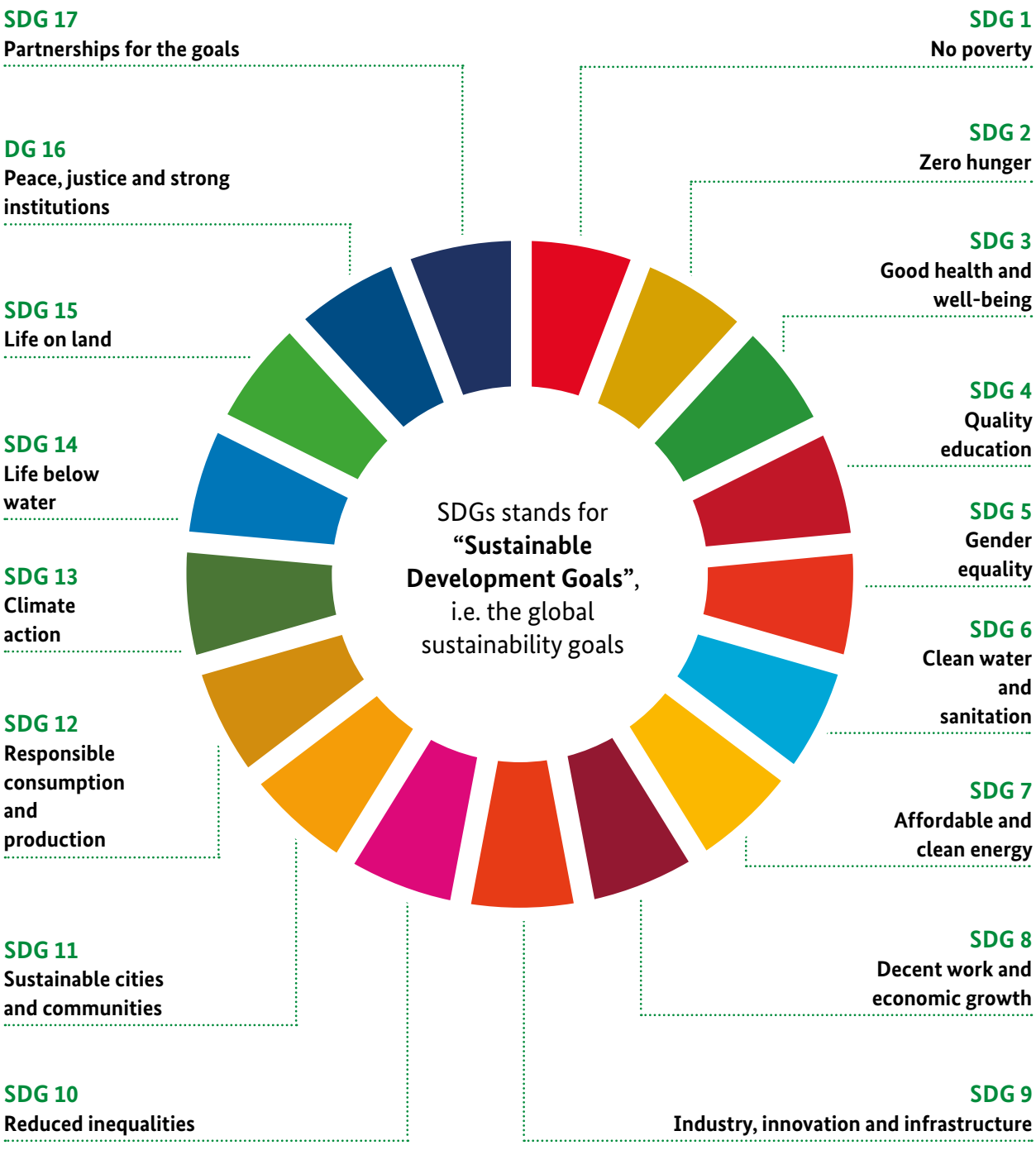
A healthy and sustainable diet is the basis of everybody's well-being and plays a major role in environmental protection and resource conservation. The BMEL's aim is to promote a health-sustaining and sustainable diet for consumers. One way the BMEL plans to achieve this is by promoting and creating correspondingly favourable food environments and nutrition patterns. Under the overall coordination of the BMEL, the Federal Government is drawing up a **Food and Nutrition Strategy,** and is consequently making an important contribution towards transforming the food system. The aim is to work with stakeholders to create an environment for healthy nutrition and physical exercise, particularly with regard to children. The main aims of the Food and Nutrition Strategy are to promote a plant-based diet, to further reduce sugar, fats, salt and calories in processed foods, to effectively reduce food waste and to encourage mass catering services to provide healthy and sustainable food, and offer more regional and seasonal foods that have been produced in an ecologically and climate-friendly manner.

2

BMEL activities

Selected BMEL activities aimed at achieving the 17 sustainability goals

This BMEL report on implementing the 2030 Agenda addresses all 17 SDGs and lists the contributions that the BMEL makes towards achieving them. It also shows the role that food and agricultural policies play in achieving the goals. The cross-references in this chapter illustrate that the SDGs are interlinked in many different ways.



SDG 1
No poverty

End poverty in all its forms everywhere

Improving food and agricultural systems helps fight poverty. A large number of countries, particularly developing countries, have very good conditions for agricultural production and can create income and reduce poverty through food and agricultural exports. The BMEL strives to use the potential of international agricultural trade in order to assist in the economic development of these regions and to make them more attractive for investment.

Support of newly industrialised and developing countries in the agricultural sector

The BMEL strives to make trade agreements development-friendly and to improve rules on access to markets for developing countries. One of the ways it does this is to support the Standards and Trade Development Facility (STDF), a joint aid programme founded by the World Trade Organisation (WTO) and a number of different partners such as the World Organisation for Animal Health (WOAH), the International Panel on Climate Change (IPCC) and the World Bank.

The STDF programme carries out training programmes and other measures in developing countries, for example to establish plant protection services or animal health authorities. This helps implement international health and phytosanitary standards, in turn leading to higher-quality food for domestic consumption and better chances on the global market.

→ **SDG 2** Zero hunger
→ **SDG 3** Good health and well-being
→ **SDG 8** Decent work and economic growth
→ **SDG 10** Reduced inequalities

SDG 2
Zero hunger

End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

The climate crisis, armed conflicts and the COVID-19 pandemic have led in recent years to the number of people suffering from hunger rising once more; in 2020, this figure rose to approximately 768 million people worldwide.

Additionally, more than two billion people worldwide did not have regular access to adequate, nutrient-rich food. This situation is expected to worsen due to the large hikes in food, feed and input prices since 2021. The BMEL carries

out a range of different measures to support the 2030 Agenda goals of ending hunger and other forms of malnutrition worldwide, enabling all people to have a diverse, balanced and safe diet and making development sustainable, above all via work and income.

Global food security

Global projects and partnerships

The BMEL takes a multilateral approach to help achieve the human right to adequate food; it supports the work of the FAO and its bodies as well as the **Committee on World Food Security.** The Committee on World Food Security is the main intergovernmental and inclusive platform at international level that is devoted to developing guidelines and policy recommendations to fight global hunger. The BMEL also supports the implementation of the **right to adequate food** via the additional funding it provides to the **Bilateral Trust Fund (BTF),** a fund the BMEL created with the FAO. The BTF is currently supporting ten projects in 13 countries, mainly in Sub-Saharan Africa, with funds totalling 20 million euros. The aim of the projects is to strengthen the policy framework for implementing the right to adequate food in the partner countries, to develop strategies for sustainable food security in rural and urban areas and to support the adaptation of the agri-food sector in the partner countries to the impact of the climate crisis.

Drawing up of guidelines and standards for school catering to realise the right of children and young adults to food: providing young people with a regular supply of healthy and balanced meals at school plays an important role in fulfilling the right to adequate food. Via the BTF, the BMEL supports the FAO in developing guidelines and standards for school catering which meet the nutritional needs of the children and young adults and lead to healthy development. In Cambodia and Ghana, which were selected as pilot countries, the guidelines are being tested in practice in cooperation with school management and non-governmental institutions. Recommendations on introducing guidelines on school meals are drawn up based on the practical experiences and findings. The internet portal at www.fao.org/platforms/school-food/en networks stakeholders in different countries, informs them about the necessity, opportunities and potentials of school meals and facilitates a mutual exchange.

Combating hunger internationally by maintaining biological diversity

One of the BMEL's main concerns is to maintain and promote biological diversity for food and agriculture at all three levels of biodiversity, namely the diversity of ecosystems, the diversity between species and the genetic diversity within species. This goal can only be achieved through close international alliances. The federal government has therefore signed important international agreements on the preservation and sustainable use of biological diversity, including genetic resources, for food and agriculture. There are a number of important partners in international cooperation and binding international agreements, including the Commission on Genetic Resources for Food and Agriculture (CGRFA), the FAO, the FAO's International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), the Convention on Biological Diversity (CBD) and the European Commission, which has responsibilities in agriculture, rural development, consumer protection and environment. The BMEL supports a range of multilateral projects in collaboration with the FAO and other international organisations. The projects are intended to strengthen international cooperation in the fields of food, agriculture, fisheries and forestry and promote concerted efforts to maintain animal, plant, forest and aquatic genetic resources. The international cooperation focuses on capacity-building and information exchange regarding genetic resources and on improving the access to infrastructure for and the usability of genetic resources.

Sustainable agricultural trade for safe food

Flourishing trade in food is a prerequisite for enabling people to have a good and diverse diet over the entire year. Many countries, particularly those which, due to their geographic conditions, need to import staple foods in order to be able to feed their populations, depend on open markets. The aim must therefore be to correct and prevent trade restrictions and distortions on world agricultural markets, for example through eliminating all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round. The BMEL is committed to rule-based and transparent market conditions and the abolition of trade barriers for all agricultural products, with particular regard being given to developing countries. The BMEL also strives, within the context of EU agricultural policy, to dismantle subsidies which distort trade.

For example, the BMEL successfully advocated for the abolition of agricultural export refunds. The BMEL also takes action at European and international level to abolish measures that are detrimental to the SDGs, and supports the development of sustainable agriculture that makes an important contribution to long-term global food security.

Advisory projects in emerging and developing countries

Imparting knowledge on sustainable agricultural methods is also a key issue for the **Bilateral Cooperation Programme (Bilaterales Kooperationsprogramm – BKP).** In emerging economies, the BMEL conducts advisory projects on the political and legal environment in order, for example, to promote climate change mitigation and to protect and conserve the environment, soil fertility, groundwater and animal health while also increasing productivity. In Zambia, for example, a competence centre (the Zambian-German Agricultural Knowledge and Training Centre – AKTC) was established which shows how yields can be increased using modern techniques and good farm management while conserving resources. In Eastern Province, the BMEL is also supporting the establishment of a training centre for agroforestry, specifically aimed at smallholders, in order to promote the supplementary use of trees to give shade, improve the soil and provide feed and fuel. The BMEL's seed projects in India and Ethiopia also support the maintenance of diverse genetic resources and access to quality seed to ensure the supply of food.

Sustainable land management

Expansion of organic farming

To increase the amount of organically farmed land in Germany, the BMEL initiated a Strategy for the Future of Organic Farming **(Zukunftsstrategie Ökologischer Landbau – ZöL)** in 2015. A conference was held in 2019 to take stock of the progress made in implementing the measures and to discuss any need for adjustment. The results of this conference, and the 30 percent goal for organically farmed land in Germany that was agreed in the coalition agreement, have a significant influence on the BMEL's policies and research in food and agriculture. The BMEL is engaged in a participatory process with all other ministries to develop the Strategy for the Future of Organic Farming into a Federal Government strategy for strengthening the organic food and agricultural sectors in Germany. An interministerial working group was set up for this purpose.

The interim results were presented and discussed with all relevant stakeholders at **BioFach,** the World Organic Trade Fair, **in February 2023.** The Federal Government's strategy should be finalised by the summer of 2023. To enlarge the organic market, there will be a particular focus on further strengthening and networking organic value chains and increasing the percentage of organic foods in away-from-home catering (including hotels, restaurants and public canteens cf. Chapter 3). It is also planned to continually expand the information available on organic farming.

The tools of the **CAP** and the **Joint Task for the Improvement of Agricultural Structures and Coastal Protection (Gemeinschaftsaufgabe zur Verbesserung der Agrarstruktur und des Küstenschutzes – GAK)** are instrumental in strengthening the supply side. For 2023, the Federal Government and the federal states are planning to provide 291.6 million euros in support under the **Special Framework Plan on Organic Farming and Biological Diversity.** The 30 percent goal was anchored in the CAP Strategy Plan. This plan earmarks around 500 million euros in national and EU funds for organic farming from 2023 to 2027. These funds will be increased as a result of the recalculation of the **organic premiums.**

In addition to the CAP and the Joint Task, the **Federal Organic Farming Scheme (Bundesprogramm Ökolandbau – BÖL)** remains a very important funding tool for achieving the measures initiated by the Strategy for the Future of Organic Farming. The Federal Organic Farming Scheme is a BMEL support scheme; the areas for which support is provided include organic farming research, advisory services, training courses, knowledge transfer measures for a variety of target groups (farmers, processing establishments, advisers), the establishment of regional organic value chains and consumer information campaigns. Under the 2022 Budget Act, the previous Federal Scheme for Organic Farming and Other Forms of Sustainable Agriculture (BÖLN) was replaced by the Federal Organic Farming Scheme, with funding totalling over 32 million euros, and the focus is now on the support of organic farming measures once again. This focus means that there will in future be considerably more funds available for organic farming than previously. This programme will be topped up in the years to come. Agricultural and nutrition research will also be realigned to the 30 percent goal. Both the BMEL's departmental research and the BMEL's support schemes are therefore developing concepts to strengthen organic farming research. The BMEL is also developing the research roadmap for the Federal Organic Farming Scheme from 2024 onward.

Protein Crop Strategy

Part of the transformation process in agriculture is to continue to promote Germany's domestic supply of GM-free plant protein and to expand the amount of land under protein crops. The **Protein Crop Strategy,** launched in 2013 and continually updated, serves this goal. It was confirmed in the coalition agreement that the Protein Crop Strategy should continue to be developed. The Protein Crop Strategy strengthens the availability of regional sources of plant protein for human and animal consumption and at the same time, through regional production, reduces dependencies on imports and consequently the risk of deforestation in third countries. Legumes have many positive environmental effects, such as humus formation and the ability to reduce the use of mineral nitrogen fertilisers. At the same time, incorporating legumes expands the often tight crop cycles in conventional farming. In organic farming, legumes are essential, particularly for feeding animals with domestically produced feed. Since legislation requires organic farmers to use a higher percentage of regionally produced feed, the expansion of domestic production is of great importance for this farming method. A total of 5.6 million euros are available for the Protein Crop Strategy for 2022, almost 1 million euros more than originally envisaged by the previous government. A further increase of 3 million euros in funds for the Protein Crop Strategy, to a total of 8.6 million euros, is planned for 2023.

Research on grassland farming

The BMEL supports research projects that aim to optimise the use of grassland for feeding ruminants, as ruminants are able, through the use of grassland and grassland products, to transform biomass that is not able to be used by humans into high-quality animal protein, without there being any food competition with people. The fact that it is mainly grassland that is used to feed ruminants means that valuable arable land can be used to grow food. There is also land that is only suitable for use as grassland, for example in some hillside locations. It makes no ecological or economic sense to use such locations for arable farming; they are therefore ideal for use by ruminants.

The BMEL supports many research projects on grassland farming, particularly in respect of grazing for cattle, sheep and goats, avoiding loss of feed in fodder production, and investigating undesirable substances in conventional and organic grassland farming.

Keeping land for the production of food

To ensure food security worldwide, there needs to be sufficient land available long-term for food production, both nationally and internationally. With increasing scarcity of land and competition over use, the aim must be to optimise the use of existing land resources and to facilitate/allow parallel uses. The BMEL takes action at national and European level to **optimise the regulatory framework** on land conservation and ensure it takes into account the goals of the German Sustainable Development Strategy and existing technical legislation. The BMEL will also sensitise municipalities about the problem and provide guidelines to avoid land being used for other purposes. The BMEL participates in the **"Alliance for Affordable Housing"** to ensure that building projects give greater consideration to land conservation. As well as avoiding land sealing, the global aim must in particular be to use site-adapted, soil-conserving, sustainable management to counter the degradation of soil.

→ **SDG 10** Reduced inequalities
→ **SDG 12** Responsible consumption and production
→ **SDG 13** Climate action
→ **SDG 15** Life on land
→ **SDG 17** Partnerships for the goal

SDG 3 Good health and well-being

Ensure healthy lives and promote well-being for all at all ages.

The overarching goal of SDG 3 is to reduce national and international health risks. Generally speaking: A balanced diet is the best recipe for good health. The BMEL pursues a holistic policy for healthy nutrition.

The Federal Government's Food and Nutrition Strategy

In Germany, around 47 percent of women and 60 percent of men are overweight; almost one-fifth of adults are severely overweight (obese). Approximately 15 percent of 3–7 year-olds in Germany are overweight, of which almost six percent are obese. To counter this development and reduce the risk of secondary disorders, the BMEL promotes healthy foods and greater nutritional awareness. The Federal Government, with the BMEL as lead ministry, will draw up a food and nutrition strategy by 2023. The aim is to promote and create food environments and patterns that make it easy for people to eat healthily and sustainably. Eating healthily and sustainably prevents overweight and secondary diseases that often result from overweight, such as obesity, cardiovascular disease and diabetes mellitus type 2. A healthy and sustainable diet also contributes to environmental protection and resource conservation.

The BMEL therefore focuses on a combination of measures that strengthen nutritional awareness (behavioural prevention) and improve food environments (situational prevention). A healthy and sustainable diet contains a high proportion of plant-based foods, and consists of low-processed foods and seasonal and regional foods that have been produced in an ecologically and climate-friendly manner.

This information is disseminated in a large number of BMEL projects carried out under the **"IN FORM" National Action Plan.** Mass catering is particularly suitable for supporting healthy and sustainable diets as it is possible to reach a lot of people. It is therefore an important goal for the BMEL that mass catering in all areas of life (preschools, schools, the working world, clinics, institutions for senior citizens etc.) is based on the quality standards for mass catering set by the German Nutrition Society (Deutsche Gesellschaft für Ernährung – DGE) and provides more seasonal, regional, organic and climate-friendly food.

IN FORM
Deutschlands Initiative für gesunde Ernährung und mehr Bewegung

Alternative proteins

A fundamental conversion to a plant-based, health-sustaining and sustainable diet can only be carried out in the very long term for large parts of the population and requires political support. The BMEL published a support scheme in November 2021 under the **Protein Crop Strategy** to tap into and use alternative sources of protein for human nutrition. This support scheme addresses the entire spectrum of alternative sources of protein. At the same time, it will strengthen the plant-based alternatives that can be consumed directly or with little processing. The focus is on practice-oriented research and a rapid and effective transfer of the research results to agricultural enterprises, to the food industry and to consumers.

Nutri-Score

The BMEL introduced the Nutri-Score in November 2020 as a voluntary supplementary nutrition labelling scheme for food. Since then, companies in Germany have had the opportunity to use the Nutri-Score to label processed food and in this way to provide consumers with meaningful guidance in their choice of food.

The classification is based on a coloured-letter scheme with five different levels (A to E); this enables the nutritional quality of different foods within the same product category to be compared with one another at a glance. It shows, for comparable foods, which products are more conducive to a balanced diet. At the same time, the use of the Nutri-Score also offers companies that successfully reduce less favourable nutrients in their products the chance to show this, as the reduction can be reflected in a better score. The BMEL is flanking the Nutri-Score in Germany with a range of communication measures as part of a comprehensive information campaign. These measures are intended to support both consumers and food-sector companies in using the Nutri-Score. Since the introduction of the Nutri-Score in November 2020, over 600 companies from Germany have in total registered more than 970 brands.

Joint research for healthy foods

Plant and food health is also investigated by the BMEL in international research projects. In Kenya, for example, farmers are under high pressure. Very rapid population growth and extreme weather events are severely hindering food supply. The country's maize is also regularly afflicted by mould. These so-called aflatoxin outbreaks lead to a large number of fatalities. The aim of AflaZ – which stands for "zero aflatoxins" – one of the Max Rubner Institute's multidisciplinary research projects, is to develop sustainable strategies to reduce fungal infestations and hence aflatoxin contaminations and in turn to effectively reduce food losses and fatalities caused by aflatoxins.

The formation of aflatoxins on maize, and the resulting contamination of milk, is being investigated in collaboration with scientists from departmental research, university research and above all partner organisations in Kenya, for example KALRO (Kenya Agriculture and Livestock Research Organisation) and EAFF (Eastern Africa Farmers Federation). Both foods are very popular in sub-Saharan Africa and are consumed frequently. The success of the project – including the application of the findings – is to be ensured by having a comprehensive approach, monitoring strategies and prevention strategies. The cooperative partnership and the adaptation of communication to the respective conditions are important prerequisites for a sustainable transfer of know-how. Climate change is leading to the Aspergillus flavus mould now being detected with increasing frequency in southern European countries, meaning that the research results are increasingly relevant to Europe and Germany as well.

Prevention of pandemics

Pandemics show particularly clearly how closely connected the health of humans, pets, wild animals, plants and the environment (including ecosystems) is and how dependent these groups on each other. The greater the overlap between human, pet and wild-animal habitats, the greater the risk of the transmission and spread of animal diseases to humans will become. Examples of such zoonoses include Ebola, SARS-CoV-2 and influenza. In order to promote the health of humans, pets, wild animals and the environment holistically, in line with the One Health approach, progress must be made in protecting species and biotopes, improving husbandry and management and raising awareness.

→ **SDG 2** Zero hunger
→ **SDG 4** Quality education
→ **SDG 6** Clean water and sanitation
→ **SDG 14** Life below water
→ **SDG 15** Life on land

SDG 4 Quality education

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Social expectations regarding consumer protection, climate action, animal welfare and biodiversity are reflected in great expectations in the educational sector and are posing complex challenges to the training structures. With its green jobs and interaction with humans, animals and plants, the agri-food sector offers numerous prospects to learn and work in a large range of technically demanding areas in close contact with nature. The BMEL is also involved in this area with a large variety of measures.

Attractive green professions

The demand to work in the agricultural sector has remained steady despite the demographic developments. In 2020, 32,469 young people were training for an agricultural profession – 138 trainees more than in 2019. They will have many opportunities but will also face some challenges. Work processes are becoming increasingly automatised and digitalised. Vocational training for these professions faces considerable challenges in view of the growing demands being placed on skilled workers and managers (for example digitalisation, climate crisis, sustainability, animal welfare and the social, economic and legal situation). The qualification profiles for future skilled workers and managers must and will therefore be continually reviewed and adapted in close cooperation with the stakeholders involved in basic, advanced and continued vocational training. The quality of the implementation of existing training rules will also be continually reviewed. For example, one project supported by the BMEL has the goal of optimising the integration of material on organic farming into the training of farmers, gardeners and vintners, in particular in the area of the vocational and technical institutions in all federal states, and of networking the education stakeholders in these areas more closely. Currently there are **14 green professions,** all of them offering varied work and good vocational prospects; they range from district hunter, farmer, vintner and forester to fish farmer and equine manager.

International educational commitment

Under its **Bilateral Cooperation Programme (Bilaterales Kooperationsprogramm – BKP),** the BMEL supports the basic and advanced training of expert agricultural staff in a number of international projects. For example, an exchange programme for students and job starters has been established with China. In Ukraine, the BMEL is supporting the introduction of dual agricultural training at agricultural colleges based on the German model. In Zambia, the Zambian-German Agricultural Knowledge and Training Centre – (Agrartrainings- und Wissenszentrum – AKTC) will offer training courses and demonstrations in dedicated project training facilities; the training will comprise basic and advanced training in plant production for specialists in the agricultural sector, which will sustainably increase productivity. The BMEL's support instrument on **"International research cooperation on global food security and other international research tasks in the fields of food, agriculture and consumer protection"** supports research cooperation between German research institutions and corresponding institutions in Sub-Saharan Africa and southern and south-eastern Asia. The goal is to draw up need-based findings and solutions with the help of participative, application-oriented, interdisciplinary and transdisciplinary research methods. In the field of sustainable forest management, the BMEL cooperates closely with the **Collaborative Partnership on Forests (CPF)** to support a global educational network (Global Forest Education Platform). The goal is to provide concepts and methods regarding forestry knowledge and sustainable forest management methods for school, academic and vocational training and to promote global networking and exchange. In **Forest Europe,** the Ministerial Conference on the Protection of Forests in Europe, the importance and support of green professions and forestry training are a priority under the current German chair (2021–2024).

Agricultural extension services

Investment in agricultural extension services are imperative for sustainable regional development, future-orientated agriculture and consequently for safer food. The globalisation of agricultural markets, the challenge of climate change mitigation and the adaptation to the effects of the climate crisis mean that growing demands are being placed on agricultural production. The BMEL therefore supports the federal states, via the Joint Task for the Improvement of Agricultural Structures and Coastal Protection (**GAK**), in funding extension services, for example to improve competitiveness. The aim of the extension services may, for example, be to improve animal welfare, resource efficiency, environmental protection, nature conservation or climate stewardship. In addition to this, the **Federal Organic Farming Scheme (BÖL)** supports extension services on converting to organic farming and also on advanced training and knowledge transfer measures regarding organic farming. Overall, the agricultural enterprises in Germany have a large number of extension services at their disposal.

→ **SDG 1** No poverty
→ **SDG 12** Responsible consumption and production
→ **SDG 13** Climate action
→ **SDG 17** Partnerships for the goals

SDG 5 Gender equality

Achieve gender equality and empower all women and girls.

The equality of women and men is a prerequisite and motor for sustainable development and the future viability of our society. The BMEL therefore takes action to promote the equal participation of women in rural areas, to strengthen women economically and to improve their living conditions and income situation. Gender equality aspects therefore play a role in policy-making for practically all areas – both internationally and nationally.

Equality of women and men in rural areas

Only approximately every ninth agricultural enterprise in Germany is managed by a woman. It is estimated that half a million women live and work in agricultural enterprises. In order to be able to assess their everyday lives in greater detail, the BMEL funded, at the initiative of the German Rural Women Association (Deutscher LandFrauenverband e.V. – dlv), a three-year **study on the living and working conditions of women in agricultural enterprises.** The goal is to assess the current living conditions and future prospects of women in agriculture and their importance for social cohesion in rural regions. The results of the study on rural women were presented in September 2022. The conclusion is that there is still considerable need for action in order to make equality on farms a reality. The policy brief, results and recommendations for action provided by the researchers in the study are not only addressed to the BMEL but also to other ministries, the federal states, the municipalities, the trades and professions, rural economy, and also to agricultural families.

Women in voluntary work

In addition to their vocational work and their work in families, women in rural areas often also engage in voluntary work. The BMEL's "Digitally Networked – Strengthening Women in Voluntary Work" (Digital. Vernetzt – **Frauen im Ehrenamt stärken**) support scheme supported the voluntary work and civic commitment of women in rural areas under the **Federal Programme for Rural Development (Bundesprogramms Ländliche Entwicklung – BULE)** in 2021 and 2022. The work of women's associations and initiatives was strengthened during the COVID-19 pandemic by supporting training and qualification measures for digital activities in the associations.

International gender equality projects

The Committee on World Food Security, which the BMEL supports, has addressed at international level the improvement of gender equality in the context of food security and food systems. For example, it drew up **Policy Recommendations on Promoting Youth Engagement and Employment in Agriculture and Food Systems for Food Security and Nutrition.** The BMEL's bilateral cooperation projects focus on women as influential stakeholders in agriculture, fisheries, the food sector, research and civil society.

For example, the Agricultural Knowledge and Training Centre in Zambia provides specific training by women for women in agriculture; women's cooperatives are also supported in Ethiopia, Morocco and Turkey. The BMEL's future international work will also take greater account of women's decisive role for innovation, education and cooperation in rural areas and will provide targeted support in this area.

→ **SDG 1** No poverty
→ **SDG 2** Zero hunger
→ **SDG 4** Quality education
→ **SDG 8** Decent work and economic growth
→ **SDG 10** Reduced inequalities

SDG 6 Clean water and sanitation

Ensure availability and sustainable management of water and sanitation for all.

An adequate supply of safe water requires water to be managed sustainably, especially in view of the increasingly frequent periods of drought and water scarcity. Sustainable water management has the goals of reusing water and protecting human health, animal health and the environment. Agriculture and forests can play an important role in groundwater protection (and in the protection of rivers and lakes). The BMEL supports this aim with a large number of measures.

Clean water in agriculture – reducing nitrogen surpluses

Farms strive to apply fertilisers in a targeted manner, according to the needs of the crops. Nitrogen surpluses should be kept as low as possible, as they can also leech into water bodies as nitrates and pollute the environment.

The **DNS** has set itself the goal that all measuring points should comply with the threshold of 50 mg/l nitrate in groundwater by 2030. In order to reduce nitrate pollution of groundwater, the BMEL amended the **Fertiliser Application Ordinance** in 2020 and further reduced nitrogen fertilisation, particularly in areas polluted with nitrates. The use of fertilisers will therefore become even more efficient and environmentally sound. The amendments to the fertiliser legislation are also supported by the funding provided for research and for model and demonstration projects. For example, under its **Arable Farming Strategy,** the BMEL supports a demonstration project that aims to facilitate early detection of nitrate loads from agriculture in groundwater and surface waters. The **model and demonstration projects** entitled **"Implementation of regional nutrient concepts in slurry preparation"** and **"Use of NIR sensors to quantify nutrient content in liquid fertilisers"** aim to support better spreading of farm fertilisers and an efficient use of fertiliser nutrients.

Forests and water

Forests are closely interlinked with the climate, both locally and globally. Forests play a major role in the production of oxygen, in the reduction of greenhouse gases and in the hydrological cycle. At local level, forests have a counterbalancing effect on the surrounding climate and clear the air of impurities. Forests are therefore the greatest source of climate change mitigation in our country. Forests are water collectors, waterworks and reservoirs. Forest soil plays a special role in the hydrological cycle. Rainwater in forests seeps through different layers of soil. Biological and chemical processes purify the water before it reaches the groundwater.

Our sustainable forestry management supports the purification of water in forest soil: no fertilisers are used in forests, pesticides are only used in exceptional circumstances in small areas, and there is no wastewater in forestry.

The groundwater under a forest is particularly clean, rich in oxygen and ideally suited for the abstraction of drinking water. This is why forests are frequently part of water protection zones: more than 40 percent of the area covered by German water protection zones is located in forests. Some 2.1 million hectares of forests are drinking water protection areas. A large proportion of our drinking water comes from forests.

Via the Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK), the BMEL plays a major role in close-to-nature and climate-resilient forest conversion and in the restoration of damaged forests. The federal funds earmarked for these purposes are expected to amount to 297 million euros for 2022 and 2023. Funds totalling 900 million euros are earmarked for the "Climate and transformation fund" for the period up until 2026. These funds will be used for the planned funding instrument on "Remuneration of the ecosystem services performed by forests and of climate-adapted forest management".

→ **SDG 2** Zero hunger
→ **SDG 13** Climate action
→ **SDG 15** Life on land

SDG 7 Affordable and clean energy

Ensure access to affordable, reliable, sustainable and modern energy for all.

The use of biomass plays an important role in the energy transition. It can greatly help in balancing bottlenecks in the supply of renewable energies – for example, if energy generation through wind and solar energy is reduced because of a blackout. The prerequisite is that the use of biomass is itself sustainable. Negative effects on the environment, nature and the climate must be avoided. In using land, priority must always be given to the production of food.

The development and use of bioenergy

The main resources for the German bioeconomy come from the material and energetic uses of biological raw materials, byproducts and residues. Bioenergy, above all wood, is also used as an energy source, and is regarded as an important component for net-zero energy systems, both in Germany and worldwide. The BMEL, together with the Federal Ministry for Economic Affairs and Climate Action and the Federal Ministry for the

Environment, Nature Conservation, Nuclear Safety and Consumer Protection, is responsible for the Federal Government's Biomass Strategy. This strategy is intended in particular to focus on climate-related and sustainability aspects of the material and energetic use of biomass and also to address conflicts of objectives – for example due to other demands regarding the use of land.

The BMEL-funded **project** on **"Scenarios for an optimal energetic use of biomass by 2030 and 2050" (SoBio)** is investigating how to optimise the contribution of biomass to the energy transition, what sectors biomass should be primarily used in and what bioenergy technologies are particularly competitive. The analysis will also take into consideration changing political, economic and social circumstances in the period up until 2030 and 2050. In addition to this, it will investigate the potential of the energetic use of biomass to achieve the SDGs. **The German Biomass Research Centre (Deutsche Biomasseforschungszentrum – DBFZ)**, one of the BMEL's research institutions, has developed a target vision in this context for the development of bioenergy within the national energy system up until 2050. This target vision is focused on realising the idea of a climate-neutral or greenhouse gas-negative (GG-negative) energy system in Germany by 2050.

Energy efficiency programme in agriculture and horticulture

The BMEL is actively involved in reducing CO_2 emissions from fossil fuels used to power machines and heat buildings and greenhouses. The **Federal Programme for Improving Energy Efficiency and Reducing CO_2 Emissions in Agriculture and Horticulture** supports the entire range of farm-level, technical options for reducing CO_2 emissions on farms, irrespective of the particular technology. Since its launch in 2016, the Federal Programme has been continually developed by the BMEL. The support covers farm-level extension services, investments and knowledge transfer and – because the access to regenerative sources of energy often requires high initial investments – also inter-farm investments in renewable energy production.

→ **SDG 9** Industry, innovation and infrastructure
→ **SDG 11** Sustainable cities and communities
→ **SDG 13** Climate action
→ **SDG 15** Life on land

SDG 8 Decent work and economic growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

SDG 8 is the expression of the economic importance of companies for sustainable development. It also has a social focus: the abolition of forced labour and human trafficking, and the ending of child labour, by 2025. The BMEL carries out a variety of different measures and projects to promote sustainable economic growth and decent work in agriculture and support the respect of human rights in global supply chains.

A Common Agricultural Policy strategic plan to promote sustainability

The Federal Government and the federal states have, since 2019, been jointly drawing up the new CAP Strategic Plan under the overall coordination of the BMEL. This plan is the basis for implementing EU CAP support in Germany from 2023. The two pillars of the CAP – on the one hand the direct payments and sectoral programmes, on the other EU funds for rural development – will for the first time be brought together into a joint framework. More than half of the EU funds will now be used for environmental and

climate goals. **The CAP Strategic Plan** thus makes a significant contribution to the Biodiversity Strategy and the Farm to Fork Strategy within the context of the European Commission's Green Deal.

The **European Green Deal** provides for the EU to make its economy sustainable and climate neutral by 2050, to decouple its growth from the use of resources and, in doing so, to not leave anyone behind.

The CAP Strategic Plan for Germany covers EU funds totalling around 30 billion euros for the period 2023–2027 and will have an impact on land management and on how the approximately 40 million people in rural areas live and work. The plan is addressed to over 300,000 applicants in the agricultural sector alone. The CAP Strategic Plan promotes resilient agricultural production, rewards environmental and climate services, and contributes to the future viability of rural areas. An ecologically sustainable agricultural sector will ensure food security in the medium term while conserving natural resources. This is why the goal of the Federal Government and the BMEL to have 30 percent of agricultural land farmed organically by 2030 has been incorporated into the CAP Strategic Plan's contribution to the Farm to Fork Strategy.

The European Commission's **Farm-to-Fork Strategy** (also known as F2F) is an important instrument of the European Green Deal. Its goal is to create sustainable and climate-neutral food systems in the EU by 2050.

Support for young farmers

There are a number of different support options for young farmers in Germany designed to make the job of farmer more attractive and more financially secure. From 2023, under the CAP's first pillar, young farmers will receive around 134 euros per hectare for a maximum of 120 hectares for the first five years after taking over a farm; this equates to a maximum of 16,000 euros per year. This represents a significant increase in support for young farmers compared with previously. The **Agricultural Investment Aid Programme (AFP)** also offers them financial support. In 2021, for example, this programme provided around 36.5 million euros in funds from the Federal Government, the federal states and the EU in order to support young farmers' investment measures. Advisory services are also funded. Farmers can, for instance, make use of these services if they have any questions regarding financing or economic viability.

Social standards in the CAP

During the **reform of the EU CAP,** the BMEL advocated enshrining the so-called "social conditionality" in EU agricultural support. This means that the EU agricultural support for farms can be cut or withdrawn completely if they do not comply with specific social commitments. These include commitments under the Directive on the introduction of measures to encourage improvements in the safety and health of workers at work (RL 89/391/EEC) , the Directive concerning the minimum safety and health requirements for the use of work equipment by workers at work (Directive 2009/104/EC) and the Directive on transparent and predictable working conditions in the European Union (Directive 2019/1152/EU), which continue or expand the previous "Proof" Directive. Specifically, this affects, for example, commitments to health protection and safety at work, to ergonomics and equipment and on contracts of employment. EU law provides for the social conditionality stipulations to be implemented by the Member States from 2023, and at the latest by 2025. The BMEL is taking action to prepare the statutory basis for this in 2022. The introduction of social conditionality is an important contribution to improving the working conditions of those employed in agriculture in Germany and the entire EU.

Sustainable soil management and generational renewal

Land is a limited resource. There is competition for the use of land from different sectors, for example agriculture, forestry, residential development, transport, industry, nature conservation, the extraction of raw materials and energy generation. This leads to price hikes for the purchase or rent of land. In its management of the **federally owned German Land Realisation and Management Company ("Bodenverwertungs- und -verwaltungs GmbH – Flächen")**, the BMEL therefore advocates measures to curb prices so that the prices are based primarily on an achievable ground rent. This is key for ensuring a solid economic basis for people who set up agricultural businesses. The aim is also to grant young farmers priority in the leasing of agricultural land. At the same time, tenants must comply with further requirements, for example in the area of nature conservation.

Corporate responsibility

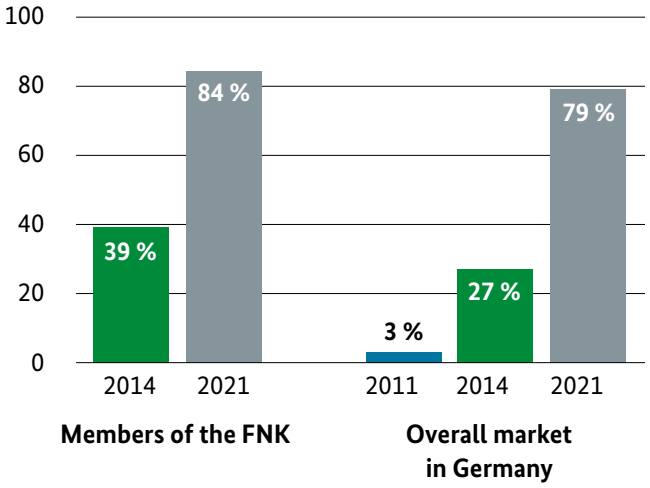
The Federal German Parliament adopted the **Act on the Duty of Care Regarding Supply Chains (Lieferkettensorgfaltspflichtengesetz – LkSG)** in July 2021 to improve the international human rights situation. The regulations affect the food retail trade directly and also, indirectly, suppliers to food retailers from the agricultural and forestry sectors throughout the world. In order to also be able to effectively pursue this goal at EU level, the European Commission presented the draft of a directive on corporate sustainability requirements in February 2022. This draft also affects agriculture, forestry and fisheries. The European Commission presented a proposal for a Regulation with corresponding duties of care in late 2021, specifically to ensure that agricultural supply chains are deforestation-free. The Federal Government also advocates that respect for human rights in the supplier countries and supply regions should be enshrined in this regard as well.

German Initiative on Sustainable Cocoa

The German **Initiative on Sustainable Cocoa (Forum Nachhaltiger Kakao – FNK)** was initiated by the BMEL in 2012. It currently has over 70 members, including the Federal Ministry for Economic Cooperation and Development, the BMEL, and representatives of the German confectionery industry, the German food trade and a number of non-governmental organisation (NGOs). The FNK's goals include improving the living conditions of the cocoa farmers and their families, protecting and conserving the natural resources in the producer countries and increasing the growth and marketing of sustainably produced cocoa. The FNK regards sustainable cocoa as meaning cocoa produced according to economic, ecological and social requirements. This means that the production must be economic, environmentally sound and socially responsible, without endangering the ability of the future generations to satisfy their own needs. The Initiative is striving to foster a sustainable cocoa sector in which all stakeholders along the value chain engage in future-oriented business practices, thereby providing the cocoa farmers with a decent income, conserving natural resources, in particular forestry resources and forestry biodiversity, and ensuring compliance with human rights along the value chain, in particular ensuring that there is no abusive child labour. Since the FNK was founded, the percentage of cocoa certified as complying with sustainability standards, or verified by equivalent, independent means, that is contained in the confectionery goods sold by the FNK members in Germany has risen from 39 percent (2015) to over 84 percent (2021). The percentage in the entire sector was three percent in 2011, 27 percent in 2014 and 79 percent in 2021.

→ **SDG 2** Zero hunger
→ **SDG 4** Quality education
→ **SDG 12** Responsible consumption and production
→ **SDG 15** Life on land

Percentage of certified cocoa in confectionery goods sold in Germany



Source: German Initiative on Sustainable Cocoa (Forum Nachhaltiger Kakao e.V. – FNK), survey by the Federal Association of the German Confectionery Industry (Bundesverbandes der Deutschen Süßwarenindustrie e.V. – BDSI), Basis: certified according to sustainability standards or independently verified

SDG 9 Industry, innovation and infrastructure

Build a resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Looking ahead, increasing digitalisation and other innovations promise many opportunities and new prospects. But how can we make the best possible use of these opportunities? How, for example, can risks related to the digital transformation be controlled? This places great demands on politics and society. The BMEL is facing these challenges with a large number of activities and measures in the area of food and agriculture.

Digitalisation in rural areas

Nationwide expansion of the fibre-optic network and modern mobile communications technologies provide the necessary digital infrastructure to facilitate industry, innovation and modern employment opportunities in rural areas. The BMEL actively participates in drawing up and implementing the Federal Ministry for Digital and Transport's (BMDV) Gigabite Strategy, which aims to achieve a nationwide network of optic fibre and rapid mobile communication in rural areas and consequently to help eliminate the urban-rural gap. For instance, the BMEL is involved in realigning the Federal Government's Gigabite support scheme, re-allocating mobile communication frequencies and in drawing up the consequent supply requirements for telecommunication companies. As a **member of the Mobile Communications Infrastructure Company's (Mobilfunkinfrastrukturgesellschaft) advisory board,** the BMEL also takes action to have "dead spots" eliminated and more mobile communications masts built in rural areas.

Digitalisation in agriculture

Agriculture benefits from digitalisation, for example, through the innovative and effective protection of valuable natural resources. The **digital trial fields and artificial intelligence projects** supported by the BMEL research and test how, for example with the use of sensors, hoeing robots can be used to mechanically remove undesired plants while protecting crops – without any pesticides.

Sustainable value chains through artificial intelligence

As part of the digitalisation of agriculture, the BMEL uses its digital trial fields and artificial intelligence (AI) projects to support the development of data-based and future-orientated technologies along the entire agricultural value chain, for example the use of autonomous weed-controlling systems without the use of plant protection agents. The technologies developed are based, for example, on AI-supported image recognition or satellite control. The weeds are then removed accurately by mechanical means, using heat, laser or electricity. In practice, these technologies represent important alternatives to the still common use of plant protection agents. In addition to this, autonomous systems also help cope with a lack of agricultural workers. There is a very great need for effective, non-chemical, labour-saving technologies, in particular in organic farming and vegetable farming. Digital solutions such as apps and chatbots (text-based dialogue systems that provide communication with a technical system) can then support farmers in marketing regional food and encourage consumers to adopt healthier and more sustainable habits, which will also assist in climate change mitigation and conserve resources. The analysis of agricultural data and the use of digital technologies in agriculture can improve the sustainability of production and, for example, lead to a lower use of fertiliser, plant protection agents and energy and to improvements in animal welfare. Intelligent networked systems can also help farmers to save time.

Innovations for rural development

The **BMEL's Federal Programme for Rural Development (BULE)** promotes model solutions for typical challenges facing rural areas. The BMEL supports pioneers in enhancing the attractiveness of rural areas, promotes the research and monitoring of real-time developments in the rural areas of Germany and, through the technical evaluation of the model projects, gains insights into what factors help and hinder the support instruments. The results of the technical evaluation also particularly help local stakeholders – with the assistance of specific recommendations for implementation, the innovations can also be adapted to other regions.

Sustainable bioeconomy

The **National Bioeconomy Strategy (Nationale Bioökonomiestrategie – NBÖS)**, for which the BMEL and Federal Ministry of Education and Research are the lead ministries, defines the Federal Government's guidelines and goals for the development of a sustainable bioeconomy in Germany. This strategy provides a framework for Germany's bioeconomy support to help achieve the SDGs. Delivery of the National Bioeconomy Strategy will be based on an implementation plan; this plan will be drawn up by 2023 in cooperation with the Bioeconomy Council (Bioökonomierat – BÖR) and based on the Council's proposals and recommendations. The Bioeconomy Council is an independent and advisory expert body set up by the Federal Government. The Bioeconomy Council uses dialogue and participation processes to involve a broad range of stakeholders from civil society, industry, science and associations in drawing up its recommendations. The aim of the implementation plan is to develop bioeconomic solutions to achieve the SDGs, recognise and harness the potentials of the bioeconomy within ecological limits, expand biological knowledge and make Germany into the leading innovation centre for the bioeconomy. The implementation plan is also intended to contain recommendations, suggestions and measures to tackle or deal with conflicts of objectives which go hand in hand with an increasing use of biomass in a bioeconomy. The Federal Government will take the necessary steps on this basis to achieve the goals of the National Bioeconomy Strategy and make further progress in realising a sustainable bioeconomy.

Renewable resources

One important aspect of the bioeconomy is to provide sustainably produced biogenic raw materials in sufficient quality and quantities to produce food and feed for the agri-food industry, aquaculture, the fisheries sector, the wood-based industry as well as for all the other non-food/non-feed areas of the economy that process raw materials of biological origin or use biological processes.

The **Agency for Renewable Resources (Fachagentur für Nachwachsende Rohstoffe e.V. – FNR)**, for example, one of the BMEL's project executing agencies, flanks and manages research, developmental and demonstration projects on renewable resources. The areas the BMEL supports via the FNR include new applications for bio-based products and innovative methods and processes for serial production through the **"Support Scheme for Renewable Resources"**. Specific uses in the non-food/non-feed sector of the bioeconomy can also play an important role in all sectors as an approach to sustainable economic activity.

→ **SDG 2**	Zero hunger
→ **SDG 11**	Sustainable cities and communities
→ **SDG 12**	Responsible consumption and production
→ **SDG 13**	Climate action
→ **SDG 15**	Life on land

SDG 10 Reduced inequalities

Reduce inequality within and among countries.

SDG 10 is intended to make the sharing of prosperity and the distribution of income fairer. The aim is for no one to be disadvantaged due to socio-demographic and structural circumstances. The BMEL is focused on creating equivalent living conditions in rural areas in order to achieve SDG 10. The BMEL also supports engagement and voluntary work in rural areas; this leads to a higher quality of life.

Equivalent living conditions in rural areas

To reduce inequalities at national level, it is particularly important, besides socio-demographic aspects, to ensure equivalent living conditions in rural areas. The Federal Government therefore implements the measures adopted by the Commission on Equivalent Living Conditions, thus boosting infrastructure and helping to reduce existing regional inequalities. The main aims of these policies are to distribute resources fairly, to facilitate fair opportunities for participation and to strengthen structurally weak regions. The Federal Government will, in particular, rigorously apply the **"Equivalence Check"** in order to examine, and if necessary adapt, the effects of legislative proposals on equivalent living conditions. Germany will also, despite these times of change, retain its traditional strength of having decentralised settlement, administration and economic structures. The BMEL therefore takes action to enhance value creation in rural regions. To bolster departmental research in this area, the BMEL has founded the new Institute of Rural Economics at the Thünen Institute (TI). The Federal Government also provided additional funds for the **Special Framework Plan for Rural Development Support,** which was set up in 2018, with an extra 150 million being provided in 2019 and an additional 200 million euros each in 2020 and 2021. A particular focus of the Special Framework Plan is on investments in accessible basic public services and on the creation of attractive and vibrant town and village centres, including the elimination of building vacancies – particularly in structurally weak municipalities.

Strengthening of voluntary work and civic engagement

Voluntary work and civic engagement are of great importance for community life and social cohesion in rural areas. Both play a crucial role in finding joint solutions to current challenges and in enhancing the quality of life.

The **"German Foundation for Civic Engagement and Volunteering" (Deutsche Stiftung für Engagement und Ehrenamt – DSEE)** is based in Neustrelitz, Mecklenburg-Western Pomerania. This federal foundation is a joint project launched by the BMEL, the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (BMFSFJ) and the Federal Ministry of the Interior (BMI). The purpose of the foundation is to strengthen and promote civic engagement and voluntary work, in particular in structurally weak and rural areas.

The BMEL's **Federal Programme for Rural Development (BULE)** also fosters the conditions for rural engagement. It does so by supporting full-time contact points in 18 rural districts to network voluntary workers and support them with advice and training. This knowledge is then made available to other municipalities as best practices. The BMEL is conducting a research project to gain in-depth knowledge on voluntary work and civic engagement in rural areas in order in future to be able to take more sustainable and more targeted action. To this end, the BMEL will support research institutions that deal with voluntary and civic engagement in rural areas with up to 300,000 euros each for a period of three years.

International: International support for rural communities in other countries

The **Ukrainian-German Agricultural Policy Dialogue** is conducting a **"Technical Dialogue on Land"**, a pilot project under the BMEL's **Bilateral Cooperation Programme,** which supports communities in drawing up and taking responsibility for their own land-use plans, so that greater consideration is given to the rural population's interests regarding access to land and the sustainable development of land as a resource.

→ **SDG 1** No poverty
→ **SDG 8** Decent work and economic growth
→ **SDG 11** Sustainable cities and communities
→ **SDG 17** Partnerships for the goals

SDG 11 Sustainable cities and communities

Make cities and human settlements inclusive, safe, resilient and sustainable.

Rural areas are not just business locations; they are areas for living and engaging in cultural activities, they are the basis for the production of food and energy and they are areas for recuperating and experiencing nature. At the same time they face huge challenges, for example population decline or empty houses, which policymakers and society must face together. The creation of equivalent living conditions and the sustainable development of rural areas is the main goal of all stakeholders. The BMEL makes a valid contribution in this regard via conceptional work and the support of rural development projects.

Integrated rural development

The Integrated Rural Development (Integrierte ländliche Entwicklung – ILE) instrument in the **Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK)** is the Federal Government's main support instrument for rural areas. The BMEL uses this instrument to promote equivalent living conditions, rapid internet, accessible basic public services and attractive and vibrant town and village centres in rural regions. The Integrated Rural Development instrument thus makes a contribution to sustainability at all three relevant levels: at economic level, the economy of rural regions is sustainably strengthened through the promotion of broadband supply, co-working spaces, infrastructure measures and micro-businesses that provide basic public services; at ecological level, consideration is given to nature conservation, environmental protection and climate concerns by restructuring rural landholdings, shaping rural areas, repurposing village building material, unsealing land that has fallen into disuse, investing in publicly accessible electric charging infrastructure and installing local heating pipes; and at social level, the community, leisure and recreation facilities, the institutions that provide basic services and the other social institutions that form part of the village infrastructure all contribute towards the goal of having equivalent living conditions, easily accessible basic public services, attractive and vibrant town and village centres and fewer empty houses.

Model projects in rural areas

The **Federal Programme for Rural Development (BULE)** can provide support for good examples of the main themes, such as supporting social cohesion throughout the country, strengthening rural regions in the fields of culture, voluntary work, remote work, climate stewardship and digitalisation, promoting new forms of basic public services or also contributing to the sustainable protection of built heritage in rural areas. The BMEL's **"Smart.Rural. Regions"** (Smarte.Land.Regionen) model project supports seven rural districts, with the participation of the citizens, in developing and implementing a digital strategy and digital solutions in different areas. It has now been expanded

to support digital solutions in another 13 rural districts. One aim, for example, is to make traditional village community buildings into multifunctional locations that feature modern co-working spaces, training areas and a variety of digital services for young and old. The plans also include an electronic booking system for the services, a commuter app and an on-call bus system, in order to improve the mobility services available. The solutions are intended to be offered on a digital ecoystem, a joint platform for all rural districts. The **"Rural areas in the digital age" research promotion scheme** views the subject from a scientific perspective. In 14 applied research projects, the specific opportunities, challenges and consequences of digitalisation in rural areas are examined in order to collate practical knowledge and draw up recommendations for policymakers and practitioners, which can then also benefit other rural districts and municipalities.

Protection of agricultural land and soils

Over the last four years in Germany, an average of 117 hectares of agricultural land per day have been converted into settlement and transport areas (54 hectares) or areas for other purposes (for example compensation measures). A considerable amount of land is therefore lost to agriculture in Germany in this way. Under the German Sustainable Development Strategy (DNS), the daily conversion of land to settlement and traffic areas must be reduced to under 30 hectares per day by 2030. The Climate Action Plan also requires the land-conversion balance to be net zero by 2050 (circular flow land-use management). To achieve this aim, it will be necessary to make the most of existing land potentials, for example by putting the same area of land to parallel uses. The BMEL takes action to reduce losses of agricultural land in Germany, for instance by supporting the **Federal Government's 30-hectare goal.** In debates with the federal states and interest groups, and in planning projects within the Federal Government, the BMEL also advocates that agricultural land should continue to be used for food production or, in cases where there is existing competition for the use of the land, that its use for other purposes should be limited as much as possible.

→ **SDG 2** Zero hunger
→ **SDG 9** Industry, innovation and infrastructure
→ **SDG 10** Reduced inequalities
→ **SDG 13** Climate action
→ **SDG 15** Life on land

SDG 12 Sustainable consumption and production

Ensure sustainable consumption and production patterns.

To take climate action, use natural resources sustainably and efficiently, protect the environment and improve working and living conditions, particularly in emerging economies and developing countries, we need to change our lifestyles and how we run our economies. The BMEL supports this in the areas of sustainable food consumption, sustainability in animal husbandry and the sustainable production of raw materials.

Sustainable food consumption

Eating sustainably – an easy and natural part of day-to-day life

The BMEL aims to make it easy for consumers to eat sustainably. A sustainable diet takes account of health, economic, ecological, social and cultural factors (cf. infographic on p. 30). This means that a sustainable diet enables current and future generations to have a healthy life, and contributes to everyone's well-being; it has a low impact on the environment, both locally and globally; it is easily

accessible, safe, economically fair, affordable and adapted to local cultures.

The five dimensions of a sustainable diet
Source: von Koerber, Fünf Dimensionen der nachhaltigen Ernährung und weiterentwickelte Grundsätze – Ein Update, Ernährung im Fokus 2014

The **BMEL Concept on Promoting a Sustainable Diet** was published in May 2021, in order to support the implementation of a sustainable diet from the consumer perspective. It is being fed into the Federal Government's Food and Nutrition Strategy.

The principles of a sustainable diet include:
- a plant-based, need-based diet
- the preference for organically produced, fair-traded food produced in compliance with high animal welfare standards
- consideration of regionality and seasonality
- a focus on unprocessed and low-processed foods
- the use of tap water as the main drink (where this is safe for human health)
- resource-conserving budgeting and the reduction of food waste
- the pleasurable consumption of wholesome food.

Food environments play a key role in this regard, as they greatly influence consumer dietary habits. Food environments encompass everything from the first contact with food, for example through advertising, and access to food to the selection of food and food consumption. All these phases influence eating decisions. They must be structured so that they reduce obstacles and facilitate a sustainable diet. **Transformation-oriented food research** at the Max Rubner Institute, one of the BMEL's research institutes, is being enhanced in order to scientifically underpin measures that guide consumers from knowledge to action.

A sustainable diet also means more organic food in away-from-home catering, which includes the restaurant and catering sector as well as public and private mass catering facilities. To this end, the BMEL's **Federal Organic Farming Scheme (BÖL)** carries out measures such as **"Organic food's for everybody – eating sustainably in preschools and schools" (Bio kann jeder – nachhaltig essen in Kita und Schule)**, which includes workshops and informative events, aimed particularly at those responsible in administration and the canteens as well as at carers, teachers and parents. Another measure is the **"Organic Food Please – More Organic Food in Public Catering Facilities" (BioBitte – Mehr Bio in öffentlichen Küchen)** information campaign launched in 2020, which offers background information, guidelines and networking events to support the inclusion of more organic food by policy makers, public contracting authorities, technical divisions and heads of institutions in the public away-from-home catering sector.

At the same time, new measures are being drafted and implemented – including the **Guideline on promoting advice to companies in away-from-home catering on the greater use of organic products (Richtlinie zur Förderung der Beratung von Unternehmen der AHV zum vermehrten Einsatz von Produkten des ökologischen Landbaus – RIBE AHV)**. This enables canteens and restaurants that would like to significantly increase their use of organic foods to have up to 80 or 90 percent of the advisory costs reimbursed. The legal framework for organic labelling in away-from-home catering is also being revised in order to remove existing obstacles.

The "Bio-Siegel" organic label – clear labelling for sustainable consumption

The German Bio-Siegel was introduced by the BMEL in September 2001 as a voluntary labelling system for organic food and has since then developed into one of the best-known and most widely used labels in food labelling. For example, according to a survey on the 2021 organic barometer (Öko-Barometer 2021), 82 percent of participants said that they were familiar with the appearance of the German organic production label (Bio-Siegel). The hexagonal label can be used to label foods and agricultural products that have been produced, processed, imported and traded in accordance with the **EU legal provisions for organic farming**.

These legal provisions guarantee that organic companies comply with high, harmonised standards which are controlled by the organic control agencies. The Bio-Siegel therefore stands for certified organic production.

While the German Bio-Siegel is voluntary, the EU organic farming logo was made mandatory as of 1.7.2012 for organically farmed products and organic foods that have undergone a processing step in the EU.

Reducing food waste

If global food waste were a country, it would have the third-highest greenhouse gas emissions in the world. Resources such as soil, energy and water are needed for a vast range of activities, from production, processing, transport and trade to the finished meal in away-from-home catering and private households. At every step, greenhouse gases are released – unnecessarily, if the food is then not eaten. It is therefore the Federal Government's declared goal to halve food waste per capita at trade and consumption levels, including away-from-home catering, by 2030. The aim is also to reduce food waste in Germany that is generated along the production and supply chains. The BMEL has established five **sector-specific dialogue fora** for this purpose: primary production; processing; wholesale and retail; away-from-home catering; and private households. These fora will draw up specific measures for the respective sector, assess the effectiveness of these measures and continually improve the data situation. Companies will conclude target agreements in which they undertake to implement measures to reduce food waste and food losses in accordance with the sector-specific goal. The target agreements for away-from-home catering, for example, specify that food waste should be reduced by 30 percent by 2025 and halved by 2030. The **competence centre** established in early 2022 will drive the implementation of the target agreements in the companies and examine the effectiveness of the measures. The Federal Government will serve as a model and implement its target agreement in the canteens of the federal administration. The "primary production" and "processing" dialogue fora have already resulted in 18 demonstration enterprises, which are testing and assessing measures to reduce food waste and food losses. This includes a sustainability assessment. The "wholesale and retail" dialogue forum now has 23 commercial companies that have declared themselves ready to implement reduction measures, for example by donating unsold food.

Legal regulations on the reduction of food waste are also being examined. Liability risks will, for example, be reduced and further incentives established to encourage food donations.

Too good for the bin!

The "private households" dialogue forum is developing and testing measures that make it easier and natural for private households to avoid food waste. These measures are fed into the communication that takes place under the "Too good for the bin" (Zu gut für die Tonne) project. The BMEL uses the "Too good for the bin" project to support consumers in purchasing food according to their needs and minimising food waste, and in this way promotes a more climate-friendly diet. "Too good for the bin" has a large range of communication, information, educational and advertising materials, as well as tips on the correct storage of food, recipes and tutorials for using up leftovers, events such as the nationwide "Germany saves food!" campaign week and many other measures to show how food waste can be reduced in day-to-day life.

Seasonal products from the region

As described in the **National Programme for Sustainable Consumption (Nationales Programm für Nachhaltigen Konsum – NPNK)**, organically produced, seasonal and regional products are particularly sustainable and climate-friendly. Low food miles – in combination with buying seasonal fruit and vegetables – protect natural resources and often result in a better CO_2 footprint. When consumers choose what food to buy, they are now increasingly considering economic and social-compatibility aspects as well as environmental and climate-related sustainability aspects. Many people are now more aware of the fact that the purchase of food from their region supports local farmers and companies. The BMEL has launched a variety of different measures to strengthen regional value chains and promote the regional marketing of food, **for instance under the Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK) and the Federal Organic Farming Scheme (BÖL), and has funded several research projects** focusing on issues connected with regional value chains.

Reduction of plastic packaging along the food chain

The volume of plastic packaging has increased greatly in recent years, particularly because changes in consumption habits have led to an increasing demand for small and very small packaging. Food packaging plays a major role in the amount of plastic waste. However, food is not packaged as an end in itself: packaging protects food against rapid spoilage and prevents it coming into contact with, for example, pathogens. Packaging therefore supports the BMEL's aims of avoiding food waste and contributing to food safety. However, the goal must be to use less plastic and to ensure, in cases where a reduction is not meaningful or possible, that the plastic is recycled. The sector is called upon to find environmentally sound and innovative solutions for the packaging of food. The BMEL's innovation promotion programme provides very specific support to companies in this area via its **"Notification of the promotion of innovations to reduce plastic packaging along the food chain" (Bekanntmachung über die Förderung von Innovationen zur Reduzierung von Kunststoffverpackungen entlang der Lebensmittelkette).** The **"BioSense – suitable applications for bio-based, biodegradable plastics" (BioSinn – geeignete Anwendungen für biobasierte, biologisch abbaubare Kunststoffe)** project informs the public and decision-makers from industry and politics about the potential of biodegradable plastics for cases where it is impossible or impractical to collect and recycle plastics.

Sustainability in animal husbandry

Introduction of a mandatory animal husbandry label

One important measure is the introduction of a mandatory animal husbandry label for foods of animal origin. This is intended to provide consumers with reliable information on how the animals used to make the food they are buying were kept. The BMEL has therefore drawn up a draft Act on the mandatory labelling of fresh pork. The draft Animal Husbandry Labelling Act (Tierhaltungskennzeichnungsgesetz) was adopted by the German Federal Cabinet in October 2022. A series of further steps are planned in order to expand the animal husbandry labelling to include other animal species and other products.

Conversion of livestock husbandry

The Federal Government's goal is to have an environmentally friendly, climate-smart, animal welfare-oriented agriculture that also creates the basis for sustainable diets. With this in mind, the BMEL is pushing ahead with the necessary conversion of livestock husbandry in Germany. The coalition agreement also underlines this necessity. The measures outlined in the agreement make it clear that this is a broad approach that is not concentrated on animal welfare alone. This corresponds to the comprehensive guiding vision given in the coalition agreement: **"A sustainable agriculture serves the interests of the farms, animal welfare and nature equally and is the basis of a healthy diet."** The conversion of animal husbandry is therefore a complex process with different areas of action. The aim is also to support animal keepers.

More animal welfare

Animal welfare is a top priority for the BMEL. It is, for example, planned to create the position of a **Federal Government Commissioner for Animal Welfare.** The Commissioner is intended to support the Federal Government in developing animal welfare at national, European and international level and to promote the cooperation and exchange between the Federation, the federal states and the associations in the area of animal welfare. The creation of minimum requirements for animal welfare-oriented husbandry, care and feed will facilitate long-term improvements in the protection and well-being of animals. One measure in this regard is to close gaps in national animal-welfare legislation: The **Animal Welfare – Farm Animal Husbandry Ordinance (Tierschutz-Nutztierhaltungsverordnung)**, for example, will be amended to include specific requirements regarding the husbandry of certain animal species – for example fattening turkeys and pullets. One successful example of greater animal welfare is the **Act Amending the Animal Welfare Act (Gesetz zur Änderung des Tierschutzgesetzes)** which prohibited the killing of chicks; this Act entered into force on 1 January 2022. This made Germany the first country in the world to stop the killing of male "day-old chicks". The BMEL also strongly advocates higher animal welfare standards at European level.

Using food by-products and co-products as feed

The use of food by-products and co-products as feed for animals is not only sustainable; it also at the same time protects resources and reduces the competition between the use of products as food or feed. The targeted use of feed additives (for example to improve nutrient digestibility) supports the efficient use of resources and the reduction of emissions from livestock husbandry. The BMEL supports innovative research projects on ensuring that livestock are given a sustainable diet, also with regard to changing climactic conditions.

The sustainable production of raw materials

Deforestation-free supply chains

Non-sustainable agriculture is the biggest driver of forest degradation in the world. The conversion of forests into agricultural land is, according to the FAO's latest estimates, responsible for around 90 percent of global forest destruction. Measures that the BMEL supports to put an end to this include the **Forum for Sustainable Cocoa (FNK)**, the Forum for **Sustainable Palm Oil (FONAP)** and the Forum for **Sustainable Protein Food (FONEI)**, which push for the use of sustainably certified raw materials. Certification is based on international sustainability standards. The goal is to offer countries that produce palm oil, cocoa and soy incentives to preserve their forests and use land sustainably. The successful implementation of the **2020 National Guidelines on Deforestation-free Supply Chains (Nationale Leitlinien für entwaldungsfreie Lieferketten)** is based on a mix of cooperative partnerships with other producer and consumer countries, corporate social responsibility by industry and, where necessary, regulatory measures and, ultimately, also changes in day-to-day consumption habits. Non-State stakeholders are integrated within the **National Stakeholder Forum for Deforestation-free Supply Chains** which was established by the BMEL.
These measures are embedded within political objectives at international and EU level. Germany has, for example, affiliated itself in the **"Amsterdam Partnership"** with what are now eight other European States in order to achieve a sustainable and deforestation-free supply of agricultural commodities and in this way to contribute to the global conservation of forests and their ecosystems. These countries represent over 75 percent of total European imports of palm oil, soy and cocoa. A new, ambitious programme for the partnership for the period up until 2025 was drawn up under the German chair in 2020. The **proposal for a Regulation on Deforestation-Free Supply Chains** will also introduce new measures at European level. The Federal Government supports this proposal and has been proactive in advocating an ambitious, effective and legally secure Regulation at EU level.

Forum for Sustainable Palm Oil

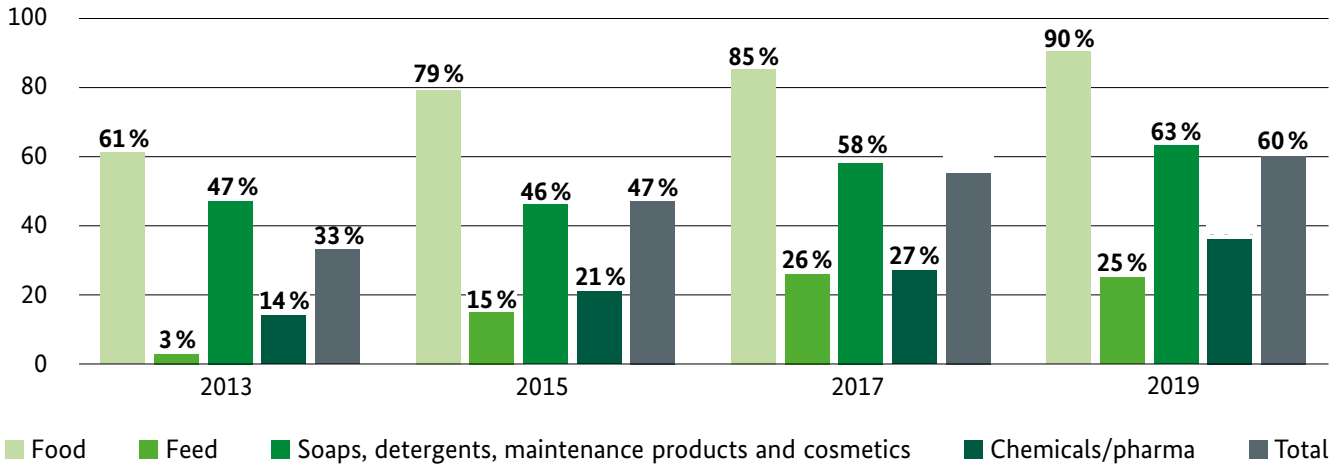
In 2013, the BMEL initiated a multi-stakeholder partnership that aims for all palm oil used on the German market to be sustainable. In 2015, the Forum for Sustainable Palm Oil (FINAP) was set up by the BMEL as a registered association. Members include, for example, users of palm oil (for example food manufacturers, manufacturers of personal care products and chemical companies), retail companies, NGOs, certifiers and industrial associations. The members undertake to only process palm oil that has been certified as completely sustainable. The FONAP and its members also work constantly on improving the existing certification systems. It also plans, funds and carries out member projects such as a smallholder project in 2022 on the Indonesian island of Sumatra. Since the initiation and founding of FONAP, the percentage of certified sustainable palm oil in Germany has steadily improved: according to the palm-oil market studies carried out by FONAP, the percentage of certified sustainable palm oil was 70 percent in 2013 and 83 percent in 2019 and is now at a high level of 90 percent in the food sector. Other areas such as animal feed (25 percent) and chemicals (36 percent) have also increased significantly but are still a long way away from the 100 percent goal. The BMEL takes action via its work in FONAP and ongoing conversations with the relevant stakeholders to promote further improvements.

Forum for More Sustainable Protein Feed

The Forum for More Sustainable Protein Feed (FONEI) facilitates an on-going dialogue process between stakeholders along the protein-feed value chain. The aim is to coordinate joint strategies and develop a **catalogue of measures for the use of more sustainable protein feed** in Germany. The members of the forum have adopted a joint position paper and set their individual targets accordingly. One goal they advocate is to increase the percentage of domestic legumes in feed and to use only certified sustainable soy. This position paper was expanded to include a statement on deforestation-free supply chains. In this way, the stakeholders aim to stop the clearing of forestland and the conversion of land to soy cultivation, in particular in South America. The first FONEI progress report was published in March 2022. It presents the stakeholders' successes and challenges on their way to increasing sustainability along the protein feed chain and provides an insight into the measures implemented to date.

→ **SDG 2**	Zero hunger
→ **SDG 3**	Good health and well-being
→ **SDG 8**	Decent work and economic growth
→ **SDG 10**	Reduced inequalities
→ **SDG 15**	Life on land

Percentage of certified sustainable palm oil in Germany



Source: Analysis of the palm-oil sector in Germany in 2019, Forum for Sustainable Palm Oil (FONAP), Bonn, January 2021

SDG 13 Climate action

Take urgent action to combat climate change and its impacts.

The BMEL carries out a large number of measures to implement SDG 13, i.e. in order to combat climate change and its impacts. There are specific measures for climate action in agriculture, for example humus formation in soil or vibrant forests as carbon sinks. There is also a focus on adaptation to the effects of the climate crisis in agriculture and forestry.

Extensive programme of measures for climate action

In 2019, the Federal Government adopted the **2030 Climate Action Programme to implement the 2050 Climate Action Plan and achieve the goals of the Climate Action Act.** In the BMEL's remit, this programme encompasses ten measures to reduce emissions in the agricultural sector and in the land use, land-use change and forestry sectors (LULUCF). **The Immediate Climate Action Programme for 2022** provides additional support to achieve the goals and implement these measures. Specifically, the measures comprise: reducing nitrogen surpluses (including the reduction of ammonia and nitrous oxide emissions); strengthening the fermentation of commercial fertilisers of animal origin and from agricultural residues; expanding organic farming; reducing greenhouse gas emissions from animal husbandry; promoting energy efficiency in agriculture; forming and preserving humus on arable land; maintaining permanent grassland; protecting peatland, including the reduction of the use of peat; sustainably managing forests and wood; and promoting sustainable diets.

Climate action at international level

In addition to climate action measures, the BMEL also takes action internationally in climate action negotiations held under the so-called **Koronivia Joint Work on Agriculture** which was adopted by the UN Framework Convention on Climate Change. The BMEL participates. in international initiatives aimed at increasing sustainability in agriculture, for example in the **Policy Dialogue on Accelerating Transition to Sustainable Agriculture,** and also supports a knowledge hub at the FAO for the exchange of information on agriculture and climate. Moreover, the BMEL provides financial support for the **4** per **1000** initiative, launched by France at the UN Climate Conference in Paris, which aims to increase the carbon stocks in agricultural soil worldwide. The BMEL also actively supports the **Global Research Alliance on Agricultural Greenhouse Gases (GRA)**, a global research and knowledge network focused on reducing greenhouse gas emissions in agriculture. **Agricultural policy dialogues** play an important role under the BMEL's Bilateral Cooperation Programme. These projects serve the exchange of science-based measures to promote climate action and CO_2 sinks in land use and forestry.

Advice on climate change adaptation and support for climate action

Providing advice on a climate-friendly agriculture in international projects is gaining in importance in the BMEL. The BMEL is involved in the following:

- → in Mongolia, where advice is provided on climate change adaptation in arable farming;
- → in seed projects in India and Ethiopia focused on the breeding of climate-resilient and site-adapted seed;
- → in China on the dovetailing and promotion of arable farming and animal breeding as closed cycle management; and
- → in Argentina on the promotion of climate-friendly and environmentally friendly innovations in agriculture.

The BMEL also supports and promotes a wide range of climate action measures and climate change adaptation measures under the Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK). For instance, the **GAK special framework plans on "coastal protection measures resulting from climate change"** and "preventative flood defence measures" provide additional federal funds for these purposes.

Forests as CO_2 sinks

Forests are natural systems and of major importance for climate action. At global level, the focus is on stopping ongoing deforestation in order to preserve valuable carbon sinks. In the EU and in Germany the focus is on preserving vibrant, close-to-clear and productive forests through sustainable management. At the same time, the aim is to produce wood, as a sustainable, climate-friendly raw material and building material, to bind carbon in doing so (sink effect), to replace other energy-intensive and fossil materials (substitution effect) and to facilitate the provision of further ecosystem services. The **Agency for Renewable Resources (FNR)** supports a number of different promotion schemes for the BMEL in the field of climate action through forests and the use of wood. The performance of the forests as CO_2 sinks is expected to decrease over the next decade due to the existing age structure of the forests in Germany; this will be exacerbated by the current forest damage caused by aridity and bark beetle infestations. The BMEL takes action, through **forest conversion measures and measures to restore damaged forests,** to maintain the role forests play in climate change mitigation and to expand this role as far as possible. The 2022 and 2023 Climate and Transformation Funds and the Financial Plan for the period up until 2026 already contain funds totalling 900 million euros. Added to this are the federal funds under the **Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK)** to support forest conversion and close-to-nature forest management and to cope with the consequences of extreme weather events; these funds are expected to total 297 million euros for 2022 and 2023.

Investment in sustainable agriculture

Significant investments by farms are needed to ensure that agriculture meets both the economic and the ecological challenges, ensures the supply of domestic foods in Germany and can manage our cultivated landscapes sustainably. **The Programme for Investment and the Future in the Agricultural Sector (Investitions- und Zukunftsprogramm Landwirtschaft – IuZ)** is intended to support farmers in the necessary transformation process towards more environmental conservation and climate change mitigation. A total of one billion euros will be available for these investments during the period 2021 to 2024. The majority of the funds, approximately 800 million euros, will be used to support the equipping of farms with low-emission, environmentally sound and climate-smart technology. Funds will also be fed into agri-environmental measures; these **measures** will be implemented within the tried-and-tested framework of the **Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK)** to increase the percentage of environmentally sound management practices. A third part of the funds will be used for the areas of innovation and digitalisation, mainly for model and demonstration projects that, for example, carry out practical tests of methods intended to ensure greater conservation of resources in agriculture.

Climate action in agriculture

The storage of carbon in the form of humus in soil constitutes an important contribution by agriculture to climate change mitigation and adaptation. At the same time, agriculture also releases greenhouse gas-relevant emissions, in particular nitrogen (nitrous oxide) and carbon dioxide from peatland that has been drained or converted to agricultural uses. In order to develop ways of reducing nitrogen emissions, the BMEL supports **research and development projects on climate-friendly nitrogen management in plant production under its Arable Farming Strategy.** The goal is to determine in greater depth what effect the measures to reduce nitrogen emissions in plant production have and to increase acceptance for these measures in agricultural practice through intensive knowledge transfer. Acidifying commercial fertilisers, for example, can reduce ammonia emissions effectively and inexpensively and at the same time increase fertiliser efficiency. The model and demonstration project on “acidifying slurry and fermentation residues during spreading on growing stock” is intended to demonstrate this.

But plant production also faces a great challenge in adapting to the effects of the climate crisis. Changes to the climate are also resulting in longer vegetation periods, shorter development phases, greater risks of late frost, greater risks of humus decomposition and a greater occurrence of certain pests. Suitable adaptation measures need to be developed and applied in order to be able to continue to ensure high yields, high yield quality, high yield stability, and consequently sustainable land management. With this in mind, the BMEL already supports projects in the areas of plant health and plant breeding. It is also planned to support projects to adapt plant production to the effects of the climate crisis.

Peatland protection and peat substitutes

Peatland consists of water and the non-decomposed residues of the plants that grew in them. If these plant residues are dug out of the drained ex-peatland and dried, this is described as peat. It is used as soil for flowers in hobby gardening and as a plant substrate in commercial horticulture. The decomposition of peat produces carbon dioxide, which was bound in the peatland many hundreds or thousands of years ago when the plants died. The BMEL takes action to restore drained peatland that is being put to agricultural use or to establish a site-adapted use (paludiculture). It also supports

the soil industry in replacing peat with other substances. Adequate substitutes for peat in flower soil and culture substrates for hobby and commercial gardeners include mixtures of wood fibres, landscape gardening composts, bark composts, coconut fibres and other substances.

Sustainable carbon cycles

Agriculture can actively counter the further rise of CO_2 in the atmosphere by storing carbon in soil humus, grassland and copses – including through improved crop cycles or suitable plant species. At the same time, these measures can also mitigate the results of climate extremes, such as wind and water erosion, floods or aridity.

The **climate action measure on humus preservation and formation (Humuserhalt und -aufbau)** launched model and demonstration projects as well as research and development projects. These projects aim to identify humus-building measures outside conventional practice and to establish them for wider implementation.

Human activities influence the natural carbon cycle i.e. the exchange of CO_2 between the terrestrial ecosystem and the atmosphere. Types of land use that promote the binding of carbon in biomass or in soil, or which prevent the loss of carbon, actively contribute to climate change mitigation. According to the 2021 national greenhouse gas inventory, the LULUCF sector was the only sector that was an overall net sink for carbon dioxide in Germany. This sink function must be protected and expanded significantly. One important aspect in this regard is the protection of peatland, in particular the rewetting of drained peatland in order to maintain and enhance the carbon storage of these soils. There are other areas of potential for strengthening the natural sinks in Germany, for example through the expansion of forested land, in particular in sparsely wooded areas (afforestation), the maintenance of carbon stocks in forests, the increase of carbon stocks in mineral soils used for agricultural purposes and also the expansion of agroforestry or tree-planting in cities and along roads (avenues). The 2030 Climate Action Programme and the Immediate Climate Action Programme for 2022 already address many of these areas and constantly promote and expand them in order to achieve the climate goals of the Climate Action Act by 2030.

Reduction of greenhouse gas emissions from livestock husbandry

The greenhouse gases produced by livestock husbandry are largely unavoidable. These include, for example, methane emissions produced by ruminants when they process fibre-rich plant feed and by the creation, storage and spreading of manure or slurry. Approximately 53 percent of overall greenhouse gas emissions produced by the agricultural sector are accounted for by livestock husbandry (this corresponds to approximately four percent of the overall emissions). Reducing greenhouse gas emissions from livestock husbandry is one of the measures in the **2030 Climate Action Programme.**

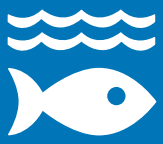
The agricultural sector will only be able to achieve the climate goals it has set if animal populations in Germany are reduced. The BMEL takes account of the fact that the reduction of animal populations must go hand-in-hand with an adaptation of eating habits, in order to avoid "leakage effects". The transition to area-based livestock husbandry has enormous potential, both to make livestock husbandry more climate friendly and to improve animal welfare in this sector. Organic farming already practises area-based livestock husbandry, together with more animal welfare and changes to eating habits, which favour sustainably produced foods of animal origin. As there is a downward trend in the consumption of animal products anyway, and many areas of animal production are well over 100 percent self-sufficient, there is a window of political opportunity for reducing stocks – particularly if this is linked to a reform of livestock husbandry, as desired by society and set out in the coalition agreement. More space per animal can, for example, help make climate-relevant reductions in animal populations. Consistently ensuring that the number of animals is based on the area under forage is contributing in specific regions with intensive livestock husbandry to a climate-relevant reduction in animal populations and ensuring that the biogenic cycle can function. The remaining emissions from livestock husbandry, such as methane emissions from cows, are also influenced by their feed. The BMEL is promoting a number of different research projects that aim to precisely quantify the emissions as a function of the feed and to then derive targeted feeding strategies to further decrease the greenhouse gas emissions from livestock husbandry and hence from the production of foods of animal origin.

Post-2023 Common Agricultural Policy

The reform of the CAP will, from 2023, make direct payments to farmers dependent on the farmers' compliance with higher environmental and climate requirements than previously. This includes the requirement that, from 2023, every applicant, with few exceptions, will need to comply with **standards on keeping land in good agricultural and environmental condition (GAEC).** There is, for example, the obligation to maintain permanent grassland and carbon-rich agricultural soils in peatlands and wetlands, and to provide particular protection for environmentally sensitive permanent grassland, for example in Natura 2000 areas. These standards contribute to large quantities of carbon in soil and humus remaining stored beneath permanent grassland and in peatland. This supports efforts to achieve the climate goals and at the same time makes an important contribution to maintaining biodiversity.

→ **SDG 2** Zero hunger
→ **SDG 9** Industry, innovation and infrastructure
→ **SDG 12** Responsible consumption and production
→ **SDG 17** Partnerships for the goals

SDG 14 Life below water



Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

The oceans are key to the livelihood of many people. Approximately 3.3 billion people meet around 20 percent of their animal protein requirements via products from the fishing industry and aquaculture. The importance of fish for climate-smart diets is growing – the ecological footprint is significantly lower than for other animal products. The protection of marine ecosystems is becoming increasingly important in order to ensure that the oceans will continue to be able to feed people in the future. Some parts of the world's oceans are polluted and over-exploited. Around a third of global fish stocks are no longer within safe biological boundaries – this means that the ability of these stocks to reproduce has been impaired and that fishing restrictions or bans should be imposed. The aim of SDG 14 is to work to counteract these negative developments. The BMEL therefore takes action at national, European and international level to promote the sustainable management of marine resources and to protect seabirds and marine mammals.

EU Common Fisheries Policy

Within the European Union, the BMEL supports the sustainable management of fish stocks. This is based on the principle of the maximum sustainable yield (MSY). This obligation has existed since 2014 for all EU waters in which Germany has fishing interests. As a result of climate change and other influences, the western cod stocks and western herring stocks, which are important to the German Baltic Sea fisheries, are in bad condition. The EU Council therefore decided to stop targeted fishing – with a few exceptions regarding herring – for 2022 and 2023. This drastic measure is necessary to replenish the stocks. At the same time, this results in severe consequences for the affected fishers. The BMEL is working together with the affected federal states of Schleswig-Holstein, Mecklenburg-Western Pomerania and Lower Saxony, and with trade organisations and interest groups, in order to cushion the social impact of the crisis and to develop future prospects for fisheries in the Baltic Sea.

International rules for sustainable and legal fisheries

The **FAO Committee on Fisheries** is the primary body around the world for questions concerning the international fishing industry and aquaculture. The BMEL has long advocated having binding rules as the basis for sustainable fishing. The Agreement on Conservation and Management Measures, the Behavioural Codex for Responsible Fisheries, the International Plan of Action to Prevent, Deter and Eliminate Illegal Fishing and the Agreement on Port Measures to Prevent and Combat Illegal Fishing are pioneering examples of this. These agreements provided important impetus for the realignment of fishing policies in the FAO member states and for the management of fish stocks. The EU has rigorously implemented these resolutions, with Germany and the BMEL playing a major role in this.

Marine Protected Areas

Marine Protected Areas make an important contribution to protecting and restoring habitats and biodiversity. The German Exclusive Economic Zone (EEZ) includes Marine Protected Areas in the North Sea and the Baltic Sea; the BMEL, in joint coordination with the Federal Ministry for the Environment, draws up specific measures to regulate fisheries in these areas with the other coastal states. The proposals for the North Sea provide, for instance, for the protection of reefs, sand banks, porpoises and seabirds. Fishing with bottom-trawling equipment or gillnets therefore needs to be regulated. Proposals for the Baltic Sea provide for the regulation of fishing with bottom-trawling equipment in order to protect reefs and sandbanks. At high sea, in the maritime areas outside the national EEZs, there are to date only a few protected areas worldwide . It is planned to set up a representative network of Marine Protected Areas in the Antarctic Ocean. The BMEL supports this under the **Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR).**

Protection of marine mammals

The BMEL also takes action on behalf of marine mammals. In the **International Whaling Commission (IWC),** the BMEL has long endorsed the comprehensive protection of whales and is categorically opposed to commercial whaling. The same applies to so-called scientific whaling. The moratorium on commercial whaling that has been in place since 1986 has had a very favourable impact on the development of some of the large whale species. It prohibits any form of whaling and only provides for exceptions for indigenous peoples.

Aquaculture

Aquaculture, i.e. the rearing of aquatic organisms, including in particular fish, bivalve molluscs, crustaceans and algae, is an important sector of food production. If managed sustainably, aquaculture will be able to make a major contribution to the food security of future generations. Compared with other methods of producing animal protein, aquaculture is distinguished by a good environmental balance. Furthermore, it will be able to continue to grow due to the as yet untapped resources. The **Joint National Aquaculture Strategy Plan (Gemeinsame Nationale Strategieplan Aquakultur – NASTAQ)**, which was drawn up by the Federal Government under the joint coordination of the BMEL and the federal states, describes how sustainable aquaculture could be developed in Germany. It is based on the European Commission's strategic guidelines for the sustainable development of aquaculture in the EU and covers the period 2021–2030.

→ **SDG 2** Zero hunger
→ **SDG 16** Peace, justice and strong institutions
→ **SDG 17** Partnerships for the goals

SDG 15
Life on land

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

SDG 15 calls for the comprehensive protection and sustainable management of the terrestrial ecosystems at national and international level. This includes land, inland waters, forests and soils – and their biological diversity. The BMEL takes committed action to support this goal in connection with the agricultural use of land – this also includes strengthening organic farming as a guiding vision for sustainable agriculture, the promotion of biodiversity and the sustainable use of forests. Continuing to develop the European Agricultural Policy also plays a key role in this regard.

More organic farming

Organic farming is particularly effective in maintaining and preserving natural resources. It has many positive effects on nature, the climate and the environment and serves to produce high-quality food (more under SDG 2). It therefore plays a particularly important role in maintaining and protecting intact terrestrial ecosystems. Each year, the winners of the **Federal Organic Farming Competition (Bundeswettbewerb ökologischer Landbau)** demonstrate pioneering, innovative farming methods that have proved themselves in practice and that also focus on the maintenance of the entire ecosystem.

International organic farming projects

The promotion of the sustainable use of soil, in order to avoid degradation and maintain the soil's productive capacity, also plays an important role in the **Bilateral Cooperation Programme (BKP)**. Advice provided on crop cycles and reducing the use of fertiliser and plant protection agents is promoting soil and groundwater quality in China, Mongolia and the Western Balkans. The Bilateral Cooperation Programme's **Technical Dialogue on Organic Farming** in Morocco supports improvements in the legal and institutional conditions for promoting and monitoring organic farming and the development of a State strategy for the national and international organic food market. The **"COA" project (Ukrainian-German cooperation in the area of organic farming)** also supports the Ukrainian government in implementing the Ukrainian Organic Farming Act and expanding the Ukrainian organic farming sector. The **seed projects** in India and Ethiopia promote access to genetic resources. In India, advice is also provided on sustainable and fair value chains for agricultural products. The **Sino-German Agricultural Centre** addresses the reduction of food losses.

Measures to protect species diversity and biological diversity

Biological diversity in food and agriculture, abbreviated to agro-biodiversity, describes all elements of biological diversity that are vital for food and agriculture and the functioning of the agricultural ecosystems. Plants and animals in agriculture, forestry and fisheries are a key part of the earth's overall biodiversity. Biological diversity has been decreasing worldwide for centuries. This development must be stopped. The Federal Ministry of Food and Agriculture (BMEL) advocates improved measures to maintain biodiversity and structural diversity in agricultural landscapes and forests. This enables ecosystem services such as pollination, soil formation and regulation of the pest populations to be strengthened and agriculture and forestry to be made more sustainable and resilient. Of vital importance in this regard, besides the promotion of organic farming, are the maintenance of varied crop cycles, the maintenance and sustainable development of regionally adapted and diverse crop varieties and livestock breeds, and the maintenance and sustainable use of wild plants and wild animals for food and agriculture.

Research on animal welfare-oriented breeding of fowl

To support the continued development of a sustainable organic poultry sector, the BMEL promotes a number of projects, for example two on breeding fowl for organic farming which focus on dual-purpose chickens. The background is the growing demand for poultry meat and eggs from organic production which includes the raising of the male chicks. The aim is to develop concepts to optimise the animal welfare-oriented and sustainable use of both sexes under less intensive conditions. The projects carry out animal breeding testing and processing, focusing both on existing breeds and populations already used in organic farming and also on endangered livestock breeds. The focus is on animal welfare, resilience and adaptation to less intensive feeding and husbandry conditions.

The **Federal Office for Agriculture and Food (Bundesanstalt für Landwirtschaft und Ernährung – BLE)**, the BMEL's project executing agency, supports a number of promotion activities in the area of biological diversity. Model and demonstration projects on the maintenance and innovative use of biological diversity are, for example, intended to close gaps between science and practice. In addition to this, a number of different cross-sectoral schemes promote projects on the subject of biological diversity. This includes the **"Wide-row grain undersown with flowering plants" (Weite-Reihe-Getreide mit blühender Untersaat)** model and demonstration project, which aims to increase biodiversity in fields under grain by 100–500 percent, to increase the diversity of blooming plants in the agricultural landscape and to improve soil fertility.

The F.R.A.N.Z. project

The **F.R.A.N.Z.** ("**F**ür **R**essourcen, **A**grarwirtschaft und **N**aturschutz mit **Z**ukunft" (For resources, agriculture and nature protection with a future)) project, supported jointly by the BMEL and the Federal Ministry for the Environment and Consumer Protection (BMUV), aims to show that a modern, efficient agricultural sector is reconcilable with biological diversity, and develops scientifically tested, practicable measures and concepts to this end. The heart of the F.R.A.N.Z. project comprises ten intensively farmed demonstration holdings. They reflect the diversity of the German agricultural landscape – from a 70-hectare farm in Lower Bavaria to a 1,700 hectare farm on the fertile plains of Magdeburg. F.R.A.N.Z. is distinguished by dialogue and cooperation between nature conservation and agriculture. A number of different research institutions provide the project with scientific support. On the one hand they investigate what effect the measures have on species diversity, the pollination of plants and the soil biota. On the other, they investigate economic efficiency and obstacles in agricultural and environmental law that prevent a broader implementation of the measures by the agricultural workforce. Another special feature is the technical support and advice provided to the farms, including through farmland foundations and farmer associations. In December 2018, the project won the "research" category of the German Sustainability Prize. In July 2019, F.R.A.N.Z. was recognised as an official project of the UN Decade of Biological Diversity.

Nationwide monitoring of biological diversity in agricultural landscapes

The cooperative project on monitoring of biological diversity in agricultural landscapes (MonViA) is funded by the BMEL and involves scientists from the Thünen Institute, the Julius Kühn Institute (JKI) and the Federal Office for Agriculture and Food (BLE) developing a system for the nationwide monitoring of biological diversity in agricultural landscapes. MonViA is designed to be complementary to existing monitoring activities and approaches. MonViA's special focus on agricultural landscapes is intended to facilitate scientifically sound conclusions to be drawn on issues such as the condition of biological diversity in agricultural landscapes. MonViA consequently supplies important information for the further development of agricultural practice and agro-environmental policies and helps align agricultural production more closely to the principles of sustainability.

Genetic conservation areas for wild plants for food and agriculture in Europe

One of many recommendations for action made by the National Technical Programme for Plant Genetic Resources (Nationales Fachprogramme für pflanzengenetische Ressourcen) is to set up genetic conservation areas to protect populations of wild plants that are important for food and agriculture in their natural habitats. The model project supported by the BMEL enabled volunteers working cooperatively to set up the first genetic conservation areas in Germany for important indigenous, wild relatives of our crops – different wild species of celery and grapes. Germany is thus implementing in exemplary fashion one commitment from the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) to conserve such plant species for future, sustainable use through breeding, research, education and advice.

National, sustainable forest management

Sustainable forest management aims to consistently and continuously maintain and improve the functions of forests. The Federal Government and the federal states foster sustainable forest management via the Joint Task for the Improvement of Agricultural Structures and Coastal Protection (GAK) by supporting the **reforestation of damaged forests** with the aim of achieving positive effects for biological diversity and climate change mitigation. These reforestation measures are required to include a sufficient percentage of site-appropriate, indigenous and climate-tolerant tree species. And these measures have been successful: the support funds (as of June 2021) were used mainly to plant purely deciduous forests, with 100% deciduous trees, and mixed forests with between 50% and 99% deciduous trees, on the damaged land. The Federal Government, and the BMEL, will continue to attach great importance to a comprehensive forest policy over the forthcoming years: the aim is to support forest owners in making their forests more resilient. The Federal Government has set itself a medium-term goal of managing its forests at least according to FSC or Naturland standards. The wood industry is also being buoyed by wood-based construction initiatives, the strengthening of regional value chains and forest-industry mergers. Soil-conserving farming methods will also be supported; furthermore, the coalition agreement provides for stopping the felling of old, close-to-nature beech forests in state ownership.

International sustainable forest management

The BMEL coordinates the Federal Government's international forest policy and takes part in a wide range of international initiatives and negotiations in order to counter ongoing deforestation and make progress with sustainable forest management at international level. The Federal Government's aim is to create more coherence and synergies between these initiatives and consequently to increase and accelerate the effectiveness of the measures. The UN Strategic Plan for Forests provides guidance for the BMEL's action. For instance, the BMEL is currently supporting the **Collaborative Forest Partnership** by promoting cooperation and coordination of joint activities both within the partnership and between the partnership and important donor countries. Almost all international organisations, institutions and secretariats that deal with forests work together in this partnership. The policy of globally sustainable forest management and specific know-how transfers is supported by international and bilateral pilot projects.

The goal of "freedom from deforestation" means preventing mostly valuable primary forests in the tropics from being cleared. Clearing such forests is particularly driven by the consumption of important agricultural commodities such as palm oil, soy, meat, leather, coffee or cocoa, as 90 percent of global forest clearing is caused by the – often uncontrolled – conversion of forested land into land devoted to agricultural production. A large percentage of the agricultural products produced on this land are exported, including to the EU and to Germany.

Germany, with the BMEL acting on its behalf, is from 2021–2024 chair and secretariat of **FOREST EUROPE, a pan-European process involving forestry ministers** which has 46 signatory States and aims to promote the protection of forests and sustainable forest management. FOREST EUROPE is currently focusing on the adaptation of forests to the climate crisis via a cross-border advisory mechanism, on integrated nature conservation in forests and on the contribution of forests and the forestry sector to a sustainable, circular bioeconomy. The BMEL also takes action at EU level to enhance cooperation on these subjects. In addition to this, the BMEL supports the pan-European **Integrate network,** which now has 20 Member States and demonstrates a variety of integrative forest management concepts on over 170 trial fields. The Integrate network then continually develops these concepts and utilises them for the basic and advanced training of forest and nature conservation experts.

Forest monitoring as a contribution to sustainable forest management

The effects of the climate crisis, extreme weather events, long-term high inputs of nitrogen, the long-term consequences of high acid loads and increased ozone concentrations are current environmental challenges facing the forestry sector and forest ecosystems. Long-term monitoring helps to recognise changes in environmental conditions and the risks that may result from these changes, and to then plan corresponding action. The Federal Government and the federal states are implementing this monitoring in a number of different projects.

The **National Forest Inventory (Bundeswaldinventur – BWI)**, now supplemented by carbon inventories, has been recording large-scale forest conditions and forest production options systematically for all types of ownership structures according to a standard method since 1987. It describes the development of forests resulting from management methods and climate change with regard to area, tree stand, growth, use, structure and many ecological parameters. The federal states have

been recording the data for the fourth National Forest Inventory based on 60,000 random samples since 2021. The **Thünen Institute for Forest Ecosystems** in Eberswalde has been commissioned by the BMEL to evaluate the data. The results are expected to be published in late 2024. The forest environmental monitoring surveys have been providing additional data since the 1980s, particularly on aspects of forest health in the stands and in the soil. In the third nation-wide forest soil inventory, the federal states have been recording data at around 2000 sample points since March 2022. The Thünen Institute will also evaluate these data. The data are expected to provide, besides information on the impact of environmental influences and their interactions, information on the nutrient situation, carbon storage, the water regime and the influence of the climate crisis and pollutant load in forest soils.

Protection of wild animals using drone technology

In 2021, the BMEL made an important contribution to the protection of wild animals by funding drones with thermal imaging cameras to save fawns using digitalisation. The use of drones in combination with thermal imaging technology enables grassland and arable feeding land to be searched for fawns quickly and effectively and to save them from so-called death by mowing. This also reduces the risk of livestock falling ill from ingesting feed with bacterial toxins, as toxins caused by bacteria in cadavers can lead to severe illness and even death if the cadavers end up in the harvested crops.

The post-2030 CAP

The greater environmental and climate requirements under the future CAP, as explained under SDG 13, which will be implemented via the GAEC standards, will also help protect soil from erosion and counter the loss of biodiversity. For instance, GAEC 6 (minimum standards regarding plant cover at the most sensitive times) will in future require a minimum quantity of vegetation cover in winter. It will be possible to use mulch, intercrops, certain stubble land, winter crops or other green cover. GAEC 5 (land management to limit erosion) may, depending on the risk of erosion due to water or wind, impose a ban on ploughing agricultural arable land at specific times, make stipulations regarding row spacing during sowing or impose tilling requirements. A number of factors are vital for countering the loss of biodiversity, in particular the protection of environmentally sensitive permanent grassland in Natura 2000 sites, the setting aside of four percent of arable land annually, and the ban on removing landscape features such as hedges, trees and field woodland.

→ **SDG 9** Industry, innovation and infrastructure
→ **SDG 12** Responsible consumption and production
→ **SDG 13** Climate action
→ **SDG 17** Partnerships for the goals

SDG 16 Peace, justice and strong institutions

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

The implementation of SDG 16 is a fundamental prerequisite for achieving many of the other SDGs: in areas dominated by war and violence, where basic rights are denied, it is not possible to achieve economic development or maintain our natural resources.

The BMEL cooperates at international and European level to take action in the areas of food and agriculture, as food security is a particularly important basis for sustainable peace.

International commitment: United Nations Food Systems Summit

The 2021 UN Food Systems Summit – UN FSS – initiated under UN Secretary-General António Guterres called for joint action to achieve the 2030 Agenda and the 17 SDGs. The approximately 18-month process with many stakeholders initiated dialogues (Food Systems Dialogues), strategic working papers (National Pathways) and multi-stakeholder initiatives (Coalitions of Action). The BMEL has taken action in this regard and, with the support of the BLE, has started a **National Dialogue process** involving a large number of food-system stakeholders. The dialogue started with a virtual kick-off event on pathways to sustainable food systems in June 2021 and was continued into 2022 under the title of "Joint action for sustainable nutrition" (Gemeinsam nachhaltig ernähren). The first findings from the kick-off event have been forwarded to the UN. The goal of the dialogue process was to develop joint solutions for the German food system of the future and to identify and implement partnerships for specific activities. The entire chain of the German food system was integrated, in particular the regional and municipal level.

Citizen dialogue on "The future of Europe will be decided in rural areas"

Germany considers peace and justice to be a European project, now more than ever. The BMEL therefore contributed actively to the European Commission's Conference on the Future of Europe in 2021–2022: on 30 June 2021, the BMEL held an online citizen dialogue on "The Future of Europe will be decided in rural areas", focusing on "democracy and participation", "digital change in rural areas" and "making rural areas fit for the future". The results were fed into the "Conference on the Future of Europe" in 2021.

→ **SDG 2** Zero hunger
→ **SDG 11** Sustainable cities and communities

SDG 17 Partnerships for the goals

Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development.

It is only via partnerships that the global goals for sustainable development can be achieved. These include development partnerships with private enterprises as well as partnerships with developing countries to help them achieve their development goals with their own funds. SDG 17 stands for the integration of all social stakeholders and for their responsibility to contribute. The BMEL therefore contributes to global partnerships and also engages in national cooperation with all stakeholders in society.

Global partnerships

G7, G20, GFFA, Policies against Hunger

To achieve sustainable development worldwide, it is essential to have an internationally coordinated approach. The BMEL pursues this goal in a number of ways, for example through its action within the G7 and the G20, and by hosting the international Agriculture Ministers' Conference which is held during the annual **Global Forum for Food and Agriculture (GFFA).**

The Agriculture Ministers of the seven largest industrialised countries (G7) discussed pathways to sustainable food systems in May 2022, under the chairmanship of Federal Minister of Agriculture Cem Özdemir.

One focus was on making agricultural supply chains sustainable. Closer alignment on environmental and social standards in the agricultural sector will help avoid distortions of competition and relocation effects.

The BMEL's annual **Agriculture Ministers' Conference during the GFFA** is one of the most important international platforms for discussing key issues of agriculture and food security. In January 2022, 68 agriculture ministers committed to the sustainable management of soil and land, agreeing specifically to sustainably manage soil as a limited resource, to restore degraded soils, to minimise the use of land for other purposes and to ensure fair access to land. The BMEL will continue its efforts in these formats and will contribute to international policy coherence for sustainability in the areas of food and agriculture.

Bilateral Cooperation Programme

At international level, the BMEL's Bilateral Cooperation Programme implements a number of different partnership-based projects on food security, climate change mitigation and environmental protection in food production. The **Programme on International Sustainable Forest Management (Programm „Internationale Nachhaltige Waldbewirtschaftung" – BKP-Forst)**, which was launched in 2014, expanded the Bilateral Cooperation Programme to include the promotion of multi-functional, sustainable forest management. The aim is to develop concepts with key agricultural policy regions in order to implement sustainable food systems from the field to the fork. Currently, projects are being implemented with 16 partner countries. These relate to a number of different SDGs. Examples are listed in this report under the respective SDGs.

National Networks

The Dialogue Network on Viable Future Agriculture (Dialognetzwerk zukunftsfähige Landwirtschaft)

In addition to its international action, the BMEL also regularly carries out consultations at national level, for example with a **network of practitioners from agriculture and nature conservation ("Dialogue Network on Viable Future Agriculture")** to receive suggestions for better and practical policy-making. At the same time, this makes the policy-making process more transparent and strengthens trust in the democratic processes through a stronger integration of civil society.

Commission on the Future of Agriculture (Zukunftskommission Landwirtschaft)

The Commission on the Future of Agriculture (Zukunftskommission Landwirtschaft – ZKL) has succeeded, by agreeing on joint recommendations, in bringing together hitherto divergent economic, ecological and social positions on agricultural and environmental policies and in striking a balance between the conflicting interests. This has enabled the Commission on the Future of Agriculture to prove itself as a forum for balancing interests during the transformation of the food and agricultural system.

The BMEL, with the involvement of other ministries, is continuing consultations with the Commission on the Future of Agriculture on implementing the recommendations the Commission made in its Report on The Future of Agriculture. The Commission, with members from the areas of agriculture, industry, science, environment, animal welfare and consumer interests, reflects the entire range of societal stakeholders relevant to the food and agricultural sectors.

→ **SDG 17** is the basis for achieving all other SDGs.

3

Sustainability in the BMEL's administrative governance

The BMEL: on a path to sustainable administration

The BMEL is committed to the goal of strictly sustainable and environmentally sound administrative governance. A Cabinet decision in 2021 accorded even greater importance to sustainable and environmentally sound administration. Under this decision, BMEL staff are required to make their day-to-day work even more sustainable.

The BMEL administration's great potential for sustainable action – socially, ecologically and economically – is shown in the fact that it has two offices, in Bonn and Berlin, and more than 1,100 members of staff. The BMEL's main contract-awarding body alone (the ZV-BMEL located at the Federal Office for Agriculture and Food) purchased goods and services totalling approximately 42 million euros last year.

Step by step, the BMEL is delivering on the ambitious and extensive programme of measures contained in the **"Implementing sustainability in administrative governance" (Maßnahmenprogramm „Nachhaltigkeit konkret im Verwaltungshandeln umsetzen")** scheme adopted by the Federal Cabinet in the summer of 2021. The BMEL is thus setting an example by making the principle of sustainable administration a key guideline in its own administrative activities. The programme includes a total of ten measures and covers topics ranging from climate neutrality, mobility, procurement and building/renovating federal real estate to sustainable events and diversity. It is also being applied in the BMEL's subordinate authorities; the progress in implementing the programme is monitored annually.

A climate-neutral BMEL and environmental management – EMAS certification

Since the beginning of 2021, the BMEL has undertaken targeted efforts to have both BMEL offices in Bonn and Berlin certified under the European Eco-Management and Audit Scheme (EMAS). EMAS is an EU environmental management label based on international environmental standards. This process requires the BMEL to draw up specific BMEL positions on protecting the environment and on conserving resources in day-to-day work on the premises. Other challenges include the transparency of administrative governance in terms of environmental policy and the measurability of individual environmental performances. The BMEL views this process as an opportunity to examine individual processes and, where needed, to develop and then continually improve new guidelines or measures. This requires a broad dialogue between the BMEL's staff, management and external persons involved in the day-to-day work in order to strengthen personal accountability and sensitivity for environmental concerns. Once EMAS certification has been achieved, regular external revisions take place to continuously evaluate the relevant environmental data and identify further opportunities for improving the BMEL's environmental balance.

Sustainable public procurement

The BMEL also contributes to promoting sustainability in its role as a public contracting authority. Beyond the requirements laid down in the programme of measures on sustainability, the BMEL also set up a **"Competence Unit For Sustainable Procurement" ("Kompetenzstelle Nachhaltige Beschaffung")**, located in its the main contract-awarding body. Its responsibilities include coordinating sustainable procurement within the BMEL's remit and informing and advising the public sector clients on all technical issues relating to sustainable procurement.

Sustainable events

Sustainability aspects also have a great role to play in the planning and execution of events, even at a time when many members of staff are working from home and these events are often held online, particularly as the format (virtual, hybrid, in-person) has a considerable impact on the environmental pollution caused by the event. The BMEL therefore set up a **central contact point for sustainable events** and introduced the Federal Government's guidelines for the sustainable organisation of events as a guide for the future.

Sustainability aspects in connection with business trips

The BMEL is also giving increasing consideration to sustainability aspects in the planning of business trips. The regulations on travel expenses, which were amended in 2021, now take greater account of sustainability aspects, particularly regarding the environmental effect of business trips. The legislator has placed a particular focus on avoiding trips and on selecting environmentally friendly means of such as the railway. The Federal Act on Travel Expenses provides the binding legal framework for the BMEL. The BMEL uses any latitude granted under the Act to make business trips as climate friendly as possible.

Mass catering

By the end of 2022, the BMEL's canteen in Bonn will be reorganised to increase the percentage of organic food used in the meals to 25 percent. At the same time, the range of seasonal and regional foods on offer in the canteens will be expanded: the menus will be made more seasonal, with more seasonal products being used. The vegetarian and vegan range will be expanded and increased to two meal options, compared with one meat option (based on the current DGE standards) and a stew option (winter menu). In 2022, a significant percentage of the coffee, tea, cocoa, cocoa products and bananas on offer will already be of fair trade quality. All coffee will be fair-trade, as well as some chocolate and cereal bars. In the BMEL canteen in Bonn, any meals and drinks that are ordered to go are provided in environmentally friendly recyclable containers in exchange for a deposit; these containers can also be purchased for a small fee for permanent use. The BMEL has also reacted to the call to reduce food waste by 30 % by 2025 and by 50% by 2030: following the SUSTAINABLE AND HEALTHY GOVERNMENT project ("NACHHALTIG B|UND GESUND") (2017–2020), which was flanked by the German Nutrition Society, food waste has already been reduced by 30 percent.

Vocational health in the BMEL

The BMEL attaches great importance to respect, appreciation and inclusiveness in personal relations and freedom from any kind of discrimination – irrespective of age, ethnicity, nationality, gender, gender identity, physical ability, mental ability, religion, world views, sexual orientation or social background. The BMEL promotes and values a working atmosphere in which these values and the diversity of the staff are a matter of course. There is a particular focus on staff health and well-being. The goal is to promote mental and physical health and strengthen mutual support. One key element is the **Vocational Health Management (Betriebliches Gesundheitsmanagement)** that has been carried out since 2009, which regularly – with the inclusion of the staff (including staff surveys, risk assessment and workshops) – examines processes and structures and derives specific measures. This health management is flanked by **social counselling.** As well as coaching for teams and managerial staff, this includes individual counselling services and a large number of other support options tailored to the needs of the staff. **The Vocational Reintegration Management System (Betriebliche Wiedereingliederungsmanagement – BEM)** rounds off this service. The **BMEL's in-house sports association** offers a large number of health-related, sporting and leisure activities (also online).

Further and advanced training

The BMEL offers extensive further and advanced training opportunities to make the staff fit for new requirements. Much of the training – including in-house events – is held virtually to enable people working from home to participate. In addition to a variety of further training opportunities for specific target groups – such as women or managerial staff – the training also addresses current requirements, such as digitalisation or cooperation when working from home.

Basic training

The BMEL aims to recruit its staff through tailored, forward-looking, practical **training as clerks in public administration.**

Each year, the BMEL therefore offers several traineeships as clerks in public administration at both its offices, with the prospect of jobs which are secure and at the same time varied.

Balance between family, caregiving and job

In 2021, the BMEL was certified for the fourth time since 2010 as a family-friendly employer by "berufundfamilie" Service GmbH. An ongoing quality dialogue in the BMEL, under the management of an auditor from "berufundfamilie" Service GmbH, maintains and continually builds on the standards that have been set.

The BMEL offers a large number of family-friendly measures. These include parent-child offices, family services (also for employees with caregiving tasks), preschool places in Bonn and an in-house preschool in Berlin.

The significantly greater flexibility regarding where and when staff work, based on the agreement on working conditions introduced in April 2021, also constitutes an important step forward in further improving the staff's work-life balance. Staff can arrange individual team agreements to better coordinate work and family commitments.

Equality, inclusion and diversity

Gender equality, the promotion of women, and improvement in the work-life balance is a matter of course in the BMEL, as is diversity.

As of 30.6.2022, there were 60.8 percent women in the BMEL, and 42.6 percent women in managerial positions. 32.1 percent of the managerial staff were working part-time. The inclusion of people with disabilities is of great importance and is actively promoted, both by human resources and by the representation for the severely disabled. People with severe disabilities made up 8.8% of BMEL staff in 2021.

The BMEL joined the so-called **"Charter of Diversity" (Charta der Vielfalt)** in 2021 and, together with the relevant bodies, signed a **"Declaration on diversity in the BMEL"** in 2022. Strengthening diversity is an ongoing, cross-sectional task.

→ **SDG 3**	Good health and well-being
→ **SDG 4**	Quality education
→ **SDG 5**	Gender equality
→ **SDG 9**	Industry, innovation and infrastructure
→ **SDG 12**	Responsible consumption and production
→ **SDG 13**	Climate action

4

Outlook

Outlook – a good life for everyone

The United Nations only has eight more years left to implement the 2030 Agenda and its 17 Sustainable Development Goals. It is therefore all the more important to protect what sustains us. Currently, the Russian war of aggression against Ukraine is showing us how vulnerable and in some cases how unresilient the current food and agricultural systems are worldwide. The key challenge is to ensure the global population's access to appropriate, adequate and healthy food without exacerbating other crises.

It will only be possible to harmonise food security with climate stewardship and the maintenance and promotion of biodiversity if food and agricultural systems are made sustainable and future-proof. This requires a fundamental change, a genuine transformation of food and agricultural policy. In the Federal Ministry of Food and Agriculture, we are working intensively on setting the course in the coming months and years towards future-proof food and agricultural systems.

We need to make adjustments in different areas: we need to strengthen organic farming and we need to maintain and promote soil fertility and species diversity. We will transform livestock farming. We will further reduce greenhouse gas emissions in agriculture. We will make our forests more diverse, engage in close-to-nature forest management and provide protection against external damage. We will be resolute in our efforts to promote a sustainable, healthy diet because we want to enable everyone to lead a good life.

The BMEL is determinedly implementing the necessary changes and is cooperating closely with all relevant stakeholders – the other ministries, practitioners, science, industry, associations and NGOs. Only if everyone pulls together will we be successful in transitioning to sustainable, future-proof food and agricultural systems and implementing the global SDGs.

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List of abbreviations

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AflaZ	Zero Aflatoxin (Zero aflatoxins)
AFP	Agrarinvestitionsförderungsprogramm (Agricultural Investment Aid Programme)
AHV	Außer-Haus-Verpflegung (Away-from-home catering)
AKTC	Deutsch-Sambisches Agrartrainings- und Wissenszentrum (German-Zambian Agricultural Training and Knowledge Centre)
ANK	Aktionsprogramm Natürlicher Klimaschutz (Action Plan on Nature-based Solutions for Biodiversity and Climate)
BDSI	Bundesverband der Deutschen Süßwarenindustrie e.V. (Association of the German Confectionery Industry)
BEM	Betriebliches Wiedereingliederungsmanagement (Vocational Reintegration Management System)
BKP	Bilaterales Kooperationsprogramm (Bilateral Cooperation Programme)
BLE	Bundesanstalt für Landwirtschaft und Ernährung (Federal Office for Agriculture and Food)
BMBF	Bundesministerium für Bildung und Forschung (Federal Ministry of Education and Research)
BMDV	Bundesministerium für Digitales und Verkehr (Federal Ministry for Digital and Transport)
BMEL	Bundesministerium für Ernährung und Landwirtschaft (Federal Ministry of Food and Agriculture
BMFSFJ	Bundesministerium für Familie, Senioren, Frauen und Jugend (Federal Ministry for Family Affairs, Senior Citizens, Women and Youth)
BMI	Bundesministerium des Inneren und für Heimat (Federal Ministry of the Interior and Community)
BMUV	Bundesministerium für Umwelt, Naturschutz, nukleare Sicherheit und Verbraucherschutz (Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection)
BMWK	Bundesministerium für Wirtschaft und Klimaschutz (Federal Ministry for Economic Affairs and Climate Action)
BMZ	Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (Federal Ministry for Economic Cooperation and Development)
BÖL	Bundesprogramm Ökologischer Landbau (Federal Organic Farming Scheme)
BÖLN	Bundesprogramm Ökologischer Landbau und andere Formen nachhaltiger Landwirtschaft (Federal Scheme for Organic Farming and Other Forms of Sustainable Agriculture)
BÖR	Bioökonomierat (Bioeconomy Council)
BTF	Bilateraler Treuhandfonds (Bilateral Trust Fund)
BULE	Bundesprogramm Ländliche Entwicklung (Federal Programme for Rural Development)
BWI	Bundeswaldinventur (Federal Forest Inventory)
CAP	European Common Agricultural Policy
CBD	Convention on Biological Diversity
CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources
CGRFA	Commission on Genetic Resources for Food and Agriculture
COA	German-Ukrainian Cooperation in Organic Agriculture
CPF	Collaborative Partnership on Forests
DBFZ	Deutsches Biomasseforschungszentrum (German Biomass Research Centre)
DGE	Deutsche Gesellschaft für Ernährung (German Nutrition Society)
dlv	Deutscher LandFrauenverband e.V. (German Rural Women Association)
DNS	Deutsche Nachhaltigkeitsstrategie der Bundesregierung (German Sustainable Development Strategy)
DSEE	Deutsche Stiftung für Engagement und Ehrenamt (German Foundation for Civic Engagement and Voluntary Service)
EAFF	Eastern Africa Farmers Federation
EEZ	Exclusive Economic Zone
EMAS	Eco-Management and Audit Schemes
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
FNK	Forum Nachhaltiger Kakao e.V. (German Initiative on Sustainable Cocoa)
FNR	Fachagentur nachwachsende Rohstoffe e.V. (Agency for Renewable Resources)
FONAP	Forum Nachhaltiges Palmöl e.V. (Forum for Sustainable Palm Oil)
FONEI	Forum Nachhaltigere Eiweißfuttermittel (Forum for More Sustainable Protein Feed)
F.R.A.N.Z.	Für Ressourcen, Agrarwirtschaft und Naturschutz mit Zukunft (For Resources, Agriculture and Nature Protection with a Future)
F2F	Farm to Fork Strategy
GAEC	Good Agricultural and Environmental Condition
GAK	Gemeinschaftsaufgabe zur Verbesserung der Agrarstruktur und des Küstenschutzes (Joint Task for the Improvement of Agricultural Structures and Coastal Protection)
GFFA	Global Forum for Food and Agriculture
GRA	Global Research Alliance on Agricultural Greenhouse Gases
ILE	Integrierte Ländliche Entwicklung (Integrated Rural Development)
IPCC	International Panel on Climate Change
ITPGRFA	International Treaty on Plant Genetic Resources for Food and Agriculture
IUZ	Investitions- und Zukunftsprogramm Landwirtschaft (Programme for Investment and the Future in the Agricultural Sector)
IWC	International Whaling Commission
JKI	Julius-Kühn-Institut (Julius Kühn Institute)
KALRO	Kenya Agriculture and Livestock Research Organization
LkSG	Lieferkettensorgfaltspflichtengesetz (Act on Corporate Due Diligence in Supply Chains)
LULUCF	Land Use, Land Use Change and Forestry
MonViA	Monitoring der biologischen Vielfalt in Agrarlandschaften (Monitoring of biological diversity in agricultural landscapes)
MSY	Maximum Sustainable Yield
NASTAQ	Gemeinsamer Nationaler Strategieplan Aquakultur (Joint National Aquaculture Strategy Plan)
NBÖS	Nationale Bioökonomiestrategie (National Bioeconomy Strategy)
NGOs	Non-Governmental Organisations
NIR	Near-Infrared Sensors
NPNK	Nationales Programm für Nachhaltigen Konsum (National Programme for Sustainable Consumption)
RIBE AHV	Richtlinie zur Förderung der Beratung von Unternehmen der AHV zum vermehrten Einsatz von Produkten des ökologischen Landbaus (Guideline on promoting advice to companies in away-from-home catering on the greater use of organic products)
SDG(s)	Sustainable Development Goal(s)
SoBio	Projekt „Szenarien einer optimalen energetischen Biomassenutzung bis 2030 und 2050“ (Project on scenarios for an optimal energetic use of biomass by 2030 and 2050)
STDF	Standards and Trade Development Facility
TI	Thünen-Institut (Thünen Institute)
UN FSS	United Nations Food Systems Summit
UN	United Nations
WOAH	World Organisation for Animal Health
WTO	World Trade Organization
ZKL	Zukunftskommission Landwirtschaft (Commission on the Future of Agriculture)
ZV-BMEL	Zentrale Vergabestelle des BMEL bei der BLE (The BMEL's main contract-awarding unit at the Federal Office for Agriculture and Food)
ZöL	Zukunftsstrategie ökologischer Landbau (Strategy for the Future of Organic Farming)

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