



**MINISTRY OF FOREIGN AFFAIRS
OF DENMARK**
Danida

How-to note for implementation of “The world we share”

**Green transformation of agri-food systems –
agri- and food production, business
and food security**

**Ministry of Foreign Affairs of Denmark
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This note is one of 12 notes developed by the Ministry of Foreign Affairs of Denmark to ensure the implementation of the strategy for development cooperation “The World We Share”:

1. Fighting Poverty and Inequality
2. Energy Transition and Emission Reductions in Developing Countries
3. Climate adaptation, Nature and Environment
4. Migration and a Fair and Humane Asylum system
5. Peacebuilding and Stabilization
6. Job creation and Sustainable growth
7. Human Rights and Democracy
8. Danish Support for Civil Society
9. Denmark as a Humanitarian Actor
10. Social Sectors and Social Safety Nets
11. Securing Coherence between Humanitarian aid, Development cooperation and Peacebuilding (the HDP Nexus)
12. Green transformation of agri-food systems – agri- food production, business and food security

How-to-note for implementation of “The World We Share”

Green transformation of agri-food systems – agri- food production, business and food security

1. Purpose of the note

This note aims to provide specific guidelines on how to implement Denmark’s strategy for development cooperation “The World We Share”, the Government’s Priorities for Danish Development Cooperation 2021-2025 and the four-year plans. The two overall purposes of the note are:

- **To create consistency** between strategy, policy, planning and budgeting as a shared framework of reference for the implementation of “The World We Share” and its objectives.
- **To set the framework** for prioritising, selecting and deselecting in adherence to the principles of ‘Doing Development Differently’, which call for taking a holistic and adaptive approach.

The main target group for this note is employees at the Danish Ministry of Foreign Affairs responsible for implementing “The World We Share”. Furthermore, it may serve to inform external partners. The political priorities in the Finance Act will always have primacy to this note. The note complements the other thematic How-to-Notes and should therefore be read together with the other notes as well as tools available on aid management guides, such as undertaking a context analysis.

2. Introduction

Agriculture contributes a significant part of the gross domestic product (GDP) in many countries. 2.5 billion people worldwide depend directly on agriculture for their livelihoods (FAO, 2016), in particularly in the Global South. The latest UN projections suggest that the world’s population could grow to around 8.5 billion in 2030. And, as incomes increase the demand for food is estimated to increase by 50% with the demand for animal production increasing by 70%. At the same time food systems are highly vulnerable to climate change and when considering the whole food system, the sector is responsible for approximately one third of all greenhouse gases. The food systems of the future must be able to secure food for growing population in the face of climate change and in ways that minimises greenhouse gas emissions.

The major global challenges related to food systems and agriculture that prompt Denmark to increase its focus on supporting agriculture and food systems with special focus on green transformation and food security include:

Food insecurity, hunger and poverty are on the increase. Close to 200 million people in over 50 countries/territories were not able to meet their food needs in 2021¹. The poor and especially women and the elderly and disabled are particularly vulnerable, not least due to the recent food and energy price increases caused by the Russian war in Ukraine. Climate change and degraded ecosystems undermine food and water systems and lead to food insecurity especially in poor, fragile and conflict affected areas. Transformation to more sustainable food systems and agriculture is crucial for increasing resilience, reducing poverty, improving health and effectively combating climate change through adaptation and decarbonisation across food systems leading to lasting reduction of greenhouse gas emissions. Conflicts, displacement and migration are among the big drivers in people becoming food insecure while poverty, inequality, hunger, and lack of job opportunities are drivers of conflict. Zoonotic diseases and food safety concerns are on the increase. Zoonotic diseases relate mostly to livestock production and biosecurity (beginning of the value chain) whilst food safety is key to improving trade in agriculture goods and ensuring consumer confidence in food systems. Food loss and waste (FLW) is growing and by some estimates if even just one-fourth of the food currently lost or wasted globally could be saved, it would be enough to feed nearly 800 million hungry people in the world.² In developing countries, the main challenge in FLW is food loss. The opportunity for change can be illustrated by Denmark's success in reducing food waste by 25% in the last 5 years³ due to coordinated action and changes in consumer behaviour.

3. Strategic background and definitions

Strategic linkage with the objectives of the development strategy

Denmark's strategy for development cooperation "The World we Share" recognises democracy and human rights as a foundation for Denmark's development cooperation. Five preconditions for a good life are identified. Among these, a social safety net and green and decent jobs are highly relevant for the green transformation of agriculture and food systems. A social safety net provides food security and an opportunity to escape poverty and withstand shocks and crisis. Green and decent jobs within agriculture and food systems contribute to a flourishing private sector that is necessary for long term development. The table below outlines the objectives and commitment to action that are highly relevant to the green transformation to agriculture and food systems.

¹ <https://www.worldbank.org/en/topic/agriculture/brief/food-security-update>

² <https://www.unep.org/thinkeatsave/get-informed/worldwide-food-waste>.

³ <https://www.eu-fusions.org/index.php/about-fusions/news-archives/238-food-waste-in-denmark-reduced-by-25-and-4-4-billion-dkk>.

Vision and objectives		Commitment to action
We create hope	Objective 1 - Prevent poverty, fragility, conflicts and violence and create sustainable alternatives to irregular migration and displacement	Work for greater food security and access to water, which is an increasing challenge in fragile countries and regions.
	Objective 3 - Prevent humanitarian crises and be a strong humanitarian partner during and after crises.	Help vulnerable refugees and internally displaced people as well as local host communities when the crisis, conflict or disaster strikes. We will help ensure effective access to protection and life-saving assistance, partly in the form of food assistance and healthcare services. The activities must be conducted in close collaboration with Danish civil society organisations and multilateral humanitarian and development partners, the EU and the Nordic countries.
climate nature and environment	Objective 1 - Strengthen action to support climate change adaptation, nature, the environment and resilience in the poorest and most vulnerable countries	Support climate-smart agriculture and sustainable food systems, prevent food loss and food waste, promote agro-organic cultivation methods, and strengthen green value chains. This will build resilience, improve food security and generate employment. Work to ensure that agricultural goods are produced in a sustainable and healthy way in developing countries. This means, for example, without causing deforestation in producer countries that damages climate, biodiversity and social conditions.
	Objective 2 - Assume international leadership within reductions, green transformation, and access to clean energy.	Promote reduction of greenhouse gases in developing countries partly by protecting, preserving and restoring biodiversity, forests and nature as well as ensuring deforestation-free value chains.
	Objective 3 - Increase mobilisation of finance and promote green Danish solutions within climate, nature and the environment.	Strengthen and focus government-to-government strategic sector cooperation within green sectors and particular Danish strengths such as energy, climate, environment, water, food, shipping and health.
	Objective 4 Create hope and prospects for the future through green and socially just economic recovery and poverty-oriented development.	Support the business community's involvement in the work on achieving the UN Sustainable Development Goals within areas such as energy, water, environment, food and health. Ensuring decent jobs and livelihoods in developing countries are at the heart of this work.

A main aim is to contribute to achieving SDG target 2.4 of Goal 2 “By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality”.

Additionally, the Danish government has carried out a reform of development assistance, agreeing that at least 30 percent of aid to developing countries by 2023 must be green with at least 25 percent going to climate action; at least 5 percent going to the environment and biodiversity; at least 60 percent of climate assistance going to climate adaptation in the poorest and most vulnerable countries. And finally that at least 80 percent of private sector and business instruments must be green.

Definitions

Food systems – The food systems concept has been developed over the years in line with an increasing recognition of the interdependencies along the chain from production to consumption. The concept has most recently been refined at the Food Systems Summit in 2021 and is in use by a range of actors including national governments, the World Bank and FAO. A sustainable food system is one that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security, nutrition and health for future generations is not compromised. – this also includes reduction in obesity related health diseases. This means that it is profitable throughout, ensuring economic sustainability and livelihoods, it has broad-based benefits for society, securing social sustainability, and that it has a positive or neutral impact on the natural resource environment, safeguarding the sustainability of the environment and combatting climate change.⁴ The food systems approach addresses the different elements in the food system and the relationships between them (see figure opposite). It looks on the one hand at all the activities relating to the production, processing, distribution, consumption patterns, utilisation and disposal of food, and on the other hand at the outcomes of these activities in terms of food security (including nutrition), socio-economics (income, employment) and the environment (biodiversity, climate).⁵ A food systems approach considers the whole value chain and its consequences for people (as producers or as consumers) within the planetary boundaries. The food systems framing signals the need to take a more integrated view of how central food is to all development issues and looking more closely at trade-offs and synergies across the food system outcomes of livelihoods, nutrition, and environment. It is relevant for both poorer and wealthier nations and requires working much more across rather than only within the traditional distinctions of agriculture, health, environment, economic development, infrastructure, and trade.⁶



⁴ www.fao.org/food-systems.

⁵ Based on: Siemen van Berkum, Just Dengerink and Ruerd Ruben, 2018. *The food systems approach: sustainable solutions for a sufficient supply of healthy food*. Wageningen, Wageningen Economic Research, Memorandum 2018-064.

⁶ <https://www.worldbank.org/en/topic/agriculture/brief/food-systems-2030>

Agri -and food production - Defined broadly, agri- and food production includes farming both animals (animal husbandry), plants (agronomy, horticulture both food and cash crops) fisheries and forestry. In this How to Note it is defined as primary agri- and food production and includes farming and support to farming through research, extension services, access to finance, institutional strengthening and capacity development of farmer groups.⁷

Agribusiness - agribusiness comprises the business activities performed from farm to fork. It covers the entire value chain, including the supply of agricultural inputs, the production and transformation of agricultural products, and their distribution to final consumers as well as utilisation and disposal. It aims at the inclusion of smallholder farmers and small rural food enterprises within rapidly transforming agrifood systems.⁸

Food security - Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life.⁹ Humanitarian assistance is aimed at meeting the immediate needs of people in crisis situations, including their need for short-term food security. This is not the main subject for this note (refer to the note on “Denmark as a humanitarian actor”) that looks at long-term food security. Denmark works to promote HDP-nexus-approaches which aim to ensure that humanitarian, development and peace (HDP) interventions are linked and mutually supportive.

Green transformation refers to the social, economic and technical change strategy necessary to turn the current unsustainable global situation into one that is climate responsible, environmentally sustainable and serves to drive development and peace, aiming to improve the living conditions of all¹⁰.

4. Scope

This note focuses on the agri-food system transformation - agri- and food production, green transformation, and long-term food security. The topics are closely linked to humanitarian assistance, social safety nets, poverty, growth and employment, climate change adaptation and mitigation which are dealt in other How To Notes (see annex 3).

A dual focus on the poorest countries with fragile and conflict affected situations, especially in Africa, as well as the emerging economies that can lead the way to green transformation. Poor

⁷<https://www.fao.org/>.

⁸ <https://www.fao.org/3/i6811e/i6811e.pdf>

⁹ Food crises are analyzed based on the international IPC five-step scale, where step 1 is full food security, while step 5 is famine. Humanitarian aid has a particular focus on acute food insecurity, which occurs at crisis, emergency, catastrophe/famine (IPC) levels 3-5.

¹⁰ Based on <https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-economy> ; www.unhabitat.org

countries face huge challenges in implementing green transition for food systems, but there are also opportunities. Indigenous approaches to adapting to climate change offer advantages and many development countries benefit from a large vibrant young labour force – even if it is increasingly difficult to attract young people to primary agriculture. Engaging with emerging economies in the context of initiatives for increasing regional economic integration can support the scaling up and replication of new approaches to green transition in agriculture, also beyond their own boundaries. The emerging countries including those in the Middle East and North Africa are not within the scope of bilateral support in extended partnership countries but are reached through use of special instruments and channels such as SSC, P4G, DGBP, DAPP and regional programmes such as that for the Eastern Neighbourhood.

A strong strategic focus on systemic change and catalysing new ways of doing business. Denmark will work for a *food systems transformation*. The UN Food Systems Summit in 2021¹¹ underlined the need for the world to work system-wide and integrated with transforming food systems. This is the only way to ensure food security, nutrition livelihoods, and take care of the climate and environment. With this approach we look at People, Planet and Prosperity in one. The strategic focus is on the green transformation of food systems recognising that this is an area where there are both short- and long-term needs and where market and institutional incentives need to be re-wired. The green transformation of food systems builds on improving sustainable agricultural production and processing aiming at economic growth, employment and poverty reduction enhancing the underlying basic food security for threatened areas and contribute to greater environmental sustainability, climate change resilience as well as reduction of greenhouse gas emissions.

Thematic prioritization. Referring to the earlier definitions, Denmark will focus on three closely interlinked areas where transformation of food systems on production, consumption and value adding phases is the overall driver for change in agriculture and food security.

- *Green transformation of agri- and food production* – Denmark will, building on many years of cooperation seek to increase sustainable agricultural productivity as a key to poverty reduction and ensuring the basis for food systems transformation. Production will require adoption of innovative technologies and new food products. This entails the use of improved seeds, fertilisers and irrigation, early-warning systems and meteorological data, the use of nature-based solutions incl. agro-ecology, the use of climate smart agriculture through minimising greenhouse gas emissions and adaptation of farming practices to climate change, improving access to finance especially by women headed households and new borrowers and strengthening of farmer organisations; extension systems and research. This also includes considerations on promoting carbon sequestration among small-holders and how best to link this to carbon finance and carbon credits.
- *Green transformation of agribusiness* - Denmark will, building on experience of promoting a range of agribusiness innovations, seek transformative market change and improvements in the enabling environment that will lead to more efficient trade within and across borders, less food loss and waste. This will be done through promotion of agro-organic cultivation methods, digital and technical solutions and strengthening green value chains. Small business entrepreneurs will be supported through improved access to finance and business development services. Efforts will be made to ensure that

¹¹ [Food Systems Summit | United Nations](#)

agricultural products are produced sustainably, efficiently and healthily in developing countries, including local food processing.

- *Long-term food security* – Denmark will contribute to long-term food and nutrition security through climate adaptation and agricultural development, targeting the poorest and most vulnerable countries most affected by climate change, while also contributing to meeting the immediate needs for better food security of people in acute humanitarian crises (refer to the humanitarian how to note). This will be done through support to improving the underlying enabling conditions as outlined in how notes 5,9,10,11.

These areas will be closely linked to: i) *Water management and access to water* because agriculture accounts for over 70% of freshwater use and improved water resource management and access to clean drinking water are essential prerequisites for achieving better living conditions, food security and health in a changing context and ii) *Nature-based solutions and biodiversity*. Nature-based solutions seek to address development challenges – such as poverty, food insecurity, zoonoses, lack of access to clean water, climate change, natural disasters, and biodiversity loss – by preserving and restoring key ecosystems.

5. Approach

5.1. Principles

Building on lessons learnt and the strategies for Danish international cooperation, the engagement in the green transformation for food systems and agriculture will be guided by the following principles:

- **Context specific** – the local context will guide the approach and choices to be made using local-led and localised approaches where relevant (see box 1)
- **Pro-poor, demand driven and country owned** – all engagements will reflect the needs and demands of poor people. The objectives will be owned by relevant stakeholders at the country or community level with attention to those most in need.
- **Transformative, opportunity focused and long term** - focus on responding to new opportunities, technologies and approaches for green transformation such as digitalisation. This implies a long-term vision that seeks sustainable food systems that can build the basis for future prosperity will be aimed at. It also calls for a systematic search for political and strategy entry points to shift incentives towards making the radical changes needed in food systems.

Built into these principles is the integration of climate and environment aiming at moving from do-no-harm to do-good and an active seeking of opportunities to support transformative change fostering partnerships and building resilient communities. Also relevant is the identification and mobilisation of areas of Danish strengths. Denmark's special expertise within agriculture and especially the green transformation of food systems, food safety, agro-ecology, food loss and waste minimization will be used.

It will be important to work closely with national government policies, land use rights, including countering land grabbing, and where appropriate especially for trade compliance with food safety and EU regulation.

Box 1: Examples of context specific approaches in different geographic and political economy settings

In stable countries with an enhanced partnership with Denmark, such as Kenya and Uganda there are opportunities, depending on the degree of reform readiness, to improve framework and market conditions for business, introduce new technologies and productivity-enhancing efforts in synergy with a number of instruments. The bilateral programmes will often be complemented by SSC, DGBP and P4G. All of which will benefit from Denmark's in-country presence and participation in policy dialogue. The approach will be to align with the country policy, strategies and plans and contribute to enhancing them where relevant. A focus on working both at central and decentralised level.

In neighbouring and fragile countries with an enhanced partnership with Denmark, such as Mali and Somalia, a gradual approach that focuses on the more immediate needs of food security whilst also recognizing that, even in these contexts, market forces can be mobilized and long-term solutions are important. In some cases it will be easier to create results at the local level. A range of instruments can be used including peace, stabilisation, humanitarian both through bilateral and Danish support to multilateral collaboration, benefitting from Denmark's participation in policy dialogue and donor coordination. The approach will be to enhance and align with the country policy, strategies and plans where possible and as a minimum ensure close harmonisation with other development partners.

In emerging economies such as Bangladesh and Vietnam the focus will be on special instruments such as the Strategic Sector Cooperation (SSC) and the support to working with partnerships between civil society, private and public sector to overcome persistent market failures in green transformation. These instruments include DGBP and P4G. Denmark will also through its support to multilateral bodies and global funds cooperate in these countries and influence through their participation at governance level.

In neighbouring and fragile countries without an enhanced partnership with Denmark, such as Ukraine and Syria the focus will depend very much on the context. In some cases, such as in the cooperation with Ukraine there is a regional programme that, once the conditions allow, will support a programme of climate smart agriculture that could eventually evolve into a strategic sector cooperation. In other contexts such as Syria and Iraq there are special programmes that support peace and stabilisation that have the potential to address issues, that indirectly relate to food security and food systems as part of the broader humanitarian, development, peace nexus.

Across all these cases, a localised approach will bring advantages as engagement at the decentralised level will often provide swifter demonstration results. Overall in both emerging and developing countries a balance will be struck between welfare measures aimed at the poorest and strengthening of inclusive market conditions to accelerate growth by providing incentives for emerging farmers and economies .

Seeking green transformation in food systems and agriculture will entail a series of trade-offs and management of dilemmas. Examples of these are outlined below in box 2

Box 2: Trade offs

Productivity vs green transformation and environmental protection – in the short term there are potentially competing priorities between satisfying higher demand for food through improving agricultural productivity and environmental and climate sustainability. Deforestation, land clearing, high water withdrawal and widespread use of pesticides can lead to immediate productivity gains and meeting the more immediate and increasing needs for meat for example. However, there are very high environmental costs of such practices which are leading to declining productivity. The challenge is that those that gain and those that pay the cost are not necessarily the same. The upstream water user gains from high water withdrawal whilst the downstream user loses. Sometimes these issues cross country boundaries. In general, adopting an environmentally sustainable approach and using drought tolerant crops and other adaptation methods will in the long run increase productivity if well-chosen. Danish cooperation will, especially through its policy dialogue and projects that demonstrate a win-win, seek to support opportunities for meeting multiple objectives in the longer term, recognising that the political and regulatory issues are not easy to balance and require a high level of governance and are dependent on a shift in consumer behaviour and preferences.

Poverty, employment and growth focus –optimising agricultural growth and sustaining food systems will often entail a focus on areas of high agricultural potential and value chains where significant economies of scale and value added can be achieved. In some cases, this will lead to reduction in employment for example through introducing mechanisation. The poorest, living in marginal areas and without the capital and skill set to engage in higher productivity agriculture are often the last to benefit from improved food systems and agricultural production. Danish cooperation will work on inclusive transition that puts the interests of the poorest and most vulnerable foremost whilst recognising that in the longer term, transition is necessary to halt a downward decline that affects all and the poor most. Denmark will contribute through supporting the poor in the transition and by ensuring deeper understanding of the political economy and the needs and opportunities of the poor.

Food security in the long and short term – immediate and acute food security needs can be met through humanitarian assistance aimed at improving food security. But at the same time such food assistance can undermine market forces and undermine local farmers and intermediaries. Danish cooperation will use a HDP approach and making sure that the interventions are sensitive to the different phases of food insecurity. It will also seek to ensure that cash-based solutions and interventions that build on local production capacity are supported in a way that strengthens the local market.

In summary: These trade-offs can be managed but not by downplaying them – ignoring them risks policy incoherence and loss of opportunities to overcome the challenges. A deeper understanding of the political economy is needed. Efforts need to mobilise technology and seek to identify and correct market failures and weakness – converting trade-offs to “trade-ons” and win-wins.

5.2. Channels and instruments

There are two main channels - bilateral and multilateral and within them a wide number of instruments and choice of partners. The bilateral and multilateral cooperation making use of a range of instruments and partnerships is intended to provide a coherent response to the policy, capacity development and investment challenges of the food and agriculture sector.

At the **policy level**, Denmark contributes through its core and programmatic support to the UN, the multilateral development banks and the EU to the global normative framework. Denmark, capitalising on its global recognition as a leading example of green transformation of food systems, actively initiates and engages at a political level with like-minded countries to set the agenda and bring about and create momentum for change in systems, mindsets and practices related to food systems. An example is the Danish role in the UN Global Crisis Response Group (GCRG) and the follow up of recommendations from the UN Food Systems Summit. The multilateral initiatives are reinforced through bilateral extended partnerships where Denmark, through its long-term and on the ground presence, takes an active role in policy dialogue – particularly where budget support modalities are used. Public authority to public authority cooperation (Strategic Sector Collaboration, SSC), for example, is an instrument that also focuses on normative and framework conditions and reaches out through its public-to-public cooperation to wider range of countries. Denmark seeks through its range of cooperation and funding instruments to ensure that policy messages are well founded, clear and consistent.

Within **capacity development and institutional strengthening** Danish support to programmes implemented through international organisations will seek out synergies with the bilateral programmes in enhanced partnership countries as well as its humanitarian programmes and civil society support and instruments that focus on fostering partnerships (e.g. the P4G, the DGBP and the SSC) especially where working in the same country.

Where **scaled up investment instruments** such as IFU and DSIF are used they should seek out synergies with the global support to international organisations especially the multilateral development banks and also the bilateral operations in enhanced partnership countries. Similarly, synergies with the SSC should be used so that changes in the framework conditions and improvements institutional performance can be followed up with investment at scale.

Within the area of **food systems research**, support is provided to development related research projects carried out by Danish research institutions in collaboration with partners in the global South. Through research calls emphasizing climate change, many projects focusing on food, agriculture and ecosystems have been funded. Denmark also supports international research in agriculture and food through the CGIAR Partnership, which is a collaboration between 15 leading international centers which conduct research in agriculture, food, nutrition and ecosystems. These collaborate with a large number of partners in developing countries and with the participation of Danish research institutions.

Bilateral engagement – public sector focus

Enhanced partnership countries where agriculture or related sectors are focus areas. As further outlined in box 2, embassies will play a crucial role in promoting a programmatic and transformative approach that also promotes national ownership, local solutions and capacity development. It can take the form of support to national and local governments as well as civil society and private actors, especially in fragile contexts, to build capacity in the green transformation of food systems and agriculture.

Cooperation between authorities. This cooperation aims to mobilise the core competencies of Danish authorities. The core competencies include (i) reduction of food loss and food waste, incl. effective food safety, control systems, hygiene and proper feed and animal health management; (ii) agroecology, including developing its foundation in form of a credible and effective government system for food, feed, animal health and veterinary control and; (iii) Systems for ensuring “One Health” approach, incl. animal health and fighting antimicrobial resistance. Cooperation between authorities will help develop a good framework and build capacity for green and sustainable development as well as consistent regulatory frameworks within food systems and agriculture including climate adaptation and CO₂ reductions.

Bilateral engagement – private sector and investment focus

*Danida Green Business Partnerships (DGBP)*¹² – Denmark will through a tailored call for proposals promote commercially oriented, innovative partnerships between business and civil society that contribute to developing markets and promoting local economic growth and employment. Many of these partnerships contribute to different elements of food systems aiming to unblock obstacles between different elements of the food systems value chain¹³.

Danish Green Business Partnerships – In Burkina Faso, approximately 3450 farmers – including 1/3 women – have received an income boost by participating in an organic sesame seed project.

*Partnering for Green Growth and the Global Goals 2030 (P4G)*¹⁴

In Ethiopia P4G is supporting the Sustainable Food Partnership which aims to produce nutritious, affordable biscuits with locally sourced ingredients to address food insecurity and nutrition in Ethiopia as well as generating income from production of local ingredients and sales to low-income consumers. The production demand will develop the local market and create more employment opportunities – including for women and unemployed youth.

Denmark, through P4G, supports market-based partnerships that deliver transformative impact by providing solutions for a range of food system resilience needs including smallholder farmers livelihood, reducing food loss, and driving high value processing further upstream in the supply chain¹⁵

¹² <https://danida-business-partnerships.dk/>.

¹³ <https://danida-business-partnerships.dk/country/burkina-faso/>

¹⁴ <https://p4gpartnerships.org/>.

¹⁵ <https://p4gpartnerships.org/pioneering-green-partnerships/all-p4g-partnerships/sustainable-food-partnership>

Synergies and collaboration with Trade Council – Innovative solutions and private investments are needed to promote green transformation in the food sector. To improve food security, to move on the green transformation but also in new areas at the interface between food and climate and between environment and health. We will look for synergies between the various instrument and with the work of Trade Council where relevant guided by the three drivers in systems transformation: Investments, Innovations and Incentives¹⁶.

Investment fund for developing countries (IFU) and Danida Sustainable Infrastructure Finance (DSIF). IFU invests on commercial terms in the form of equity and loans with the purpose of contributing to green transformation, economic and social development. In 2021, for example, IFU invested DKK 236 million in three companies in the agriculture sector in South Africa, India, Kenya and Malawi. DSIF enables financing for infrastructure projects in developing countries that would otherwise not be able to be implemented on market terms.

The trade council in close coordination with Confederation of Danish Industry, the Danish Agriculture & Food Council and Food Nation Denmark organised webinars to showcase and promote Danish expertise in porcine related exports in Argentina, Colombia and Peru.

Bilateral engagement – Cooperation with civil society organisations.

Strategic partnerships agreements (SPA) with civil society and collaboration with CISU (Civil Society in Development). Civil society, especially where it has space to function, has a unique role to support the shifts in consumer behaviour and value systems needed for food systems transition. Civil society is effective in reaching out to poor and marginalised populations who are most at risk. Civil society is also strong in applying the human rights-based approach both in terms of strengthening right holders as well as advocating greater accountability from duty bearers. Through the Strategic Partnership Agreements (SPA) for 2022-2025 with Danish NGOs, Denmark core funds civil society with a sharpened focus on a just green transformation through a partnership approach. Additionally, through collaboration with CISU, Denmark works with a number of civil society organisations working in the Global South. This funding supports the organizations in their contributions to better food security in fragile contexts, and in localization of activities to ensure better, more effective and more efficient results that puts the people affected by severe food crises at the centre of interventions.

Multilateral cooperation and partnerships

The UN and multilateral development banks. The UN system, in particular FAO, IFAD and WFP are crucial partners in ensuring integrated and common approaches to food system transformation based on global cooperation and governance. They are also key implementing partners. Denmark works closely with FAO and earmarks funding for a range of food related development programmes. IFAD has a special focus on the needs of the poorest with particular focus on Climate Smart Agriculture and Denmark is looking into engaging in the Thirteenth Replenishment of IFAD's Resources while also financing a number of CMA targeted development programs. WFP with its dual mandate plays a key role in responding to acute food security situations which lies outside of this note (see notes on “Denmark as a humanitarian actor” and on “Social sectors and social safety nets”). The other part of WFP’s mandate provides the

¹⁶ <https://thetradecouncil.dk/en/The-Porcine-Industry-in-Latin-America>

basis for the organization's works in the humanitarian, development and peace nexus on early actions, early warnings and insurance systems.

The African Development Bank and the World Bank play a key role in agriculture, food systems and food security – both in terms of mobilising and implementing large-scale investment and through policy advice. Denmark will contribute significantly through core contributions, active board work and support for food related trust funds. A continued strong Danish commitment to the development banks is a prerequisite for delivering on Danish priorities on a larger scale. In this sense, Denmark will work actively to increase and concretize the development banks' green ambition level and continuously assess the possibilities of offering green Danish core competencies and solutions within food systems and agriculture.

Cooperation with the EU. Denmark will work pro-actively through its representation in Brussels, Danish missions and embassies as well as engaging in joint-programming and delegated partnerships under the team Europe collaboration. These entry points will serve to promote key issues important for Denmark within climate, environment and the green transformation of food systems and agriculture, especially in the countries in Africa where we have extended partnerships, but also in countries with targeted partnerships. Denmark will, for example, proactively influence the distribution as well as the actual roll-out of the green funds in NDICI programming phase, in the management committees and other relevant bodies. Additionally, Denmark works proactively to amplify ambitions to greening value chains and promoting sustainable food systems.

Global Climate and Environment Funds and programmes. Denmark will strengthen its commitment to climate adaptation and climate smart agriculture in the dedicated multilateral climate and environment funds and programmes (e.g., GCF, GEF, LDCF, UNEP and NDF). Here, Denmark will, among other things, have a special focus on ensuring green transformation to food systems and climate adaptation projects that benefit the most vulnerable and marginalized groups in the world's least developed countries. Cooperation with multilateral and international partner organisations gives Denmark the opportunity to gain experience in the normative and best practice operational work that can be used in bilateral development cooperation. In addition, it provides an opportunity to support green transformation in food systems and agriculture more broadly geographically where Denmark does not have bilateral representations.

5.3. Cross cutting issues and synergies

Poverty reduction together with human rights are core objectives of Danish development cooperation. Poverty and human rights such as the right to food and social security are interrelated. The right to adequate food is an essential human right, yet hundreds of millions of persons remain food insecure. Poverty and growing inequality are some of the underlying causes of food insecurity. Social protection can play a key role in the progressive realization of the right to adequate

The aBi trust in Uganda is an example of where Danish support to increasing agricultural production & value addition by extending matching grants & business development services to agribusinesses, farmer organisations combined with increasing access to finance especially for women headed households and those without previous credit history or collateral.

food for all. Social protection programmes contribute to the eradication of poverty and hunger by transferring resources to people living in poverty, enabling them to generate income, protect their assets and accumulate human capital.¹⁷ Danish cooperation will seek to deepen understanding of the demands and needs of the poor as the basis for well-founded intervention and support. It will provide resources to ensure the poor are identified, listened to and given voice. It will earmark resources to respond to the needs of the poor and influence national and international efforts in the same direction. It will seek to make changes in market systems that enable the poor to engage with benefit from market opportunities. It will monitor and report on how food system changes are improving the livelihoods of the poor.

Gender cuts across all the areas of food and agriculture. Women play a vital role in the global food system, representing a huge proportion of the total agricultural workforce in low-income countries. Persistent gender inequalities within food systems are widely documented. Women have fewer options to acquire food production assets, have less access to finance, own less land, and are less connected to food value chains, either for staple or cash crops. Green transformation in agriculture and food systems will depend on advances in gender equity and at the same time provide opportunities for empowerment of women¹⁸. In this context, efforts will be made to inform and inspire on land management principles favorable to the local population involved in production. Existing and local land management practices and knowledge systems will be incorporated into program design of funded projects and programs. Danish cooperation will thus seek to promote equal access, rights and ownership in the food systems and its value chains including by women, youth and other groups disproportionately affected. . It will devote resources to building capacity and confidence among youth, women farmers, entrepreneurs, and traders.

Climate and environmental sustainability as a priority area and cross-cutting all efforts – the agri-food sector, together with forestry and other land uses, contributes nearly a quarter of all anthropogenic greenhouse gas emissions. Adopting a mainstreaming strategy as outlined in the how to notes on climate is key since a piece meal project by project approach is not enough and even where there are good results unlikely to trigger transformation. Danish cooperation will ensure that all food and agricultural interventions do no harm and take advantage of opportunities to improve environmental and climate performance. Drawing on experience from within the food sector in Denmark, the cooperation will promote new approaches that provide compelling evidence for how putting environment, climate, food safety, responsible consumer and consumption and waste reduction first can be combined with growth in production, profit and value addition.

Democracy, rights and good governance – ensuring a green transformation in food systems and food security will contribute to economic welfare and to ending hunger and malnutrition. A human rights-based approach is essential as it helps to foster the participation of relevant stakeholders in the decision making, including civil society, private sector, parliamentarians and researchers, as well as accountability, so that duty-bearers commit to take responsibility. Danish cooperation will focus on both rights holders and duty bearers bringing in many years of experience in this area of work and capitalizing on Denmark's reputation as a neutral state without geo-political ambitions.

¹⁷ <https://www.ohchr.org/en/topic/poverty-right-food-and-social-protection>.

¹⁸ Evidence Pathways to Gender Equality and Food Systems Transformation, World Food Programme, 2021.

Jobs and gainful employment for especially the youth is a major challenge and the youth are a huge untapped resource of talent, innovation and energy. Every year 12 million young people enter the job market in Africa while only three million jobs are created. In many of the poorest and most fragile countries in the world, economic growth, employment and sustainable poverty reduction is strongly linked to agricultural production, trade and access to nutritious and sufficient food. There is a need for inter-generational succession. The challenges are frequently related to climate and environmental related issues but also to peace and security, market development and the enabling environment for agribusiness, value chains and sustainable trade. Danish cooperation will through its range of partnership instruments and long experience of engaging with the private sector foster new approaches of collaboration between the public, private and civil society sectors in the food systems. Danish approaches to value addition and productivity in agriculture and food will be highlighted as will the increasing importance of urban farming systems that can serve the rapidly expanding needs of fast growing cities. The how to note on employment provides more information on how jobs in the agriculture and food systems sector can be promoted.

International trade in agricultural commodities and processed foods has always been vital to efficient food systems and global food security. Each year, the world's transport system moves enough maize, wheat, rice and soybean to feed approximately 2.8 billion people. Meanwhile, 190 million tons of fertilizers is applied to farmland with much of that fertilizer being traded internationally.¹⁹ The extreme vulnerability of the trade system to the knock on effects of disruption in the supply chain has been highlighted through Covid and geo-political conflicts such as the ongoing war in Ukraine. Trade agreements, global standards on food safety and quality infrastructure as well as market access and the reduction of non-tariff barriers are essential to ensure efficient and inclusive markets. Danish cooperation will seek at the political level, through the WTO, the UN and EU, to create a favourable, conducive and more sustainable trading environment that supports the evolution of new global and regional food systems. It will build capacity at state level to improve food safety and sustainability, and address non-tariff barriers to trade by the least developed and emerging economies. For Denmark it is important the new EU Corporate Sustainability Due Diligence-directive, where all countries exporting to the EU need to be able to document and trace goods in its supply chain will create transparency and not new barriers for trade. To this effect Denmark is supporting a number of initiatives in collaboration with international partners such as The Sustainable Trade Initiative (IDH), UN Global Compact, World Benchmarking Alliance and ILO as well as work closely with the Trade Council on the same agenda.

One Health, safe and nutritious food - By linking humans, animals and the environment, One Health²⁰ can help to address the full spectrum of disease control – from prevention to detection, preparedness, response and management – and contribute to global health security. The approach can be applied at the community, subnational, national, regional and global levels, and relies on shared and effective governance, communication, collaboration and coordination. Having the One Health approach in place makes it easier for people to better understand the co-benefits, risks, trade-offs and opportunities to advance

¹⁹ https://www.wto.org/spanish/res_s/reser_s/agricsymp2020_s.htm.

²⁰ https://www.who.int/health-topics/one-health#tab=tab_1

equitable and holistic solutions. Danish cooperation will through its policy and financial support to WHO and the UN system as well as the FS2030 facility support the global efforts to ensure the attainment of the One Health objectives. Danish support to humanitarian action, HDP nexus and longer-term development support will endeavour to reinforce the aims of the One Health initiative.

Food-Water-Energy Nexus- The nexus between food – water – energy affects the smooth functioning of food value chains and the flow of agricultural products are critical to food security and nutrition. Water and energy shortage lead to rising prices and disrupt food systems. Danish cooperation will ensure that a holistic approach is adopted that promotes a balanced development of water, food and energy recognising that they are mutually dependent.

Early warning systems²¹ – Systems are being refined to identify upcoming food insecurity hotspots based on multiple criteria including climate, water and energy. Danish cooperation will through core funding of FAO and others such as WFP support global normative efforts to adopt a nexus approach and provide early warning. Where relevant, bilateral programmes will complement these efforts and support piloting of new innovations.

Doing Development Differently is an initiative that commits to iterative problem- and learning-driven, flexible and adaptive approaches to development cooperation. It recognises that development is a political process and development practitioners engage with challenging social, political, and economic dynamics driven by the incentives of various actors. A key recognition for agri- food production, food systems and long-term food security, is that a global transformation in these areas is far beyond what Denmark acting alone can achieve. Danish cooperation will by mobilising private public and civil society resources contribute significantly to well aligned, credible and politically owned policies at regional and country level. Key principles of doing development differently as applied to the green transformation of agriculture and food systems include:

- Recognising complexity – ensuring adequate and timely context analysis for Danish support to agri-food production, green transformation and long-term food security and ensuring that they remain relevant if and when circumstances change at regional and country levels. Changes to the food systems will require an openness to political opportunities and a readiness to intervene flexibly and at short notice.
- Coordinate with others – Dialogue and cooperation should be maintained with other Danish programmes and other donors working in the region to increase coherence and synergies. Danish support alone is unlikely to have the critical mass to ensure a green transformation of food systems but by working with others it can catalyse and contribute to lasting results. The potentials within the Danish instruments are outlined in annex 2.
- Build and engage – Coordinated efforts between multistakeholder partnerships should promote locally led solutions in favor of the poorest, the climate and the environment. Activities of small-

²¹ FAO and WFP. 2020. FAO-WFP early warning analysis of acute food insecurity hotspots: July 2020. Rome. <https://doi.org/10.4060/cb0258en>.

scale producers and local partners will be based on a market-based approach while promoting responsible business conduct through human rights and environmental due diligence.

Annex 1: Objectives, partners and modalities

Målsætning - Danmark vil		Eksempler på bevillinger	Modaliteter				Bemærkninger
			Normativ / TA	Investering / Fonde	Bilateral	Civilsamfund	
We create hope	Objective 1 - Prevent poverty, fragility, conflicts and violence and create sustainable alternatives to irregular migration and displacement	Humanitarian assistance to WFP (380 m DKK) and FAO (86,2 m DKK) Core support to WFP (630 m DKK) SPA	WFP and FAO – addressing humanitarian crises e.g. Sahel, Horn of Africa and Afghanistan		Innovative Approaches to Building Resilience for Refugees and host Populations in Ethiopia Resilience-Building in Fragile Regions of Mali (RBFR-Mali) – WFP	Cooperation with civil society organizations through strategic partnership agreements e.g. emergency food aid (safe the children), cash transfer (Oxfam Ibis), Climate innovation and emergency response (Care)	
	Objective 3 - Prevent humanitarian crises and be a strong humanitarian partner during and after crises.	Humanitarian assistance to WFP (380 m DKK) and FAO (86,2 m DKK)	WFP and FAO – addressing humanitarian crises e.g., Sahel, Horn of Africa and Afghanistan			Cooperation with civil society organizations through strategic partnership agreements emergency food aid (safe the children), cash transfer (Oxfam Ibis), Climate innovation and emergency response (Care)	
Climate nature environment	Objective 1 - Strengthen action to support climate change adaptation, nature, the environment and resilience in the poorest and most vulnerable countries	Northern Uganda Resilience Initiative (NURI). (94 m DKK) IFAD in SAHEL (100 m DKK) - Enhanced Adaptation for Smallholder Agriculture Programme (ASAP+) LDCF (80 m DKK) GCF (161 m DKK) Food Systems 2030 (100 m DKK) New support to CGIAR (90 m DKK) Engaging in the Thirteenth Replenishment of IFAD's Resources	IFAD and the World Bank	GCF covering 90 adaptation projects, GEF, IFAD and WFP	Bilateral programs in Uganda, Niger, Mali, Kenya, Ethiopia, Burkina Faso, Somalia and Bangladesh Strategic sector cooperation (Indonesia, Kenya, China, Mexico, Nigeria and Vietnam)	Cooperation with civil society organizations through strategic partnership agreements e.g rights and resilience response for crisis affected communities in South Sudan (Oxfam Ibis)	

Målsætning - Danmark vil		Eksempler på bevillinger	Modaliteter				Bemærkninger
			Normativ / TA	Investerings Fonde /	Bilateral	Civilsamfund	
Objective 2 - Assume international leadership within reductions, green transition, and access to clean energy.	DMDP e.g. Solar for Cooling: Energy and refrigeration solutions for small-scale fishing in Kenya (5 m DKK) and The Fresh Fruit Nexus: Sustainable Livelihoods for Refugees and Host Farmers in Northern Uganda (11, 5 m DKK) GCF (161 m DKK) IFAD in Sahel (100 m DKK)	IFAD - helping to mitigate and sequester carbon and contribute to achieving countries' commitments, including nationally determined contributions (NDCs) and National Adaptation Plans (NAPs).	GCF – low emission practices promoted				
Objective 3 - Increase mobilisation of finance and promote green Danish solutions within climate, nature and the environment.	P4G projects (total 36 m DKK) DMDP (total 229 m DKK) SSC IFU (300 m DKK)	World Bank	GCF IFU e.g Leap India	Strategic sector cooperation (Indonesia, Kenya, China, Mexico, Nigeria og Vietnam)			
Objective 4 Create hope and prospects for the future through green and socially just economic recovery and poverty-oriented development.	Advisory support for small and medium-sized agri-food businesses – Burkina Faso (97 m DKK) Palestine Creation of green, sustainable, inclusive economic growth and decent jobs - Palestine (18 m DKK) P4G projects (total 36 m DKK) DMDP (total 229 m DKK) SSC aBI Uganda (230 m DKK) Food Systems 2030 (100 m DKK) Co-financing of GCF support to FAO, L&F and others on climate adaptation project in Kenya (35 m DKK) Renewed support to World Resources Institute with focus on i.a. food systems Engaging in the Thirteenth Replenishment of IFAD's Resources	WRI, IFAD, World Bank	IFAD - The INCLUSIF project aims to improve financial inclusion for small-holders and small and medium agri-food enterprises in Mali	Strategic sector cooperation (Indonesia, Kenya, China, Mexico, Nigeria og Vietnam) Bilateral programs in Uganda, Niger, Mali, Kenya, Ethiopia, Burkina Faso, Somalia, Palestine, and Bangladesh	Cooperation with civil society organizations through strategic partnership agreements – focusing on strengthening marginalized groups eg. Empowering business owners within the dairy, food security, chemicals and furniture industries in North of Lebanon (DRC), CCA and green jobs for youth (safe the children)		

Annex 2: Synergies and links between different channels and instruments

Focus of different channels and instruments for green transformation of food systems		Bilateral						Multilateral				
		Enhanced partnerships	SSC	Humanitarian	SPA	P4G	DMDP	IFU/ DSIF	Global funds	UN	MDBs	EU
Green transformation of agri and food production		X		X	X	X	X			X	X	X
Green transformation of agribusiness			X			X	X	X	X	X	X	X
Food security		X		X	X					X	X	X
enhanced partnership with Denmark	Stable countries	X	X		X	X	X	X	X	X	X	X
	Neighbouring and fragile countries	X	X	X	X				X	X	X	X
without an enhanced partnership with Denmark	Stable and medium income countries		X			X	X	X	X	X	X	X
	Neighbouring and fragile countries			X	X				X	X	X	X

X= main focus, shaded = relevant but not main focus

Annex 3: Synergies with other how to notes

Note	Main linkages with green transition in agriculture and food systems
Fighting poverty and inequality	These notes provide guidance on the fundamental aims of Danish international co-operation. They provide “how to” insight on integrating poverty, human rights, climate and environment into the efforts to promote a green transition in agriculture and food systems. Agriculture and food systems have a huge role in especially climate action, environment and in fighting poverty and inequality.
Human rights and democracy	
Climate adaptation, nature and environment	
Job creation and sustainable growth	The note provides principles, approach and guidance for ensuring decent work (SDG 8) and employment recognising that agriculture and food systems is one of largest sectors of employment and an area of potential growth and comparative advantage for many developing countries.
Energy transition and emission reductions in developing countries	The note provides principles, approach and guidance for how Denmark is supporting the energy transition (SDG 7) and also emission reduction from the energy sector. Access to energy, energy efficiency and renewable energy are highly relevant for agribusiness and the transition of food systems. In many countries, energy is key constraint to scaling up successful approaches in agri-business.
Danish support for civil society	The notes provides principles, approach and guidance for working with civil society especially in advocacy at policy level and to support measures that will make the green transition just. It also guides how civil society would help to ensure that the agriculture and food systems transitions relevant for and able to reach out to the poorest and most marginal at the grassroots level.
Denmark as a humanitarian actor	These notes provide principles, approach and guidance on support to agriculture and food in fragile and conflict affect situations. They provide the context and guide how the green transition for agriculture and food systems can work in harmony with other Danish channels and areas of intervention in prevention of food insecurity and to build on efforts to move from acute food insecurity (IPC3) to chronic food insecurity (IPC2) to minimal food insecurity (IPC1).
Migration and Just and Humane Asylum System (ROHA)	
Peacebuilding and stabilisation	
Social sectors and social safety nets	
Humanitarian, Development, Peace nexus (HDP)	

Annex 4 Abbreviations

aBi	Agricultural Business Initiative
CO ₂	Carbon Dioxide
DGBP	Danida Green Business Partnerships

DAPP	Danish-Arabic Partnership Program
DMDP	Danida Market Development and Partnerships
DSIF	Danida Sustainable Infrastructure Finance
FAO	Food and Agriculture Organization
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
HDP	Humanitarian-Development-Peace Nexus
IFAD	International Fund for Agricultural Development
IFU	Investment Fund for Developing Countries
LDCF	Least Developed Countries Fund
NDF	Nordic Development Fund
NDICI	Neighbourhood, Development and International Cooperation Instrument
NGO	Non-Governmental Organization
P4G	Partnering for Green Growth
SDG	Sustainable Development Goals
SPA	Strategic partnerships agreements
SSC	Strategic Sector Cooperation
UN	United Nations
UNEP	United Nations Environment Programme
WFP	World Food Programme
WTO	World Trade Organization