



**MINISTRY OF FOREIGN AFFAIRS  
OF DENMARK**  
*Danida*

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**HOW-TO NOTE FOR IMPLEMENTATION OF “THE WORLD WE SHARE”  
ENERGY TRANSITION AND EMISSION  
REDUCTIONS IN DEVELOPING COUNTRIES**

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**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
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3. Climate adaptation, Nature and Environment
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# How-to note for implementation of "The World We Share" Energy transition and emission reductions in developing countries

## 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 note will be available on the Aid Management Guidelines site as an internal guidance document. Specifically, the note is intended as a reference document in programming (including in Programme Committee meetings and on the Council for Development Policy (UPR), as well as in the monitoring (e.g. in appraisals and reviews), in the dialogue with partners, and in the work with international norms and standards.

In principle, the note will remain valid for the duration of "The World We Share", and will be revised as required in response to changing contexts and priorities. 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.

## 2. Definitions and objectives

### Context

Energy production accounts for about 70% of worldwide greenhouse-gas emissions. Renewable energy, energy efficiency and electrification combined may deliver around 90% of the necessary greenhouse-gas reductions in the energy sector towards 2050. Accordingly, the transition from black to

green energy and a systematic pursuit of energy efficiency (lowering the demand for energy) take centre stage in efforts to reach the Paris Agreement's 1.5-degree target and are at the heart of SDG 7. Working with major emerging economies is critical, as 30% of the increase in energy demand will indeed come from these countries. Conversely, about half the population in Sub-Saharan Africa have no access to electricity or clean energy for cooking. The same countries receive as little as 4% of the world's total investment in energy today. Universal access to energy, including 'clean cooking' is a cornerstone of a fair and green energy transition in those countries. This will also boost resilience to climate change. Decarbonisation is required across all sectors, but particularly in industry, heavy transport and construction. Finally, it is crucial to halt deforestation, which lessens the carbon uptake and has many other adverse effects.

This is not without its challenges and dilemmas: All developing countries are facing important and difficult choices in advancing their growth and development. This is not confined to choices around devising and disseminating energy, but also concerns natural-resource management and specifically the sequestration and uptake of CO<sub>2</sub>, e.g. in forests. Countries that extract their own fossil fuels from the ground face special challenges in the green transition as there is a need for creating new jobs and opportunities when oil and gas industries are phased out. Conversely, in principle, there may be much to gain for countries that depend on energy imports, as utilising their own renewable energy sources will empower them economically and geopolitically. During the transition, countries may be tempted to use bridging technologies, such as gas, which Denmark is committed not to support. In least developed developing countries, the energy sector is not the main emitter (and the need for adaptation looms larger). Here, deforestation and land use conversion to agriculture is the greatest challenge. Nevertheless, it is still important for these countries to transition to renewable energy to avoid getting locked into fossil fuels. In many countries, the energy sector's special role in the political economy has brought about powerful institutions with vested interests in the status quo, e.g. based on fossil fuels, which generates resistance to the green transition. The challenges may also be manifested in a lack of policy coherence and integration of climate, energy and natural resources into the various sectors, policies and laws. Often, the potential of greater energy efficiency is underestimated and not systemically considered in the design of cities, building projects, industries, etc. To achieve a fast and effective green energy transition, it is necessary to work with all actors, and identifying pro-poor solutions that leave no-one behind.

This is why the strategy for development cooperation has the clear objective of maintaining Denmark's global SDG 7 leadership promoting a fair and green energy transition, including access to clean energy, energy efficiency and cross-sectoral decarbonisation. Although alliance-building is crucial, and summits are important milestones, it is in-between negotiations that objectives must be translated into action. In this regard, Danish development aid is both a driver and a catalyst that show the way, accelerate the green transition and raise ambitions in the Nationally Determined Contributions (NDCs).

**Annex 1** describes the overall framework for this how-to note in terms of the United Nations Framework Convention on Climate Change (UNFCCC), the Paris Agreement and SDG7, in addition to presenting definitions of significant concepts. The table in **Annex 2** outlines the exact objectives

of the strategic framework. It also presents an overview of sentences and themes that coincide in Denmark's two key climate-change strategies.

**In synthesis**, the objectives are: green and inclusive energy transition, including phase-out of coal and other fossil fuels; promotion of renewable energy, energy efficiency and electrification; access to clean and sustainable energy at the national and household level (including clean cooking) so as to contribute to economic and social development, including job creation; ambitious national climate goals and action plans, as well as favourable framework conditions; cross-sectoral decarbonisation; integration and coherence between climate adaptation and mitigation; mobilisation of climate finance and a redirection of global and national financial flows.

### **Objectives of the reform of development aid and the four-year plan (taken into account in this note)**

At least 30% of aid to developing countries in 2023 must be green, which includes:

- Minimum 25% for climate interventions.
- Minimum 5% for environment and biodiversity.

Maximum 40% of the 25% for climate actions must be for mitigation (since at least 60% is for adaptation). This is translated into detailed budgeting on an annual and continuous basis.

At least 80% of the private-sector and business instruments must be green.

The minister's four-year plan also sets other green objectives, including 5.8 million more Africans gaining access to clean energy through Danish leadership and innovative financing.

## **3. Scope**

Based on the above description of the context, the framework set out in Annex 1, and the overview of objectives in Annex 2, Denmark's work in the field of energy transition and emissions reductions covers five themes set out below. Their geographical scope is indicated in **bold** letters.

### **Theme 1: National capacity building, NDCs, energy planning and inclusive green transition**

Mitigation ambitions revolve around the Nationally Determined Contributions, NDCs. They indicate specific national emission reduction targets in absolute and in relative terms, and often also across-the-economy targets and co-benefits. However, the actual NDCs are often of a limited quality and level of ambition, which leaves room for improvement. **Expanded Partnership Countries** express the need for classical capacity-building work, which should be based on a solid analysis of the political economy. This encompasses institution-building, design of enabling environment/frameworks and competence development to tackle the climate challenge, as well as integration of climate into the

various government institutions and at the subnational level, including cities, provinces and rural districts. In this work, there will be emphasis on using economic instruments with incentives to change behavioural patterns. This can be, for instance, climate taxes or subsidised energy audits, which foster energy efficiency. The **major emerging economies and targeted partnership countries** are already among the global top emitters, and the energy sector is the main source. Accordingly, in these cases the focus is more directly on the energy sector and on long-term energy planning both nationally and sub-nationally, including cities. The aim is to increase the share of renewables and improve energy efficiency. This may take place, for instance, through competitive auctioning/bidding for renewable-energy projects and introduction of district energy in urban planning in order to lower energy demand and phase out fossil fuels, especially coal. Emerging economies still contain pockets of poverty, and the social and economic aspects of energy measures will be increasingly analysed. Civil society can help in this, including at the country level. The goal is a socially inclusive green transition, including job creation, e.g. to cushion the negative impact of coal phase-out. Another aspiration is to pursue good governance in the climate and energy policies.

## **Theme 2: Access to clean energy at the national and household level**

In **Sub-Saharan Africa, including in fragile countries**, the diminishing cost of renewable energy, technological progress and new business models are making it much faster and cheaper to reach poor people. It will require large-scale national investment, while Denmark will concentrate chiefly on providing access to decentralised energy for households, public institutions like schools and health clinics, and the productive sector in areas that are currently off the electricity grid. Mini-grids and individual solar-energy systems will be relevant here. It will also be a priority to propagate cleaner technologies and fuels for cooking, including in fragile countries and refugee camps. To the extent possible, development aid will be used as a catalyst to attract private financing in this area. The ambition (see Box 1) of giving 5.8 million more African access to clean energy must be achieved through well-targeted multilateral funds, but also through core contributions to the World Bank and the African Development Bank, among others. Moreover, the Investment Fund for Developing Countries (IFU, an entity under the Danish Ministry of Foreign Affairs) provides risk capital for specific investments. The work to secure everyone's access to clean energy in Africa can be bolstered through closer cooperation with civil society, as well as through more bilateral engagements, e.g. as part of green growth programmes.

### **Clean energy in refugee camps**

In Uganda, Caritas and CARE have cooperated with the Danish start-up Pesitho on developing an electric stove that is driven by a solar panel and is also capable of generating electricity for a couple of lightbulbs and a plug. The stove is produced near a refugee camp in Uganda and has been adapted to local cooking needs. At the same time, Denmark supports new multilateral funds, such as the Clean Cooking Fund and SPARK+ Africa Fund, which assist in major national endeavours and in raising capital to disseminate new and pro-poor technological solutions.

### **Theme 3: Linking mitigation and adaptation**

The 2021 evaluation of Danida's mitigation work pointed to a need to explore solutions that connect mitigation and adaptation together. Access to clean energy in **all developing countries** may help create resilience to climate change. In general, energy access improves social and economic living conditions, which can boost resilience. More specifically, generating climate data and digital weather information, operating irrigation systems, cooling harvested crops and processed products are examples of climate adaptation measures that require energy. Energy efficiency, particularly in the water supply, also contributes to climate adaptation. Pilot projects in areas such as decentralised solar energy, based on the aforementioned innovative business models, will be up scaled and linked to adaptation. Conversely, nature-based adaptation measures that halt deforestation will have a positive impact on climate change by increasing/stabilising carbon sequestration. Within this theme, initiatives will be taken in cooperation with embassies, multilateral partners and civil society. It can also take place with private-sector actors and through measures specifically aimed at mobilising finance. There are already decades of experience of what works and what does not.

### **Theme 4: Decarbonisation and mitigation across sectors**

Agriculture, construction, transport, industry and mining accounts for a major share of global emissions in **all countries**. As mentioned, in least developed countries, the biggest emitter is not the energy sector, but deforestation and land use conversion to agricultural land. The NDCs of many countries express ambitions of reducing emissions in non-energy sectors, e.g. by halting deforestation and promoting carbon sequestration. The NDCs also set out aspirations to participate in a carbon market. This may take place through voluntary agreements or the more formalised market as per the recently completed 'Paris Rulebook' and references to the Paris Agreement's Article 6 in the outcome from COP26. Denmark will examine, consider and utilise options for reducing emissions, decarbonising non-energy sectors and increasing carbon uptake. Carbon markets can be an income opportunity and deliver co-benefits by creating jobs and sequestering carbon at the same time. Among the actual possibilities in this field are conservation and restoration of nature and forest; climate-smart agriculture (agro ecology and agroforestry); circular economy and waste management; electric mobility/transport; decarbonisation of cement, shipping and fertilizers (special Danish strongholds; and general promotion of green value chains. Another line of work is to build frameworks and capacities for low-income countries to participate in the carbon market on their own terms and to identify strong projects that yield credible carbon credits for the benefit of local populations, the countries and the global temperature target. Once again, there are experiences to build upon.

### **Theme 5: Mobilisation of finance for green energy**

Danish development aid should continue to serve as a catalyst and mobilise finance for renewable energy, decarbonisation, phase-out of fossil fuels, energy efficiency and, to the extent possible, nature-based solutions that contribute to carbon sequestration. Financing (guarantees, risk capital and loans) will be crucial for translating improved NDCs and frameworks into emissions reductions. Grant aid

may be used to finance, for instance, project preparation, conducive framework conditions (such as eliminating favouritism of fossil fuels, phasing out subsidies and phasing in incentives to use renewable energy), and technical assistance in the implementation of investments etc. Grant aid also serves to reduce risk, e.g. by accepting an initial loss and by guaranteeing an investment. The need for concessional financing depends on the context. In **low-income developing countries and fragile states**, the needs are vast, but it can be a challenge to design investment that succeeds in attracting private funds. In **emerging economies and several countries that have targeted partnerships with Denmark**, the needs tend to change over time, as some renewable-energy investments become sufficiently attractive without concessionality. This shifts attention to areas that have yet to be considered sufficiently profitable as private investment objects, such as energy efficiency. What matters is to resort to development finance only when this is necessary. It should be directed at difficult markets and investments in which the private sector is still too risk averse. Through IFU, including Danida Sustainable Infrastructure Finance (DSIF) and the newly established financing guarantee instrument, and through Denmark's Export Credit Agency (EKF), and with engagement of institutional investors, as well as local businesses and banks, it will be possible to obtain financing of renewable energy, energy efficiency, and decarbonisation. Commercial investment may complement authority-to-authority cooperation and multilateral partners' efforts to improve national frameworks and foster transparency, and perhaps be combined with financing from multilateral banks and climate funds.

#### **The IFU climate fund**

In 2012, IFU set up the Danish Climate Investment Fund in cooperation with a number of Danish pension funds. Its capital has now been invested in renewable-energy projects. Indeed, the commercial potential is much greater today than in 2012. However, many countries still struggle to attract finance, and investment needs are vast. New and enhanced cooperation thus continues to be relevant.

## **4. Approach**

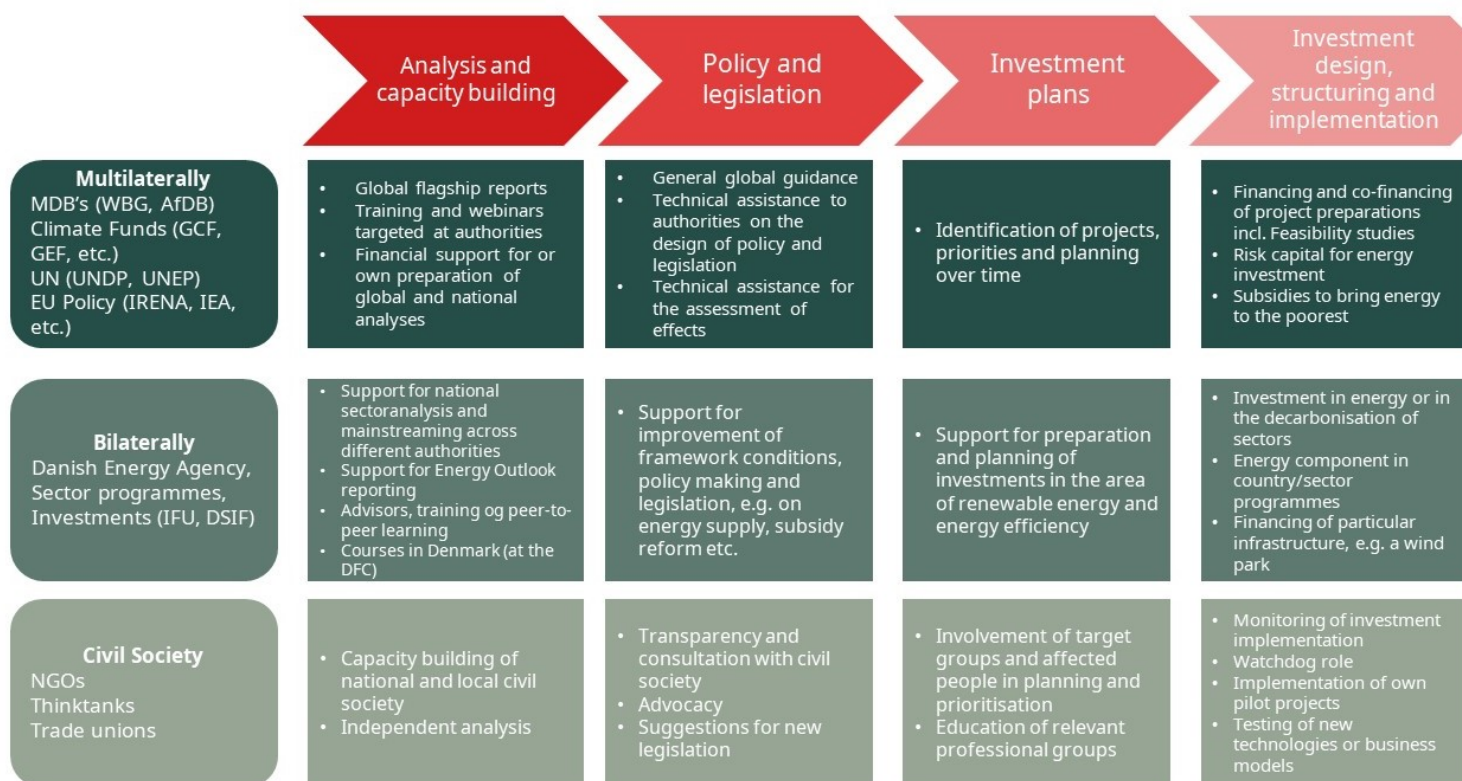
The objectives described will be promoted in a combination of Danish climate diplomacy in international processes, such as UN summits, COPs and EU cooperation; establishment of- and engagement in international alliances and coalitions with relevant actors on specific issues; an active presence on the boards of international organisations and multilateral development banks; a climate-policy dialogue at the country level; interventions in individual countries; and partnership with the private sector. Strategic partnerships at all levels are decisive for securing the results of Danish efforts. The Danish Ministry of Foreign Affairs works closely alongside the Danish Ministry of Climate, Energy and Utilities (KEFM) and the Danish Energy Agency in this field, adhering to a division of labour. For instance, the Danish Energy Agency is deeply engaged in technical authority-to-authority cooperation at the country level in emerging economies, while interventions to expand access to energy is primarily the remit of the Ministry of Foreign Affairs. The strategic, technical, and close



dialogue is ongoing. The division of labour will be specified in more detail in the years to come, e.g. in relation to the partner assessment discussed below.

Interventions can be illustrated in a type of reversible and flexible value chain (see figure below). Specific investment implementation (to the right, ‘downstream’) is prepared through a series of measures (to the left, ‘upstream’), such as analyses that investigate and recommend how to address investment barriers; policies and legislation that lay down strategies and bring about framework conditions more conducive to the transition; investment plans with identification of a wide array of measures with medium to long-term horizons; and specific investment projects that are prepared and structured (finance). Different actors play different roles. Thus, multilateral banks and large funds are active in all areas, but particularly strong on the investment side, whereas think tanks, international organisations etc. are more active on the analytical, policy-making and planning side. The bilateral work is also heavy in ‘upstream’ interventions, while the IFU, EKF etc. play an active role on the ‘downstream’ investment side.

Figure 1



## Bilateral engagement

**Low-income developing countries with expanded partnerships.** For some years, the energy sector and mitigation have received somewhat limited attention in country programmes, among other reasons because these countries' energy sectors tend to have low emissions. However, there are numerous untapped potentials for focusing on green energy and carbon sequestration while also pursuing development goals, such as poverty reduction. This is e.g. the case of the aforementioned opportunities under Theme 2 for decentralised energy for small-scale production in rural areas. Furthermore, it is important to ensure that low-income countries advance along a development track with minimal CO<sub>2</sub> emissions as opposed to getting locked into fatal energy choices. As mentioned above under Theme 2, renewable energy has become commercially competitive, and decentralised solar energy is breaking new ground. It makes sense for future bilateral interventions, for instance within the green-growth programmes, to become better at seizing the green-transition opportunities within the energy sector. In many cases, emissions reductions and carbon uptake can also be integrated into agricultural activities, e.g. by fostering tree planting, combat deforestation, secure carbon sequestration in grazing areas, etc. Considering potential for carbon credits is another area with potential for co-benefits in terms of job creation. In addition, countries with expanded partnerships need to consider green energy and carbon sequestration across programmes and areas, including in humanitarian responses, good governance etc.

**Other countries, including those engaged in authority-to-authority cooperation and targeted partnership countries.** As mentioned under Theme 1 above, the energy sector is an obvious candidate for support through authority-to-authority cooperation. Non-energy-oriented authority-to-authority cooperation may enable systematic mitigation efforts, e.g. in the areas of urban planning, water and environment. Authority-to-authority cooperation may also help promote export of Danish solutions in renewable energy, energy efficiency etc., and be followed up by Danish finance through, for instance, the IFU and EKF. At the same time, technical authority-to-authority cooperation feeds into the policy dialogue on climate ambitions, thus contributing to Danish SDG 7 and climate leadership.

### **Multilateral support and partnerships**

As mentioned in the follow-up to the recently completed evaluation of Danish mitigation work, an overview and an assessment of partnerships will be initiated during 2022. This may also encompass *cooperation with international coalitions*, which will not be elaborated upon here. Below are some preliminary pointers on the strategic thinking within multilateral partners.

**Global climate and environmental funds.** Denmark has achieved a strong position among the most relevant international organisations in the field of energy transition and mitigation, as well as within climate and environmental funds. The evaluation highlighted that Denmark can use this position more strategically. The organisations and funds initiate both capacity building and development of framework conditions. In this manner, the funds incentivise others to invest, though they also act as investors themselves. Denmark will promote improved cooperation between multilateral organisations and funds, as well as linkages to the bilateral work, IFU financing, etc. Moreover, it will be emphasised that these organisations and funds should act as catalysts for mobilising private finance for the green transition and the phase-out of coal, for propagating new renewable-energy solutions and energy efficiency, for contributing towards the energy-access objective under Theme 2, and for seeking linkage between mitigation, adaptation and nature-based-solutions under Theme 3.

**The multilateral development banks.** The development banks play an important role in fostering the energy transition in developing countries. Denmark contributes substantially through solid core contributions, active board participation and support provided to thematic trust funds (e.g. ESMAP, SEFA and CIF). Denmark has a strong position as regards energy investment within both the World Bank and the African Development Bank, and Denmark want the banks to feature even more prominently in the energy transition. Meanwhile, the ‘greening’ of aid, as described in Box 1, also encompasses Denmark’s participation in the development banks. Through active board participation and direct support, Denmark will raise the banks’ ambitions in pursuit of the Paris Agreement and SDG 7. Denmark is particularly keen on redirecting investment flows towards an accelerated transition to renewable energy with emphasis on offshore wind power, green hydrogen, phase-out of coal, green job creation in the energy sector and energy efficiency. Moreover, Denmark will upscale the effort to provide access to electricity and clean cooking, as per the energy-access target and Theme 2.

**Cooperation with the EU.** Denmark must contribute to the EU's efforts in the energy sector, particularly in Africa, becoming even stronger and more visible, so as to maximise the overall impact, including under the EU's Neighbourhood, Development and International Cooperation Instrument (NDICI) in vulnerable and low-income countries, especially in Africa. Despite its extensive efforts within the energy sector in Africa, the EU has weak coordination between member states. This can be remedied with greater EU cooperation through active engagement in Brussels and via Danish embassies. At the same time, Denmark should seek to join in Team Europe cooperation with EU institutions and other member states whenever possible and relevant.

**Cooperation with civil society organisations.** The Ministry of Foreign Affairs and Danish civil-society organisations enter into Strategic Partnership Agreements (SPAs) on development work. One of the aims is to raise the level of green ambitions and competencies nationally and internationally. Through the Civil Society Fund administered by Civil Society in Development (CISU), small civil-society organisations (that are not strategic partners of the Ministry of Foreign Affairs) can also access funds. The expectation is that civil society will focus particularly on bringing about a *socially just and inclusive* green transition. This can take place by piloting new energy solutions, technologies and business models to reach the poor population groups. Or it may be through advocacy and *giving a voice* to specific groups, e.g. regarding reforms of energy subsidies, green taxation policies or in consultations with communities affected by green investment projects. However, there is also a need to take advantage of civil society blazing new trails e.g. by mobilising finance and cooperating with the private sector. The dialogue with civil society at home and abroad will be important in the pursuit of the negotiation track and global agendas, as well as in the Danish engagement in multilateral institutions and funds and in government-to-government cooperation.

**Cooperation with the private sector.** The private sector is one of the essential agents of change capable of raising ambitions and influencing decision-makers. The private sector has a major role to play in developing new technologies, driving down the costs of green solutions, and ensuring more sustainable production. At the same time, it is a major emitter of greenhouse gases. The dialogue with the private sector is set to continue and will be boosted both at home in Denmark and abroad. Private sector can be included in the dialogue with partner authorities and as a direct partner in the implementation of new technological as well as nature-based solutions, and in the field of energy efficiency and renewable energy. This approach is in line with the Danish tradition of involving stakeholders, and should be applied in authority-to-authority cooperation, multilateral and bilateral programmes.

### **Danish support for energy in Ethiopia**

For some years, The Danish Energy Agency has supported Ethiopia's long-term energy planning in connection with the country's transition to renewable energy. Furthermore, a cooperation was entered into with the World Bank's energy sector programme, ESMAP, and DTU Wind (Technical University of Denmark) to produce a national wind atlas. The identification of relevant wind-power areas and of

national capacity for integration of wind power led to the financing of the Assela Wind Power Station (100 MW) through Danida Sustainable Infrastructure Financing (DSIF).

## **Doing Development Differently**

### **Synergy between interventions and modalities – select examples**

Energy is a building block for all the UN Sustainable Development Goals. It takes energy to abolish poverty, create sustainable cities, obtain clean water and sanitation, improve health, achieve gender equality, green growth and employment. Denmark's support for green energy, energy transition and mitigation is considered across the SDGs under the main heading of 'green reconstruction'. Within the framework of the SDG 7 leadership (described above), there is also focus on securing synergy and consistency between the global normative work and implementation on the ground, i.e. in the programming of interventions. To ensure the maximum impact of Danish involvement overall, it is necessary to boost synergy between bilateral projects, authority-to-authority cooperation, green investment, and Danish-supported multilateral organisations. For each country, concrete links must be forged between authority-to-authority cooperation, bilateral projects and multilateral organisations such as IRENA, IEA, UNEP-CCC, the NDC Partnership and ESMAP in order to enhance capacity and national frameworks, as well as to develop investable projects. As an extension of this work, synergy will be sought with banks, funds and investors to facilitate specific financing and investments, e.g. from Danish-supported global climate funds (GCF, GEF, SEFA, NDF, etc.), the development banks and investment funds (IFU, IFC, EIB), as well as philanthropic foundations, private and institutional investors.

Energy also features prominently in the humanitarian sector and in the refugee response. According to the UNHCR, 90% of refugee camps have little or no access to electricity. The percentage is even higher with regard to lack of access to clean energy for cooking, which often causes intense local deforestation, when refugees extract firewood, which, in turn, provokes tension with local communities. Danish humanitarian development work will prioritise access to energy and utilise the new decentralised energy solutions, such as micro-grids and simple solar cells. This will also ease women's burden of collecting firewood, lessen their vulnerability while being far away from the camp, enhance access to water and hygiene, boost food security (e.g. by enabling cooling), and improve opportunities for education and health (preventing respiratory diseases). Moreover, access to clean energy and technology for cooking will reduce local pollution and natural-resource degradation, which would otherwise compound the vulnerability to climate change and the risk of local conflicts. However, it is important for interventions to be conceived as part of a general upgrading of the energy supply in the context surrounding the refugee camps so as to avoid conflict centred on access to new energy. Denmark will support the global action plan and the UNHCR's 'Clean Energy Challenge' for refugees and displaced people. This cooperation will be developed with numerous actors, including NGOs, the UN, the private sector and philanthropic foundations. As the first and currently largest donor, Denmark contributes to the UNHCR Water Project Flow Fund, which aims to replace diesel-

driven with solar-cell-driven water pumps in selected UNHCR operation. In 2022, Denmark plans to support the newly established climate and environmental fund of the International Committee of the Red Cross (ICRC) intended to assist in the organisation's green transition. Among the measures to be taken is a reduction of CO<sub>2</sub> emissions from the ICRC's major country-level operations by replacing generators with solar panels.

### **The context defines the intervention**

**National ownership.** The NDCs and the long-term climate strategies set the framework for the countries' mitigation ambitions and priorities. In addition, most of the countries will have set objectives in other national development plans for the energy sector and for the energy transition in the other sectors. Thus, Kenya and Rwanda, among others, have set clear goals for access to electricity. In keeping with the principles behind 'Doing Development Differently', the context will define the way in which Denmark goes about implementation. It is crucial to forge partnerships and alliances with other donors, civil society organisations, private-sector actors, investors and knowledge institutions. The purpose is to secure sufficient insights into the political and economic context, prevent unintended consequences, build the most appropriate form of cooperation, and attract the right partners for each country.

**Learning and the adaptive approach to programming.** In this context, the adaptive approach to programming will make the most of recent quantum leaps in technology and falling prices of renewable energy solutions, e.g. the potentials of green hydrogen. The approach takes into account market changes and how public funds, such as development aid, are spent most effectively. Finally, new agreements/decisions in international negotiations will play a role, as recently manifested in terms of greater focus on phasing out coal after. The development of the carbon market also offers new scope for Danish efforts to support mitigation.

### **Cross-cutting concerns and poverty orientation.**

**Poverty orientation and equality.** The population groups without access to energy are becoming more geographically concentrated. As of today, 84% of the world population without access to electricity reside in rural districts, and 58% in fragile and conflict-affected countries. By 2030, 85% are expected to be living in Sub-Saharan Africa. Accordingly, Danish *efforts to widen energy access* will focus on these regions and address humanitarian situations. Women are particularly vulnerable, but are also agents of change and entrepreneurs, and gender-equality concerns will be taken into account reflecting the context at hand. Keeping in mind the multidimensional poverty concept, the work will be generally divided into, on the one hand, *energy-access* interventions that focus directly on poor people, e.g. in the countryside, and on women, for instance in clean-cooking interventions, and, on the other hand, *energy-transition* interventions in emerging economies, where the poverty orientation will be more indirect, for instance by paying attention to pockets of poverty and to socioeconomic consequences of energy policies. Some examples: energy-access interventions will provide access to resources, i.e. energy, create opportunities for women, among others, and, for instance, facilitate the

use of energy to raise living standards. Energy-transition interventions in emerging economies will focus on generating data and evidence-based energy planning with a view to transitioning to sustainable energy that paves the way for a positive socioeconomic development. Here, the focus will be on giving everyone a *voice and influence* through the good-governance orientation described below. Thus, not all the five themes will pursue the same poverty approach, and bilateral and multilateral modalities of support give rise to different options in keeping with the how-to note on 'Fighting poverty and inequality'. Within all the themes, poverty and gender equality will be assessed in the context at hand in order to uncover all opportunities and risks. Women's participation in projects and programmes will be consistently examined.

**Good governance, data and transparency.** Introduction of renewable energy is often an occasion to establish a more dynamic energy market with opportunities for decentralised forms of energy, private investment (replacing public investment), as well as centralised auctions or tenders of energy production, distribution and trade. It may also lead to the dissolution or reform of major national energy corporations, which have enjoyed a historical monopoly and have gathered many functions under a single roof. There are powerful vested interests at play in such reforms. Price-setting, purchasing agreements of produced energy and possible use of 'feed-in tariffs' (FIT) are also complicated processes. There is a danger of corruption and of agreements not benefitting the countries and local populations and/or the bidding companies. There may also be a need to phase-out subsidies favouring fossil fuels, which are counterproductive as a social policy and disincentivise investment in renewable energy and energy efficiency. Transparency and good governance, e.g. in terms of a transparent, solid data foundation and analytical and strategic capacity, are crucial for a successful energy transition. Relevant and reliable data is also essential for optimal forecasts and planning of the green transition and for establishing and implementing high mitigation ambitions in the NDCs, as well as for stock-taking and reporting on emissions reductions as part of the commitments under the UN Framework Convention on Climate Change.

### **Reform of energy subsidies**

Denmark has supported the World Bank's energy sector programme ESMAP in setting up an 'Energy Subsidy Reform Facility' (ESRF) which helps governments to reform energy subsidies. Denmark was the first donor and administered, on behalf of the EU, a large donation to the facility. The ESRF has supported a host of complex reforms of energy subsidies in developing countries, including for Egypt to halve its energy subsidies and target them at low-income groups. Furthermore, Denmark has supported the international think tank IISD, in their work on energy subsidy reforms.

**Human-rights-based approach and principles.** The green transition will provide easier access to clean energy for millions of people and reduce pollution. However, it is not devoid of problems, and 'all that glitters green', is not necessarily good for everyone. Hydropower and large-scale solar and wind parks can have adverse impacts on local communities, indigenous peoples and the environment. Danish support for, in particular, multilateral banks and climate funds must help ensure *accountability* (and reflect on who are the duty bearers and the rights holders), as well as *transparent* national consultation mechanisms and consideration of everyone affected, based of international standards and

conventions. Potential negative impacts should be avoided, and positive derived effects in the local community should be identified out and boosted. Danish civil-society organisations may help build capacity among local groups of citizens, businesses and public institutions. It is important to ensure early involvement of the local community to prevent adverse effects. This may also contribute to overcoming any nimbyism that may delay the green transition. It is important to design, from the outset, procedures for how to handle environmental impacts, e.g. waste disposal of old electronics, windmill wings and solar cells. Denmark's human-rights-based approach (HRBA) charts the course with its principles of *participation* and inclusion, *accountability*, *non-discrimination* and *transparency* (PANT). As set out in the how-to note on 'Fighting poverty and inequality', the minimum safeguard is to take the 'do-no-harm' approach

### **Involvement of local communities**

CARE has piloted a model for rights-based partnerships between local communities, investors and authorities in the light of Vietnam's green energy transition. CARE is in dialogue with the Danish Energy Agency and Danish businesses (Vestas, Ørsted, CIP) and is looking into scaling-up opportunities with the investment firm Climate Fund Managers (Danish and Nordic support for Climate Investor One). This work is a good example of how UN guidelines for human rights and business can be adapted to a specific country context and contribute to a fair green transition.

**Employment and the green transition.** In a variety of analyses, both IRENA and the IEA have stressed the vast job potential of the green energy transition and zero-emission development pathways. A report from the Rockefeller Foundation estimates that annual investment of USD 130 billion in the 63 most energy-poor countries could create 25 million new jobs, of which 5 million would be created directly in the energy sector. There are already more employees in the decentralised solar-energy sector than in the traditional energy sector in Kenya today. Moreover, preliminary surveys show that there are proportionately more young people and women working in the decentralised energy sector. In future, it will be crucial to optimise the number of direct jobs in the energy sector, as well as the indirect and induced jobs. It will take more knowledge and surveys to enable prediction of the qualifications required and how young people and women, in particular, can have their skills upgraded to find work in the energy sector. Danish bilateral projects, multilateral banks and international climate funds will increasingly analyse and follow up on how new renewable-energy projects can create the highest possible number of local jobs.

### **Support for a fair transition in South Africa**

South Africa is among the top producers of coal. It is a major export good and the source of 90% of the country's own electricity production. There are about 90,000 employees in South African coal mines, 12,000 in coal-fired power plants, and 5,400 in the related transport sector. Even though this only amounts to 1% of the South African labour force, there is already a 30% unemployment rate in the country, and certain regions will be particularly hard hit when coal is replaced by greener energy. This is why it needs to be implemented alongside upskilling, job creation etc. The Danish Energy Agency, the Danish Embassy and certain investment ventures, e.g. in wind power, have contributed to preparing the ground for



investing specifically in more renewable energy. An upcoming Danish donation to the Climate Investment Fund (CIF) will also support the phase-out of coal in South Africa, and in collaboration with other Danish-supported multilateral funds like ESMAP and SEFA and against the background of a major plan for coal phase-out launched at the COP26 (with various bilateral donors, including the European Commission), called Just Energy Transition. The CIF support will also focus on decarbonising energy production, including an active phase-out of coal-fired power plants in Asia through the Asian Development Bank.

## **Annex 1: Definitions and framework**

**The UNFCCC, Paris Agreement and COP26:** The UN Framework Convention on Climate Change (UNFCCC) sets the framework for reducing greenhouse-gas emissions. Under the ‘Conference of the Parties’, COP21 in Paris in 2015, the parties agreed on a legally binding climate accord, the Paris Agreement. It sets an objective of limiting the average global temperature rise and making financial flows consistent with a low-emission society and climate-resilient development. The Paris Agreement commits the parties to present their Nationally Determined Contributions (NDCs) to the total reduction in the emission of greenhouse gasses, to be continuously updated or renewed. The COP26 in Glasgow in 2021 brought this framework further up-to-date. For instance, 1.5 degrees Celsius was affirmed as the upper limit of the temperature rise. The Paris Agreement Rulebook was finalised with solid rules for reporting and for implementing Article 6 on market mechanisms (a carbon market). COP26 also decided to have the NDCs updated at shorter intervals, which entails a more ambitious approach prior to COP27 in November 2022. For the first time, a specific text has been agreed upon regarding energy-transition measures, scaling down coal use and reducing ineffective fossil-fuel subsidies. Accordingly, towards COP27, the focus is on increasing global ambitions manifested in NDCs and in Long-Term Strategies, as well as through specific interventions to bridge the gap between action and goals. During the negotiations, the private sector and financial institutions placed a number of voluntary commitments and objectives on the agenda, with an overwhelming preference for net-zero targets (with a variety of target years). Coalitions and alliances in certain sectors, including shipping, expressed a strong readiness to decarbonise.

**UN Sustainable Development Goals 7 and 13:** SDG 7 seeks to provide everyone with reliable, sustainable and modern energy at an affordable price. It is divided into various targets: (7.1) Ensure universal access to affordable, reliable and modern energy services. (7.2) Increase substantially the share of renewable energy in the global energy mix. (7.3) Double the global rate of improvement in energy efficiency. (7.a and b) Enhance international cooperation to promote investment in renewable energy and new technology in developing countries and small island developing states. In September 2021, the UN High-Level Dialogue on Energy (HLDE) and SDG 7 agreed on a Global Roadmap to support an accelerated and action-oriented SDG 7 agenda aimed at implementing both the SDGs and the Paris Agreement. SDG 13 is about combating climate change, and also has a series of relevant targets, e.g. (13.2) Integrate climate change measures into national policies, strategies and planning.

**Mitigation:** This encompasses all human measures to limit and reduce greenhouse-gas emissions or to increase sequestration of greenhouse gases in the ecosystems. Among the measures are phase-out of coal-fired power plants, increasing the share of renewable energy in energy systems, decarbonising transport and heavy industry, and expanding forest areas that absorb more CO<sub>2</sub> from the atmosphere. Reducing methane in the air and CO<sub>2</sub> capture and storage (CCS) are also being increasingly highlighted as important mitigation opportunities. Renewable energy is a generic term for bioenergy, wind power, solar power, green hydrogen, geothermal energy, hydropower and other technologies that do not use coal or other fossil fuels, such as oil and gas. Energy efficiency, which should be systematically built into the development and design of cities, transport systems and buildings, is another important mitigation measure, as it lessens the demand for energy. Net-zero emissions are achieved when man-made CO<sub>2</sub> emissions are cancelled out by man-made CO<sub>2</sub> uptake. Both CO<sub>2</sub> emissions and CO<sub>2</sub> uptake count as actual or ‘absolute’ emissions (positive and negative), while ‘avoided’ emissions (e.g. when an investment in windmills is compared to an investment in business-as-usual fossil energy) are fictitious or ‘relative’ emissions that cannot be included in the net-zero accounts (but are obviously a part of the green transition).

**Energy sector:** The energy sector covers everything from producers of fossil fuels (coal, oil and gas from extraction to consumption) and renewable energy (wind, solar, hydropower, etc.) to actors in electricity distribution and trade (electric grid, decentralised solutions, buying/selling, etc.), energy for transport and for heavy industry, as well as more traditional use of biomass, firewood and charcoal. The energy sector also encompasses policies, legislation and regulations, including the authorities playing a role in this. Finally, it features a range of energy-service actors, including ESCOs (energy-service companies).

## Annex 2.

Selected objectives from Denmark’s Strategy for Development Cooperation ”The World We Share” and the Danish government’s long-term strategy for global climate action ‘A Green and Sustainable World’ have been highlighted and put together in the table below drawn up by the mitigation team at the Department for Green Diplomacy and Climate (GDK), using the official translations into English.

”The World We Share”	A Green and Sustainable World
Objective 2: Denmark must assume <b>international</b> leadership within reductions, green transition, and access to clean energy.	<p>The Government will work to <b>raise climate ambitions</b> and increase green transition efforts via green strategic partnership and collaborations with selected third countries, and via dialogue with priority countries for development cooperation.</p> <p>The Government will work to raise climate ambitions and promote action through collaboration with non-state actors, including municipalities, businesses, international organisations and civil society.</p>
Ensure access to <b>clean and renewable energy for more people in Africa</b> , to facilitate social and economic development as well as job creation.	The Government will give special priority to <b>green transition</b> and promotion of resilience in <b>Africa</b> by ensuring access to clean energy and clean water, and by supporting sustainable food systems.
Strengthen the Danish <b>SDG 7 leadership and energy cooperation</b> on green transition in developing countries, including promoting renewable energy and energy efficiency.	The Government will utilise <b>Denmark’s leadership for SDG 7</b> on sustainable energy with a focus on renewable energy, energy efficiency and access to energy to raise the level of global ambitions.
Promote <b>ambitious national climate action plans</b> that enable developing countries and growth economies to transition from fossil fuels to clean energy sources, particularly through coal phase-out.	
<p><b>Integrate renewable energy and reduction activities</b> with initiatives for climate change adaptation.</p> <p>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.</p>	<p>The Government will work for initiatives that promote and <b>coordinate climate, environment and biodiversity considerations</b>.</p> <p>The Government will strengthen responsible and deforestation-free value chains for agricultural goods in order to benefit the climate, biodiversity and social conditions in producer countries, and to reduce the Danish climate and environmental footprint.</p>

<p>Objective 3: Denmark must <b>increase mobilisation of finance</b> and promote green Danish solutions within climate, nature and the environment.</p> <p>Mobilise climate finance, in addition to development assistance, from private investors and pension funds, partly through the Investment Fund for Developing Countries (IFU) and the multilateral development banks.</p>	<p>The Government will mobilise more private capital for sustainable investments through innovative financing instruments and public-private partnerships.</p> <p>The Government will strengthen green economic diplomacy and promote exports of green solutions.</p> <p>The Government will, across all public authorities and in the 13 climate partnerships, cooperate with the Danish business community to create larger and more attractive markets for Danish solutions.</p>
<p><b>Redirect the global and national funding flows</b> from fossil fuel investments to green transition, climate change adaptation, as well as the environment and nature.</p>	<p><b>Making finance flows consistent</b> with a pathway towards low greenhouse gas emissions and climate-resilient development.</p>
<p><b>Promote favourable framework conditions</b> for green investments in developing countries, for example through innovative and stronger international cooperation in strategic sector cooperation.</p>	<p>The Government will work to <b>improve framework conditions</b> for the green transition through bilateral and multilateral efforts.</p>
<p><b>Reform</b> the IFU to ensure a greater number of economically and socially sustainable, green and responsible investments in developing countries, particularly in Africa and the poorest countries.</p>	<p>The Government will, through <b>active ownership of the Investment Fund for Developing Countries (IFU)</b>, create a clear green profile in IFU's investments.</p>
<p>Work to ensure that <b>the multilateral development banks contribute</b> to achieving the goals set out in the Paris Agreement. That they halt investments in fossil fuels, support countries' efforts to phase out fossil subsidies, and invest heavily in renewable energy and climate change adaptation.</p>	<p>The Government will work to promote and concretise the green <b>ambitions in the multilateral development banks' strategies</b> and across projects.</p>
<p>Ensure, through an active Danish engagement in Brussels and via Danish missions and embassies, that <b>the EU, as the world's largest development actor</b>, meets the ambitious goals for development cooperation in the climate and environment sector.</p>	<p>The Government will, as part of an intensified climate diplomacy effort, work to ensure that foreign, development, trade and relevant sector policies, as well as export and investment promotion efforts, systematically support the Paris Agreement and the SDGs, and are part of a coordinated effort bilaterally, multilaterally and via the EU. The Government will work to <b>strengthen the EU's climate diplomacy</b>.</p>
<p>Demand that our partners – from multilaterals to civil society – focus specifically on their climate and environmental footprint, as well as their social responsibility, including gender equality. This must promote, for example, greener and more sustainable procurement.</p>	<p>The Government will work for a <b>socially just global green transition</b>, in which civil societies – particularly vulnerable groups and young people – are involved in shaping the green future.</p>

