

DAI helps communities in Vietnam reduce carbon emissions associated with deforestation, the degradation of natural forests, and poor plantation management.



The international community is starting to recognize the urgent need to decarbonize, but progress remains slow, with global greenhouse gas emissions continuing to rise. As the world recovers from COVID-19, there is a risk that governments and companies may revert to carbon intensive business-as-usual, rather than developing and deploying policies for a green recovery.

There are some positive signs. There are indications that oil production may have <u>peaked</u> in 2019, and the cost of technology used in renewable energy generation has dropped significantly in the past decade. Governments are also starting to respond more urgently to the climate emergency; the United States, European Union, and the United Kingdom have vowed to cut emissions by 50, 68, and 55 percent, respectively, by 2030. But these targets can only be achieved if backed by credible strategies and implementation of action plans.

DAI has been supporting communities, businesses, and governments to take affirmative action on climate change for more than a decade. Through our work on mitigation we have identified five areas that are critical for the successful implementation of interventions: policy, equitable transitions, technology and innovation, knowledge and learning, and finance. In this document we highlight these areas and how each, from our experience, provides an important element of inclusive and sustainable mitigation interventions.







\$2.6 Million INVESTED

The Jordan Competitiveness Project mobilized \$2.6 million in investments for clean concret. energy.



# DAI's Commitment

In 2015, world leaders signed the Paris Agreement, a legally binding treaty committing its signatories to tackle global warming and cut greenhouse-gas emissions.

The <u>Paris Agreement</u> provides a guiding framework to reduce emissions globally through nationally determined contributions and longer-term strategies. Signatories also agree to a rigorous monitoring regime, with an enhanced transparency initiative kicking in by 2024.

The ultimate goal is to limit global temperature increases to well below 2°C—preferably to 1.5°C; the challenge now is to ensure countries are following the trajectory outlined by the Paris Agreement and sharing practical examples of how to achieve this goal as quickly as possible.

DAI works with development partners, governments, businesses, and communities to reduce greenhouse gas emissions. Not only are we directly involved in supporting climate adaptation and mitigation, but we also look for opportunities to mainstream low carbon development pathways through the projects we design and deliver around the world.

In 2021, DAI signed up to the <u>Science Based Targets Initiative</u>, committing us to submit science-based targets for emission reductions across the business. Our net-zero targets will be set in line with the Paris Agreement.



### **CLIMATE MITIGATION FOCUS AREAS**





### **POLICY**

All companies and governments (national and local) should have a clear understanding of their greenhouse gas emission footprint, and a stated policy on how they will reach Net Zero in line with the Paris Agreement. Understanding current and future emissions through greenhouse gas inventories is an important first step. Policies then must be put in place that clearly, and rapidly, provide a pathway to reduce emissions in all sectors and through supply chains. Knowing current emissions will also help companies and governments prepare for future global carbon taxes, emissions trading schemes or other emission-capping interventions. Effective policies can also drive change in areas that are ripe for disruption (such as off-grid renewables) or where energy efficiency can be achieved. Transparent and robust monitoring and reporting of emissions will also help drive investments as climate impact is increasingly required within financial disclosures.



**EQUITABLE TRANSITION** The rapid transition to new, lower-carbon development pathways poses significant challenges. Poorer communities, marginalized groups—including women and girls—and people with jobs linked to carbon intensive industries and older technologies are particularly vulnerable. We must ensure that access to clean energy is not achieved at their expense; for example, by increasing the cost of traditional fuels through carbon taxes while alternatives remain too expensive for those on lower incomes. Skills linked to high-emitting sectors should be made transferrable to low-carbon sectors through capacity building and training, ensuring that the opportunities created by the transition are inclusive and fair. Crucially, developing economies must not become sinks for legacy technologies; they, too, should benefit from green growth through technology transfer.



### TECHNOLOGY AND INNOVATION

The past decade has seen a proliferation of low-carbon technologies. However, to accelerate our progress, we must see more funding for research and development. Demand is growing for innovation in renewable energy, for the rollout of fuels such as hydrogen, for increased energy storage in batteries and through smart grids. We need new and alternative technologies in sectors such as heating, cooling, agriculture, and construction. We must continue to improve existing technologies in renewable energy, transport and storage, and we need to evolve supply chains to service these new sectors, with associated training and capacity development. Finally, national and international standards ensure interoperability, safety, and optimal efficiency.



### **FINANCE**

Funding for mitigation actions has been slow to meet the need, particularly in emerging economies. Funds have tended to focus on a small number of mainly high and middle-income countries. There is logic to those investments, as these countries are typically proportionally larger emitters. However, we need to ensure that all countries are given access to finance so that they are not left behind. At the macro-level, models such as climate or green bonds can help to finance significant investments. Financial institutions also need to support the development of new funding products and packages that will promote the uptake of technologies at the household level and with small, medium and micro enterprises.



### **KNOWLEDGE AND LEARNING**

Sharing knowledge on best practice and innovations in clean technologies is essential to reducing global emissions. Innovations within supply chains should be supported and encouraged, with customers, regulators and financiers demanding higher carbon performance. Developed economies, which already have mechanisms and platforms set up to facilitate learning and development, should be encouraged and assisted to make these mechanisms accessible to low- and middle-income countries. While many new technologies are piloted and scaled by the private sector, governments play a role in incentivizing technology development and knowledge transfer through finance and policy measures. This needs to be encouraged.



# POLICY SELECT PROJECTS

Over the past decade, DAI has led two regional programs—Clima East (2012–17) and Clima Med (2018–22)—better enabling governments in the EU Neighborhood regions to reduce emissions and deal with climate change impacts. Our teams provide expertise to help them create climate change and low-carbon development strategies, ensuring that climate is mainstreamed into policy-making processes.

# **European Neighborhood Policy Eastern Partnership Countries: Clima- East—Support to Climate Change Mitigation and Adaptation**

- Evaluated the environmental and economic effectiveness of existing and proposed policies, strategies, and market-based mechanisms.
- Supported national stakeholder consultations, policy making, and drafting of national adaptation and mitigation strategies. This included supporting greater ambition in the nationally determined contributions submitted ahead of COP21 in Paris, 2015.
- Increased capacity for climate change vulnerability and impact assessments, and adaptation planning.
- Helped develop key components of national emissions trading schemes for alignment with the EU's Emissions Trading System.
- Helped partner countries define and develop low-emission development strategies.

Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine 2012–2017 European Union

## European Neighborhood Policy South Countries: Clima-Med—Acting for Climate in South Mediterranean

- Providing policy recommendations for assessing the impact of climate change on the agriculture sector in the southern Mediterranean.
- Helping develop 28 municipal sustainable energy action plans across all partner countries, along with five Sustainable Energy Access and Climate Action Plans. Ninety-four additional cities are also preparing these plans.
- Developed a financing strategy analysis for the region and the European Investment Bank.

Algeria, Egypt, Israel, Jordan, Lebanon, Morocco, Palestine, and Tunisia 2018–2022

**European Union** 



# **EQUITABLE TRANSITION**SELECT PROJECTS

As we transition to new technologies in energy and industry, we need to ensure that the progress from high emissions to low carbon is achieved with the creation of green jobs, and that vulnerable communities are not left behind, is critical for sustained progress. Two of our projects in Mexico and Mozambique are working in this space.

# Supporting the Policy Environment for Economic Development (SPEED, SPEED+, SPEED III)

The flagship <u>SPEED</u> program is focused on economic policy reform, particularly private sector engagement, and works extensively in the energy sector.

- Supported the National Energy Fund (FUNAE) to develop its 10-year off-grid energy strategy focused on electrification clusters, hybrid infrastructure for liquid and renewable fuels, and solar for productive applications in water provision and agriculture.
- Collaborated with FUNAE to hold a private sector investment roadshow following the
  publication of its Renewable Energy Projects Portfolio—hydro and solar—which highlighted
  190 investment-ready off-grid projects totaling 108MW and 150,000 connections.
- Helped FUNAE use a gender-informed approach in sustainable energy project development to support equal access to electricity.
- Conducted a gender audit to assist Electricidade de Moçambique to reach its objective to have 40 percent female staff by 2030 and more women in leadership and technical roles.
- Supported the Ministry of Mineral Resources & Energy to develop the new Electricity Law to facilitate reaching universal access by 2030.
- Supported a proof-of-concept activity to access commercial bank financing to convert private water systems to solar pumps instead of costly diesel gen-sets; worked closely with Southern Africa solar-home systems providers entering the Mozambique market to align pay-as-you-go models with the economics of private water service providers.

Mozambique 2010-2026 U.S. Agency for International Development (USAID)

### **Mexico Clean Energy Program**

In Mexico, DAI is supporting the U.K.'s Foreign, Commonwealth & Development Office (FCDO)'s <u>Energy Program</u> to promote energy-driven, low-carbon growth while reducing poverty and supporting socially inclusive growth, by addressing key market failures in the energy sector.

- Matching U.K. capabilities with identified Mexican market needs through capacity building and sharing best practice across workforce, supply chains and regulatory institutions.
- Helping the local workforce develop transferable skills and gain international certifications to meet energy sector demand.
- Analyzing the future job market and the competencies that Mexican enterprises will need to support the national electromobility industry.
- Raising awareness of the importance of increasing job opportunities in the energy sector for women, low-income populations, and other vulnerable groups.

Mexico 2019–2023 FCDO



# TECHNOLOGY AND INNOVATION SELECT PROJECTS

In Vietnam, DAI is tackling two different aspects of mitigation. Our <u>urban energy</u> <u>security program</u> promotes renewable energy through investments in the sector, ranging from solar panels to energy-efficient vehicles. We will be raising at least \$600 million from private and public sources to meet the project's energy goals. DAI's <u>sustainable forestry program</u> focuses on lowering emissions related to deforestation, natural forest degradation, and poor plantation management.

### **Urban Energy Security**

- Deploys challenges and competitions to engage private sector actors with innovative ideas by funding pilots and proofs of concept. Supported technologies include energy storage to smooth demand peaks, rooftop solar, energy efficiency, or electric public transit.
- Uses blended finance approaches for new energy project development.
- Mobilizes public and private sector investment for the deployment of advanced, distributed energy systems.

Vietnam 2019–2023 USAID

### **Sustainable Forestry Management Program**

- Developing inclusive co-management models with community forest management groups and subnational partner agencies to improve forest governance and provide technical assistance.
- Piloting and rolling out the national carbon payments for forest environmental services program—an initiative to generate revenue for forest management.

Vietnam 2020–2025 USAID

### **Jordan Competitiveness Program**

The <u>program</u> sought to boost the competitiveness of Jordan's economy, working with policymakers, businesses, and the private sector.

- Analyzed the clean energy sector, which revealed significant economic potential through increased efficiencies and opportunities for job creation.
- Promoted renewable energy transitions, including working with the <u>electric</u> <u>vehicle industry</u>, building the first solar station to charge electric vehicles.
- Developed the regulation required to capture and sell solar-generated electricity at charging stations.
- Helped negotiate partnerships for private sector investment in charging stations.
- Trained 800 engineers and technicians in clean energy technologies.
- Created a business incubator to support entrepreneurs and mobilized \$2.6 million in investments for clean energy.

Jordan 2013–2019 USAID

# PolSEFF won an EBRD Sustainability Energy and Climate Change Award for achievements in supporting SMEs in their initiatives to increase energy efficiency and apply energy from renewable

# FINANCE SELECT PROJECTS

Governments are struggling to create the fiscal space to drive green growth, particularly as countries start to emerge from the COVID-19 pandemic. They need support in developing new approaches to fund initiatives that will help to build back better. Furthermore, a lack of capital can hinder businesses' uptake of sustainable and efficient energy technologies and practices. Financial institutions need assistance to ensure loan products are targeted effectively, while businesses require the necessary infrastructure and know-how to use them. We have helped deliver projects that support governments to raise capital and the expansion of products from financial institutions for small and medium-sized enterprises (SMEs) to access.

### Macro-Economic Stabilization and Reform

The Macro-Economic Stabilization and Reform (MESR) project addresses Egypt's macroeconomic challenges and sets the stage for broad-based economic growth and the achievement of the Sustainable Development Strategy 2030. Both the Government of Egypt and the private sector had been considering the issuance of green bonds to diversify funding sources and unlock finance for projects at a lower interest rate against traditional means of funding. In late 2020 the MESR project supported the Ministry of Finance and the Ministry of Planning and Economic Development to launch Egypt's first 'Green Bond', developing manuals and communications materials ahead of the launch

- This was an international standard sovereign Green Bond offer on the London Stock Exchange valued at \$750 million over a fiveyear term—the first of its kind in the MENA.
- Revenues from the Green Bonds will be used to finance ecofriendly green projects, helping to achieve the country's sustainable development plans for clean transport, renewable energy, and energy efficiency. This financing will also be applied to sustainable development protocols for water resources and sanitation.

Egypt 2018–2023 USAID

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### Sustainable Energy Financing Facility

DAI has supported MorSEFF since it was initially established as the South Eastern Mediterranean Sustainable Energy Finance Facility for on-lending to private-sector borrowers (including small firms and households) to create a sustainable market for energy investments. This initiative was extended as the Morocco Sustainable Energy Finance Facility from 2015 to 2019. A new €110m facility (2018–2022) has since been created to focus on energy performance standards in buildings, appliance standards, and labeling.

- Promoting the use of renewable energy sources and resource efficiency in Morocco in line with the objectives of the EU Neighborhood Strategy.
- Developing the capacity of local financial institutions to appraise and finance energy efficiency and small renewable energy investment projects.
- Developing capacity of local engineers to identify and prepare technically feasible and financially viable projects.
- Assisting industrial enterprises, small firms, agribusinesses, commercial service providers, and residents to prepare projects for sustainable energy investments.
- Supporting the development of a local production base for energy-efficient and renewable energy technologies—thereby stimulating innovation, local research, and employment.
- Screened 375 projects to determine viability and conducted more than 60 energy assessments.
- Assisted with energy efficiency savings and renewable energy production targets for the business we were working with, achieving greenhouse gas reductions of 105,669 tCO2/ annum and energy savings of 401,162 MWh/annum as of September 2020.

Morocco 2013–2021

European Bank for Reconstruction and Development (EBRD)

### SME Sustainable Energy Financing Facility (POLSEFF I, II)

DAI helped create a market for efficient energy investments by Poland's local businesses by training financial institutions to appraise and finance sensible energy projects and local experts to assist SMEs in identifying and preparing feasible, bankable projects. Following the success of the first phase of the program, PolSEFF II provided a new energy efficiency credit line through local participating financial institutions.

- Supported the launch of green loan products by 15 Polish banks.
- Financed more than 60 comprehensive sustainable energy projects.
- Realized primary energy savings of 30,723 megawatt hours a year and avoided CO2 emissions of 15,332 tons a year.
- Trained 252 loan officers, 130 local engineers, and 353 small and medium-sized enterprises.

Poland 2010-2018 EBRD





# KNOWLEDGE AND LEARNING SELECT PROJECTS

We need to ensure that innovation and best practice are shared throughout the global community, connecting governments and the private sector with what has worked, and what has not, across different sectors and geographies. DAI is committed to capturing and sharing knowledge effectively and ensuring that newly acquired learning is applied to sustain and improve development.

### Renewable Energy Program

DAI is working with the Government of Nepal to build its capacity to lead and manage the National Small Scale Renewable Energy Framework—a vision for off-grid electricity and clean cooking. The <u>program</u> assists government agencies and the private sector to increase investment in renewable energy technologies, and ensures that there is an enabling governance, policy, and regulatory environment.

- Building government capacity at federal, provincial, and local levels to lead and manage the National Renewable Energy Framework in the context of the transition to federalism and market-based approaches to energy access.
- Strengthening the capacity of the Central Renewable Energy Fund to manage and spend climate finance.
- Supporting the implementation of renewable energy supply, demand, and finance interventions.
- Generating and sharing policy evidence and market intelligence to strengthen Nepal's renewable energy sector.
- Developing networks of partners in the sector to facilitate knowledge sharing and learning.

Nepal 2019–2023 Client: FCDO



### Support the Secretariat of the Global Covenant of Mayors for Climate and Energy

The Global Covenant of Mayors (GCoM) for Climate and Energy Initiative was founded in recognition of the crucial role cities and towns play in managing and mitigating climate impacts, and how knowledge sharing and coordination can yield progress. As of 2020, more than 10,000 cities from 138 countries across six continents are signatories. The GCoM is committed to finding solutions and innovations which an help deliver major cuts in emissions while considering how urban areas are planned, built, and used. DAI provides support to the GCoM in Brussels, facilitating communication and knowledge sharing between members to encourage the exchange of good practice and experience.

- Developing coordination mechanisms between regional and global covenants to improve coherence across activities.
- Developing the GCoM's IT and database infrastructure to provide a cohesive and accessible platform for data collection, analysis, and storage.
- Providing coordination and technical support through helpdesks and training aligned to the EU's bilateral climate and energy dialogues.
- Facilitating the exchange of ideas between European municipalities and those in partner countries.
- Developing concepts for public-private partnerships between cities and the private sector.
- Organizing events to enhance the international visibility of the GCoM.
- Developing coordination mechanisms between the regional and global covenants to align their activities.

Worldwide 2020–2024 European Union

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