

INDUSTRY DECARBONIZATION PROGRAM

Industry is one of the leading sources of carbon emissions - and may become the biggest source in less than a decade unless investments in zero-carbon alternatives are rapidly accelerated. In the pathway to net-zero, carbon emissions from heavy industry need to decline by 20 percent by 2030 and by 93 percent by 2050.¹

CIF's Industry Decarbonization Program is accelerating the transition of high-emitting industries in developing countries to more sustainable practices and unlocking investments in net zero-carbon, climate-resilient business models and technologies.

THE CHALLENGE: INDUSTRY IS POWERED LARGELY BY FOSSIL FUELS, BUT CLEAN TECHNOLOGIES CAN BE COSTLY TO DEPLOY

The rapid growth of industrial emissions was driven by economic development in the developing world. While some industrial emissions reductions have been achieved through increases in energy efficiency and renewable energy uptake, many industries still rely on fossil fuels for processes requiring high-temperature heat.

Large investments are required in clean technologies that are not yet commercially viable, such as the use of hydrogen as a heat source and the electrification of industrial processes. By 2050, around 60 percent of heavy industry emission reductions will need to come from proven technologies that are not currently market-ready.² Supporting industrial policy and institutional reforms also need to be strengthened. While many countries have taken important steps, progress has been slow, particularly on policy implementation in areas such as energy-efficient regulation and climate-governance standards for financing.

2 IEA. 2022. Industry. Paris: IEA.
<https://www.iea.org/reports/industry>.



DECARBONIZING INDUSTRY IS A DEVELOPMENT OPPORTUNITY

The Industry Decarbonization Program has the potential to transform the carbon-emissions pathway of high-emitting, hard-to-abate industry sectors in developing countries and to demonstrate the kind of change that can be replicated in similar sectors in those countries. It could facilitate the shift of the industrial sector to sustainable practices and unlock investments needed to move it onto a net zero-carbon, climate-resilient investment pathway.

HOW DOES THE INDUSTRY DECARBONIZATION PROGRAM WORK?

CIF's Industrial Decarbonization Program works across multiple levels — industrial facility, technology, corporate, sectoral, and national. It finances technical assistance and investments to:

- Facilitate cooperation between governments and the private sector to commercialize clean technologies and business models, deploy them across supply chains, and bring down costs.



- Engage investors on renewable energy projects and lead industry sectors to low-carbon pathways.
- Strengthen climate policies and governance, increase access to green financial markets, and improve monitoring, reporting, and verification.

FOSTERING RESILIENCE IN DEVELOPING ECONOMIES

The transition to a green economy is creating new economic and social development opportunities. There is major potential for the growth of industrial energy efficiency in developing countries, and the investments needed to accelerate net zero-carbon and climate-resilient transition are significant. Early and accelerated action could prevent the lock-in of inefficient, high-polluting technologies that could block these climate friendly investments over the long term – which would build economic resilience into the growth trajectories of these economies.

Through the Program, CIF will help MDBs deliver innovative concessional financing to drive investments to solutions in multiple industries. Its aim is to support MDBs and the private sector in the design and implementation of innovative financing instruments and strategies that cater to context-specific needs and can accelerate a socially inclusive transition.



A MULTI-LEVEL APPROACH

The Program will reduce system-wide barriers to investment in net zero-carbon, climate-resilient business models and technologies through the targeted use of concessional finance, and the combination of technical assistance and investment support. Following the proven CIF model, the Industry Decarbonization Program is expected to mobilize significantly more than its initial spend, in additional investments from governments, financial institutions, and the private sector.

Program activities will be implemented on multiple levels:

- At the facility and technology levels, the Program will provide concessional resources to support specific innovative technologies and practices that are at the edge of commercial viability or have achieved viability but are not yet used at a large scale.
- At the corporate and sector levels, Program activities will support climate governance and strategies through policy dialogues, capacity building, and technical assistance; the integration of climate considerations into decision-making; and the deployment of climate technologies across industrial operations and supply chains.
- At the national and regional levels, the Program will facilitate dialogues on climate-resilient pathways and the implementation of supportive policy, such as energy-efficient regulation or climate-governance standards for financing.
- Finally, in the fields of monitoring, reporting, and verification, activities will focus on improving current practices and organizing sector participation in national and internal policies, including through accessing green financial markets, as well as internal domestic and international climate markets.

WHY CIF?

As a global leader in climate finance, CIF is positioned to drive a transformation in industrial decarbonization. With a tested business model based on a country-led, programmatic, and participatory approach involving multiple MDBs, civil society organizations, and the private sector, we pilot and scale cutting edge climate solutions and innovations to those nations bearing the brunt of the climate crisis.

CIF has been helping low- and middle-income countries adapt to and mitigate climate change since 2008 - channeling more than US\$62 billion from governments, the private sector and others to support more than 400 projects in 72 countries. The CIF approach helps to stimulate local economies and kickstart new markets in partner countries. Our programs act as a catalyst to crowd in additional private sector finance, with an average co-financing ratio of 1:8. The Industry Decarbonization Program will build on this heritage and experience.



INVESTMENT AREAS

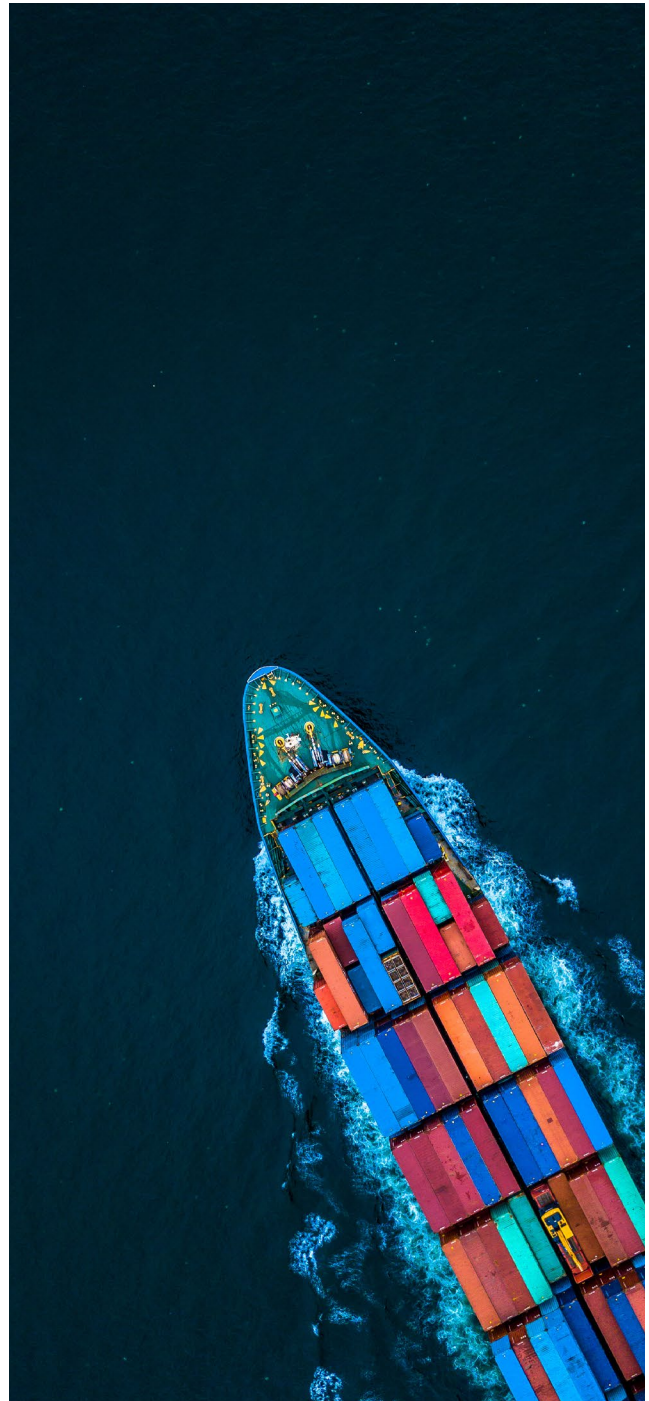
CIF's Industry Decarbonization Program will finance priority actions and investments that reduce the climate impact of and foster climate resilience in high-emitting industries, including cement, iron and steel, chemicals, aluminum, and pulp and paper. For instance, this could include support to decarbonize the cement sector, move towards zero emission shipping, accelerate the uptake of Cooling as a Service (CaaS), install waste heat recovery systems, integrate low-carbon hydrogen, and develop eco-industrial parks.

- **Zero Emission Shipping:** Transformational change is needed to decarbonize and move to zero emission fuels and technologies in the shipping sector. Technologies include improving the energy efficiency of ship engines and shifting from heavy fuel oils to zero-emission alternatives such as hydrogen fuel cells and electric motors, or hydrogen and ammonia used in combustion engines.

To achieve this, CIF's programmatic model in the clean energy sector can be deployed in the maritime industry to provide the financing needed at scale, along with support for enhancing regulatory and policy frameworks, designing incentives for innovative clean technologies, and building sector capacities.

- **Decarbonizing Cement:** Cement is required to produce concrete, which has seen a threefold increase in its use per capita since 1980. According to industry analysts 30 billion tonnes of cement is used globally per year in. Manufacturing cement releases about 600 kilograms of CO₂ per tonne. Moreover, the direct CO₂ intensity of cement production has increased, by about 1.5 percent a year between 2015 and 2021, whereas 3 percent annual declines to 2030 are needed to get on track with the Net Zero by 2050 scenario.

Developing alternatives, recycling existing material, and deploying carbon capture technologies could all be part of the industry's transition, but these are capital intensive. Therefore, CIF applies finance at scale to spur innovation and de-risk new technologies, while catalyzing additional investments from MDB, the private sector, and other partners.



THE CLIMATE INVESTMENT FUNDS

c/o The World Bank Group
1818 H Street NW, Washington, D.C. 20433 USA

Telephone: +1 (202) 458-1801
Internet: www.cif.org



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