

CTCN

ESBN1 Roundtable: Strategies on Reducing and Utilizing CO2 for Cost Effective Business

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UNEP-CTCN technical assistance



- CTCN promotes the accelerated transfer of environmentally sound technologies for low carbon and climate resilient development at the request of developing countries.
- We provide technology solutions, capacity building and advice on policy, legal and regulatory frameworks tailored to the needs of individual countries.
- Three core services :
 - Providing technical assistance at the request of developing countries to accelerate the transfer of climate technologies;
 - Creating access to information and knowledge on climate technologies.
 - Fostering collaboration among climate technology stakeholders via the Centre's network of regional and sectoral experts from academia, the private sector, and public and research institutions

UNEP-CTCN technical assistance (cont.)



< Type of the technical assistance services >

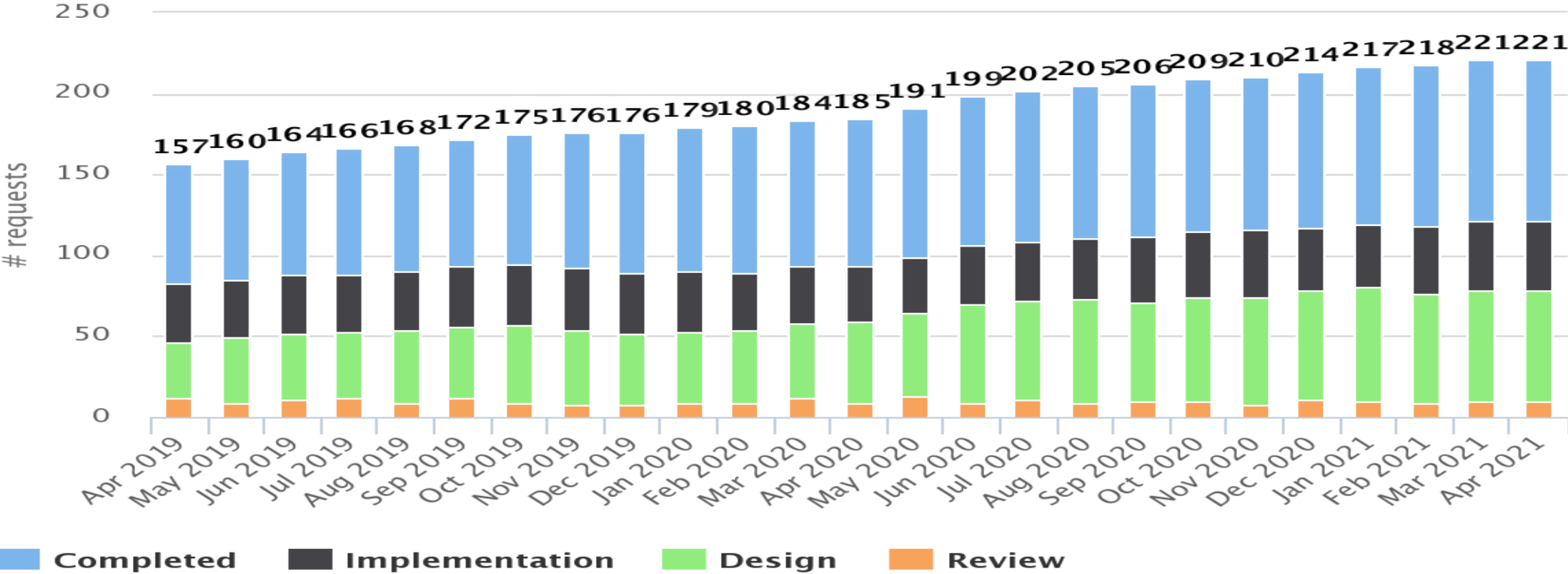
- Decision-making tools and/or information provision
- Feasibility of technology options
- Financing facilitation
- Piloting and deployment of technologies in local conditions
- Private sector engagement and market creation
- Technology identification and prioritisation

What is Technology - IPCC

- Hardware
- Software
- Organizations / Institutions

CTCN technical Assistance

Requests by stage (past 24 months)



Highcharts.com

TAs – Related to CCU – Example of South Africa

Substantial GHG emissions reduction in the cement industry by using waste heat recovery combined with mineral carbon capture and utilization – South Africa

- Analysis of chemical components of exhaust gas from an existing cement kiln and concrete wastes such as concrete sludge to make a recommendation of appropriate reaction conditions and to estimate its operational cost. GHG reduction calculated by estimating the recycled volume of the waste.
- Financial assessment of domestic market demand and value for the bi-products from cement production (mainly in the form of calcium carbonate) and use of this information to calculate the GHG marginal abatement costs of the mineral carbon capture and utilization technology.
- Development of a business plan and strategic recommendations for commercial application of the analyzed technologies.

Example Lao PDR

Developing a power to gas masterplan in Lao PDR

- Analysis of the quantum of hydrogen which can be produced using excess hydro power
- Assessments of technologies to utilize the CO₂ from cement plants to chemically combine with hydrogen produced - methane generation
- Use of methane in the transport sector

Development of masterplan for further detailed and actionable roadmaps, strategies, and action plans to create regulations and other policy measures to support the development and management of production, storage, distribution, and usage of green gases produced via the power-to-gas technology

Example - Vietnam

Feasibility study for Carbon Mineralization by using CO₂ issued from coal power plant for recycling ash slag in Cao Ngan coal power plant

- Implementing feasibility study and synthesize the report, including evaluation at Cao Ngan Thermal Power Plant, on the transfer of ash - slag treatment technology by carbon mineralization method
- Detailed design of the pilot plant with a demonstration of the carbon mineralization technology, including drawings, capacity, location and estimated cost, etc.
- Developing a plan for monitoring and observing the implementation of the project with a demonstration of the technology

CTCN Approach towards the project/initiative

- CTCN is open to enhance collaboration and partnerships
- Strong network of institutions – over 650 institutions
- Focus on transformative technologies and Innovation as guided by the Technology Framework of the UNFCCC
- Climate Technology Focal points in over 160 countries – Nationally Designated Entities.
- Sharing of Knowledge, experience and lesson learnt and capacity building .
- Scale up through Financing Mechanisms under climate convention



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