

# “Technology Cooperation to Advance New Markets and Strengthen International Climate Action” – Workshop Summary –

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*20 November 2019*

On behalf of the Federal Ministry for Economic Affairs and Energy (BMWi), the German National Designated Entity for technology transfer, NDE Germany, invited representatives from German industry, ministries and facilitators to a technical discussion at the BMWi in the run-up to the COP 25. Together they discussed how global cooperation for climate protection can be advanced and what opportunities the UNFCCC technology mechanism and the market mechanisms of the Paris Convention under Article 6 provide for German industry.

Interviews with German industry representatives, which the NDE office carried out prior to the workshop, had shown that technology cooperation is considered to be indispensable for meeting the global climate target. Most of the surveyed representatives expect a significant increase in the share of climate-neutral technologies in the overall export portfolio of their companies. However, companies are encountering considerable barriers and the need for advice is high. This is especially true for the potential use of future market mechanisms under Article 6 of the Paris Convention (which was not concluded at COP25). Further lock-in effects are feared if progress on the design and implementation of these mechanisms, technology transfer and financing contributions are not accelerated, especially in developing and emerging countries for durable industrial goods such as energy and industrial plants with a life span of several decades.

As significant challenges in climate technology transfer, poorly targeted financing options, especially for smaller start-ups and municipalities, unreliable and in some cases non-existent framework conditions abroad, lack of capacities and knowledge, for example in local government authorities and the local banking sector were mentioned by the business representatives surveyed. Missing investment security also leads to comparably higher costs in project development and financing and thus in the subsequent technology transfer. A better understanding of project and technology assessments also increases the banks' risk assessment, so that the global cash outflow of funds for climate financing can be improved.

Mr. Schick, from the Agency for Business and Economic Development (AWE), which advises companies and associations on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ), mentioned that BMZ is increasingly working with its partner governments to reduce such investment hurdles. BMZ supports the establishment of sustainable framework conditions and structures in cooperation with these governments, so that investors find a sufficiently good investment climate. AWE was created to provide companies with holistic information on the numerous support services and available financing options, including climate-relevant technology transfer, and to advise them, for example, on market entry opportunities. Moreover, AWE works on

various formats of networking activities to bring together companies, investors, government representatives and private clients.

In addition, the tasks of the operational arm under the UNFCCC Technology Mechanism remain of high importance. The Technology Mechanism consists of the Climate Technology Centre & Network (CTCN), the Technology Executive Committee (TEC) and the National Contact Points for Climate Technology Transfer (NDEs). The experience and information gained here, e.g. on the comprehensive technology needs assessments (TNA)s in developing countries, should be built upon, emphasised Ms. Kotin-Förster of the NDE Germany office. The industry representatives interviewed expressed the wish for very specific information on best practice examples of successful cooperation, financing possibilities and local framework conditions. Dr. Weddige of thyssenkrupp AG also mentioned the positive effect of matchmaking activities and the strategic and technological information as well as databases which are provided by the TEC and their accessibility via NDEs. "Good local contacts are an important success factor in technology cooperation" was also confirmed by Mr. Kiesel, who reported on the experience of hydroc GmbH in cooperation with CTCN in the context of a project to develop a flood warning system in Tbilisi, Georgia.

When designing the new market mechanisms under Article 6, the lessons learned from the Clean Development Mechanism (CDM) in terms of climate benefits, bureaucracy, credibility, transparency and sustainability should be taken into account. Mr. Hauser, from Agora Energiewende also emphasised that international market mechanisms must be an important element in implementing an efficient transformation of the global energy system.

This means, on the one hand, that the structural change which will occur in exporting countries as a result of declining demand for fossil fuels can be absorbed through international cooperation and trade of internationally transferred mitigation outcomes (ITMOs). Without suitable mechanisms for a global "Just Transition", instruments for socially acceptable change will be missing. In addition, it must be avoided that fossil fuels are diverted to other uses and rebound effects occur.

On the other hand, this also means that through Article 6 and international cooperation renewable and strategically important value chains such as Power-to-X can be established. The participants agreed that this global perspective opens up opportunities for the German economy, especially if Germany leads by example and with innovative concepts.

Ms. Ahlberg from the Federal Ministry for the Environment (BMU) presented various current project examples of the BMU in developing and newly industrializing countries on the use of innovative sectoral designed market and financing mechanisms. The projects aim at enabling the transfer of technology and knowledge to these countries and should support developing countries to achieve their reduction targets. Since it is still unclear to many developing countries how they can use market mechanisms to meet their long-term climate goals, developing countries have been [KS1]reluctant to sell emission rights. Several workshop participants experienced first-hand that developing countries often do not have sufficient capacities and data bases to define realistic baselines yet. However, this is important because, unlike in the CDM, where the Executive Board took on the role of the monitoring body, the responsibility now lies with the countries. Ms. Ahlberg also emphasised that under the CDM, Germany has benefited from technology transfer beyond certificate trading: "Research projects have shown that German technologies were used in 17 percent of CDM projects (especially energy efficiency projects in households, wind energy, nitrous oxide (N<sub>2</sub>O) reduction and partly fluorinated hydrocarbons (HFCs))".

Mr. Wolke from the German Federal Environment Agency (UBA) explained that many outstanding negotiation points will have to be clarified at COP25, e.g. the extent to which market mechanisms can lead to increased ambition, the definition of the baseline for reduction units, and the procedure for avoiding double counting. In his view, three pillars are relevant for the future use of the mechanisms: the host states must be market-ready, the demand side must receive an added value (e.g. through certificates), and environmental integrity must be ensured by robust crediting rules and the avoidance of double counting of emission certificates.

An important point of discussion arose from the fact that the distribution of certified emission credits via the mechanisms of the Kyoto Protocol (CDM and Joint Implementation) would continue, although there are virtually no new projects and demand is maintained by several support instruments and the voluntary market. Negative effects on any Article 6 mechanisms should be avoided.

Mr. Krey from perspectives summarised the major risks and uncertainties for the private sector regarding the price development for CO<sub>2</sub> as a result of supply and demand: "What is already apparent is that the design of the market mechanisms under Article 6 of the Paris Convention will become much more complex than with the CDM". Countries will have to establish national MRV systems for the verification of their NDCs. Krey also cited forecasts by the International Emissions Trading Association (IETA) according to which market mechanisms could be used from 2020 onwards to the extent of up to 4.3 GtCO<sub>2</sub>eq in 2030. Canada, Japan, Liechtenstein, Monaco, New Zealand, Norway, South Korea and Switzerland have already started Article 6 pilot projects. Industrialised countries are greatly interested in using market mechanisms.

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