

U.S. Department of Commerce
Renewable Energy and Energy Efficiency Advisory Committee
Charter 6, 2020-2022 ● Recommendation Fact Sheet

Recommendation #12 [Approved May 12, 2022] on Creating an AgTech Decarbonization Export Initiative in Latin America and Africa

We recommend that the Secretary establish the “AgTech Decarbonization Export Initiative,” to raise awareness among agricultural project managers and agricultural cooperatives primarily in Africa and Latin America of available climate-smart agricultural technologies from U.S. suppliers. In particular, the initiative would focus on coupling AgTech with renewable energy and energy efficiency-related solutions capable of materially improving agricultural productivity while sustainably managing the trajectory of greenhouse gas (GHG) emissions from emerging market agricultural production and distribution. Key U.S. AgTech areas could include but are not limited to: renewable fuels, advanced fertilizer production and distribution, cold storage facilities, agricultural production shipping logistics, and distributed renewable power generation and storage capable of powering small- and medium-scale agricultural equipment, and food and product manufacturing facilities, including greenhouses.

Sub-Committee: Global Decarbonization

Background Information:

Agriculture represents one of mankind’s most significant contributions to global GHG emissions with estimates ranging up to between 20-25% of total global GHG production when all facets of the agricultural production and distribution system are taken into account. Moreover, although much of the world’s arable land resides in the emerging markets (with 25% of the such arable land in sub-Saharan Africa alone), the agricultural productivity of this land generally is far lower than global averages. This creates the dual potential to utilize best-in-class US agricultural clean technologies both to materially improve productivity while sustainably addressing GHG emissions. The DOC’s Foreign Commercial Service and the DOA’s Foreign Agricultural Service are ideally placed across American embassies and consulates throughout these Emerging Markets, and can thus act as the natural emissaries for US agricultural cleantech through direct outreach to country-specific agricultural cooperatives.

A prevailing condition across Africa and Latin America is that the agricultural sectors in those countries comprise a significant percentage of the overall population with average farm sizes that are far smaller than what generally prevails across the industrialized world. These smaller farms in the emerging markets makes engaging agricultural cooperatives and larger-scale project managers in those countries essential for coordinating U.S.-made agricultural cleantech and equipment exports. Thus, we would recommend explicit outreach and focus from the DOC’s Foreign Commercial Service Officers in conjunction with the Foreign Agricultural Service and USAID to agricultural cooperatives throughout the emerging markets rather than market directly to individual farmers, especially in the Sub-Saharan region.

This recommendation becomes especially timely in the context of the Russian-Ukrainian War, since it is likely that global agriculture supplies, production, and distribution will become materially and adversely affected. This military conflict in Eastern Europe has thus greatly

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increased the importance and timeliness for significantly improving agricultural productivity especially across Sub-Saharan Africa, which accounts for fully one-quarter of the world's arable land. This recommendation further seeks to marshal the DOC's Foreign Commercial Service and the USDA's Foreign Agricultural Service operating in foreign embassies and consulates.

Expected Effect on U.S. Export Competitiveness:

By introducing GHG-efficient American technologies to emerging markets agriculture, this recommendation can become a particularly high-impact initiative for promoting global decarbonization and also promoting the already-endorsed US national strategies for the international commercialization of GHG-efficient technologies and related agricultural applications. The AgTech Decarbonization Export Initiative can materially improve the export and adoption of GHG-efficient technologies, including but not limited to: advanced fertilizer production and distribution, cold storage facilities, agricultural production shipping logistics, and distributed renewable power generation and storage capable of powering small- and medium-scale agricultural equipment, and food and product manufacturing facilities, including greenhouses.

Specific Agencies Responsible for Implementation:

U.S. Department of Commerce (Foreign Commercial Service), U.S. Department of Agriculture (Foreign Agricultural Service), U.S.AID, U.S. Department of Energy (DOE), U.S. Department of State

Measure of Success:

The primary measure of success for this initiative will be Increased exports of U.S.-based AgTech products that utilize renewable energy and energy efficiency.