



Mitigating trade barriers due to high cadmium levels in cacao

The aim of this project is to improve the institutional capacity of Colombia and Ecuador to manage cadmium (Cd) concentrations in cacao and cocoa products to comply with the European Union (EU) Regulation EC No. 1881/2006 and the Codex limits of naturally occurring contaminants found in chocolate, using a regional approach.

The expected impact of the project is that the cacao sector in Colombia and Ecuador can remain competitive, maintain its current area of production and even expand it. It is hoped that the growth of the cacao sector will translate in an increase of employment rate in the sector and a reduction of poverty particularly in rural areas.

STDF/PG/681

Status

On-going

Start Date

01/09/2020

End Date

31/08/2023

Project Value (US\$)

\$617,999

STDF Contribution (US\$)

\$516,989

Beneficiaries

Colombia

Ecuador

Implementing Entities

KU Leuven

Partners

Corporación Colombiana de Investigación Agropecuaria (AGROSAVIA)

Escuela Politécnica del Litoral (ESPOL) Ecuador

International Center for Tropical Agriculture (CIAT)

Wageningen University & Research

Background

The EU has established limits on Cd in cacao-derived products (Commission Regulation EU No. 488/2014 of 12 May 2014

amending Regulation EC No. 1881/2006). The limits entered into force on January 1, 2019. On 2 July 2018, the Codex Alimentarius Commission has also defined limits for contamination of naturally occurring contaminants found in chocolate. The state of California has agreed in February 2018 on even stricter Cd limits for chocolate products under Proposition 65, above which consumers will be warned through product labelling.

These limits mainly affect the cacao sector in the Andean Region, the reason being that the soils are naturally more enriched in Cd compared to that in other cacao producing regions. Surveys of the extent of Cd concentrations in the beans are indicative that 30-50% of the beans may not be accepted unless blending of high Cd with low Cd bean is made. The local institutions are not prepared to cope with the new standards, neither on surveillance nor on implementing good agricultural practices.

Expected Results

Harmonization of methods for cacao sampling and measurement of Cd levels in cocoa and soils according to international standards

The first activity is to set up ring tests with representative cacao bean and soil samples for the determination of Cd. Secondly, there will be empirical research on bean sample treatments methods and sampling size (homogeneity tests) in the field. Finally, all that will lead to guidelines for laboratories and assistance to the government for accreditation schemes. All of this to prepare the countries for adequate inspection and potential certification/accreditation programs

Improve mapping baselines and mapping capacity for zoning of vulnerable areas in the two countries

A map of vulnerable areas in the two countries, based on harmonized methods and data on Cd levels in cacao beans, will be developed. The current map of soil and bean Cd concentrations in Colombia and Ecuador is incomplete. Current data will be collated and complemented with gap filling sampling of cacao beans and geostatistical analysis of data to produce Cd in cacao maps for Colombia and Ecuador.

Develop scientifically sound and context-relevant guidelines on good agricultural practices

Existing strategies and literature search and information from on-going projects will be used to develop guidelines for the cacao producers and the government. This will result in an easy-to-interpret handbook developed for Cd mitigation strategies. This work will contribute to the current work of the Codex Committee on Contaminants in Food (CCCCF) towards the development of a code of practice for the prevention and reduction of Cd contamination in cocoa beans.