

**Graduate Fellows to Advance the Cacao Supply Chain in Colombia**

Andrés Zabala Perilla

Neil A. Knobloch

Tamara J. Benjamin

Purdue University

915 W State Street, LILY 3-232

West Lafayette, IN 47907

(765-496-1053)

[azabalap@purdue.edu](mailto:azabalap@purdue.edu)

[nknobloc@purdue.edu](mailto:nknobloc@purdue.edu)

[tamara17@purdue.edu](mailto:tamara17@purdue.edu)

# **Graduate Fellowship Program to Advance the Cacao Supply Chain in Colombia**

## **Introduction**

The Cacao for Peace (CfP) project was created in 2016 as a post-conflict initiative to support Colombian agricultural institutions and the Colombian cacao production system to transition to a stronger cacao-based economy. A fellowship program was developed to reduce the lack of technical expertise in the cacao sector in Colombia by providing opportunities to Colombian citizens to pursue master's and doctorate degrees in agricultural science programs at two land-grant universities in the U.S., Pennsylvania State University (Penn State) and Purdue University (Purdue). This opportunity allows students to increase their academic and research skills in order to support agricultural extension, research and education. Financial resources for the first two academic years come from USDA, USAID, Fulbright, COLFUTURO<sup>1</sup> and land-grant universities (Romero & Gallego, 2018). Fellows seek other grant projects for additional years of funding.

Seven Colombian graduate fellows were selected based on their previous experience in the Colombian cacao sector to pursue their master's or doctorate degrees. These students are engaged in graduate courses, research and engagement activities focused on different issues regarding Colombia's cacao production and supply chain system, including technology innovation for cacao farms, genetics of cacao pathogens, evaluation of cacao Extension projects, cadmium remediation, cacao powders for food ingredients, and Extension youth education. Students have identified the following research topics: youth, farmers, biological material and cacao sub-products (e.g., powders) from Colombia. By conducting this research, students can introduce new knowledge (acquired in U.S. universities) to the post-conflict cacao context. Once fellows obtain their graduate degrees, they will return to Colombia to work in the cacao sector to advance the supply chain system by conducting research, technical assistance, and/or Extension and education activities. The objective of this poster is to describe the CfP fellowship as an approach to develop expertise in the post conflict context and the Colombian fellows' motivations to study graduate programs at land-grant universities in the U.S. Fellows' expectations, experiences, and future goals will be shared based on their academic progress and immersion in the U.S. culture at their respective universities.

## **Program Details**

The following steps outline how the CfP Fellowship Program was developed and functions.

1. In 2016 to 2017, the Colombian cacao supply chain analysis was conducted by Purdue. Abbott and his colleagues (2018) recommended an integrated technical assistance and education approach focused on using cooperative research, technical assistance, graduate student scholarships, and extension education to strengthen the human capital development of public and private agricultural institutions that support the cacao sector.
2. As a result of the study, team members from the CfP project identified academic institutions, non-profit organizations, international development agencies, and governmental

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<sup>1</sup> COLFUTURO is a Colombian non-profit foundation that was established in 1991 with the support of the National Government and some of the most important companies of the private sector in the country at that time. Its main objective is to provide financial support and increase the possibilities of Colombian citizens to access high-quality postgraduate study programs abroad.

organizations who were interested in supporting Colombian students for studying master's or doctorate degrees in relevant academic programs that were aligned with the CfP objectives.

3. A Fulbright-CfP agreement was signed to support four Colombian fellows to enroll as master's degree students at Penn State. These students started in 2017 and their research foci are: cadmium remediation, evaluation of cacao extension projects, genetics of cacao pathogens, and technology innovation in cacao farms (Bartlett, 2017).
4. A COLFUTURO-Purdue agreement was signed to support Colombian fellows to study both master's and doctorate degrees at Purdue. Three Colombian students started their graduate studies in 2018 and their research foci include: Extension youth education, cacao powders for food ingredients, and cadmium remediation.
5. Every two months, fellows, their advisors, and CfP's agricultural specialists have feedback meetings to discuss fellows' academic and research progress, professional development opportunities and activities, problems and resources, and next steps and deadlines.

### **Results**

Seven Colombian fellows enrolled in graduate programs at two land-grant universities are making academic progress, identifying committee members, conducting reviews of literature, and narrowing their research interests. Bi-monthly meetings have created a network of sharing interests, similar challenges, and relevant resources. In addition, a sense of community is developing among the fellows, advisors, and specialists as they get to know each other and share experiences. Regarding experiences, the graduate students are growing and developing personally and professionally through their immersion in U.S. culture. Students reported they are gaining academic and technical skills, improving their written and oral communication skills in a second language and developing interpersonal skills with diverse people within the U.S. Based on the fellows' experiences in the U.S., some students' expectations, motivations and goals have changed. For example, one Ph.D. student expressed new expectations and goals about working not only with farmers, but with youth. Moreover, some master's students are motivated to continue their research on cacao as doctoral students in the U.S. Finally, all of the fellows have tentatively narrowed down their research interests and are developing their research proposals. Some fellows have identified possible Colombian corporations where they might conduct the field work.

### **Future Plans**

Students at Penn State will finish their Master's degrees during the Spring or Summer semesters of 2019, and they will return to Colombia to work in the cacao sector upon completion of their degrees (Bartlett, 2017). On the other hand, students at Purdue will travel to Colombia to conduct their research in 2019 and 2020. Their travel is supported by USAID funds. Students at Purdue will graduate in 2020 (MS) or 2021 (PhD).

### **Costs/Resources Needed**

Institutional, human, and financial resources are needed for this project. Institutional resources are based on the CfP framework, which includes: academic, governmental, and non-governmental institutions. Financial resources were provided by Fulbright, COLFUTURO, USDA, and USAID to pay for fees, tuition and monthly stipends for students (i.e., fellowships). The two universities waived the out-of-state tuition and the fellowships were charged to the grant projects at the in-state tuition rate. The estimated cost per student per year is \$30,000.

## References

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