



The "Women, Coffee and Climate: Women's empowerment for the socio-ecological resilience of the coffee value chain against climate change in Ethiopia" is jointly financed by the European Union and Spanish Cooperation. AECID assumes no responsibility or liability for any errors or omissions in the content of this document.



DeSIRA PARTNERSHIPS FOR INNOVATION

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Background

Within the framework of the European Union and Spanish Cooperation project "Women, Coffee and Climate: Women's empowerment for the socio-ecological resilience of the coffee value chain against climate change in Ethiopia", a delegation from Ethiopia and Honduras travelled to Colombia between the 5th and the 16th of October 2022. Representatives of the Ethiopian Coffee and Tea Authority (ECTA), Ethiopian Forestry Development (EFD), Ethiopian Institute for Agricultural Research (EIAR), Ethiopian Women in Coffee (EWiC) and the Organization for Social Science Research in Eastern and Southern Africa (OSSREA) from Ethiopia and CONACAFE from Honduras and TECNICAFE and other private partners (SUPRACAFE) from Colombia participated in the event which was organised by the Spanish Cooperation.

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Ethiopia has a long tradition of coffee production and is the world's 10th largest exporter. The Ethiopian economy relies heavily on coffee as a source of income, accounting for up to 19% of Ethiopian exports. Smallholder coffee farmers are moving from traditional forest coffee production systems to other production systems with higher profitability and higher yields in the short term. This is affecting coffee quality, but it is also degrading the natural assets of coffee landscapes. It is estimated that around 25 million people work in the coffee sector in Ethiopia; of these, about 70% are women, but they benefit the least from the sector and have limited access to decision-making processes and income.

Both Colombia and Honduras are among the most important coffee producers in the world. They have been working along the coffee value chain for many years and have accumulated important lessons and recommendations that can be shared with other countries, both in the social aspect of the coffee value chain (such as gender, poverty reduction), as well as in management and marketing, climate change and the landscape management dimension. The Spanish Cooperation has been supporting these efforts in both countries for years, facilitating the generation and management of knowledge in the sector.

The project "Women, coffee and climate: women's empowerment for the socio-ecological resilience of the coffee value chain against climate change in Ethiopia", seeks to draw on this accumulated experience and knowledge to strengthen the capacities of Ethiopian partner institutions. To this end, the project foresees different international exchange events between Colombia, Honduras and Ethiopia, of which this event was the first one. Subsequent international exchange visits will follow in the other countries. Agreement has already been reached among the three countries and partner institutions that the second International Exchange visit will take place in Ethiopia in the month of December 2022.

The first internal exchange visit has left a lot of important lessons and recommendations at technical, institutional and legal framework levels to be shared to actors in the coffee value chain in the three countries. The exchange visit kicked-off in the city of Bogotá, where partner institutions had several coordination meetings. After Bogota, the team headed to Popayan, the capital city of Cauca, one of the most important coffee producing areas in Colombia and of course headquarters of TECNICAFE, the main project partner in Colombia. Many opportunities and interest for joint collaborations arose from the exchange visit.



Institutions who Played Key Roles during the Exchange Visit

Public and private institutions played key roles for the successful implementation of the international exchange visit. More particularly the following institutions played a key role:

- Spanish Cooperation in Colombia: Two representatives of the Spanish Cooperation in Colombia, Ms. Rocío Alarcón and Ms. Olga Mora, were present during the exchange, providing important insights and logistical support to the organisation of the mission. The Head of the Spanish Cooperation in Colombia, Mr. Vicente Ortega, also attended the workshop in Popayan. The organisation is supporting AMUCC (The association of women coffee producers in the Cauca region/ Asociación de Mujeres Caficultoras del Cauca) through different projects and providing valuable insights and comments to the visiting team regarding the establishment and strengthening of the association.
- Spanish Cooperation in Ethiopia: The Spanish Cooperation in Ethiopia coordinated the visit in Colombia and supported the facilitation of the mission activities. Ms. Aurora Martin and Mr.

Jaime Mira from the Cooperation providing important insights and logistical support to the organisation of the mission.



TECNICAFE: The Coffee Technological Park (TECNICAFE) is an innovation platform oriented to add value to the coffee value chain through social and technical innovative processes that generate products and services, fostering entrepreneurship on a technological basis. TECNICAFE is a private and public alliance, formed by 6 members: Supracafé, Multiscan, Coffee Quality Institute, National Federation of Coffee producers of Colombia and the Cauca government. TECNICAFE works in five main areas: technological innovation and application of scientific knowledge, entrepreneurship and clustering, knowledge transfer, social innovation through the application and development of the Sustainable Development Goals into the coffee sector.

TECNICAFE is pioneer in training and capacity building and has developed various methodologies on how to use by-products of coffee, such as coffee leaves, flowers, husk, timber or coffee residue. The various methodologies elaborate on how to use those by-products for various purposes such as tea, cosmetics, perfumes, edible products (jam, sauce, biscuits, etc.), construction materials, house utilities and the production of fertilisers. This approach allows producers to diversify and increase their income and generate various products around the coffee tree. In countries such as Ethiopia, where these by-products are not used, the utilisation of the coffee tree is around 5% (meaning only the coffee cherry is used) while the other 95% is discarded. Additionally, coffee production residue treatment (usually incineration) generates additional pressure to the environment. Creative utilisation of the coffee by-products has enormous potential to have both economic and environmental impact.



The training and capacity building activities provided by TECNICAFE to farmers and other actors in the coffee value chain, with various levels of knowhow (basic, medium and advanced) and conducted either virtually or in person, have allowed more than 4,500 students to be certified in different areas of the coffee value chain (roasting, harvesting and post-harvesting, quality management, project formulation, finances, access to markets, pulping, product development from by-products, etc.). This model has proved to be very effective in creating knowledge and attracting investments and innovation.

To stimulate this, TECNICAFE has launched several editions of "Hackathons around coffee", an event where people engage in rapid and collaborative engineering solutions in a short period of time to find the best technological adaptive solutions. The winner/s of the best proposed solutions would get a reward (i.e., to be discussed, but normally diffusion of their ideas or investment, or training, or all combined).



• **AMUCC:** AMUCC is an association that was established in 2002. The organisation is supported by both Supracafé, who first started working with them in the Cauca Region, and the Spanish Cooperation in Colombia.

They function as a cooperative where the members are female heads of family, mostly indigenous Afro-Colombian and Mestizo women. They have received numerous training and capacity building through the years, and now they are producing specialty coffee, thereby increasing their income and their autonomy. The team spent a day with them getting valuable insights and lessons on how to strengthen women associations. This has been an inspiration for the Ethiopian counterparts.





AMUCC producers showed us their fields and their coffee nursery and shared with us traditional knowledge and the use of local materials that are complementary to coffee production, especially bamboo that they use for infrastructures and buildings. They also shared their technique to harvest bamboo according to moon cycles to prevent borers.

• **Supracafé Colombia:** A private company, subsidiary of Supracafé Spain, who has been present and working in the Popayan area for more than 30 years, supporting the establishment and organisation of women coffee producer's cooperatives. It works in innovation processes, new technologies and environmental sustainability around the coffee sector.



Supracafé is one of the founding members of TECNICAFE, investing in innovations on generating added value in the coffee value chain for the production of specialty and high-quality coffee. During the exchange, in Popayan, Ricardo Oteros, CO of Supracafé shared his experience with the visiting team. Supracafé could be interested in investing in the coffee sector in Ethiopia in the very near future.

An alliance between Supracafé and EWIC in Ethiopia (not yet formalised) came out of our conversations and discussions, which is a direct outcome of the project.

- **Multiscan:** is a Spanish technology based start-up, investing in the Cauca region for the creation of agro-voltaic parks and providing new technologies and solutions in the agricultural production sector. Mr. Alvaro Soler Esteban, Business Development Manager of the company, accompanied the mission for several days. Multiscan supports the provision of solutions for generating added value in the agricultural sector, while providing clean and renewable energy.
- CAFICAUCA (Coffee producer's cooperative of Cauca/ Cooperativa de Caficultores del Cauca): This is the most important cooperative on coffee in Colombia, representing the interests of the coffee producers of the region. They have currently more than 3,500 members, of which around 700 are women heads of family.



The cooperative is a membership-based organisation where members have to pay a fee. But, an annual rate of the fee paid by the members, amounting to 90% goes to individual savings, in a common solidarity fund. The rest of the money amounting to 10% is used to run activities of the cooperative. The solidarity fund is the base from which the cooperative provides services to its members.

The Ethiopian delegation was very impressed with all the services provided by the cooperative that include for members the following benefits:







- Insurances (death, catastrophe, birth)
- o Discounts in some products and services
- Access to finance loans for machines, fertilisers, etc. (the member can pay in cash or with coffee)
- Free maintenance of some equipment and free access to some of the facilities of the cooperative for coffee processing and treatment
- Support at household level in terms of specific infrastructure rehabilitations and educational support
- Access to capacity building programmes, access and support in certification process (ISO 9001, ISO 14001, ISO 45000)
- Provide technical services. A technician visits the plantations and provides technical advice (the rate is one technician for every 300 associates).



The cooperative also works with non-members providing various services and buying their coffee. The cooperative also provides some social services, and they have specific targeting local programs women and producers helping them to switch from plantations cocaine to coffee and in rehabilitation programs.

The cooperative has 65 delegates, of which 25 are women. For the first time in its history, the cooperative has elected one woman (a member of AMUCC) out of seven as a member of the council of directors. The team learned that the cooperative has no climate change adaptation or gender specific strategies, following only the criteria and orientations of the global environmental certifications.

National Federation of coffee Producers: The federation (Federación Nacional de Cafeteros) is a private entity with non-profit purposes but with some similarities to trade unions in the coffee sector. It was established in 1927 by the producers themselves and represents nowadays around 540,000 families in Colombia. It has representation at municipal, regional and national level by committees. The Board of Directors is based in Bogotá, Colombia. The Federation buys most of the coffee produced by the different cooperatives, and then exports it to different parts of the world. Colombia exports almost 100% of their coffee production. The Federation has recently launched a gender strategy. The project might need to do a comparative study among Honduras's one and the new one recently developed by ECTA.

The Federation also has some social projects to ensure coffee sustainability and intergenerational transmission. The Federation has also constituted a company, called Almacafé, that is responsible for the logistics and analyse the quality of the coffee exported, while Cenicafé, national research centre on coffee and depending on the Federation, that among other things provides the seeds.





• Governance of the Cauca Department: the governor of the Cauca department, Mr. Elías Larrahondo Carabalí, is the first afro descendant governor in the history the Governor of the Department; he received us together with the secretaries of Economic Development, Women, Agriculture and Rural Development, International Cooperation and Competitiveness, evidencing the importance of the visit to the local authorities.



Mr. Larrahondo expressed that Cauca has a 64% of rural population, of which 50.2% are women. He mentioned some of the challenges the region is facing have to do with coffee being a key economic and social driver. As 95.000 families depend on coffee in the department for their living, it is the first source of income in the department.

The governor also underlined the importance of working and strengthening women's organisations around the coffee sector; according to him, in the last years more than 800 women's organisations have been formalised, of which 32% work in the coffee sector.

Mr. Larrahondo mentioned the importance of the project "school and coffee", a pedagogical productive proposal, in collaboration with the federation, that includes practical and theoretical knowledge in the curricula of public schools in rural coffee production areas. Apart from learning at theoretical level, the students' plant and take care from germination to harvest, with financial support from the department coffee producers committee. This is an excellent way to assure knowledge transmission and generational renovation, since there is an alarming process of rural migration towards the cities and the coffee producers tend to be over 50 years old in Colombia. At the same time, it is a good way to fix the population in rural areas and avoid migration to the cities.

• **Popayan University:** The University of Popayán is working in consortium with TECNICAFE and private companies in innovative techniques to process and deal with coffee waste and



research in coffee coproducts; for instance, they are extracting CBD to mix with coffee, which has therapeutic uses and many health benefits.

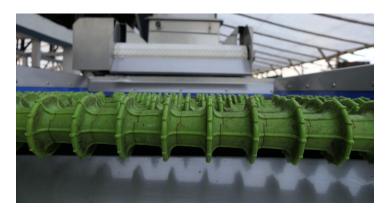


The university has a research productive project in which they are using hemp to mix with coffee waste to produce a very strong and resistant material which can be used as bricks that allow the construction of houses and other structures.

Main Areas of Interest of Participants

As much as the institutions who participated in the exchange visit represented various stakeholders in the coffee value chain, they also had different interests and needs from the international exchange visit. Below are the interests of the institutions categorised in terms of selected themes.

• Coffee processing and co-product development: The Ethiopian delegates were very much interested in the management of coffee by-products (leaf, flower, husk, etc.) to produce by-products, both in the agro-industry as food products and in the development of construction materials. The delegates believe that the exchange visit has revealed good lessons for Ethiopia of the possibility of developing different by-products from coffee which could help for income generation, food security and contributing to minimising environment pollution. Furthermore, lessons from other countries reinforces what we witnessed in Colombia. In Ethiopia, approximately 90% of the edible parts of the coffee cherry are discarded as agricultural waste or by-products (cascara or husk, parchment, mucilage, silver skin and spent coffee grounds). But from what we witnessed in Colombia, these by-products are a potential source of nutrients and non-nutrient health-promoting compounds, which can be used as a whole ingredient or as an enriched extract of a specific compound¹.



¹ Applications of Compounds from Coffee Processing By-Products: <u>Applications of Compounds from Coffee</u> <u>Processing By-Products - PMC (nih.gov)</u>



In Ethiopia coffee husk is damped everywhere provoking environmental problems. However, we have learned that in Colombia, some coffee by-products are used as:

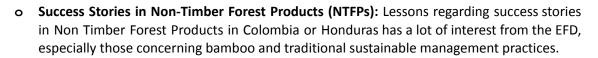
- Coffee leaf: for tea
- Coffee flower: for tea, perfume
- Coffee husk: high value edible products (jam, Sauce, etc.) and for construction materials.
- Coffee-bean mucilage: for high value edible products and cosmetics.
- Timber: for simple house utilities.
- Coffee residue (waste): for fertiliser and construction materials production.



- Streamlining the processes in the coffee value chain: The partnership among the various institutions such as government, private sector, associations, cooperatives and academia to streamline the various processes in the coffee value chain was another area where the Ethiopian institutions have shown interest. Working with each coffee growers to ensure no planting of coffee above 2000m is something the Ethiopian team appreciated taking its merit in conservation of biodiversity. The emphasis given to management of wastewater and dry waste materials during coffee processing is another point that has attracted attention among the participants.
- **Coffee Cooperatives:** A union organisation that coordinates information, marketing, administration, research, and training in the coffee value chain is a practice that has attracted a lot of interest.
- Market access: Coffee growers are ensured that they can sell 100% of their coffee to the export market if they produce according to the required quality. This support of coffee growers by the government through creating market access and also making sure they could sell 100% of their coffee and importing low grade coffee for local consumption thereby bringing more money from export was also a point of interest for the participants.
- o Women empowerment programmes in the coffee sector: The emphasis given by the various stakeholders in the coffee value chain in Colombia to empower women is an area that attracted interest. Women in Colombia are highly involved in coffee production and commercialization. There are several programs that support women to be involved in the coffee sector. One best example is AMUCC (Asociación de Mujeres Caficultoras del Cauca), established in 1999. We have visited several model coffee farms managed by women who are members of AMUCC. The group is currently working on providing more access to a revolving fund to allow their members access to capital to improve their farming infrastructure including equipment and labour. This association of over 400 women coffee farmers came together to solve issues including lack of capital and technology to use on their farms and to create an equitable working relationship with their husbands. Today, they are committed to producing high-quality coffee².

We learned that AMUCC are also highly involved in tree plantation programs. They produce tree seedlings and conduct afforestation programs with different objectives including conservation of degraded landscapes, shade trees for their coffee farms, etc. They give special emphasis to endangered indigenous tree species.

² <u>https://www.rgccoffee.com/amucc-organic.html</u>



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- **Crop management:** The technical aspects of crop management such as development of nutritious food products, integrated management of pests, diseases, weeds, renewal processes, post-harvest practices and differentiating quality of crops in the cup.
- Inclusive business models: the creation and management of inclusive business models such as revolving funds and defining with allied countries technological challenges to launch development marathons that allow generating solutions to close the gaps in coffee production.
- Integration of coffee growing in the curriculum: the integration of coffee production in the school curriculum in selected places in Colombia in a program called "School and Coffee" program attracted interest. This program allows the educational model to be adjusted to emphasise the cultivation of coffee and business management by incorporating it in the educational curriculum that can help young people to be entrepreneurs from the world of coffee and contribute to generational integration processes.
- **Establishing public policies for environmental conservation**: public policies measures such as the limit of altitude for planting coffee in Honduras for environmental and water conservation purposes were considered a good practice.
- Technological innovation park in the coffee sector: The alliances made between the private sector, local organisations, the departmental government, the academy and the national coffee institutions to create a technological innovation park in coffee, which complements those areas not covered such as processing, added value, product development, expanding uses of the coffee plants as a whole, in addition to promoting an environment of entrepreneurship and the generation of continuous knowledge, has attracted interest from the participants. Participants believe that Supracafe's commitment to technological research and development processes, and disruptive innovation, thinking differently, has been a fundamental pillar for Tecnicafe to achieve impact results in the short term.
- Innovation management: Another area that attracted attention is the involvement of the academia in practical innovation processes, according to a sector demand to solve problems with some by-products, turning the by-products to an opportunity for the development of new products, and even better, the creation of patents.





Lessons Learned

The international exchange visit was conducted successfully with the support of various institutions as stated in the previous sections. As attested by all the participants a lot has been gained from the visit. Here are some of the lessons worth mentioning as described by participants.

• **Strengthening the South-South Cooperation:** It is important to promote and make the most of South-South cooperation processes. Participants believe that they have much to offer and learn from each other.



- Creating strategic alliances: The problems of coffee growing in the world are similar; adaptation, commercialization, business models, market. We must build joint strategies responding to these problems and adapt them to the situation of each country or region. Strategic alliances are very important. It is also vital to define the role, responsibility and scope of each institution so that complementary synergies are generated.
- **Encouraging innovation:** Innovation must not be a one time initiative but continuous. Therefore, more spaces like the coffee technology park are essential in the whole value chain to encourage creativity and entrepreneurship.
- **Establishing technology parks:** We should promote the installation of at least one technology park in each of the countries involved in this cooperation process, this will allow a constant exchange of knowledge and experiences in different areas and environmental conditions.
- **Teamwork among the actors in the coffee value chain:** Teamwork is essential to ensure long-term results and impacts throughout the coffee value chain.
- Capacity Building: Building the capacity of various coffee actors is essential to move the coffee sector forward. Therefore, it is necessary to identify the gaps and training needs in each region and prepare programs that can develop and improve the skills of coffee sector actors.
- **Coffee as Food:** Coffee is a food, therefore, it must be produced, processed, stored and marketed as such, in addition to taking advantage of all the parts of the seed and of the plant to develop new products in accordance with market demands.



- Women empowerment: The culture of coffee is infinite, but the current market conditions and the initiatives of women empowerment must be further analysed because they, as the fundamental basis of society and the human species, have the power to lead the changes that the world requires for its sustainability. Participants from EWiC and ECTA attests that they have learned a lot from AMUCC in terms of women empowerment and the involvement of women in the development of by-products from by-products. They believe that their institution needs to be creative enough to attract new and current innovations to support women in coffee and for them the exchange visit had shed a lot of light in that respect.
- **Coffee varieties for climate change resilience:** The materials of genetic origin that were presented by the Ethiopian participants, can be the solution to problems of adaptation and climatic variability. More collaboration and studies need to be conducted in this regard.



- Utilisation of Information technology in the Coffee Value Chain: Keeping information on characteristics of each coffee producing area, coffee plant, product development, coffee farmers etc. helps in making better decisions and JARC believes that these lessons could be replicated in Ethiopia.
- University and Agricultural Extension Linkages: JARC believes that the strong linkage between research institutes and extension work in Colombia is a lesson that needs to be considered by Ethiopia. The delegates believe that the exemplary work done by Popayan university foundation on the use of coffee by-products for co-product development based on scientific research is one thing that needs to be considered in their respective countries.
- Coffee training centre: The coffee training centre at Tecnicafe attracted interest from ECTA since it is organised and equipped to meet the capacity and skill gaps in the area of coffee processing and marketing. The special training provided by the centre on coffee pulping, brewing and roasting, coffee cupping, aerobic and anaerobic coffee preparation, and the availability of full board services for trainees has also attracted interest. ECTA's interest arises from the fact that even though Ethiopia has a similar training centre, it is not as equipped and organised as the Tecnicafe's one in many regards and ECTA realises that the centre can be expanded further to realise the full potential of the coffee sector.



technologies: **Technologies** New 0 demonstrated by Supracafe have attracted interest among the delegates both from Ethiopia and Honduras. Supracafe's facility at Popayan, where coffee is grown and the whole process goes through ensuring quality product is impressive. A partner organisation who supplies technologies to actors in the coffee value chain is something new to the Ethiopian delegates. The technology that can identify the quality of the coffee beans during sorting attracted a lot of attention.



- Strengthening coffee cooperatives: the delegates had the opportunity to discuss with the managers of the "Cooperativa de Caficultores del Cauca (CAFICAUCA)", the most important coffee cooperative in Cauca among the 32 cooperatives in the country. They perform collection, selection, processing, quality control and marketing of coffee. The cooperative has more than 2,900 associates from 24 municipalities of the department, 36 purchasing agencies and 7 Agrocaficauca stores. The Ethiopian coffee sector can benefit a lot by establishing new coffee cooperatives and strengthening existing coffee cooperatives across the country.
- Coffee federation (unions): The work of the Cauca coffee Federation is another area that has attracted a lot of interest from the delegates. The cooperative engages in a lot of activities to benefit its members. Among others, it provides capacity-building services, loan services to its members as above mentioned, etc. According to the delegates, one important lesson worth exploring further in Ethiopia is the approach followed by the cooperative to attract the youth into the sector by supporting them to learn from their community. It uses various branding approaches for the youth, repatriates, women etc. to support various groups of marginalised communities. The approach used to collect information and support coffee growers by assigning one coffee agronomist to 300 farmers to update current information twice a year on every coffee farm at a coffee tree level and providing an ID card for coffee growers is a best practice that needs to be explored further. The automated development and marketing system using information technology avoiding any middleman in the business process is another important lesson that needs to be explored even further.
- Understanding the international coffee market: The delegates acknowledge that they can learn a lot from Colombia in addressing the challenges of international market access to coffee growers by not only understanding the needs of coffee buying countries to retain customers but also by shortening the coffee supply chain utilising information technology.
- Bamboo management and utilisation: Ethiopia is well known for its enormous bamboo resources, and bamboo has enormous socio-economic contributions in the country. However, bamboo-based constructions and bamboo-based furniture are rapidly deteriorating because of the impact of different wood deteriorating agents (mainly borers). However, in Colombia we have learned that bamboo based indoor and outdoor constructions have very long service years, not being attacked by deteriorating agents. The best Colombian Indigenous knowledge we learned is that they harvest bamboo following moon cycles. They harvest bamboo when the moon is not visible during night-time and



before 5 am. This best experience is also supported by scientific evidence. As stated in one article: "Harvesting bamboo is all about timing. We follow the moon cycles to know when is best to harvest. During what is called the Menguante (7 days after full moon) the starch content is lower. Bamboo harvested in this manner has 3 advantages: they are less attractive to insects, are less heavy to transport and will dry faster."³

• Public, Private Partnership in coffee sector: We learnt that there is a very strong public, private partnership (PPP) in coffee development, commercialization, research, etc. in the Colombian coffee sector. We have visited numerous private, community and government led coffee production and processing enterprises. There is a strong relationship and support among each partner organisation. We have also witnessed that there is a well-established research extension system where new technologies generated by research/education/private sector are transferred to end-users. TECNICAFE is one best example of a private coffee enterprise. TECNICAFE is a platform of innovation to coffee through highly innovative processes that generate products and services that drive technology-based entrepreneurships. We have visited training facilities and hi-tech coffee grain processing, roasting and coffee cup quality testing/measuring laboratories, equipment, etc.



One learning from Popayan University is a research productive project in which they are using hemp to mix with coffee waste to produce a very strong and resistant material that they use to produce bricks that allow the construction of houses and other structures. This partnership between private companies, think tanks and the private sector in the coffee waste research area shows the potential of it; this model could be explored and replicated in Ethiopia.

Coffee Expo: The Ethiopian delegates had the best experience of Colombia's specialty coffee sector: production, commercialization and networking of actors involved in the value chain in Cafes of Colombia Expo 2022. Expocafé[®], was established in the city of Bogotá, because of a concerted process between farmers, Cooperatives of Coffee Growers

³ www.naturalbuildingcr.com



and the National Federation of Coffee Growers⁴. Cafés de Colombia Expo is the most important specialty coffee fair in Colombia and Latin America. This event integrates the entire value chain of coffee and offers a scenario to display and publicise the trends and innovations of the market nationally and internationally⁵. Ethiopia's coffee actors should think of establishing such an expo to promote the sector to the rest of the world and show what Ethiopia as a country offers to the rest of the world. It would also help the sector to grow by attracting various interested parties from across the globe.

 Afforestation/reforestation programs, conservation of endangered species: Participants have been briefed by different government and private sector actors that forestry development has a paramount importance in the country and there are several afforestation/reforestation and forest conservation programs linked to coffee production areas and policies. Participants have visited that Agroforestry is implemented in almost all coffee farms: shade trees, bamboo and other multipurpose tree species.



⁴ <u>http://www.expocafe.com/English/b history.html</u>

⁵ <u>https://cafesdecolombiaexpo.com/en/general-description-/</u>



Main recommendations

As general recommendations, we could mention:

-There are strong similarities and challenges around the coffee sector in the three countries; however, adaptive solutions and institutional framework around coffee is different in each country, which provides an excellent opportunity for mutual learning; the creation of a Community of Practice around coffee, incorporating all the experiences, legal framework, knowledge and research findings is highly appropriate and provides an excellent opportunity. The delegates from each institution were highly interested and motivated in this first international exchange, reaffirming the pertinence of the project logic of intervention.

-Incorporating new technologies in the coffee value chain is capital. For this, ECTA training centres should be reinforced and provided with additional technology access and capacitation processes. The possibility of organising a technology fair with locally adapted solutions (hackathons) around the coffee sector could be explored.

-The cooperatives system in Colombia is very strong and provides real support and improvement of conditions of the farmers and local coffee producers; additionally, as described above, services provided by cooperatives are very comprehensive and have a huge impact. Reinforcing women's cooperatives and capacities, and improving their access to training and finances, are key elements that should be explored.

-Both Honduras and Colombia have recently launched their gender strategy in coffee; this provides an excellent opportunity for exchange since ECTA is launching its own strategy on gender; lessons learned, and the assessments made for the elaboration of these strategies provide a unique opportunity to identify common challenges and verified solutions.

-Coffee value chain in Colombia is very short, since local producers sells directly to the cooperatives, the cooperatives to the Federation and is the Federation that exports, while at the same time earning a canon of each exported coffee bag that allows them to have a significant budget to invest in improving the coffee value chain, and even coffee related infrastructures around the country. A similar structure could be explored in Ethiopia.

-Coffee waste and other sub-products represents threat to the environment if not properly managed; a strategy to know more about this impact and treatment in Ethiopia should be put in place, considering the opportunities for the elaboration of coffee co-products that can have high economic value and reduce emissions drastically.

-Genetic variety in coffee in Ethiopia, especially around Jimma, is key for coffee sustainability, and what Colombian and Honduran partners are more interested in. This should be considered when designing future exchanges and knowledge products.

-Traditional knowledge exchanges between the three countries in different agricultural techniques is an important source of information and learning and should be fostered. For example, in one of the field missions Ethiopian partners learnt how to fight borers in bamboo, simply by following lunar cycles, cutting the bamboo when moon is not visible during night time and before 5 am. Alternatively, a representative from AMUCC showed how they prepare organic fertiliser in the field to be applied to their coffee crops.



-Bamboo and other NTFP like mushrooms or honey can have a great potential in coffee production areas and provide income diversification and should be further explored. Bamboo particularly, since Ethiopia is one of the biggest producers in Africa, has enormous potential.

-Incorporating the private sector and creating partnership with academia is key to fostering research and innovation. Search of individual talent and leadership around the coffee sector is also very important, thus celebrating locally adapted "hackathons", as explained before, could be advisable.

-The European Union is launching strong guidelines for coffee exporters into the EU that demand full traceability, zero child labour and zero net emissions in the production process; these exigencies are not adapted to the reality of small farmers; further studies with recommendations on how to adapt and try to comply with these exigent criteria could be useful for all partners.

-Coffee production is a family business; some solutions, such as the one implemented in Honduras where the school calendar is adapted to harvesting periods, can be explored and replicated in Ethiopia. Additionally, Honduras has a specific strategy regarding child labour in the coffee sector, differentiating between forced labour and voluntary non harming labour; the Ethiopian delegates were most interested in this approach that should be further investigated.

-As another good practice to be explored, showing the importance of the coffee sector in Honduras, we learnt that in coffee production areas the school calendar is adapted to the coffee harvesting periods to facilitate the process.

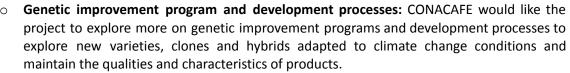
From the lessons acquired during the international exchange visit, the delegates who participated in the visit recommended the following activities to their respective institutions:

CONACAFE Honduras:

- National coffee sustainability plan: CONACAFE Honduras offered to share from their country's experience the methodologies for formulating a national coffee sustainability plan, lessons learned, bad experiences and the follow-up and monitoring mechanism implemented to ensure compliance with goals and indicators.
- Coffee public policy framework processes: CONACAFE wishes the project to explore the processes for formulating a public coffee policy framework, existing legal frameworks and implementation mechanisms used, as well as the review processes that are carried out to achieve updating and adaptation to the constant changes in the coffee value chain.
- Inclusion and gender equity: CONACAFE wishes the project to explore in-depth the mechanisms for inclusion and equity of gender and youth in decision-making and leadership processes at the local, regional, national and international levels. For this, they have shared their recently launched strategy on women and youths in coffee.
- Strategic plans for research and technological development and innovation: CONACAFE would like to know more about the strategic plans for research and technological development and innovation to ensure competitiveness and profitability of the coffee activity in all the links of the value chain, mainly at the level of the coffee growers' farms.
- Innovative coffee extension methodologies: CONACAFE would like the project to explore innovative coffee extension methodologies to ensure that information and knowledge reach coffee producers, that they adopt these good practices and that changes in productivity, quality, reduction of vulnerability and increase in family income are generated including development of rural communities.







aecid

- **Coffee differentiation processes**: CONACAFE would like the project to explore more on coffee differentiation processes to access different market segments.
- **Financing strategies**: CONACAFE would like the project to explore financing strategies that allow access to smallholder producers, to make them eligible for loans. In addition to supporting smallholder coffee growers with risk management and administration schemes due to climatic, price volatility and others.
- Access to markets: given the new European Union Policy for coffee producers' countries, CONACAFE is most interested in conducting a joint research on how to adapt national frameworks and techniques in order to comply with these requirements.

The institution also recommended the following activities for the future:

- Participate in a joint process of marketing coffee produced by women with low carbon emissions, possibly carbon neutral for the EU or Spanish market.
- Make the most of the space of the "EthioLatin Coffee" Community of Practice to encourage joint work and mutual support.
- Identify other areas of interest of the three countries to design a new work proposal to be presented in future calls of the EU through AECID.
- Their experience and knowledge in the formulation of public policies and sectoral strategies for the competitive development of the coffee sector.
- Development of a well-structured and representative national, regional and local institutional model
- Articulation with other projects with similar objectives that are executed in Honduras and in the Mesoamerican region.
- Contact with PROMECAFE, an organisation where the coffee producing countries of Mesoamerica and the Caribbean form to promote a network for the exchange of knowledge and experiences in scientific, technical and sustainable development aspects of coffee growing.

EWiC:

- Strengthening the EWiC association by working closely with the government, the private sector, and various stakeholders involved in the coffee value chain, particularly using lessons gained on how to use by-products of coffee for co-product development to empower women.
- Do research with the coffee by-products (leaf, stem, pulp, mucilage, parchment, roasted and ground powder after use) to produce various co-products. A good entry point can be producing food from food-grade cascara for local and export use.
- Share the experience of Ethiopia regarding the use of coffee by-products at various parts of the country.
- Explore further the methodologies, strategies, processes and techniques utilised to create coffee by-products for income generation.

JARC:

• Establishing innovation centres for product development from coffee by-products and strong women coffee producer cooperatives.



- Characterization of each coffee growing area and the coffee itself and developing a national database for each coffee farmers.
- Being the biggest and oldest research institute in the country, EIAR/ JARC, can share its long time expertise in developing different coffee varieties and production technologies.
- Edible mushroom cultivation laboratory activities in Addis Ababa.
- The experiences on NTFPs in general and in the coffee value chain in particular.
- Explore further the various innovative technologies utilised in the coffee value chain.
- Explore how to strengthen coffee producer cooperatives to ensure a more productive and sustainable environment in the coffee value chain.
- Developing a national database of coffee producers to support the sustainability of the sector as a whole.

EFD:

- More experience sharing visits to learn from one another. Visits of facilities such as ECTA coffee facilities, EWiC or members of EWiC facilities, JARC (research centre laboratories and selected coffee growing sites, women headed coffee farms, EFD wood technology research centre (mushroom cultivation laboratory).
- Engagement with the Ministry of Agriculture, EFD, ECTA, AECID and other key stakeholders in order to introduce the project and get buy-in for the project.

ECTA:

- Creating model women's organisations and strengthening their capacity by providing various required technologies in addition to providing skills and capacity building in coffee brewing and supporting them to export coffee under their own brand.
- Supporting and encouraging the utilisation of coffee by-products to various co-products to generate income in order to improve the livelihood of women and others in a sustainable way.
- Select model areas across the country and support children and youth to learn from their parents' and work to ensure the sustainability of the coffee sector.
- Supporting model coffee growers to grow other edible fruit trees in their coffee farms as shades as well as for consumption and to generate more income for their families. If this program is successful using the model coffee-growers work to scale it up in the rest of the coffee growing places.
- Share the Ethiopian experience in the coffee value chain and the attention given to coffee development and planting of new coffee seedlings as a country through the green legacy and its performance so far.
- The gender strategy for the coffee sector.
- The new training centre was established to train actors in the coffee value chain.
- The Ethiopian experience regarding marketing and development linkage chains that benefit the smallholder farmers.
- Reinforcing the ECTA training centre and providing additional technologies and capacity building for actors who work in the coffee value chain
- Explore the possibility of organising a technology fair with locally adapted solutions around the coffee sector







Tecnicafe:

- Create a community of practice to share models of entrepreneurship, transfer and appropriation of technology and articulation processes for the development of innovations for the world of coffee.
- Develop knowledge transfer processes on specific topics, virtually or in person.
- \circ $\;$ Use the domain of the project for disclosure processes.
- Dissemination of project results.
- Design knowledge transfer programs in the areas required by coffee growers in Ethiopia and Honduras.
- Systematise the process of coffee co-products for the food sector.
- Share research papers, documents, technological developments through the organisation's web pages.
- Develop joint publications
- Create communities of practice
- o Develop virtual training processes on specific topics
- Participation of the project in the World Coffee Fair developed by TECNICAFÉ from November 10 to 12, 2022 on the virtual platform created for the fair.
- Develop multimedia products, infographics.
- Create the domain of the project
- Create the hashtag for disclosure processes

Partner Evaluation of the international exchange event

Participants of the international exchange visit were asked to evaluate their overall impression of the exchange visit in order to improve subsequent similar engagement. On the positive side the following points were appreciated by the delegates of the exchange visit from the three countries:

- Overall all the delegates agree that the international exchange visit has allowed them to know details of coffee growing in Ethiopia, Colombia and Honduras. It has allowed them to gain knowledge, data and good practices of coffee growing in Colombia, mainly in the Department of El Cauca.
- All delegates agree that the importance Tecnicafe and Supracafe played in facilitating the exchange visit not only by hosting it but by interacting with all its executives and collaborators.
- The AECID Ethiopia and Colombia were attentive to all the details to ensure that the event was successful and that the objectives were achieved, having the flexibility to adapt to changes proposed at the last minute.
- The exchange visit has allowed delegates to learn the technological advances in coffee production and commercialization in general and forest resources utilisation in particular.
- Overall organisation of the trip was excellent, taking into consideration the large number of participants, the distance travelled to and from Colombia (including domestic flights) and diversified programs. The Colombian partner's dedication was impressive. Ethiopian and Honduras delegates were disciplined and very keen to learn, visit and comprehend each and every program.
- Strengthening coffee cooperatives system in Ethiopia taking the lessons gained from Colombia. Additionally, establishing and reinforcing women's cooperatives and improving their access to training and finances, are key elements that should be explored in Ethiopia.



- The lesson gained from the efficient coffee value chain in Colombia needs to be considered in Ethiopia. The existence of a very short value chain, allowing local producers to sell directly to the cooperatives and the cooperatives to the Federation and finally to the export market through the federation, is a process that will help to empower coffee growers in the country.
- Coffee waste and other sub-products represents threat to the environment if not properly managed; a strategy that will address this impact should be put in place, taking into account the opportunities for the development of coffee co-products that can have high economic value and reduce emissions drastically.

On issues that need to be improved for future exchange visits or similar engagements the partners have raised the following points:

- The very long route chosen to reach Bogota is one thing that needs to be improved in the future by planning such events in good time.
- The program was so tight that there was no room for experiencing what the country offers to its visitors.
- The communication gap created due to the challenge faced by most Colombian partners to communicate in English.



ANNEX I

Event agenda

Event agenda, 5th-15th October 2022, Colombia.

TIME	ΑCTIVITY	COMMENTS
Wednesday	October 4 th – 5 th	
	Travel Addis- Bogotá	
Thursday	October 6th	
	Meeting with OTC Colombia	
	Reception of Ethiopian and	
	Honduran Delegations	
Friday October 7th		
	Introductory meeting	
	Participation in the coffee fair	
	"expo especiales"	
	LUNCH all together	
Saturday	October 8th	
10am -2 pm	Coordination meeting in Spanish Cooperation Office in Bogotá	Each institution will make a short presentation of their role and main work lines. ECTA, TECNICAFE and CONACAFE will make additional presentations of the coffee institutionally in each country, emphasising project related aspects such as commercialization, gender and climate change adaptation aspects. The Spanish Cooperation in Colombia will present their work in the sector.
2pm- 3 pm	LUNCH BREAK	
3pm- 5 pm	Continue the meeting - presentation	
Sunday	October 9 th	
	Travel from Bogotá to Guillermo León Valencia in Popayán	
Monday	October 10th	
8:00 am	Arrival to TECNICAFÈ facilities	Welcome breakfast
9:30 am 12:30 pm	Introduction of participants and project presentations	OSSREA will present approaches and views on gender, participatory action research, knowledge management and the mission objectives and methodology. Each institution will make a short presentation about their work in the coffee sector. TECNICAFE will introduce and present the agenda and their work in Colombia.
2:00 pm a 6:00 pm	Visit to TECNICAFE laboratory, Micro-processing plant and SUPRACAFE plant	SUPRACAFE is the most technologically advanced coffee plant in Colombia



Tuesday	October 11th			
7:30 am – 6 pm	Visit the coffee plantations of the women organization AMUCC (Women Association for coffee in Cauca). Presentation of their experience. LUNCH all together	Corregimiento de las Botas		
Wednesday	October 12th			
9.00 am - 13 am	Visit of the cooperative of coffee producers of Cauca, Popayán. LUNCH BREAK			
2 pm-6 pm	Visit to the coffee producers committee of the Cauca Department, Popayán.			
Thursday	October 13 th			
9:00 am – 13:00 pm	Visit to the university of Popayán	We will learn about the experience of using coffee husks as construction material		
14:00-16:00	Discussion with the Cauca Department Governor			
16:00 pm – 18:00 pm	Buna ceremony	EWiC in charge		
Friday	October 14th			
9:00 - 10.30 am	Project Presentation Gender and Climate change aspects			
10:30 - 12:30 am	Steps to establish the CoP and work of the Knowledge and Learning Unit			
14:00 - 16:00 pm	Discussion of joint priorities and definition of joint working areas.	Revision and updating of work plans and identification of collaboration areas among partner institutions.		
16:00- 18:00 pm	Coffee tasting			
Saturday	October 15 th	Fly back to Popayán		
Sunday – Monday	October 16 th – 17 th	Fly back to Addis via Frankfurt		
Tuesday	October 18 th	Arrive to Addis Ababa		









ANNEX II

Participants list

	Institution	Full name	Position
1	Ethiopian Coffee and Thea	Mohammed Shemsu	ECTA Chief of Staff
	Authority (ECTA)	Suelyeman	
2	Ethiopian Coffee and Thea	Genet Tufa Boku	ECTA Women, Children &
	Authority (ECTA)		Youth Affairs Director
3	Ethiopian Women in Coffee (EWIC)	Sara Yirga Woldegerima	EWiC Board President
4	Ethiopian Women in Coffee (EWIC)	Ansha Yasin Suleiman	EWiC Board Vice president
5	Ethiopian Forest Development (EFD)	Wubalem Tadesse Wondifraw	EFD Lead Researcher
6	Ethiopian Forest Development	Shasho Megersa Akawak	EFD Director, Wood
	(EFD)		Technology Research
7		Lomi Deksien Maun	Centre
<u> </u>	Jimma Agricultural Research Centre (JARC)	Lemi Beksisa Waya	JARC sub- director
8	Consejo nacional del café	Nelson Omar Funes Flores	CONACAFE executive
	(CONACAFE)		Secretary
9	Instituto Hondureño del café	Orieta Clementina Pinto	IHCAFE quality manager
	(IHCAFE)	Valladares	and president of Women in
		To the second large	Coffee in Honduras
1	Organisation for Social Science	Truphena Mukuna Eshibukule	OSSREA Executive Director
	Research in Eastern and Southern Africa (OSSREA)	Eshibukule	
1	Organisation for Social Science	Alemu Tesfaye Shenkute	OSSREA Regional Programs
	Research in Eastern and	Alema lesiaye shenkule	Manager
	Southern Africa (OSSREA)		in an age
1	Spanish Cooperation	Aurora Martín Martín	Project Manager
2	· · ·		
1	Spanish Cooperation	Jaime Mira Salama	Monitoring and Evaluation
3			Officer