CONCEPT NOTE PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

PROGRAM FOR THE RESILIENCE OF VULNERABLE SMALLHOLDER COFFEE PRODUCERS IN MEXICO - ADAPTCAFÉ

Country: Mexico

Thematic Focal Area: Agriculture

Type of Implementing Entity: Multilateral Implementing Entity

Implementing Entity: IFAD

Executing Entities: FAO

Amount of Financing Requested: 25,000,000 (in U.S Dollars Equivalent)

Project Formulation Grant Request (available to NIEs only): Yes X No ☐

Amount of Requested financing for PFG: 150,000 (in U.S Dollars Equivalent)

Letter of Endorsement (LOE) signed: Yes X No ☐

NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: https://www.adaptation-fund.org/apply-funding/designated-authorities

Stage of Submission:

X This concept has been submitted before
☐ This is the first submission ever of the concept proposal
In case of a resubmission, please indicate the last submission date: 20 August 2026

Please note that concept note documents should not exceed 50 pages, including annexes.

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ACRONYMS

3C+D	Modelo de Agregación de Valor 3C+D (SADER Value Aggregation Model: Cantidad, Calidad, Cumplimiento, Diversificación)
AF	Adaptation Fund
AMCCE	Mexican Specialty Coffee Association
AROMA	Alternative Response Options for Mitigation and Adaptation of Coffee Farms
AWPB	Annual Work Plan and Budget
BALSAS	Basin Approach for Livelihood Sustainability through Adaptation Strategies
CONAFOR	National Forestry Commission (Comisión Nacional Forestal)
CONAGUA	National Water Commission (Comisión Nacional del Agua)
CS	Harvesting Sovereignty (Cosechando Soberanía)
EbA	Ecosystem-based Adaptation
ENCC	National Climate Change Strategy
ENOE	National Occupation and Employment Survey (Encuesta Nacional de Ocupación y Empleo)
ESMP	Environmental and Social Management Plan
ESP	Environmental and Social Policy
FAO	Food and Agriculture Organization of the United Nations
FINDECA	Development Finance Intermediary for the Countryside (Financiera para el Desarrollo del Campo)
FIRA	Trust Funds for Rural Development (Fideicomisos Instituidos en Relación con la Agricultura)
FPIC	Free, Prior and Informed Consent
FFS	Farmer Field School
GBV	Gender-Based Violence
IAPAR	Agronomic Institute of Paraná
IFAD	International Fund for Agricultural Development
INECC	National Institute of Ecology and Climate Change (Instituto Nacional de Ecología y Cambio Climático)
INEGI	National Institute of Statistics and Geography (Instituto Nacional de Estadística y Geografía)
INIFAP	National Institute for Forestry, Agricultural and Livestock Research (Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias)
IPM	Integrated Pest Management
LGCC	General Climate Change Law
LOE	Letter of Endorsement
M&E	Monitoring and Evaluation
MIE	Multilateral Implementing Entity
MRV	Monitoring, Reporting and Verification
NDC	Nationally Determined Contribution
NOM	Official Mexican Standard
PECC	Special Climate Change Program
PMU	Project Management Unit
PND	National Development Plan
PROMARNAT	Environment and Natural Resources Sector Program (Programa Sectorial de Medio Ambiente y Recursos Naturales)
SADER	Ministry of Agriculture and Rural Development (Secretaría de Agricultura y Desarrollo Rural)
SEMARNAT	Ministry of Environment and Natural Resources (Secretaría de Medio Ambiente y Recursos Naturales)
SENASICA	National Service for Agrifood Health, Safety and Quality (Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria)
SINAVEF	National System for Phytosanitary Epidemiological Surveillance (Sistema Nacional de Vigilancia Epidemiológica Fitosanitaria)
SOCAP	Savings and Loan Cooperative Society(Sociedad Cooperativa de Ahorro y Préstamo)
SOFOM	Multiple Purpose Financial Institution (Sociedad Financiera de Objeto Múltiple)
UNACH	Autonomous University of Chiapas
UNAM	National Autonomous University of Mexico

A. Project/Programme Background and Context:

A1. National context

1. Coffee is one of Mexico's most socially and territorially significant agricultural crops. According to recent official and sectoral sources, the sector comprises roughly half a million producers and around 800,000 hectares of cultivated land, concentrated in the south and southeast of the country.[1] Coffee is produced mainly by smallholders: around 90% of producers cultivate 5 hectares or less, and production is concentrated in states such as Chiapas, Veracruz, Puebla, Oaxaca, and Guerrero. This makes coffee not only an important source of rural income, but also a strategic livelihood activity in some of the country's poorest and most climate-exposed regions. Most coffee-producing regions are vulnerable to climate change.[2] In most of these regions, production is carried out under traditional shaded systems, primarily on a rainfed basis. The systems are characterized by low yields and limited value addition. The commercialization is often mediated by intermediaries, which significantly reduces producers' incomes.

2. Coffee production in Mexico is widely characterized by small family-based systems and a high presence of Indigenous producers, particularly in southern states where coffee landscapes overlap with areas of poverty, limited service provision, and restricted access to markets, finance, and technical assistance. These structural conditions reduce adaptive capacity and heighten the vulnerability of coffee-growing households to climate and market shocks.

3. Coffee-growing regions in Mexico are already experiencing significant climate stress. Producers face increasing exposure to hurricanes, irregular rainfall, prolonged dry periods, heat stress, and, in some locations, frost, as well as indirect impacts such as rising pest and disease pressure. Climate-sensitive risks such as coffee leaf rust and the coffee berry borer have become central production concerns, while recent climate variability has also disrupted harvest timing and labour availability. For example, Hurricane Agatha in 2022 caused serious damage in Oaxaca's coffee areas, including to roads and productive assets, and recent heat events have accelerated cherry maturation, complicating harvesting and reducing producers' ability to manage labour peaks.

4. These pressures have contributed to a marked deterioration in the sector over the past decade. Between 2010 and 2018, national coffee production reportedly declined by around 35%, while planted area fell from about 800,000 hectares to roughly 712,000 hectares.[3] Such a contraction has implications beyond the coffee economy itself. Where coffee systems become less viable, producers may shift to other land uses, including less tree-based systems, which can increase pressure on forests and undermine the environmental services provided by traditional shaded coffee landscapes. In this sense, the resilience of the coffee sector is closely linked not only to rural livelihoods, but also to biodiversity conservation, watershed function, and the maintenance of agroforestry systems.

Table 1. Country data on coffee production, vulnerability and readiness.

Indicator	Value
Coffee area harvested (ha)[4]	711,534
Share of global production (%)[5]	2%
Number of smallholder coffee farmers	500,000
ND-Gain Index[6]	94 (score: 48.7)

5. Mexico has a strong competitive advantage in coffee because traditional shade-grown arabica production

[1] Government of Mexico, Programa Institucional de Alimentación para el Bienestar 2025-2030. Available at: https://www.gob.mx/cms/uploads/attachment/file/1025975/PI_APB_2025-2030.pdf
[2] *https://www.gob.mx/inecc/acciones-y-programas/atlas-nacional-de-vulnerabilidad-ante-el-cambio-climatico-anvcc-80137*
[3] According to data from SIAP included in CONABIO, "La cafeticultura en México"
[4] FAO data
[5] ICO calculations
[6] Notre Dame's Global Adaptation Initiative (ND-GAIN). Country Index. Availale at: https://gain.nd.edu/our-work/country-index/

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is already the baseline across Chiapas, Oaxaca, Veracruz, and Guerrero, rather than a niche certification outcome. The project therefore does not need to create sustainable practices from scratch, but to make them more visible and legible to buyers. This pathway is already proven: around 35–40% of Mexican coffee is sold under certification schemes, and leading producer organizations in the target regions already operate multicertification systems. The domestic market also offers a concrete near-term opportunity. National coffee consumption increased from 230,000 tonnes in 2020 to more than 320,000 tonnes in 2023,[7] while the specialty segment was valued at USD 1.59 billion in 2024[8] and is growing at nearly 10% annually. At the same time, diversification beyond specialty channels can reduce exposure to commodity price volatility and climate-related income shocks. Mexican coffee also has untapped potential in value-added and alternative segments, including food ingredients, beverages, pharmaceutical applications, and organic by-products from processing residues.

6. Mexico's coffee sector has benefited from decades of support through public programmes and development initiatives focused on producer assistance, technical extension, renovation, rural finance, and market linkages. This experience shows that interventions are most effective when sustained technical support is linked to organized producers, quality improvement, and concrete commercial incentives. In this context, the Government of Mexico, through INIFAP, has promoted improved and disease-resistant coffee varieties, particularly those resistant to coffee rust, while the Producción para el Bienestar (PpB) programme has strengthened productive capacities through farmer field schools that currently reach around 30,000 coffee producers, primarily in Indigenous communities.

7. At the same time, important gaps remain, with support fragmented, short-term, or insufficiently aligned with the long-term investment cycles and risk profile of smallholder coffee systems. Challenges also persist in scaling up the adoption of resilient varieties, developing new climate-adapted genetic material, consolidating field school capacities, and ensuring sustained market access for climate-resilient coffee. The proposed project builds on these lessons and complements ongoing government support, including PpB and FIRA financial instruments, but is differentiated by its explicit focus on climate adaptation and resilience. Specifically, it addresses climate-related constraints that have not been adequately tackled through conventional coffee support measures by integrating climate-resilient renovation, ecosystem-based adaptation, climate and phytosanitary advisory services, resilient post-harvest practices, and inclusive adaptation finance for vulnerable smallholder producers.

A2. Climate change context

8. Mexico exhibits a highly heterogeneous climate, characterized by a wide range of temperature and precipitation regimes across its territory.

Historical climate trends

9. **Temperature:** Observed data show a clear and sustained warming trend across Mexico. Average air temperature has increased by about 1.69°C relative to the 1900–1930 reference period, with estimates ranging from 1.59°C to 1.81°C depending on the dataset used. This warming rate is substantially higher than the global average: while global mean temperature increased by about 1.23°C over the same period, Mexico's warming rate reached 2.88°C per century, compared with 1.90°C per century globally.[9] Warming has not been spatially uniform: the strongest increases have been recorded in northern and southeastern Mexico.

10. **Precipitation:** Observed precipitation trends in Mexico are more spatially and seasonally variable than temperature trends, but the evidence indicates that rainfall patterns are also changing. The UNAM

[7] Tea & Coffee Trade Journal / Euromonitor International, *Mexico Wants Its Top Ten Coffee Status Back*, March 2024. https://www.teaandcoffee.net/feature/33846/mexico-wants-its-top-ten-coffee-status-back/

[8] Deep Market Insights, *Mexico Specialty Coffee Market Size, Trends & Forecast Analysis (2025–2033)*, 2026. https://deepmarketinsights.com/vista/insights/specialty-coffee-market/mexico

[9] UNAM, 2023. State and Perspectives of Climate Change in Mexico: A Starting Point. Available at: https://cambioclimatico.unam.mx/wp-content/uploads/2023/12/State-and-Perspectives-of-Climate-Change-in-Mexico-a-Starting-Point.pdf

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assessment reports that average annual precipitation in Mexico increased by around 3.1 mm/month per century since the beginning of the twentieth century, with particularly significant increases in summer and fall. However, these national averages mask considerable territorial differences. From 1975 to 2021, precipitation declined in parts of the northeast and northwest, while central and southern regions generally experienced increases.[10] Seasonal changes are also uneven: winter precipitation shows negative trends across much of the country, while summer rainfall has decreased in several northern and central states but increased in parts of the southeast, including Oaxaca and Chiapas. For adaptation planning, the key issue is therefore not simply the direction of annual rainfall totals, but the growing irregularity and extremity of rainfall patterns. The same assessment finds that rainfall distribution has become more extreme, with longer dry periods and more intense precipitation events.

Climate change projections

11. **Temperature:** Climate projections indicate that warming in Mexico will continue throughout the twenty-first century under all scenarios. According to the UNAM assessment, average annual air temperature in Mexico could increase by about 6°C by the end of the century under a very high emissions scenario (SSP585), and by more than 5°C under SSP370. Even under a scenario broadly consistent with current NDC ambition (similar to SSP245), temperature increase could still approach 3°C by the end of the century, while a pathway aligned with the Paris Agreement (SSP126) could limit warming to around 2°C. For the mid-century period (2041–2060), projected increases under SSP585 range from around 1.8°C to 2.5°C across states, with the highest warming in northern states such as Coahuila, Chihuahua, and Sonora. By 2081–2100, temperature increases under SSP585 could exceed 4.5°C in 27 states and surpass 5°C in seven northern states. Figure 2).[11] **For agriculture, this means higher heat stress, lower yields, and growing production risks.**
12. **Precipitation:** Projected precipitation changes are more uncertain than temperature, but the overall national signal under higher-emissions scenarios is toward a hotter and drier climate with more extreme rainfall behavior. Under scenarios such as SSP585 and SSP370, average annual precipitation in Mexico could decline by around 8% by mid-century and about 15% by the end of the century. Intermediate-emissions scenarios project smaller changes, generally 5% or less. Equally important, precipitation regimes are projected to become more extreme. The assessment finds that most states are likely to experience longer dry periods alongside more intense rainfall on the wettest day of the year. Under RCP8.5, consecutive dry days could increase by more than 10 days per year by 2050 and by more than 21 days per year by 2090 in some states. Although the number of extreme rainfall days may decline in some places, rainfall intensity on the wettest day is projected to increase, implying fewer but more intense events. **Overall, this points to greater drought risk, more erratic rainy seasons, and higher exposure to runoff, erosion, and flood damage.**
13. Figure 1 shows downscaled climate scenarios[12] for 2041 – 2050 under SSP5-8.5 for the priority coffee regions of Guerrero, Chiapas and Oaxaca. Results show widespread warming, increasing thermal pressure and potentially shifting suitable cultivation zones to higher altitudes. Overlaying FFS helps identify where training should prioritize heat-tolerant varieties and shaded production systems. Additionally, it is expected that rainfall will be redistributed, including critical declines in some traditionally humid areas, such as parts of Guerrero. Overlaying this with FFSs helps identify where training should focus on watershed management, rainwater harvesting, and efficient irrigation. Table 2 summarises the results of the scenarios.

[10] Idem.

[12] The climate projections were downscaled using a statistical method processed in Google Earth Engine. The analysis used NASA NEX-GDDP-CMIP6 climate projections, originally at 25 km resolution, and calculated the change signal between the projected 2041–2050 period and the historical reference period of 1995–2014, using absolute anomalies for temperature and change ratios for precipitation. This change signal was then applied to the higher-resolution WorldClim v1.4 dataset at 1 km resolution, allowing the maps to reflect the influence of Mexico's local mountains and valleys on temperature and rainfall patterns. Finally, the results were converted into shapefiles at a 10,000-meter scale, making them suitable for GIS analysis and for overlaying with the Farmer Field Schools infrastructure.

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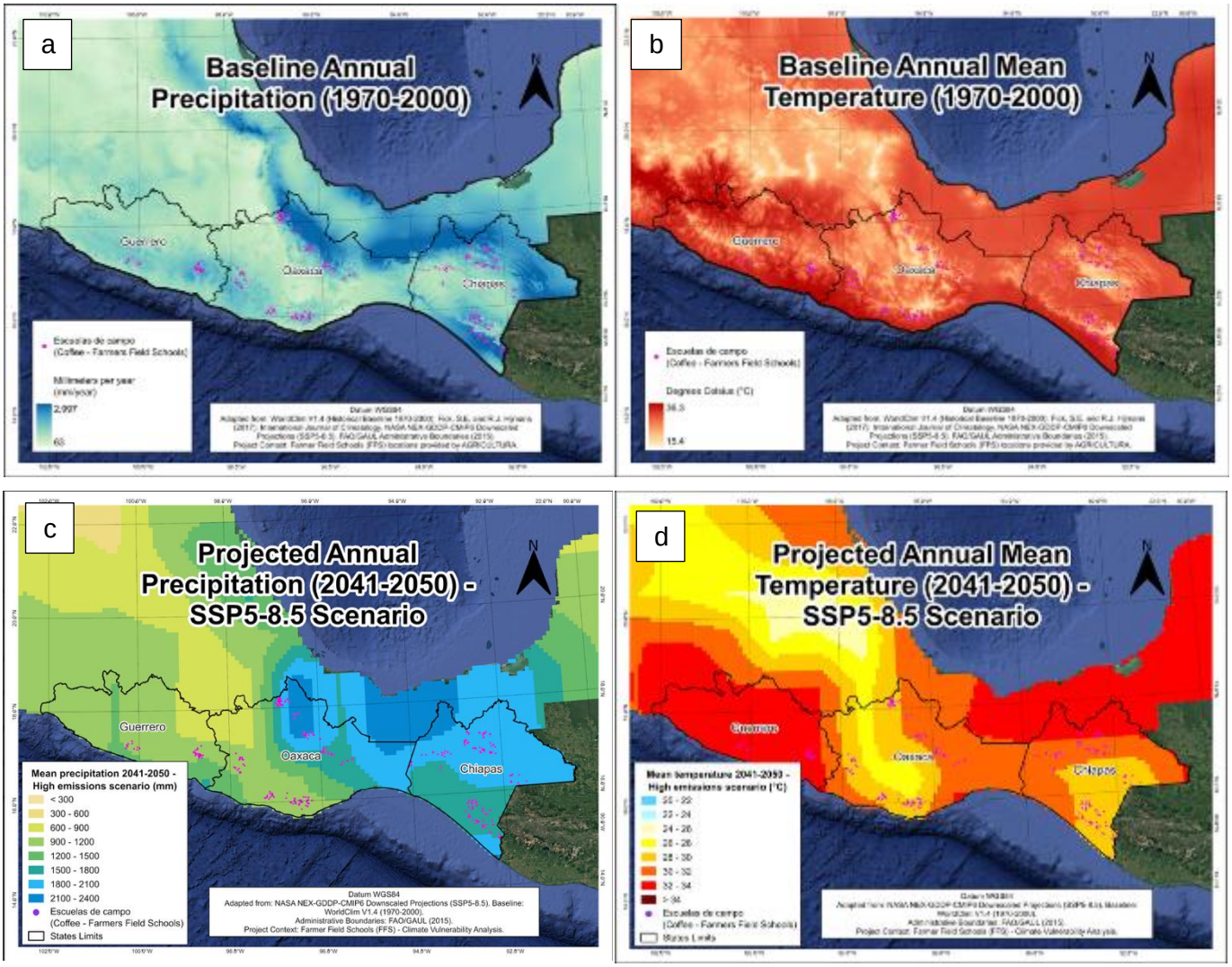


Figure 1. Historic trends and projected scenarios for SSP5-8.5 for Guerrero, Oaxaca and Chiapas: a) Baseline annual precipitation (1970 – 2000), b) Baseline annual mean temperature (1970 – 2000), c) Projected annual precipitation (2041 – 2050) and d) Projected annual mean temperature (2041-2050).[13]

Table 2. Summary of downscaled climate scenarios for 2041-2050 under SSP5-8.5

	Increase in Temp (C)	Variation in Rainfall (%)	Expected impacts
Chiapas	1.53	11.47	**Risk from excess moisture:** Increased rainfall combined with heat favors the spread of fungi such as coffee rust. This requires more intensive pruning management.
Oaxaca	1.95	26.42	**Impact on quality:** An increase of nearly 2°C and excess rainfall may accelerate ripening and wash away nutrients, affecting slope stability.
Guerrero	1.52	-8.49	**Water stress:** The combination of higher temperatures and lower rainfall will reduce the viability of coffee cultivation in lower areas, making a shift to higher elevations necessary.

A3. Climate risks and impacts

14. Coffee systems are highly climate-sensitive perennial crops and are already being affected by **rising**

[13] See note 15.

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temperatures, changing rainfall patterns, longer dry periods, and more frequent extreme events (see Table 3). Because coffee is produced largely under rainfed conditions, its productivity, quality, and health depend on relatively stable temperature and moisture regimes.

15. Climate change also undermines market access and income stability. Lower quality, variable production, and supply uncertainty reduce producers' ability to access differentiated and premium markets. This weakens incentives to invest in resilient practices and limits opportunities for value addition.

16. **Production loss:** Repeated climate shocks also threaten the viability of smallholders. For farmers with less than 5 hectares and limited savings, repeated losses can lead to debt, asset depletion, and eventual abandonment of production. In isolated and highly marginalized areas, these risks are even greater because the costs of transition are high and technical support is limited.

17. **Decreased coffee yield:** Coffee production shows a strong positive correlation with precipitation and significant negative correlations with both maximum and minimum temperatures.[14] National studies over two decades have documented productivity declines linked to rising temperatures and altered precipitation patterns. For instance, in Veracruz, productivity records show a 36% decline in yield from 2010 to 2020[15]. This trend is driven mainly by a confluence of climate threats: thermally induced stress that exceeds *C. arabica*'s optimal range (18–23°C); increased incidence of pests such as the coffee berry borer (*Hypothenemus hampei*), whose life cycles accelerate with warming; and the growing prevalence of coffee leaf rust (*Hemileia vastatrix*), favored by warmer and more humid conditions, alongside more frequent extreme weather events that disrupt phenology and damage plants.

18. **Loss of land suitability:** Climate projections for Mexico indicate that by mid-century (2045–2069), mean temperatures will keep increasing by 1.6 -- 2.5 °C, while precipitation could decline by up to 10%, accompanied by longer dry seasons and more intense droughts. These changes are already driving shifts in optimal cultivation zones toward higher elevations and increasing the incidence of pests and diseases, such as coffee leaf rust (roya). For coffee, up to 34% of currently suitable land could become unsuitable within the next 15 years.

19. These sensitivities are translating into quantifiable losses of suitable cultivation area. For coffee, recent meta-analyses confirm that suitable cultivation areas in Mesoamerica could contract by up to 50% by 2050 under RCP 6.0 scenarios[16], with lowland regions becoming increasingly marginal. Other modeling studies, such as one focused on Mexico's Soconusco region, project a 4.5-4.8% reduction in land suitable for coffee due to changing climatic conditions by the year 2030.[17]

Table 3. Summary of climate change impacts along the coffee value chain. (Author's elaboration based on Bracken, et al. 2023[18], Davis, et al. 2012[19])

Climate hazard	Production (farm & nurseries)	Post-harvest (harvest, wet processing, drying)	Storage & marketing (storage)
Hurricanes / tropical storms	Shade-tree blowdown; lodging/branch breakage; landslides on steep slopes; nursery damage; field access cut	Harvest interruption; cherries spoil if roads blocked; dryers/wet mills damaged; fermentation difficult if power/water disrupted	Transport interruptions; storage roof leaks; quality downgrading due to delays

[14] Jimenez-Torres, A. et al. 2015. Producción de café y variables climáticas: El caso de Espíndola, Ecuador Economía, vol. XL, núm. 40. Available at: https://www.redalyc.org/pdf/1956/195648804006.pdf
[15] https://pmc.ncbi.nlm.nih.gov/articles/PMC9824350/
[16] https://www.scielo.org.mx/scielo.php?pid=S2007-90282024000200009&script=sci_arttext
[17] *https://www.redalyc.org/journal/4760/476072134005/html/*
[18] Bracken, et al. 2023. Opportunities for enhancing the climate resilience of coffee production through improved crop, soil and water management, Agroecology and Sustainable Food Systems. Vol.47. https://doi.org/10.1080/21683565.2023.2225438
[19] Davis, et al. 2012. The Impact of Climate Change on Indigenous Arabica Coffee (Coffea arabica): Predicting Future Trends and Identifying Priorities. PloS ONE. https://doi.org/10.1371/JOURNAL.PONE.0047981

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Intense rainfall / flash floods	Erosion, gullying, nutrient leaching; waterlogging in pockets; seedling loss in nurseries	Dirty cherries, contamination; drying impossible outdoors; higher fungal risk	Flood damage to storage; access roads washed out; delayed delivery
Prolonged wet periods / high humidity	Higher foliar disease pressure; reduced field work windows; nutrient loss; outbreak cycles of coffee leaf rust increase	Slow drying → mold risk; Delayed ripening and harvest timing shifts; Fermentation hard to control	Re-wetting in storage; mold growth; price penalties/rejection
Longer dry spells / drought	Seedling stress and low establishment after renovation; yield declines; higher mortality in ageing plots; reduced flowering/bean fill	Water scarcity for pulping/cleaning; delays increase defects	Reduced volumes; income shocks; longer storage time may increase insect damage
Rising temperatures / heatwaves	Heat stress reduces yields; faster ripening lowers quality; increased evapotranspiration; more pest pressure	Faster/unstable fermentation; uneven drying if unmanaged Infested cherries increase defects; higher sorting needs	Quality deterioration if moisture control weak; more storage pests
Cold snaps / occasional frost[20]	Flower/leaf damage; nursery mortality; reduced yields	Delayed ripening and harvest timing shifts	Supply shocks; contract risks

A4. Gender and Indigenous People

Preliminary Gender Assessment

20. Mexico has made progress in education and political representation, but major gender gaps remain in economic participation, poverty, informality, unpaid care work, and exposure to violence, all of which shape women's adaptive capacity in coffee-producing areas. Women's educational outcomes are relatively strong, with lower secondary completion at **90.9% for girls versus 86.9% for boys** and adult literacy near parity (**96.5% for women; 95.4% for men**), which creates a strong basis for women's participation in climate advisories, financial education, and post-harvest and market-related training if barriers to access are addressed. At the same time, health and care burdens remain relevant for resilience, including a **maternal mortality ratio of 42 per 100,000 live births** and unpaid care work of **39.7 hours per week for women versus 18.2 for men**, rising to **44 hours for Indigenous women**.

21. Gender inequality is particularly acute in the project's target states. Poverty remains very high in **Chiapas (66.0%)**, **Guerrero (58.1%)**, and **Oaxaca (51.6%)**, while women's labour force participation is far below men's: in **Chiapas, 31.4% for women versus 80.3% for men**; in **Oaxaca, 42.9% versus 72.5%**; and in **Guerrero, 48.5% versus 74.3%**. Although unemployment rates are relatively low, informality is extremely high and consistently worse for women: **73.8% of working women in Chiapas**, **76.0% in Oaxaca**, and **75.6% in Guerrero** are in informal employment.[21] These patterns matter for adaptation because they limit women's access to income, social protection, credit histories, and time for training, producer organizations, and finance.

22. The project therefore treats gender-responsive adaptation as more than a participation target. It recognizes that women, especially Indigenous and rural women, face structural constraints related to limited recognition as producers, restricted access to land and finance, heavy care burdens, reduced mobility and safety concerns, and underrepresentation in extension and producer organizations. Gender mainstreaming will be operationalized through inclusive delivery modalities, sex-disaggregated monitoring, and measures to reduce participation barriers. The project targets at least **40% women among direct beneficiaries**, and through **200**

[20] Higher elevations in Oaxaca/Chiapas
[21] INEGI's ENOE state bulletins

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Farmer Field Schools aims to reach **9,000 producers**, with at least **50% women and 30% youth** (output-level target), using time-sensitive scheduling, accessible locations, safe learning spaces, bilingual facilitation where relevant, and childcare support where feasible.

23. Indigenous Peoples are central to the project context and beneficiary base. In Mexico, **39.2 million people (30.3%)** self-identify as Indigenous and **7.4 million (5.9%)** speak an Indigenous language. In **Chiapas, Oaxaca, and Guerrero**, Indigenous communities make up a large share of smallholder coffee producers and face overlapping constraints including poverty, geographic isolation, language barriers, financial exclusion, limited access to extension, and high exposure to drought, irregular rainfall, erosion, and pests. Indigenous women face even greater disadvantages, including poverty rates of up to **75%** and extreme poverty of **37%**, alongside higher unpaid care burdens and lower access to services, which further restrict their ability to adopt climate-resilient practices.

A5. Vulnerability drivers

24. **Socio-economic drivers:** Climate vulnerability in Mexico is strongly shaped by structural inequalities such as poverty, marginalization, gender inequality, ethnicity, and weak access to services and assets. These factors are especially pronounced in rural areas of the south and southeast, where livelihoods depend heavily on climate-sensitive agriculture and Indigenous Peoples are disproportionately affected. In coffee-producing municipalities, vulnerability is particularly acute: 59.4% of the 588 municipalities registered in the programme face high or very high marginalization. Producers also face severe financial exclusion, including limited land titles, weak credit histories, and very low access to formal finance, with fewer than three in 10,000 poor rural households able to obtain credit. These constraints reduce productivity, limit the capacity to absorb shocks, and restrict investment in renovation, resilient planting material, water management, and post-harvest improvements. For small producers, especially those with less than 5 hectares, repeated climate shocks can undermine economic viability and lead to the abandonment of coffee cultivation, particularly in isolated and highly marginalized areas.
25. **Environmental drivers:** Coffee systems in the target areas are highly dependent on the surrounding ecosystems that sustain them. Forest loss, declining shade cover, soil degradation, erosion, and biodiversity loss are weakening key ecosystem services such as water regulation, microclimate moderation, soil fertility, and natural pest control. As these services decline, coffee systems become more vulnerable to heat stress, rainfall variability, water deficits, and pest and disease outbreaks, with direct impacts on productivity and resilience. These environmental pressures, combined with small farm size and dependence on rainfed production, increase the fragility of coffee systems and reinforce the need for an ecosystem-based adaptation approach that restores and protects the ecological functions underpinning sustainable production.

A6. Project areas

Project area selection rationale

26. Project areas were selected based on: (i) **high climate vulnerability** as assessed by INECC[22], to concentrate support where exposure, sensitivity, and limited adaptive capacity are greatest; (ii) **high share of smallholder coffee producers** (less than 5 ha), prioritizing municipalities where smallholders—who are typically the most affected by climate impacts and have the fewest buffers—are most prevalent; (iii) **observed evidence of productivity decline or climate-related stress** in coffee systems; (iv) **presence of FFSs/cooperatives/microfinance institutions** to ensure implementation feasibility and sustained local engagement (areas without FFSs were excluded); (v) **no geographic overlap** with ongoing/future projects (in particular the GCF projects AROMA and BALSAS) to ensure additionality and avoid duplication; and (vi) **alignment with government territorial priorities** to reinforce country ownership and sustainability. Figure 2 shows the coffee producing areas in Mexico and the vulnerability to climate change at municipal level (INECC, 2022).

Selected project areas

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27. The preliminary site selection includes the states of Chiapas, Guerrero and Oaxaca in the South of Mexico (Table 4). These are the states where most coffee producers are small farmers since more than 90% of production units at the state level are below 5 hectares. Overall, 21 municipalities are selected, characterized by coffee production in small Production Units (under 5 ha), where the maximum temperature of the warmest quarter is projected to rise beyond the limits of coffee tolerances for good production. The selected production zones largely overlap with areas of high climate vulnerability and are characterized by traditional shaded, rainfed systems, low productivity, limited value addition, and heavy dependence on intermediaries, which reduces producer incomes.[23]

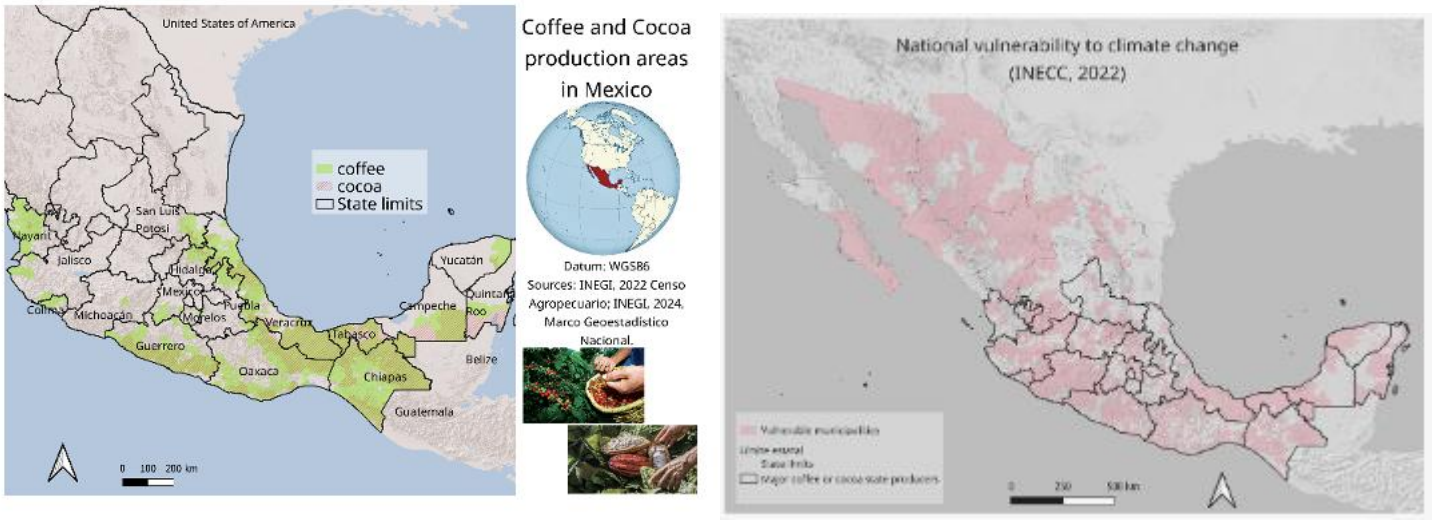


Figure 2. Maps of the coffee production areas and vulnerability to climate change at the municipal level.

Table 4. Preliminarily selection of project municipalities.

State	#	Municipality	Vulnerability index	Population (2024)	ndigenous population by self-identification (2020)	Afro-mexican population (2020)	Population employed in agricultural and forestry activities (2020)	Percentage population in extreme poverty (%)	National marginalization index[1] (2020)	Coffee area (ha; 2022)	Coffee productive units (2022)
Chiapas, Soconusco region	1	Motozintla		82,320	5,715	144	6,340	12.0	Medium	11,979	3,556
	2	Escuintla		31,353	1,827	88	3,562	20.1	High	6,881	2,125
	3	Villa Comaltitlá		32,049	1,021	229	3,576	13.7	High	2,442	691
	4	Unión Juárez		16,827	1,543	25	2,093	17.4	Medium	3,592	1,859
	5	Tapachula		373,399	8,052	4,287	10,819	17.1	Low	23,815	8,039
	6	Huehuetán		38,381	908	110	4,312	13.4	High	2,623	804
	7	Tuzantán		30,287	2,099	77	2,510	21.6	High	4,935	1,837
	8	Tuxtla Chico		42,005	936	1,404	2,824	19.5	High	1,820	1,129
	9	Cacahoatán		56,614	800	234	3,141	29.6	Medium	9,538	5,548
	10	Huixtla		55,161	3,881	239	3,171	12.3	Medium	4,051	1,186
		Subtotal Chiapas		758,396	26,782	6,837	42,348			71,677	26,774

[23] Government of Mexico, Programa Institucional de Alimentación para el Bienestar 2025-2030. Available at: https://www.gob.mx/cms/uploads/attachment/file/1025975/PI_APB_2025-2030.pdf

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Oaxaca, Los Loxicha region	1	Santa Catarina Loxicha		3,579	3,073	41	392	53	High	138	84
	2	San Bartolomé Loxicha		2,225	2,072	7	411	27	High	226	83
	3	San Pablo Coatlán		4,426	2,965	10	538	30	High	514	219
	4	San Pedro el Alto		5,063	4,147	21	750	41	Very high	208	124
	5	Candelaria Loxicha		11,890	9,503	289	1,260	45	Very high	1,774	665
	6	San Agustín Loxicha		28,045	23,478	417	3,466	65	Very high	4,804	2,281
	7	San Baltazar Loxicha		3,358	2,616	16	468	25	Medium	78	54
		Subtotal Oaxaca		58,586	47,854	801	7,285			7,741.8	3,510
Guerrero, Mountain region	1	Malinaltepec		26,804	26,712	6,379	4,216	50	Very high	4,993	3,068
	2	Tlacoapa		10,508	8,907	153	1,821	50	Very high	59	58
	3	Acatepec		43,304	35,973	355	9,381	62	Very high	982	554
	4	Iliatenco		11,894	10,538	1,072	1,872	39	Very high	3,959	2,691
		Subtotal Guerrero		92,510	82,130	7,959	17,290			9,994	6,371
		Total		909,492	156,766	15,597	66,923			89,412	36,655

A.7 Target groups

28. The proposed project will directly benefit an estimated **9,000 coffee-producing households** (approximately **36,000 individuals**) across **21 municipalities** in **Chiapas, Oaxaca, and Guerrero**. These households represent the core population of smallholder producers sustaining coffee-based livelihoods in highly climate-vulnerable territories affected by drought, irregular rainfall, soil degradation, and increasing pest and disease pressure. Coffee producers in targeted regions have an average age of 54 years and are almost equitably divided between men and women.

29. A large share of beneficiaries are expected to be **Indigenous Peoples**, particularly in Oaxaca and Guerrero, and in parts of Chiapas, where coffee is closely linked to livelihoods, cultural identity, and territorial stewardship. Therefore, the project aims for **at least 60 per cent of the direct beneficiaries to be Indigenous Peoples** and will tailor support to their cultural, territorial, and linguistic contexts.

30. **Women producers** are another key beneficiary group, with the project aiming for at least **40 per cent of direct beneficiaries to be women**. Women play essential roles in coffee production, seedling management, harvesting, post-harvest processing, and local commercialization, but they often face limited land ownership, restricted access to credit and technical assistance, and unequal unpaid care burdens that constrain their participation in training, decision making, and economic opportunities.

31. The project will also target **rural youth**, who are expected to represent at least **30 per cent of direct beneficiaries**. Youth are critical to the renovation of coffee systems, the adoption of climate-resilient practices, and the longer-term sustainability of the sector, yet they often face barriers in access to land, finance, skills development, and attractive livelihood opportunities. By strengthening their technical, organizational, and market-related capacities, the project will support greater youth participation in resilient and more competitive coffee value chains.

32. In addition to producer households, the project will strengthen a range of **institutional beneficiaries** that are essential for scaling and sustaining adaptation results. These include approximately **200 FFS**,

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around **100 coffee producer organizations and cooperatives** across the three states, and **five local financial institutions**. These actors will benefit from strengthened technical capacities, participatory planning, business plan preparation, financial and risk analysis, and improved ability to support producers with climate-resilient services, finance, and market linkages. Municipal authorities and local technical service providers will also benefit through stronger capacities to support local adaptation planning and implementation.

33. Beyond the direct beneficiaries, the project is expected to generate indirect benefits for **more than 11,000 additional coffee-producing households**, including through knowledge management, replication of practices, and wider dissemination of seasonal agroclimatic information through the Mesas Técnicas Agroclimáticas. Additional indirect beneficiaries will include other coffee value chain actors, who will benefit from improved traceability, certification, and market differentiation. Overall, the project is designed to support the diverse social and institutional actors that sustain the coffee economy in southern Mexico, with a particular focus on those facing the greatest climate vulnerability and the strongest barriers to resilience.

A.8 Barriers to adaptation

34. Barrier 1. Limited access to resilient planting material and adaptation practices. Ageing plantations, low resilience to heat and rainfall variability, degraded soils, declining shade cover, and erosion make coffee systems highly vulnerable. Producers also have limited access to resistant varieties, quality nurseries, and practical support for renovating plantations and adopting soil, water, and landscape restoration measures at scale.

35. Barrier 2. Limited access to timely, locally actionable climate and phytosanitary information. Smallholder producers often lack practical, localised climate and pest information to guide farm decisions. Existing forecasts and alerts are not always translated into coffee-specific advisories, and weak last-mile communication, limited local monitoring, and low capacity to interpret warnings reduce their effective use. **Barrier 3. High post-harvest losses and weak resilience of processing systems due to a lack of or inadequate technologies.** Increasing rainfall variability, humidity, and unreliable water availability raise risks during harvesting, drying, handling, and storage. Many producers still rely on poorly adapted infrastructure and lack low-cost technologies to protect quality, reducing incomes and limiting reinvestment in adaptation.

36. Barrier 4. Limited coverage and institutional capacity to scale FFSs and INIFAP technical support. FFS and INIFAP provide a strong platform for applied learning, but their coverage, staffing, and continuity are insufficient to reach vulnerable municipalities at the scale needed. As a result, adoption of resilient practices remains low, especially among women, youth, and Indigenous communities.

37. Barrier 5. Weak organizational capacity of small-scale producers limits market access and income stability. Small-scale coffee producers often rely on weakly organized groups or cooperatives that lack the capacity to coordinate production, aggregate volumes, ensure consistent quality, manage traceability, and negotiate effectively with buyers. This limits access to more stable and rewarding market channels, undermines income stability, and reduces producers' ability to respond collectively to climate and market risks.

38. Barrier 6. Limited access to inclusive and climate-adapted finance. Small-scale producers face limited access to credit due to limited collateral, weak credit history, low financial literacy, weak cooperative capacity, and financial products not tailored to investments in coffee adaptation. As a result, even where adaptation options are technically viable, producers are frequently unable to mobilize the upfront investment needed to adopt them, particularly where returns depend on medium-term improvements in productivity, quality, or resilience.

B. Project/Programme Objectives:

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39. **Project Goal:** To strengthen the long-term climate resilience and livelihood security of vulnerable smallholder coffee producers and coffee landscapes in Mexico's priority production areas - Oaxaca, Guerrero, and Chiapas.

40. **Objectives:**

- Increase the adaptive capacity and resilience of smallholder coffee production systems and the ecosystems that sustain them to climate variability and change.
- Strengthen the economic and livelihood resilience of vulnerable smallholder coffee producers through improved access to inclusive finance, stronger producer organizations, and more resilient market opportunities.

41. The project directly contributes to the Fund's impact by **increasing resilience and reducing vulnerability** to climate variability and change. In particular, the project contributes to **Outcome 1. Reduced exposure to climate-related hazards and threats** by improving access to climate-related information and advisories for coffee producers; to **Outcome 2. Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses** by strengthening the capacity of coffee producers and their organizations to anticipate and manage climate-related risks affecting coffee production, including through climate-informed financial services and institutional support from local financial intermediaries; to **Outcome 3. Strengthened awareness and ownership of adaptation and climate risk reduction processes** by strengthening awareness and ownership of adaptation processes through farmer field schools and peer learning; to **Outcome 5. Increased ecosystem resilience in response to climate change and variability-induced stress** by restoring degraded lands, strengthening agroforestry systems, and enhancing ecosystem resilience in coffee landscapes; and to **Outcome 6. Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas** by improving access to climate finance and establishing differentiated markets for climate-resilient coffee. The corresponding AF outputs and indicative grant allocations are detailed in Table 16 in Part III A.

42. A substantial portion of the total project budget (70 per cent) is directed to Components 1, and 2 , where investments deliver direct resilience gains for the most climate-affected small-scale coffee producers through farm- and landscape-level EbA measures, renovation with climate-resilient varieties, and post-harvest innovations and infrastructure that protect quality and reduce losses under increasing climate variability. These physical and technical investments are deliberately paired with "enabling" support to ensure results are sustained and scalable.

C. Project/Programme Components and Financing:

Table 5: Summary of Project Components, Outputs, Outcomes and Budget

Project/Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
1. Building resilience of smallholder coffee production systems and post-harvest processes	1.1. Climate-resilient coffee varieties and ecosystem-based adaptation (EbA) practices deployed in target coffee production systems	1. Vulnerable smallholder coffee producers, including women, youth, and Indigenous groups, adopt climate-resilient practices that strengthen coffee	7,000,000
	1.2. Coffee-specific agroclimatic and phytosanitary advisories inform producers´ adaptation actions		511,521

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	1.3. Climate-resilient post-harvest processing technologies validated and adopted	production systems, landscapes, and the coffee value chain.	2,500,000
	1.4 Smallholder coffee producers trained in climate-resilient technologies and practices through upgraded Farmer Field Schools		2,500,000
2. Improving access to inclusive climate financing for small-scale coffee producers	2.1. Financing mechanisms tailored to small-scale coffee producers developed and made available	2. Through strengthened local financial institutions, small coffee producers have improved access to inclusive financing for climate-resilience agriculture	4,638,709
	2.2 Farmer groups and cooperatives provided with organizational, managerial and financial capacity-building support		1,000,000
3. Strengthening market access for smallholder coffee producers practicing climate-resilient production	3.1 Coffee producer organizations equipped with commercial capabilities and traceability systems to access markets for coffee produced under climate-resilient practices.	3. Adaptive capacity of smallholder coffee producers strengthened through access to differentiated markets for climate-resilient coffee and improved knowledge and peer-learning	800,000
	3.2 Market linkage and buyer engagement support provided to coffee producer organizations for climate-resilient coffee.		1,200,000
	3.3 Knowledge management and peer learning for climate-resilient coffee systems delivered		702,305
4. Project Execution cost (9.5%)			2,188,940
5. Total Project Cost			23,041,475
6. Project Cycle Management Fee charged by the Implementing Entity (8.5% of total project cost)			1,958,525
Amount of Financing Requested			25,000,000

D. Projected Calendar:

Table 6: Project Milestones and Timeline

Milestones	Expected Dates
Start of Project/Programme Implementation	Feb 2028
Mid-term Review (if planned)	Feb 2031
Project/Programme Closing	Feb 2034
Terminal Evaluation	Nov 2034

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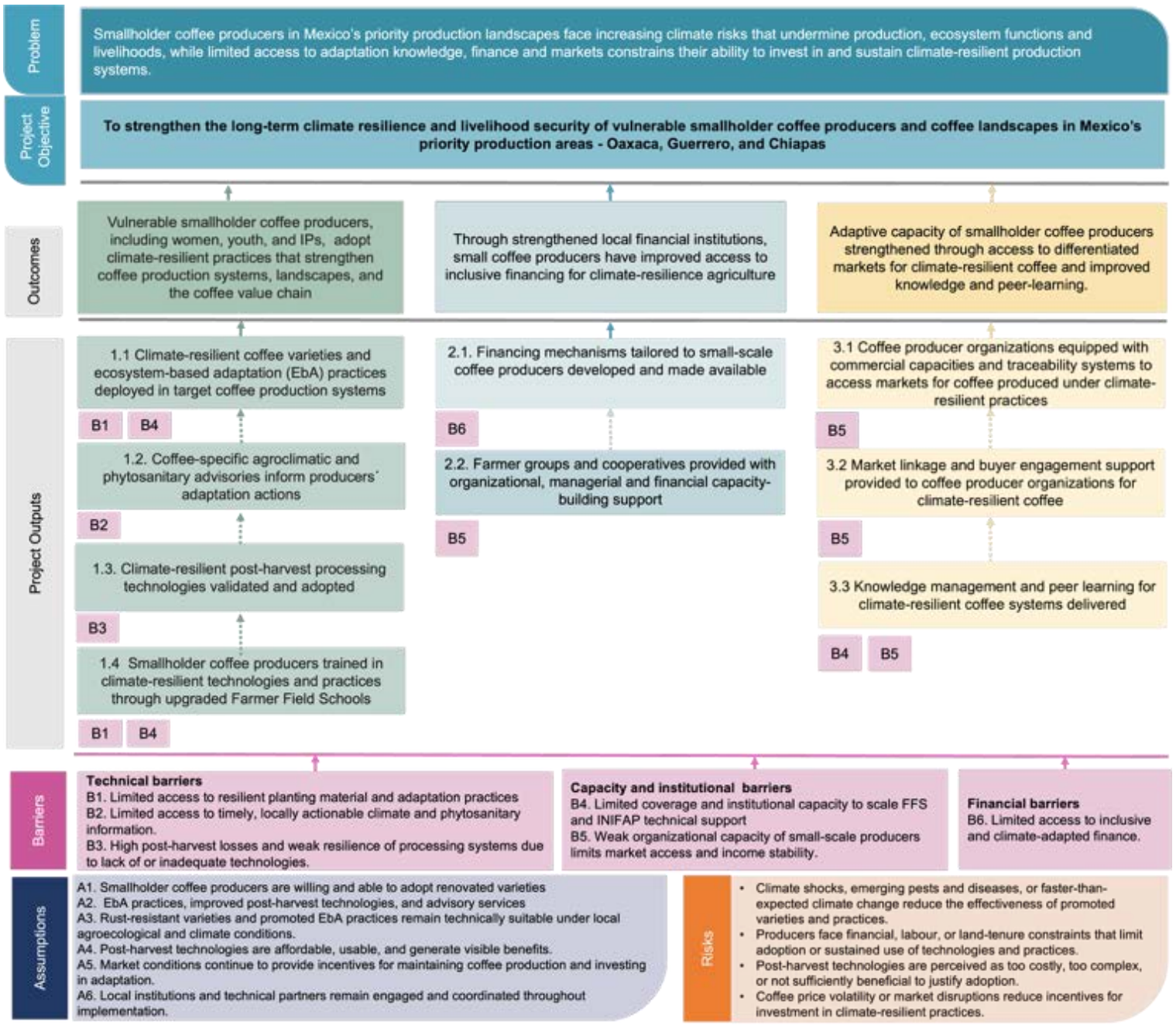
E. Theory of change

43. The project responds to a central challenge facing smallholder coffee producers in Mexico: increasing climate stress is undermining productivity, ecosystem functions, income stability, and producers' capacity to invest in adaptation. The project's Theory of Change therefore combines three mutually reinforcing pathways that together strengthen farmers' adaptive capacity and the resilience of landscapes and farm systems. **If** ecological and landscape resilience is strengthened, **then** the natural foundation of coffee production—soils, water systems, shade trees, biodiversity and ecological connectivity—will be better able to buffer climate impacts, helping to stabilize productivity and quality. **If** producers have access to timely and actionable climate information, practical knowledge on how to anticipate and respond to climate risks, and inclusive finance to put this knowledge into practice**, then their** adaptive capacity will increase**.** They will be better able to adjust farm management, respond to emerging climate and pest risks, and invest in the technologies, planting material and ecosystem-based measures needed to reduce vulnerability over time. **If** producer organizations and cooperatives are stronger and better able to aggregate production, meet quality and traceability requirements, negotiate with buyers and access differentiated markets, **then** smallholders will be able to overcome the scale and transaction-cost barriers that often limit their individual market access**. Together, these pathways create a reinforcing cycle: healthier farms and landscapes reduce climate risks; information, knowledge and finance enable producers to anticipate, respond and invest in adaptation; and stronger organizations and markets generate the income and incentives needed to maintain and expand these investments**. In this way, the project will create the conditions for climate-resilient coffee production to be sustained and scaled beyond the project period. Gender-responsive and culturally appropriate approaches will be integrated throughout to address barriers faced by women and Indigenous producers and strengthen their participation in decision-making and economic opportunities.

44. The project's Theory of Change (Figure 3) is iterative and assumes that climate risks, producer needs, and market conditions will continue to evolve. For this reason, the project invests not only in specific adaptation measures but also in the systems, capacities, and feedback loops needed to adjust responses over time. By combining resilient production practices, coffee-specific climate services, inclusive finance, stronger market access, and knowledge management, the project supports a dynamic process that enables smallholder producers to better adapt to climate risks while strengthening the long-term viability of their livelihoods, through a gender-responsive and culturally appropriate approach across all components

Figure 3. Theory of Change diagram.

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PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Project/programme components

Component 1: Building resilience of smallholder coffee production systems and post-harvest processes

Outcome 1: *Vulnerable smallholder coffee producers, including women, youth, and Indigenous groups, adopt climate-resilient practices that strengthen coffee production systems, landscapes, and the coffee value chain*

45. Component 1 addresses the key barriers that keep small-scale coffee producers highly vulnerable to climate change: climate-sensitive and degraded production systems; limited access to resilient planting material and EbA practices; inadequate climate and pest/disease risk information; and high post-harvest losses driven by humidity variability and water constraints. It will reduce vulnerability and strengthen adaptive capacity by combining farm- and landscape-level EbA transformation with coffee-specific climate and phytosanitary risk management, while scaling low-cost post-harvest technologies that protect quality, cut losses, and stabilize incomes to enable reinvestment in adaptation. Delivery is anchored in upgraded Farmer Field Schools (FFS), ensuring sustained adoption through hands-on training, demonstrations, peer learning, and extension support, with a gender- and youth-responsive approach to secure equitable access and leadership.

Output 1.1 Climate-resilient coffee varieties and ecosystem- based adaptation (EbA) practices deployed in target coffee production systems

46. This output tackles the main drivers of vulnerability in smallholder coffee systems, including climate-sensitive ageing plantations with weak rust resistance; degraded soils and weakened ecosystem functions, while removing a key barrier to adaptation, namely the slow uptake and scaling of climate-resilient varieties and low adoption of practices needed to restore microclimate regulation, soil moisture retention and landscape resilience.

47. The Output will reduce climate vulnerability by combining (i) a stronger genetic base (climate resilient and resistant varieties) with (ii) EbA practices at farm and landscape scales, supporting the progressive renovation of approximately 3,000 ha of coffee productive units in the most climate-affected zones, the application of EbA practices on at least 2,500 ha and the restoration of 2,500 ha of degraded land including priority micro-watersheds, riparian zones, and erosion-prone slopes. Renovation will be implemented as a full resilience package, transitioning farms to diversified agroforestry systems that stabilize yields and quality under climate variability and reduce exposure to heat, drought and climate shocks. This package will combine improved planting material, shade management, soil and water conservation, landscape restoration, and technical accompaniment so that farmers can adopt a coherent set of measures rather than isolated practices.

48. To strengthen the genetic base, the project will partner with the National Institute for Forestry, Agricultural and Livestock Research (INIFAP) and the private sector to validate available and already certified rust-resistant and resilient coffee varieties (e.g. *Oro Azteca, Talisán, Sarchimor, IAPAR 59*, etc.) and multiply them through strengthened community nurseries upgraded with climate-adaptive improvements and quality-control protocols, linked to FFS as applied training hubs. EbA measures will follow validated practices, including increased shade, soil cover, and organic inputs to improve soil moisture retention, reduce erosion, and enhance resilience. A gender-responsive approach will ensure women coffee producers and workers benefit equitably from inputs, renovation support and capacity building. Indicative activities:

- **Select and validate coffee resilient and resistant varieties through multi-site demonstration plots**, monitoring yield stability under climate variability, pest and disease resistance, and quality. Demonstration plots will be established in representative municipalities across Oaxaca, Guerrero, and Chiapas to compare varietal performance under different altitude, temperature, and rainfall conditions, and to inform locally appropriate recommendations for scaling.

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- **Develop and apply multiplication protocols for the planting material,** including traceability and quality-control measures to maintain genetic purity during propagation. Protocols will include seed and seedling selection, nursery hygiene, labeling and batch identification, and procedures to ensure that planting material distributed to producers meets agreed technical standards.
- **Upgrade at least 200 community nursery infrastructures with climate-adaptive improvements** to ensure consistent seedling quality under variable temperature and rainfall. Targeted support for women-managed nurseries or women's groups where applicable.
- **Implement a phased renovation of coffee production units across at least 3,000 ha**, using certified, climate-resilient, and disease-resistant planting material, ensuring transparent and inclusive beneficiary selection.
- **Improve agroforestry systems**, including selection and planting of native or producer-preferred shade species, with attention to species choices that generate co-benefits valued by women where relevant.
- **Apply soil and water conservation measures on at least 2,500 ha (**mulching, terraces, infiltration trenches, live barriers, contour planting, vegetative cover, use of compost and bio-inputs) to improve infiltration, soil moisture retention, and fertility.
- **Conduct participatory landscape risk mapping and prioritization** (e.g., erosion hotspots, riparian buffer gaps, connectivity corridors) to identify where restoration will deliver the highest resilience gains for coffee landscapes.
- **Restore and revegetate at least 2,500 ha of priority riparian areas and degraded slopes** to improve watershed regulation, reduce sedimentation and flood impacts, and enhance landscape connectivity and biological pest control. Restoration activities may include slope stabilization, assisted natural regeneration, native species planting, riparian buffering, and erosion control structures in degraded areas.

Output 1.2: Coffee-specific agroclimatic and phytosanitary advisories inform producers´ adaptation actions

49. This Output addresses the barrier of limited access to timely, locally actionable climate and pest/disease risk information—combined with weak capacity to translate risk signals into rapid farm and post-harvest decisions. It will do so by operationalizing agroclimatic services for coffee at seasonal and daily time horizons.

- **Seasonal agroclimatic services** will be anchored in the Agroclimatic Technical Working Groups (Mesas Técnicas Agroclimáticas)[24], which will integrate coffee-specific needs into seasonal outlooks and translate them into practical implications for coffee management (e.g., likely timing of rains, drought probability, humidity patterns, and risk windows for rust/borer). At present, such groups are established and operational in 14 states in Mexico, including Oaxaca and Chiapas. Building on this, the FFS will facilitate *Seasonal Participatory Scenario Planning* with producers so that seasonal information is translated into concrete decisions and contingency plans (e.g., renovation and nursery timing, shade/pruning calendars, labour planning for harvest, and preparedness for wet drying conditions).
- **Daily/short-term services** will be provided through a low-cost community early warning protocol that uses local monitoring and simple thresholds to trigger immediate actions during climate-sensitive windows, especially harvest and drying (e.g., switching to covered/modular drying, tightening moisture and storage hygiene, adjusting harvest schedules, and escalating agroecological Integrated Pest Management (IPM).

50. This output will complement and strengthen Mexico's existing National System for Phytosanitary Epidemiological Surveillance (SINAVEF)[25] by operationalizing a community "last-mile" protocol through

[24] Mesas Técnicas Agroclimáticas: https://www.gob.mx/agricultura/acciones-y-programas/mesas-agroclimaticas
[25] Nacional System for Phytosanitary Epidemiological Surveillance (SINAVEF): https://prod.senasica.gob.mx/SIRVEF/

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FFS that translates official coffee rust risk information into specific triggers and rapid response actions. It will address the current gap between climate and phytosanitary information generated at the institutional level and the practical decisions that producers need to make at the farm and post-harvest level under increasingly variable climatic conditions. The output is expected to directly benefit approximately 9,000 smallholder coffee producers reached through the project's Farmer Field Schools and advisory systems, while indirectly benefiting an additional 11,000 producers in the target municipalities through wider dissemination of seasonal advisories, community warning systems, and coffee-focused Mesa products. A gender-responsive approach will ensure that women and youth have equal access to advisory roles and leadership positions. Indicative activities:

- **Create a coffee workstream within the Agroclimatic Technical Working Groups (Mesas Técnicas Agroclimáticas) in Chiapas and Oaxaca** by defining a coffee decision calendar and priority coffee risk questions, and by ensuring participation of coffee extension agents and FFS/producer representatives in the relevant Mesa sessions.
- **Co-produce and disseminate coffee-specific seasonal advisories** (rainfall onset/cessation, drought/humidity outlook, rust/borer risk windows) as part of the Working Groups.
- **Facilitate Seasonal Participatory Scenario Planning through through the project's FFS network** to convert seasonal outlooks into agreed farm and value-chain decisions (e.g., nursery/renovation timing, shade/pruning calendars, harvest labour planning, and post-harvest preparedness). This process will support producers in interpreting forecasts collectively and defining practical response options before and during each season, improving preparedness and reducing climate-related losses.
- **Establish a low-cost community monitoring network** (e.g., manual rain gauges and simple temperature/humidity observations) and define routines for recording, sharing, and interpretation. Community monitoring points will be linked to selected FFS and producer groups, strengthening local ownership of climate information and improving the relevance of advisories and short-term alerts.
- **Define and test an early action protocol** linking short-term signals to immediate actions across farm and post-harvest stages within the FFS.
- **Operationalize communication channels suited to local conditions** (e.g., WhatsApp/SMS groups, community radio, and notice boards at collection points). The project will use multiple dissemination channels to ensure that both directly targeted producers and broader coffee communities in the intervention municipalities, including women, youth, and Indigenous producers who may face barriers to accessing formal extension services, can receive timely warnings and advisory messages.

Output 1.3 Climate-resilient post-harvest processing technologies validated and adopted

51. This output will address the barriers of climate-driven quality and loss risks during drying, handling, and storage, and unreliable and inefficient water access for processing and hygiene, which together increase spoilage and contamination, affecting the income of smallholders. Activities are designed to strengthen climate resilience along the coffee value chain by scaling low-cost, locally appropriate post-harvest innovations that protect bean quality under increasing climate stress and reduce post-harvest losses. In doing so, it will stabilize producer incomes, enabling smallholders to better absorb climate shocks, recover faster after adverse weather, and reinvest in on-farm adaptation measures, thereby strengthening their adaptive capacity. The project will upgrade or establish 200 FFS, which will serve as the primary platform for technology transfer, peer learning, and participatory validation to support adoption and scaling. The climate-resilient post-harvest technology will be installed in each FFS to give all FFS producer members the chance to use it. The output is expected to directly benefit approximately 9,000 smallholder coffee producers participating in project supported FFS, while indirectly benefiting additional producers in surrounding municipalities through demonstrations, peer learning, and replication by producer organizations and cooperatives. It is expected to be particularly relevant for women, who often play key roles in post-harvest handling, quality control, and local commercialization, and for Indigenous producers

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in remote areas where climate variability and limited infrastructure heighten quality and loss risks. Indicative activities:

- **Validate and scale climate-adapted drying solutions through the 200 FFS** (e.g., depulpers, raised drying beds, improved solar dryers, modular systems to control humidity and reduce fungal risk).
- **Pilot and promote improved storage and handling practices/equipment at household, FFS and producer-organization level,** to reduce moisture reabsorption, contamination, and quality loss during collection and marketing. This may include improved sacks and containers, raised storage, ventilation measures, moisture monitoring tools, and better handling protocols at the household, FFS, and producer organization level.
- **Support circular bio-input production from processing residues** (e.g., compost, biofertilizers) and integrate their use into on-farm soil fertility and moisture retention practices.
- **Document performance** (e.g., loss reduction, quality improvements, cost/benefit) **and develop practical guidance** for replication and scaling through FFS.
- **Implement on-farm water harvesting and infiltration practices** (e.g., micro-catchments, infiltration trenches, rainwater capture and storage) to improve water availability for production, nurseries and farm operations during dry periods. Examples include contour infiltration trenches, rooftop rainwater harvesting with storage tanks for nurseries and processing, small on-farm storage ponds, vegetative barriers, and simple runoff control structures such as stone lines or check dams, depending on local topography and water needs.

Output 1.4 Smallholder coffee producers trained in climate-resilient technologies and practices through upgraded FFS

52. This output will address barriers to accessing resilient planting materials and adaptation practices, as well as to technical and extension services. It will strengthen adaptive capacity by upgrading existing FFS and forming new ones where needed, bringing the total to 200 FFS across Oaxaca, Chiapas, and Guerrero, serving as the project's primary platform for applied learning, peer exchange, and continuous problem-solving under changing climate conditions. It will reach 9,000 coffee producers (at least 40% and 30% youth) and put in place explicit measures to ensure women's and youth's participation and leadership. In addition, the strengthened FFS network is expected to generate indirect benefits for a broader group of producers in the target municipalities through peer-to-peer learning, replication of practices, and dissemination of knowledge through producer organizations, community networks, and demonstration sites. Through FFS, producers will receive hands-on coaching to implement EbA practices alongside climate-resilient post-harvest management.

53. The enabling system for the sustained adoption of climate-resilient practices will be strengthened by training 200 extension agents and at least 200 lead farmers as facilitators; with special attention to have women lead farmers. Demonstration/learning sites linked to FFS will be established where producers can test and refine practices locally. To reduce participation barriers, the project will apply inclusive training modalities (timing/location suitable for women's workloads, accessible materials, safe learning spaces, local languages and, where relevant, childcare support) and link youth engagement to "Jóvenes Construyendo el Futuro" to support youth placements/traineeships for skills development and local service provision. Indicative activities:

- **Upgrade 200 FFS as the core coffee adaptation delivery platform** (e.g., provide essential inputs, tools, facilitator support, curricula, learning materials).
- **Train 200 extension agents and lead farmers as FFS facilitators** on climate risk, EbA practices, agroecological IPM, shade/soil/water management, and climate-resilient post-harvest handling.
- **Deliver hands-on FFS modules on climate-resilient production and post-harvest quality control,** including cherry selection, depulping, moisture-controlled drying, fermentation control, and humidity-controlled storage and basic classification.
- **Establish and/or strengthen demonstration and learning sites linked to FFS** (e.g., renovation

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plots, agroforestry/shade layouts, soil cover trials, post-harvest pilots).

- **Facilitate peer exchange networks between FFS and producer organizations** to accelerate learning and uptake across municipalities.
- **Improve participatory monitoring within FFS** (simple indicators of practice adoption, yields/quality, losses, and water-stress signals) to support adaptive management.
- **Support FFS territorial scaling** by defining criteria for expansion to new coffee contexts and adapting modules to different agroecological zones. This will help ensure that the FFS model remains relevant across varying altitudes, rainfall levels, and production contexts, and that lessons from implementation can support wider replication beyond the initial municipalities.
- **Provide technical supervision and training to community nursery operators and producer groups** on seedling production and grafting, with a focus on women and youth as lead farmers/facilitators.

Component 2. Improving access to inclusive climate financing for small-scale coffee producers

Outcome 2: *Through strengthened local financial institutions, small coffee producers have improved access to inclusive financial services for climate-resilient agriculture*

54. Small-scale producers face major barriers to accessing finance for adaptation. Limited collateral, weak credit histories, low financial literacy, geographic dispersion, and the lack of financial products suited to smallholder and climate-risk conditions constrain investment in renovation, resilient planting material, water management, and post-harvest improvements. As a result, vulnerability remains high; around 87% of small-scale coffee producers lack access to financial services (SADER, 2025).

55. This component builds on existing public programmes, particularly *Producción para el Bienestar* (PpB) and *Cosechando Soberanía* (CS)**,** to strengthen access to more inclusive and climate-relevant finance for coffee producers. PpB helps address underlying constraints affecting producers' financial inclusion, while CS, operated through the Trust Fund for Rural Development - FIRA **(***Fideicomisos Instituidos en Relación con la Agricultura*), provides an institutional platform for subsidised credit and guarantee instruments for small-scale producers, including those without conventional collateral. FIRA provides an important institutional platform to expand access to subsidised credit and guarantee instruments for small-scale producers, including those who lack conventional collateral. As a second-tier public development bank, FIRA works through first-tier banks, non-bank financial intermediaries such as SOFOM[26] (*Sociedad Financiera de Objeto Múltiple*) and SOCAP[27] **(***Sociedades Cooperativas de Ahorro y Préstamo*), and specialised rural finance actors.

56. The project will not create a parallel financing scheme but will strengthen existing mechanisms so they can better serve climate-vulnerable coffee producers. It responds to three main gaps: **(i)** most available finance remains focused on short-term working capital rather than longer-term adaptation investments such as coffee renovation; **(ii)** many producer organizations still face administrative and technical barriers to accessing existing financing instruments; and **(iii)** upfront investment costs remain too high for many smallholders, even where credit is available.

57. The component will address these barriers by providing inputs required to renovate 1 ha of coffee orchard, as well as **technical assistance, institutional capacity strengthening, and financial education,** thereby facilitating linkages to existing credit and guarantee instruments in collaboration with local

26 Sociedad Financiera de Objeto Múltiple (SOFOM) is a non-banking financial entity specializing in granting loans, and operating under a flexible specialized model rather than a full-service banking license. They fill gaps in traditional banking, particularly for SMEs and remote areas.

27 Sociedades Cooperativas de Ahorro y Préstamo (SOCAP) are non-profit financial cooperatives supervised by the National Financial Regulatory Commission to offer savings and loan services to their members. These organizations promote financial inclusion, particularly in rural areas

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intermediaries such as FINDECA[28] **(***Financiando el Desarrollo del Campo***)**. It also builds on evidence that group-based lending through producer organizations can improve access and repayment performance. In addition, combining credit with complementary in-kind support — particularly for the input package required for coffee renovation, estimated at around 30% of total investment costs — can make adaptation investments more feasible for smallholders.

58. Overall, this component will enable more sustained and inclusive access to affordable finance for climate-resilient coffee production systems. By strengthening both the supply of and demand for appropriate financial services, it will help producers invest in adaptation, reduce their vulnerability to climate shocks, and improve the long-term sustainability of their livelihoods.

Output 2.1: Financing mechanisms tailored to small-scale coffee producers developed and made available

59. This output will address key barriers to adaptation, namely, constrained access to affordable financing necessary for the renovation of coffee trees, low reinvestment capacity among coffee farmers, and weak organisational capacity of coffee producers' organisations (associations, cooperatives). This will be achieved by expanding access to climate-resilient financial products for coffee producers, including through strengthening the capacity of financial intermediaries and providing technical assistance to coffee producers' organizations, as well as providing access to complementary in-kind support so that producers are better able to invest in climate-resilient practices such as heat-tolerant coffee varieties, efficient water use systems, and agroforestry adaptation measures.

60. The project will work with FIRA and its network of local non-banking financial intermediaries, including FINDECA, to identify eligible cooperatives and other producer organisations to support enrollment in existing programs that promote access to inclusive financial services for climate-resilient agriculture, and to provide technical assistance to meet administrative and compliance requirements for accessing these programs. A gender-responsive approach will ensure that women and youth have equal access to advisory services and capacity-building opportunities.

61. The project will also complement these programs by providing in-kind resources (equipment, materials, inputs) to invest in the renovation of old and unproductive coffee trees, covering the inputs required to restore one hectare of degraded coffee orchard, up to a ceiling. The project will also provide in-kind resources (equipment) to eligible coffee producer groups to finance investments for on-farm small-scale processing and value addition. Indicative activities will include:

- **Screen eligible local financial institutions operating in targeted municipalities**, including non-banking financial intermediaries (SOFOM, SoCAP) and first-tier local banks.
- **Support the enrollment and accreditation of local financial institutions** with Federal (FIRA) and State-level second-tier financial institutions to ensure they have access to federal and state-level programs promoting climate resilience and sustainability.
- **Provide technical assistance to five Local Financial Institutions** in targeted municipalities to strengthen their capacity to better assess agricultural and climate risk, so that they can offer targeted financial products, including to small-scale coffee producers.
- **Provide technical and administrative assistance** to eligible producer organizations among the approximately 100 farmer groups and cooperatives supported under Component 2, including geolocation, documentation and financing applications.
- **Provide in-kind resources (inputs, materials) to finance the renovation of coffee trees** for eligible small-scale coffee producer groups (associations, cooperatives) in targeted municipalities.
- Provide in-kind resources (equipment) **to finance investments for on-farm small-scale processing** and value addition to eligible small-scale coffee producer groups (associations, cooperatives) in targeted municipalities.

28 FINDECA is a non-banking financial entity that has emerged from a large coffee producers cooperative (CEPCO). It currently provides techncial assistance and credit to approximately 15,000 organized smallholders in Chiapas and Oaxaca, over 98% of which have between 2-5 ha of shade-grown coffee, which is also certified-organic and fair-trade.

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Output 2.2: Farmer groups and cooperatives provided with organizational, managerial and financial capacity-building support.

62. This output will address key barriers to adaptation, such as weak organisational and managerial capacity of coffee producer organisations, as well as low financial literacy, which leads to distrust and limited knowledge that many producers face when engaging with local financial institutions. This will be achieved by strengthening the capacity of these cooperatives to expand access to climate-resilient financial products for coffee producers and by providing financial education for their members.

63. The output will generate demand by equipping producers with the knowledge needed to understand loan terms, interest rates, repayment obligations, guarantee mechanisms, and risk management strategies. It will also focus on payment and budget management: teaching producers how to manage income and expenditure, plan repayments, and avoid over-indebtedness. A gender-responsive approach will ensure women and youth have equal access to training opportunities.

64. Where possible, the project will aim to partner with educational technology companies or platforms that use technology to deliver digital education solutions, including mobile applications, online courses, interactive simulators, and educational videos. Indicative activities will include:

- **Prepare a capacity development program** for identified priority farmer associations, groups, and cooperatives, focusing on a) strengthening their organizational and managerial capacity; b) strengthening the financial education and literacy of their members
- Regarding financial education, **training material will include modules on** how to access credit products and how these integrate guarantee and credit subsidy systems, enabling producers to make informed decisions.
- **Carry out the training at the farmer group and member levels**, including through digital education solutions and mobile applications. Facilitate at least 160 training sessions on financial literacy for 100 farmer groups (4000 farmers).
- **Promote scaling up of financial education tools** via existing EdTech solutions, where available

Component 3: Strengthening market access for smallholder coffee producers practicing climate-resilient production

Outcome 3: *Adaptive capacity of smallholder coffee producers strengthened through access to differentiated markets for climate-resilient coffee and improved knowledge and peer-learning.*

65. Component 3 is the commercial pathway that completes the logic of Components 1 and 2: coffee produced under climate-resilient practices — including through the post-harvest quality improvements addressed in Component 1 and supported by improved financing -- needs a market outlet that rewards the quality and consistency those practices make possible. Without it, the adaptation investments made under Components 1 and 2 do not translate into stable incomes — and without stable incomes, producers cannot sustain those investments.

66. Three barriers stand between producers and these market channels: limited organizational and commercial capacity to negotiate with differentiated buyers — specialty roasters, direct trade buyers and certified supply chains paying premiums of 20–150% above commodity prices for traceable, quality coffee;[29] absent or weak traceability systems compatible with market and regulatory requirements; and limited market intelligence to identify which channels are realistic for each producer profile. By addressing these barriers, Component 3 stabilizes incomes, strengthens adaptive capacity through sustained investment in resilient practices, and delivers the livelihood resilience that makes the gains of Components 1 and 2 durable.

Output 3.1: Coffee producer organizations equipped with commercial capacities and traceability systems to access markets for coffee produced under climate-resilient practices

29 Specialty Coffee Transaction Guide (2019), Emory University, reported in IICA, El mercado del cafe intrarregional en Mesoamerica, 2020. Premium range is coffee-specific: +5%-30% for differentiated/certified channels, +20%-150% for specialty-grade direct trade.

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67. This output addresses the weak commercial and organizational capacity that prevents producer organizations from accessing differentiated markets — the key barrier that keeps climate-resilient production from translating into better incomes. Many organizations in the target areas are already organized and selling coffee, but lack the traceability systems, negotiation capacity and market knowledge to access premium channels. The output will strengthen the commercial foundations of at least 100 producer organizations — including cooperatives and associations in the target areas — reaching 1,500 producers (at least 40% women, 30% youth). Training and capacity building will be delivered through FFS, ensuring linkage with the production resilience and post-harvest practices established in Component 1.[30]

68. The output will build commercial and traceability capacities through two interconnected tracks: equipping producer organizations to negotiate collectively with differentiated buyers, adapt curricula for specialty, certified and direct trade channels, and train 10 commercial extension agents and lead farmers (at least 40% women) as facilitators; and by implementing basic traceability systems — including lot-level recordkeeping compatible with differentiated market and regulatory requirements — building on Bioparcela[31] and lessons from prior market-linkage and traceability initiatives in the target regions.[32] This layer builds on the existing FFS platform and the 3C+D (SADER's Modelo de Agregación de Valor 3C+D — value aggregation model based on volume, quality, compliance and diversification) business fundamentals module is delivered by SADER, and complements the managerial and organizational capacity strengthened under Component 2 (Output 2.2).

69. Women will be supported as commercial leaders and negotiators, with equitable access to training, traceability tools and buyer relationships. Youth will be engaged through digital tools, specialty and e-commerce channels, and the economic opportunity that premium markets represent, making coffee farming a viable livelihood choice. Indigenous producers will be supported through culturally adapted and bilingual methodologies, with territorial identity, origin story and indigenous farming knowledge positioned as commercial differentiators. Indicative activities:

- **Conduct one market intelligence study mapping national and international market channels**, their quality, traceability, volume and price requirements, and identifying realistic near-term market pathways by region and organizational profile. The study will combine primary and secondary data collection, including direct engagement with potential buyers, and will be initiated during full proposal development.
- **Provide commercial and traceability capacity development to at least 100 producer organizations, reaching approximately 1,500 producers (at least 40% women and 30% youth).**
- **Assess and support certification pathways**, including multi-certification options (organic, Rainforest Alliance, 4C, Fairtrade) that maximise the value of each harvest across market segments through a single internal control system, covering not only pathway selection but the production practices, documentation and audit preparation required for certification.
- **Design and implement basic traceability systems** in participating organizations using platforms such as Bioparcela[39] — an existing operational platform developed with GIZ/IKI-IBA support — and compatible tools, including lot-level recordkeeping and quality classification protocols; tools adapted for low-connectivity contexts and tested across literacy levels.
- **Design and deliver a commercial training program** on specialty, direct trade (national and export), certified and e-commerce channels, covering quality positioning, buyer communication,

30 Because producer organizations vary in size, processing level, organizational maturity and market positioning, the project will develop organizational typologies and design differentiated technical assistance packages, advancing each organization one or two steps along the value chain rather than applying a uniform strategy.

31 Bioparcela was developed under the IKI-IBA project (Mainstreaming of Biodiversity within the Mexican Agricultural Sector, GIZ/BMU and SADER, 2016–2021), enabling offline farm georeferencing, lot-level harvest records, production cost tracking and sustainability self-assessment at no cost to producers. A paired platform (Agrotraza) handles supply chain traceability across processing levels. Integration with SENASICA's official traceability system and Mexico's Sin Deforestar deforestation-free platform is underway.

32 IDB/MIF Technical Cooperation ME-T1367, Scaling Climate-Smart Transformation of Coffee Landscapes in Mexico, executed by Sustainable Harvest Mexico with World Coffee Research, SADER, and NSF International, 2018–2021. The project found that linking smallholder cooperatives to specialty markets requires simultaneous investment in information systems, ROI-based decision tools, and direct buyer engagement — the combination this output replicates and scales. https://www.iadb.org/en/project/ME-T1367

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price interpretation and territorial and cultural identity as commercial differentiators, with dedicated modules for women, youth and indigenous producers using bilingual and culturally adapted methodologies where relevant.

Output 3.2: Market linkage and buyer engagement support provided to coffee producer organizations for climate-resilient coffee.

70. This output addresses the barrier that often remains even once commercial capacities are built: producer organizations still lack the buyer relationships, documented commercial strategies and negotiation experience needed to enter and maintain differentiated market channels on their own. Closing this gap is what makes Component 3's contribution to livelihood stability concrete: consistent access to buyers who pay premiums for quality coffee from climate-resilient farms generates more predictable income, reducing the volatility that otherwise forces producers to defer investment in adaptation or to exit coffee farming in difficult years. Output 3.2 is where the link between the productive resilience built in Component 1, the financial access enabled in Component 2, and the livelihood stability that makes sustained adaptation possible is closed in practice. The project will accompany 30 producer organizations in developing and consolidating 5-10 commercial agreements, supported by 10 commercial extension agents (at least 40% women) deployed in the target areas. Indicative activities:

- **Support certification implementation in participating organizations** — including setup of internal control systems, documentation and preparation for external audits — enabling organizations to achieve and maintain the certification pathways identified under Output 3.1 and access the price premiums they generate.
- **Provide structured commercial accompaniment**, building on the market intelligence study, to participating organizations in identifying buyers across their target market tier, preparing quality and traceability documentation, facilitating commercial introductions and trade event participation, and supporting negotiations through to signed agreements.
- **Support each participating organization in developing a documented commercial strategy** covering: target market segment and rationale; buyer pipeline; pricing rationale and certification premium benchmarks; and a plan for sustaining commercial relationships and quality supply across variable harvest years.
- **Assess and facilitate access to price risk management instruments,** such as forward pricing options and market floor mechanisms, that protect producers' income during climate-driven commodity price downturns, complementing the financial instruments being established under Component 2.

Output 3.3: Knowledge management and peer learning for climate-resilient coffee systems delivered.

71. This output will systemize and share lessons across the project to accelerate adoption during implementation and support replication beyond the project cycle. It will establish a peer-to-peer learning network among producer communities and generate analytical tools to strengthen the long-term enabling environment for climate-resilient coffee livelihoods, including work on a climate-responsive finance taxonomy and the feasibility of catastrophic insurance for smallholders. It will also address gaps in scaling climate finance and in mainstreaming climate risk into financial products. Knowledge products will be tailored to local literacy, language, and connectivity conditions and will incorporate Indigenous and local knowledge with community consent. Indicative activities:

- **Establish a peer-to-peer learning network** across the three target regions, to exchange experiences on climate adaptation, post-harvest management, market access and commercialization; using formats adapted to local connectivity and mobility conditions.
- **Collaborate with specialized organizations** including the Specialty Coffee Association of Mexico - AMCCE, and relevant trading platforms, to strengthen knowledge on quality positioning, certification, buyer relations and pricing in specialty and direct trade channels.
- **Develop accessible knowledge products** including practical guides on adaptation and market-

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entry; certification and traceability, and case studies from women-led and indigenous producer organizations.

- **Conduct a market diversification study** mapping alternative domestic and export opportunities for Mexican coffee, and related by-products reducing dependence on a single commercial channel.
- **Prepare a scale-up and replication package that** consolidates lessons from the project's technical, organizational, financial, and knowledge management work.
- **Undertake analytical work to support the integration of agricultural climate resilience,** including for small-scale coffee producers, into Mexico's sustainable development finance taxonomy.
- **Develop, together with FIRA, a proposal for an agricultural resilience-based loan product** for the coffee sector.
- **Conduct a feasibility study** for a climate shock mitigation instrument for smallholder coffee producers, including options for insurance design and delivery.

B. Economic, social and environmental benefits

72. The project activities are fully consistent with the AF's Environmental and Social Policy and aim to generate a range of environmental and socio-economic co-benefits. Table 7A summarizes the project's key features and preliminary estimation of beneficiaries. Detailed categories and numbers of direct and indirect beneficiaries will be defined and included in the FP design.

Table 7A. Preliminary estimation of beneficiaries.

Beneficiary category	Total individuals	Women	Men	Youth*	Indigenous Peoples**
Direct beneficiaries	36,000	At least 14,400 (40%)	Approx. 21,600 (60%)	At least 10,800 (30%)	At least 21,600 (60%)
Indirect beneficiaries	44,000[1]	**Approx. 17,600 (40%)**[2]	**Approx. 26,400 (60%)**[2]	**Approx. 13,200 (30%)**[2]	To be confirmed

* Youth is a cross-cutting age category and includes both young women and young men; it is therefore not additive to the women and men totals.
** Indigenous Peoples is also a cross-cutting category and may include women, men and youth; it is therefore not additive to the other categories.
[1] Based on 11,000 indirect beneficiary households and an indicative average of four persons per household.
[2] Sex and youth disaggregation for indirect beneficiaries is indicative and should be confirmed during full proposal preparation.

73. Direct beneficiaries are not additive across components. The 9,000 coffee-producing households, representing approximately 36,000 individuals, constitute a single direct beneficiary population that receives integrated support through Components 1–3. At least 40% of direct beneficiaries are expected to be women, at least 30% youth, and at least 60% Indigenous Peoples. In addition, approximately 11,000 households (44,000 individuals) are expected to benefit indirectly through expanded climate information services, peer learning, knowledge dissemination and replication. Detailed sex-, age- and Indigenous-disaggregated figures, particularly for indirect beneficiaries, will be confirmed during full proposal development.

74. The project will promote equitable benefit-sharing by integrating specific measures for women and youth across all components. At least **40% of direct beneficiaries will be women and at least 30% youth**. Preliminary beneficiary selection criteria will prioritize smallholder coffee producers in highly climate-vulnerable municipalities, with particular attention to households facing higher socioeconomic vulnerability and limited access to technical assistance, finance and markets. Selection will also seek adequate representation of women, youth and Indigenous producers and avoid exclusion based solely on formal land ownership where legitimate use or production rights can be demonstrated. Beyond numerical targets, the

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project will address barriers to participation by adapting the timing, location and delivery of FFS and training activities, providing accessible climate information and technical assistance, and facilitating equitable access to finance, producer organizations, leadership roles and market opportunities. Beneficiary selection and monitoring will be disaggregated by sex and age to track participation and benefits and allow corrective measures where gaps are identified. The detailed beneficiary targeting methodology, eligibility criteria and verification procedures will be further developed during full proposal preparation through stakeholder consultations, the gender assessment and site-level validation.

Table 7B. Economic, social and environmental benefits from the proposed interventions.

Components	Economic benefits	Social benefits	Environmental benefits
Component 1. Building resilience of smallholder coffee production systems and post-harvest processes	• Protects and stabilizes the productive asset base of smallholder coffee farming through renovation with climate-resilient and resistant varieties, reducing the risk of progressive yield decline and plantation loss through 200 community nurseries. • Reduces avoidable production and post-harvest losses, helping producers preserve both volumes and quality in increasingly variable climatic conditions through setting up coffee-specific agro-climatic working groups in three states. • Improves coffee quality and consistency, which strengthens producers' ability to secure better prices and reduces income volatility linked to poor drying, spoilage, or climate-related quality deterioration. - Improved drying, handling and storage could reduce climate-related post-harvest losses by approximately 25–40%.[33] - Improved technical efficiency can raise productivity by 107%, reduce production costs per kg by 19%, and increase net income by 51%.[34] - Experimental evidence shows that controlled drying can enable coffee to reach 80–81 points on the Specialty Coffee Association (SCA) scale, corresponding to specialty-grade quality, while maintaining moisture levels of approximately 7.7–10.4%. This suggests that improved drying and post-harvest management can help reduce quality deterioration associated with unstable moisture conditions and weather-related drying disruptions.[35]	Strengthens the adaptive capacity of 9,000 coffee-producing households by providing practical, locally tested solutions to the climate risks affecting coffee systems and rural livelihoods. • Expands equitable access to climate-resilient technologies, advisory services, and applied learning opportunities for women, youth, and Indigenous producers, • Enhances local capacities for continuous adaptation through 200 upgraded or established FFSs, lead farmers, community nursery operators, and extension agents who can sustain knowledge transfer beyond the project period. • Improves livelihood security by making production systems more reliable and less vulnerable to climatic shocks. At least 60 percent of direct beneficiaries (equivalent to 21,600 individuals) are expected to be Indigenous People.	Restores the ecological functionality of coffee landscapes • Improves soil structure, moisture retention, infiltration, and erosion control, thereby reducing land degradation and strengthening the capacity of farms to withstand droughts, intense rainfall, and temperature stress. • Restores 2,500 ha of degraded land and supports EbA practices across 2,500 ha, • Strengthens watershed regulation and reduces sedimentation and runoff through restoration of priority areas, generating resilience benefits beyond individual farms. • Enhances biodiversity, habitat connectivity, and ecological pest regulation

[33] International Coffee Organization (2025) *Mexico Coffee Value Chain Study*. London: ICO
[34] Idem.
[35] Duque-Dussan, et.al. 2026. Advances in Coffee Drying: A Comprehensive Review of Traditional, Solar, Mechanical, Hybrid, and Emerging Methods. **https://doi.org/10.3390/foods15101737**

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Component 2. Improving access to inclusive climate financing for small-scale coffee producers	Expands access to affordable and more appropriate finance for climate-resilient coffee investments, helping smallholders overcome one of the main structural barriers to adaptation. • Strengthens the financial performance and credit readiness of 100 producer groups and cooperatives, increasing their capacity to mobilize resources and manage climate-related investment. • Reduces exclusion from financial services among producers with limited collateral, or low financial literacy, thereby widening the base of producers able to invest in resilience. Supports the capacity of at least five local financial institutions	• Increases financial inclusion of vulnerable rural producers, particularly those currently excluded from formal financial services despite being highly exposed to climate risk. • Builds the managerial, organizational, and administrative capacities of cooperatives and farmer groups so they can better support members in accessing and managing climate-related finance. • Improves women's and youth's ability to engage with financial services At least 40%of direct beneficiaries are expected to be women (14,400 women) and 30% are expected to be youth (10,800 youth).	• Creates incentives for more sustainable land and resource management by making it financially feasible for producers to adopt practices that restore soil, improve water retention, and reduce degradation. • Reduces the pressure to maintain low-investment, low-resilience production systems that often contribute to declining soil fertility, poor land management, and long-term environmental degradation.
Component 3. Strengthening market access for smallholder coffee producers practicing climate-resilient production	Improves the commercial viability of climate-resilient coffee production by connecting producer organizations to differentiated markets that reward quality, consistency, traceability, and sustainability. • Strengthens the commercial and negotiation capacity of producer organizations, allowing them to engage buyers more strategically, reduce transaction asymmetries, and improve terms of market participation. • Reduces income volatility by diversifying market channels and improving preparedness for quality, traceability, and certification requirements. • Supports more stable cash flow and stronger business planning. Indirectly supports an additional 11,000 coffee producing household through knowledge management.	• Strengthens 100 producer organizations as long-term economic and social institutions capable of aggregating supply, negotiating collectively, and supporting members' resilience. • Expands opportunities for women, youth, and Indigenous producers to participate in higher-value segments of the value chain. • Increases recognition of Indigenous identity, local knowledge, and territorial distinctiveness as assets in market positioning. • Builds networks for peer learning and knowledge exchange across regions, enabling more rapid uptake of successful models for adaptation. • Improves the attractiveness of coffee as a livelihood for younger generations by linking climate-resilient production to more viable and rewarding market opportunities.	Reduced pressure to shift toward more degrading production practices, because more stable and rewarding market access can make climate-resilient coffee systems economically viable over time. Potential reduction of waste and improved resource efficiency, where market differentiation is linked to better post-harvest handling, quality management, and valorization of by-products.

75. The project is not expected to generate negative development impacts or maladaptation because its interventions are designed to reduce, rather than transfer or intensify, existing climate risks. Climate-resilient varieties, EbA, soil and water conservation, agroforestry and restoration measures will be selected based on local climatic and ecological conditions and will avoid practices that increase pressure on water, soils, biodiversity or surrounding ecosystems. Climate information and participatory planning will support adaptive decision-making and reduce the risk of promoting measures that become unsuitable under changing climate conditions. The project will also avoid creating financial vulnerability by combining access to finance with financial literacy, organizational strengthening and products adapted to producers' repayment capacity and investment cycles. Social risks will be reduced through inclusive beneficiary selection, gender-responsive and culturally appropriate approaches, and measures to ensure that women, Indigenous Peoples and other vulnerable groups are not excluded from project benefits or decision-making. In addition, environmental and social screening, monitoring and adaptive management will be

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applied throughout implementation to identify unintended effects early and adjust interventions where necessary.

C. Cost-effectiveness of the proposed project/programme.

76. The proposed approach was selected by comparing adaptation options based on their ability to reduce climate vulnerability, reach vulnerable smallholders, and generate lasting benefits. Stand-alone measures such as infrastructure, subsidies, short-term credit or isolated technical assistance address only individual constraints. The project's cost-effectiveness derives from the way its three components reinforce one another. Component 1 prioritizes preventive adaptation and ecosystem resilience, reducing the likelihood of repeated climate-related losses and costly rehabilitation. Component 2 strengthens financial intermediation so that limited public resources can help mobilize additional investment rather than relying primarily on grants or subsidies. Component 3 strengthens producer organizations and market access, lowering transaction costs and helping translate adaptation gains into more stable economic returns. Table 8 highlights the comparison of "with/without" scenario.

Table 8. 'With'/'without' scenario comparison and identification of alternatives considered

Component	Without Scenario	With Scenario	Alternative options and comparative cost-effectiveness
Component 1. Building resilience of smallholder coffee production systems and post-harvest processes	Without the project, adaptation would be fragmented and reactive: (i) business-as-usual coffee orchards renovation without structural system changes (shade, soil, water, phytosanitary management); (ii) critical micro-catchments continue to degrade and their capacity to provide ecosystems services is reduced; (iii) small-scale or isolated "hard" water and post-harvest infrastructure with localized, short-term effects; and (iv) the promotion of improved practices and input packages do not achieve adoption at scale, with no production system redesign, generating recurring expenditures without reducing underlying vulnerability; (v) communities do not receive advance warning of pest outbreaks and extreme weather events, which results in loss of assets and resources, and potentially loss of life.	The project implements an integrated package of productive and ecosystem-based adaptation measures through farmer field schools: climate-informed renovation/rehabilitation of coffee agroforestry systems, soil and water management, resistant and resilient planting material, and preventive and early warning measures for pest outbreaks and extreme events. This reduces recurring losses, avoids repeated recovery costs, and generates medium- and long-term benefits (productivity, stability, ecosystem services). Communities are better able to plan specific coffee interventions and also receive sufficient advance warning of pest outbreaks and adverse weather conditions and extreme weather events and related hazards, enabling them to take preparatory action. By strengthening soils, water regulation, shade systems and ecosystem functions alongside productive assets, the intervention protects both coffee production and its ecological foundation, reducing the need for repeated rehabilitation and recovery expenditures.	Continuation of existing support programmes such as Cosechando Soberania, conventional plantation renovation, and stand-alone investments in water, post-harvest infrastructure or agricultural inputs. These options may have lower initial costs, but address individual constraints and require repeated expenditure when climate shocks recur. The proposed integrated approach is more cost-effective because resilient planting material, EbA, soil and water management, climate information and post-harvest improvements jointly reduce the underlying drivers of loss while generating multi-year productive and ecosystem benefits. This is particularly relevant given historical losses already documented in the project area, including the decline of coffee production in Oaxaca from 129,781 MT in 2013/14 to 63,538 MT in 2015/16 following the rust shock.[36]
Component 2. Improving access to inclusive climate financing for small-scale coffee producers	In the absence of the project, less effective and efficient systems to access dedicated finance to renew coffee orchards would be available, including (i) generalized subsidies without linkage to adaptation results or to coffee production; (ii) short-term credit misaligned with perennial crops such as coffee; (iii)	The project combines improved access to finance targeted at small-scale coffee farmers, including their organizations and cooperatives, and includes risk-sharing schemes such as technical assistance to local financial institutions, and provision of inputs to individual coffee-farmers, as well as strengthening the capacity of	Reliance on existing subsidies or conventional short-term agricultural credit without dedicated technical support, risk-sharing or products adapted to coffee renovation cycles. This can limit uptake and leave public resources carrying a larger share of investment costs. The project instead strengthens existing financial

[36] USDA Foreign Agricultural Service (2016) *Coffee Annual: Mexico*. GAIN Report, 13 May 2016. Mexico City: USDA FAS

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	financial instruments without technical assistance that do not help address underlying physical risk; and (iv) unavailability of specific products suitable for small-scale coffee farmers.	producers organizations, the financial education of small-scale producers to better assess risks and attractiveness of accessing existing credit lines and guarantees, all this in order to facilitate investment in resilient practices and renewal of coffee orchards to catalyze private investment, and accelerate adoption.	intermediaries and producer organizations to mobilize and better target available finance, reducing dependence on direct grant financing. Experience in Mexico demonstrates the potential efficiency of this approach: under the TPS project, a partial credit guarantee mobilized approximately MXN 5 of private credit for every MXN 1 invested in the guarantee, reaching more than 8,000 small producers and mobilizing US$10.2 million in credit.[37]
Component 3. Strengthening market access for smallholder coffee producers practicing climate-resilient production	Without the project, market access actions would likely be partial with an increased risk of farmers switching to other crops than coffee or abandoning these rural areas entirely. The situation would likely be characterized by (i) weak producer organizations benefiting from isolated training without follow-up; (ii) certification or traceability efforts without genuine improvements in quality and organizational capacity and (iii) commercial linkages without securing sufficiently resilient volumes and quality, increasing the risk of non-compliance and volatility, thereby negatively affecting coffee producers income and their stability.	The project strengthens technical, organizational, and commercial capacities, and promotes traceability, access to differentiated markets, income diversification, and sustained accompaniment. Aggregation reduces transaction costs, strengthens bargaining power and enables producers to capture greater value from quality and resilience improvements, creating income and incentives to maintain the adaptation investments financed under Components 1 and 2.	Limiting the project to farm-level adaptation and providing isolated certification, traceability or marketing support to individual producers. This would reduce project costs in the short term but would weaken the economic sustainability of adaptation investments. With only 17% of Mexican coffee farmers currently participating in organized groups providing technical support and market access, individual smallholders face high transaction costs, limited bargaining power and difficulty supplying the volumes, consistency and traceability required by differentiated buyers.[38] Strengthening cooperatives and producer organizations allows these costs to be shared, production to be aggregated and market services to reach many producers simultaneously. Evidence from Mexico's TPS project shows that supported producer organizations increased sales of sustainable goods and services by 27%, illustrating the potential for organization and market development to convert sustainability investments into lasting economic returns.

77. From a sustainability perspective, the proposed approach is expected to become increasingly cost-effective over time, as many benefits will persist beyond the grant period. Investments in restored landscapes, soil and water conservation, diversified shade systems and renovated coffee plots generate multi-year benefits and reduce the need for repeated rehabilitation after climate shocks. Capacity built through Farmer Field Schools, producer organizations and local institutions remains locally embedded, while stronger financial institutions, traceability and market linkages can continue supporting adaptation, access to finance and more stable revenues. The project therefore seeks to shift progressively from grant-supported adoption towards a model in which **producers, organizations, financial institutions and markets increasingly sustain and finance resilience investments themselves**, reducing dependence on external grants and increasing the long-term return on the Adaptation Fund investment.

Avoided loss and damage

[37] https://www.worldbank.org/en/results/2026/02/09/private-capital-grows-sustainable-jobs-in-mexico

[38] International Coffee Organization (2025) *Mexico Coffee Value Chain Study*. London: ICO.

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78. Mexico's coffee sector is already incurring major climate- and disease-related losses. National production fell from 4.5 million to 2.2 million 60-kg bags between 2011 and 2016, largely due to the coffee rust crisis, and productivity in 2015/16 was reported to have been nearly halved.[39,40] In the project states, impacts were also severe. In Chiapas, rust affected around 60% of the total coffee area in 2015/16, while production fell from 402,100 MT in 2013/14 to 382,951 MT in 2014/15.[41] In Oaxaca, production declined from 129,781 MT in 2013/14 to 83,076 MT in 2014/15, and further to 63,538 MT in 2015/16 following the rust shock.[42] Oaxaca also recorded a 61% yield loss after a Category 4 hurricane in 2014, highlighting the sector's exposure to extreme events.[43] Although Veracruz is not a project state, it offers a strong national proxy for climate-driven losses, with a 36% yield decline between 2010 and 2020 linked to rising temperatures and altered rainfall patterns.[44] Projected losses reinforce the urgency of action. Modeling for Mexican agroforestry coffee systems indicates that under SSP5-8.5, yields could decline by around 30% by 2081–2100 under current management, with conventional intensive systems becoming economically unviable, while lower-input and more resilient systems perform better.[45]

79. The economic case is equally strong. Wet milling costs average US$0.97 per kg of green bean equivalent, yet inefficient processing often undermines quality and value capture.[46] Only 17% of farmers belong to organized groups that provide technical support and market access. At the same time, improved technical efficiency can raise productivity by 107%, reduce production costs per kg by 19%, and increase net income by 51%.[47]

80. The project tackles losses at multiple points where adaptation yields high returns: on-farm production, landscape functions, climate risk management, and post-harvest handling, thus making it cost-effective. It combines resilient production, post-harvest upgrading, producer organization strengthening, and market access: to reduce physical losses, protect and increase the value of the harvest, and stabilize incomes in highly vulnerable coffee landscapes.

Cost-effectiveness per output

81. The preliminary estimates demonstrate that project cost-effectiveness derives not only from unit costs, but from the complementarity of the three components. Component 1 reduces physical and ecosystem-related climate risks and avoids repeated recovery costs; Component 2 enables limited public resources to mobilize and sustain additional adaptation investment; and Component 3 lowers collective transaction costs and helps translate resilience gains into economic value. Compared with stand-alone infrastructure, subsidies, short-term credit or isolated technical and market interventions, the proposed package addresses the interconnected technical, financial and commercial barriers that otherwise constrain sustained adaptation.

Table 9. Preliminary estimate of cost per direct beneficiary of proposed outputs.

[39] USDA Foreign Agricultural Service (2016) *Coffee Annual: Mexico*. GAIN Report, 13 May 2016. Mexico City: USDA FAS

[40] International Coffee Organization (2025) *Mexico Coffee Value Chain Study*. London: ICO

[41] USDA FAS, 2016. *et al.*

[42] USDA FAS, 2016. *et al.*

[43] Martínez, et al. (2025) 'Estimating the vulnerability to hydrometeorological hazards...', *Hydrology*, 6(3), 50.

[44] Eakin, et al. (2022) 'Impacts and economic costs of climate change on Mexican coffee production', *Regional Environmental Change*

[45] Khabarov, N. et al. (2026) 'Modeling Climate Impacts on Agroforestry-Based Coffee Production of Smallholder Farmers in Mexico', *Sustainability*, 18(13), 6544.

[46] International Coffee Organization (2025) *Mexico Coffee Value Chain Study*. London: ICO.

[47] *Idem.*

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Project output	Estimated cost (US$)	Direct / indirect beneficiaries or physical target	Cost-effectiveness estimate / proxy	Assumption / basis
Output 1.1	7,000,000	9,000 direct households; 3,000 ha renovated; 2,500 ha under EbA; 2,500 ha restored	≈ US$778/direct household; indicative upper-bound ≈ US$2,333/ha renovated	Household proxy divides total output cost by 9,000 households. The per-ha figure is conservative because the same budget finances not only renovation of 3,000 ha, but also EbA, restoration, nurseries and technical support.
Output 1.2	≈ 510,000	9,000 direct producers; approx. 11,000 additional indirect beneficiaries	≈ US$57/direct producer	Calculated as output cost divided by the 9,000 producers directly receiving climate information and advisory services. Wider indirect reach is not included in the denominator, making the estimate conservative.
Output 1.3	≈ 2,500,000	Approx. 2,500 direct recipients/users of infrastructure	≈ US$1,000/direct recipient	Based on recipients directly benefiting from supported post-harvest/water infrastructure. Wider FFS demonstration and replication benefits are not monetized.
Output 1.4	≈ 2,500,000	9,000 direct producers	≈ US$278/direct producer	Output cost divided by 9,000 producers reached through the 200 FFS. Benefits from trained extension agents, lead farmers and subsequent peer-to-peer dissemination are additional.
Component 1	≈ 12,510,000	9,000 direct beneficiary households	≈ US$1,390/direct household	Component costs divided by the single population of 9,000 direct households. Beneficiaries are not additive across Outputs 1.1–1.4.
Output 2.1	≈ 4,640,000	Approx. 3,000 producers accessing financial support	≈ US$1,547/finance recipient	Calculated using producers expected to directly access tailored finance/investment support. Actual cost-effectiveness may be higher where project resources leverage additional public/private finance.
Output 2.2	≈ 1,000,000	Approx. 4,000 producers; around 100 producer organizations	≈ US$250/producer	Cost divided by producers receiving financial literacy and organizational/financial capacity support. Organizational benefits extend beyond individual participants.
Component 2	≈ 5,640,000	Up to 4,000 producers from within the project's 9,000-household population	≈ US$1,410/producer reached	Uses the largest directly supported beneficiary subset under Component 2. It should not be added to Component 1 beneficiaries.
Output 3.1	≈ 800,000	Approx. 1,500 producers; around 100 producer organizations	≈ US$533/direct producer	Output cost divided by 1,500 directly supported producers. Shared traceability and organizational systems can subsequently serve additional members at low marginal cost.
Output 3.2 –	≈ 1,200,000	Approx. 1,500 producers; 30 producer organizations; 5–10 commercial agreements envisaged	≈ US$800/direct producer	Calculated using the 1,500 producers expected to receive direct commercial/market support. Benefits from stronger bargaining power and commercial agreements are not monetized.
Output 3.3 –	≈ 700,000	Approx. 11,000 additional households reached indirectly	≈ US$64/indirect household reached	Cost divided by the estimated 11,000 additional households reached through knowledge dissemination, peer learning and replication.
Component 3	≈ 2,700,000	Approx. 1,500 directly supported producers, plus 11,000 indirect households	≈ US$1,800/direct producer for intensive commercial support	Direct-beneficiary proxy uses the 1,500 producers receiving more intensive commercial support. Wider indirect knowledge beneficiaries are reported separately to avoid mixing levels of support.

D. National or sub-national sustainable development strategies

Alignment with national development strategies

82. The proposed climate adaptation project is strongly aligned with Mexico's overarching development priorities and climate adaptation frameworks (Table 10). It operationalizes national policies related to agriculture, coffee production systems and sustainable development while embedding climate resilience into local governance. At the highest level, the **National Development Plan 2025–2030**[48] **(PND)** places sustainable development at the centre of national policy and calls for climate action that

[48] Plan Nacional de Desarrollo 2025–2030: https://www.gob.mx/presidencia/documentos/plan-nacional-de-desarrollo-2025-2030-391771

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strengthens the resilience of people, ecosystems, and productive systems, alongside more efficient water management and greater territorial equity. The PND also includes cross-cutting priorities on women's rights and the rights of Indigenous and Afro-Mexican peoples. These priorities are directly reflected in the project's focus on vulnerable smallholder producers, including women, youth, and Indigenous communities in coffee-growing territories.

83. In this context, the project contributes to the national development vision by promoting a model of rural transformation that combines climate resilience, productive inclusion, ecosystem sustainability, and social equity. By strengthening the adaptive capacity and livelihoods of smallholder coffee producers, the project supports a more resilient and inclusive rural economy in line with Mexico's sustainable development objectives.

Alignment with national climate policies

84. The project is fully consistent with Mexico's climate policy framework under the **General Law on Climate Change (LGCC)** and **National Climate Change Strategy (ENCC)**. The ENCC (2024), is the medium- and long-term guiding instrument for national climate policy and explicitly frames adaptation as a strategic pillar for reducing vulnerability and strengthening resilience in ecosystems, infrastructure, and productive systems. It promotes a systematic, decentralized, participatory, and integral approach to climate action, which is closely aligned with the project's design.

85. This alignment is reflected in the project's integrated approach, which combines climate-resilient coffee production systems, ecosystem-based adaptation, climate-informed advisory services, post-harvest resilience, inclusive finance, and market strengthening through territorial delivery platforms such as FFS and producer organizations.

86. The project is also fully aligned with the adaptation component of Mexico's **NDC 3.0**, submitted in November 2025. The NDC strengthens adaptation ambition through six pillars and emphasizes the need to reduce vulnerability in highly exposed territories, strengthen resilient production systems and food security, conserve biodiversity and ecosystem services, improve water security, protect strategic infrastructure, and address the social consequences of climate impacts. The project operationalizes these priorities by promoting climate-resilient coffee systems through renovation with resilient varieties, agroforestry and agroecological practices, soil and water conservation, rainwater harvesting, climate-informed advisory services, post-harvest technologies, and improved financial and market access. It also reflects the NDC's emphasis on inclusive, rights-based adaptation by prioritizing populations facing multidimensional vulnerability, particularly Indigenous Peoples, women, and rural youth.

87. Mexico's **National Adaptation Plan (NAP)** process is ongoing, but a standalone NAP has not yet been formally finalized or submitted to the UNFCCC. Initial consultations indicated that Mexico's NAP prioritizes adaptation actions focused on **ecosystems and vulnerable groups**. The proposed project aligns with this direction by targeting highly climate-vulnerable smallholder coffee landscapes in **Oaxaca, Guerrero, and Chiapas**, combining **ecosystem-based adaptation** with resilient production systems, and promoting inclusive adaptation benefits for **women, youth, and Indigenous producers**.

Compliance with environmental and agricultural frameworks

88. From the sectoral perspective, the project aligns directly with the **Agriculture and Rural Development Sector Programme 2025–2030**[49], which seeks to strengthen food sovereignty and self-sufficiency, improve the welfare of small- and medium-scale producers, increase the sustainability and resilience of agrifood systems to climate change, and improve water sustainability in the sector. These priorities are reflected across the project's three components: Component 1 strengthens climate-resilient production and post-harvest systems; Component 2 expands inclusive access to finance for adaptation investments; and Component 3 supports organization, traceability, and market access so that adaptation translates into more stable and remunerative livelihoods.

89. The project is also aligned with the Environment and **Natural Resources Sector Programme 2025–2030 (PROMARNAT)** and with Mexico's biodiversity agenda under **National Biodiversity Strategy and**

[49] Agriculture and Rural Development Sector Programme 2025–2030. Available: https://sidof.segob.gob.mx/notas/5767020

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Action Plan of Mexico 2016–2030 (ENBioMex 2016–2030). These frameworks emphasise the importance of ecosystem protection and restoration, sustainable use of natural resources, biodiversity conservation, and strengthening ecosystem services as foundations for resilience and sustainable development. This is directly relevant to the project's ecosystem-based approach, which combines coffee system renovation with agroforestry, restoration of degraded slopes and riparian areas, soil and water conservation, and improved biological regulation functions within coffee landscapes.

90. In addition, the project aligns with priority government programmes that support small producers and offers an important operational pathway for implementation and scaling. The Programme ***Producción para el Bienestar*** *(Production for Wellbeing)* supports small- and medium-scale producers, including coffee producers, through direct economic support and technical-organizational accompaniment to promote agroecological and sustainable practices. The Programme ***Cosechando Soberanía*** (Harvesting Sovereignty) complements this by providing financing, technical accompaniment, and subsidised insurance and price coverage mechanisms for strategic crops, including coffee, while the Programme ***Alimentación para el Bienestar*** (Food for Wellbeing) supports fair commercialization and value addition for coffee produced by smallholders. The project builds on and strengthens these programmes by linking climate adaptation investments to technical support, financial inclusion, post-harvest improvements, and improved market integration for vulnerable coffee producer

91. Mexico does not have a recently updated standalone **UNCCD National Action Programme**, publicly available. However, the country participates in the ***UNCCD Land Degradation Neutrality (LDN) target-setting*** *process*, which provides a relevant framework for land restoration, sustainable land management, and drought resilience. The proposed project is well aligned with this agenda through its focus on restoration of degraded land, ecosystem-based adaptation, soil and water conservation, and resilient landscape management in coffee-producing territories. Table 10 provides an overview of the national policies and strategies relevant to the project's objectives and how the project aligns with them.

Table 10. Overview of national policies and strategies and how the project aligns.

National policy	Relevance to the project	How the project aligns
National Development Plan 2025–2030[50]	Provides the overarching development framework for resilient and inclusive rural development.	The project supports vulnerable coffee producers through climate adaptation, ecosystem restoration, better water management, and inclusive targeting of women, youth, and Indigenous communities.
General Law on Climate Change and National Climate Change Strategy[51]	Establishes the national basis for adaptation planning and implementation.	The project operationalizes this framework through climate-resilient production systems, ecosystem-based adaptation, climate-informed advisory services, and local institutional strengthening.
Nationally Determined Contribution 3.0 (submitted in 2025)	The most relevant current national commitment for adaptation ambition with focus on reducing vulnerability, resilient food systems, biodiversity and ecosystem services, water security, and social dimensions of climate risk.	The project advances these pillars through resilient varieties, agroforestry, water harvesting, post-harvest resilience, financial inclusion, and stronger livelihoods for climate-vulnerable coffee producers.
Agriculture and Rural Development Sector Programme 2025–2030[4]	Highly relevant sector framework for smallholder coffee systems, promoting food sovereignty, welfare of small producers, resilience of agrifood systems, and water sustainability.	The project strengthens climate-resilient coffee production, improves producer capacity and organization, expands access to finance, and supports more resilient agrifood livelihoods.
Environment and Natural Resources Sector Programme 2025–2030	Encourages ecosystem restoration, biodiversity, climate resilience, sustainable resource and water management.	The project restores ecosystem functions in coffee landscapes through agroforestry, soil conservation, riparian restoration, and improved watershed regulation.
Environmental	Focused on restore degraded ecosystems	The project contributes to implement this policy

[50] Plan Nacional de Desarrollo 2025–2030: https://www.gob.mx/presidencia/documentos/plan-nacional-de-desarrollo-2025-2030-391771

[51] Ley General de Cambio Climático (LGCC) and Estrategia Nacional de Cambio Climático (ENCC): https://www.dof.gob.mx/nota_detalle_popup.php?codigo=5739992

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Restoration National Programme 2025-2030	through strategic actions and social participation, particularly implementing Natural based Solutions (NbS).	through restoration actions at farm and landscape levels, focuses on ecosystem-based adaptation and NbS solutions.
National Biodiversity Strategy and Action Plan of Mexico 2016–2030	Relevant to biodiversity-friendly coffee landscapes and ecosystem services.	The project promotes agroforestry and restoration in ways that conserve biodiversity, strengthen ecological functions, and support culturally appropriate engagement of Indigenous producers.
National Programme of Strategic Projects for Substantive Equality between Women and Men 2026–2030	The overarching federal gender equality programme. It includes objectives on women's autonomy, rights and environmental sustainability.	The project promotins women's participation in FFS, producer organizations, decision-making and economic opportunities. Its gender-responsive approach also contributes to women's autonomy and environmental sustainability, both explicit priorities of the Programme.
Strategic Plan on Gender, Human Rights and Climate Change	Explicitly integrates gender equality and human rights into Mexico's climate policy and NDC implementation.	The project integrates gender into climate adaptation by targeting women coffee producers, addressing differentiated climate vulnerability, improving access to climate information and adaptation knowledge, among others.
Framework Collaboration Agreement to Guarantee Rural Women's Right to Access Land and Territories and Recognition of their Agrarian Status	Addresses women's land and agrarian rights.	The project recognizes land tenure and agrarian status as important determinants of women's ability to access productive investments, finance and project benefits. Screening and implementation arrangements can help ensure that women without formal land titles are not automatically excluded from participation or support.

E. Compliance with relevant national technical standards

92. The project will comply with applicable federal, state and municipal legislation and technical standards governing agriculture, plant health, forestry, biodiversity, water, waste management, food hygiene, occupational health and safety, gender equality and non-discrimination. Compliance requirements will be incorporated into activity screening, technical specifications, procurement documents, beneficiary agreements and site-specific environmental and social management measures, as applicable. Necessary authorizations will be obtained before implementation, and compliance will be monitored by the Project Management Unit in coordination with the competent authorities. Table 11 summarises the relevant national standards and responsible authorities.

Table 11. List with relevant national standards.

Regulation / law	AF ESP	Related Project Outputs	Main compliance steps and responsible authority
General Law of Ecological Equilibrium and Environmental Protection (LGEEPA), 1988, as amended	1, 9, 10, 12, 13, 15	1.1, 1.2, 1.3, 1.4, as applicable	Screen activities for potential environmental impacts and determine whether federal/state environmental authorization is required; avoid significant habitat conversion; obtain permits before works where applicable; integrate mitigation measures into ESMPs, technical specifications and contracts. Authority: SEMARNAT; state environmental and municipal authorities as applicable. LGEEPA remains the principal federal environmental framework.
Sustainable Rural Development Law (*Ley de Desarrollo Rural Sustentable*), 2001, as amended	1, 2, 3, 5, 7	1.1, 1.4, 2.1, 2.2, 3.1, 3.2	Ensure project support is consistent with sustainable rural-development planning, inclusion of smallholders and producer organizations, and coordination with existing agricultural programmes. Authority: SADER and state/municipal rural-development authorities.
Law on Sustainable Development of Coffee Farming (*Ley de Desarrollo Sustentable de la Cafeticultura*), 2025	1, 2, 3, 5, 7, 9, 10, 11	1.1, 1.2, 1.4, 3.1, 3.2	Align coffee renovation, technical assistance, organization, traceability and commercialization activities with the national coffee-sector framework; coordinate implementation with relevant coffee-sector institutions and programmes. Authority: SADER and relevant state authorities.
Federal Plant Health Law (Ley	1, 10, 12	1.1, 1.2	Verify origin and phytosanitary status of planting material; procure material from

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Regulation / law	AF ESP	Related Project Outputs	Main compliance steps and responsible authority
Federal de Sanidad Vegetal)			authorized/recognized sources; maintain nursery and movement records; implement pest surveillance and sanitary management protocols; comply with applicable SENASICA phytosanitary measures. Authority:SADER/SENASICA.
General Law on Sustainable Forestry Development (2018)	1, 9, 10, 15	1.1	Screen restoration, shade-tree planting and agroforestry sites to confirm land status; avoid unauthorized removal or conversion of forest vegetation; use appropriate/native species; obtain authorization if activities could constitute forest land-use change or regulated forest-resource use. Authority:SEMARNAT/ CONAFOR; PROFEPA for enforcement.
General Law for Prevention and Integrated Waste Management (LGPGIR, 2003, as amended)	1, 12, 13	1.1, 1.3, 1.4	Identify waste streams from nurseries, agrochemicals, post-harvest equipment and packaging; classify waste; ensure segregation, temporary storage, recycling/recovery and authorized disposal as applicable; incorporate waste-management requirements in technical specifications. Authority: SEMARNAT/state and municipal authorities according to waste category.
NOM-003-STPS-2023 – Agricultural activities: occupational safety and health conditions	1, 6, 12, 13	1.1, 1.3, 1.4	Conduct activity-level OHS risk assessment; establish safe procedures for agricultural work, agrochemicals, equipment and machinery; train workers; maintain emergency procedures and accident records; ensure information is provided in a language/form workers understand. Authority: STPS. The standard applies from land preparation through harvest, storage, transport and packing and includes agrochemical and machinery risks.
Federal Labour Law (Ley Federal del Trabajo)	1, 3, 5, 6	All outputs involving contracted or hired labour	Require contractors, producer organizations and service providers to comply with minimum employment conditions, wages, working hours, occupational safety, non-discrimination and prohibition of forced and prohibited child labour; include labour clauses in contracts and establish worker grievance channels. Authority: STPS/labour authorities. The Law was most recently amended in January 2026.
NOM-036-1-STPS-2018 – Ergonomic risk factors: manual handling of loads	1, 6, 13	1.1, 1.3, 1.4	Identify tasks involving repetitive/manual lifting, carrying coffee, nursery materials or equipment; assess ergonomic risk; establish load limits, safe handling procedures, training and appropriate equipment. Authority: STPS.
NOM-038-STPS-2024 – Classification of agricultural activities permitted for minors	1, 3, 6	1.1, 1.3, 1.4	Screen workforce age; prohibit persons under 18 from hazardous agricultural activities and ensure any legally permissible work by 16–17-year-olds meets the low-risk classifications established by the NOM; include requirements in contractor/beneficiary agreements. Authority: STPS.
General Law for Substantive Equality between Women and Men (Ley General para la Igualdad Sustantiva entre Mujeres y Hombres)	1, 2, 3, 5	All outputs, particularly 1.4, 2.1, 2.2, 3.1, 3.2	Apply gender-responsive beneficiary selection; monitor participation and benefits by sex; ensure equal access to training, finance, productive assets, leadership and market opportunities; address participation barriers such as scheduling, care responsibilities and access to information. Authority:Secretaría de las Mujeres and implementing institutions.
General Law on Women's Access to a Life Free of Violence(Ley General de Acceso de las Mujeres a una Vida Libre de Violencias)	1, 2, 3, 5, 13	All outputs involving participation, training and organizations	Adopt measures to prevent sexual harassment, exploitation, abuse and gender-based violence in project activities; establish confidential referral/grievance procedures; codes of conduct and safeguarding provisions for project personnel and contractors; provide information on available support mechanisms. Authority: Secretaría de las Mujeres and competent federal/state authorities.
Federal Law to Prevent and Eliminate Discrimination	1, 2, 3, 5, 7	All outputs	Ensure beneficiary selection, employment, training, finance and organizational participation do not discriminate on the basis of sex, Indigenous identity, ethnicity, age, disability or other protected characteristics; provide accessible and culturally appropriate information and grievance mechanisms. Authority: CONAPRED and relevant implementing authorities.
General Wildlife Law (Ley General de Vida Silvestre)	1, 9, 10	1.1	Screen restoration and agroforestry activities for impacts on wildlife and habitat; avoid collection, disturbance or use of protected wildlife without authorization; prioritize native species and avoid invasive species. Authority: SEMARNAT/ PROFEPA; CONANP where protected areas are involved.
NOM-059-SEMARNAT-2010 – Native species of flora and fauna at risk	1, 9, 10	1.1	Check project sites and species proposed for restoration/shade planting against the official risk list; avoid or redesign activities affecting listed species or critical habitat; obtain authorization where impacts cannot be avoided. Authority: SEMARNAT; CONANP where applicable.

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F. Duplication with other funding sources

93. Consultations undertaken during project preparation and a review of ongoing programmes confirmed that the proposed project does not duplicate interventions financed by bilateral or multilateral partners in the targeted municipalities. Existing initiatives in Mexico's coffee sector and broader climate adaptation agenda are generally concentrated across different territories, focused on enabling policy and planning conditions, or limited to coffee-only systems rather than an integrated approach to coffee adaptation. The project has nonetheless considered both overlap risks and potential complementarities with major completed, ongoing and recently approved initiatives (Table 12). These include the GCF-funded AROMA programme, which is being developed as a coffee resilience initiative in Chiapas, Oaxaca, and Puebla, but does not consider the same municipal selection; the GCF-funded BALSAS project [FP236], which promotes broader basin-scale climate resilience, ecosystem conservation, and sustainable livelihoods, but is not designed as a coffee-specific adaptation intervention; and the SAbERES programme, which supports land-use planning and financial innovation as enabling conditions for resilience.

94. Two recently completed initiatives provide direct lessons for the project design: the IKI-IBA project (GIZ/BMU, 2016–2021), which developed the Bioparcela traceability platform now embedded in Output 3.1, and the IDB/MIF Technical Cooperation ME-T1367 (Sustainable Harvest Mexico, 2018–2021), whose findings on the simultaneous investment needed in information systems, decision tools, and buyer relationships are directly applied in Component 3.

95. Other relevant initiatives, such as the GEF/World Bank-funded Mexico Sustainable Productive Landscapes Project (Territorios Productivos Sostenibles). The initiative has relevant experience mainly in Oaxaca and Chiapas. Its work has focused on agroecological coffee production, community nurseries, bioinputs, ecological post-harvest processing, certification, and market access, which closely align with the proposed AdaptCafe interventions. The strongest overlap is in Oaxaca, where the initiative supported organic certification, shade coffee, and commercialization, while in Chiapas it supported rehabilitation of coffee plots, bioinputs, and organic/export coffee marketing.

96. IICA/OPSAA climate-smart coffee initiative, Rainforest Alliance support in Chiapas, and TEEB AgriFood analytical work in coffee landscapes, provide complementary technical, market, and knowledge inputs, but do not finance the same integrated farm-, community-, and value-chain-level adaptation package proposed in this AF project.

97. In summary, the proposed intervention offers additional value and avoids duplication by addressing a gap not addressed by existing programmes. Its distinct value lies in combining ecosystem-based adaptation, climate-resilient production measures, value-chain support, and inclusive financial solutions for vulnerable smallholders in high-risk coffee-producing landscapes.

Table 12. Summary of completed, ongoing and planned projects.

Project / Agency / Status / Timeframe	Main objective	Lessons learned and how reflected in AdaptCafe	Specific synergies
BALSAS – Basin Approach for Livelihood Sustainability through Adaptation Strategies (FP236). Accredited Entity: IFAD; GCF; under implementation; 2025–2031	Strengthen resilience of vulnerable rural communities in the Balsas Basin through climate-resilient production, sustainable land use, ecosystem conservation, local institutions and value chains.	BALSAS shows the value of combining productive adaptation with ecosystem conservation, stronger local institutions and inclusion. AdaptCafe reflects these lessons through Outputs 1.1 and 1.2on EbA, landscape restoration and climate-informed production, and through Components 2 and 3 on finance, producer organization and value-chain support.	Potential coordination on landscape restoration, climate-risk approaches, social inclusion and value-chain resilience. No duplication: BALSAS is a basin-scale rural resilience programme and is not coffee-specific. AdaptCafe targets selected coffee municipalities with a dedicated package covering renovation, climate information, post-harvest, finance and markets.
AROMA – Alternative Response Options for Mitigation & Adaptation of Coffee Farms. Accredited Entity: IUCN, GCF; in design	Strengthen climate resilience of coffee landscapes and communities while reducing maladaptive expansion and associated emissions.	AROMA reinforces the need to address farm practices, landscapes and producer capacities together. AdaptCafe applies this through Output 1.1 on resilient planting material and EbA and Output 1.4 on producer learning and capacity development.	Strong thematic synergy on climate-resilient coffee, Indigenous engagement and scaling adaptation approaches. No duplication:AdaptCafe will operate in distinct municipalities/non-overlapping intervention areas, to be confirmed during full proposal preparation and implementation.

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Project / Agency / Status / Timeframe	Main objective	Lessons learned and how reflected in AdaptCafe	Specific synergies
SAbERES – Land-use Planning and Financial Innovation to Increase Mexico's Resilience to Climate Change, WRI; 2024–2028	Support resilience through land-use planning, EbA, restoration, technical assistance and innovative financial instruments.	SAbERES demonstrates that technical adaptation is more effective when supported by territorial planning and financial mechanisms. AdaptCafe reflects this through Output 1.1 on landscape/ EbA planning and Component 2 on tailored finance and financial intermediation.	Synergies on territorial planning, financial tools and de-risking adaptation investments. No duplication: SAbERES focuses mainly on enabling conditions and financial architecture, while AdaptCafe finances concrete coffee-specific adaptation measures, producer capacities, post-harvest investments and market development.
CONECTA – Connecting Watershed Health with Sustainable Livestock and Agroforestry Production. Implementing agency: FMCN; GEF-7; 2021–2026	Improve connectivity of productive landscapes and support regenerative production.	CONECTA shows that conservation and productive objectives should be integrated and accompanied by organizational and market support. AdaptCafe applies this through Output 1.1 on restoration and agroforestry, Output 2.2 on organizational capacity, and Outputs 3.1–3.2 on business and market support.	Synergies on regenerative production, landscape restoration, producer organization and business development. No duplication: CONECTA has a broader watershed, agroforestry and livestock focus, while AdaptCafe targets climate adaptation in coffee systems and combines coffee-specific production, climate services, finance and markets.
TPS – Territorios Productivos Sostenibles. Implementing Agency: World Bank/GEF; completed; 2019–2025	Strengthen sustainable management of productive landscapes and economic opportunities for rural producers.	TPS demonstrated that sustainable production is more durable when linked to finance, markets and stronger producer organizations, and generated relevant experience on agroecological coffee, nurseries and post-harvest practices. AdaptCafe incorporates these lessons through Outputs 1.1 and 1.3, Component 2, and Component 3 on traceability and differentiated markets.	AdaptCafe can build on TPS knowledge, producer experience and tested finance and market approaches, particularly in Oaxaca and Chiapas. No duplication: TPS is completed. AdaptCafe does not finance continuation of TPS activities, but applies its lessons through new climate-adaptation investments and selected beneficiaries.
Nuup – Sustainable Productive Projects Support Programme/ UNDP Mexico/ongoing/2020-present (ongoing)	Promote regenerative smallholder agriculture, biodiversity conservation, transparent value chains and impact finance.	Nuup shows that finance is more effective when combined with technical assistance and organizational strengthening, and that collective commercialization can reduce dependence on intermediaries. These lessons are reflected in Outputs 2.1–2.2and Outputs 3.1–3.2.	Synergies on financial-product design, blended finance, digital tools and producer organization. No duplication: Nuup supports individual finance/value-chain initiatives, whereas AdaptCafe provides an integrated climate-adaptation package in selected municipalities.
IKI-IBA – Mainstreaming Biodiversity within the Mexican Agricultural Sector. completed; 2016–2021	Integrate biodiversity and ecosystem-service values into agricultural decision-making and develop traceability tools.	IKI-IBA demonstrated the value of simple, low-cost traceability tools adapted to smallholders and low-connectivity settings. AdaptCafe reflects this directly in Output 3.1through the proposed use/adaptation of tools such as Bioparcela.	AdaptCafe can use existing traceability tools and institutional experience rather than develop a parallel platform. No duplication: IKI-IBA ended in 2021. AdaptCafe will operationalize existing tools for climate-resilient coffee producer organizations rather than replicate their development.
ME-T1367 – Scaling Climate-Smart Transformation of Coffee Landscapes in Mexico. IDB/MIF; completed; 2018–2021	Improve competitiveness of smallholder coffee farmers in Chiapas and Oaxaca through nurseries, information tools and specialty-market access.	ME-T1367 showed that varietal improvement is more effective when accompanied by producer information, commercial support and buyer relationships. AdaptCafe incorporates this through Output 1.1 on resilient planting material and Outputs 3.1–3.2on commercial capacity and buyer engagement.	Strong synergy on varieties, producer information systems and differentiated-market approaches. No duplication: ME-T1367 ended in 2021. AdaptCafe covers a new implementation period and embeds these approaches within a broader EbA, climate-information and finance framework.

G. Learning and knowledge management

98. Knowledge management (KM), learning, and communication are cross-cutting elements of the project, strengthening adaptive capacity, supporting evidence-based decision-making, and enabling the replication and scaling of climate-resilient practices in Mexico's coffee sector. Because climate risks and adaptation responses are context-specific and evolving, KM is needed to capture, validate, share, and apply implementation lessons. This is formalised under Output 3.3, which focuses on KM and peer learning for climate-resilient coffee systems**.** It will consolidate and share knowledge generated across the project to accelerate adoption during implementation and support replication beyond the project cycle, while also informing public programmes, financial actors, and future investment decisions**.** The project will adopt an inclusive, gender-responsive, and culturally appropriate KM approach that

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recognizes Indigenous and local knowledge as a critical source of adaptation knowledge alongside technical and scientific evidence. Indigenous and local knowledge will be documented and incorporated into learning and adaptation planning processes, with community consent and in culturally appropriate ways.

99. The KM function will be coordinated by the Project Management Unit (PMU), which will oversee the capture, synthesis, dissemination, and reporting of lessons learned across all components. This function will be supported by a dedicated staff role or an assigned specialist within the project team, combining knowledge management, monitoring and evaluation, and communications responsibilities to ensure that learning is systematically documented and translated into actionable products and feedback for implementation. The project will also build on Mexico's broader public policy monitoring and evaluation ecosystem, drawing on lessons from evaluations of relevant public programmes in the coffee sector. In particular, the 2022 process evaluation of *Producción para el Bienestar* highlighted the value of FFS, territorial technical accompaniment, and agroecological capacity development for small producers, especially in Indigenous communities, while identifying the need for stronger producer ownership, improved follow-up mechanisms, and reduced administrative burdens on technical teams. These lessons are directly reflected in the project design, which builds on existing platforms and strengthens their climate adaptation, resilience, and learning functions.

1. Generation and systematization of knowledge: The project will generate knowledge by implementing climate-resilient varieties, agroecological practices, post-harvest innovations, financial instruments, and market-access mechanisms. This will be documented through field evidence, implementation records, case studies, technical briefs, and lessons learned. Universities, research centres such as INIFAP, and technical teams will support the validation and systematization of results, ensuring technical rigor and relevance across different agroecological contexts. Participatory processes will also capture Indigenous and local knowledge on climate observation, seed selection, shade and soil management, water use, pest management, post-harvest practices, and livelihood strategies. Knowledge capture will occur through multiple channels, including FFS records, participatory monitoring data, field missions, extension reports, producer organisation feedback, and technical assessments from financial and market actors. Lessons will be synthesised through periodic review processes at the municipal, state, and project-wide levels, enabling implementation experience to be translated into practical recommendations and knowledge products.

2. Knowledge sharing and learning platforms: FFS will serve as the primary local knowledge hubs, enabling experiential learning, farmer-to-farmer exchange, and participatory monitoring. Output 3.3 will establish a structured peer-to-peer learning network across the target regions to exchange experience on climate adaptation, post-harvest quality, market access, and commercialization models. The project will also support learning workshops and technical dialogues with public institutions, financial actors, and market stakeholders. Particular attention will be given to ensuring the meaningful participation of women, youth, and Indigenous Peoples through facilitation methods, schedules, languages, and formats adapted to their needs and constraints.

Reporting and dissemination channels will include regular internal implementation reviews, annual learning workshops, technical exchange events, and knowledge products targeted to producers, public programmes, financial institutions, and buyers. Lessons relevant to strategic oversight and adaptive management will be shared with the Project Steering Committee, while consolidated progress and learning will also be reflected in project reports to the AF.

3. Communication and uptake of knowledge: KM outputs will be translated into tailored communication products for producers, policymakers, financial institutions, and buyers. These may include policy briefs, practical guides, digital learning modules, short videos, and other accessible dissemination products to promote adoption, replication, and scaling**.** Knowledge products under Output 3.3 will be developed in accessible, visual, and, where relevant, bilingual formats. They will also highlight local and Indigenous practices, and the leadership of women and community organizations, where relevant.

4. Learning, feedback, and adaptive management: KM will be closely linked to the project's

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monitoring and evaluation system to enable continuous learning and adaptive management. Feedback from producers, extension agents, financial partners, and market actors will be systematically captured and used to refine technical approaches, financial instruments, and market strategies during implementation. By embedding KM within existing government programmes and national research institutions, the project will help ensure that knowledge remains accessible beyond the project's lifetime and supports a stronger enabling environment for climate-resilient coffee livelihoods. Lesson tracking will be undertaken on a regular basis, with information captured continuously through implementation and synthesized at least semi-annually for adaptive management purposes, and annually for broader reporting and dissemination. This will ensure that learning is not treated as a one-off product, but as an ongoing management function that supports implementation quality, accountability, and scale-up.

H. Consultative process

100. During January 2026, an extensive, participatory consultation process was conducted in the three target states—Chiapas, Oaxaca, and Guerrero—to inform the project's design. The process included five in-person workshops in Huixtla (Chiapas), San Agustín Loxicha and Miahuatlán (Oaxaca), and Paraje Montero–Malinaltepec (Guerrero), as well as a national-level technical consultation in Mexico City. Across all locations, consultations ensured the presence of: smallholder coffee producers; women producers and women's groups; youth; Indigenous community members; extension agents; Farmer Field Schools; producer organizations; and municipal authorities. Please see Table 13 for a detailed description.

101. Special measures were taken to ensure full participation of Indigenous Peoples, who constituted the majority in Oaxaca and Guerrero (Zapoteco, Tlapaneco, Mixteco-speaking communities, among others). Measures included facilitation in local languages, culturally appropriate methodologies, and scheduling aligned with agricultural and community rhythms. Women and youth participated through dedicated working groups, ensuring that gender-specific and generational barriers were captured explicitly—such as workload inequalities, limited access to financing, lack of equipment, lack of recognition of women as producers, migration pressures on youth, and limited access to markets.

102. All workshops used structured, participatory tools (problem trees, barrier–solution matrix, prioritization of activities) to identify climate risks, productive constraints, institutional gaps, and adaptation needs. Across states, participants consistently highlighted climate variability, drought, new pest pressures, degraded soils, lack of resilient varieties, insufficient technical assistance, limited access to credit, and market intermediation as core barriers to resilience. Women's groups emphasized needs for post-harvest infrastructure, safer working conditions, certification support, financial education, access to equipment (dryers, measurement tools), and reduction of gender-based barriers. Youth identified low incentives to remain in coffee farming, a lack of training, and limited market opportunities. Mixed groups emphasized soil conservation, water harvesting, agroforestry, and the need for transparent and consistent technical support.

103. Inputs from all territories were systematized through the three Excel files (Chiapas, Oaxaca, Guerrero) and the narrative synthesis from the January 2026 meeting. These inputs directly shaped the design of Components 1–3, including: climate-resilient renovation packages, water harvesting and soil conservation actions, strengthened FFS with bilingual/local facilitators, gender-responsive financing and commercial training, and improved producer-led market access. The consultation process will continue during full project preparation, ensuring iterative participation, culturally appropriate engagement, and continued application of the AF Environmental and Social Policy and Gender Policy.

104. Additional consultations will be conducted during full proposal preparation, focusing on the targeted municipalities in the three states of Oaxaca, Chiapas, and Guerrero.

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Table 13. Overview of Consultations Conducted

Date	Location	Participants (Total)	% Women	% Indigenous	Key Stakeholders Present	Main Issues Identified
13 Jan 2026	SADER, Mexico City	19 participants (mixed states)	~25% (based on names)	Mixed	Producer cooperatives from Puebla, Veracruz, Chiapas, Oaxaca; INIFAP; SADER technicians	Rising pests and diseases; certification challenges; lack of nurseries; credit limitations; need for improved seed quality; climate variability impacts. Addressed under output 1.1, 1.2, 1.3 and 2.1
22 Jan 2026	Miahuatlán de Porfirio Díaz, Oaxaca	37 participants (12 men, 25 women)	68% women	68% Indigenous (Zapoteco)	Women's groups, youth, producer organizations, Sikanda AC, local FFS	Soil degradation; drought; plagues; need for nurseries; market access; gender barriers; lack of financial education; need for collective organization. Addressed under 1.1, 2.1, 2.2, 3.1 and 3.2
22 Jan 2026	San Agustín Loxicha, Oaxaca	34 participants listed across 5 pages	~42% women (based on list)	>90% Indigenous (Zapoteco) (selfidentification recorded)	Zapotec coffee producers; women producers; youth; community leaders; municipal representatives	Climate variability; pests; soil fertility; lack of equipment (dryers, humidity meters); need for seed certification; need for women's market access; barriers linked to machismo; inadequate access to health and training. Addressed under 1.2, 3.1
22 Jan 2026	Huixtla, Chiapas	68 participants (55 men, 13 women)	19% women	~10% Indigenous	FFS (multiple communities); UNACH; SENASICA; Heifer International; producer groups	Drought and lack of irrigation; soil degradation; pests (roya, broca); post-harvest losses; limited access to credit; weak organizational capacity; need for women's recognition as producers; market intermediation problems. See 1.3, 1.2, 2.1 and 3.2
22 Jan 2026	Paraje Montero, Malinaltepec, Guerrero	117 participants (81 men, 36 women)	31% women	>95% Indigenous (Tlapaneco, Mixteco, others)	Community authorities; producer organizations; women's groups; youth; FFS	Climate impacts on coffee; lack of nurseries; need for shadegrown systems; high costs of inputs; plagues; lack of market access; lack of technical support; gender barriers; communication barriers (poor phone signal). Addressed under 1.1, 1.4. 2.1, 3.3,

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I. Justification for funding requested

105. Climate change is already reducing the viability of coffee-based livelihoods in Mexico through rising temperatures, irregular rainfall, more frequent droughts, soil degradation, and increasing pest and disease pressure. Without the AF grant, no resources exist to implement the climate-specific measures required to protect vulnerable producers — particularly Indigenous communities, women, and smallholders in marginal areas. Table 14 summarizes the climate risks the project addresses and the adaptation benefits achievable with the AF grant alone (i.e., *no additional external financing*). Furthermore, the ADAPTCoffee project will achieve its objective and expected results solely based on the requested AF funds. These numbers are indicative at the Concept Note stage and will be refined during full proposal development.

Table 14. Climate challenges and adaptation results achieved with the AF Grant (Full cost of adaptation reasoning)

Climate risk identified	How the AF-Financed Project Enables Adaptation (with NO additional external funding)
1. Rising temperatures and heat stress reducing coffee suitability, yield, and bean quality	• Up to 3,000 ha renovated with heat and drought tolerant coffee varieties. • 200 climate resilient nurseries upgraded to produce improved genetic material. (Output 1.1 and 2.1) • Approx. 9,000 households (36,000 people) will directly benefit from climate adapted planting material. (Output 1.1) • 40% women, 30% youth, 60% Indigenous participants (indicative).
2. Increasing drought frequency and moisture deficit in coffee plots	• Adoption of EbA practices on at least 2,500 ha (mulching, terraces, infiltration trenches). (Output 1.1) • Deployment of agroforestry systems on renovated plots to increase shade, reduce evapotranspiration, and buffer extreme heat. • 10 million climate resilient seedlings produced per year for drought affected regions. (Output 1.1 and 2.1)
3. Erratic rainfall, extreme rainfall events, erosion, and land degradation	• Restoration of 2,500 ha of degraded lands. (Output 1.1) • Stabilization of slopes and degraded areas through erosion control structures. • Community-based water harvesting benefits directly approx. 2,500 households in upper and lower catchment communities. (Output 1.3)
4. Increasing pest and disease outbreaks (e.g., roya, broca) driven by warmer nights and humidity shifts	• Creation of coffee-specific climate services and early-warning systems benefiting directly 9, 000 producers and reaching at least 11,000 producers indirectly (overall 40% of the total number of producers in the project target areas). (Output 1.2 and 1.4) • Deployment of real-time disease alerts via mobile networks and FFS. • 9,000 producers trained on climate-informed Integrated Pest Management (IPM). (Output 1.2 and 1.4)
5. Loss of coffee quality due to heat/humidity spikes and unpredictable drying conditions	• Installation of 200 climate-resilient post-harvest units (solar dryers, raised beds, controlled fermentation). (Output 1.3 and 1.4) • 100 organizations adopt climate-adaptive quality protocols. (Output 3.1) • Reduction in climate-related post-harvest losses by an estimated 25–40% (indicative). (Output 1.3)
6. Increased income volatility due to climate-driven production losses and unstable markets	• Market diversification pathways enabling 1,500 households to directly access stable, climate-resilient buyers. (Output 3.2) • Creation of 200 women's and Indigenous origin batches for premium markets. • Strengthened traceability and quality systems to maintain contracts despite climate-induced variability.
7. Limited capacity of Indigenous Peoples, women and youth to invest in climate adaptation	• 4,000 producers will directly benefit from training in financial literacy and climate risk management. (Output 2.2) • 100 producer organizations strengthened (administration, credit management, climate planning) (Output 2.2) • Targeted adaptation support to 50 Indigenous communities, aligned with cultural protocols. (Throughout all Outputs)

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8. Climate shocks (droughts, storms) causing cashflow collapse and abandonment of coffee plots	Flexible climate-aligned credit products offer from local financial institutions, aiming to prevent distress sales and decapitalization (Output 2.1)

J. Sustainability of the project/programme outcomes

106. The sustainability of the project's outcomes is anchored in five mutually reinforcing dimensions — institutional integration, inclusive financial instruments, capacity-building, market integration, and environmental sustainability — which together ensure that adaptation benefits extend well beyond the project's implementation period.

107. Institutional sustainability. By being implemented in close cooperation with SADER's priority programs, the project embeds its interventions within permanent public policy instruments with national coverage, stable budgets, and established operational structures, creating clear pathways for scaling up and long-term continuity.

108. By integrating a robust adaptation theory of change into the PpB program, the project ensures that climate-resilient practices—such as renewing coffee orchards with improved, climate-adapted genetic material and agroecological management—are mainstreamed into public policy that already reaches hundreds of thousands of producers. The knowledge management system established under Output 3.3 is designed to document and systematize lessons in a format accessible to climate programs, donors, and implementing agencies operating in Mexico's coffee landscapes and beyond, providing a foundation for replication and scaled investment in coffee-based climate adaptation after project closure. Furthermore, the project's outcomes are sustained through policy coherence, learning, and monitoring. Alignment with national climate policy instruments (ENCC, PECC, NDC 3.0) and integration with climate MRV systems enable the documentation of results, support evidence-based adjustments, and justify continued public investment.

109. Financial sustainability. The project will promote the renovation of coffee orchards with climate-resilient varieties by providing in-kind resources (equipment and inputs) to support the renovation of 1 ha of coffee orchard per farmer. Identifying and strengthening the capacity of additional financial intermediaries will improve access to climate-sensitive finance, reduce producers' vulnerability to climate shocks, and enhance their long-term bankability. These instruments are designed to persist as part of the sector's financial architecture, ensuring continued access to financing and preventing the erosion of adaptation gains from extreme climate events. In parallel, close collaboration with FIRA under component 3, including undertaking analytical work to integrate agricultural climate resilience into Mexico's sustainable development finance taxonomy and developing an agricultural resilience-specific insurance product, further ensures the potential to scale up climate adaptation finance beyond the project period. The feasibility of a coffee-specific catastrophic insurance product will also be assessed, providing an additional layer of financial protection and risk management for beneficiary households.

110. Social sustainability. The farmer field schools strengthen local technical capacities and peer-to-peer knowledge transfer, enabling producers to continue applying and disseminating resilient practices after project completion, while allowing future cohorts of beneficiaries to be incorporated at marginal additional cost. The project will directly target 9,000 households (36,000 individuals), of which it is expected that 60% will be indigenous people, 40% women and 30% youth. Investments in financial literacy and climate risk management — reaching 4,000 producers and 100 producer organizations—strengthen producers' ability to make informed decisions on climate-smart investments and access financial services independently after project close.

111. Economic sustainability. Market integration and value chain strengthening, particularly through *Alimentación para el Bienestar,* are central to long-term economic viability. By providing improved market access to coffee producers and strengthening quality and traceability standards, the project secures stable commercialization channels and price incentives for climate-resilient coffee. Investments in shared logistics, collective traceability, and certification at national and international levels increase producers'

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incomes and create durable economic incentives to maintain adapted practices over time.

112. Environmental sustainability. Climate-resilient coffee production systems established under Component 1 — including renovation with rust-resistant varieties, agroforestry integration, and improved soil and water management — are designed as farm-level transformations, targeting 3000 ha with improved practices. In addition, 2500 ha of degraded micro catchment hotspots will be rehabilitated by the project. Post-harvest equipment provided under Output 1.3 will be accompanied by training in operation and basic maintenance. Where equipment is held collectively by producer organizations, O&M responsibilities and cost-sharing arrangements will be established during implementation as part of organizational strengthening under Output 2.2.

113. Infrastructure sustainability. Operation and maintenance (O&M) responsibilities will be assigned based on the type of asset that supports each output. These responsibilities will be formalized through beneficiary/user agreements and, for collective assets, simple O&M plans specifying responsible parties, routine maintenance needs, recurrent costs, maintenance schedules and replacement arrangements.In general, routine O&M of productive assets at the farm or community level—such as upgraded nurseries, agroforestry and soil and water conservation measures, shared water harvesting systems, and post-harvest units—will be the responsibility of producer organisations, farmers grouped in FFS, and, where relevant, Social Enterprise Consortia, with continued technical backstopping from INIFAP and, as applicable, CONAFOR, SADER, and local extension partners. In particular, under Output 1.1, community nurseries will be maintained by producer organisations, Social Enterprise Consortia, and participating farmers, with technical support from INIFAP. Agroforestry, soil and water conservation, and restoration structures will be maintained by farmers and producer groups organised through FFS, with technical oversight from INIFAP, CONAFOR, and local environmental authorities where relevant. Under Output 1.3, water harvesting and small storage systems will be maintained by host farmers for individual systems and by producer organisations and FFS groups for shared systems, with technical support from INIFAP.

114. Under Output 1.2, community monitoring points and warning and advisory communication systems will be maintained by producer organizations, with continuity anchored in the Mesas Técnicas Agroclimáticas and SINAVEF/SENASICA. Under Output 1.4, post-harvest units installed at FFS will be maintained by individual producers for household assets and by producer organizations and Social Enterprise Consortia for collective assets. Under Output 3.1, traceability systems and digital tools will be operated by producer organizations, FFS-linked producer groups, and Social Enterprise Consortia, with technical support from SADER. Recurrent costs will be covered through a mix of producer contributions, user agreements, labor contributions, maintenance fees for collective assets, and access to existing public and financial support mechanisms such as FIRA and Cosechando Soberanía. Where assets generate productive revenues, a share of these revenues may also be used to cover routine maintenance and replacement costs. For collective infrastructure, adequate organizational and financial capacity to assume O&M responsibilities will be confirmed prior to handover or commissioning.

115. The project will establish a practical pathway for replication and scaling beyond project completion. FFS, nurseries and demonstration sites will test and document the performance, costs and benefits of climate-resilient varieties, EbA practices, water and soil management, post-harvest technologies and climate-informed decision-making. Under Output 3.3, these results will be converted into practical guidance, business cases and training materials for producer organizations, extension services, financial institutions and public agencies. Replication will occur through trained lead farmers, FFS facilitators and producer organizations, which will disseminate and apply proven practices with additional producers and neighboring communities. Scaling will be supported by SADER/INIFAP extension systems, strengthened producer organizations able to aggregate demand, and financial institutions able to finance similar investments through adapted credit products. Market linkages and traceability will provide an additional incentive for producers to maintain and expand climate-resilient practices where they improve quality, reliability and market access. The pathway is therefore: demonstration and validation → farmer-to-farmer and institutional replication → financing and market incentives → wider scale-up.

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K. Environmental and social impacts and risks identified

116. A preliminary environmental and social screening of the project has been carried out against the Adaptation Fund Environmental and Social Policy (ESP) and its 15 principles, using IFAD's SECAP screening procedures. The project will support small-scale, community-led investments in climate-resilient coffee agroforestry, ecosystem restoration, post-harvest improvements and producer-level capacity building, together with institutional strengthening in Chiapas, Oaxaca and Guerrero. These interventions may generate localized, predictable and mostly reversible environmental and social impacts, all of which can be effectively mitigated through standard good practice, robust screening of community-level investments, and targeted management measures.

117. Based on the screening results, the project is expected to fall under Category B (Moderate Risk) under the Adaptation Fund ESP. No activities with potentially significant, widespread or irreversible adverse impacts that would qualify as Category A are envisaged. All community-level activities or investments to be financed under the project are expected to fall within Categories B or C, consistent with the project's documented procedures for environmental and social screening.

118. The project will not finance any activity involving land use change, and all interventions will take place on existing coffee plots or on already degraded land targeted for restoration. As project locations are confirmed during full proposal preparation, intervention sites will be screened against protected areas and the ranges of protected or endangered species, and any site-specific environmental and social risks will be assessed and managed in line with the Adaptation Fund Environmental and Social Policy and IFAD's SECAP. The table below summarizes which AF ESP principles are triggered and where further assessment and management actions will be required during full proposal development and implementation.

Table 15. Checklist of potential environmental and social impacts and risks

Checklist of environmental and social principles	No further assessment required	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law		There is a low risk that some activities—such as small-scale infrastructure, restoration works, or agro-input management in Indigenous territories—could unintentionally trigger national permits, local approvals, or FPIC requirements if not properly screened. The project addresses this by applying site-specific regulatory checks, ensuring all activities comply with Mexican environmental, land-use, labour, and Indigenous rights legislation, and implementing culturally appropriate FPIC and community consultation processes; all project actions operate under IFAD safeguards and the ESMP to guarantee full legal compliance.
Access and Equity		There is a moderate risk that certain groups—especially women, youth, Indigenous Peoples, and poorer smallholders—may face barriers to accessing training, inputs, financing, or market opportunities due to existing social inequalities, language differences, and uneven community power dynamics. The project addresses this by using inclusive and bilingual Farmer Field Schools, transparent beneficiary selection, FPIC and culturally appropriate engagement with Indigenous authorities, and targeted support for women and youth across all components, ensuring equitable access to resources, information, and benefits.
Marginalized and Vulnerable Groups		There is a moderate to high risk that marginalized groups—especially Indigenous Peoples, 4, youth, Afro-Mexican communities, and households in extreme poverty—could be unintentionally excluded from project benefits due to structural inequalities, language barriers, or community power dynamics. The project addresses this risk by applying culturally appropriate FPIC processes, using bilingual and inclusive Farmer Field Schools, tailoring outreach to women and youth, strengthening producer organizations through Output 2.2 to reduce internal power imbalances, and ensuring that all activities under all components deliberately target and monitor the participation of the most vulnerable groups.
Human Rights		There is a low risk that project activities could inadvertently affect human rights if vulnerable groups—particularly Indigenous Peoples, women, youth, or migrant workers—are not able to participate safely or if consultation processes fail to

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		reflect community decision-making structures. The project directly mitigates this by applying FPIC in Indigenous territories, using culturally appropriate and bilingual engagement, ensuring transparent and inclusive participation in all components, enforcing strict prohibitions against discrimination, forced labour, child labour, or GBV, and operating under IFAD safeguards and the ESMP to ensure full alignment with national and international human rights standards.
Gender Equality and Women's Empowerment		There is a low risk that gender inequalities—such as women's limited access to land, credit, training, time, mobility, and decision-making spaces in Indigenous and rural communities—could reduce women's participation and benefits from the project. The project directly addresses this by mainstreaming gender inclusion across all components: ensuring at least 50% women's participation in FFS (output-level target), adapting training schedules and materials to women's needs, prioritizing women-led nurseries and producer groups, incorporating gender-responsive financial education under Output 2.2, and strengthening women's roles in commercialization and traceability systems under Component 3. These measures collectively promote equitable access, leadership opportunities, and meaningful empowerment for women in targeted territories.
Core Labour Rights		There is a low risk that some labour rights—such as freedom of association, fair working conditions, or the prohibition of child labour and forced labour—could be unintentionally compromised, especially during seasonal harvest peaks or when producer organizations hire temporary workers. The project addresses these risks by enforcing IFAD labour-standards requirements, prohibiting child and forced labour, integrating safe and fair labour practices into Farmer Field Schools, strengthening cooperatives' governance and labour compliance under Output 2.2, and requiring that any project-supported activity—such as nursery work, post-harvest processing, or renovation—adheres to national labour laws and ILO core conventions, ensuring safe, voluntary, and dignified working conditions for all participants.
Indigenous Peoples		There is a moderate risk that project activities implemented in Indigenous territories could unintentionally overlook customary governance systems, create inequities in participation, or affect culturally significant practices if engagement is not culturally appropriate. The project addresses this by applying FPIC as required, conducting all planning and implementation through Indigenous authorities, using bilingual and culturally adapted Farmer Field Schools, ensuring voluntary participation in restoration and renovation activities, and embedding Indigenous knowledge in all components, thereby safeguarding rights, ensuring inclusive governance, and strengthening Indigenous-led climate resilience.
Involuntary Resettlement		There is no foreseeable risk of involuntary resettlement because the project does not require land acquisition, relocation, or restrictions on access to land or resources. All activities—such as renovation of coffee plots, community nurseries, restoration works, and FFS—take place on existing, voluntarily participating smallholder or communal lands. To ensure this remains the case, the project applies FPIC in Indigenous territories, uses voluntary enrolment for all plot-level interventions, screens all micro-sites through the ESMP to avoid any activity that could create displacement pressures, and ensures that no project action alters land tenure or customary access rights, thereby fully preventing any form of physical displacement.
Protection of Natural Habitats		There is a low risk that small-scale works—such as restoration activities, nursery upgrades, water harvesting structures, or post-harvest improvements—could inadvertently affect natural habitats if poorly sited, especially in areas near riparian zones, secondary forests, or ecologically sensitive slopes. The project deliberately prevents these impacts by conducting site-specific screening under the ESMP, avoiding any intervention in primary forests or conservation areas, using only degraded or already-managed agricultural lands for restoration and renovation activities, and promoting agroforestry and riparian restoration under Component 1, which strengthens biodiversity, soil stability, and ecosystem functions rather than disturbing natural habitats.

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Conservation of Biological Diversity		There is a low risk that project activities—such as small-scale infrastructure or on-farm renovation—could inadvertently affect local biodiversity if not properly sited or if non-native species were introduced. The project mitigates this risk by strictly avoiding interventions in primary forests, using only native shade and restoration species validated by INIFAP, restoring riparian and degraded areas under Component 1 to enhance habitat connectivity, and promoting diversified agroforestry systems that increase tree cover, soil health, pollinator habitat, and overall ecosystem function; all micro-sites are screened through the ESMP to ensure activities contribute positively to biodiversity conservation.
Climate Change		There is a low risk that project activities could unintentionally contribute to greenhouse gas emissions or maladaptation if practices such as renovation, post-harvest improvements, or water management are not climate-informed. The project deliberately mitigates this risk by promoting climate-resilient coffee agroforestry systems, restoration of degraded and riparian areas, soil and water conservation practices, and low-energy post-harvest technologies under Component 1; strengthening climate-informed decision-making through coffee-specific agroclimatic advisories under Output 1.2; and ensuring that all activities are screened for maladaptation through the ESMP, thereby aligning the project with low-emission, climate-resilient pathways.
Pollution Prevention and Resource Efficiency		There is a low risk of localized pollution or inefficient resource use—such as improper disposal of organic coffee waste, small amounts of wastewater from wet processing, or limited use of agro-inputs—if these activities are not well managed. The project addresses this by promoting low-input agroecological practices, composting and bio-input production, safe wastewater handling in post-harvest pilots, efficient water-harvesting structures, and the exclusive use of nationally approved, low-toxicity inputs under IPM. All micro-activities are screened through the ESMP, and Farmer Field Schools include training on safe waste management and resource-efficient practices, ensuring minimal pollution and improved resource efficiency.
Public Health		There is a low risk of public health impacts if small-scale water harvesting structures create stagnant water, if wet-processing generates wastewater that is not properly managed, or if increased humidity during post-harvest handling raises fungal or contamination risks. The project addresses these risks by ensuring proper drainage and siting of all water structures, incorporating safe wastewater management in post-harvest pilots, providing hygiene and health-related training through Farmer Field Schools, avoiding activities that could increase vector breeding, and screening all micro-sites through the ESMP to ensure that no intervention heightens exposure to water-borne, vector-borne, or sanitation-related health risks.
Physical and Cultural Heritage		There is a low risk that small-scale activities—such as restoration works, nursery upgrades, or demonstration sites—could inadvertently affect areas of cultural significance or intangible heritage within Indigenous territories if locations are not carefully screened. The project addresses this by conducting site-specific ESMP screening, applying FPIC and culturally appropriate consultations with Indigenous authorities, avoiding any intervention near sacred sites or culturally important landscapes, and incorporating Indigenous knowledge and practices into FFS and restoration activities, ensuring that all actions respect and reinforce, rather than disrupt, physical and cultural heritage.
Lands and Soil Conservation		There is a low risk that small-scale works—such as on-farm renovation, water harvesting features, or nursery improvements—could generate localized soil disturbance, erosion, or slope instability if not properly designed, especially in steep coffee landscapes typical of the project areas. The project mitigates this by promoting agroforestry, soil cover, contour planting, infiltration trenches, mulching, and other ecosystem-based soil conservation practices under Component 1; restoring degraded slopes and riparian areas; screening all micro-sites through the ESMP to avoid erosion-prone zones; and providing FFS training on sustainable soil and land management, ensuring that all activities strengthen rather than degrade soil health and land stability.

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PART III: IMPLEMENTATION ARRANGEMENTS

A. Demonstrate how the project aligns with the Results Framework of the Adaptation Fund

Table 16. Alignment to the AF Results Framework

Project Objective(s)[1]	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)
Objective 1. Strengthen the climate resilience of smallholder coffee production systems in priority landscapes through the adoption of climate-resilient varieties on at least 3,000 ha, ecosystem-based adaptation practices, and climate-informed farm management on at least 2,500 ha, as well as restoration of 2,500 ha degraded land and by at least 9,000 producers	- % of supported producers apply climate-informed advisory information to production and post-harvest decisions.	Outcome 1: Reduced exposure to climate-related hazards and threats	1. People using climate-related threat and hazard information	511,521
	- % of supported producers reporting improved capacity to anticipate and manage climate-related risks affecting coffee production.	Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	2. Institutions with strengthened capacity to understand and better address climate risks and resilience.	2,500,000
	- # of smallholder coffee producers adopting climate-resilient production practices promoted by the project, disaggregated by sex, age, and Indigenous status.	Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes.	3.b. People implementing new or improved adaptation actions	2,500,000
	- # Ha of coffee production systems under climate-resilient management, including climate-resilient varieties, agroforestry/EbA practices, and climate-informed farm management.	Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress	5. Ecosystems and natural resources brought under protection, restoration, or improved management in response to climate variability and change.	7,000,000
Objective 2. Enhance the adaptive capacity and livelihood resilience of vulnerable smallholder coffee producers by improving inclusive access to climate finance, strengthening at least 100 producer organizations, and expanding market access for coffee produced under climate-resilient practices.	- # of smallholder coffee producers accessing climate-relevant financial services or products through project-supported mechanisms, disaggregated by sex, age, and Indigenous status. - # of producer organizations with strengthened organizational and commercial capacity to access differentiated markets for coffee produced under climate-resilient practices. - Volume and/or value of coffee marketed through project-supported differentiated market channels linked to climate-resilient production.	Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	6.a. People adopting improved and/or new climate-resilient livelihood practices	8,341,014
Total objective level grant amount				**20,852,535**

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Project Outcome(s)	Project Outcome Indicator(s)	Fund Output	Fund Output Indicator	Grant Amount (USD)
Outcome 1. Vulnerable smallholder coffee producers, including women, youth, and Indigenous groups, adopt climate-resilient practices that strengthen coffee production systems, landscapes, and the coffee value chain.	- # of coffee producers able to apply climate-resilient practices - # of coffee producers who are members of the FFS and access trainings	Output 1.2: Targeted population groups covered by warning and advisory services for climate related hazards and threats	1.2.b. People covered by new or improved early warning systems	3,100,000
	- # of knowledge documents and guidelines on climate-resilient coffee practices published and disseminated.	Output 3.2 Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning	3.2. Climate resilience knowledge products and/or tools developed and shared with stakeholders	2,536,520
	- # of hectares of coffee under restored and climate-resilient agroforestry systems - Number of productive and ecosystem-based assets strengthened against climate change (e.g., nurseries, seed banks, demonstration plots)	Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	5.1: Ecosystems and natural resources targeted by activities to improve protection, restoration, and/or management	6,875,000
Outcome 2. Through strengthened local financial institutions, small coffee producers have improved access to inclusive financing for climate-resilience agriculture	- # of producers with access to climate-resilient financing for productive renovation through strengthened local financial institutions and project-supported finance mechanisms - # of producers receiving climate-smart financial literacy services delivered through strengthened financial institutions, cooperatives, or digital finance platforms	Output 2.2: Increased readiness and capacity of national and sub-national entities to directly access and programme adaptation finance	2.2. Local institutions receiving funding or other direct support under the locally led adaptation modality	5,638,710
Outcome 3. Adaptive capacity of smallholder coffee producers strengthened through access to differentiated markets for climate-resilient coffee and improved knowledge and peer-learning	- # of producer organizations meeting minimum commercial readiness criteria for resilient markets - # of producers receiving targeted support to access differentiated, climate-resilient markets - # of trade agreements established with coffee producers using adaptive practices.	Output 6.1: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	6.1.: People receiving targeted support for new and/or improved livelihoods to manage climate risk	2,702,305
Total outcome level grant amount				**20,852,535**

[1] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

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PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[2] *Provide the name and position of the government official and indicate date of endorsement. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template;*

Ms. Regina Rosales Talamas Primary Contact Point Director General in the Ministry of Finance and Public Credit and International Affairs Unit	Date: June 2nd 2026

B. **Implementing Entity certification***Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address*

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy and the Gender Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Implementing Entity coordinator: Pierre Yves Guedez Senior Climate Finance Specialist ECG Division 	Email: p.guedez@ifad.org,
Mr Juan Carlos Mendoza Casadiegos, Director, Environment, Climate, Gender and Social Inclusion Division	
Date: 05 June 2026	e-mail: ecgmailbox@ifad.org
Project contact person: Mr. Daniel Anavitarte, Mexico Country Director	
e-mail: d.anavitarte@ifad.org	

Annex 1 Letter of endorsement by the National Authority

Hacienda
Secretaría de Hacienda y Crédito Público

Subsecretaría de Hacienda y Crédito Público
Unidad de Crédito Público y Asuntos Internacionales de Hacienda
Dirección General de Organismos Financieros Internacionales

ADAPTATION FUND

Oficio No. 305.- E.-145/2026
Mexico City, august 20th, 2026

Letter of Endorsement by Government of Mexico

Ministry of Finance and Public Credit

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email:Secretariat@Adaptation.Fund.org
Fax: 202522 3240/5

Subject: Endorsement for **"PROGRAM FOR THE RESILIENCE OF VULNERABLE SMALL-HOLDER COFFEE PRODUCERS IN MEXICO - ADAPTCAFÉ"**

In my capacity as primary contact point (with signing authority) of Mexico's Designated Authority, the Ministry of Finance and Public Credit, before the Adaptation Fund, I confirm that the above project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in Mexico.

Accordingly, I am pleased to endorse the above project/programme proposal with support from the Adaptation Fund. If approved, the project will be implemented by the International Fund for Agricultural Development (IFAD) and executed by the Food and Agriculture Organization of the United Nations (FAO).

Sincerely,

Raúl Fernando González Romero
Primary Contact Point (with signing auhority),
General Director in charge of International Financial Institutions in the Ministry of Finance and Public Credit, Public Credit and International Affairs Unit,
raúl_gonzalez@hacienda.gob.mx
Ph. (+52) 55 3688 1704).

2026 año de Margarita Maza

Insurgentes Sur 1971, Torre III, Piso 3, Col. Guadalupe Inn C.P. 01020, Álvaro Obregón, Ciudad de México
Tel: (55) 3688-1704. www.gob.mx/shcp

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Hacienda
Secretaría de Hacienda y Crédito Público

Subsecretaria de Hacienda y Crédito Público
Unidad de Crédito Público y Asuntos Internacionales de Hacienda
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raúl_gonzalez@hacienda.gob.mx
Ph. (+52) 55 3688 1704).



Revised PFG Submission Form[1]

Project Formulation Grant (PFG)

Submission Date:

Adaptation Fund Project ID:
Country/ies: Mexico
Title of Project/Programme: Programme for the resilience of smallholder producers in Mexico – AdaptCafé

Type of IE (NIE/RIE/MIE): MIE
Implementing Entity: International Fund for Agricultural Development (IFAD)
Executing Entity/ies: IFAD for the PFG and Food and Agriculture Organisation (FAO) for the project

A. Project Preparation Timeframe

Start date of PFG	November 2026
Completion date of PFG	November 2027

B. Proposed Project Preparation Activities ($)

List of Proposed Project Preparation Activities	Output of the PFG Activities	US$ Amount	Budget note[2]
Activity 1. Field studies and stakeholder consultations to validate the project design and inform full proposal development	- Validated field-based evidence to inform the full proposal; - Refined project design and targeting approach; - Stakeholder consultation report - Stakeholder engagement plan for project design and implementation.	17,250	IFAD with support from relevant Government Agencies will conduct field visits to the project locations and potential beneficiaries and conduct design workshops with different stakeholders in Oaxaca, Chiapas, Guerrero.

[1] As presented in AFB/PPRC.33/40 Annex 1.
[2] The proposal should include a detailed budget with budget notes indicating the break- down of costs at the activity level. It should also include a budget on the Implementing Entity management fee use.

Activity 2. Detailed technical analysis of project components, outputs, activities, and implementation arrangements.	- Refined technical design for the project	20,000	Desk work with experts to assess the feasibility of proposed technologies and practices and define the project's components, outputs, and activities.
Activity 3. Development of the project's results framework, costing, and detailed budget	- Results framework - Detailed costing of project activities - Full project budget	10,000	Expert's work for the definition of the project log-frame, results framework, and budget.
Activity 4. Economic and financial analysis	- Economic and financial analysis	10,000	Economist to prepare the economic and Financial analysis.
Activity 5. Gender assessment and social inclusion analysis	- Gender Assessment - Gender Action Plan (GAP)	15,000	Gender expert for field activities and survey to produce the gender analysis for the project.
Activity 6. Environmental and social risk assessment, including screening of environmental impacts and mitigation measures	- Updated environmental and social screening/risk categorization - Environmental and Social Management Plan (ESMP)	15,000	ESS expert for field activities and survey for the final EIA reports.
Activity 7. Development of the FPIC process and engagement of Indigenous communities in project design and implementation	- Free, Prior and Informed Consent (FPIC) - Indigenous Peoples Plan	10,000	Indigenous Peoples expert to conduct consultation and develop the plan
Activity 8. Preparation of the full project proposal	- Full Project Proposal	40,000	Consolidate and finalize full project proposal for submission.
Sub-total		**137,250**	
Implementing Entity's Management Fee (8.5%)		12,750	
Total Project Formulation Grant		**150,000**	

Activity 1. Field studies and stakeholder consultations to validate the project design and inform full proposal development

Field studies and consultative workshops will be undertaken in the proposed project areas to validate the project design, refine targeting, and ensure that the full proposal reflects the actual climate, socio-economic, and institutional conditions faced by smallholder coffee producers. Field assessments will gather evidence on climate vulnerability, production constraints, landscape degradation, post-harvest practices, institutional capacity, and the status of existing support systems such as Farmer Field Schools, nurseries, and producer organisations. Consultative workshops at national, state, and local levels will engage key stakeholders—including producers, women's and youth groups, Indigenous representatives, government agencies, technical institutions, and financial actors—to review the concept note, validate implementation arrangements, and identify priorities, barriers, and opportunities for scaling climate-resilient coffee systems.

This combined process will help ensure that the project is context-specific, technically feasible, inclusive, and aligned with local needs, institutional realities, and existing public programmes. Funding is required for technical field missions, stakeholder consultations and workshops, travel, facilitation, interpretation where needed, and documentation of findings for the full proposal. Outputs include:

- Validated field-based evidence to inform the full proposal;
- Refined project design and targeting approach;
- Stakeholder consultation report; and
- Stakeholder engagement plan for project design and implementation.

Activity 2. Detailed technical analysis of project components, outputs, activities, and implementation arrangements

A more detailed technical analysis will be necessary to further develop and substantiate the project's components, outputs, and activities for the full proposal. This includes refining the adaptation logic of the intervention, confirming the suitability of the proposed technological packages, and defining how different project elements will interact across production resilience, climate services, post-harvest adaptation, inclusive finance, and market access. The analysis will also examine implementation arrangements, institutional roles, delivery mechanisms, and the operational feasibility of utilising existing structures such as Farmer Field Schools, producer organisations, public programmes, and financial intermediaries. This work is essential to ensure a coherent and feasible project design, with clear causal pathways between investments and adaptation outcomes. Funding is needed for specialised technical expertise, coordination among national and international experts, review of existing data and evidence, and the preparation of the technical design that will underpin the full proposal. Expected output:

- Refined technical design for the project, including validated components, outputs, activities, and intervention packages and Theory of Change.

Activity 3: Development of the project's logical framework, results framework, costing, and detailed budget

The development of the full proposal will require a robust results architecture, including a logical framework, results framework, indicators, targets, means of verification, and assumptions. This process involves defining the hierarchy of results from outputs to outcomes and impact, ensuring alignment with both Adaptation Fund requirements and the project's adaptation logic. It also requires costing activities and developing a detailed budget that accurately represents the scope and sequence of investments across the three components, which include technical assistance, infrastructure and equipment, training, field implementation, and knowledge management. Since the project integrates productive adaptation, post-harvest systems, inclusive finance, and market access, a meticulous costing exercise is vital to ensure realism, efficiency, and internal coherence among components. Expected outputs include:

- Complete logical framework and results framework for the full proposal, including indicators, baselines, targets, means of verification, and assumptions;
- Detailed costing of project activities across all components;
- Full project budget aligned with the results framework, implementation arrangements, and Adaptation Fund requirements.

Activity 4. Economic and financial analysis

Additional analysis will also be needed to assess the economic and financial justification of the project, including the rationale for blending grant support with financial inclusion measures and the expected benefits of stabilizing production, reducing losses, and improving access to differentiated markets. Funding is therefore needed to support climate risk analysis, vulnerability assessment, and economic/financial analysis, as well as to integrate these findings into the proposal narrative. Expected output:

- Economic and financial analysis demonstrating the justification, cost-effectiveness, and expected adaptation benefits of the proposed investments.

Activity 5. Gender assessment and social inclusion analysis

A dedicated gender assessment and social inclusion analysis will be carried out to ensure that the project design reflects the differentiated climate vulnerabilities, capacities, constraints, and opportunities of women, men, youth, and Indigenous Peoples in coffee-producing territories. Combining desk review, field consultations, and disaggregated data collection, the assessment will analyse roles, access to assets and services, participation in decision-making, and barriers to equitable participation in project benefits across coffee production, post-harvest activities, finance, extension, and markets. It will also identify risks of exclusion, unequal benefit sharing, and any context-specific concerns related to gender-based violence or harassment during implementation.

The findings will inform gender-responsive and socially inclusive project design measures, including participation targets, tailored outreach strategies, culturally appropriate approaches, and actions to strengthen the leadership of women, youth, and Indigenous producers. The assessment will also provide the basis for the project's Gender Action Plan and for integrating relevant indicators, targets, budget provisions, and monitoring arrangements into the results framework. Funding is required for specialized expertise, field data collection, consultations, analysis, and integration of the findings into the full project design. Outputs include:

- Gender Assessment with sex-disaggregated and socially inclusive baseline information to inform the results framework
- Gender Action Plan (GAP) with implementation actions, indicators, responsibilities, and budget provisions

Activity 6. Environmental and social risk assessment, including screening of environmental impacts and mitigation measures.

Given the nature of the proposed interventions, an environmental and social risk assessment will be undertaken to identify potential risks, determine the safeguard principles triggered by the project, and define the corresponding mitigation, management, and monitoring measures, in line with the Adaptation Fund's Environmental and Social Policy. Building on the preliminary concept-stage screening, the assessment will review risks related to land use, biodiversity, water resources, soil disturbance, waste and effluent management, occupational and community health and safety, labour conditions, equitable access to benefits, and possible impacts on vulnerable groups, including Indigenous Peoples.

The assessment will inform the preparation of the safeguard instruments required for the full proposal and define the mitigation actions, institutional responsibilities, monitoring requirements, capacity needs, and budget needed to manage risks during implementation. Outputs include:

- Updated environmental and social screening/risk categorization
- Environmental and Social Management Plan (ESMP) proportionate to the project's risk profile

Activity 7. Development of the FPIC process and engagement of Indigenous communities in project design and implementation.

A dedicated process will be undertaken to ensure the meaningful and culturally appropriate engagement of Indigenous communities in project design and implementation and, where relevant, to comply with the principle of Free, Prior and Informed Consent (FPIC). This is necessary because the project will operate in coffee-producing territories where Indigenous Peoples are present and where activities may affect their livelihoods, natural resources, traditional practices, or access to benefits. The activity will include stakeholder mapping, consultation with Indigenous authorities and communities, assessment of FPIC requirements, and the design of culturally appropriate engagement processes using local languages and methods that respect community decision-making systems.

The process will help identify community priorities, potential risks, conditions for participation, and barriers to equitable inclusion, and will inform measures to ensure that the project design and implementation reflect Indigenous rights, knowledge, and development priorities. Funding is required for specialized expertise, field consultations, translation and interpretation where needed, and preparation of the relevant documentation for the full proposal. Expected outputs include:

- Documented FPIC and Indigenous engagement process
- Indigenous Peoples Plan with recommendations for integrating Indigenous considerations and equitable participation into the final project design, implementation arrangements, and monitoring framework.

Activity 8. Preparation of the full project proposal

The final PFG-supported activity will be the preparation of the full Adaptation Fund project proposal and all supporting documentation required for submission. This will involve consolidating the technical, financial, environmental, social, gender, and institutional analyses into a coherent proposal aligned with Adaptation Fund templates and review expectations. The proposal will need to clearly articulate the climate rationale, project design, implementation arrangements, results framework, budget, risk management measures, sustainability strategy, and monitoring approach. Expected output:

- Full project proposal

C. Implementing Entity

This request has been prepared in accordance with the Adaptation Fund Board's procedures and meets the Adaptation Fund's criteria for project identification and formulation

Implementing Entity Coordinator, IE Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
		07/14/2026	Mr. Daniel	(507) 62029372	ecgmailbox@ifad.org

Pierre Yves Guedez Senior Climate Finance Specialist ECG Division			Anavitarte, Mexico Country Director		p.guedez@ifad.org d.anavitarte@ifad.org

Preliminary Gender Assessment

Mexico has made progress in education and political representation, but major gender gaps remain in economic participation, poverty, informality, unpaid care work, and exposure to violence, all of which shape women's adaptive capacity in coffee-producing areas. Women's educational outcomes are relatively strong, with lower secondary completion at **90.9% for girls versus 86.9% for boys** and adult literacy near parity (**96.5% for women; 95.4% for men**), which creates a strong basis for women's participation in climate advisories, financial education, and post-harvest and market-related training if barriers to access are addressed. At the same time, health and care burdens remain relevant for resilience, including a **maternal mortality ratio of 42 per 100,000 live births** and unpaid care work of **39.7 hours per week for women versus 18.2 for men**, rising to **44 hours for Indigenous women**.

Gender inequality is particularly acute in the project's target states. Poverty remains very high in **Chiapas (66.0%)**, **Guerrero (58.1%)**, and **Oaxaca (51.6%)**, while women's labour force participation is far below men's: in **Chiapas, 31.4% for women versus 80.3% for men**; in **Oaxaca, 42.9% versus 72.5%**; and in **Guerrero, 48.5% versus 74.3%**. Although unemployment rates are relatively low, informality is extremely high and consistently worse for women: **73.8% of working women in Chiapas**, **76.0% in Oaxaca**, and **75.6% in Guerrero** are in informal employment.[1] These patterns matter for adaptation because they limit women's access to income, social protection, credit histories, and time for training, producer organizations, and finance.

The project therefore treats gender-responsive adaptation as more than a participation target. It recognizes that women, especially Indigenous and rural women, face structural constraints related to limited recognition as producers, restricted access to land and finance, heavy care burdens, reduced mobility and safety concerns, and underrepresentation in extension and producer organizations. Gender mainstreaming will be operationalized through inclusive delivery modalities, sex-disaggregated monitoring, and measures to reduce participation barriers. The project targets at least **40% women among direct beneficiaries**, and through **200 Farmer Field Schools** aims to reach **9,000 producers**, with at least **50% women and 30% youth** (output-level target), using time-sensitive scheduling, accessible locations, safe learning spaces, bilingual facilitation where relevant, and childcare support where feasible.

Indigenous Peoples are central to the project context and beneficiary base. In Mexico, **39.2 million people (30.3%)** self-identify as Indigenous and **7.4 million (5.9%)** speak an Indigenous language. In **Chiapas, Oaxaca, and Guerrero**, Indigenous communities make up a large share of smallholder coffee producers and face overlapping constraints including poverty, geographic isolation, language barriers, financial exclusion, limited access to extension, and high exposure to drought, irregular rainfall, erosion, and pests. Indigenous women face even greater disadvantages, including poverty rates of up to **75%** and extreme poverty of **37%**, alongside higher unpaid care burdens and lower access to services, which further restrict their ability to adopt climate-resilient practices.

[1] INEGI's ENOE state bulletins

During January 2026, an extensive, participatory consultation process was conducted in the three target states—Chiapas, Oaxaca, and Guerrero—to inform the project's design. The process included five in-person workshops in Huixtla (Chiapas), San Agustín Loxicha and Miahuatlán (Oaxaca), and Paraje Montero–Malinaltepec (Guerrero), as well as a national-level technical consultation in Mexico City. Across all locations, consultations ensured the presence of: smallholder coffee producers; women producers and women's groups; youth; Indigenous community members; extension agents; Farmer Field Schools; producer organizations; and municipal authorities. Please see Table 13 for a detailed description.

Special measures were taken to ensure full participation of Indigenous Peoples, who constituted the majority in Oaxaca and Guerrero (Zapoteco, Tlapaneco, Mixteco-speaking communities, among others). Measures included facilitation in local languages, culturally appropriate methodologies, and scheduling aligned with agricultural and community rhythms. Women and youth participated through dedicated working groups, ensuring that gender-specific and generational barriers were captured explicitly—such as workload inequalities, limited access to financing, lack of equipment, lack of recognition of women as producers, migration pressures on youth, and limited access to markets.

All workshops used structured, participatory tools (problem trees, barrier–solution matrix, prioritization of activities) to identify climate risks, productive constraints, institutional gaps, and adaptation needs. Across states, participants consistently highlighted climate variability, drought, new pest pressures, degraded soils, lack of resilient varieties, insufficient technical assistance, limited access to credit, and market intermediation as core barriers to resilience. Women's groups emphasized needs for post-harvest infrastructure, safer working conditions, certification support, financial education, access to equipment (dryers, measurement tools), and reduction of gender-based barriers. Youth identified low incentives to remain in coffee farming, a lack of training, and limited market opportunities. Mixed groups emphasized soil conservation, water harvesting, agroforestry, and the need for transparent and consistent technical support.

Inputs from all territories were systematized through the three Excel files (Chiapas, Oaxaca, Guerrero) and the narrative synthesis from the January 2026 meeting. These inputs directly shaped the design of Components 1–3, including: climate-resilient renovation packages, water harvesting and soil conservation actions, strengthened FFS with bilingual/local facilitators, gender-responsive financing and commercial training, and improved producer-led market access. The consultation process will continue during full project preparation, ensuring iterative participation, culturally appropriate engagement, and continued application of the AF Environmental and Social Policy and Gender Policy.

Additional consultations will be conducted during full proposal preparation, focusing on the targeted municipalities in the three states of Oaxaca, Chiapas, and Guerrero.





Table 13. Overview of Consultations Conducted

Date	Location	Participants (Total)	% Women	% Indigenous	Key Stakeholders Present	Main Issues Identified
13 Jan 2026	SADER, Mexico City	19 participants (mixed states)	~25% (based on names)	Mixed	Producer cooperatives from Puebla, Veracruz, Chiapas, Oaxaca; INIFAP; SADER technicians	Rising pests and diseases; certification challenges; lack of nurseries; credit limitations; need for improved seed quality; climate variability impacts. Addressed under output 1.1, 1.2, 1.3 and 2.1
22 Jan 2026	Miahuatlán de Porfirio Díaz, Oaxaca	37 participants (12 men, 25 women)	68% women	68% Indigenous (Zapoteco)	Women's groups, youth, producer organizations, Sikanda AC, local FFS	Soil degradation; drought; plagues; need for nurseries; market access; gender barriers; lack of financial education; need for collective organization. Addressed under 1.1, 2.1, 2.2, 3.1 and 3.2
22 Jan 2026	San Agustín Loxicha, Oaxaca	34 participants listed across 5 pages	~42% women (based on list)	>90% Indigenous (Zapoteco) (selfidentification recorded)	Zapotec coffee producers; women producers; youth; community leaders; municipal representatives	Climate variability; pests; soil fertility; lack of equipment (dryers, humidity meters); need for seed certification; need for women's market access; barriers linked to machismo; inadequate access to health and training.

						Addressed under 1.2, 3.1
22 Jan 2026	Huixtla, Chiapas	68 participants (55 men, 13 women)	19% women	~10% Indigenous	FFS (multiple communities); UNACH; SENASICA; Heifer International; producer groups	Drought and lack of irrigation; soil degradation; pests (roya, broca); post-harvest losses; limited access to credit; weak organizational capacity; need for women's recognition as producers; market intermediation problems. See 1.3, 1.2, 2.1 and 3.2
22 Jan 2026	Paraje Montero, Malinaltepec, Guerrero	117 participants (81 men, 36 women)	31% women	>95% Indigenous (Tlapaneco, Mixteco, others)	Community authorities; producer organizations; women's groups; youth; FFS	Climate impacts on coffee; lack of nurseries; need for shadegrown systems; high costs of inputs; plagues; lack of market access; lack of technical support; gender barriers; communication barriers (poor phone signal). Addressed under 1.1, 1.4. 2.1, 3.3,