



ADAPTATION FUND

**Letter of Endorsement by the Government of Mexico
Secretariat of Finance and Public Credit**



SHCP
SECRETARÍA DE
HACIENDA Y
CRÉDITO PÚBLICO

08th August 2022

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: afbsec@adaptation-fund.org
Fax: 202 522 3240/5

Subject: Endorsement for Project “**Project on sustainable water management in indigenous regions**”

In my capacity as General Director in process of being appointed as designated authority for the Adaptation Fund in Mexico, in the absence of an appointed authority, I confirm that the above national 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 proposal with support from the Adaptation Fund. If approved, the project will be implemented by the Mexican Institute of Water Technology (IMTA) and executed by the **National Institute of Indigenous People**.

Sincerely,

Laura Elisa Aguirre Téllez
Director General
Secretariat of Finance and Public Credit
(Unit of Public Credit)
+52 55 3688 1873
laura_aguirre@hacienda.gob.mx



Regular Project Cover Letter

**Secretariat of Environment and Natural Resources
Mexican Institute of Water Technology**

08th August 2022

To: The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: afbsec@adaptation-fund.org
Fax: 202 522 3240/5

Subject: Endorsement for Project **“Project on sustainable water management in indigenous regions”**

In my capacity as Director General of the National Implementing Entity for the Adaptation Fund in Mexico, I am pleased to send the above project for the consideration of the Board for the upcoming 39th Meeting.

The project contains crucial elements for adaptation in the country, as stated in the content. If approved, the project will be executed by the **National Institute of Indigenous People**.

Sincerely,

A handwritten signature in blue ink, consisting of a large loop followed by a horizontal line and a small crossbar.

Dr. Adrián Pedrozo Acuña
Director General
Mexican Institute of Water Technology



ADAPTATION FUND

REQUEST FOR PROJECT/PROGRAMME FUNDING FROM THE ADAPTATION FUND

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email or fax.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project/programme must be fully prepared (i.e., fully appraised for feasibility) when the request is submitted. The final project/programme document resulting from the appraisal process should be attached to this request for funding.

Complete documentation should be sent to:

The Adaptation Fund Board
Secretariat 1818 H Street NW
MSN N7-700
Washington, D.C.,
20433 U.S.A
Fax: +1 (202) 522-3240/5
Email: afbsec@adaptation-fund.org

PROJECT/PROGRAMME PROPOSAL TO THE ADAPTATION FUND

PART I: PROJECT/PROGRAMME INFORMATION

Project/Programme Category:

Country/ies: Mexico

Title of Project/Programme: Project on sustainable water management in indigenous regions

Type of Implementing Entity: Public entity of the Federal order

Implementing Entity: Mexican Institute of Water Technology (IMTA)

Executing Entity/ies: National Institute of Indigenous Peoples (INPI)

Amount of Financing Requested: **1,085,000** (in U.S Dollars Equivalent)

Project / Programme Background and Context:

Mexico is currently experiencing a historic stage of profound transformation of public life, in the task of building a new Mexico, in which the great diversity of peoples and cultures that make up this nation fits, Lic. Andrés Manuel López Obrador, President of the United States of Mexico has expressed as a principle of its government that: "For the good of all, first the poor, the most humble and the forgotten, especially the indigenous peoples of Mexico."

However, the indigenous and Afro-Mexican peoples continue to live in unfortunate conditions of poverty, inequality, discrimination and injustice, because deep down, from a paternalistic and integrationist vision, they have been denied their recognition as subjects of law and their historical future, which has limited their possibilities to achieve their development and well-being in all areas of daily life.

The National Institute of Indigenous Peoples (INPI) seeks to know and respond to the just demands and historical needs of indigenous peoples, prioritizing the preparation and execution of Justice Plans and Comprehensive Regional Development Plans for

Indigenous and Afro-Mexican Peoples, through of the exercise of their right to self-determination, with community participatory planning of the indigenous and Afro-Mexican peoples, through their own forms of organization and culture, with the aim of having a document that can materialize in constructive agreements or arrangements between the federal government and municipal and community authorities.

Additionally, INPI operates the Program for the Comprehensive Welfare of Indigenous Peoples (PROBIPI), which aims to contribute to the comprehensive development and common welfare of indigenous and Afro-Mexican peoples, as subjects of public law, promoting the implementation and effective exercise of their Rights; the access to the justice; the use and conservation of their lands, territories, natural resources, biodiversity and environment; support for their strategic economic and productive activities, the construction of roads and infrastructure for basic services, community infrastructure and the strengthening of their cultural heritage, within a framework of respect for their self-determination, autonomy and forms of organization.

Within the framework of this program, actions will be implemented for the construction and expansion of basic services infrastructure (drinking water, drainage and sanitation, and electrification), as well as territorial integration through land communication works, community infrastructure, and technical support. community, so with this project these actions will be reinforced.

Additionally, as the Report of the Special Rapporteur on the Rights of Indigenous Peoples in 2017 has referred to, indigenous peoples are the ones who suffer the most from the consequences of climate change, despite being the ones who have contributed the least to this global problem. Among the adverse effects faced by indigenous peoples and communities are:

- Scarcity of water, both for human consumption and for agricultural activities, affecting the food security and sovereignty of indigenous communities.
- Deforestation and forest degradation and/or forest fires
- New and more pests and/or invasion of exotic species, which affects agricultural and tourism activities.
- Timeless rains that cause effects on productive activities and tourism, as well as on daily life

The indigenous regions that will be considered in this project are indigenous regions of the state of Oaxaca and the Wirikuta region of San Luis Potosí.

Annex 5 to OPG Amended in October 2017

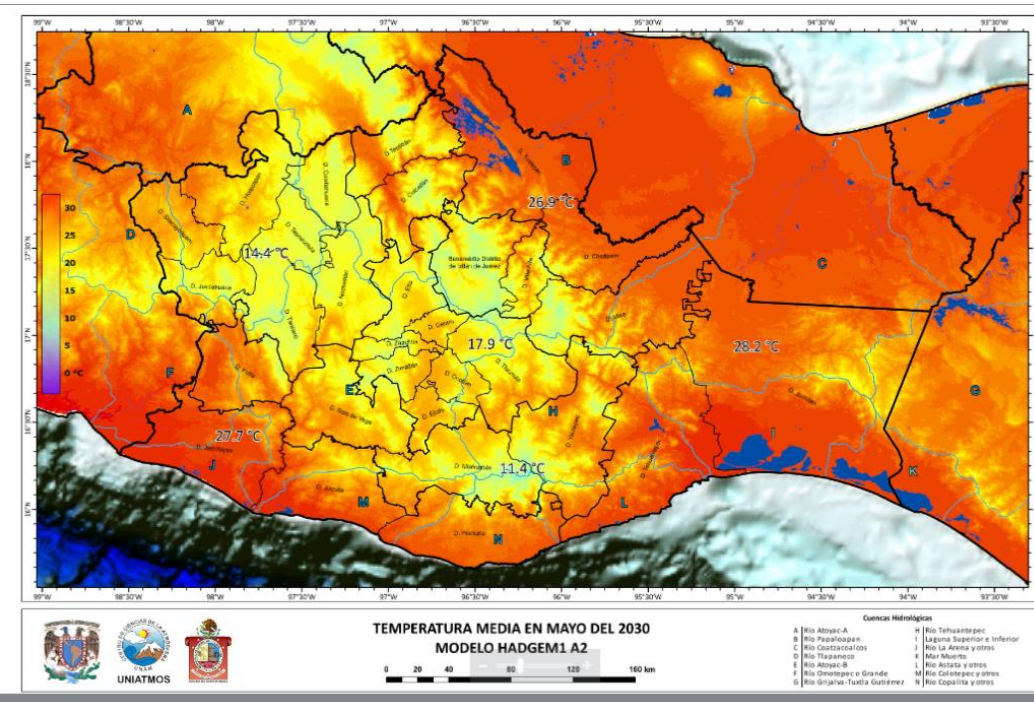
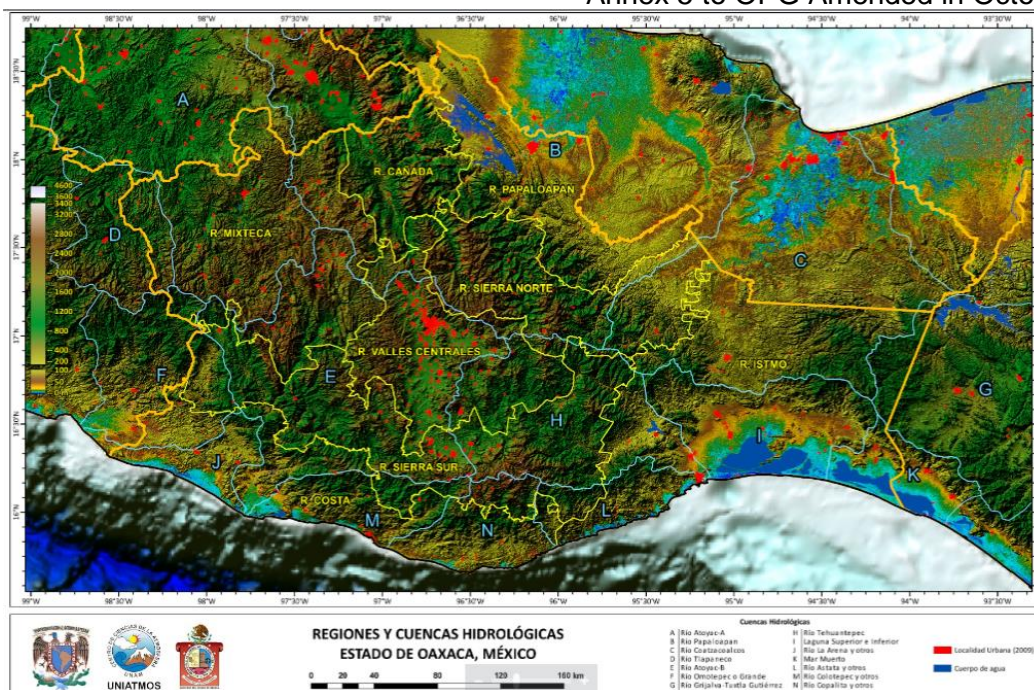
The state of Oaxaca is the second state with the largest population of 5 years and more speakers of indigenous language with 1,221, 555 speakers. The state has a total population of 4, 132,148 people; of which about 12 percent is illiterate, about 45 percent of the inhabitants aged 15 or older do not have basic education and 78 percent of the employed population has incomes of less than 2 minimum wages, for which, Oaxaca ranks third in degree of marginalization in the national context.

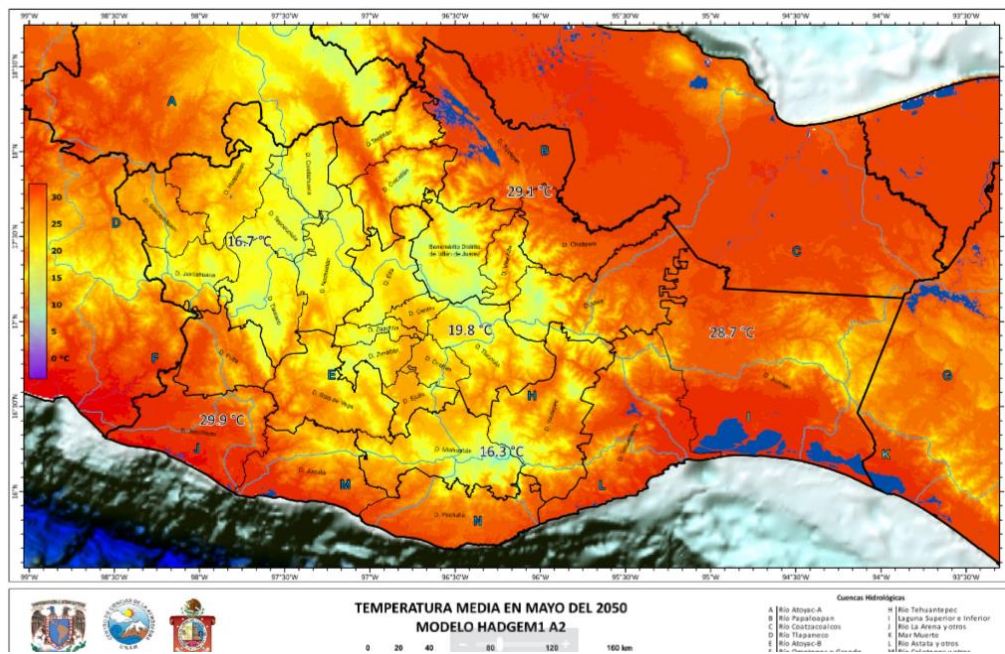
	Population of 3 years and over speaking an indigenous language	Total Population	% Illiterate population aged 15 or over	% Population aged 15 or over without basic education	% Occupants in private dwellings without drainage toilet or	% Occupants in private homes without electricity	% Occupants in private homes without piped water	% Occupants in private dwellings with dirt floors	% Private dwellings with overcrowding	% Population in localities with less than 5,000 inhabitants	% Employed population with income less than 2 minimum wages	Degree of marginalization, 2020	Place it occupies in the national context
Oaxaca	1 221 555	4 132 148	11.82	45.28	1.94	1.92	10.00	13.99	29.45	59.40	78.85	At the highest	3
Population			488599.20	1871185.25	80083.53	79518.82	413099.77	578226.34	1217049.71	2454557.00	3258199.78		

Source: CONAPO estimates based on INEGI, Population and Housing Census 2020.

Oaxaca generates very few Greenhouse Gases, with its forests and jungles it helps the world to reduce them, however, it is one of the states that is most affected by climate change and hydrometeorological events in the country. Climate change acts as a multiplier of the existing vulnerabilities and aggravates the challenges for development, in many cases, the most affected population has been the indigenous peoples

Likewise, in accordance with the Climate and Climate Change Atlas of the State of Oaxaca, Mexico, this is the projection of climate change in the state:





Ixtlán de Juárez

Ixtlán de Juárez has been at the forefront when it comes to sustainable use of forests, they have developed what is now known as community forest management, a form of sustainable use of the forest that has been recognized internationally, however, it continues with problems due to address, derived from climate change, such as having sufficient water for crops, as well as low crop yields, soil erosion and pests.

The indigenous authorities state that given the low yields of the milpa system, there is a problem of the loss of native seeds since it is no longer planted and the varieties have been lost. They point out that corn is a basic product necessary for their communities, so they propose to identify the causes that have led to the loss of seeds. Creole maize has been conserved up to now, but between the producers the exchange of seeds is no longer carried out, neither within the community nor towards other communities, and production has ceased as before. The few producers who sow keep their seeds only for themselves, the best way to conserve seeds is through exchange between sowers.

Since the beginning of agriculture, seeds have constituted a fundamental component of the culture of productive systems, sovereignty and food autonomy of peasant peoples and communities, in addition to being the axis of connection and interaction of farmers and farmers with biodiversity and their territories.

The threats posed by climate change to subsistence agriculture constitute in turn a potential risk for the conservation of biodiversity and, therefore, for the evolution and adaptation of world agriculture to climate change.

In the case of corn, it is one of the four most important crops in the world and the most

important in Mexico, climate change constitutes a threat not only for this nation but for the entire world since Mexico is the center of origin and diversity of this crop. The knowledge and wisdom of the climate and the seed that the farmer has are in danger; therefore, food security is threatened by the effects of climate change on the production of rainfed corn.

Valle de Etla, Valles Centrales

“Valles Centrales” of Oaxaca are located in the central part of the state. The region is one of the eight into which the entity is geographically and administratively divided. The Central Valleys is a region made up of three high-altitude valleys: the Etla Valley, the Tlacolula Valley and the Zimatlán-Zaachila-Ocotlán Valley. The length of the valleys ranges between 20 and 30 km, formed by flat and semi-flat terrain that separates the Sierra Madre del Sur from the Sierra Madre de Oaxaca.

The region is located in the Río Sordo-Yolotepec and Río Atoyac-Tlapacoyan basins, and in the aquifers of Valles Centrales and Jamiltepec.

The land use and vegetation is oak forest (30.3%), coniferous forest (25.6%), rainfed agriculture (21.6%), irrigated agriculture (7.3%), human settlements (8.7%) and induced vegetation. (grassland) (5.8%). Nearly 90% of the area devoted to agriculture, in 2019, was planted with corn and other crops such as beans, green alfalfa, forage corn and red tomato.

Soil degradation in more than a third of the area devoted to agricultural activities shows moderate chemical degradation due to a decline in fertility and a reduction in the content of organic matter (13,176 hectares). Due to overgrazing, moderate water erosion occurs due to the loss of superficial soil in about 40,000 hectares. Mild erosion due to deforestation and removal of vegetation (18,889 hectares) and agricultural activities (1,710 hectares).

The communities are in the upper part of the Río Sordo-Yolotepec and Río Atoyac-Tlapacoyan basins, they are recharge zones for the aquifer and the basins that supply water to the Central Valleys. San Felipe Tejalápam and San Andrés Ixtlahuaca have a long history of promoting water harvesting projects and are organized to care for their forests and prevent logging. Likewise, Santa María Peñoles is a community with well-preserved forests, which provide various ecosystem services.

These indigenous communities, close to the city of Oaxaca, still preserve their main political, legal, territorial, economic, social and cultural institutions; however, they are being threatened by urban growth and the extraction of stone material in the Atoyac River, which implies greater pressure on natural resources, especially water.

Since 2018, the Jamiltepec aquifer, from which some of the communities obtain water from wells, has been classified as “Not available”; in 2020 it has a deficit of 19,869 hm³. In the case of surface water, the availability of water between 2014 and 2020 has been reduced by less than a third: from 481.08 hm³ to 133,185 hm³.

Despite their efforts to maintain ecosystem services, this pressure makes conservation efforts difficult. That is why this project will support the efforts of the communities to conserve their forests and water management and will improve governance.

Microregion, Xniza at Oaxaca Valley

There is a water problem in 16 communities: San Antonino Castillo Velasco, San Pedro Mártir, Asunción Ocotlán, San Pedro Apóstol, Santa Ana Zegache, San Martín Tilcajete and Santiago Apóstol. As well as the agencies of: Tejas de Morelos, San Felipe and San Jacinto de Ocotlán, La Barda Paso de Piedra de Santa Gertrudis Zimatlán, San Isidro Zegache de Santa Ana Zegache, El Porvenir and Maguey Largo de San José del Progreso, San Sebastián de Santiago Apóstol and San Matías Chilazoa from Ejutla de Crespo. All of them have worked constantly for 16 years to be able to recharge the water table and have enough water to grow their products in the field.

These communities are an example of organization and work for the collective benefit, guaranteeing water for future generations; To date they have more than 500 rainwater harvesting works, such as wells, checkpoints, pots; reforestation work and above all the strengthening of community structures such as decision-making spaces.

They are constituted as a reference in the strategic litigation where the Ban Decree was modified by the Decree that establishes the Community and Indigenous Regulated Zone, recognizing the territorial rights of the communities, thus materializing the rights recognized in the national and international norm.

Today, there is a great responsibility for co-administration of water between the indigenous communities and the Mexican State, hence the importance of continuing with training and strengthening of their community structure to implement their community regulations regarding water as a human right.

San Miguel El Grande y Santa Maria Yaviesa

In the indigenous localities of the municipalities of San Miguel El Grande and Santa Maria Yaviesa, there is a lack of public services, one of which is drainage networks due to the orography and population dispersion, which makes a conventional system unfeasible, so are affected in their human right to health, this having a direct effect on the environment, because by not having the infrastructure of this basic service, the residents discharge sewage directly into the subsoil, contaminating in turn the mantles water tables and creating sources of infection, therefore, with the implementation of this project in these municipalities, it is intended to avoid contamination of the subsoil and the water tables.

Likewise, the residents have organized themselves so that through the local authorities a solution is sought that allows the care of nature in their territory and avoid contamination, for which they have expressed their acceptance of this type of project and their desire to participate in it. the implementation process, the execution process, as well as the active participation of men and women in conjunction with local authorities and the National Institute of Indigenous Peoples, in order to obtain and, where appropriate, make support more efficient, since they could contribute with workshops of "tequio", which is a type of organization that is used in some indigenous towns to carry out work shifts for the beneficiaries themselves to carry out the work of the project.

Due to the above and due to the organization of the inhabitants and cooperation with the institutions to solve the effects of pollution and its consequences, the indigenous towns of San Miguel El Grande and Santa Maria Yavesía, in the state of Oaxaca, are proposed.

San Luis Potosí - Wirikuta Territory in the framework of the Justice Plan for the Wixárika, O'dam and Na'ayeri Peoples.

The state of San Luis Potosí has a population of 231,213 people aged 5 and over who speak an indigenous language. The state has a total population of 2,822,255 people; of which about 5 percent is illiterate, about 29 percent of the inhabitants aged 15 or over do not have basic education and 65 percent of the employed population has incomes of less than 2 minimum wages, for which, Nayarit occupies the thirteenth place in degree of marginalization in the national context.

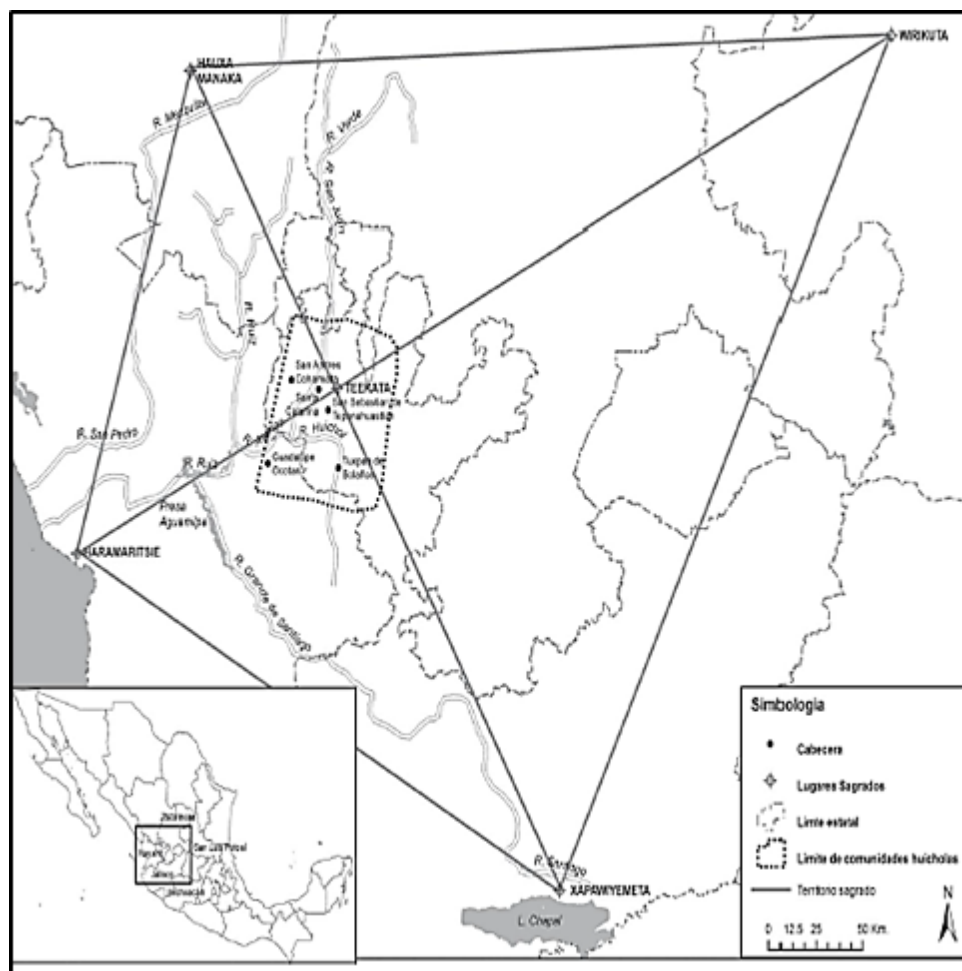
	Population of 3 years and over speaking indigenous language	Total Population	% Illiterate population aged 15 or over	% Population aged 15 or over without basic education	% Occupants in private dwellings without drainage or toilet	% Occupants in private homes without electricity	% Occupants in private homes without piped water	% Occupants in private dwellings with dirt floors	% Private dwellings with overcrowding	% Population in localities with less than 5,000 inhabitants	% Employed population with income less than 2 minimum wages	Degree of marginalization, 2020	Place it occupies in the national context
Nayarit	231,213	2 822 255	5.02	29.32	1.52	1.18	7.64	4.97	16.77	36.03	64.88	Moderate	13
Population			141543.42	827493.51	42859.09	33339.23	215623.96	140162.68	473344.01	1016808.00	1831072.43		

Source: CONAPO estimates based on INEGI, Population and Housing Census 2020.

Climate change in San Luis Potosí is attributed to the following variants:

- The increase in greenhouse gas emissions, product of industrial growth and increased use of motor vehicles.
- Immoderate logging in the Sierra de San Miguelito and in that of Álvarez.
- Population growth.
- Increase in the emission of carbon dioxide.
- Lack of natural areas.

For the Wixáritari, the territory has a spiritual dimension, since it is defined by the four cosmogonic directions and the center, delimited by the main sacred places (Hauxamanaka, Xapawiyeme, Wirikuta, Haramara, Te'akata). This territory covers about 90,000 square kilometers located in the west and center-north of Mexico, in the states of Nayarit, Durango, Jalisco, Zacatecas and San Luis Potosí. Only Te'akata is found on community land, as shown in the following image.



In this context, the sacred place of Wirikuta, located in San Luis Potosí, in the municipalities of Catorce, Charcas, Matehuala, Villa de Guadalupe, Villa de La Paz and Villa de Ramos, represents one of the most important within the cosmovision of the Wixárika people, since they consider that there, in Cerro Quemado, the Sun God came out for the first time, therefore, they consider that each natural element that inhabits Wirikuta is equally sacred.

The biotic diversity of the resources is very rich and provides a large part of its needs since a third of its plants are used for ceremonial, food, ornamental, craft, dyeing, cosmetic and medicinal purposes. However, there are signs of deterioration of natural resources because the soil has been damaged by the use of agrochemicals, livestock, deforestation and by virtue of derived climate change and by not having an adequate management of solid and liquid waste, it causes the water and air pollution.

The Wixáritari are of the idea that it is essential to revalue the soil, the land and the territory as their ancestors did. They insist on the existence of problems and threats that urgently need to be addressed to prevent them from becoming serious and jeopardizing their sustainability. For them it is imperative to recover and strengthen the knowledge, beliefs, practices and customs that allow the conservation of biodiversity and richness of its resources, the territory of Wirikuta has been affected by mining, agribusiness, the expansion of poultry farms and pig farming, as well as the

overexploitation of water concessions to individuals.

In particular, the use of anti-hail technologies by tomato companies in the Wirikuta territory has been documented. Among the main effects is the delay in the sowing cycle and the droughts that generate that there is not enough food for the cattle. These problems mainly affect the peasant population that lives in the Wirikuta territory and that does not have the conditions to compete with the large agricultural companies in the region.

Project / Programme Objectives:

Develop jointly with the indigenous communities of Oaxaca and San Luis Potosí, processes aimed at guaranteeing their water security and increasing their resilience and adaptation to climate change; to guarantee the exercise of their Human Right to water and to strengthen the sustainable management of their territories, based on actions aimed at comprehensive water management, the care and conservation of seeds and native species, the recharge of aquifers, the development of sanitation facilities and the strengthening of local organizations, based on the recognition of various forms of autonomous government and the promotion of equality between men and women.

As they are different communities in specific contexts, the following objectives are set for each community:

1) Ixtlán de Juárez, Oaxaca:

Promote water security for the population, by improving their water and land management practices.

Promote the care of native seeds to mitigate the effects of climate change on food security in the region

2) Valle Etla de Valles Centrales, Oaxaca:

Contribute to the protection of the environment to promote the recharge of aquifers

3) Xniza Microregion in the Valley of Oaxaca:

Strengthen the organization of the 16 communities of the Xnizaa region in the exercise of their right to water, through training, accompaniment, dissemination and inclusion of women's rights, in the framework of its autonomy and practice of the Decree of regulated zone of the aquifer 2025 of Central Valleys of the State of Oaxaca

4) Other relevant Municipalities (San Miguel El Grande y Santa Maria Yavesia):

Improve the quality of life and health of the inhabitants, as well as the protection of the

environment, through the joint design and construction of adequate sanitation systems.

5) San Luis Potosí - Wirikuta Territory within the framework of the Justice Plan for the Wixárika, O'dam and Na'ayeri Peoples:

Promote water and food security for the population through adaptation, remediation and mitigation actions against the negative effects on planting cycles and droughts in the region due to the use of anti-rain technologies in the agro-industrial sector.

Project / Programme Components and Financing:

Project Components	Expected concrete outputs	Expected results	Amount (US\$)
1. Ixtlán de Juárez	Construction of drinking water networks	Drinking water networks accessible to the population	40,000
	Sewage treatment	Installation of toilets with biodigesters	40,000
	Irrigation systems and water harvesting	Improvement of water harvesting for crops	40,000
	Technical assistance for agricultural production and strengthen pest management in crops	Knowledge of planting methods, care and maintenance of plants, as well as preparation of fertilizers that allow the recovery of soils.	40,000
	Rescue of native seeds	Conservation of native seeds	40,000
2. Valle Etla de Valles Centrales	Reforestation with species of ecological importance Homegardens Soil recovery and promotion of sustainable practices in agriculture	Erosion control and slow runoff Sufficient production for self-consumption Recovery of soil fertility	102,000
	Establishment of agricultural production units Families guarantee self-consumption Hectares recover productivity and fertility in field schools	Sufficient production for self-consumption Recovery of soil fertility	49,000
	Water harvesting works	Increased water retention for consumption and agricultural production	41,000
3. Microregion, Xniza at Oaxaca	Preparation of an impact study of the rainwater harvesting works	Decision-making that strengthens the recovery processes of the aquifer	50,237

Valley		through rainwater harvesting works	
	Installation of 4 meteorological stations	4 weather stations in the lower, medium and higher zones.	9,789
	Construction of 100 catchment works, consisting of absorption wells in the communities of: San Antonino Castillo Velasco Saint Peter Martyr San Sebastian Ocotlan Saint Peter the Apostle Santa Ana Zegache Santiago Apostle San Isidro Zegache Asuncion Ocotlan	100 absorption wells for collecting rainwater	68,516
	Maintenance and desilting in the rainwater collection wells in: Santiago Apostle San Antonino Castillo Velasco Saint Sebastian	Desilting of rainwater collection wells	
	Construction and desilting of checkpoints in the communities of the communities: La Barda Paso de Piedra Santa Ana Zegache San Felipe Apostol San Martin Chilazoa Tejas de Morelos San Isidro Zegache San Pedro Martir Desilting of dams in the community of: San Martin Tilcayete Construction of 2 pots in: El Porvenir Maguey Largo	New works for retention and infiltration of water (checkpoints and pots) and desilting of existing works (checkpoints and dams)	78,858
	Reforest in the 16 communities	Reforestation and construction of 2 community nurseries in the communities of: El Porvenir Maguey Largo	14,682
	Training, regional and community assemblies of COPUDA. Regional 1 per month Community, as necessary.	Training workshops and 24 regional assemblies (2 years)	9,790

	1 Campaign to inform about the materialization of the Decree by which the Regulated Zone of the Valles Centrales aquifer is established, as well as the importance of the co-management of water in the Xniza region.	Informed population Preparation of spots, posters, videos, capsules, manuals, etc.	7,340
4. Other Municipalities of relevance (San Miguel El Grande Y Santa María Yavesía)	Construction of 35 ecological toilets with biodigester in the state of Oaxaca. (green infrastructure)	Decrease in contamination of the subsoil and aquifers. Eliminate sources of infection. Improvement in the quality of life and basic services for indigenous communities. It contributes to the right to health of indigenous and Afro-Mexican peoples.	200,000
5. San Luis Potosí - Territorio Wirikuta	Preparation of a study to identify alternatives for the reconversion of the region's agribusiness for the democratic use of water	Study with proposals for the democratic use of water in the Wirikuta region	25,000
	Installation of a monitoring system for hydrometeorological patterns	Monitoring system that allows documenting the effects of anti-hail technologies in the region	50,000
	Water collection and conduction infrastructure	Water collection and conduction system installed at strategic points within the Wirikuta territory	125,000
6. Project/Programme Execution cost			1,000,000
7. Total Project/Programme Cost			
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			85,000
Amount of Financing Requested			1,085,000

Projected Calendar:

Milestones	Expected Dates
Start of Project/Programme Implementation	May 2023
Mid-term Review (if planned)	December 2023
Project/Programme Closing	September 2024
Terminal Evaluation	October 2024

PART II: PROJECT / PROGRAMME JUSTIFICATION

- A. Describe the project / programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience.

1) Ixtlán de Juárez, Oaxaca

Activity 1. Construction of drinking water networks

With the increase in water temperature and the decrease in dissolved oxygen in it due to climate change, there will be a decrease in the self-purification capacity of freshwater basins, affecting the quality of water resources. With the above, an increase in the risks of water contamination will be reflected, together with the contamination also caused by floods and the higher concentrations of pollutants in times of drought.

It is worth mentioning that the negative repercussions will be very serious, affecting different areas, however, the construction of drinking water networks provide communities with access to it, offering not only advantages in their physical and mental health, but it would also help in other areas, such as food security, food production, will prevent forced displacement, etc., without forgetting that everyone needs and has the right to have access to clean water.

Due to the above, adaptation is of the utmost importance, that is, adopting a set of measures to protect nature, as well as technical, technological, social and institutional provisions capable of mitigating the damage caused by climate change and taking advantage of the positive repercussions that this could entail. This strategy can have very quick positive results, especially at the local level.

Activity 2. Wastewater treatment (installation of toilets with biodigesters and treatment plants)

Many of the wastewater treatments contribute to accentuating climate change because they generate between 3% and 7% of GHG emissions, which come from the energy and biochemical procedures used precisely for that treatment. On the other hand, untreated wastewater also generates very considerable amounts of methane.

This project contributes directly to climate resilience because once the ecological toilets are built; the discharge of sewage into the subsoil is avoided, which prevents contamination and infiltration of contaminating agents into the aquifers.

Using green technologies, such as biodigesters, which do not require chemical agents for their use and maintenance, in addition to the fact that the product of this type of technology gives us natural fertilizer which can be used for the cultivation of

ornamental plants.

Activity 3. Increase water collection and irrigation systems.

Local crops depend on temporary rains. As a result of climate change, it is increasingly difficult to have enough water for crops: “if there is no water for crops, it is practically a lost crop”, which discourages producers. Given the lack of water for irrigation, crop yields are low, a loss of work in man-hours and the production process is not profitable. Therefore, the collection of water and the modernization of irrigation contribute to agricultural production and thereby contribute to food security in the region.

Activity 4. Implement technical assistance for agricultural production and strengthen pest management in crops.

Throughout the region there is the problem of low crop yields, soil erosion and pests. Climate change has affected production, there are pests that spread rapidly and it is unknown how to control them.

Smallholders are particularly vulnerable to climate change, due to their dependence on subsistence farming, their limited access to technical support and their location on marginal land, their lack of social capital or lack of financial capital to invest in their farms or adopt new technologies.

Throughout the region there is the problem of low crop yields, soil erosion and pests. Climate change has affected production, there are pests that spread rapidly and it is unknown how to control them. There is no advice to improve planting methods, care and maintenance of plants or for the preparation of fertilizers that allow soil recovery. Therefore, by having technical assistance, actions can be taken to improve planting methods, care and maintenance of plants or for the preparation of fertilizers that allow the recovery of soils.

Activity 5. Rescue of native seeds.

The milpa and native seeds, in many communities, are focused on spiritual, cultural and material values. The way in which these values converge and materialize in a set of individual and collective emotions give life to the local movement of seed sovereignty, from which community projects to mitigate environmental degradation and adaptation of peasant agriculture to climate change are derived.

Due to the above, it is of the utmost importance to rescue native seeds that allow crops to be kept in constant evolution, due to natural effect and the selection process made by farmers and local communities, said selection of the seed is according to its needs, their cultural traditions, their practices of conservation and protection of soil and ecosystems.

2) Valle Etla de Valles Centrales, Oaxaca

Activity 1. Reforestation with native plants.

It is very important to define the ideal species that contribute to soil and moisture retention, and that are fast growing. Likewise, it is essential to strengthen the capacities of communities to reforest, maintain, follow-up and monitor;

Activity 2. Establishment of agricultural production units.

Through field schools, it seeks to train communities in the preparation of organic fertilizers, selection of "Creole" seeds and better agricultural practices. Likewise, define the crops to be established to improve soil fertility and guarantee production for self-consumption by the communities. In addition, it seeks to monitor soil loss, moisture retention, soil composition; as well as productivity and production costs;

Activity 3. Water harvesting works.

In order to guarantee the water supply in the communities, a calculation of the water needs for consumption and other uses of the communities should be made to choose the type of work according to the sites and design the project;

For the 3 activities, it is necessary to elaborate participatory diagnoses, reach agreements to incorporate young people and women in the activities to be carried out and validate the proposals by the community assemblies.

3) Microregion Xniza at Oaxaca Valley

Activity 1. Elaboration of an impact study of rainwater harvesting works, answering the study will quantify the beneficial impact that rainwater harvesting and infiltration works contribute to the recharge of aquifers. Which also allows us to project estimates and obtain evaluative parameters to select suitable sites for water filtration.

Activity 2. Installation of meteorological stations, they are a technological solution that will allow monitoring and carrying out preventive actions in terms of variations in factors such as temperature, rain, wind speed, among others, all of which are very important for the communities.

Activity 3. Construction of water collection and filtering works with absorption wells, maintenance and desilting in wells and dams. Through the implementation of absorption wells, it is intended to recover the water that is used for agricultural and daily activities, as well as to ensure the availability of water for future generations.

Activity 4. Construction and desilting of water retention points. Through this activity it is intended to capture rain and runoff from the mountains, to help maintain the level of the water mirror in favorable conditions for its use and in the same way seeks to

reduce soil erosion by water drag in the rainy season. In this way, it guarantees the availability of water for nearby ecosystems and the population.

Activity 5. Community nurseries. Through the implementation of community nurseries, it is intended to reproduce and conserve endemic and important plant species for the environmental system of the region, guaranteeing the reproduction of species Through their propagation and ensuring their survival, through their germination and reforestation, in addition, these nurseries will be in charge of supply forest species and others to neighboring communities and similar ecosystems.

Activity 6. Training for community residents on the use, care and management of water in development activities. It is important the constant training of the proper management of ecosystems, and the efficient use of water and other goods that mother earth offers us, for this reason in this activity efficiencies are intended in the use of water through knowledge of the requirement of plants in other many aspects of agriculture and ecosystem management to make sustainable use of natural resources; as well as the realization of regional and community assemblies to strengthen the structure as member communities of COPUDA.

Activity 7. Campaign to inform about the implementation of the Decree that establishes the Regulated Zone of the aquifer 2025, Central Valleys, as well as the importance of the co-administration of water in the Xnizza region. It is important to publicize the work that has been carried out for more than 16 years to manage and administer natural assets such as water, and for this it seeks to publicize and involve more communities in the defense of rights of indigenous peoples over their territories.

4) Other Municipalities of relevance (San Miguel El Grande y Santa María Yavesía en el estado de Oaxaca)

Many of the wastewater treatments contribute to accentuating climate change because they generate between 3% and 7% of GHG emissions, which come from the energy and biochemical procedures used precisely for that treatment. On the other hand, untreated wastewater also generates very considerable amounts of methane. On the other hand, biodigesters or treatment through artificial wetlands favor the proper management of wastewater without negative effects such as traditional ones.

This project contributes directly to climate resilience because once the ecological toilets are built, the discharge of sewage into the subsoil is avoided, which prevents contamination and infiltration of contaminating agents into the aquifers.

Using green technologies, such as biodigesters, which do not require chemical agents for their use and maintenance, in addition to the fact that the product of this type of technology gives us natural fertilizer which can be used for the cultivation of ornamental plants.

5) San Luis Potosí - Wirikuta Territory in the framework of the Justice Plan for the Wixárika, O'dam and Na'ayeri Peoples.

Activity 1. Preparation of a study to identify alternatives for the reconversion of the region's agribusiness for the democratic use of water.

The foregoing would allow the available water in the region not to be overexploited by agricultural companies, and to be available to the traditional peasants of the region.

Activity 2 Installation of a monitoring system for hydrometeorological patterns, which allows documenting and generating evidence on the effects of anti-hail technologies.

The foregoing will allow the promotion of regulatory instruments that “prohibit the use or installation of any technique, mechanism, implement, procedure or activity that tends to modify the regime of rains, hail, sleet or any other hydrometeorological phenomenon; within them the so-called “anti-hail cannons” and the use of chemical substances dispersed by small planes”¹, which has already been observed by Public Human Rights Organizations.

Activity 3 Water collection and conduction infrastructure, such as water collection pots, in support of farmers and ranchers in the Wirikuta region, in order to mitigate the effects of the lack of rain (derived from the use of anti-hail technologies) has generated in the traditional economic activities of the region.

B. Describe how the project / programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project / programme will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

1) Ixtlán de Juárez, Oaxaca

With the proposed activities, it is considered to achieve the following benefits:

- I. Guarantee the human right of access to water, vital for a dignified life for people, and particularly indigenous women, who are often responsible for carrying water for use in the home, thereby generating a direct impact on their quality of life by reducing times of hauling, physical problems that this implies and liberation of women's time for other types of activities.
- II. Optimally managing water resources implies investing in the use of modern wastewater treatment techniques such as treatment plants and biodigesters, which can extract methane from organic matter in order to obtain usable biogas, for example, to produce electricity and be able to return to nature or reuse water safely. In this case, the use of biodigesting toilets is a great alternative for areas where there are wet toilets, since depending on the climatic conditions and the needs of the user, the biogas can be used for cooking food, motor fuel, cooling, heating, heat generation or power generation. On a large scale, biodigestion can be supplied with the organic fractions of municipal solid waste, forestry and agricultural waste, waste from production

¹ “Pronouncement regarding the situation of the human rights of the people who inhabit the sacred territory of Wirikuta” at <http://cedhj.org.mx/recomendaciones/pronunciamentos/2021/Pronunciamiento%20Wirikuta.pdf>

processes such as those of the agri-food industry, sludge from sewage treatment plants, among others.

- III. Rainwater harvesting could help combat water scarcity in rural or medium-sized populations, which do not have some type of water supply system. These alternative collection systems are cheap, easy to build and well accepted by the population, characteristics that facilitate their implementation in contrast to other types of systems. Likewise, if we want to achieve current production with less water, we need adaptation actions, applying techniques and systems that allow greater efficiency in the use of water. For example, to save water, it is first necessary to know the use that will be given to it in an irrigation zone, increase the water stored in the soil profile, increase the extraction of water from the soil (greater exploration of the roots), reduce the contribution of soil evaporation with actions such as mulching, the use of plant residues and the induction of early crop development, among others.
- IV. Provide technical assistance to stimulate the production of basic foods, will help increase yields in agriculture, through constant advice, identifying the vision of the producer regarding the main problems that affect him is a fundamental pillar in reducing vulnerability in the agricultural sector facing adverse conditions as a result of climate change.
- V. Contribute to food security by protecting corn, one of the four most important crops in the world and the most important in Mexico. The milpa and native seeds, in many communities, are focused on spiritual, cultural and material values. The way in which these values converge and materialize in a set of individual and collective emotions give life to the local movement of seed sovereignty, from which community projects to mitigate environmental degradation and adaptation of peasant agriculture to climate change are derived.

2) Valle Etla de Valles Centrales, Oaxaca

In the last three decades, the population in the six municipalities has increased significantly, going from 28 thousand 720 people in 1990 to 93 thousand 786, in 2020. In 2020 the population is more than three times that of 1990. Due to this growth, indigenous communities are being absorbed by the urban sprawl, resulting in changes in their ways of life. Between 1990 and 2020, the employed population went from working mainly in the agricultural sector to the service sector. In that period, the percentage of employment in the agricultural sector fell from 49.9% to 11%, on the other hand, the percentage corresponding to the services sector increased from 22% to 66%. These changes encourage migration and leave behind the customs and participation of people in community commissions, causing a weakening of community institutions.

Another problem that communities face due to population growth is the decrease in water availability. According to data from the CONAGUA Water Information System², renewable water per capita in the South Pacific Hydrological-administrative Region, between 2005 and 2020, decreased by 24%, this represents 1919 m³ per inhabitant per year.

² <https://sina.conagua.gob.mx/sina/index.php?p=2>

The National Atlas of Vulnerability to Climate Change of the National Institute of Ecology and Climate Change, in a prioritization exercise of municipalities most vulnerable to climate change, at the first level of analysis, lists 1,448 municipalities throughout the country with high or very high vulnerabilities. high and that at least some of them show an increase in the future. At this first level are 3 of the 6 municipalities that make up the region³:

<i>Municipality</i>	<i>Number of vulnerabilities in very high or high</i>	<i>Number of vulnerabilities in very high or high with total increase</i>
<i>San Pedro Ixtlahuaca</i>	<i>2</i>	<i>1</i>
<i>San Felipe Tejalápam</i>	<i>3</i>	<i>1</i>
<i>San Andrés Ixtlahuaca</i>	<i>2</i>	<i>1</i>

The implementation of these actions will help offset the emission of greenhouse gases, improve soil conditions and guarantee production for self-consumption.

3) Microregion Xniza'a en el Valle de Oaxaca

The communities in the Xnizza region forced legal resources to be filed so that the territorial rights would be recognized, in this sense, the sentence, the Consultation Process, the Decree and the Title, recognize the right to the territory of the communities, as well as their right to self-determination and autonomy, which **constitute unique legal instruments in the country, setting a precedent in the history of our indigenous peoples and communities.**

The right to the territory is guaranteed through the co-administration of the aquifer. This being a new relationship between the communities, indigenous peoples and the Mexican State. With the Right to consultation that the indigenous communities and peoples have, this first consultation process that is in the last stage, with the communities that make up COPUDA, culminates, guaranteeing the fundamental rights of the Indigenous Peoples. Question that is reflected in the following aspects:

1. The communities will participate in the administration of the aquifer's water;

³ Instituto Nacional de Ecología y Cambio Climático (INECC). 2021 González Terrazas D., Vermonden Thibodeau A., Gress Carrasco F., Municipios Vulnerables al Cambio Climático con base en los resultados del Atlas Nacional de Vulnerabilidad al Cambio Climático. pp.60

2. Community concession;
3. Recognition of Regulatory Systems, by allowing communities to regulate the use and exploitation of water through their standards and institutions. For this they are in the process of elaborating their community regulations;
4. Information will be exchanged in a horizontal relationship;
5. Together, the aquifer will be maintained in optimal conditions;
6. Consultation processes must be applied for the authorization of water volumes in the portion of the XNIZAA microregion;
7. A coordination relationship will be established with CONAGUA.

With the Decree and the Community and Indigenous Concession, a way of materializing the new relationship of the State with the indigenous communities is constituted, since they are recognized as subjects of law and with full capacity to administer their natural resources, as in this case the Water. These community concessions in favor of the communities that are members of COPUDA, are issued in accordance with article 2 of the Federal Constitution. That is, taking into account the nature of the indigenous community and regardless of whether they constitute an ejido or agrarian community, likewise, regardless of the municipal administrative category that they have.

Water management, improvement and restoration, as well as the restoration of the ecological balance of the Valles Centrales aquifer, key 2025, for which a regulated area is established for the administration, control of extraction, exploitation, use or exploitation and conservation of water of the subsoil, based on the recognition of the human right to access, disposal and sanitation of water, and respecting the rights of the Zapotec indigenous communities to water and its natural resources and harmonizing their faculties with the attributions between the communities and the State.

For the communities, water represents life itself; without it, it would not exist or there would be no continuity for the communities.

4) Other relevant Municipalities (San Miguel el Grande y Santa María Yavesía en el estado de Oaxaca)

The component of ecological toilets provides direct benefits to the inhabitants of the locality where they are carried out, since in this type of work the economic benefit is direct because priority is given to local labor, which generates that the economy of the region is benefited by having more resources in local businesses, thus allowing an impact for a greater number of the population.

In the social aspect, having greater economic solvency generates a higher quality of life

and general well-being, as well as avoiding the sources of infection, an improvement in the quality of life is created, and with this general well-being in the populations of the state of Oaxaca social conflicts are avoided, which historically have been harmed by the abandonment of previous governments.

Additionally, for the scope of gender policy, it is considered that in the hiring of personnel to carry out, women and men are considered equally, as well as to chair the committees that carry out the control and verification of the fulfillment of the work. be integrated with women, given that the results of the programs where this method has been used have provided positive results.

5) San Luis Potosí - Wirikuta Territory in the framework of the Justice Plan for the Wixárika, O'dam and Na'ayeri Peoples.

The project has three edges, the first is to document the effects of anti-hail technologies that allow measures to be implemented for its regulation in the medium term. The second is to carry out a study that allows alternatives to be proposed to avoid overexploitation of the basin and make a more democratic use of water. And third, to mitigate the lack of water in the short term through the installation of water collection and conduction systems.

In this sense, the benefits are the following:

- Avoid the overexploitation of water, the drying up of wells and the depletion of aquifers for agro-industrial uses and achieve equity in access to water.
- Avoid water stress and guarantee the right to water for the population of the region.
- Avoid desertification and droughts in the region due to the reduction of the rainy season and the lack of aquifer recharge and, therefore, avoid affecting the economic activities of the peasants.
- Support the peasants of the region to promote agricultural activity, mainly the cultivation of corn, pumpkin, nopal, alfalfa, fruit trees, citrus fruits and flowers, as well as forestry, local herbalism, forms of ancestral hunting, and the livestock activity.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme.

The project is based on participatory dialogue processes between the municipal, agrarian and community authorities elected in their assemblies with the federal government, which means that the investment considered in all the components of the project does not respond to short-term political decisions but to diagnoses made in collaboration with the beneficiaries, who in turn will be active actors in the execution of the activities, in the medium and long term.

In the case of the Ixtlán region, the municipal, community and agrarian authorities have analyzed the problems related to the environment and economic activities, but they had not had the opportunity to register and systematize them in the region, in which the conditions and background exist. of organization and sustainable use of natural resources to give way to their own development. We must not forget that all natural resources are an inheritance from ancestors, that land ownership is communal, which implies that the community is the one who has control over the land, natural resources and territory.

In the case of Valle Etla de Valles Centrales, Oaxaca, the project will contribute to improving community governance, improving soil conditions, and increasing productivity. In turn, with reforestation, the process will begin to control erosion and facilitate infiltration to recharge aquifers.

In the case of the Xniza Microregion in the Valley of Oaxaca, the works that are intended to be carried out will contribute in an integral way to the recharge of the Valles Centrales aquifer, in this sense, having enough water will improve the production of the peasant producers of the 16 communities. that make up COPUDA, this is how in:

1- Preparation of an impact study of rainwater harvesting works. A study of the impact of the water collection works will help establish a series of quantitative parameters that allow the communities to know the state of health of their aquifer. This type of study will also make it possible to generate a water harvesting strategy by locating recharge zones with a greater positive impact.

2- Installation of meteorological stations to carry out preventive actions. Weather stations are tools that allow obtaining data from the environment such as temperature, rainfall, solar radiation, humidity level, etc. These systems allow knowing specific data for decision-making at the local level. The meteorological stations allow to record a historical behavior of the climate, allowing to predict or establish weather patterns, being a very helpful tool to prevent environmental disasters or prepare for this type of event. Knowing in detail the local characteristics of the climate allows communities to consciously modify some actions in order to generate less impact. Altering an imminent loss of rain through the data released by the weather stations will allow, for example, establishing preventive measures, for example, changing water consumption habits for agricultural use efficiently through scientific evidence of water scarcity.

3- Construction of water collection and filtration work with absorption wells: These types of actions will have significant impacts such as contributing to the recharge of the aquifer and favoring the availability of water in the subsoil. Through the absorption wells, an increase in the water mirror is noticed almost immediately in the wells for domestic use and for agricultural use that are in a close radius. By having optimal levels of water in the aquifer and the wells, there is no extra cost for deeper excavation or the use of a more powerful pump. In the same way, the economic-productive activities of the locality are maintained, mainly that of self-consumption such as agriculture and livestock, it is also guaranteed to have more water sources to face the dry season.

4- Construction and desilting of water retainers: As part of the expected impacts, in environmental terms, it is expected to capture significant amounts of water and these will infiltrate the subsoil naturally and with this contribute to the recharge of the Valles 2025 aquifer Centrals. In the same way, areas with water mirrors are generated for the benefit

of the region's fauna and flora species. On the other hand, the residents will have a source of surface water for agricultural and livestock use (mainly for small livestock and grazing); The internal organization regarding water care is also strengthened, since the works, once the project is completed, will become part of the hydraulic infrastructure heritage of the community, in addition to being for common use; Another organizational impact at the regional level is that a process of the Coordinator of Pueblos Unidos and its commitment to caring for the environment and water in particular, is strengthened, through the implementation of works to collect and recharge water to the Valles Centrales aquifer.

5- Community nurseries: This action has a regional impact from the recovery of areas exposed to erosion due to lack of plant cover, reducing, in turn, the loss of soil fertility. By generating more green areas or with forest area in the upper area, a greater retention of rainwater is guaranteed, directly impacting the availability of water in the micro-basin. These nurseries can also serve as a preservation center for native tree seeds that allow repopulating areas with endemic species.

6- Training for residents in the use, administration and care of water. This activity will have significant impacts since it is about directly influencing the strengthening of community water management and administration capacities, allowing them to strengthen informed decision-making through prior knowledge of the fundamentals for the use, exploitation and care of this vital liquid. Likewise, installed capacities are generated in decision-makers at the local level to strengthen local indigenous community water management systems.

7- Campaign to inform about the materialization of the Decree that establishes the regulated zone of the 2025 aquifer of the central valleys: It is committed to an information strategy to bring the communities closer, strategic messages that allow them to know in a general way what are the implications of the entry into force of the Decree, as well as the Indigenous Community Concession. The use of printed and audiovisual material has been privileged, taking into account the characteristics of the communities. The information campaign will have important impacts, as it will be a strategy that allows the population in general to learn about the entry into force of the Decree by which the participation of communities in water management is recognized, as well as the implications of the new concession. indigenous community.

In case of San Miguel el Grande y Santa Maria Yavesia, the implementation of this type of project leads to a direct impact on the quality of life of each beneficiary, economically since a source of direct and indirect employment is generated, as well as the infrastructure mitigates the sources of infections which mainly harm children and the elderly as they are more vulnerable.

For the maintenance of this type of projects it is very low cost and is carried out by the users themselves, therefore with this a long period of life for the systems is ensured.

The indigenous communities of Hidalgo, Benito Juárez and Francisco I. Madero in the Municipality of San Miguel el Grande and in the Municipality of Santa María Yavesía, in the state of Oaxaca, are proposed for the implementation of these systems.

The indigenous communities of Hidalgo, Benito Juárez and Francisco I. Madero in the Municipality of San Miguel el Grande and in the Municipality of Santa María Yavesía, in the state of Oaxaca, are proposed for the implementation of these systems.

Finally, for Wirikuta Territory in the framework of the Justice Plan for the Wixárika, O'dam and Na'ayeri Peoples, the benefit of the project extends to the landowners of the municipalities of Catorce, Charcas, Matehuala, Villa de Guadalupe, Villa de La Paz and Villa de Ramos, San Luis Potosí, as well as the Wixárika people, while Wirikuta represents one of the most important sacred places within their worldview and, therefore, each element of nature is sacred.

The benefit must be understood in terms of territoriality and the worldviews that coexist in it. On the one hand, the peasants who have their main productive and self-consumption vocation in the production of the land; and on the other hand, the Wixárika people who have made a pilgrimage every year since time immemorial to this territory that they conceive as sacred, since their ancestors and deities' dwell there.

D. Describe how the project / programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national adaptation plan (NAP), national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

This project is aligned with the Special Program for Indigenous and Afro-Mexican Peoples (PEPIA) 2021-2024, which is a program derived from the PND 2019-2024 and is aligned with axis 2 "Social Policy" of the National Development Plan 2019 - 2024 , is also based on the guiding principle "Leave no one behind, leave no one out", particularly with objective 2 that seeks to "Guarantee the comprehensive development and common well-being of indigenous and Afro-Mexican regions, by strengthening their systems economic, the improvement of social infrastructure, and the sustainable use of their lands, territories and natural resources, with the following strategies and lines of action:

Priority Strategy 2.1 Strengthen the economic systems of indigenous and Afro-Mexican peoples and communities with a gender and sustainability perspective, to help improve their living conditions.

2.1.1 Promote strategic and culturally appropriate economic projects that favor the economy of indigenous communities, with a sustainable and gender perspective.

2.1.2 Strengthen traditional agricultural systems and staple crops, especially the milpa system, to expand livelihoods and preserve agricultural diversity.

Priority strategy 2.2 Strengthen local and regional governance of the economic systems of indigenous and Afro-Mexican communities with a gender perspective and under a sustainable approach, in order to ensure their comprehensive development and common well-being.

2.2.1 Promote actions for the development of capacities that allow the strengthening and adaptation to the adverse effects related to climate change, with the help of sustainable economic projects with a gender perspective

2.2.2 Strengthen the technical capacities of small and medium-scale producers to consolidate traditional agricultural systems and staple crops.

2.2.3 Promote actions with an agroecological perspective that allow the sustainable development of traditional agricultural systems and basic crops

2.2.4 Promote actions for soil regeneration and increased agricultural productivity in indigenous and Afro-Mexican regions within the framework of an inclusive model that guarantees food self-sufficiency and security of livelihoods.

Priority strategy 2.4 Implement actions for the sustainable use of natural resources in indigenous and Afro-Mexican regions to promote regional development.

2.4.2 Implement protection and conservation schemes for natural areas, community reserves, and sacred territories that promote the participation of indigenous and Afro-Mexican communities

2.4.5 Promote sustainable initiatives, projects and actions aimed at adapting and mitigating the adverse effects of climate change.

2.4.6 Promote the management and sustainable use of local and seasonal crops, to achieve a healthy, varied diet appropriate to the culture and traditional diets.

Priority strategy 2.5 Improve basic social, community and housing infrastructure with cultural relevance, to guarantee access to basic services in indigenous and Afro-Mexican regions.

2.5.1 Promote the construction and expansion of drinking water systems that take into account the cultural, geographic and environmental characteristics of indigenous and Afro-Mexican communities, with the aim of guaranteeing their access.

2.5.2 Promote the construction and expansion of sanitation, drainage and sewage works that allow greater coverage in all the indigenous and Afro-Mexican regions of the country.

Likewise, it is in line with Priority Objective 4 “Promote the intercultural perspective in the design, execution and evaluation of public policies through the transversal coordination of the Federal Public Administration, and the state and municipal governments with the Indigenous and Afro-Mexican Authorities.”, in the following strategy and lines of action:

Priority strategy 4.1 “Promote participatory planning schemes so that comprehensive development actions in indigenous peoples and communities are carried out in accordance with their priorities and ways of life”

4.1.1 “Promote the implementation of Comprehensive Regional Development Plans in a coordinated manner with the indigenous and Afro-Mexican communities and public entities of the three levels of government to give attention to the main demands and regional projects”.

4.1.2 Design evaluation and follow-up processes and Comprehensive Regional Development Plans, considering the regulatory systems and community institutions, which allow strengthening the accountability of projects implemented in indigenous territory.

4.1.3 Support the implementation of culturally appropriate actions and projects through participatory planning processes and dialogue between APF agencies, state and municipal governments, and the indigenous and Afro-Mexican authorities of the country

In the same way, it contributes to compliance with the Special Climate Change Program 2021-2024, in which it states that the National Climate Change Policy, when adopting

measures to deal with climate change, must fully respect human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and persons in situations of vulnerability and the right to development, as well as gender equality, the empowerment of women and the intergenerational equity.

In this sense, the relevance of Priority Objective 4: Strengthen coordination, financing and means of implementation mechanisms between government orders for the implementation of climate change policy, prioritizing the co-creation of capacities and inclusion of the different sectors of society, with a human rights approach, aims to strengthen and co-create capacities to serve effectively among federal, state and municipal governments, civil society, the private sector, as well as among women, men and peoples and indigenous communities. In the Priority Strategy 4.6.- Promote the dissemination, disclosure and environmental education to generate a climate culture in the country and citizenries the public policy against climate change, there is the line of action 4.6.7 Include criteria of differentiated attention and gender in climate change policy so that indigenous peoples and communities, women and youth participate, contribute and have access to adaptation and mitigation processes under equal conditions and rights.

Likewise, the project is aligned with the Institutional Program 2020-2024 of the INPI, which seeks to contribute to the new development model based on the well-being of our peoples, by building the conditions to resolve the unfortunate situation of poverty, inequality and injustice. in which indigenous and Afro-Mexican peoples live. In particular, Priority Objective 3 refers to "Contribute to the comprehensive development and common well-being of indigenous and Afro-Mexican peoples, strengthening their economy, improving and expanding its infrastructure and making sustainable use of its lands, territories and resources, within a framework of respect for its autonomy and forms of organization", particularly in the following strategies and lines of action:

Priority strategy 3.1 Promote sustainable economic activities aimed at indigenous and Afro-Mexican populations, with a gender perspective, to contribute to the development of capacities and improve their living conditions

3.1.2 Support and promote traditional agricultural systems and staple crops, especially the milpa system and its value chains

3.1.4 Implement projects for the adaptation and mitigation of climate change in indigenous and Afro-Mexican communities.

Priority strategy 3.3 Improve basic social, community and housing infrastructure with cultural relevance, to guarantee access to basic services in indigenous and Afro-Mexican regions.

3.3.3 Promote the construction and expansion of sanitation, drainage and sewage works in Afro-Mexican indigenous regions

3.3.4 Support the construction of works for the management of solid waste, which improve the recycling of all types of waste and contribute to the regional economy.

Likewise, the project is within the framework of the development strategies for indigenous communities, within the Program for the Integral Welfare of Indigenous Peoples, which attends to indigenous and Afro-Mexican peoples and communities, in their capacity as collective subjects of rights. public, fully respecting their self-determination and

autonomy in the terms recognized in national and international legislation. The Program makes the new relationship between the State and the indigenous and Afro-Mexican peoples and communities a reality, in such a way that the actions will be built through participatory planning processes, with a sustainable vision and taking into consideration their legitimate demands, claims and aspirations of life.

The projects proposed by PROBIPI seek to be of community and regional scope, encourage their organization as a collective and outline their reconstitution as peoples by making possible the participation of indigenous community governments, as well as that of their representative institutions. On this basis, it places the indigenous and Afro-Mexican peoples at the center of attention and, therefore, as fundamental protagonists in the solution of their problems, overcoming individualistic and welfare visions, which unfortunately have led to the abandonment of their own ways of organization and government.

E. Describe how the project / programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund.

The project must be executed in coordination and with technical support from the Ministry of the Environment and Natural Resources (SEMARNAT), the Federal Attorney for Environmental Protection, the National Water Commission, the Ministry of Agriculture and Rural Development, and their state counterparts.

It should be noted that this type of project complies with SEMARNAT regulations, which is the agency that establishes environmental verification and contaminant monitoring systems, in addition to implementing measures and mechanisms to prevent, restore and correct air pollution, soil, water and the environment in general, and disseminates programs and strategies related to ecological balance and environmental protection.

H. Describe if there is duplication of project / programme with other funding sources, if any.

It is complemented by the resources and actions of the agencies involved, particularly in the framework of the previously mentioned PROBIPI. However, the activities that derive directly from this proposal do not have funding, so they depend on your approval to carry them out.

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned.

Indigenous peoples are characterized by their special relationship with their lands, territories and natural resources, where they have developed cultures, languages, arts, medicines, cosmogonies and their own forms of political, economic and social organization, since they have justice systems that They allow conflicts to be resolved, based on principles, procedures and penalties that are different from the national justice system.

Most of the indigenous communities have norms, institutions and procedures to elect their Authorities. The Assembly constitutes its highest authority. They preserve principles and values that govern community life, among which the following stand out: tequio, work, hand turn, solidarity, community work, mutual aid and free service in the exercise of public office, among others.

Thus, it seeks to build a new relationship between the Mexican State and the indigenous and Afro-Mexican peoples based on respect and coordination, within the framework of a horizontal relationship with their political, legal, economic, social and cultural institutions, in order to give effective responses to their claims and life aspirations, guaranteeing their rights and strengthening their cultures and collective identities.

The INPI, by recognizing the indigenous and Afro-Mexican peoples and communities as "subjects of law" in its law, recognizes their collective legal personality and, therefore, their capacity to enjoy and exercise rights as an entity that has action in the legal sphere, giving them the capacity and personality to decide their present and future.

In this sense, the actions proposed, through the frameworks of justice plans or priority regions, are always based on a participatory planning exercise carried out with these peoples, from their own forms of organization and culture, which are specified in agreements or constructive arrangements⁴, between the traditional government and the institutions of the Federal Government, based on the following principles:

- 1) Representativeness and participation of the peoples.
- 2) Government-to-government dialogue.
- 3) Formal agreements documented in Assembly Minutes.

I. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

1) Ixtlán de Juárez, Oaxaca

The Liberal Union of Municipalities of the District of Ixtlán (ULADI) in the Sierra Norte has had the ability to propose and undertake innovative processes; they have been and are a reference for organization at the national level, for which the INPI joins in supporting their organizational process for the benefit of the indigenous communities of the Sierra Norte.

In this sense, since the end of November 2021, conversations were established between the municipal authorities that make up the ULADI with the INPI, in order to build a joint work dynamic that would allow them to reflect and strengthen their ideas of integral

⁴ It is an arrangement that guarantees a firm and lasting solution, which in practice means that the autonomy pact reached satisfied the parties and that, according to the feelings of the groups or peoples involved, the agreed form of autonomy minimally covers the rights and freedoms that plaintiff Héctor Díaz-Polanco, "Autonomy and constitutional reform," p. 165.

Annex 5 to OPG Amended in October 2017

development with those they perceive their region through joint approaches as authorities.

During the months of February and March 2022, in a framework of horizontal, open and fully respectful dialogue, work meetings began in which ULADI and INPI identified the region, outlined the methodology, proposed forms of participation and venues where the work for the integration of the plan could be carried out.

On March 18, 2022, ULADI issued a call to its authorities to prepare for the first regional assembly of Zapotec and Chinantec authorities of the Ixtlán District. As a result of the analyzes of the ULADI authorities, the 26 municipal authorities that were present agreed that the first Regional Assembly would be held on March 25 in San Juan Evangelista Analco to put the activities for the elaboration of the Plan on the agenda. In this sense, the authorities decided to carry out two regional assemblies and two community diagnoses. The dynamic they proposed to carry out the community diagnoses was through thematic work tables in which regional problems and strategic actions would be prioritized, using the collective analysis of the authorities as a methodology.

The regional assemblies and community diagnoses were carried out as follows:

1. San Miguel Amatlan, March 31. Regional assembly to address the "Strengthening of the regional organization and recognition of ULADI".
2. Capulalpam de Méndez, April 8. Community diagnosis to carry out three working groups:
1. Basic infrastructure (roads, drinking water, drainage and sanitation, electrification); 2. Culture, Identity, Language and Education; and 3. Health and Traditional Medicine.
3. Teococuilco of Marcos Pérez, April 25. Community diagnosis to monitor the integration work of the Comprehensive Regional Development Plan, through two working groups: 4. Economy and production systems, and 5. Environment and Natural Resources (Fiscal Incentives).
4. Saint Paul Macuilianguis, May 6. Regional Assembly to present to the authorities that make up ULADI the systematization of the Development Plan for the Zapotec and Chinantec peoples of the district of Ixtlán de Juárez, Oaxaca.

2) Valle Etla de Valles Centrales, Oaxaca

On February 23, 2022, a meeting was held with the municipal and agrarian authorities of the municipalities: San Andrés Ixtlahuaca, San Felipe Tejalapam, San Lorenzo Cacaotepec, San Pedro Ixtlahuaca, Santa María Atzompa, Santa María Peñoles and Institute staff. National of Indigenous Peoples. At this meeting it was agreed promote actions to preserve the forests, the use of water, and reforestation, with the support of the community, the state and federal governments.

The objective: Contribute to the protection of the environment to mitigate the effects of climate change, to the maintenance of ecosystem services with emphasis on access to

water and food sovereignty of the communities.

3) Microregion, Xniza en el Valle de Oaxaca

In November 2021, the federal government finally published through the Official Gazette of the Federation the "Decree of regulated zone of the aquifer 2025 of the Central Valleys of the State of Oaxaca"[1], where for the first time in the history of the country it is recognized the right of 16 Zapotec indigenous communities to participate in the administration and care of water in their territory. It is important to mention that the Decree urges the creation of the figure of an "Indigenous Community Concession" through which the collective rights to water will be recognized, a measure that does not exist in the figure of the current National Water Law, since only this right is recognized to natural and legal persons. The decree includes international standards applicable to the proposal for water management, the human right to water, as well as preferential access to water for indigenous communities.

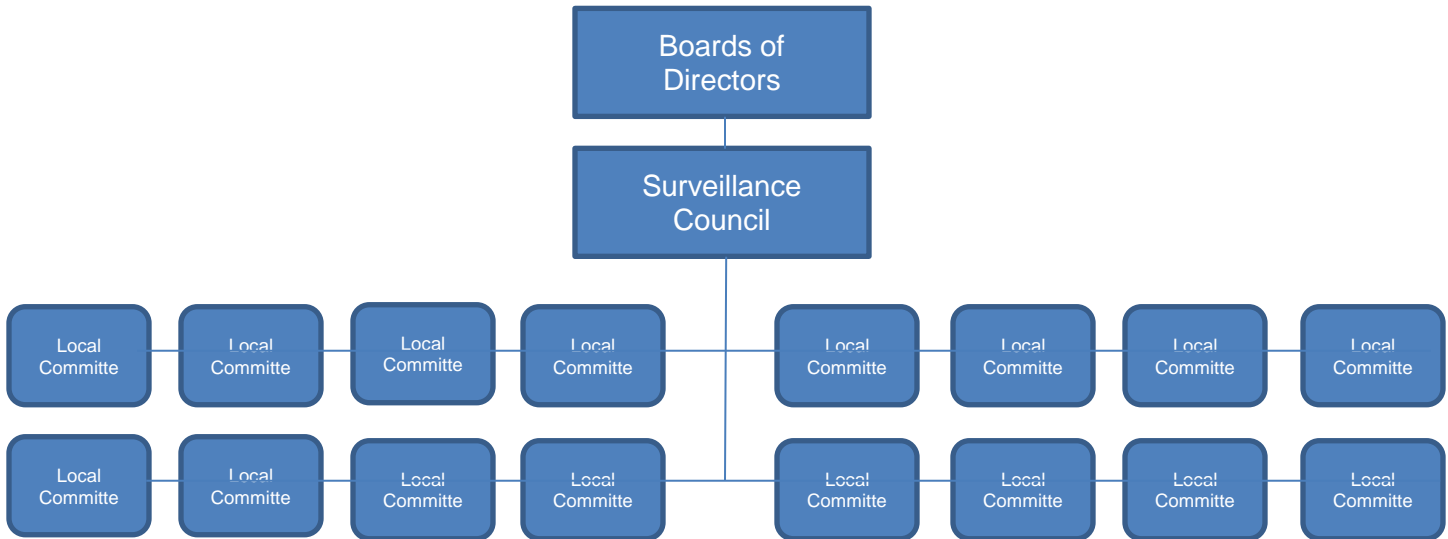
From the entry into force of the Decree, the 16 indigenous communities begin a new relationship with the Mexican state by participating in local water administration. This is a major challenge, because the communities need to strengthen their community institutions, their organization and application of internal regulations that guarantee the care of the aquifer, respecting their traditional ways of working, as well as their community life, allowing collaboration with the state through a scheme that does not undermine the autonomy and self-determination recognized through this decree.

Similarly, the experience of the 16 communities of the Xnizaa region sets a benchmark at the national level, being the example to follow in terms of preferential access to water and the recognition of the territorial rights of the country's communities, therefore, It is vitally important to strengthen the structure that guarantees full community management of water by strengthening administrative, legal and technical capacities to make the agreements reached through the indigenous consultation process in the Central Valleys a reality.

In this sense, as Coordinator of United Peoples for the Care and Defense of Water (COPUDA) it is made up of representatives of 16 communities from the micro-region called Xnizaa, these communities are:

San Antonino Castillo Velasco, San Pedro Mártir, Asunción Ocotlán, San Pedro Apóstol, Santa Ana Zegache, San Martín Tilcajete and Santiago Apóstol. As well as the agencies of: Tejas de Morelos, San Felipe and San Jacinto de Ocotlán, La Barda Paso de Piedra de Santa Gertrudis Zimatlán, San Isidro Zegache de Santa Ana Zegache, El Porvenir and Maguey Largo de San José del Progreso, San Sebastián de Santiago Apóstol and San Matías Chilazoa from Ejutla de Crespo.

That is to say, in each community a local Committee is appointed, who is elected in the Community Assembly and these in turn participate in the meetings as Coordinator where the approaches, needs and aspirations as an indigenous people are analyzed and reviewed.



These local committees, in turn, coordinate with the administrative and agrarian authorities of each community to carry out the actions or activities that are defined as COPUDA, in favor of the 16 communities.

4) Other Municipalities of relevance (San Miguel El Grande y Santa Maria Yavesía)

The local authorities of the San Miguel El Grande y Santa Maria Yavesía form Oaxaca State municipality have held council meetings and general assemblies with the inhabitants of each locality, where the particular needs have been exposed and once these consensuses and approvals have been made, the authorities make the request for support to the National Institute of Indigenous Peoples.

These actions have been developed from internal consultations of each town in accordance with their forms of government and self-determination, including assemblies.

During the general assemblies, all the inhabitants are included, including vulnerable groups, women and men of legal age, who have a voice and a vote, during the acceptance of the project.

The component has a particular focus on environmental and social policy as well as gender policy, because it will promote the participation of indigenous woman in the project.

5) San Luis Potosí - Wirikuta Territory in the framework of the Justice Plan for the Wixárika,

O'dam and Na'ayeri Peoples.

For the elaboration of this Justice Plan, the most felt problems of each Town were analyzed through participatory diagnoses, which had as their main source the celebration of three General Assemblies of Authorities (Traditional Governors and Agrarian Authorities) and two technical meetings to the construction of agreements with indigenous representatives and public servants of the Government of Mexico.

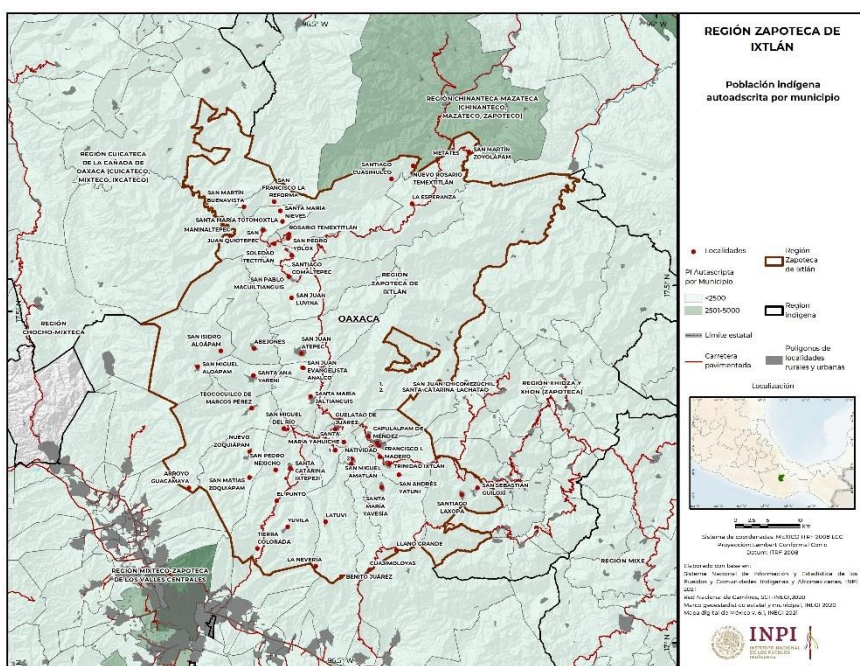
- The first General Assembly was held on April 21, 22 and 23, 2022 in Nueva Colonia, community of Santa Catarina Cuexcomatlán, Municipality of Mezquitic, State of Jalisco.
- The second General Assembly was held on May 27 and 28, 2022 in Jesús María, Del Nayar Municipality, State of Nayarit.
- The third General Assembly was held on June 27, 28 and 29, 2022 in La Guajolota, Municipality of Mezquital, State of Durango.
- The technical meetings were held on July 16 and 17, 2022 in the municipal seat of Mezquitic, State of Jalisco, and on July 19, 2022 in the capital of the State of San Luis Potosí.

I. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

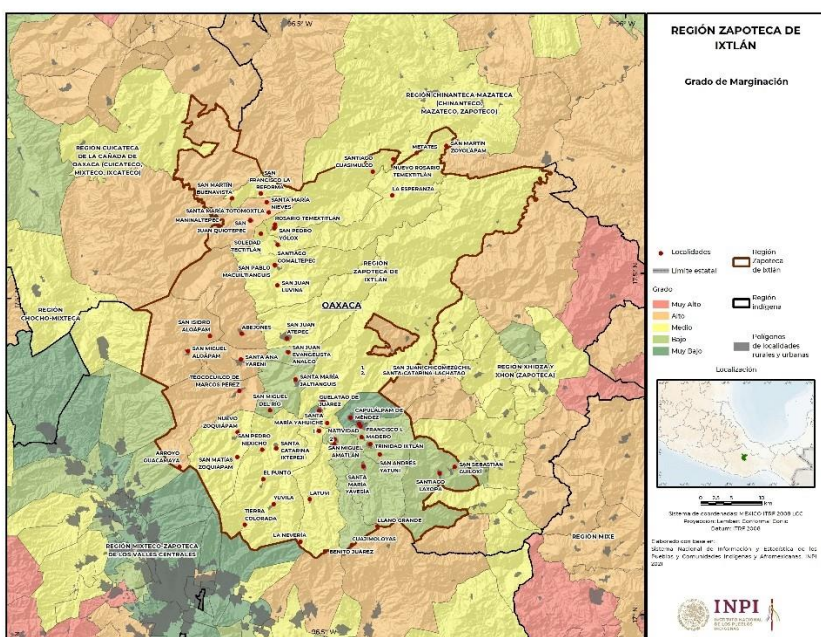
1) Ixtlán de Juárez

The Development Plan for the Zapotec and Chinantec peoples of the district of Ixtlán de Juárez, in the Sierra Norte region, located north of the capital of the state of Oaxaca, includes 26 municipalities and 59 localities, which in turn are They are subdivided into sectors according to their dialectal variant, two Zapotecs of the “bene lhej” variant and one Chinantec “Tza-gmoh”.

The total population of the 26 municipalities that make up the Zapotecs of Ixtlán (Bene lhej), Zapotecs of Teococuilco de Marcos Pérez and Chinantecos (Tza gmoh) registered in 2020 a total of thirty-five thousand five hundred and eighty-six inhabitants (35,586) of which 34, 462 inhabitants speak an indigenous language. Of these municipalities, 4 present marginalization classified as medium, 18 with low marginalization and 3 with very low marginalization. Likewise, Oaxaca is the second expelling state of indigenous population in the country, and particularly the municipalities of Ixtlán have high or medium expulsion, among the reasons for migration are low wages within agricultural activities, food insecurity, lack of job opportunities, limited access to social protection and the depletion of natural resources, many of them aggravated by the effects of climate change.



Map of self-ascribed indigenous population by municipality

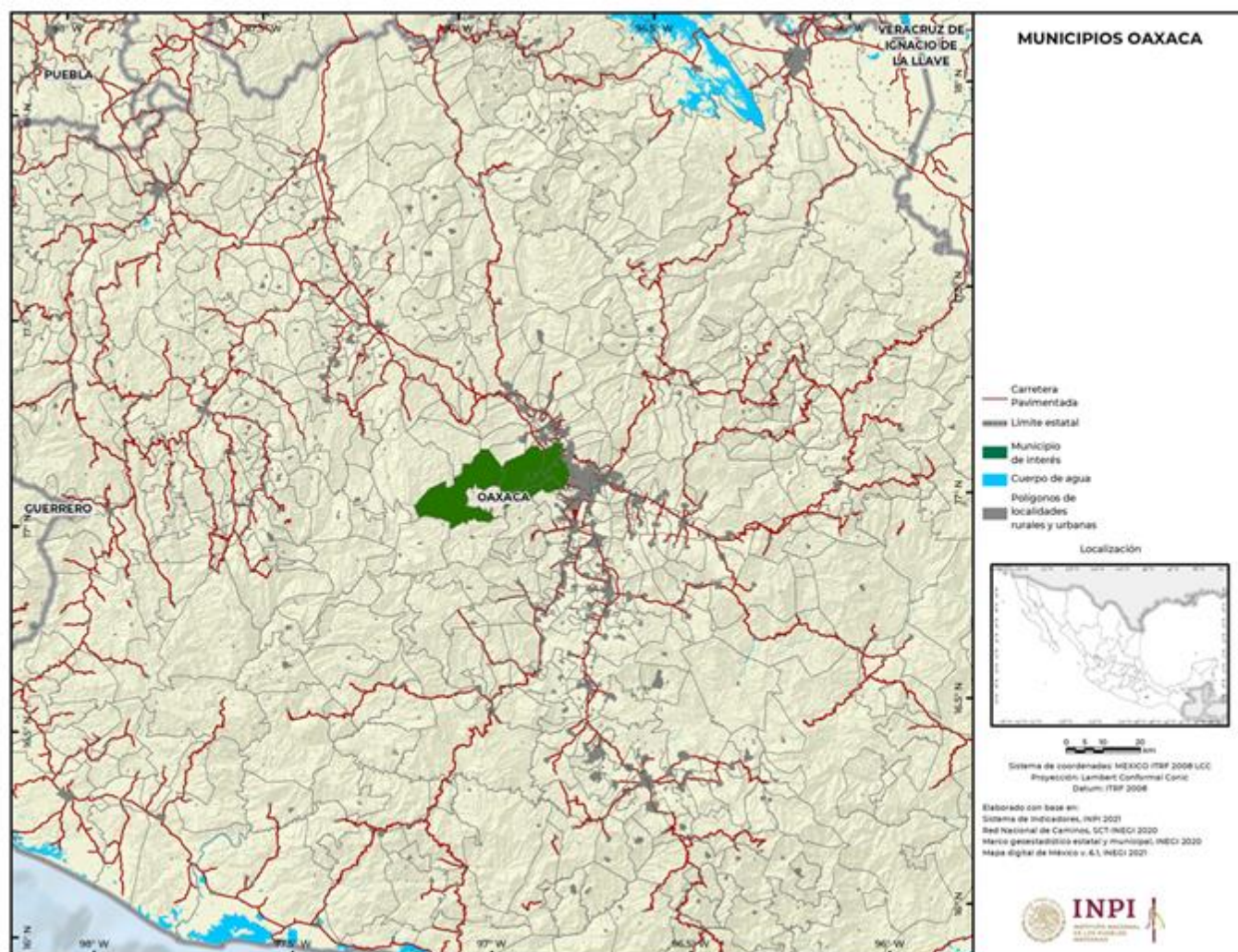


Map of the degree of marginalization of the region and Ixtlán

2) Valles Centrales: Etla Valley

In the Central Valleys is the Etla Valley. It is made up of 6 communities: San Andrés Ixtlahuaca, San Felipe Tejalápam, San Lorenzo Cacaotepec, San Pedro Ixtlahuaca,

Santa María Atzompa and Santa María Peñoles. According to data from the 2020 Population and Housing Census, its population amounted to 93,786 people. 59.7% of the population self-identify as indigenous, from the Mixtec and Zapotec peoples.



Municipio	Muestra censal 2020			Censo 2020		Originarios según asentamientos históricos	Pueblo indígena con mayor población en hogares
	Población de 3 años y más	Población Indígena Autoadscrita	Porcentaje de población indígena autoadscrita	Porcentaje de población afromexicana	Porcentaje de población indígena en hogares		
San Andrés Ixtlahuaca	1,688	1,268	75.1	0.2	29.7	Mixteco	Mixteco
San Felipe Tejalápam	7,751	6,798	87.7	0.3	4.6	Zapoteco	Zapoteco
San Lorenzo Cacaotepec	17,657	8,925	50.5	4.3	9.6		Zapoteco
San Pedro Ixtlahuaca	13,716	7,517	54.8	2.2	36.1	Mixteco	Zapoteco
Santa María Atzompa	39,888	20,365	51.1	2.9	26.9	Zapoteco	Zapoteco
Santa María Peñoles	8,307	8,228	99.0	2.9	98.8	Mixteco	Mixteco

Source: INPI. National System of Information and Statistics on Indigenous and Afro-Mexican Peoples and Communities based on: INEGI. Population and Housing Census 2020. Census sample. microdata; INEGI. Population and Housing Census 2020. Main results by locality (ITER). ITER with indigenous population in households according to the INPI and INALI methodology. Localities with historical settlements of a population that speaks an indigenous language, according to the Catalog of National Indigenous Languages. Viewed at: <https://www.inali.gob.mx/es/transparencia/datos-abiertos.html>

The speaking population of indigenous languages represents 18.1% of the population aged 5 years and over and 17.8% of the population aged 3 years. Starting from the first age group, the decrease in the percentage of the population speaking indigenous languages can be observed from 22.6% to 18.1% in the last thirty years.

In the region, the illiteracy rate is 5%, close to the national average (4.7%). The illiteracy rate is higher in Santa María Peñoles, where it increases to 15.5%. 41.5% have upper secondary and higher education, and for the population at the national level it is 45.7%. The percentage of women with high school education or higher is only 40.8%.

The percentage of the population living in poverty was 51.9% and in extreme poverty 18.4%. At the national level, these indicators are 43.9% and 8.5%, respectively. In Santa María Peñoles these indicators have increased substantially, the percentage of poverty reaching 98.3% and that of extreme poverty reaching 63.2%. Likewise, in San Felipe Tejalápam, 76.7% of its population is in a situation of poverty and 29.8% in extreme poverty.

The region is located in the Río Sordo-Yolotepec and Río Atoyac-Tlapacoyan basins, and in the aquifers of Valles Centrales and Jamiltepec.

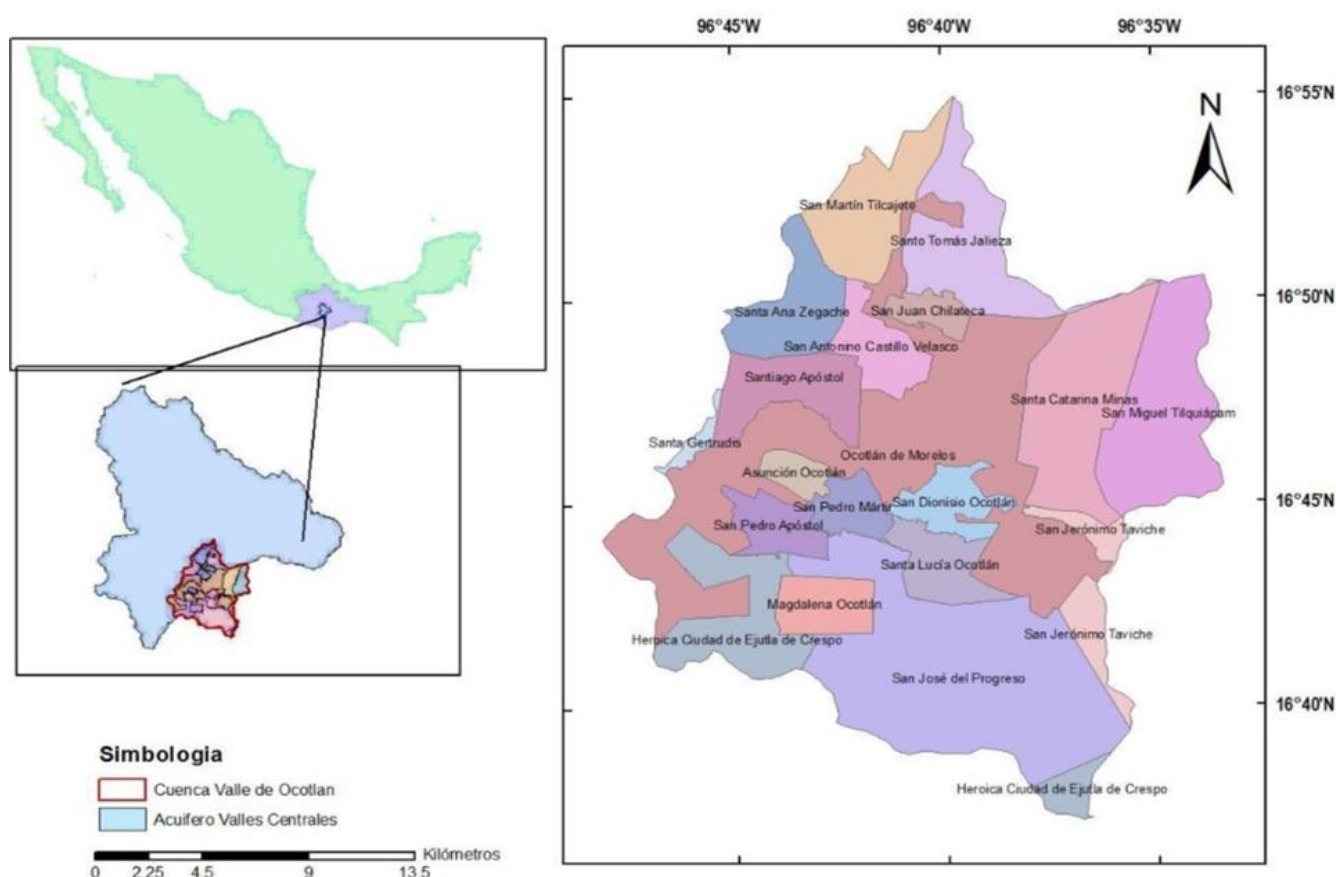
Soil degradation in more than a third of the area devoted to agricultural activities shows moderate chemical degradation due to a decline in fertility and a reduction in the content of organic matter (13,176 hectares). Due to overgrazing, moderate water erosion occurs due to the loss of superficial soil in about 40,000 hectares. Mild erosion due to deforestation and removal of vegetation (18,889 hectares) and agricultural activities (1,710 hectares)

3) Microregion Xniza at Oaxaca Valley

The xnizaa micro-region is made up of 16 Zapotec indigenous communities belonging to the central valleys of Oaxaca on the Ocotlán-Zimatlán route. During the last 15 years, the Coordinator of United Peoples for the Care and Defense of Water (COPUDA), groups and represents these 16 Zapotec communities of the Valley of Oaxaca in defense of their legitimate right to water, COPUDA was born to face to a serious drought between the years 2003-2005, which not only intensified the precariousness of the rural area, but also intensified the abandonment of the countryside, undermining the economy, subsistence and various aspects of the life of the peasants in the region.

With more than 500 rainwater harvesting works that COPUDA has carried out in the Ocotlán-Zimatlán valley, the communities have shown that they are capable of counteracting complex processes such as drought, carrying out works with their own resources and tequio. Among the works carried out are: Water retainers in middle areas, absorption and retention pots, absorption wells with sandboxes that capture water from irrigation fields, as well as rainwater harvesting systems on greenhouse roofs that lead the vital liquid to the wells of absorption.

The Municipalities of: San Antonio Castillo Velasco, Santiago Apostle, Santa Ana Zegache, San Pedro Martyr, San Martin Tilcajete, San Pedro Apostle, Asunción Ocotlán are covered.



The beneficiaries of the project would be 6054 people (Men 2908 - Women 3146)

4) Other priority municipalities (San Miguel El Grande y Santa María Yavesia)

The INPI considers it vital that the projects start from the needs and problems raised by the indigenous peoples themselves, therefore, initiatives that the indigenous communities have suggested to carry out in the municipalities will be addressed: San Miguel el Grande and Santa María Yavesia.

San Miguel El Grande

In 2020, the population in San Miguel el Grande was 4,313 inhabitants (46.6% men and 53.4% women). Compared to 2010, the population in San Miguel el Grande grew by 4.51%. 1.94k inhabitants, population that speaks an indigenous language. The most widely spoken indigenous languages were Mixteco (1,901 inhabitants), Zapoteco (13 inhabitants) and Mixe (10 inhabitants).

Santa María Yavesia

In 2020, the population in Santa María Yavesía was 434 inhabitants (45.9% men and 54.1% women). Compared to 2010, the population in Santa María Yavesía decreased

by -3.13%. 113 inhabitants, population that speaks an indigenous language. The most widely spoken indigenous languages were Zapoteco (112 inhabitants) and Chinanteco (1 inhabitants).

The lack of public services in indigenous and Afro-Mexican localities result in a low standard of living, with a lack of the most basic services for a dignified life, which affects all its inhabitants, children, women and the elderly, who are mostly affected and are forced to cover this need to implement the use of improvised latrines, discharging directly into the subsoil, since due to the steepness of the area it is impossible to contemplate conventional drainage systems, therefore with the implementation of this project it is intended to avoid contamination of the subsoil and groundwater.

Therefore, to remedy the issue of unhealthiness, contamination, lack of basic services and at the same time help improve the quality of life of indigenous communities, the construction of toilets with biodigesters is proposed, which is a project appropriate to the characteristics of the regions and the needs of their inhabitants, added to this, when this type of project is carried out in the communities, it derives in a direct economic benefit and the creation of jobs for the community, which would help increase its purchasing power.

5) San Luis Potosí - Wirikuta Territory in the framework of the Justice Plan for the Wixárika, O'dam and Na'ayeri Peoples.

The Justice Plan for the Wixárika, O'dam and Na'ayeri Peoples consists of four thematic axes, namely:

1. Sacred places, culture and identity
2. Land, territory and natural resources
3. Traditional government, peace and security
4. Common welfare

Regarding the first of them, in the Regional Assemblies and technical meetings a deep spiritual life of these Peoples has been identified, and the main need has been the protection and conservation of the sacred places, which allows strengthening the cultural identity Wixárika, O'dam and Na'ayeri.

The data for each municipality is as follows:

Catorce

The total population of Catorce in 2020 was 9,579 inhabitants, being 49% women and 51% men. 17 inhabitants, population that speaks an indigenous language. The

population aged 3 years and over who speaks at least one indigenous language was 17 people, which corresponds to 0.18% of the total population of Catorce. The most widely spoken indigenous languages were Huichol (10 inhabitants), Nahuatl (5 inhabitants) and Mazahua (2 inhabitants)

The illiteracy rate of Catorce in 2020 was 10.1%. Of the total illiterate population, 50.4% corresponded to men and 49.6% to women.

In 2020, the main academic degrees of the population of Catorce were Secondary (2.84k people or 47.2% of the total), Primary (1.88k people or 31.3% of the total) and High School or General Baccalaureate (1.03k people or 17.2% of the total).

Charcas

The total population of Charcas in 2020 was 21,814 inhabitants, being 51.2% women and 48.8% men. 43 inhabitants, population that speaks an indigenous language. The population aged 3 years and over who speaks at least one indigenous language was 43 people, which corresponds to 0.2% of the total population of Charcas. The most widely spoken indigenous languages were Nahuatl (30 inhabitants), Huasteco (9 inhabitants) and Otomí (4 inhabitants).

In 2020, the main academic degrees of the population of Charcas were Secondary (7.04k people or 47.8% of the total), Primary (3.91k people or 26.6% of the total) and High School or General Baccalaureate (1.19k people or 8.07% of the total).

The illiteracy rate of Charcas in 2020 was 6.73%. Of the total illiterate population, 47.6% corresponded to men and 52.4% to women.

Matehuala

The total population of Matehuala in 2020 was 102,199 inhabitants, being 51.4% women and 48.6% men. The population aged 3 years and over who speaks at least one indigenous language was 182 people, which corresponds to 0.18% of the total population of Matehuala. The most widely spoken indigenous languages were Nahuatl (42 inhabitants), Chichimeco Jonaz (36 inhabitants) and Maya (24 inhabitants).

In 2020, the main academic degrees of the population of Matehuala were Secondary (24.5k people or 33.8% of the total), Primary (14.2k people or 19.6% of the total), and Bachelor's degree (12k people or 16.6% of the total).

Matehuala's illiteracy rate in 2020 was 3.58%. Of the total illiterate population, 46.6% corresponded to men and 53.4% to women.

Villa of Guadalupe

The total population of Villa de Guadalupe in 2020 was 9,277 inhabitants, being 50.1% women and 49.9% men. The population aged 3 years and over who speaks at least one indigenous language was 19 people, which corresponds to 0.2% of the total population of Villa de Guadalupe. The most widely spoken indigenous languages were

Huasteco (12 inhabitants), Otomí (3 inhabitants) and Mazahua (2 inhabitants).

In 2020, the main academic degrees of the population of Villa de Guadalupe were Primary (2.66k people or 43.9% of the total), Secondary (2.38k people or 39.2% of the total) and High School or General Baccalaureate (884 people or 14.6% of the total).

Villa de Guadalupe's illiteracy rate in 2020 was 11.9%. Of the total illiterate population, 56.5% corresponded to men and 43.5% to women

Villa de la Paz

The total population of Villa de la Paz in 2020 was 5,298 inhabitants, 50.3% women and 49.7% men. The population aged 3 years and over who speaks at least one indigenous language was 13 people, which corresponds to 0.25% of the total population. the population of Villa de la Paz. The most widely spoken indigenous languages were Not specified (8 inhabitants), Nahuatl (2 inhabitants) and Tarasco (1 inhabitants).

In 2020, the main academic degrees of the population of Villa de la Paz were Secondary (1.41k people or 39.2% of the total), Primary (920 people or 25.5% of the total) and High School or General Baccalaureate (554 people or 15.4% of the total).

The illiteracy rate of Villa de la Paz in 2020 was 5.71%. Of the total illiterate population, 54.1% corresponded to men and 45.9% to women.

Villa of Ramos

The total population of Villa de Ramos in 2020 was 38,389 inhabitants, being 52.4% women and 47.6% men. The population aged 3 years and over who speaks at least one indigenous language was 80 people, which corresponds to 0.21% of the total population of Villa de Ramos. The most widely spoken indigenous languages were Mixteco (73 inhabitants) and Nahuatl (7 inhabitants).

In 2020, the main academic degrees of the population of Villa de Ramos were Primary (11k people or 45% of the total), Secondary (8.85k people or 36.3% of the total) and High School or General Baccalaureate (2.79k people or 11.4% of the total).

The illiteracy rate of Villa de Ramos in 2020 was 8.37%. Of the total illiterate population, 50.4% corresponded to men and 49.6% to women.

J. Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project / programme.

The Justice Plans have the following characteristics:

- They are compensatory in nature, that is, they seek to repair and restore the

fundamental rights of an indigenous people.

- They contain binding agreements.
- It has legal implications.

The Plan contains the methodological route based on dialogue with the people and the communities that comprise it. It defines what needs to be done and how to do it. The themes are related to the offenses committed and are defined by the people in question. Finally, a Justice Plan, due to its binding nature, is a legal and programmatic instrument that obliges the federal, state and, where appropriate, municipal governments to execute the agreed works and actions and to have the necessary resources for their implementation.

Likewise, the priority actions considered are in a framework of permanent and constant coordination based on the needs and priorities of the indigenous communities, so that the actions to be carried out will be taken up and carried out in the medium and long term by the communities themselves.

K. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project / programme.

The components of the project do not reveal unwanted environmental or social impacts, on the contrary, they promote not only with actions the adaptation to climate change, but also the conservation of biodiversity and the fight against desertification, basic premises of the Earth Conference in 1992 that gave rise to the three Framework Conventions that address these issues: United Nations Framework Convention on Climate Change, Convention on Biological Diversity and Convention to Combat Desertification.

The non-execution of the project would have environmental risks, by neglecting the problems raised, and social risks, since by starting from participatory diagnoses with the indigenous communities, it could be considered a domino effect in other indigenous communities that are not interested in participating in said dialogues with authorities to establish action roadmaps.

1) Ixtlán de Juárez, Oaxaca

The impacts currently, without the execution of the project, are both environmental and social intrinsically related: on the one hand, the drought, the lack of native seeds, the lack of access to water are in short, an obstacle to the effective access of indigenous peoples to their rights, individual and collective, and this has an impact on the social aspect: low productivity encourages migration, and not having adequate access to water does not guarantee the right to health or food.

2) Valle Etla de Valles Centrales, Oaxaca

During the meeting, it was mentioned that one of the negative impacts that affects the availability of water is the extraction of stone materials from the bed of the Atoyac River.

The communities require advice on the subject, since it is the "unions that determine everything regarding the stone material."

3) *Microregion, Xniza at Oaxaca Valley*

By having the support of the traditional authorities, it is possible to coordinate the different works more efficiently, in this sense, when we talk about the need to have an impact study of the recharge works in the region, a mapping of the works rainwater harvesting with a clarity of the scope and impact of recharge on our aquifer; as well as having meteorological stations in the upper, middle and 2 in the lower part, which allow decisions to be made on recharge actions, and how to manage water. Being a coordinated form in the co-administration of the 2025 aquifer;

In relation to the construction and improvement of the absorption wells to capture cleaner rainwater, with these works a better recharge of the aquifer is guaranteed, giving results immediately, in this way in the maintenance and desilting of the retes, pots and existing absorption wells, their proper functioning would be guaranteed;

In relation to training, regional and community assemblies and dissemination through a campaign that has to do with the implementation of the Decree that establishes the Regulated Zone, as well as the effects of the community and Indigenous concession, in this way it seeks to strengthen the structure as Coordinator, the local Committees and the Community Authorities

This is how, through the different actions proposed in this project, it seeks to achieve a balance and thereby delay or eradicate climate change; a great responsibility of the communities and citizens to maintain our common home in the best conditions for a better quality of life for future generations and of the importance of our work in this legal process where it is achieved for the collective benefit. Good water management and working in agriculture to guarantee the sustainability of the communities, respecting at all times the community assemblies that are the basis for decision-making.

4) Other relevant Municipalities (San Miguel El Grande and Santa María Yavesia)

The environmental impacts are direct, given that to date the proposed localities do not have the infrastructure for sanitation, which is directly triggered by the contamination of the subsoil and the water table, coupled with the sources of infection that occur by contributing with pollution, so this generates discomfort and social conflicts.

5) San Luis Potosí - Wirikuta Territory in the framework of the Justice Plan for the Wixárika, O'dam and Na'ayeri Peoples.

In particular, the use of anti-hail technologies by tomato companies in the Wirikuta territory has been documented. Among the main effects is the delay in the planting cycle, desertification and droughts that cause there to be insufficient food for livestock. These

problems mainly affect the peasant population that lives in the Wirikuta territory.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks - further assessment and management required for compliance
<i>Compliance with the Law</i>	x	
<i>Access and Equity</i>	x	
<i>Marginalized and Vulnerable Groups</i>	x	
<i>Human Rights</i>	x	
<i>Gender Equality and Women's Empowerment</i>	x	
<i>Core Labour Rights</i>		
<i>Indigenous Peoples</i>	x	
<i>Involuntary Resettlement</i>		
<i>Protection of Natural Habitats</i>	x	
<i>Conservation of Biological Diversity</i>	x	
<i>Climate Change</i>	x	
<i>Pollution Prevention and Resource Efficiency</i>	x	
<i>Public Health</i>		
<i>Physical and Cultural Heritage</i>	x	
<i>Lands and Soil Conservation</i>	x	

PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project / programme implementation.

The INPI is the entity that will coordinate and execute the project, it is the national authority in matters of indigenous peoples throughout the Mexican territory; as well as the responsible authority for the implementation and monitoring of the PEPIA.

The indigenous authorities are the representatives of their peoples and therefore their spokespersons in the development of the project, for which their role in the project is fundamental for the construction of agreements, the monitoring of activities, the mediation of difficulties and the guarantee of sustainability of the actions. The activities and their prioritization have been agreed with the population through their own forms of government and decision-making that vary in each town (assemblies, councils, meetings) and in which the feelings, needs, expectations and proposals of the population are expressed. . Thus, the population is a very important actor when making decisions, participating in the implementation and monitoring of actions, and monitoring their results and their continuity.

Finally, in each community there are other actors involved such as the water committees, the agrarian authorities, works committees and other particular organizational structures that contribute with their work in specific actions and ensure the continuity of the results. Their work arises from the agreement of the community with its authorities in the assemblies.

B. Describe the measures for financial and project / programme risk management.

The risks can be of many types, for now we consider some:

Technical risks: some of the proposed communities are located in very remote places with difficult access, which represents a challenge for the transfer not only of people but also of equipment, materials and instruments. To manage this risk, the use of local or regional materials is considered, to the extent possible; the consideration of longer times in the transfers for the creation of the specific schedule; and the generation of local capacities to provide recurring services (food, transportation of material and personnel, lodging, among others).

In the same way, due to the type of technology that will be used, this type of project requires extensive training through exhibitions, visits to each beneficiary, use of manuals in their original language and graphic manuals, due to the fact that being a technology unknown in the zone, there is a risk that the correct use and maintenance is not known and the system is abandoned, given that some beneficiaries do not know how to read, write or only manage their dialect, therefore an accompaniment of the INPI is essential to explain in their mother

language the operation of the equipment and technologies to be implemented.

On the other hand, there is the possibility of not having specific information on the population, which will be a risk for the measurement of impacts due to not having an accurate baseline. For this, participatory diagnoses and follow-ups are considered that allow all types and impacts to be recorded.

Institutional risks: the change in the people that make up the different instances of participation is a risk because it is possible that there are not always people with the same level of commitment, call or teamwork capacity; For this, the strengthening of participation spaces and the involvement of the entire population is essential (women, youth), so the governance component is very important. On the other hand, strengthening organizational spaces and structures, making agreements and advances public, and permanently sharing information, as proposed in the justice and comprehensive development plans, are important elements for the agreements to be maintained independently of institutional changes.

Social risks:

- Lack of organization and agreement between the communities, for which meetings deemed necessary to promote participatory dialogue will be held.
- Problems with trade associations, with agro-industrial companies, with mining companies and with other actors that influence the region, for which institutional actions and agreements with the relevant actors will be promoted.
- In the indigenous communities, the majority participation of men still persists, for which the active participation of women will be promoted both for the implementation process as well as for support to be in charge of the committee in charge of coordination and administration in the locality.

C. Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.

Financial monitoring will be carried out jointly and agreed with the National Implementing Entity (Mexican Institute of Water Technology - IMTA). As these are two public sector entities, we are governed by the same regulations, so this aspect does not represent a major difficulty.

Regarding technical monitoring, those responsible for execution in each territory will have specific monitoring and evaluation reporting tasks, this is particularly important given the joint work with the communities from the moment of planning, which implies that Specific monitoring actions will be carried out in each territory.

D. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan, in compliance with the ESP and the Gender Policy of

the Adaptation Fund.

This section will be developed in the full proposal

- E. Include a results framework for the project proposal, including milestones, targets and indicators, including one or more core outcome indicators of the Adaptation Fund Results Framework, and in compliance with the Gender Policy of the Adaptation Fund.

This section will be developed in the full proposal

- F. Demonstrate how the project / programme aligns with the Results Framework of the Adaptation Fund

This section will be developed in the full proposal

Project Objective(s)¹	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount (USD)

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

Project Outcome(s)	Project Outcome Indicator(s)	Fund Output	Fund Output Indicator	Grant Amount (USD)

- G.** Include a detailed budget with budget notes, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

This section will be developed in the full proposal

- H.** Include a disbursement schedule with time-bound milestones.

This section will be developed in the full proposal

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

A. Record of endorsement on behalf of the government²

Provide

the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:

Laura Elisa Aguirre Téllez Director General Secretariat of Finance and Public Credit (Unit of Public Credit)	Date: 8 th August 2022
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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 in Mexico, in line with the Special Programme on Climate Change, as well as federal programmes and priority projects. The project is subject to the approval by the Adaptation Fund Board, commit to implementing the project 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.



Dr. Adrián Pedrozo Acuña
 Director General
 Mexican Institute of Water Technology

Date: 8 th August 2022	+52 777 329 3600 direccion_general@tlaloc.imta.mx
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Project contact person: Saúl Vicente Vázquez
 International Affairs Director

Email: ainternacionales@inpi.gob.mx
 Telephone: +52 91832100

⁶. Each Party shall designate and communicate to the secretariat the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.