



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: Adaptation to climate change through integrated water management and sustainable practices in vulnerable indigenous communities in Oaxaca and San Luis Potosí, in Mexico~~Project on sustainable water management in indigenous regions~~

Type of Implementing Entity: National Implementing Entity

Implementing Entity: Mexican Institute of Water Technology (IMTA)

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

Amount of Financing Requested: ~~1,000,000~~ 1,059,941.30 (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~~

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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 (PROBIP), 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.

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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 5 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 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
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.

Mexico is a country located geographically in North America, with an area of 1,972,550 km², with 32 states, due to its location on the globe, as well as its rugged relief, there is a great variety of climates in Mexico. Two thirds of the territory is considered arid or semi-arid, with annual rainfall of less than 500 millimeters. The southeast of the country, in contrast, is humid, with rainfall exceeding 2,000 millimeters per year.

The social backwardness index, calculated by the National Council for the Evaluation of Social Development Policy (Coneval), incorporates aspects of education, access to health services, basic services, quality and spaces in housing, as well as equipment in home. There are other measures, such as the marginalization index and the human development index.

Mexico is highly vulnerable to the effects of climate change, as a consequence, the following impacts can currently be observed:

- It has gotten warmer since the 1960s.

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- National average temperatures increased by 0.5°C and winter temperatures by 1.3°C.
- The number of cooler days has been reduced since the 1960s and there are more warm nights.
- Rainfall has decreased in the southeastern region of the country for half a century, and there have been changes in the way it rains, giving rise to intense storms that are increasing.
- Loss of forests and vegetation, and disappearance of glaciers.
- Increase in hurricanes, droughts, landslides, extreme temperatures and torrential rains, floods and fires that until now have caused high economic and social costs.
- Currently there are 2,583 species that are in danger or at risk of extinction, due to the transformation and degradation of ecosystems that affect most of them.

In Mexico, the National Institute of Indigenous Peoples (INPI) is the national authority in charge of defining, executing, directing, coordinating, promoting, and following up on actions, projects, and strategies to guarantee the recognition, exercise, and implementation of the Rights of indigenous peoples. The INPI recognizes indigenous peoples as subjects of public law, which recognizes their ability to enjoy and exercise rights, as well as to decide their present and future to access a life in conditions of dignity and well-being, from their own cultures and ways the organization.

Pursuant to its law, the INPI is mandated to “promote and implement the pertinent measures, in coordination with the competent authorities, the **indigenous and Afro-Mexican peoples**, for the conservation and protection of the integrity of the biodiversity and the environment of said peoples , in order to generate and maintain sustainable livelihoods and cope with the adverse consequences of climate change”

The INPI has identified the obstacles, concerns and needs of the 68 indigenous peoples that live in the country, including the vulnerabilities of indigenous communities to climate change, a situation that worsened due to the health contingency caused by the SARS-CoV2 virus (COVID- 19).

As stated in the Report of the Special Rapporteur on the Rights of Indigenous Peoples in

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2017, indigenous peoples are the ones who have contributed the least to this global problem; on the contrary, the Indigenous territories are important carbon collectors and, in many cases, protective barriers against the negative impacts of climate change.

In this sense, it is known that the adverse effects faced by indigenous peoples and communities include:

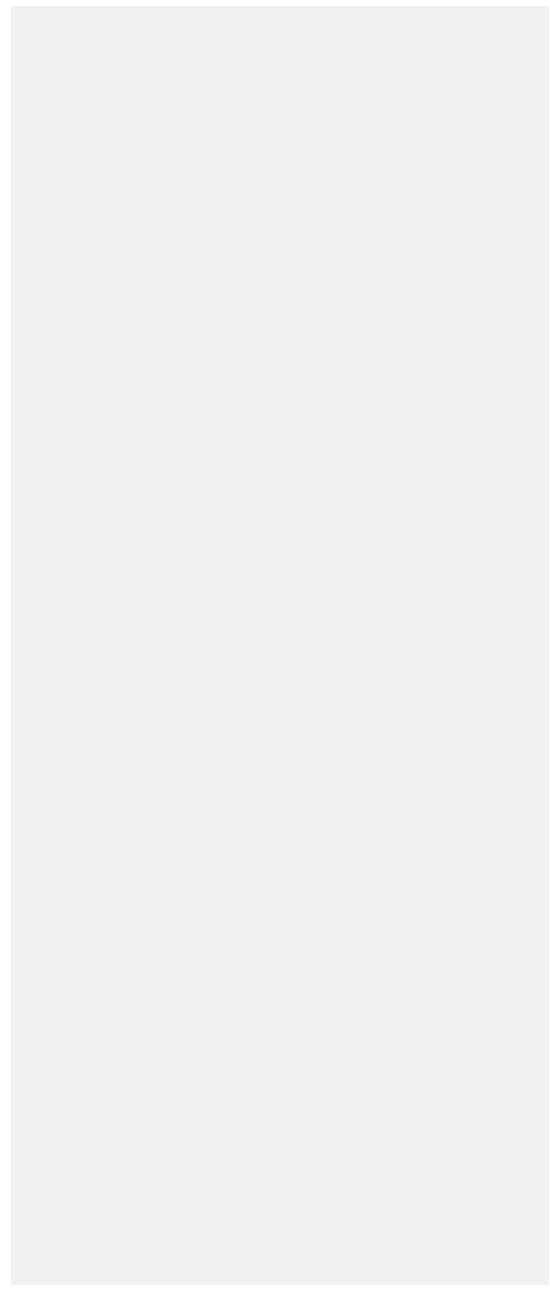
- Scarcity of water, both for human consumption and for agricultural activities, affecting the food security and sovereignty of indigenous communities.
- Deforestation and forest degradation and/or forest fires
- New and more pests and/or invasion of exotic species, which affects agricultural and tourism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

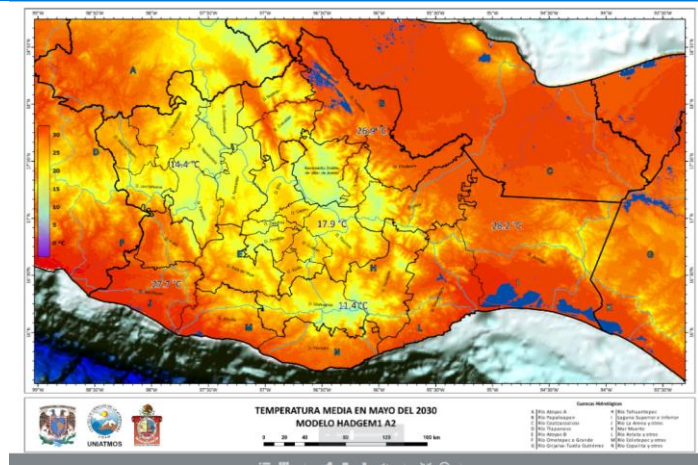
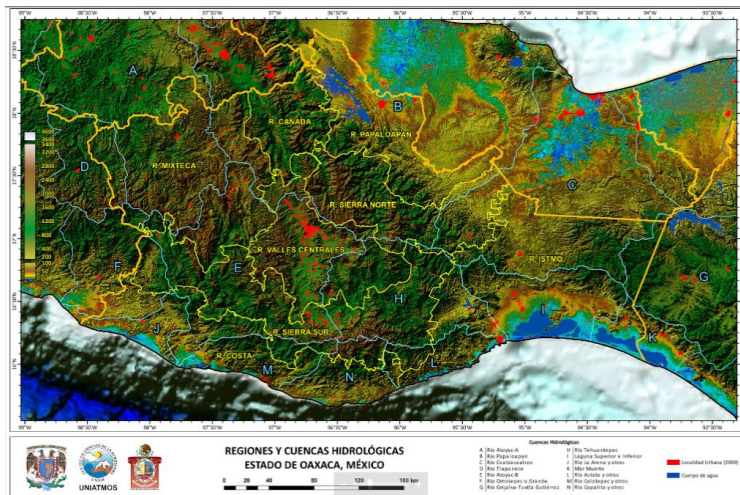
In order to respond to the just demands and historical needs of the indigenous peoples, and based on various community participation mechanisms that will be explained later, it has been decided to include the indigenous communities of Oaxaca and the Wixárika indigenous peoples, with a focus on its Wirikuta region in San Luis Potosí, although there is a Wixárika population in three other entities in the country (Jalisco, Nayarit and Durango), addressing three main shared problems: lack of knowledge of weather conditions that can cause negative effects in their communities (landslides, damage to crops, storms); scarcity of water for human consumption and crops, as well as wastewater management, and finally soil degradation and vulnerability to non-native species.

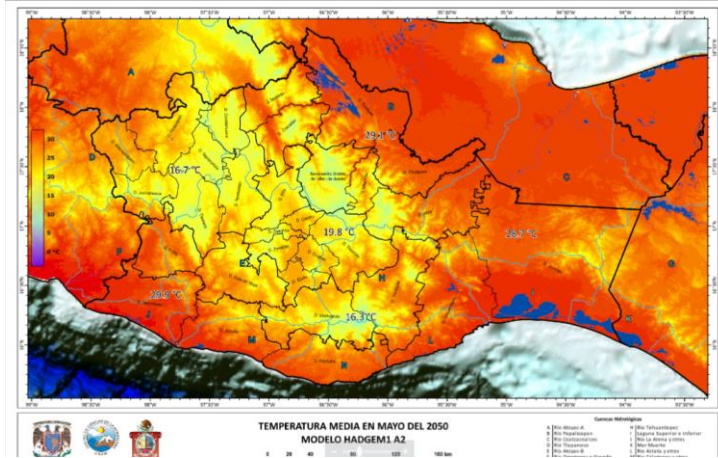


Oaxaca has a total population of 4,132,148 people; of which about 12 percent is illiterate, about 45 percent of the inhabitants aged 15 or older do not have basic education and 78 percent of the employed population has incomes of less than 2 minimum wages, for which they occupy the third place in degree of marginalization in the national context, and unfortunately it is one of the states that is most affected by climate change and hydrometeorological events in the country.

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:







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.

[Oaxaca is divided into 8 regions, the municipalities with an indigenous population that will participate in the project are found in 3 of them: Sierra Norte region, Valles Centrales region and Mixteca region.](#)



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 491.08 hm³ to 133,185 hm³.

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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.

Micregion, 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 Yaviesca

In the indigenous localities of the municipalities of San Miguel El Grande and Santa Maria Yaviesca, 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

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~~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 Yavesia, 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:

1) 26 Municipalities (San Miguel Aloapan, San Miguel Abejones, San Juan Atepec, San Miguel Amatlán, San Juan Evangelista Analco, San Juan Chicomezuchil, Ixtlán de Juárez, Guelatao de Juárez, Santa Catarina Ixtepeji, Santa Catarina Lachatao, Teococuilco de Marcos Pérez, Santa María Jaltianguis, Capulalpan de Méndez, La Natividad, San Pablo Macuiltianguis, San Juan Quiotepec, Santiago Comaltepec, Nuevo Zoquiapan, San Miguel del Río, Santiago Xiacuí, Santa María Yavesía, San Miguel Yotao, Santa Ana Yareni, San Pedro Yolox, Santiago Laxopa and San Pedro Yaneri) of the Zapotec and Chinanteco peoples in Ixtlán de Juárez, in the Sierra Norte region.

The district of Ixtlán is one of the 30 districts that make up the Mexican state of Oaxaca and one of the three into which the northern sierra region is divided. It has been avant-garde 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 to be addressed, derived from climate change, such as having sufficient water for crops, as well as low yield of crops, soil erosion and pests.

The indigenous authorities of the 26 participating municipalities, through the "Liberal Union of Town Halls", Association of Indigenous Municipalities of the District of Ixtlán de Juárez, state that given the low yields of the milpa system, there is the problem of the loss of native seeds since it is no longer planted and the varieties have been lost.

2) 6 Municipalities (San Andrés Ixtlahuaca, San Felipe Tejalápam, San Lorenzo Cacaotepec, San Pedro Ixtlahuaca, Santa María Atzompa and Santa María Peñoles) of the Etna Valley, as well as 7 municipalities (San Antonino Castillo Velasco, Santiago Apóstol, Santa Ana Zegache, San Pedro Mártir, San Martín Tilcajete, San Pedro Apóstol, Asunción Ocotlán) of the Xniza Microregion, organized through the Coordinator of United Peoples for the Care and Defense of Water (COPUDA), all of them part of the Central Valleys region.

The Central Valleys 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 Etna Valley, the Tlacolula Valley and the Zimatlán-Zaachila-Ocotlán Valley.

In the last three decades, the population in the six municipalities (San Andrés Ixtlahuaca,

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San Felipe Tejalápam, San Andrés Ixtlahuaca, Santa María Atzompa and Santa María Peñoles) 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 activities, 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 System, renewable water per capita in the South Pacific Hydrological-administrative Region, where this region is located, between 2005 and 2020, decreased by 24%, this represents 1919 m3 per inhabitant per year.

The communities of the Etna Valley 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.

The Coordinator of United Peoples for the Care and Defense of Water (COPUDA) emerged to face a serious drought between 2003-2005, derived from measures taken unilaterally in the Xniza microregion: in 1967 the prohibition of the use of water was imposed. subsoil water by the communities favoring the excessive use of water for mining and refreshment activities; Starting in 1985, actions were promoted to dry out the swamps, as well as excessive logging to expand the fields without considering the work of nature5, and in the 2000s the drought situation worsened with the granting of permits for the extraction of water, which not only intensified the precariousness of the rural area, but also increased the abandonment of the countryside, undermining the economy, subsistence and various aspects of the life of the peasants in the region.

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The COPUDA communities, rooted in ancestral knowledge and cultural practices, launched a hydro social model as community construction, which included the construction of works to collect rainwater, gravitation and soil quality, studies to the speed in the movement of water and its beneficial irradiation in the soil.

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 The United States of Mexico has expressed as a principle of its government that: "For the good of all, first the poor, the humblest and the forgotten, especially the indigenous peoples of Mexico."

Thus, within the framework of a new relationship between the Mexican State and indigenous peoples, a presidential decree was issued in November 2021 that declared the right of indigenous peoples and communities to sustainably manage the waters they have in their territory, as well as the restoration of the hydrological balance, granting them the right to have a concession title and community regulations.

In this sense, the INPI, which has served as a technical body in the process of the indigenous consultation, in which the communities presented the amparo to modify the Ban decree, considers it necessary to support the activities proposed by COPUDA, within the framework of a horizontal relationship with their communities, helping to guarantee the right to access to water and conservation of its biodiversity.

3) Mixtec town of the municipality of San Miguel El Grande, in the Mixteca region

In the indigenous localities of San Miguel el Grande, there is a lack of public services, particularly drainage networks due to the orography and population dispersion, which makes a conventional system unfeasible, for which they are affected in their human right to health, this having a direct effect on the environment, due to the fact that by not having the infrastructure of this basic service, the inhabitants carry out direct discharges of sewage directly into the subsoil, in turn contaminating the water table and creating sources of infection, due to Therefore, with the implementation of this project in these municipalities, it is intended to avoid contamination of the subsoil and the water table.

Likewise, the inhabitants have organized themselves so that through the local authorities a solution is sought that allows the care of nature in their territory and avoid the contamination that this entails, for which they have expressed their acceptance of this

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type of project and their design and implementation process, execution process, as well as an 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 "tequio" days, which is a type of organization that is used in some indigenous towns of the town to carry out work days of the beneficiaries themselves for the execution of the project works.

~~Oaxaca is the second state with the largest indigenous population in the country, it generates few Greenhouse Gases and contributes to its reduction with its forests and jungles, in addition, the social structure of the indigenous communities in Oaxaca is based on systems of community organization in the municipalities, which are the basis of the territorial division and the political and administrative organization of the federal entities. The foregoing allows the appropriation of actions to adapt to climate change, in collaboration with the INPI, in a participatory horizontal process that is sustainable over time.~~

~~San Luis Potosí has 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, San Luis Potosí occupies the thirteenth place in degree of marginalization in the national context.~~

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.

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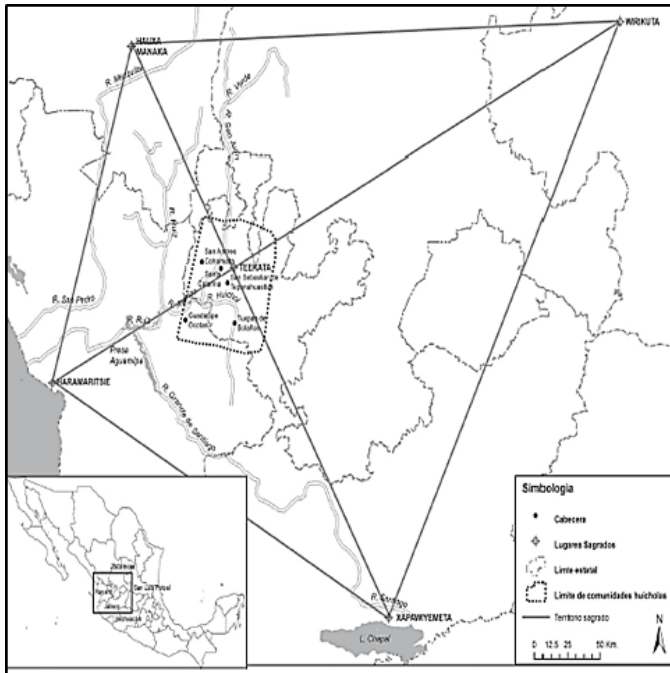
	Population of 3 years and over speaking an indigenous language	Total Population	% illiterate population aged 15 or over	% Population aged 15 or over without basic education	% Occupants in private dwellings without drainage or toilet	% Occupants in private homes without electricity	% Occupants in private 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				Annex 5 to OPG Amended in October 2017							
141543.42	827493.51	42859.03	3	6	8	473344.01	1016808.0	1831072.4	3	-	-
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 cosmivision 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:

Main Objective

Improve the resilience and adaptation to climate change of the Zapotec, Mixtec and Chinantec indigenous communities of Oaxaca, as well as the Wirikuta sacred territory of the Wixárika indigenous people, through participatory processes. Develop jointly with indigenous communities of Oaxaca and San Luis Potosí, processes aimed at guaranteeing their water and food security, in order to help and increase 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.

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

The general objective of the project is aligned with the strategic results framework of the Adaptation Fund, particularly to:

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Outcome 1: Reduced exposure to climate-related hazards and threats

Output 1.1: Risk and vulnerability assessments conducted and updated

Output 1.2: Targeted population groups covered by adequate risk reduction systems

Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level

Output 3.1: Targeted population groups participating in adaptation and risk reduction awareness activities

Output 3.2: Strengthened capacity of national and subnational stakeholders and entities to capture and disseminate knowledge and learning

Outcome 4: Increased adaptive capacity within relevant development sector services and infrastructure assets

Output 4: Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability

Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress

Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability

Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas

Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability

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 \$)

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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	39,221.50
	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	39,221.50
	Water harvesting works	Increased water retention for consumption and agricultural production	73,314.50
3. Microregion, Xniza at Oaxaca Valley	Preparation of an impact study of the rainwater harvesting works	Decision making that strengthens the recovery processes of the aquifer through rainwater harvesting works	9,788.07
	Installation of 4 meteorological stations	4 weather stations in the lower, medium and higher zones.	9,788.07
	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 Desilting of rainwater collection wells	68,516.48

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	Maintenance and desilting in the rainwater collection wells in: Santiago Apostle San Antonino Castillo-Velasco Saint Sebastian		
	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 Tilcajete 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)	78,857.53
	Reforest in the 16 communities	Reforestation and construction of 2 community nurseries in the communities of: El Porvenir Maguey Largo	14,682.10
	Training, regional and community assemblies of COPUDA: Regional 1 per month Community, as necessary.	Training workshops and 24 regional assemblies (2 years)	9,788.07
	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.	7,341.05
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

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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			
7. Total Project/Programme Cost			
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			
Amount of Financing Requested			

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Project / Programme Components and Financing:

Project/Programme Components	Expected Concret Outputs	Expected Outcomes	Amount (US \$)
Component 1. Strengthening of monitoring actions that reduce the vulnerability of indigenous communities to climate change	Output 1.1 Installation of 4 meteorological stations in the Xniza microregion	Outcome 1. Installation of two weather pattern monitoring systems in the Xniza microregion and in the Wirikuta sacred site	9,788.07
	Output 1.2 Installation of the Monitoring System for hydrometeorological patterns in the Wirikuta sacred site		50,000
Component 2. Development of a sustainable model for integrated water management in indigenous communities	Output 2.1 Construction of accessible drinking water networks for the indigenous population in Ixtlán	Outcome 2. Improved resilience and vulnerability of indigenous communities through sustainable water management	40,000
	Output 2.2 Installation of rainwater collection and conduction works and maintenance of water bodies in indigenous municipalities in Ixtlán, Central Valleys and the Wirikuta sacred site		354,476.58
	Output 2.3 Study of reconversion of agroindustry for democratic use of water in the Wirikuta sacred site		25,000
	Output 2.4 Construction of ecological toilets with biodigesters in the municipalities of Ixtlán and the Mixteca Region		240,000
	Output 2.5 Dissemination and awareness of integrated water management in the Central Valleys, and exchange of good practices and knowledge		37,129.12
Component 3: Creation of sustainable agricultural and soil conservation interventions	Output 3.1 Strengthened capacities to maintain crops in Ixtlán	Outcome 3. Establishment of sustainable practices that promote food security and soil recovery	30,000
	Output 3.2 Agricultural production units established in the Etna Valley, in the Central Valleys and irrigation systems for crops in indigenous communities in Ixtlán		79,221.50
	Output 3.3 Seeds and native species conserved in the municipalities of Ixtlán and		30,000

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Valle de Etla, in the Central Valleys	
Output 3.4 Recovered soils and reforested areas in the Etla Valley and Xniza microregion, in the Central Valleys	39,221.50
6. Project/Programme Execution cost	42,067.66
7. Total Project/Programme Cost	976,904.43
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)	83,036.87
Amount of Financing Requested	1,059,941.30

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Projected Calendar:

Milestones	Expected Dates (Two Years)
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.

The adaptation challenges that indigenous communities have faced are the deficiency in the development and implementation of programs and projects against the effects of climate change, the scarcity of monetary resources and the absence of infrastructure to reduce vulnerability to the effects of climate change. climate.

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Climate change is going to negatively influence the quantity and quality of water available worldwide to satisfy a whole series of basic human needs, which will undermine the fundamental right of billions of people to guarantee their human right to drinking water, and sanitation'. Global water use has increased six-fold in the last 100 years and continues to increase at a steady rate of 1% each year due to population growth, economic development and changing consumption patterns.

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Climate change and a more erratic and uncertain supply will aggravate the situation in regions where water is most scarce and create scarcity in regions where water is still abundant today. Physical water scarcity is often seasonal rather than chronic, and climate change is likely to alter seasonal water availability throughout the year in various locations.²

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Component 1. Strengthening of monitoring actions that reduce the vulnerability of indigenous communities to climate change.

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This component considers two activities related to the installation of monitoring systems: meteorological stations in the Xniza micro-region and a monitoring system for hydrometeorological patterns in the Wirikuta sacred site, which will make it possible to identify variations and behaviors of variables such as temperature, air humidity, wind speed and direction, atmospheric pressure, humidity, intensity and accumulation of rain, solar radiation and other meteorological conditions, in order to predict and prevent possible risks, and to have robust information for sound decision-making, which will contribute to strengthening resilience as well as reducing the vulnerability of indigenous communities to the effects of climate change.

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¹ <https://es.unesco.org/themes/water-security/wwap/wwdr/2020#:~:text=El%20cambio%20clim%C3%A1tico%20va%20a,agua%20potable%20y%20el%20saneamiento,>

² United Nations World Water Development Report 2020: Water and Climate Change, Executive Summary

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In the case of the Wirikuta sacred site, the monitoring system will help document the impact of anti-hail technologies in the region, especially its effect on the reduction, removal or eradication of seasonal rains, which would cause lower levels of precipitation and, therefore, less amount of seepage into groundwater. 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 planes³, which has already been observed by Public Human Rights Organizations.

Component 2: Development of a sustainable model for integrated water management in indigenous communities

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Climate change manifests itself, among other things, in the increase in the frequency and magnitude of extreme events, such as heat waves, unprecedented rainfall, storms and storm surges. When climate change impacts water resources and water-related services, they deprive people of their rights to safe drinking water and sanitation; it also threatens their means of livelihood, particularly of the most vulnerable in the world, those of women, men and children, particularly in indigenous communities.

The impacts of climate change on the availability of water resources in space and time disproportionately affect vulnerable populations through its effects on agriculture, fisheries, health and natural disasters. The indigenous communities have been more affected by the scarcity of water, both for daily use and for agriculture, which has also led to soil erosion and desertification caused precisely by water erosion. In this sense, the comprehensive management of water in the indigenous communities of the project includes infrastructure activities, studies and awareness, in order to increase the resilience of indigenous communities in the face of water scarcity and its effects.

In terms of infrastructure, the construction of drinking water networks, the installation of rainwater collection and conduction works, the maintenance of bodies of water, and the construction of ecological toilets with biodigesters are considered.

The construction of drinking water networks ensures access for these communities, offering not only advantages in their physical and mental health, but also impacting other areas such as food security, food production, permanence in the territories, the reduction of forced displacement, etc., without forgetting that everyone has the right to have clean, sufficient, accessible and affordable water.

With the construction of water collection and filtering works with absorption wells, maintenance and desilting in the wells and dams, ~~Through the implementation of absorption wells,~~ it is intended to recover the water that is used for agricultural and

Pronouncement regarding the situation of the human rights of the people who inhabit the sacred territory of Wirikuta³.

in: <http://cedhj.org.mx/recomendaciones/pronunciamientos/2021/Pronunciamiento%20Wirikuta.pdf>

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daily activities, as well as same to ensure the availability of water for future generations, and its construction depends on the type of work: in the case of Valle Centrales, catchment pots without geomembrane and absorption wells will be used. For the collection pots, heavy machinery is required, such as: backhoes, excavators, bulldozers, among others, depending on the type of soil and spelling of the place. For the absorption wells, skilled labor is needed, a manual tool for excavation and stone material (gravel and sand) for filtering and cleaning the water, and concrete rings to give firmness to the excavation, the process that is performed is as follows: a deep well of more than 6 m is dug. Deep (according to the terrain) they are to reach the water table, and a sandbox upstream of the absorption well to prevent it from quickly silting up. The construction and installation of rainwater collection and conduction systems will also have the objective of obtaining water reserves and not further overexploiting aquifers, but rather contributing to their recharge.

With the cConstruction and desilting of water retentions 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.

The construction of ecological toilets with biodigesters will be carried out in Oaxaca, whose climate is within the temperature range required for this component to function properly, it does not require the use of special equipment for use or maintenance, since only it requires hydrated lime which is cheap, easily accessible and a small amount is used every two months.

This type of biodigesters have the capacity to serve a family, so they are designed for that purpose, taking into account the factors of temperature, dimensions, as well as the time necessary for the reaction, so they do not require any type of extra equipment, or chemical cleaners, since only water is used for cleaning and five kilos of lime every two months, so the maintenance cost is very low. The cost of a bundle of lime is 95 pesos (4.75 dls) in the locality, said bundle is good for the beneficiary for one year.

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 like the 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.

It should be noted that projects to recharge the water table can be counterproductive if it is not known what type of water is being injected into the subsoil, which is why it is necessary to carry out a study of the physicochemical properties of the water that

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is intended to infiltrate the subsoil. It is also important to consider the origin of the water that is intended to be injected into the aquifers, that is: If the runoff water passes through contaminated areas or through agricultural areas where fertilizers are used, it is better to decline the idea of carrying out works to collect water.

On the other hand, in the Wirikuta sacred site, a study will be carried out to identify alternatives for reconversion of the region's agribusiness for the democratic use of water, whose purpose is to reverse the overexploitation of the Cedral-Matehuala, Matehuala-Huizache and Vanegas aquifers. Fourteen, mainly due to the increase and hoarding of the water demand of the tomato agro-industries. This will ensure that the water available in the region is not overexploited by agricultural companies and is available to traditional farmers in the region.

Finally, the actions of dissemination, awareness and exchange of good practices seek to contribute to strengthening the capacities of both the participating communities in the comprehensive management of water management, as well as to disseminate good practices that contribute to other initiatives, as well as to mark a precedent of government collaboration, recognizing the self-determination of indigenous peoples and communities in decision-making and carrying out activities in the medium and long term, contributing to the resilience of communities and others in the future.

In particular, it is considered to provide training to residents of the Central Valleys for the use, care and administration of water in development activities, focused on the proper management of ecosystems, and the efficient use of water and other goods that mother earth offers, including the knowledge of the requirement of plants in many other aspects of management of agriculture and ecosystems to make a sustainable and sustainable use of natural assets; as well as a Campaign to inform about the materialization of the Decree that establishes the Regulated Zone of the 2025 aquifer, Central Valleys, as well as the importance of the co-administration of water in the Xnizza region.

Component 3: Creation of sustainable agricultural and soil conservation interventions
Activity 4. Implement technical assistance for agricultural production and strengthen pest management in crops.

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

Throughout the Ixtlán region there is a 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 the recovery of soils, so that by having technical assistance, actions can be taken to improve the methods of planting, care and maintenance of plants or for the preparation of fertilizers that allow the recovery of soils. Throughout the region there

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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.

Likewise, 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 sovereignty of seeds, 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 effects 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.

In addition to this, for the germination of seeds, it is important to know the techniques to guarantee their sprouting and survival until their stage for reforestation, for this reason the processes to combat pests and diseases must also be considered, as well as the nutritional and water requirements of the seedlings.

It is extremely 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.

With the establishment of agricultural production units, through field schools, the aim is to train the communities in the elaboration of organic fertilizers, selection of "Creole" seeds and better agricultural practices, as well as defining the crops to be established to improve the 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.

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. 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.

It should be noted that for these activities it is necessary to prepare 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.

B. Describe how the project/program 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/program will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and the Gender Policy of the Adaptation Fund.

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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.

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In component 1 "Strengthening monitoring actions that reduce the vulnerability of indigenous communities to climate change", the following benefits are considered:

- 1) Document the effects of anti-hail technologies that allow measures to be implemented for their regulation in the medium term.
- 2) Having a monitoring and record of the Weather 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.

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In component 2 "Development of a sustainable model of integrated water management in indigenous communities", the following benefits are considered

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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~~

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~~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) Microrregion 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.~~

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~~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”⁴; 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.~~

7) 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~~

⁴“Pronouncement regarding the situation of the human rights of the people who inhabit the sacred territory of Wirikuta” at <http://cedhi.org.mx/recomendaciones/pronunciamientos/2021/Pronunciamiento%20Wirikuta.pdf>

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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 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

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water availability. According to data from the CONAGUA Water Information System⁵; 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.

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 region⁶:

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

- 1) Guarantee the human right to water, vital for a decent living condition for people, and particularly indigenous women, who are responsible for carrying water for use in the home, thereby generating a direct impact on their quality of life by reducing carrying times, physical problems that this implies and freeing up women's time for other types of activities.
- 2) Managing water resources optimally means investing in the use of modern wastewater treatment techniques such as treatment plants and biodigesters, which can extract methane from organic matter 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 biodigester 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, refrigeration, heating, heat generation or electricity generation. On a large scale, biodigestion can be supplied with the organic fractions of municipal solid waste, forestry and agricultural waste, waste from production processes such as those of the agri-food industry, sludge from sewage treatment plants, among others.

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⁵ <https://sina.conagua.gob.mx/sina/index.php?p=2>

⁶ 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

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- 3) Rainwater harvesting helps 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.
- 4) The component of ecological toilets provides direct benefit to the inhabitants of the locality, since in this type of work the economic flow 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 sources of infection, an improvement in the quality of life is created, and with this basic service the right to health, thus also creating general well-being in the populations of the state of Oaxaca and avoiding social conflicts, which have historically been harmed by the abandonment of previous governments. It should be noted that it is considered that in the hiring of personnel to carry out, women and men are considered equally, as well as to preside over the committees that carry out the control and verification of the fulfillment of the work, it is integrated with women, since the results of the programs where this method has been used have provided positive results.
- 5) 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 hydric stress and guarantee the right to water for the population of the region, as well as avoid the desertification and droughts in the region due to the decrease in the rainy season and the lack of aquifer recharge and, therefore, avoid affecting the economic activities of the peasants

In component 3 "Creation of sustainable agricultural interventions and soil conservation" the following benefits are considered

- 1) Providing technical assistance to stimulate the production of basic foods will help increase yields in agriculture, through constant advice, identifying the producer's vision regarding the main problems that affect him is a fundamental pillar in reducing vulnerability in the sector, agriculture against adverse conditions resulting from climate change.

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- 2) 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 sovereignty of seeds, from which community projects to mitigate environmental degradation and adaptation of peasant agriculture to climate change are derived.
- 3) In the case of the Wirikuta sacred site, peasants in the region will be supported to promote agricultural activity, mainly corn, squash, nopal, alfalfa, fruit trees, citrus and flowers, as well as forestry, local herbalism, ancestral hunting, and livestock activity.

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

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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

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~~the aquifer's water;~~

- ~~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)~~

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~~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.~~

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~~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.~~

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~~The project has three edges, the first is to document the effects of anti-hail technologies that allow measures to be implemented for its~~

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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. 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. 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

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resources and territory:

According to information from datamexico, the total population of Ixtlán de Juárez in 2020 was 8,385 inhabitants, 51.9% women and 48.1% men. The age ranges with the largest population were 5 to 9 years old (876 inhabitants), 10 to 14 years old (858 inhabitants) and 0 to 4 years old (794 inhabitants). Between them they concentrated 30.1% of the total population, the following table shows the population by sex and age range.

Regarding indigenous languages, in Ixtlán de Juárez according to data from the (Extended Population and Housing Census 2020), Chinanteco, Mixe, Mixteco, Nahuatl, Tojolabal, Q'anjob'al, Tsotsil, Mazateco, Tlapaneco are spoken. The population aged 3 years and over who speaks at least one indigenous language was 4.39 k people, which corresponds to 52.4% of the total population of Ixtlán de Juárez.

In 2020, 58.7% of the population was in a situation of moderate poverty and 15.7% in a situation of extreme poverty. The vulnerable population due to social deprivation reached 12.3%, while the vulnerable population due to income was 6.34%.

The main social deprivations in Ixtlán de Juárez in 2020 were lack of access to social security, lack of access to basic services in housing, and lack of quality and housing spaces.

The total population of the 26 municipalities that make up the Zapotecs of Ixtlán (Bene lhei), Zapotecs of Teococuilco de Marcos Pérez and Chinantecs (Tza qmoh) 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.

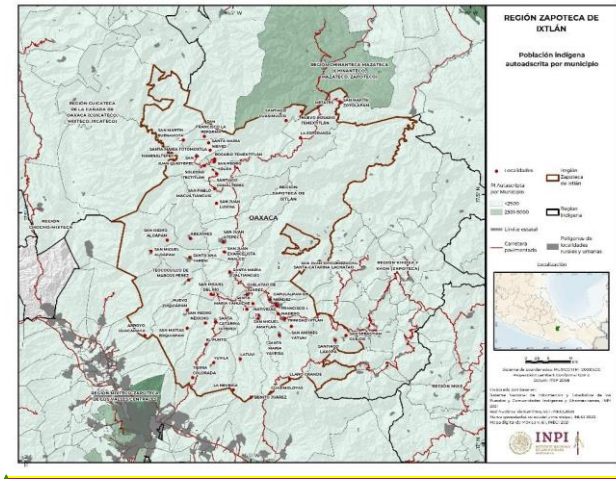
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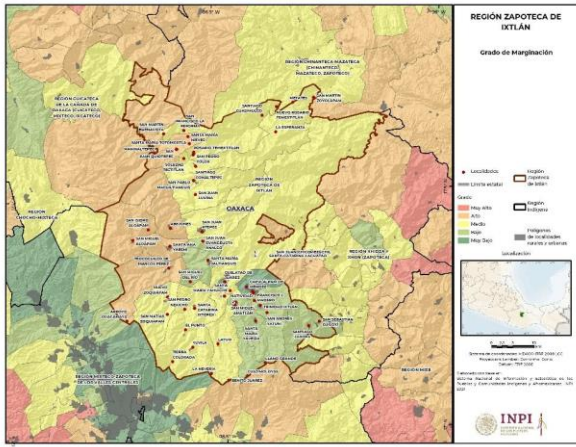


Map of self-ascribed indigenous population by municipality.

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Map of the degree of marginalization of the region and Ixtlán.

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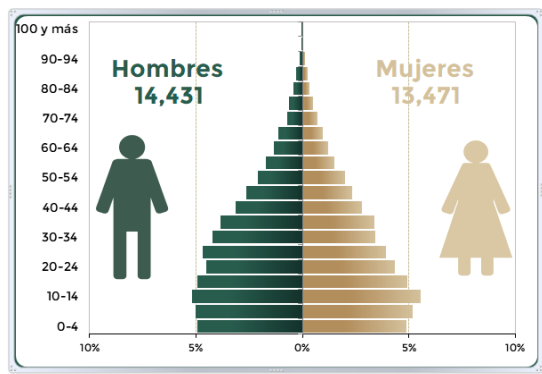
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In the case of Valle Etla de Valles Centrales, Oaxaca, and particularly in Valle de Etla, the initial estimated beneficiaries of the 6 communities are around 28,000 people, of which 48.28% are women. As can be seen in the 2020 population pyramid, 42.13% are people between 15 and 40 years old. 59.7% of the population self-identify as indigenous, from the Mixtec and Zapotec peoples.

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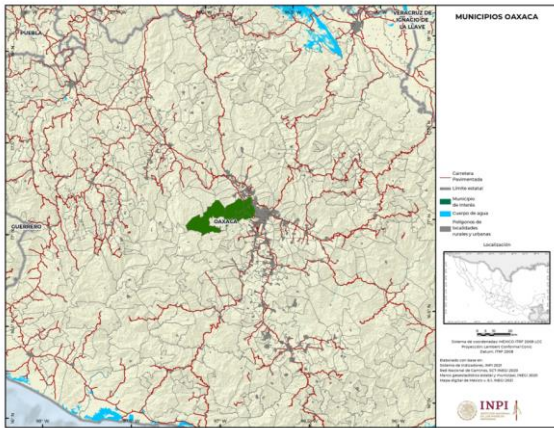
The region is located in the Río Sordo-Yolotepec and Río Atoyac-Tlapacoyan basins, and in the aquifers of Valles Centrales and Jamiltepec.

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In 2020, 43.1% of the population was in a situation of moderate poverty and 7.64% in a situation of extreme poverty. The vulnerable population due to social deprivation reached 28.1%, while the vulnerable population due to income was 7.09%.

The percentage of the population living in poverty was 51.9% and in extreme poverty 18.4%. At the

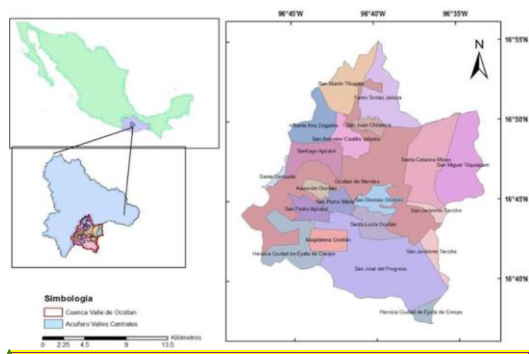
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national level, these indicators are 43.9% and 8.5%, respectively. In Santa María Peñoles these indicators have increased substantially, the percentage of poverty reaching 98.3% and that of extreme poverty reaching 63.2%. Likewise, in San Felipe Tejalápam,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

Soil degradation in more than a third of the area devoted to agricultural activities is presented with 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 project will contribute to the improvement of the governance of the communities, the improvement of soil conditions and the increase of its productivity. In turn, with reforestation, the process to control erosion and facilitate infiltration to recharge aquifers will begin.

In the Xniza microregion, the 16 communities of the Xniza region (Ocotlán, Zimatlán and Ejutla), beneficiaries 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. The beneficiaries of the project would be 6054 people (Men 2908 - Women 3146).



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In the case of the Wirikuta sacred site, the benefits will be extended to the peasant ejidatarios of the municipalities of Catorce, Charcas, Matehuala, Villa de Guadalupe and Villa de La Paz, 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.

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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 make a pilgrimage every year since time immemorial to this territory that they conceive as sacred, since their ancestors and deities dwell there.

Next, the estimated quantification of the beneficiary population around the Wirakita sacred site is established. In the case of the municipalities of Catorce, Charcas, Matehuala, Villa de Guadalupe and Villa de La Paz, the number of ejidatarios and comuneros is taken from the 2007 Ejidal Census of the INEGI and for the Wixárika people, the indigenous population in households is estimated according to the calculation made by the INPI based on the 2020 Population and Housing Census of the INEGI.

■

Municipality/Town	Total beneficiaries	Male beneficiaries	Women beneficiaries
Catorce	2,401	2,155	246
Charcas	2,188	2,033	155
Matehuala	4,336	4,031	305
Villa de Guadalupe	2,097	1,943	154
Villa de La Paz	416	379	37
Pueblo Wixárika	52,426	25,689	26,737
Total	63,854	36,230	27,634

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Regarding the social situation of the beneficiary population, according to information from CONEVAL (2020), in the five municipalities of San Luis Potosí belonging to the Wirikuta region, 42% of the population is in a situation of poverty, 17% have deprivation due to access to health services, 52% lack access to social security, 16% are in a situation of educational backwardness, 16% lack access to basic housing services and 18% have lack of access to nutritious and quality food. For its part, it is estimated that for the Wixárika people, 81% of the population lives in poverty and 48% in extreme poverty, 75% lack access to basic housing services, 81% lack access to access to social security, 41% are in a situation of educational backwardness and 34% lack access to nutritious and quality food. In general, low social development can be perceived for the groups of beneficiaries, however, this is even lower for the indigenous population.

Regarding the economic situation, the main productive activities, both for the ejidatarios of Wirikuta and for the Wixáritari, is the planting of corn, beans, squash and chili, especially rainfed. Another common economic activity is livestock, essentially cattle, sheep and goats. Likewise, within the Wirikuta region there is an important mining and agro-industrial activity that does not correspond to the traditional practices of the peasants and Wixáritari.

Regarding the environmental situation, the territory of Wirikuta presents a macroclimatic regime of tropical type and xeric bioclimate. The average annual rainfall is 404 mm, but in the Sierra de Catorce

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area it reaches 600 mm. In addition, the main runoffs, streams and rivers are Mezquital, Matanzas, El Astillero, Las Pilas, El Mimbres, El Salto, San Antonio, El Vergel and El Jordán. However, the peasants of Wirikuta observe that the rain cycle and the levels of the geohydrological zones have decreased. Also, in Wirikuta there are 6 types of soil: xerosols, regosols, lithosols, rendzina, castanozem and fluvisols. Finally, in relation to fauna and vegetation, a diversity of species is found in this territory, since it is estimated that it concentrates 10% of the birds and mammals registered in the country, there are 526 species of vascular plants, 31 species of threatened flora and 10 plant formations of the territory.

To guarantee an equitable distribution of the benefits among the participating communities, a monitoring committee will be formed made up of representatives of the ejidatarios of Wirikuta and Traditional Authorities of the Wixárika people, who will be in charge of disseminating the information to their respective communities, will look for alternative solutions in unforeseen cases, they will monitor compliance with the progress of the actions and define accountability mechanisms for the beneficiaries. It should be noted that there is already rapprochement, communication and collaboration between the ejidatarios of Wirikuta and the Wixáritari within the framework of the Justice Plan for the Wixárika, Na'ayeri, O'dam and Meshikan Peoples.

~~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.~~

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~~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.~~

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~~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.~~

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~~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 Centrales. 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.~~

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~~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.~~

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~~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~~

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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 María 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, Matchuala, 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.

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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~~

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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.

Similarly, it is aligned with the National Adaptation Policy (NAP) provided for in the LGCC, which aims to guide the implementation of this component through collaborative, multisectoral processes that recognize the broad, complex nature and urgent adaptation. This component broadens its scope of action by integrating transversal elements such as Nature-based Solutions (NbS) and Community-based Adaptation (CbA) approaches; Adaptation based on Ecosystems (EbA); as well as Adaptation based on Disaster Risk Reduction (AbRRD).

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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

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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.

Similarly, it is in line with the national regulatory framework, namely:

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- **Federal Laws:**

- [Law of the National Institute of Indigenous Peoples](#)
- [Federal Law for the Protection of the Cultural Heritage of Indigenous and Afro-Mexican Peoples and Communities](#)
- [General Law of Ecological Balance and Environmental Protection](#)
- [General Climate Change Law](#)
- [National Water Law](#)
- [Electric Industry Law](#)
- [Sustainable Rural Development Law](#)
- [Energy Transition Law](#)
- [Law of Coordinated Regulatory Bodies in Energy Matters](#)
- [Federal Electricity Commission Law](#)

- **State Laws San Luis Potosí**

- [Environmental Law of the State of San Luis Potosí](#)
- [Water Law for the State of San Luis Potosí](#)
- [Climate Change Law for the State of San Luis Potosí](#)
- [Law of Territorial Organization and Urban Development of the State of San Luis Potosí](#)

- **Oaxaca State Laws**

- [Potable Water and Sewage Law for the State of Oaxaca](#)
- [Law of Public Works and Related Services of the State of Oaxaca](#)
- [Territorial Ordering and Urban Development Law for the State of Oaxaca](#)
- [Climate Change Law for the State of Oaxaca](#)

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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.

Official Mexican Standards.

- Official Mexican STANDARD NOM-011-CONAGUA-2015, Conservation of water resources-Which establishes the specifications and the method to determine the average annual availability of national waters.
- OFFICIAL MEXICAN STANDARD NOM-002-SEMARNAT-1996 THAT ESTABLISHES THE MAXIMUM PERMISSIBLE LIMITS OF POLLUTANTS IN WASTEWATER DISCHARGES TO URBAN OR MUNICIPAL SEWAGE SYSTEMS.
- Official Mexican STANDARD NOM-001-CONAGUA-2011, Drinking water systems, home intake and sanitary sewerage-Hermeticity-Specifications and test methods.
- Official Mexican STANDARD NOM-001-CONAGUA-2011, Drinking water systems, home intake and sanitary sewerage-Hermeticity-Specifications and test methods.
- Official Mexican STANDARD NOM-015-CONAGUA-2007, Artificial infiltration of water into aquifers.- Characteristics and specifications of works and water.
- Official Mexican STANDARD NOM-014-CONAGUA-2003, Requirements for the artificial recharge of aquifers with treated wastewater.
- Official Mexican Standard for Threatened and Endangered Plants

Climate Change Plans

- Wirikuta Reserve Management Plan

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Non-binding rules

- NMX-AA-006-SCFI-2010 Water analysis - Determination of floating matter in wastewater and treated wastewater.
- NMX-AA-007-SCFI-2013 Water analysis – Temperature measurement in natural, residual and treated residual waters
- NMX-AA-008-SCFI-2016 Water analysis - pH measurement in natural, residual and treated residual waters
- NMX-AA-012-SCFI-2001 Water analysis - Determination of dissolved oxygen in natural, residual and treated residual waters.
- NMX-AA-014-1980 Receiving bodies - Sampling
- NMX-AA-017-1980 Water - Determination of color.

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FH. 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.

Output 2.5 includes the dissemination and awareness of comprehensive water management in the Central Valleys, and the exchange of good practices and knowledge.

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The first activity of said output is to carry out dissemination and awareness campaigns to inform about obligations and rights related to community water administration based on the Decree of the regulated zone of the aquifer 2025 of the Central Valleys of the State of Oaxaca, as well as the importance of the co-administration of water in the Xhiza region, with an intercultural and gender perspective. The results of this campaign will help to establish other participatory processes with other indigenous peoples around the co-management of water.

In the same way, considering the components of the project, it is considered to compile its results for its socialization, in order to identify the advantages and challenges of the installation of climatological monitoring systems; share the results of the physical infrastructure and training considered in component 2 related to integrated water management.

The above will be done with the compilation of minutes, agreements, progress and reports of the components, which will be socialized to other dependencies, particularly those that have the powers to carry out processes that replicate the good experiences.

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~~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 arrangements⁷, 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.~~

II. 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.

~~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.~~

⁷ 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.

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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. This is how it has carried out these processes of participatory dialogue, considering the complexity and diversity of the 68 indigenous peoples in the country, which although they are associated with 68 linguistic groups, there are 364 dialect variants, coupled with the geographical location of said communities.

Currently, the 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 the exercise of their right to free determination, with community participatory planning of indigenous 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 state, municipal and community authorities. It should be noted that the consultative process and the preparation of said documents take several months, so not all justice plans have a final document, since they are in constant process, and even, when having a final document, proceed to the monitoring of actions and agreements, coordinated by the INPI with other dependencies.

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 Your rights; the access to the justice; the use and conservation of their lands, territories, natural resources, biodiversity and environment; support for its strategic economic and productive activities, the construction of roads and infrastructure for basic services, community infrastructure and the strengthening of its cultural heritage, within a framework of respect for its self-determination, autonomy and forms of organization, for which it exists relationship with indigenous peoples by virtue of the work of INPI within the framework of PROBIPI, which also has participation mechanisms

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

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peoples, from their own forms of organization and culture, which are specified in agreements or constructive arrangements⁸, 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.

The inclusion of the Ixtlán region in the project responds to its proposals in the "Development Plan for the Zapotec and Chinanteco Peoples of the District of Ixtlán, Oaxaca" of the indigenous communities that are members of ULADI, a document that is still under construction.

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 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

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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 Macuiltianguis, 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.

[The inclusion of the indigenous communities of the Etna Valley in the Central Valleys responds to the repeated request of these communities to address the problems arising from climate change in their region, and the inclusion of the communities of the Xniza microregion in the Central Valleys responds to the COPUDA's central approach around undertaking the co-administration of the community organization as well as the enjoyment of water for its cultural, social and environmental development.](#)

2) Valle Etna de Valles Centrales, Oaxaca

[In Valle Etna of Central Valley](#) 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.

Their 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

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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.

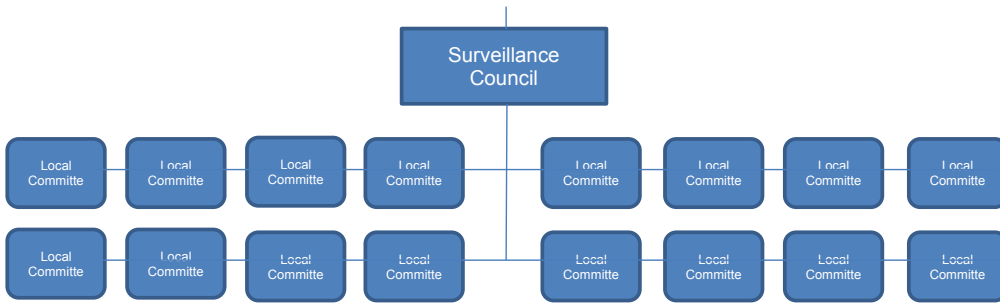
In this sense, as Coordinator of United Peoples for the Care and Defense of Water (COPUDA) it is made up of representatives of 16 communities from the micro-region called Xnizaa, ~~these communities are:~~

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

Boards of
Directors

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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 municipality included in the Mixteca region derives from the meetings with the INPI, with the local authorities, council meetings and general assemblies have been held with the inhabitants of each locality, where the particular needs have been exposed and once they have been. Once these consensuses and approvals have been completed, the authorities request support from the National Institute of Indigenous Peoples.

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

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gender policy, because it will promote the participation of indigenous woman in the project.

Finally, the Wirikuta sacred site responds to the approaches of traditional authorities within the framework of the Justice Plan of the Wixárika, Na'ayeri, O'dam and Meshikan Peoples, for its elaboration, the most felt problems of each People were analyzed through participatory diagnoses, whose main source was the celebration of three General Assemblies of Authorities (Traditional Governors and Agrarian Authorities) and two technical meetings for the construction of agreements with indigenous representatives and public servants of the Government of Mexico.

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 Mezquitic, 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.

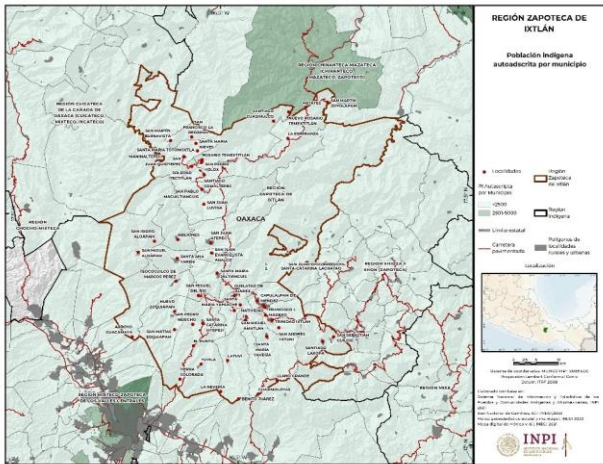
It will work according to CR14 and CR24

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~~

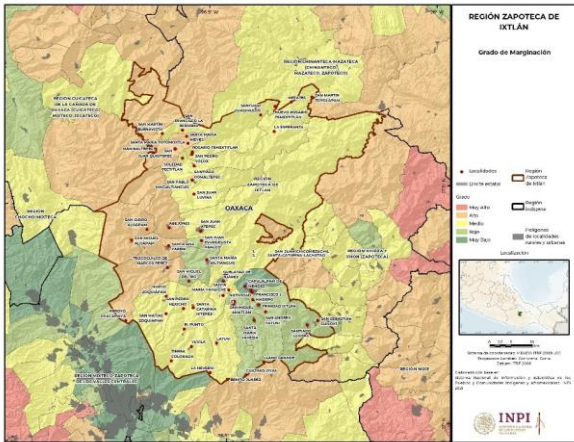
“bene lhej” variant and one Chinantec “Tza-gmoh”.

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, 19 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

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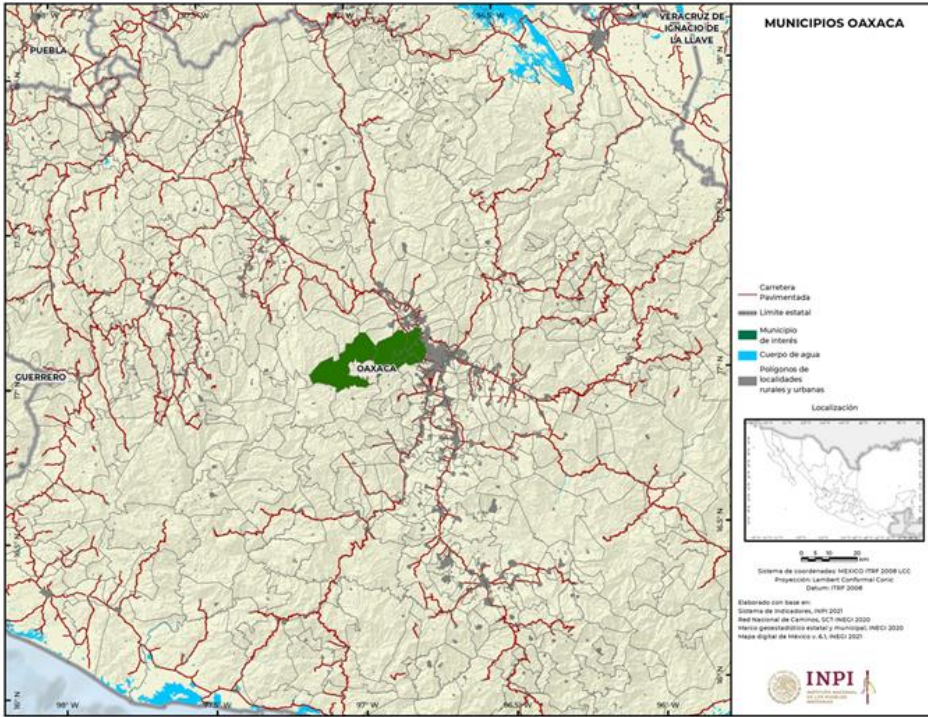
Map of the degree of marginalization of the region and Ixtlán

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.

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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 Autoadsrita	Porcentaje de población indígena autoadsrita	Porcentaje de población afroamericana	Porcentaje de población indígena en hogares		
San Andrés Ixtlahuaca	1,688	1,268	75.1	0.2	29.7	Mixteco	Mixteco
San Felipe Tejaláspam	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	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

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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>

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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.

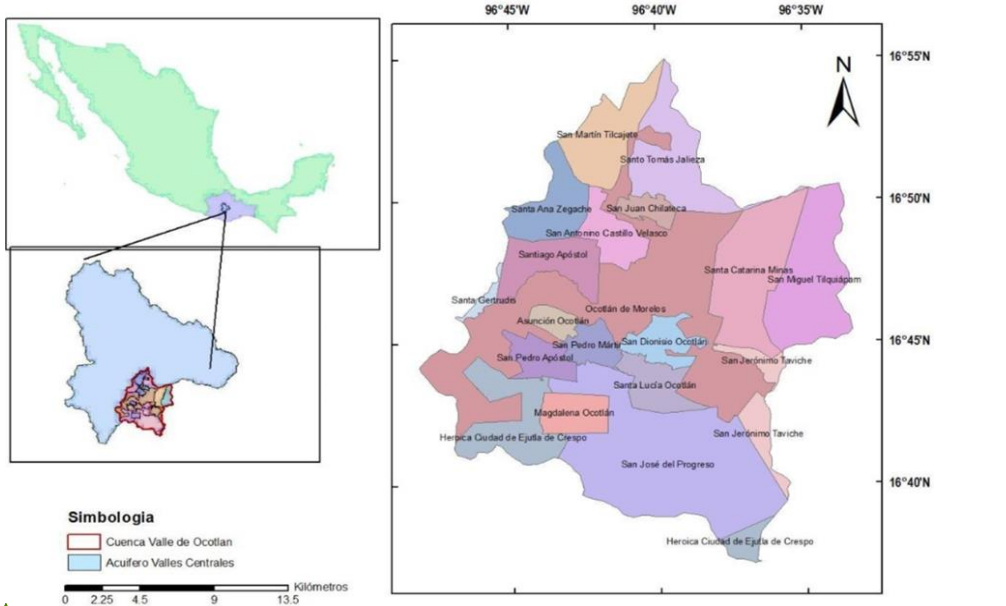
With more than 500 rainwater harvesting works that COPUDA has carried out in the Ocotlán-Zimatlán valley, the communities have shown that they are capable of counteracting complex processes such as drought, carrying out works with their own resources and tequio. Among the works carried out are: Water 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

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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

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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:

Gatorce

-

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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.

Matchuala

The total population of Matchuala 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 Matchuala. 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 Matchuala 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).

Matchuala'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

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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 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.

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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.

[This project is in category B.](#)

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

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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

Annex 5 to OPG Amended in October 2017

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

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.

<p>Laura Elisa Aguirre Téllez Director General Secretariat of Finance and Public Credit (Unit of Public Credit)</p>	<p>Date: 8th August 2022</p>
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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

<p>Date: 8th August 2022</p>	<p>+52 777 329 3600 direccion_general@tlaloc.imta.mx</p>
<p>Project contact person: Saúl Vicente Vázquez International Affairs Director</p>	
<p>Email: ainternacionales@inpi.gob.mx Telephone: +52 91832100</p>	

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.



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



ADAPTATION FUND



IMTA
INSTITUTO MEXICANO
DE TECNOLOGÍA
DEL AGUA

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, stylized loop followed by a horizontal line with a small crossbar.

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