

JILAMITO HYDROELECTRIC PROJECT SOCIAL BASE LINE SUMMARY EXECUTIVE

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Table of Content

۱.	ADN	/INISTRATION1
	1.1 Pre	esentation1
	1.2 Bri	ef Description of the Jilamito Hydroelectric Project2
	1.3 So	cial Base Line
		scription and Determination of the Area of Influence of the Jilamito Hydroelectric Project.
	1.5 De	scription of the Methodological Process Used for the Communities Census
	1.6 Me	ethodology Implemented6
	1.7 So	cial and Economic Indicators of the Study9
	1.8 Fra	mework
	Hist	orical Background of the Municipality of Arizona16
	Ariz	ona Mayors
	Clas	sification of the Communities According to Municipal Zoning
	Terr	itorial extension of the Municipality of Arizona 21
	Geo	graphic Location
	Phy.	sical characteristics:
	1.9 Ch	aracterization of the Project Area23
	Geo	graphic Location:
2.	RESUL	TS BY ITEMS OF THE SOCIAL BASE LINE
	SAN	RAFAEL HAMLET
	CON	/MUNITY OF JILAMITO VIEJO:
	CON	/MUNITY OF JILAMITO NUEVO:
	CON	/MUNITY OF HILAMO NUEVO:
	CON	/MUNITY OF MEZAPITA
	2.1	DEMOGRAPHICS
	2.2	EDUCATION
	2.3	INFRASTRUCTURE
	2.4.	LIVELIHOODS:
	2.5	LAND USE AND TENURE:
	2.6	TOURISM, LEISURE AND RECREATION



2	2.7	PUBLIC HEALTH	. 40
2	2.8	ECOSYSTEM SERVICES:	. 42
2	2.9.	GENDER RELATIONS	. 44
2	2.10	VULNERABLE GROUPS	. 45
3.	GEI	NERAL SUMMARY OF THE RESULTS OF SOCIAL BASE LINE:	. 48
4.	SOC	CIALIZATION PROCESS:	. 62
		ESCRIPTION OF THE METHODOLOGICAL PROCESS USED FOR THE SOCIALIZATION OF TH ITO HYDROELECTRIC PROJECT	
	INI	FIAL PHASE: MEETING WITH LEADERS OF THE COMMUNITIES	. 62
	INT	ERMEDIATE PHASE: VISITS OF LOCAL AND REGIONAL AUTHORITIES	. 62
	CO	MMUNITY MEETINGS	. 63
	ME	ETINGS WITH COOPERATIVE CALIJINUL	. 64
	ME	ETINGS WITH REGIONAL AUTHORITIES OF DIFFERENT ORGANIZATIONS	. 64
	НО	USE-TO-HOUSE SOCIALIZATION CAMPAIGN	. 64
	CO	MMUNITY INFORMATIONAL LECTURES	. 65
	EDI	JCATIONAL TOURS AT A NEAR HYDROELECTRIC POWER PLANT	. 66
	TO	NN HALL MEETING	. 66
	REC	ENT ACTIONS UNDERTAKEN	. 67
	USE	OF DISCLOSURE MEDIA	. 68
5. PRO		CIAL IMPACTS MATRIX OF THE SOCIAL BASE LINE FOR THE JILAMITO HYDROELECTRIC	. 69
6.	MI	TIGATION MEASURES:	. 72
7.	ACł	HEVEMENTS OBTAINED:	. 74
8.	CO	NCLUSIONS:	. 74
9.	AN	NEX	. 75
ŀ	NNE	X No. 1: Community Socialization History	. 75
A	NNE	X No. 2: Community Census	. 75



I. ADMINISTRATION

1.1 Presentation

INGELSA is a company that is developing, since 2006, a hydroelectric power project in the community of Jilamito, Department of Atlántida, in the northern region of Honduras, which included at that time, among others, the technical studies and legal permits necessary to carry out the construction and its subsequent commercial operation of the plant.

As part of its Environmental and Social Action Plan (ESAP), a Social Baseline was carried out, which aims to determine how the Jilamito Hydroelectric Project (the project) would improve the quality of life of the communities directly impacted by the project, identify the current community problems in a broad participative way, prioritize, budget and manage the resources available to mitigate such needs through a Participatory Community Development plan for each community (*PDC for its acronym in Spanish*).

Gather the data for mapping the different actors in the area of influence of the project, their social context and social risks, existing organizations or institutions involved with the community, including data on education, health, safety and infrastructure that becomes the social baseline. In the particular case of agroforestry cooperatives, collect information from primary sources, identify, and characterize sustainable socio-economic uses of site-specific forest products.

INGELSA considers of the highest importance to establish, maintain, and nurture good and strong relationships with the communities in the area of influence throughout the life of the project, relationships that began with the initial phase of the pre-feasibility studies.

The socialization of the project includes giving access to technical information of the project to the communities. This process allows them to understand the project's characteristics, its benefits, answer any questions and address concerns that may arise.

In addition, this document presents a detailed description of the socialization process of the Jilamito Hydroelectric Project, which started in 2006 by SEMSA (*Sociedad Eléctrica Mesoamericana S.A. a sister company owned by the same developers of INGELSA*); in 2013 this socialization work was continued by INGELSA. The detailed description of the socialization process at the end of this document elaborates on the different meetings, lectures, training, tours, which are documented trough photographs, and attendance records in Annex 1



1.2 Brief Description of the Jilamito Hydroelectric Project

The Jilamito River is approximately 33 km (in a straight line) from the southwest of the port of Tela, department of Atlántida, Republic of Honduras. The project is located in the municipality of Arizona, department of Atlántida, Republic of Honduras and its access is by the CA-13 Road from San Pedro Sula to La Ceiba, crossing the Lean Bridge, towards the community of Jilamito Viejo and Jilamito Nuevo. The project site is mostly located outside the buffer zone of the Texiguat Wildlife Refuge with only a few of the structures and access road is within the buffer zone. No component of the project is located in the nucleus zone.



Figure No.1: Jilamito Hydroelectric Project location and access to site.

The Project consists of a hydroelectric generating facility with a nominal installed capacity of 14.8 megawatts ("MW") at the metering point comprised of a diversion dam, desander, short tunnel, headrace low pressure pipe, penstock, power house and transmission line connecting to the Honduras national power grid. The Project includes 10.5 km of new transmission line (34.5 kV) from the powerhouse substation to a switching substation in the town of "Lean".



1.3 Social Base Line

The baseline includes the quantitative and qualitative analysis of the five communities directly influenced by the project.

- Jilamito Viejo
- Jilamito Nuevo
- Jilamo Nuevo
- Mezapita
- San Rafael -Hamlet-

All of the five communities are located within the municipality of Arizona, department of Atlántida, with different social contexts, as well as economic structures based either on crop lands, livestock farmers and agroforestry. The communities are represented by local organizations (patronages and potable water board) who usually manage the collective interest of the local neighbors.

The socialization with these communities by INGELSA, involved a set of actions and activities related to education, training and citizen participation, in order to generate an orderly development of their communities through a participatory methodology previously implemented by the government of Japan in Honduras since 2010 through JICA (Japan International Cooperation Agency).

The Social Base Line Objectives are the following:

General Objective:

Prepare the Social Baseline of the communities to be used as a starting reference to monitor the development of the communities, as a consequence of the direct and indirect impacts of the Project.

Specific Objectives:

- Identify the current community problems and areas of needs in the influence area of the project. (direct and indirect communities)
- Identify potential productive business activities that could be developed within the identified communities.
- Set the bases to develop with local neighbors a Participatory Community Development Plan for each community (PDC).
- Identify the social actors and risks context in the area of influence of the project; mapping the existing organizations and institutions that are involved with it.
- Document in a factual way the current social conditions as well as basic infrastructure available to the inhabitants of the communities identified in this report.



1.4 Description and Determination of the Area of Influence of the Jilamito Hydroelectric Project.

In order to determine the communities in the influence area of the Jilamito hydroelectric project, the concept of forest management was employed, such concept states that the minimum area subject to management is the Jilamito watershed, this includes the social, environmental and socioeconomic interactions in the river's basin.

Based on the above criteria, the communities of direct and indirect influence were determined.

Direct Influence Communities according to watershed Jilamito limits:

- ✓ San Rafael Village
- ✓ Jilamito Viejo
- ✓ Jilamito Nuevo
- ✓ Jilamo Nuevo

Indirect Influence Communities according to watershed Jilamito limits:

- ✓ Mezapa
- ✓ El Retiro
- ✓ El Empalme
- ✓ Lean

Special Influence Communities

✓ Mezapita

This Community has a special influence because it provides different goods and services, like a gas station, good road access, housing and small suppliers of hardware, as well as equipment and tools for the construction of the Jilamito Hydroelectric Project.







1.5 Description of the Methodological Process Used for the Communities Census.

The methodology process used for the baseline survey implemented by INGELSA within the communities of direct influence and in the communities of special influence was to systematize the social indicators of the local neighbors including data on, education, health, safety and infrastructure; this data will allow to monitor and document the contribution of the project to the social improvement of such communities.

This systematization should identify and characterize sustainable socio-economic uses of site-specific forest products.

The methodology implemented by INGELSA, has been successfully implemented since 2010 by the Association of Municipalities of Honduras (*AMHON for its acronym in Spanish*) with the technical and financial support of the Japanese Cooperation Agency (JICA).

1.6 Methodology Implemented.

Design and Organization Phase

This phase involves developing all the necessary preparative works to successful carry out the subsequent processes, which include the following:

- Preliminary design of ESAP based indicators.
- Review, analysis, prioritization and preliminary approval of indicators.
- Preparation of the survey for information gathering.
- Validation of the survey at field level and adjustments.
- Computer program design to digitize the results obtained.
- Preparation of the training material for the technical team.
- Technical team training.

Promotion and Induction.

In this phase, the induction process was implemented that included theoretical and practical training, including "learn by doing" method; following the aspects that were considered:

- Agreement on the implementation process of the survey with each Community.
- Selection of community people, with time availability and adequate profile to participate in the survey process.
- Workshops of the process, methodology training with community leaders, who will be responsible for the door-to-door survey (up to 3 persons per community).
- Organization of the community team.
- Preparation of the work plan of the community team.



• Preparation of census map by community.

House to house survey in the communities.

This phase consists in carrying out the survey itself, that is, house-to-house visits in each community, which implies having the logistics and materials ready for each person who would develop this survey; this phase has the following parts:

- Realization of survey
- Supervision and monitoring
- Review of results and quality control
- Re-survey when necessary

Tabulation and Analysis.

The tabulation and analysis phase included the following activities:

- Collection of the information by INGELSA technicians
- Coding of the information
- Tabulation of the data
- Issuance and review of results
- Analysis of the results
- Report preparation (first draft)

Validation, Socialize, Edit and Transfer of the results obtained to the Community.

- Validation of the document.
- Socialization of results via Community Assemblies.
- Delivery of the document and database to the community
- Training and follow-up to create the community development plan.

This last phase of the survey will be carried out with the communities when the report has been finalized and approved by all interested parties.



Thematic and Variable Axes.

The social baseline will allow us to begin measuring the impacts from the moment INGELSA start the construction through the operation phase of the project. The Standards of Community Human Development were considered when implementing the Survey.

The following are the Thematic Axes and the variables chosen for the Jilamito Hydroelectric Project:

<u>Themes</u>	Analysis Variables
1. Territorial Planning	Territorial boundaries, water sources, streams and rivers, water producing areas, forest use, location of communication routes, vulnerable areas, land tenure, relevant areas of specific use, basic services,
2. Health and Nutrition	Incidence of diseases, non-married maternal rate, healthcare access, delivery child.
3. Education	School-age children, children currently study by level, children attending or taking a grade, children study now, children not studying.
4. Natural Resources and Environment	Use of firewood for cooking, products forest use.
5. Vulnerable Groups	Children, Youth, Women, Senior Citizens.
6.Housing	Tenure, overcrowding, bathrooms, latrines, families per household, household problems, household construction materials, energy for cooking.
7. Water and Sanitation	Coverage and quality of water service, garbage disposal, street cleaning, waste disposal.
8. Economy	Production, distribution, consumption, employment, income, access to financing, migration, remittances, produce for sale, professions, occupations.
9. Food Security	income by community, crop production food, self- consumption.
10.Land	Access to land, land tenure.
11. Gender Participation	Men or Women, citizen participation by gender.
12. Citizen Security	Violence, robberies, homicides.
13. Social Infrastructure	Road, electricity,kindergardens, schools, health centers, community centers.



14. Tourism	Attractio

ttractions, recreation, infrastructure.

1.7 Social and Economic Indicators of the Study

The social and economic indicators used in the baseline will allow us to measure and determine the fulfillment of the social objectives set forth for the Jilamito Hydroelectric Project, as well as to monitor and document the impacts and effects achieved over time.

General characteristic of the indicators to be considered:

- Measurable in time, verifiable and easy to quantify.
- Must involve the local neighbors into their scope and monitoring.
- Be related to the objectives of integral social development.
- Feasibility for interrelation among indicators to measure the effects and impacts of the Jilamito Hydroelectric Project.



SURVEY FORMAT USED TO GATHER THE INFORMATION FOR THE SOCIAL BASE LINE IN THE COMMUNITIES



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4	De 7 a 12 años					1	3	Agua Ilave pública o Pozo			
5	De 13 a 15 años						3	Alcantarillado			2440.00
6	De 16 a 18 años						4	Telefonia Fija (HONDUTEL)			
7	De 19 a 25 años						5	Tefonia cellular movil			13 186 13 200
8	De 26 a 30 años						5	Recolección de basura (ver 43)			
9	De 31 a 40 años						6	Aseo de calles			
10	De 41 a 50 años						7	Energía eléctrica domiciliar	-		Mar She
11	De 51 a 64 años De 65 años y mas										
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SOCIAL BASE LINE JILAMITO HYDROELECTRIC PROJECT



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SOCIAL BASE LINE JILAMITO HYDROELECTRIC PROJECT



Continuacion de cuadro de la pregunta 18

No.	Servicios Públicos	Los r	eciben	Días a la	
		Si	No	ben servicios	
8	Acarrea agua de rio o quebrada				
9	Reservorio de agua lluvia			1223	
10	Inodoro o servicio sanitario			100000	
11	Letrina de fosa simple			10000000000	
12	Letrina de fosa septica			Discourse Street	
13	Usa la letrina			N. States	
14	Alumbrado publico				
15	Mantenimiento de calles				

Demografia

		500	0	Edad	Parentesco	etnia	tiene partida	de nacimiento
n	nombre de la persona	н	м					
I.								
2								
3								
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Seguridad

46. ¡conoce usted casos de violencia intrafamiliar en su comunidad en el último año? (Marcar solo una opción), si contesto "si", anotar ¿cuántos casos? I. [] Si cuantos casos ____ _2.[]No

¿le ha sucedido algún caso de violencia a usted o algún miembro de su familia en el último año? (Marcar solo una opción), si contesto "sí", anotar ¿cuántos casos?
[] Si cuantos casos _______2. [] No

48. ¡que tan seguros considera usted que se encuentra su familia en su barrio o comunidad? I. [] están seguros 2. [] No están seguros Si considera que <u>No están seguros</u> ¡cuál es la razón principal? (Escribe en orden de importancia del I al 6 los que considera más importantes):

I. [] Robo o hurto 2. [] Maras o pandillas 3. [] Venta de Drogas 4. [] Cantinas 5. [] Riñas y discusiones 6. [] Violaciones

Seguridad Alimentaria 49. ¡Qué cultivos sembró y cuanto produjo durante el año pasado? (escribir cantidad en Ouintales y tareas en más de una opción)

	Maiz	Frijol	Palma	Licha	Cacao	Café	otros
Quintal							
Tareas							



50.	áreas	en	tareas	con	Sistema	de	riego	
-----	-------	----	--------	-----	---------	----	-------	--

	Goteo	Aspersión	Ninguno	Otro
Tareas				
51. ¿tiene hu	erto familiar en s	u vivienda?		
I.[]Si	2.[]No			
52. ¿tiene ani	males doméstico	s?		
I.[]Si(Marque la ca	ntidad en la d	casilla cuantos)	2. [] No
	the second s			
Tipo			Cuantos	
Tipo Aves (gallinas	, pavos o jolotes	, patos)	Cuantos	_
		, patos)	Cuantos	
Aves (gallinas Bovinos (bue	yes, vacas)	, patos)	Cuantos	-
Aves (gallinas Bovinos (bue Caprino (ove	yes, vacas)		Cuantos	
Aves (gallinas Bovinos (bue Caprino (ove	yes, vacas) ijas, cabras) allos, mulas, burr		Cuantos	

Fuerza de Trabajo e Ingresos

Apicultura (colmenas) Domésticos (perro, gato)

53. ¿su ocupación actual es cómo?

I. [] Empleado 2. [] Por cuenta propia

54. si contesta que su ocupación actual es empleado, en qué sector está contratado

(Marque solo una opción)

I. [] Comercial 2. [] Industrial 3. [] Servicios 2. [] Agricultura

- 55. Si contesta que su ocupación actual es por cuenta propia a que sector se dedica
- I. [] Comercial 2. [] Industrial 3. [] Servicios 2. [] Agricultura

56. genera empleo en el sector al que se dedica.

I.[]Si 2.[]No

1 a 5	
6 a 10	
11 a 15	
16 a 20	
21 en adelante	

57. En el sector que usted se dedica, existe una organización en la cual usted sea miembro?

I.[]Si 2.[]No

Especifique:

58. ¿Qué instituciones han apoyado al sector productivo al cual usted pertenece? (o sea que programas Proyectos u otros)

١. 2

3





INGELSA support team collecting the information in the communities (survey process).





1.8 Framework

Historical Background of the Municipality of Arizona

Municipality of Arizona was founded on February 14, 1990. Previously it was part of the Municipality of Esparta. It's creation is largely due to the efforts made by the leaders of the area and the strong political pressures of the Atenas de San Cristobal community known as Kilometer 17 for wanting to be the head of the municipality, which in the end didn't succeed.

The area had an important period of importance that began in the late 19th century and until the mid-twentieth century, which was in part due to the development and growth of the Tela Railroad Company. The territory of the municipality was part of the company's land, due to its proximity to Tela. Some communities had their origins as old settlements of Campeños (name with which the workers of the banana plantations were known) or others related to such company. This is evident in some local place names, such as "Atenas de San Cristóbal", also known as Km. 17, which used to be a railway station.

During the 70s, with the beginning of the land reform in Honduras, many of the land places that previously belonged to the fruit companies became the property of the organized peasants in the area. The peasants of Arizona, like other beneficiaries of the Agrarian Reform, formed associative companies and cooperatives to produce mainly banana fruit for export. This pattern remained for decades, a period that for many was the golden age of the region, the banana boom attracted emigrants and also prompted the commercial development of the sector.

Livestock was also an important economic activity, developed during this time, although peasant cooperatives didn't become involved with this activity. It's development was rather due to the industrialization of the sector, which expanded the milk market and allowed the development of independent cattlemen during the 90s, thanks in part to a legislative reform that allowed the sale of land that had been awarded through land reform.

Arizona Mayors

During the 25 years of history of the Municipality, there have been five Mayors who have contributed to the development of Arizona.

• José Andrés Martínez Martínez (1990-1994)

Mr. José Andrés Martínez Martínez, was born on November 28, 1943. He was one of the pioneers for the creation of the municipality, because of this the local citizens approved by mutual consent for him to become the first Mayor.



Among the projects that he carried out during his administration, we have: First Cadastral Survey and the Construction of the Municipal Building

• Ramón Tabora Pinto (1994-1997)

Mr. Ramón Tabora Pinto, was born on June 6, 1947, he is the first citizen elected by local voters and the second Mayor in the history of the municipality.

Among the projects that he carried out during his administration, we have: Kiosk in Municipal Park, municipal trails, perimeter fencing in different schools.

• Teonila Funes (1997-1998)

Mrs. Teonila Funes was Acting Mayor for a period of six months due to the resignation of Mr. Ramón Tabora Pinto, becoming the third Mayor of the municipality.

• Víctor Manuel Martínez Santos (1998-2002)

Víctor Manuel Martínez Santos, was born on January 3, 1959 and is the fourth Mayor of Arizona.

Among the projects that he carried out during his administration, we have: A small municipal square court, a pedestrian bridge and connection bridges in urban area.

• Carlos Alfredo Padilla Aquino (2002-2006)

Carlos Alfredo Padilla Aquino, was born on May 2, 1969 he was the fifth Mayor in the municipality.

Among the projects that he developed during his administration, can be named the following: the Community center, Electrification of barrio El Huerto, among others.

• Lic. Adolfo A. Pagoada Saybe (2006-2018)

Mr. Adolfo A. Pagoada Saybe, was born on October 21, 1968, he held the office for three consecutive terms.

It is an endless number of projects that he has been executed, under his administration among which it can mention:



- Electrification Project (La Suiza, Arizona, Jilamito Viejo, Hicaque, Planes de Hicaque, Planes de Tiburon, La Aurora).
- Construction of a Hammock Bridge between Jilamito Nuevo and Jilamito Viejo.
- Connecting bridge (La Aurora, Jilamito, Km. 12, Hicaque, Sizama, urban town, etc.)
- Reconstruction of the Mezapa Health Center.
- Construction of the Central Park (Arizona Municipality)
- Paving streets in Mezapita, Arizona, KM. 17 and Hicaque
- Construction of perimeter fence of the Health Center at KM. 17, Arizona Municipal Cemetery and the Coloradito Community School.
- Construction of the Social Center Km. 17, among others
- Carlos Arnaldo Chacón (2018-2022)

Elected in November of 2017 and receives the mandate of the municipality on January 26, 2018 thus initiating its period of municipal government.



Classification of the Communities According to Municipal Zoning

	LIST OF COMMUNITIES OF ARIZONA					
#	Zone # 1					
1	San Martin					
2	KM 12 and La Leona					
3	Hicaque					
4	Planes de Hicaque					
5	Planes de Tiburones					
6	KM 16					
7	Km 17 o Atenas de San Cristóbal					
8	Sizama					
9	San José de Tiburón					
10	Zanzíbar					
11	Coloradito					
12	San Francisco de Saco					
13	San Francisco del Portillo					



#	Zone # 2
14	Arizona urban town
15	Santa María
16	Dakota and La Pita
17	La Suiza
18	Las piedras
19	El coco

#	Zone # 3
20	Rio chiquito Sur and Barranquilla Sur
21	Puente de lean and El Empalme
22	Jilamo Nuevo
23	Jilamo Viejo (including San Rafael Hamlet)
24	Jilamito Nuevo
25	El Retiro
26	El Astillero



27	Mezapa de Lean
28	Mezapita, los Olivos
30	El Edén
31	Matarras
32	La Aurora
33	Las Lomas o Uluasito
34	Col. Guillen
35	San José de Texiguat

Territorial extension of the Municipality of Arizona

The territorial extension of the municipality of Arizona is 568.77 Km2.

Geographic Location

The municipality is located in the central area of the Department of Atlántida on the north coast of Honduras between the coastal plains of the Caribbean Sea and the foothills of the "Nombre de Dios" mountain range. It is divided into the following three environments: a narrow strip of beach of approximately 17 kilometers, low and flat lands including wetlands and highlands including hills and mountainous areas.

To the North: with the Caribbean Sea of the Antilles. To the South: with the municipality of Yoro, Department of Yoro. To the East: with the municipality of Esparta. To the West: with the municipality of Tela.

Geographically the municipality is located in the coordinates 15°14' north latitude and 87°17' west longitude, the municipal head is the urban town of Arizona located at an elevation of 42 meters above sea level.



Physical characteristics:

• Weather:

In the municipality of Arizona, the tropical rainy climate predominates, which is characterized by abundant rains throughout the year with a marked rainy season from May through February and less rain in the summer time (March to April); the average temperature is from 30 a 35°C.

• Topography:

The Municipality of Arizona has a diverse topography, which includes landscapes with gentle slopes, hills with slopes of between 15 and 65 degrees, and mountain ranges with medium and high levels of slopes, reaching elevations higher than 2,000 meters above sea level. In general, three types of landscapes can be distinguished:

- Alluvial landscape: occupies the lowest part of the flat or gently rolling lands where most of the human settlements and towns are found; different farmer and livestock activities are also located.
- *Hill landscape*: Typical in the middle part of the municipality, with slopes of 30% and 60% and forest rich in diversity of native species.
- Mountain range landscape: Located in the upper part, very far south of the municipality on sloping and hilly slopes greater than 70%, suitable for forest preservation and conservation of biodiversity.
- Hydrography.

The municipality of Arizona is located in one of the largest watersheds of the Atlántida department, the Lean River, which is also made up of the watershed Jilamito, Mezapa, Matarras and Texiguat rivers, as well as innumerable small streams. Also, within the municipality of Arizona there are other rivers: Arizona, Coloradito, Hicaque, and Plátano which constitute the wetlands that belongs to the Punta Izopo National Park.

• Soil.

The taxonomy of the soils of the municipality of Arizona are classified as follows:

<u>Tómala Soils</u>: in the mountain region with 40% of the total Arizona municipality area, are shallow well-drained soils, located at altitudes higher than 1,200 meters above sea level, with steep slopes of at least 60%, covered by dense broad-leaved forests, proper of semi-clouded forest. Suitable for the establishment of forest plantations and permanent crops; they are found between the communities of Jilamo, Jilamito Nuevo



and Viejo, Suyapa de Lean or Matarras and Mezapa next to the Texiguat Wildlife Reserve.

Beach Sand Soils: in the coastal plain represent 9% of the total Arizona municipality area.

Valley Soils found in the middle part of the municipality lands which represent 14% of the total Arizona municipality area. This type of sandy and loamy clay soils are used to produce rambutan, citrus, jalapeno, palm oil and other crops; located in the communities of Arizona, Nuevo Jilamo, San Francisco de Saco and Atenas de San Cristóbal or Km 17.

<u>Alluvial soils</u>: located in the middle part with 25% of the total Arizona municipality area, those are fine and drained texture soils, frequent in the alluvial plains and especially in the coastal area of the lower part of the valley in the proximity of the Lean River and the Punta Izopo National Park.

<u>Toyos Soils</u>: found in the middle part with 12% of the total Arizona municipality area, these are deep, well-drained soils, located at latitudes below 500 meters above sea level on the right bank of Lean River towards the west of the municipality between the communities of Santa María and El Coco with steep moderate slopes of 20% to 40% and are covered by dense broad-leaved forests and subsistence crops and intensive farming, are suitable for the establishment of permanent crops, forest plantations and agroforestry.

1.9 Characterization of the Project Area

Geographic Location:

The communities are located in the northern region of the country, in the department of Atlántida, specifically in the municipality of Arizona; none of these communities have their origin related to or based on ethnic groups.

The communities were formed by settlers who came from the interior of the country starting in the 50's until the 70's.







These three communities represent territorially 4,215.79 hectares equivalents to 7.41% of the Arizona Municipality total territory.

Community	Total Community (m ²)	Community Influence Area in the Jilamito basin (m ²)	Community Influence Area in the basin (Hectares)
Hilamo	5,084,288.63	885,796.92	88.58
Jilamito Viejo	21,163,568.36	20,528,661.31	2,052.87
Jilamito Nuevo	21,396,222.56	20,754,335.88	2,074.34
total	47,644,079.55	42,168,794.11	4,215.79

Note: Mezapita doesn't appears on the table above cause represent a special community (it's a non-direct community of the influence of the Jilamito Hydroelectic project), as well, san Rafael Hamlet.



2. RESULTS BY ITEMS OF THE SOCIAL BASE LINE

SAN RAFAEL HAMLET.

The small community of San Rafael is a hamlet that belongs to the Jilamito Viejo community which was founded in the 70's. It is located at the foot hills of the "Nombre de Dios" mountain range. This hamlet represents an access point to the Texiguat Wildlife Refuge and the "Liberación" site. This community was formed by people who came from other places of the interior of the country, when the jobs began to flourish in the banana plantations with the Tela Railroad Company. At first, it was the arrival of Mr. Rafael Rosales and family, who settled in the proximity of the Jilamito River, later the Portillo Gallegos family arrived, then the Del Cid family, the Sorto family, and the Ramirez family which are all the current neighbors of the hamlet.

Due to the immediate proximity to the Jilamito Hydroelectric Project and the importance it has for the Jilamito Hydroelectric Project, it received special attention during the Social Base Line Survey Process.

This hamlet doesn't belong to any ethnic group, and there are no archeological, religious or linguistic patrimonies to preserve.

They don't have a patronage for improvement, however some of its residents are part of the patronage for improvement of the village of Jilamito Viejo where they hold representation; within the existing organizations in the community of Jilamito Viejo there is a parents teacher association in the Carlos Alfredo Padilla School located 3 km from the community of San Rafael; 50% of the people of this community attend the Catholic Church and the other 50% the Evangelical Church, they do not have a Water Board because of their location and proximity to the mountain each house has its own water source that meets the needs in each home.

COMMUNITY OF JILAMITO VIEJO:

The community of Jilamito Viejo was founded in the 60's with the arrival of the first settlers from the departments of Copan and Lempira to explore land that were previously virgin. In 1974, the community suffered a catastrophe caused by the hurricane "FIFI", causing flooding of the Jilamito River which caused human losses, as it destroyed fourteen houses, the church, the school, and other parts of the community. The hurricane caused the mobilization of the neighbors to a higher ground; thus, the old village adopted the name of Jilamito Viejo, after this event it was known as Jilamito, and



before then it was called Jilamo. The Galdámez and the Vásquez family are known among the first settlers.

This community has a patronage who represent the community of Jilamito Viejo; within the existing organizations in the community there is the Parent Association of the "Leopoldo Aguilar School" and also the "Bertha Rosa Polanco Children's Garden" and a Water Drinking Board; 60% of the people of this community attend the Evangelical Church that is located 1 km away in the community of Jilamito Nuevo and the other 40% remaining to the Catholic Church.

This community doesn't belong to any ethnic group, or archaeological or linguistic heritage. The community was built by people who came from different places of the interior of the country when work opportunities opened in livestock and agriculture.

COMMUNITY OF JILAMITO NUEVO:

The community of Jilamito Nuevo was founded in the 1970's with the arrival of the first inhabitants of the department of Lempira to explore the lands that were previously virgin. In 1974, and like the other communities in the area, it suffered the catastrophic events caused by the hurricane FIFI. The hurricane also caused the migration of the neighbors to higher grounds, which is now known as Jilamito Nuevo. The Santos and Matutes family are known among the first settlers.

This community does not belong to any ethnic group, or archaeological or linguistic heritage. It is made up of people who came from other places of the interior of the country when work opportunities opened in livestock and agriculture.

This community has a "Pro-Improvement Patronage" who represent the community of Jilamito Nuevo; within the existing organizations in the community are the Association of Parents of the "Ibrahim Gamero Idiaquez School" and the parents association of "Eudolfo Cristino Portillo kindergarten" and a Water Drinking Board, they also have an organization dedicated to forest management whose name is "Cooperative Agroforestry Liberación Jilamito Nuevo Limitada".

Twenty five percent (25%) of the people of this community assist to the Evangelical Church, thirty five percent (35%) assist to the Prince of Peace Church, and forty percent (40%) assist to the Catholic Church.

The community has a drinking water watershed that supplies all of the daily need to 120 homes and it's located 1.5 km from the community. It also supplies clean water to the communities of Jilamo Nuevo, El Empalme and Lean. The Water Board is responsible for chlorinating the water to make it drinkable.



COMMUNITY OF HILAMO NUEVO:

The community of Hilamo Nuevo is located 8 km from the municipality of Arizona and 3 km from the deviation of Lean on the highway CA-13 that connects Tela with La Ceiba; the community was founded in the 1950's with the arrival of families who settled nearby of the Jilamito River confluence with the Mezapa River or "Locomapa" as it was called at that time; later, more families came from the interior of the country to settle there.

This community has a patronage; within the existing organizations in the community there is a Parent Association in the "Manuel Bonilla Basic Center" located in the community. The community has a Water Board that manages the water supply system, the source of the water is a secondary tributary stream of the Jilamito River called "La Cristalina".

60% of the people in this community assist to Catholic Church and the other 40% to the Evangelical Church.

This community doesn't belong to any ethnic group, there are no archaeological, religious or linguistic patrimonies to preserve. The community is formed by people who came from other parts of the interior of the country when job opportunities in the banana plantations opened with the Tela Railroad Company.

COMMUNITY OF MEZAPITA

The community of Mezapita was founded in the 1950's with the arrival of the first settlers from the Republic of El Salvador who arrived running away from the war between El Salvador and Guatemala, they settle down on this area where it was virgin and mountainous. In 1954, Mr. Marcelino Garcia arrived to buy land from the Salvadorans and that same year, Mr. Ernesto Banegas arrived with the same purpose. They began to build the community, constructing houses that were once farmhouses; the FIFI hurricane in 1974 produced the mobilization of the community of Mezapa to a higher ground, given the name of Mezapita, being the first settlers the Portillo family, Garcia's family, Arita's, and Reyes family.

This community doesn't belong to any ethnic group, there are no archaeological, religious or linguistic patrimonies to be preserved.

This community has a very belligerent and dynamic patronage. The community of Mezapita is one of the communities with the strongest economies in the area and it's one of the most organized and prominent communities of the Municipality of Arizona.

People are very proactive to improve their own community. They have a very active Water Board that manages the water distribution and storage system that supplies the water needs of the people, including the chlorination of the water to make it drinkable. Their water source is call "Flor del Valle" stream.



Fifty percent (50%) of the people of this community assist to the Catholic Church, the other fifty percent (50%) goes to the Evangelical Church which has several denominations.

2.1 **DEMOGRAPHICS**

Demographics aspects found in the communities of direct influence and in the communities of special influence for the Social Base Line Census of the Jilamito Hydroelectric Project.

	Population	Households
Communities	(2018 Census)	(2018 Census)
Jilamito Nuevo	511	112
Jilamito Viejo	181	37
San Rafael	37	9
Jilamo Nuevo	673	75
Mezapita	1643	390
TOTALS	3,045	623

Table 1 "Population and Households per Communities"



Communities	Children between 0-12 years old		Young people between 13-23 years old		betv 24-a 50	ults veen 0 years Id	Elder´s > 50 years old and more		Population
	F	М	F	М	F	м	F	М	
Jilamito Nuevo	89	78	59	63	83	80	27	32	511
Jilamito Viejo	30	27	24	25	29	27	9	10	181
San Rafael	4	5	4	4	7	8	2	3	37
Jilamo Nuevo	87	106	95	76	117	100	46	46	673
Mezapita	212	278	185	173	305	260	119	111	1,643
TOTALS	422	494	367	341	541	475	203	202	3,045

Table 2: "Demographics by Age per community"

Note: The total of the people that have been identified in the social base line census is 3,045. The total of households censed was 623 of the 733 household's founded in the survey process. The difference (110 households) were empty and the owner's did not respond.

2.2 EDUCATION

Table 3: "School-age children studying now per gender found in each of the communities."

Community	Children in Elementary Education		Elementary School Education		People in High School Education		People in University Education	
	F	М	F	М	F	М	F	М
Jilamito Nuevo	52	59	13	9	3	4	2	0
Jilamito Viejo	11	16	10	7	1	1	1	0
San Rafael	0	2	1	2	0	0	0	0
Jilamo Nuevo	3	26	7	1	3	2	3	0
Mezapita	121	137	76	79	20	18	5	1
TOTALS	187	240	107	98	27	25	11	1

SOCIAL BASE LINE JILAMITO HYDROELECTRIC PROJECT



- School attendance is limited to the economic resources of parents, young adults have to sacrifice their studies and begin to work at an early age to contribute to their home income. Most children walk to school and few ride motorcycles. Most students (at high school level) in the area are attending the high school "Juan Antonio Pineda institute" located in Mezapa villaje.
- San Rafael Hamlet doesn't have a school within its community limits so children must walk about 3.5 km to attend the school "Carlos Padilla" located in Los Olivos hamlet who belongs to Mezapita Community.
- Children of the Jilamito Nuevo village, walk about 1 km to study at the "Ibrahim Gamero Idiáquez" School located at the community. The school is in good condition. The children from the "Eudolfo Cristino Portillo" kindergarten receive class in the house of teacher Sonia Santos Leiva.

The youngsters who attended basic level education (7th, 8th and 9th grade) take classes in the "Basic Education Center Manuel Bonilla" in the community of Jilamo Nuevo, which also tends to the youngsters of nearby communities; where the infrastructure conditions are good.

- The youngster of Hilamo Nuevo, Jilamito Viejo and Jilamito Nuevo go to High School of the municipality of Arizona. They take 10th, 11th and 12th grade in different education levels.
- The community of Mezapita has the best education infrastructure; there is a preschool center called "Jorge Reyes", a Basic Center called "Rafael Heliodoro Valle" and the students who complete the basic education (first grade to nine grade) enroll in the institute "Juan Antonio Pineda" for their high school studies.
- Professional careers in the area of the communities, register the lowest rates compared with the basic education, because the neighbors of the communities have lows incomes to finance university education which only is available in the big cities.



2.3 **INFRASTRUCTURE**

	Social Infrastructure								
Communities	catholic Church	Evangelic Church	Elementary School	Kinder Garde n	Social Center	Health Center	Local Stadium	High School	
Jilamito Nuevo	1	2	1	1	0	0	1	0	
Jilamito Viejo	0	0	1	1	0	0	0	0	
San Rafael	0	0	0	0	0	0	0	0	
Jilamo Nuevo	1	3	1	1	1	1	1	0	
Mezapita	1	5	1	1	1	0	2	1	
TOTAL	3	10	4	4	2	1	4	1	

Table 4: "Social Infrastructure found in each of the communities."

Table 5: "Condition of the houses found in each of the communities."

Communities	Construction Material of the Houses			House Condition			Types of Toilettes in Each House	
	Cement Brick	Wood	Sun-Dryed Brick (adobe) o bahareque	Good	Bad	Regular	Washable Toilette	Latrine
Jilamito Nuevo	72	29	11	26	14	72	82	21
Jilamito Viejo	14	22	1	9	7	21	21	15
San Rafael	2	7	0	3	1	5	1	8
Jilamo Nuevo	62	13	0	11	11	53	73	2
Mezapita	317	71	2	198	65	127	377	36
TOTAL	467	142	14	247	98	278	554	82

Note: some of people surveyed says, that in their household's have more than one type of toilet.



Communities	Number of Families Living in a House.					
Communities	One family	Two families	Three or More Families			
Jilamito Nuevo	96	10	6			
Jilamito Viejo	21	14	2			
San Rafael	7	2	0			
Jilamo Nuevo	67	6	2			
Mezapita	343	41	6			
TOTAL	534	73	16			

Table 6: "Number of Families per House found in each of the communities."

Table 7: "Access to Water per House found in each of the communities."

Communities	Water Using Hoses (Individual Services)	Water from an Aqueduct	Public Hydrant	Drain System	Water Carrying from a Stream or Creek
Jilamito Nuevo	16	96	0	0	0
Jilamito Viejo	0	36	0	0	1
San Rafael	9	0	0	0	0
Jilamo Nuevo	6	69	0	0	0
Mezapita	19	365	0	0	6
TOTAL	50	566	0	0	7


Communities	Street Cleaning	Street Maintenance	Home with Electric Energy	Street Lighting	Telephone Lines (Hondutel)	Cell Phones Lines
Jilamito Nuevo	0	56	53	72	0	99
Jilamito Viejo	0	0	30	0	0	35
San Rafael	0	0	0	0	0	8
Jilamo Nuevo	2	58	57	62	0	57
Mezapita	30	96	307	291	4	370
TOTAL	32	210	447	425	4	569

Table 8: "Access to Public Services per Household found in each of the communities."

- San Rafael Hamlet is located in the rural foot hills of the mountain range, far away
 from the urban area of the municipality; due to its remote access it receives very
 little attention from the municipal development program. It doesn't have public
 services or electricity access. To get to the community is by foot or mule. Their
 communication system relies on cell phone; their conditions of living are very basic
 but enjoy good access to water sources. This community also has no transportation
 system. The community use several methods of lighting, either gas lamps, candles,
 hand lights or car battery to recharge cell phones.
- The community of Jilamito Viejo and Jilamito Nuevo have a dirt road access to the community; despite this access, these communities are isolated from the municipal development programs. These communities enjoy a bus based private transportation system to travel to Arizona and Tela. The Jilamito Viejo community has limited access to water, which they receive three times a week in the rainy months; however, in the summer months, they can be up to twenty days without water because their water source has already been degraded forcing them to carry water from other places or private wells. Both communities have access to electric energy.
- The community of Hilamo Nuevo is nearby to the municipal urban area; it receives support from the municipal development programs; there are access roads in good conditions through Lean. The community has power lines so all of the homes use



electric energy and have public lighting service. It has a community center, a soccer field, a health center, recreation centers "Los Cocos", as well as Evangelical and Catholic Churches.

• The Mezapita village has a higher level of development than most nearby communities. To reach the community, it uses the secondary road connected to Lean. The community of Mezapita has a very high residential electricity access of the households surveyed (over 78%), as well as public lighting services in the streets of the community. It has a community center, two soccer fields and a roofed court with concrete floor for multiple uses where several community and sporting events are held especially for women's soccer teams. Locals use urban transportation from the community to move either to the municipal capital of Arizona, Tela or La Ceiba.

2.4. LIVELIHOODS:

Communities	People who work the land	Food production for family consumption	Food production for sale
Jilamito Nuevo	45	45	21
Jilamito Viejo	14	6	0
San Rafael	5	5	0
Jilamo Nuevo	30	30	18
Mezapita	69	69	40
TOTAL	163	155	79

Table 9: "Land Production per households founded in each community"



Communities	E.A.P.* I	oy gender		Job types	
	F	М	Private	Public	By their
			Sector	Sector	own
Jilamito Nuevo	30	159	158	6	25
Jilamito Viejo	10	62	62	0	10
San Rafael	1	16	14	0	3
Jilamo Nuevo	26	25	45	2	4
Mezapita	327	385	374	15	53
TOTAL	394	647	653	23	95

Table # 10: "Job distribution per households founded in each community"

*E.A.P. (Economic Active Population)

Communities	Inco	ome Rage by perso	on
	L. 1 to L.4,000	L. 4,000 to L. 12,000	L. 12,000 and more
Jilamito Nuevo	349	112	50
Jilamito Viejo	98	65	18
San Rafael	31	5	1
Jilamo Nuevo	392	276	5
Mezapita	1162	445	36
TOTAL	2,032	903	110



Communities	Total, Income in (L.)
Jilamito Nuevo	621,200.00
Jilamito Viejo	165,400.00
San Rafael	52,200.00
Jilamo Nuevo	496,200.00
Mezapita	2,516,750.00
TOTAL	Lps. 3,851,750

Table # 13: "Professional and crafts Jobs in each community"

Communities		Cra	afts and prof	essional jo	bs	
communities	Laborer	Carpenter's	Bricklayer	Teacher's	Housewife's	Others
Jilamito Nuevo	82	6	4	7	86	103
Jilamito Viejo	51	2	9	0	47	17
San Rafael	7	0	0	0	10	9
Jilamo Nuevo	55	0	2	2	79	76
Mezapita	288	11	23	7	446	513
TOTAL	483	19	38	16	668	718



Communities	Number of	meals a family ha	as in a single day
	One meal / day	Two meal / day	Three meal / day
Jilamito Nuevo	25	43	44
Jilamito Viejo	4	28	5
San Rafael	1	8	0
Jilamo Nuevo	5	20	50
Mezapita	118	197	75
TOTAL	153	296	174

Table # 14: "how many times a family has a meal of food in a single day"

Note: The information obtained for Jilamo Nuevo and Mezapita is from the census house to house in the corresponding community.

			Monthly Cro	op Productio	on	
Communities	CORN (qq)*	BEANS (qq)*	AFRICAN PALM OIL (tons)	COFEE (qq)*	LYCHEE (baskets)*	MILK (liters)
Jilamito Nuevo	379	8	25	90	3,600	900
Jilamito Viejo	50	20	20	20	0	30
San Rafael	100	1	0	8	0	10
Jilamo Nuevo	500	50	100	0	0	900
Mezapita	900	300	1200	20	1,500	25,000
TOTAL	1,929	379	1,345	138	5,100	26,840

Table # 15: "Crop Food production for each community"

Note: 1 Quintal (qq) = 100 pounds. 1 basket= 500 Lychees



		Dome	stic An	imals			ith kitchen dens.
communities	Hens, ducks and turkeys	Cows, sheep's and goats	Dogs and cats	Horses, mules and donkeys	pigs	YES	NO
Jilamito Nuevo	1,625	390	145	41	44	21	82
Jilamito Viejo	652	73	38	18	40	4	32
San Rafael	227	39	27	6	0	1	8
Jilamo Nuevo	210	120	50	21	25	15	60
Mezapita	1,830	515	80	35	169	93	290
TOTAL	4,544	1,137	340	121	278	134	472

Table # 16: "Domestics animals and kitchen gardens found in each community"

- Milk and African palm oil production represent the higher income in the crop production of communities surveyed.
- 66.73% of the population are in the income range of less than L. 4,000/month (US\$ 165), 29.65% of the population are in the income range between L. 4,000 to L.12,000 per month; the rest of the population (3.62%) have an income of more than L. 12,000 per month (US \$ 490).
- Private business and farming provide the most jobs of the surveyed communities. The labors who work in the informal economy represent the second economic force of importance in their communities.
- In most of the households, the incomes per family only allows them to have two meals a day. Domestic animals most found in the households are cows and hens.



2.5 **LAND USE AND TENURE:**

Communities	Land Tenure (Houses)		People who Works in their own	food Production for own	food Production for local	
	Owned Rented Borrowed (agricultur		(agriculture)	consumption	market sale	
Jilamito Nuevo	72	11	29	16	14	7
Jilamito Viejo	35	1	1	7	6	2
San Rafael	7	0	2	7	7	1
Jilamo Nuevo	25	27	23	29	26	13
Mezapita	323	35	32	69	32	7
TOTAL	462	74	87	128	85	30

Table # 17: "Land Tenure found in each community"

Note: 74.16% of the houses are in legal possession by their owners

Table # 18: "Land owners by gender and use of land in each community"

Communities	land owners / gender		
communices	F	М	
Jilamito Nuevo	54	58	
Jilamito Viejo	11	26	
San Rafael	5	4	
Jilamo Nuevo	33	42	
Mezapita	190	200	
TOTAL	293	330	

Note: 47.04% are owned by the female gender.



2.6 TOURISM, LEISURE AND RECREATION

0	TURISTIC INFRASTRUCTURE			
Communities	TURISTIC CENTER	NAME OF THE CENTER		
Jilamito Nuevo	1	Centro Turístico y Hotel Termales Jilamito		
Jilamito Viejo	0	-		
San Rafael	0	-		
Jilamo Nuevo	1	Balneario y Centro Turístico Los Cocos		
Mezapita	1	Balneario la Roca.		
TOTAL	3			

Table 19: "Touristic sites in the communities influence area"

2.7 PUBLIC HEALTH

Table 20: "Most Common	n Diseases in each c	community"
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Communities	Respiratory affections	Dengue		Paludism	Chaga´s disease	Alcoholism
		Classic	Hemorrhagic			
Jilamito Nuevo	52	30	1	0	0	1
Jilamito Viejo	11	6	0	1	0	0
San Rafael	4	1	0	1	0	0
Jilamo Nuevo	5	9	2	0	0	4
Mezapita	89	21	3	2	1	3
TOTAL	161	67	6	4	1	8

Note: Dengue is a mosquito transmission disease.



Communities	Child disability less than 18 years old	Tuberculosis	Cancer	Diarrhea	Skin diseases
Jilamito Nuevo	3	0	1	5	23
Jilamito Viejo	0	0	0	1	0
San Rafael	0	0	0	0	1
Jilamo Nuevo	0	0	1	0	0
Mezapita	4	0	3	12	3
TOTAL	7	0	5	18	27

Table 21: "Other common	diseases in	each community"
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Table 22: "Access type of health assistance by community"

Communities	Public Assistance	Private Assistance
Jilamito Nuevo	102	10
Jilamito Viejo	31	6
San Rafael	9	0
Jilamo Nuevo	72	3
Mezapita	334	56
TOTAL	548	75



Communities	Whom at	Total Child birth		
	Doctor	Midwife	Nurse	
Jilamito Nuevo	28	10	14	52
Jilamito Viejo	12	3	15	30
San Rafael	2	1	2	5
Jilamo Nuevo	5	2	7	14
Mezapita	99	23	32	154
TOTAL	146	39	70	255

2.8 ECOSYSTEM SERVICES:

	Energy used for cooking					
Communities	Electric	Gas (LPG)	Firewood	Kerosene		
Jilamito Nuevo	3	11	97	1		
Jilamito Viejo	0	5	35	2		
San Rafael	0	0	9	0		
Jilamo Nuevo	3	38	33	1		
Mezapita	55	159	316	12		
TOTAL	61	213	490	16		

Note: some of the household's surveyed says that they use a combination of the different types of energy to cook.



Communities	total logs used in a month	Load of log Used by month
Jilamito Nuevo	81,870	1,637.4
Jilamito Viejo	23,100	462
San Rafael	750	15
Jilamo Nuevo	31,320	626.4
Mezapita	171,990	3,439.8
TOTAL	309,030	6,180.6*

Table 25: "Number of logs used as an energy form by community"

Note: This number represent a relation of totals logs divided by 50 (50 logs = 1 load of logs). This information was provided by ICF (Forest Conservation Institute, acronym in Spanish)

Based on information provided by ICF, the quantity of trees consumed per year are 4,000 trees, to attend the demand of logs (firewood) registered by this social base line (6,180 logs/month). It is important to make note that even though a good number of households have access to electricity, many neighbors continue to use products of woods (logs) for cooking their food, because this a cultural tradition of them.

Table 26: "Job activities associated with the forest by community"
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Communities	People who works with wood.	People who make wicker
Jilamito Nuevo	3	0
Jilamito Viejo	2	0
San Rafael	2	2
Jilamo Nuevo	12	0
Mezapita	19	1
TOTAL	28	3



Communities	Trash management			
Communities	Trash burned	Local Garbage dump	Trash Buried	
Jilamito Nuevo	90	10	3	
Jilamito Viejo	33	4	0	
San Rafael	5	4	0	
Jilamo Nuevo	69	6	0	
Mezapita	161	221	1	
TOTAL	358	245	4	

Table 27: "Trash management for each community"

Note: Only Mezapita village has a local garbage truck and dump site, where they do the waste management of their community. Even the bigger towns like Arizona don't have a disposal site like this. It is important to mention that some people surveyed did not answer the question about the trash management.

2.9. **GENDER RELATIONS**

Communities	How many people participate in local organizations?			
	F	М		
Jilamito Nuevo	11	19		
Jilamito Viejo	12	10		
San Rafael	0	0		
Jilamo Nuevo	10	16		
Mezapita	10	18		
TOTAL	43	63		

Table 28: "Citizen Participation in each community"



Communities	Financial Organizations				
	AgroforestLocal CashcooperativesDesk				
Jilamito Nuevo	1	0			
Jilamito Viejo	0	0			
San Rafael	0	0			
Jilamo Nuevo	0	1			
Mezapita	2	1			
TOTAL	3	2			

Table 29: "Local	financial	organizations	in each	communitv"
	j	or game a cromo		

Note: Financial organizations = cooperatives y local cash desk

- Of the Basic organizations identified in the survey, over 40% are represented by female gender.
- The Agroforest cooperatives was created by ICF with the purpose of managing the forest area as a sustainable ecological area and receive the benefits of legal trading of wood products within the communities.

2.10 VULNERABLE GROUPS

Communities	People who migrated (until 2018)			
Jilamito Nuevo	10			
Jilamito Viejo	6			
San Rafael	1			
Jilamo Nuevo	4			

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Mezapita	15
TOTAL	36

Table 31: "Households receiving money as cash remittances from abroad by community"

Communities	Households receiving L.1,000 or more as cash remittances from abroad
Jilamito Nuevo	12
Jilamito Viejo	14
San Rafael	1
Jilamo Nuevo	12
Mezapita	154
TOTAL	193

Table 32: "Vulnerable Groups for each Community"

Communities		n 0-12 rs old	Young People 13 - 23 Years old	Adults 24 - 50 Years old	Adults with 50 years or more (elder´s)		population
	F	М	F	F	F	М	
Jilamito Nuevo	89	78	59	83	27	32	368
Jilamito Viejo	30	27	24	29	9	10	129
San Rafael	4	5	4	7	2	3	25
Jilamo Nuevo	87	106	95	117	46	46	497
Mezapita	212	278	185	305	119	111	1,210
TOTAL	422	494	367	541	203	202	2,229



Communities	Inter family violence cases	Violent cases		how sec	opinion on ure is their nunity?	
		Robbery	Drugs	Threats	yes	No
Jilamito Nuevo	0	0	0	0	112	0
Jilamito Viejo	0	0	0	0	33	4
San Rafael	0	0	0	0	9	0
Jilamo Nuevo	26	0	3	26	26	49
Mezapita	0	0	0	0	340	50
TOTAL	26	0	3	26	520	103

Table 33: "Citizens security, most frequent types of violence in each community"

Note: The source of this information was local police.

• According with local police, the most peaceful communities are Jilamito Nuevo y Viejo, San Rafael Hamlet and Mezapita town and the most violent communities are Jilamo Nuevo, El Retiro and Mezapa.



3. GENERAL SUMMARY OF THE RESULTS OF SOCIAL BASE LINE:

Social indicators adapted to the ESAP requirements of the Jilamito Hydroelectric Project.

<u>Themes</u>	<u>Social Study</u> <u>Variables</u>	Indicator	Current Situation	Measurement Instrument
1. Territorial		Community Social Characteristics	All the communities in the direct influence of the Jilamito Hydroelectric Project were founded between 1950 and 1970.	Local information available from different sources.
Planning	Territorial Limits	Institutional Investment for Development	The institution of each community is the Municipal Corporation of Arizona who cares for the welfare of the communities, the city hall Corporation is representative of the Honduras State locally and therefore responsible for the development and inclusion of local organizations.	Local information available from different sources.
		Municipal Performance	The perception of Municipal perform is quite low since there aren't be able to cover the basic aspects of the citizen's daily life.	Local information available from different sources.
		Institutional Presence	In general terms, the communities are being assisted by government organizations (ICF, UMA), NGOs like (FHIA, PROLANSATE and SOCODEVI) and private companies (SEMSA, INGELSA, Dinant Corporation, Chacon Industry, small hardware stores and business, among others).	Local information available from different sources.
		Civil Society	The Civil Society is represented by the local organizations by each community such as Patronages, Water Boards, Parent Associations, among others.	Local information available from different sources.



	Social Investment	The social investment is connected to develop actions for the improvement of the community services, private companies participate as part of their Corporate Social Responsibility Program. Other investments are state management through the municipalities together with some NGO's.	Local information available from different sources.
Community infrastructure	% of households with Electricity	71.7% of the homes in the direct influence communities have electricity service.	Socioeconomic Survey
	Telephone Service and Internet access	Telephone service and communication is mostly by the cellphone companies TIGO and CLARO. TIGO has more coverage that CLARO company on the region. Most the people use the cellphone service provides by TIGO.	Socioeconomic Survey
	Social Infrastructure	All communities have some type of communal infrastructure such as a soccer fields, or have a multi-sport court.	Simple observation
	Health Infrastructure	All communities in area # 3 of the Arizona Municipality, have two local health centers, one located in Mezapa and the other in Jilamo Nuevo, which serve an average of 120 to 150 people daily from more than 12 communities each. One of this health centers works as big one center where the people can find odontology care and drug store and more, this place is in Arizona city.	Information from primary sources
	Educational Infrastructure	80% of the community has a school and kindergarten to attend children of school age; additionally, in the area there are 3 basic level schools located in Jilamo, Mezapita, Mezapa and a high school located in the community of Mezapa. Just San Rafael Hamlet hasn't a kinder garden and school.	Simple observation
	Productive Infrastructure	The communities surveyed have a productive infrastructure like lychee, oil palm, beans, corn, as well as cattle for milk and meat production.	Socioeconomic Survey





Water sources, rivers and streams Water producing areas		100% of the communities have a proximity to rivers either the Jilamito River, such as the communities of direct influence of Jilamito Nuevo, Jilamito Viejo, San Rafael village and Jilamo Nuevo; each community has its respective Water Board which administers the water distribution and storage systems, the San Rafael village is the only place where each house has its own water supply. (private access clean water)	Socioeconomic Survey.
Forest use	Communities with Access to The Forest Resource	The Communities are organized in agroforestry cooperatives to manage as legal and rational use of the forest products; however, the high incidence of illegal wood traffic prevents the cooperatives from reaching a state of sustainable organization, forcing them to diversify using others activities like crop fruit trees, wood from plantation trees, among others.	Information from primary sources.
Communication channels	Road Access to the communities	100% of the communities use a secondary road access. The road grid in the area needs and gets maintenance with some regularity, one of the communities farthest from the municipal urban area is Jilamito Viejo; the San Rafael village is one of the communities that have no road access.	By observation made at the time of the survey
Vulnerable areas	Perception of vulnerability	The most vulnerable areas are the lower zones, those areas can be flooded, this event can occur in the rainy weather. The vulnerability is medium to low, where the communities have a good natural drainage; In the high zone there are no communities, all the communities are located in the Lean Valley.	Information from primary sources



Basic Services	Water	100% of communities have access to water (by using different types, individual services, aqueducts and carrying water from a stream) According to ICF, the 75% of watershed are under threat by deforestation, this is caused by change of use of land from forest to coffee plantations or grassland. Each community surveyed said that they have a water administration board duly elected and legal recognized by the city hall.	Socioeconomic Survey
	Home electric power	71.7% of the surveyed households have electric power at home. The San Rafael village currently has no power electricity access.	Socioeconomic Survey
	Telephone	Only Mezapita Community has telephone lines (4) access provided by HONDUTEL (<i>Honduran National telephone company</i>)	Socioeconomic Survey
	Cell Phone	100% of the communities use the services of TIGO or CLARO communication companies, so almost the entire population has at least one cell phone.	Socioeconomic Survey
Existing Biodiversity		For the proximity to the Texiguat wildlife reserve, the San Rafael village is the one community whom have the greatest accessibility, they are very near to observe the different species of wild fauna and flora, and species representing a high biodiversity.	Information from primary sources



De	emography	Population	The total population surveyed was 3,045 people in the communities of direct and special influence. The number of registered households is 623 Men represent the 49.65% of the total population. Women represent the 50.3% of the total population.	
		Age Range of the Population	 The children under of 12 years old represent the 30% of the population surveyed. The elders (people over than 50 years old) represents 13.4% of the population surveyed. The people between 13 to 50 years old represent the 56.6% of the total population surveyed. 	Socioeconomic Survey
		Number of people per household	- According to the results of the survey, the average number of people living in a household is 5 people per house	Socioeconomic Survey



<u>Themes</u>	<u>Social Study</u> <u>Variables</u>	Indicator	Current Situation	Measurement Instrument
2. Health and Nutrition	Access to Health Services	% health services Access	87.96% of the communities surveyed have access to the health services of the State (public Assistance). Less than 12.04% can pay for private medical assistance.	Socioeconomic Survey
	Quality of Health Services	% perception of health services access	There is a high perception of the population of the communities surveyed, that the health services of the Honduran State are of very low quality since they do not have the medicines and supplies necessary to give a good service	Socioeconomic Survey
	Reproductive Health	% of birth control use	The most used contraceptive methods are the pill and injection. The use of condoms is very low among the male population, this represent less them 4% of the total population males.	By local health System.
	Single Mothers	% single moms	The total population of women in reproductive age, 12.11% are single Moms.	Socioeconomic Survey
	Number of Children Born During 2017 And 2018	Numbers of child births since 2017 to 2018	The number of births occurring between 2017 and 2018 is 255 newborns among the 5 communities.	Socioeconomic Survey
	Mother's Age	Range of mother Age's	The age of the mothers is between 13 and 50 years of age.	Socioeconomic Survey
	Who Attended the Delivery	% of whom attend the deliveries	Of the attentions of the childbirth it can be said that 15.3% were attended by a midwife, 27.4% attended by a nurse, 57.3% attended by a doctor	Socioeconomic Survey
	Mother's death rate	% of mother's death	In the communities, only one woman died after giving birth, this was in the community of Mezapita, so the level of mortality is very low.	Socioeconomic Survey



Child Mortality	% of child's mortality	A dead newborn child was reported in the community of Jilamito Nuevo, the death rate is very low in the communities.	Socioeconomic Survey
Incidence of Diseases	% commons disease incidence	The most common disease for the population surveyed was the incidence in respiratory diseases, followed by dengue disease and skin diseases. The population surveyed report that they don't find a single case of tuberculosis.	Socioeconomic Survey

<u>Themes</u>	<u>Social Study</u> <u>Variables</u>	Indicator	Current Situation	<u>Measurement</u> Instrument
3. Education	Children in school age	% of children in school age	20.75% are school-age of the total population surveyed (elementary and school students)	Socioeconomic Survey
	Children currently studying	% of children studying	53.48% of all boys in school age are studying. 46.52% of all girls in school age are studying.	Socioeconomic Survey
	Reading skills by gender	% of people who can read.	63% of the population surveyed said they can read	Socioeconomic Survey
	Equality between gender at Educational Level	% the differences of educational level for gender.	There are no significant gender differences in the educational level, the percentage differences between them is 4.6%	Socioeconomic Survey





<u>Themes</u>	<u>Social Study</u> Variables	Indicator	Current Situation	<u>Measurement</u> Instrument
4. Natural Resources and	Use of firewood for cooking	% of houses that use firewood	78.6% of the households use firewood (logs) regardless of whether they have electricity or not.	Socioeconomic Survey
Environment	Forest	Use some forest product of the mountain	The Use of wood (forest products) is the most common at all. Using wicker products is the second one.	Socioeconomic Survey
	Fauna	Perception of the neighbors	The fauna is in a process of destruction due to the loss of habitat caused by deforestation and poaching.	Socioeconomic Survey
	Environmental Pollution	precedence of solid waste	Environmental pollution is especially due to the poor management of solid waste.	Socioeconomic Survey
5. Vulnerable groups	Childhood	% of children in the population	41.09% of the population are children (boys and girls)	Socioeconomic Survey
	Young people	% of young people (women)	16.46% of the population are young women (13 – 23 years old)	Socioeconomic Survey
	Women	% of women	68.77% of the population are women (vulnerable group)	Socioeconomic Survey
	Seniors	% of senior citizens	16.69% of the inhabitants are seniors (Elder's)	Socioeconomic Survev





Themes	Social Study Variables	Indicator	Current Situation	Measurement Instrument
6. Household	Tenure	% type of tenure, whether owned, rented, borrowed, useful or full	% of ownership 74.15% % of rented 12% % borrowed 13.85%	Socioeconomic Survey
	Housing conditions	% Good % Regular % Bad	39.64% Good44.62% regular15.74% Bad	Socioeconomic Survey
	Overcrowding	% of number of families living in a house	1 family per household = 85.7% 2 families per household = 11.7% 3 families per household = 2.6%	Socioeconomic Survey
	Bathrooms	% of households with bathrooms.	100% of the households have a bathroom for shower and a toilet or latrine.	Socioeconomic Survey
	Housing Problems	% of each factor (adobe structure, floor, false ceiling, structural problems, roof in poor condition	The most common housing problems found in the household's surveyed were structural problems (bad material used, bad construction and design), has no plastered walls and bad shape roof.	Socioeconomic Survey
	Construction materials	% of the material used for construction of houses	sun-dried brick/Bahareque2.24%Cement Brick74.96%Wood22.80%	Socioeconomic Survey
	Energy for cooking	% Fuel for cooking	Electricity7.9%Volatile Gas27.3%Kerosene2.1%Firewood62.7%	Socioeconomic Survey



Themes	Social Study Variables	Indicator	Current Situation	Measurement Instrument
7. Water and Sanitation	Coverage and quality of the water service	Number of households with water access	100% of the household have access to water in different ways (private use, aqueduct, manual, pull water from the river or streams etc.)	Socioeconomic Survey
		They take water from the river	1.2% of the household take water from the river or streams.	Socioeconomic Survey
		Pipeline Water (aqueduct, public water source)	90.7% have pipeline water (underground piping system)	Socioeconomic Survey
		Use of nonpublic supply water source	8.1% get water through a nonpublic supply water source (Private pipeline)	Socioeconomic Survey
		Reservoir of rainwater	The communities do not have a rainwater reservoir.	Socioeconomic Survey
	Sewage disposition	% Toilet or sanitary service % Simple pit latrine and Septic tank latrine.	87.1% use toilet or sanitary service 12.9 % use Simple and septic tank pit latrine	Socioeconomic Survey
	Waste Disposal	Waste collection	Of all the communities, the only one that has a cleaning train for garbage collection is Mezapita. This same community also has a community dump. The rest of the communities doesn't have one.	Socioeconomic Survey
			Waste treatment	The most common waste treatment is burn it (58.90%), dump the garbage (40.36%) and the rest is buried (0.74%)
	Street cleaning and maintenance	The service is provided for the local authority	38.84% of the household's surveyed, said that is evident in the community some cleaning and maintenance street. by the management of the patronage, local authority or proselytizing action of a politician.	Socioeconomic Survey





Themes	Social Study Variables	Indicator	Current Situation	Measurement Instrument
8. Economy	Production	% of most important crops or farm land activity	The most important crops are: Palm Oil = 46% Fruits = 35% (mainly lychees) Basic Grains = 10.3% Coffee = 4.5% Cocoa = 4.2% The most important economic activities are: Livestock = 47.9% Intensive agriculture = 36.1% Merchants = 16%	Socioeconomic Survey
	Consumption	% of crop consumption	Basic grains, milk, Beef and pork meat represent the auto crop consumption for the communities surveyed.	Socioeconomic Survey
	unemployment	% of unemployed people	The 52% of the E.A.P. has a job; most of these jobs are not full-time jobs.Only 4% of who have a job receive equal or more than minimum legal income (over and equal to 8000 lps.)	Socioeconomic Survey
	Incomes	% of income of the families surveyed	Income in Lempiras % a. < 1000 (334)	Socioeconomic Survey
	Access to Financing	% of people who have access to financial credit	14.93% Of the household's surveyed, said that, it was a beneficiary to financial credit by the national finance system. This percent represents at least 93 household's.	Socioeconomic Survey





Migration	% of people who have migrated	The households surveyed said the family member who has migrated of America. The total emigrate through 2018 was 36.	d to the United States	Socioeconomic Survey	
Remittances	% of people who receive remittances	30.97% of families receive remitta living in the US (less than 1000 len		Socioeconomic Survey	
Produce for Sa	e % of production for sale.	84% of the crop production is dest as they have a surplus. (palm oil, l pork meat)		Socioeconomic Survey	
Profession, Trades and Occupations	% of the professions, trades and occupations of the inhabitants	Profession Housewife student Laborer	% 35.40 19.34 25.10	Socioeconomic Survey	
		Merchant Employees Preschool Teacher Driver	3.52 3.13 2.74 2.60		
		architect Builder Mechanic	1.38 2.35 0.77		
		Primary Teacher security guard Bachelor	0.58 0.49 0.39		
		Barber Welder Peddler	0.39 0.39 0.39 0.39		
		Nurse Agronomist Baker	0.19 0.19 0.19		
		Evangelical pastor Owner of groceries store	0.19 0.19		





Themes	Social Study Variables	Indicator	Current Situation	Measurement Instrument					
9. Food Security	Enough income to feed	% meal times for those adjusting family income	Three meals per day27.93%Two meals per day47.51%One meal per day24.56%	Socioeconomic Survey					
10. Participation	Women	% women participating in community organization.	The percent to participating of women in community organization is 40.56%	Socioeconomic Survey					
	Men	% men participating in community organization.	The percent of men participating in community organization is 59.44%	Socioeconomic Survey					
11. Citizen Security	Violence	% of cases of domestic violence % of cases of external violence	Clear answers were not obtained since the persons prefer not to respond. However, information was obtained from external agents (police force).	Socioeconomic Survey and external agents.					
	Robbery	% incidence of thefts	According with local police, the most peaceful communities are Jilamito Nuevo y Viejo, San Rafael						
	Homicide	% incidence of homicides	Hamlet and Mezapita town and the most violent communities are Jilamo Nuevo, El Retiro and Mezapa.						
12. Community Infrastructur	Roads Access	Existence of road Access	100% of the communities have access by road.	Socioeconomic Survey					
e	Electricity	% Street lighting	et lighting 68.22% of the people surveyed said it has street lighting but complain about the poor service provided by the State of Honduras.						
	Schools	Number of schools	4 schools operate in the area. Each community has one with the exception of the San Rafael hamlet which has no school	Socioeconomic Survey					
	High Schools	Number of High schools	There is an Institute in the community of Mezapa where students from the different nearby communities attend. The students of Jilamito Nuevo, Jilamito Viejo and Hilamo goes to Arizona High School.	Socioeconomic Survey					





	Health centers	Number of health centers	There are two health centers in the area. One located in Hilamo Nuevo and the other one in the community of Mezapa	
	Community Centers	Number of community centers	We found 2 community centers in the area. One belongs to Hilamo Nuevo and the other belongs to Mezapita village.	Socioeconomic Survey
13. Tourism	Attractions	Number of tourist attractions	There is one touristic center located in Hilamo Nuevo, another one in Jilamito Nuevo that is a touristic center and a hotel (Termales Jilamito). The other touristic center is in Mezapita Village. (La Roca)	Socioeconomic Survey



4. SOCIALIZATION PROCESS:

In the area of influence of the Jilamito Hydroelectric Project, the socialization process has been performed since 2006, and continues today. It has required development and implementation of many activities that here are being described; as a result, the overwhelming support from the communities of direct influence reflects a broad community support for the development, construction and operation of the project, minimizing the risk of exposing the project to politically motivated tensions.

4.1. DESCRIPTION OF THE METHODOLOGICAL PROCESS USED FOR THE SOCIALIZATION OF THE JILAMITO HYDROELECTRIC PROJECT

INITIAL PHASE: MEETING WITH LEADERS OF THE COMMUNITIES

On November 7th, 2006; a meeting was convened in the "Bella Vista" Hotel in Tela, Atlántida, where representatives of the Municipality of Arizona, SERNA, ICF, ANPFOR, COATLAHL, SOCODEVI, PROLANSATE, Patronages and Water Boards of Jilamito Nuevo and Jilamito Viejo, Collective Society Margarito Deras and Associates of Jilamito, Collective Society Fausto Flores of Jilamito and other representatives of the community of Jilamito, ELECNOR SEMSA and INGELSA participated on behave of the developer.

The objective of the meeting was to inform them about the intentions and plans to develop a feasibility study for the development of the project. It was emphasized to the participants the full commitment of SEMSA and INGELSA to compliance with the Law, protect and preserve the environment, and fallow the international guidelines that govern there Socially Responsible Standards.

During the meeting, answers were given to the concerns of neighbors of nearby communities, cooperative groups within the project area and NGO's that work in the communities in the area of influence.

INTERMEDIATE PHASE: VISITS OF LOCAL AND REGIONAL AUTHORITIES

On May 30th, 2013; a second SINEIA was held, with the objective of having different regional and local organizations interest in the project, make a physical visit to the project site where the Jilamito hydroelectric was planned to be constructed.

Representatives of the following organizations participated in the site tour: ICF, SERNA and Environmental Management Unit of the Municipality of Arizona (*UMA for its acronym in Spanish*) and other leaders of the Jilamito River communities.



A complete tour was performed, including a presentation of the project site, describing the exact location of the different structures of the project, including those in the buffer zone of the TEXIGUAT Wildlife Refuge.

COMMUNITY MEETINGS

On June 5th, 2013; a meeting was held in the community of Jilamito Nuevo, where patronage representatives, water boards, parents, advisory councils and the agroforestry cooperative of the Jilamito community were present, as well as the Environmental Management Unit of the Municipality of Arizona and INGELSA. The objective of the meeting was to continue with the socialization process with the community, giving them more in-depth knowledge of the project.

On March 25th, 2015, meetings were held in the community of Jilamito Nuevo y Viejo, where community leaders, representatives of the different active forces of the communities (Agroforestry Cooperative) and INGELSA staff were present. The Project was presented with its characteristics; additionally, the needs of the community were discussed, among other aspects. Community leaders met later to develop a proposal that presented the priority needs in the community.

After the community representatives met with INGELSA on April 2015, a proposal was presented to INGELSA by the community and CALIJINUL Agroforestry Cooperative (one of the most important actors for the project). Among the works included in the proposal, there were large-scale projects that require funding at the government and / or international level (the case of the construction of a bridge over the Jilamito River in the vicinity of Jilamito Nuevo and Jilamito Viejo communities).

INGELSA received the proposal for analysis and negotiation in order to determine which projects were feasible to be executed. As a demonstration of the interest of INGELSA of making community investments, the construction of a classroom for the kindergarten children was constructed and equipped with furniture and school material necessary for the best education of the children. All this while the negotiations stage of the document was taking place.

Gathered in the community of Jilamito Viejo on July 23rd, 2015, a counter proposal of INGELSA was presented to the community and CALIJINUL, based on the budget analysis and financial capacity of the project. The negotiations were successful for all of the parties involved which where formalized trough the signature of an official agreement between both parties.

On August 1st, 2015; a meeting was held in the community of Jilamito Viejo, where different representatives of the community's active forces, as well as representatives of the community's active forces of Jilamito Nuevo, attended. The socialization of the Jilamito Hydroelectric Project continued, the meeting was very positive since it was



agreed to begin and proceed with the construction of the Hydroelectric Project.

MEETINGS WITH COOPERATIVE CALIJINUL

On August 25, 2015, a meeting was held at the Institute of Forest Conservation, Protected Areas and Wildlife (*ICF for its acronym in Spanish*) forest region of La Ceiba, with the objective of socializing the Jilamito Hydroelectric Project, with all the entities related to the management of the Texiguat Wildlife Refuge. The area of influence of the project in relation to the Texiguat Refuge, also in relation to the area under management of the Cooperative CALIJINUL of Jilamito. It was also conveyed in the meeting all the works to be carried out by the project, all the permits that have being issued to INGELSA by the corresponding authorities, and the benefits to be received from the project while it gets built.

Representatives of the following organizations were present: Cooperative CALIJINUL, Foundation for the Protection of Lancetilla, Punta Sal and Texiguat (PROLANSATE), Cooperative in charge of Certification and Forest Management of Colon and Atlántida (COATLAHL), Forest Conservation Institute of Tela and La Ceiba, Arizona Environmental Management Unit, Representative of a Program called MiAmbiente, Representative of ANFHORBL (Forest Producers Forestry Association, Broad Leaves Forest). The project received the support of all of the institutions.

On September 10, 2015, another meeting was held in the community of Jilamito Nuevo, where the socialization of the project continued with representatives of the active forces of the community. A positive response from the attendants was obtained.

MEETINGS WITH REGIONAL AUTHORITIES OF DIFFERENT ORGANIZATIONS

On September 16th, 2015, a meeting was held in the city of Tela, Atlántida, at the Maya Vista hotel. The mayor of the Municipality of Arizona and representatives of the communities surrounding the Jilamito Hydroelectric Project (Jilamito Nuevo, Jilamito Viejo, Mezapa and Mezapita) attended as well as community leaders, Presidents of Water Boards, Patronage, among other active forces. The objective of the meeting was to continue with the process of socialization. A positive response was obtained from the people who attended the meeting.

HOUSE-TO-HOUSE SOCIALIZATION CAMPAIGN

The objective was to publicize the Jilamito Hydroelectric Project, the benefits it brings to the surrounding communities, and to get to know their opinion regarding the construction and operation of the Project of the people living in the communities surrounding the Jilamito Hydroelectric Project. The method used in this activity was a house-to-house visit. In total 758 signatures were collected from people living in surrounding communities. An important fact is that 95% of the people interviewed in Jilamito Nuevo and Jilamito Viejo supported the project. The communities a little more



distant such as Mezapita, Mezapa and Matarras showed their full acceptance and support to the project since they have lived in their own communities the benefits that these renewable energy hydroelectric projects bring.

COMMUNITY INFORMATIONAL LECTURES

Lectures and trainings to the nearby communities of the Jilamito Hydroelectric Project

The objective of these lectures is to inform people in the nearby communities about hydroelectric projects in general, in particular with the Jilamito Hydro Project, explain the components of the project, their structures, their environmental impacts and the concept of mitigation measures, presenting them with the direct and indirect benefits of the project to the communities, as well as the opportunities for development and entrepreneurship they provide.

In each of the places where the exhibition or lecture was held, an in-depth presentation was made to illustrate the concept of clean renewable energy, the importance for the self-sustainability of the hydro project to protect the natural resources, including the forest, the biodiversity, and the river.

Additionally, the legal documentation of the project and the permits that have been obtained (from the PPA to the Environmental License).

The result obtained was positive. 90% of the people who attended were satisfied and convinced that these projects do not pollute the natural resources that surround them, but rather that they are an important ally in the protection and conservation of the natural resources and the development opportunities for the communities.

Lecture and training in the community of Mezapita, in the Heliodoro Valle Basic Center. On October 15, 2015, a lecture and training were given in the community of Mezapita, at 8:00 a.m., specifically at the Heliodoro Basic Center, where teachers who teach at this school attended.

Lecture and training in the community of Matarras, in the school of this community On October 15, a lecture and training were given in the community of Matarras, at 2:00 p.m., specifically in the school of this community, where the teachers and some parents attended.

Lecture and training in the community of El Empalme

On October 22, a lecture or training was given in the community El Empalme, at 2:00 p.m., specifically in the school of this community, where the teachers and some parents attended.



Lecture and training in the community of Mezapita, specifically in the colonia Suyapa. On October 28, a lecture and training were given in the community of Mezapita, in the Suyapa neighborhood, at 2:00 p.m., specifically in the school, where the teachers and some parents attended.

Lecture and training in the community of Mezapa

On October 29, 2015, a lecture and training were given in the Mezapa community, specifically in the School Alfonzo Guillen Zelaya of this community, where the teachers and some parents attended.

EDUCATIONAL TOURS AT A NEAR HYDROELECTRIC POWER PLANT

During the early stages of socialization, it was agreed on the importance of performing visits to the Mezapa Hydroelectric Plant, a nearby hydroelectric project that was built and it is operated by the same developers of the Jilamito Hydro Project.

Groups of people visited the plant by bus provided by INGELSA, they were giving a tour of the project so that they could learn how a hydro power plant works first hand. In addition to the tour, they were given a lecture about hydroelectric projects.

The tour visit and meetings with the community of Jilamo took place on November 1st, 2015 and November 8th, 2015; Jilamito Nuevo and Jilamito Viejo visited the hydro project on November 14th and 15th, 2015.

The result obtained was positive. 100% of the people who attended were satisfied and convinced that these projects do not pollute the natural resources that surround them, do not consume water, and therefore, are an important ally in the protection and conservation of natural resources and rather bring development opportunities for communities.

TOWN HALL MEETING

Following a request made by the Association of Patronages from the town of Arizona (40 Km away from the Project site), the Association of Cattlemen of Arizona, the Water Board from the town of Arizona and an out of town "Movimiento Amplio para la Dignidad y la Justicia" (*MADJ for its acronym in Spanish*), a social and political movement which sought to declare the municipality of Arizona free of mining and hydroelectric power plants, a town hall meeting took place on November 20, 2015.

The meeting began with the opening words of the Major, who greeted the people present. He publicly explained that the municipal corporation in extraordinary session of the corporation decided that it was not in their power to declare the municipality free of mines and hydroelectric power plants. Therefore, and following the protocol, he proceeded to open the town hall meeting during which the following issues were discussed: 1. - Welcome 2. - Prayer 3.- Reading of the Agenda 4.- presentation of the



request made by the MADJ to declare the municipality free of mines and hydroelectric power 5.- questions and answers, 6.- closing of the town hall.

The town hall meeting was attended by a large number of people from the different communities of the Lean Valley, including neighbors of the communities located in the area of direct and indirect influence of the project. Therefore, it can be stated that the communities were widely represented.

During the meeting, there were several interventions in favor and against the Jilamito Hydroelectric Project; the major decided to put up for a public vote the decision to declare the Municipality of Arizona free of mining and hydroelectric power plants. The result was an overwhelming majority in favor of the Project and a small minority opposing the Project; therefore, and in consideration of this vote, the motion to declare the municipality of Arizona free from mines and hydroelectric power plants was rejected and dismissed, and the Jilamito Hydroelectric Power plant was now officially supported by the communities of the Municipality of Arizona.

Start of the construction of the Access Roads.

During the rest of the year 2016, a series of visits were made by national and international financial entities in order to continue the process of obtaining the required financing to proceed with the construction of the Jilamito Hydroelectric Project. Additionally, a series of visits continue to be carried out by government institutions such as SERNA, ICF, Anthropology and Ancestry, and Arizona Municipality among others.

In January 2017, the construction process of the "A" Access Road began starting at the Bailey Bridge of Mezapita until the site known as El Nance.

On May 15, 2017, the Camp of the MADJ was installed by force in El Nance, in opposition to the construction of the Jilamito Hydroelectric Project with the participation of neighbors from outside the Municipality of Arizona.

On May 29, 2017 the communities in favor of the Jilamito Hydroelectric Project also installed a camp 100 meters from where MADJ had installed its camp in order to have a similar presence on the site and demonstrate that the communities of direct and indirect influence by the project are in favor.

RECENT ACTIONS UNDERTAKEN

From June to December 2017, and after interrupting all of the construction activities of the project, a series of visits by INGELSA accompanied by community leaders in favor of the project were held specifically to: NGO TROCAIRE, Catholic Church of Arizona from La Ceiba, Organization of American States (OEA), Ministerio Publico, Chamber of Commerce and Industries of La Ceiba, and others with the purpose of continuing with



the process of socialization. In addition, a list of signatures was obtained from the communities of direct and indirect influence of the project in two important moments; one in support of a note sent to the Organization of American States (OEA) and other in support of executives of the company INGELSA which were subject to insults and slander coming from a couple of local politicians who were in opposition to the project.

From January to April 2018, the educational tour activities to the Mezapa Hydroelectric Power Plant resumed with people from the different communities with the purpose of developing an environmental and informative lecture about how the Jilamito Hydroelectric Project will be built and how a hydroelectric power plant operates. The tour included a visit to the Mezapa Powerhouse, the discharge channel, the Project offices and a tour of the dam structures, pipeline, surge tank and pressure pipe.

In February 2018, as part of the commitment of INGELSA with the education of children from the communities of Jilamo, Jilamito Nuevo, Jilamito Viejo and San Rafael, 180 school bag packs were donated, which included a school kit made up of 4 notebooks, set of rules, erasers, pencil sharpeners, pens, pencils among other school materials.

The schools in the communities of influence were given academic learning material, garbage cans, bond paper, construction paper, markers for blackboard, among other utensils, all with the purpose of aiding with the educational quality in each school of the communities.

It is necessary, to mention that these tours were also attended by people who were in opposition to the project, whom after visiting and understanding how a hydro plant works, realized that hydroelectric projects do not harm the environment and are an important source of community development.

USE OF DISCLOSURE MEDIA

Throughout the socialization process, INGELSA has being distributing pamphlets and other types of media such as brochures, flyers, airing radio spots in the local radios and hanging banners. Also, supporting mobilizations of communities in favor of the Project, monitoring of social networks and the creation and maintenance of a Facebook account for the project.

In the same way, several actions have been taken place to show the support of the Communities to the project, actions that include collecting several thousand signatures on different dates throughout the socialization process, since 2015 through 2018.



5. SOCIAL IMPACTS MATRIX OF THE SOCIAL BASE LINE FOR THE JILAMITO HYDROELECTRIC PROJECT

Торіс	Evaluation criteria	Ту	/pe	Influer	nce Area		Magnitude		In	nportance		Effe	cts	Lifespan		
	Impacts	(+)	(-)	Direct	Indirect	High	Medium	Low	High	Medium	Low	temporary	Permanent	Short	Medium	Long
WATER	Solids increase in solution and suspension		x	x	x		x		x			x		х		
	Noise generation		Х		Х			Х			х	Х		х	х	х
AIR	Reduction of CO2 emissions	х		х	х	х					х		х		x	х
	Emissions of dust		х		х		х			x		х		х		
	Temperature Increase		х		х			х			х	х		х		
VEGETATION	Removal of natural vegetation		x	х	x			x		x		x		х	x	
	Logging of trees		х	Х	х		Х			х		Х		х		
	Slopes Destabilization		х	х			х		х			x		Х	х	
SOIL	Generation of erosive processes		x	х			x			x		x		х	x	
	Acceleration of erosive processes		x	x				х		x		x			x	x
	Employment Generation	x		х	x	x			x			x	x	х	x	x
	Improvement Income	х		х	х	Х			х			х		х	х	х
INHABITANTS	Generation of economic expectations	x		х	x	x			х			x		х	x	х
	Generation of inconvenience		x	х	x			x		x		x		х		
	Community economic development	х		х	х	Х			х			х	х		x	х
	Economic development of the members of the agroforestry cooperatives CALIJINUL	x		x	х	х			х			х	х	х	x	х



	Evaluation criteria	Туре	3	Influence		Magnitud	е	lı	nportance	9	E	ffec	Manifestation deadline		lline	
	Impacts	(+)	(-)	Direct	Indirect	High	Medium	Low	High	Medium	Low	temporary	Permanent	Short	Medium	Long
INFRA	Improvement of the transportation service	x		x	x	х			х				х		x	x
STRUCTURE	Expansion of urban perimeter	х			x		x		х				х		x	x
	Urban Development	х			x x		х		х				х		x	х
	Industrial development	Х			Х		х		Х				Х			х
	Road network Optimization	х		x	x	х			х				х			x
EDUCATION	Schools improvement	Х		Х	Х		х			Х			х		х	х
	Equipment of educational materials for schools	Х		Х	Х		х			x		х			x	х
	Increase in food availability	Х		х		Х			х				X		x	х
HEALTH	Increase access to better health services	Х		х	х	Х			х				х		x	х
	Health centers improvements	Х		X		х			х				х		X	х
	Availability to drinking water access	х		х		х			х				Х		Х	х
	Citizen security access improvement	х		х	X		х	х			х	х				х
SECURITY	Lands Invasion by people outside the community		Х	х	x	x			X			х			X	
TOURISM	Rural Tourism Income Increase	Х		х	x		х	х		x	х		х			x



Plantation of native species and recovery of areas	х		X	х	х			Х			x	х	х	x
Forest resources value recognition	х		х			Х	х		Х	х	Х	х	х	x
Promote scientific research of Texiguat wildlife refuge species	х		X			х			х		х	Х	х	х
Increase of the wild life inhabitants	Х		х		х			х			х		х	x
Increase in the availability of forest products (wood, firewood, wicker and others) in a legal and controlled manner	X	x	x	x		х	x	x		X	Х	х	x	
Community organizations established and strengthened	X		х		x			х		X	х		х	x





6. MITIGATION MEASURES:

Торіс	Evaluation criteria	Ту	уре	Influen	ice Area	MEDIDA DE MITIGACION				
	Impacts	(+)	(-)	Direct	Indirect					
	Morphological Drainage Disturbance		x	х		The primary and secondary intake, type run of the river will be used to guarantee no retention of the river water through the building phase of the project.				
WATER	Channel temporary distortion or occupation.		x	x		The primary and secondary intake, type run of the river will be used to guarantee no retention of the river water through the building phase of the project.				
	Solids increase in solution and suspension		x	Х	x	To reduce the turbidity of the water caused by the construction process, different stabilization activities (gabions walls, safe slope design angles and slope surface protection) of the loose materia and slopes will be implemented, such locations will also be replanted immediately with adequate species. (species of grasses like Jazmin grass and Vetiver grass, already successfully used in Mezapa Hydro- project)				
AIR	Noise generation		x	х		All the personnel working at the project site will be provided with their protection equipment to minimize such impact.				
	Dust Emissions		x	х		In the dry season, if needed the streets with the greater vehicle transit will be hosed (wet) with water to minimize the particles of powder suspended in the air.				
	Temperature Increase		x		x	Each area supervisor will maintain on the work sites drinkable water for the personnel.				
VEGETATION	Removal of natural vegetation		x	x		A forestry plantation plan will be implemented to recover not only the impacted areas, also areas that are currently degraded by the anthropic activity in the project site and the Texiguat Reserve. The government law just point it up, that we have to replant 3 trees by each cutting tree in the impacted area (foot print of the project)				
	Logging of trees		x		X	During the process of construction of the penstock and conduction pipe, the tree cutting process implemented by INGELSA as established by law and based also on the agreement with CALIJINUL, states that the wood will be handed over so that the cooperative can produce forestry products for the building process and their economic benefit.				
SOIL	Slopes Destabilization		x	x		There is a construction strategy based on an environmental, conservation plan where each excavated slope will be stabilized initially with a type of grass species, and then a second shrub coverage will be incorporated, and finally native species will be planted. The principal point of view of this matter is prevent any destabilization of the slopes, by using an appropriated design				
JUL	Generation of	and construction method								



	erosive processes		X	х		
	Acceleration of erosive processes		x	x		There is a construction strategy based on an environmental, conservation plan where each excavated slope will be protected initially by cover with grasses, and then a second shrub coverage will be incorporated, and finally native species will be planted.
INHABITANTS	Generation of inconvenience		x	х		During the construction process some inconvenience may arise for the neighbors and business owners therefore a COMPLAIN MECHANISM will be put in place to respond to everyone's concern including INGELSA staffs. Also, we will develop a relationship community plan to prevent and reduce the complaints of the inhabitants who lives near by the project. This plan indicates the relations between the benefits of the project and their beneficiaries.
SECURITY	Lands Invasion by people outside the community		×	Х	x	To minimize this impact, INGELSA will implement a community relations plan and the compliance of the agreed commitments with the communities during the socialization process like the CALIJINUL agreement with the social support of those with direct economic benefit from the Project.
ENVIRONMENT	Increase in the availability of forest products (wood, firewood, wicker and others) in a legal and controlled manner	x	x	x	x	Under the reforestation plan, it is intended to recover 60 Has already damaged by human intervention prior to the execution of the project, which are a current threat to the survival of biodiversity. Also with alliance with others actors like PROLANSATE, ICF and local authorities, INGELSA will prevent and protect the influence area of the project.



7. ACHIEVEMENTS OBTAINED:

ACHIEVEMENTS OBTAINED

- 1. A complete survey of the community that established the social baseline to factually measure the impacts and benefits the project may bring to the communities of direct and indirect influence once the construction process begins and during its commercial operation.
- 2. In depth understanding of the communities social and infrastructure needs for better decision making of the social works and investments of the project under its Corporate Social Responsibility.
- 3. Insightful understanding of the social fabric of the communities to strengthen the communication strategies of INGELSA.
- 4. Identification of the origins and traditions of the inhabitants of the communities.
- 5. Identification of potential business opportunities for the neighbors of the communities as a direct or indirect consequence of the Project.

8. CONCLUSIONS:

- 1. The results obtained show that it is feasible to carry out information gathering systematically with the participation and responsibility of the community leaders.
- 2. The communities of Mezapita, Jilamito Nuevo, Jilamito Viejo, Jilamo Nuevo (Hilamo) and San Rafael are 95% in favor of the Jilamito hydroelectric project.
- 3. The training, lecture and full transparency with the communities, including community leaders and leaders of public opinion is fundamental in order to maintain and strengthen the support to the Project, as well as complete fulfillment of the agreements reached with them.
- 4. The project can create job opportunities to cover the basic needs of the families of the communities such as nutrition, health, education, and housing.
- 5. As a consequence of the development Jilamito Hydroelectric Project, some of the infrastructure needs of the communities may be able to be developed.



- 6. The project can create competences during the construction period to improve basic health practices as well as technical skills; it will serve for the rest of the life of local workers, community leaders, local authorities and beneficiaries.
- 7. Improve the opportunities of women by improving their skills getting through new jobs.
- 8. To ensure adequate coordination, control and monitoring at the municipal and community levels, the technical facilitators of INGELSA must continue the process during the construction and O&M stages.

9. ANNEX

ANNEX No. 1: Community Socialization History ANNEX No. 2: Community Census