**Project Description for Scoping Environmental Performance Report and Management Plan** for the proposed UPPC Expansion Plan

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#### I. Proof of conduct of IEC

As a project already in its operating phase, UPPC has established its Multi-Partite Monitoring Team where environmental and social concerns regarding the project is discussed during its regular meetings. With the MMT in place, all project concerns are discussed and are cascaded to the sectors they represent.

During the recent Multi-Partite Monitoring Team dated 07 September 2018, the proposed expansion plan of UPPC was discussed. This meeting was attended by at various stakeholders represented by the MMT, including representatives from the office of the mayor, the rural health unit, farmers and fishermen's association (Appendix A\_ attendance sheet and photos)

To summarize, the following environmental and issues and concerns regarding the proposed were raised by the MMT members:

- Odor and intoxicating smell allegedly coming from UPPC's boiler cooling facility. This
  was experienced by students of Calumpit National Highschool especially during rainy
  days. Calumpit National Highschool is located approximately 500 meters away from the
  plant.
- Smoke coming from the facility is also perceived to cause quick deterioration of roofs and metal parts of houses and structures around the plant's facility.
- Water resource depletion is attributed to the plant's eight deepwells and perceived to be depriving the locals enough water supply. Subsidence is also feared to happen in the future.
- Locals are no longer prioritized to work in UPPC.
- Water quality deterioration was also raised as a concern. Locals believed that while there are fish in the river and surrounding farms, the quality and quantity has also deteriorated. Tilapia fish are not advisable for human consumption.

Operating since 1975 and have undergone several rehabilitation and expansion in the 1990's, the members of the MMT are well aware of the project history and long standing community perception of the company's environmental and social management performance. While the proposed expansion is discussed, representatives of MMT from various sector tend to recall previous environmental and social concerns. For this project, these perceptions will be discussed in the Environmental Performance Report and Management Plan (EPRMP) and will be placed vis-à-vis UPPC's environmental management performance.

## **II.** Initial Perception Survey

As an existing facility, UPPC conducts regular community survey. The recent one was held on May 2017 where satisfactory ratings were as follow:

Table 1 Community survey satisfactory rating (UPPC, 2017)

Barangay	Satisfactory rating (%)
Iba Este	85.8
Calumpang	98.4
Palimbang	95.8

To gauge community's perception on the project and its proposed expansion, a initial perception survey was conducted in four different barangays around the existing SCG-UPPC plant and the proposed additional 25 MW Coal-Fired Power Plant located within said existing plant. These barangays are: **Iba Este** on the west and the host barangay, **San Marcos** on the south-east, **Palimpang** on the east and **Calumpang** by the south-south east. The survey was conducted from 23 to 25 October 2018.

A total of 30 respondents were surveyed with more than 46% of the total respondents are located in Barangay Iba Este. This area is considered as the primary impact area where the entire length of SCG-UPP compound runs along almost 50% of the entire high density area of said barangay. Puroks Bagabag, 1, 3, 3A and 4 are situated along and between the western side walls of the Plant and Calumpit-Angat River. This river is the immediate receptor of the treated wastewater of the plant.

The secondary impact areas of Barangay Palimbang, Barangay Calumpang and San Marcos are allotted 7, 8 and 1 questionnaires respectively. These barangays are bordered with the plant by rice fields and a national road. Calumpit National High School is located in Barangay Calumpang.



Figure 1 Impact barangays

### **Project Awareness**

Table 2. Awareness of UPPC's Operation

	Awareness	Iba Este	San Marcos	Calumpang	Palimbang	Count	%
1	Yes	14	1	8	7	30	100.00
2	No	0	0	0	0	0	0
	TOTAL	14	1	8	7	30	100.00

Operating since 1975, all respondents are well aware of the the current operation of UPPC. Majority of the respondents are not aware, however, about the plant's actual operation- as local residents may have not been concerned on how the project operates. Only those currently employed and those retired employees know much of the operation with limited disclosures.

Majority of the respondents usually source their information from actual observation from the daily operation of the plant, while 20 percent revealed that they get information on the company's operation and plans from UPPC itself (Table 3).

Other informants from chance interviews, not covered by the survey, who have practical and basic knowledge about the operation of the plant's coal-fired power generator expressed their concerns about an additional coal-fired power generator, in which they perceived to be another contributor to problems of fly ashes in which these fly ashes possess toxins and heavy metals.

Table 3 Sources of Information

	Sources	Count	%
1	Government/ barangay officials.	6	13.00
2	Relatives/ friends/ neighbor	8	17.40
3	UPPC company	9	19.60
4	Meetings or consultation (pls. specify)	3	6.50
5	Observation	17	37.00
6	Others (Being a previous employee)	3	6.50
		46	100.00

Only 26.67% of the respondents have knowledge about the proposed expansion (Table 5). Government officials and neighbors were the usual source of information regarding the proposed expansion project (Table 5). Also, some of these respondents may have known this information through previous discussions during key informant interviews while distributing invitation letters in July regarding the rescheduling of Public Consultation.

Table 4 Awareness of the proposed expansion/additional co-gen facility

	Awareness	Iba Este	San Marcos	Calumpang	Palimbang	Count	%
1	Yes	6	0	0	2	8	26.67
2	No	8	1	8	5	22	73.33
	TOTAL	14	1	8	7	30	100.00%

Table 5 Sources of information regarding the proposed expansion project

	Sources	Count	%
1	Government/ barangay officials	5	33.33
2	Relatives/ friends/ neighbor	5	33.33
3	UPPC	3	20.00
4	Meetings or consultation (pls. specify)	2	13.33
5	Observation	0	0
6	Others (pls specify)	0	0
	TOTAL	15	100.00%

### <u>Possible Social and Environmental Effects of the Existing and the Proposed Expansion</u> Project

All respondents believe that the proposed expansion will increase employment opportunities preferably to qualified members of their respective families (Table 6). Being locals within the host barangay and the impacted surrounding communities, priority of employment be vested on them.

Table 6 Positive Effects Social and Environmental effects of the existing and the proposed expansion project

·	1 1 1		_			_	
		lba	San	Calumpang	Palimbang	Count	%
	Positive Effects	Este	Marcos		_		
1	Increase employment	14	1	8	7	30	100.00
2	Increase business/ establishment of business	4	1	5	1	11	36.67
3	Progress in barangay or town/ social development	10	1	0	1	12	40.00
4	Improved public services (such as electricity, water, road, etc.)	6	1	0	1	8	26.67
5	No positive effect	0	0	0	0	0	0
6	None. No idea	0	0	0	0	0	0
7	Others (pls. specify	0	0	0	0	0	0

Respondents also considered by the respondents is the overall growth and progress of their respective barangays, like the growth and stability of businesses conceivably brought about by the spending ability of the employed locals, plus the growth of ancillary support services in the area like transport, accommodation, food chains and many more.

When asked about what they think will be a negative impact of the proposed expansion, respondents in Table 7 aired concerns on the possible impacts on their health due to air and water pollution.

Respondents also perceived the plant releasing wastewater to the river which resulted in the declined of aquatic resources - both in numbers, species and size. These species are the tilapias, aroyo, bicao, torsillo and shrimps. During the survey, the fisherman-respondent had to drive his tricycle because fishing for a week has been unproductive. It was perceived, that the plant released their treated wastewater sending the fishes away. Even kangkong locally is now believed to be unsafe for human consumption due to contamination of toxins and heavy metals.

According to some of the respondents, in the past, ricefields and other farming lands were believed to be polluted when disposed treated wastewater were still directed towards the irrigation canal. At present, wastewater is released to the river, but is still believed to be affecting fishermen in the area.

Table 7 Negative effects of the project and proposed expansion project

	Negative Effects	lba Este	San Marcos	Calumpang	Palimbang	Count	%
1	Loss of property	0	0	0	0	<u>0</u>	0
2	Pollution to water	10	0	8	3	21	70.00
3	Pollution to air	12	1	8	7	28	93.33
4	Removal of trees and other vegetation	0	0	0	0	0	0
5	Removal of fishing grounds and other coastal areas	2	0	1	0	3	10.00
6	Loss of work and livelihood opportunities	1	0	0	0	1	3.33
7	Health problems	12	1	8	3	24	80.00
8	No negative effect	0	0	0	0	0	0
9	None. No idea	0	0	0	0	0	0
10	Roofs of houses deteriorate easily	3	1			4	13.33

Appendix B presents the questionnaire used for the perception survey

## III. Project Description for Scoping

## Project background

United Pulp and Paper Company, Inc (UPPC) is the Philippines' leading manufacturer of high quality industrial grade paper, including corrugated medium paper and liner board that are used in carton packaging products. The company is located in Bulacan in the Philippines, has about 400 employees and has a rated annual production capacity of 200,000 tons. UPPC was incorporated in December 1969 and started its operations in August 1975. UPPC is practically fully owned by the Siam Cement Group (SCG) of Thailand and is jointly managed by Filipinos and Thais.

UPPC depends on 100 percent of recycled materials for their operation. It is also considered as one of the "greenest" operating pulp and paper mill in the country changing its previous operation fully dependent on virgin pulp to one that uses recycled materials. Since the acquisition of SCG, the operation has upgraded its production facility, recycling line, power generator and boiler. There are no hazardous materials used in additives and has continued to implement its "Zero sludge to landfill" program.

In terms of environmental performance, UPPC has earned the following recognition for its exemplary environmental, social and business management as of October 2018:

- ZERO BASURA OLYMPICS CANDIDATE MASTER AND CHAMPION FOR REUSE/ RECYCLING AWARD by the Philippine Business for Social Progress in April 22, 2010
- DENR –EMB INDUSTRIAL ECOWATCH PROGRAM SILVER RATING AWARD by the Department of Environment and Natural Resources (DENR) in June 18, 2010
- OUTSTANDING AWARD ON DON EMILIO ABELLO ENERGY EFFICIENCY by the Department of Energy in December 7, 2010
- DENR PEPP SEAL OF APPROVAL by the Philippine Environment Partnership Program in December 17, 2010
- ECOSWITCH GREEN COIN AWARD & ECOSWITCH PLANET AWARD FOR WASTE MINIMIZATION vy the Green Philippine Island of Sustainability in September 25, 2012
- MOST OUTSTANDING CORPORATION IN THE PRACTICE OF MANAGEMENT OF WASTE by he Federation of Philippine Industries in Nov. 22, 2012
- ZERO BASURA OLYMPICS GRAND MASTER AWARD by the Phililippine Business for Social Progress in June 26, 2013
- ECOSWITCH AWARD by the EcoBonus-Club Program 2012-2013 in October 16, 2013
- MOST OUTSTANDING CORPORATION IN THE PRACTICE OF HEALTH & SAFETY by the Federation of Philippine Industries (FPI) in Nov. 14, 2013
- MOST OUTSTANDING CORPORATION IN THE PRACTICE OF OPTIMUM USE OF RESOURCES by the Federation of Philippine Industries (FPI) in Sept. 3, 2014
- MOST OUTSTANDING CORPORATION IN THE PRACTICE OF CORPORATE SOCIAL RESPONSIBILITY by the Federation of Philippine Industries (FPI) in Sept. 3, 2014
- CERTIFICATE OF COMPLIANCE ON GENERAL LABOR STANDARDS by the DOLE Region 3 in Sept. 30, 2014
- CERTIFICATE OF COMPLIANCE ON OCCUPATIONAL SAFETY & HEALTH STANDARDS by the DOLE Region 3 in Sept. 30, 2014
- OUTSTANDING AWARD ON DON EMILIO ABELLO ENERGY EFFICIENCY in Dec. 4, 2014
- HALL OF FAME AWARD FOR OUTSTANDING SUSTAINABLE DEVELOPMENT PRACTICES in all four (4) categories: Management of Waste, Heath and Safety ,Optimum Use of Resources ,Corporate Social Responsibility by the Federation of Philippine Industries (FPI) in August 7, 2015
- TPM EXCELLENCE AWARD, CATEGORY B in March 23, 2016
- SCG PACKAGING SAFETY AWARD 2016 Silver Award Level in March 20, 2017

## **Environmental Compliance Certificates**

Currently, there are three Environmental Compliance Certificates (ECCs) issued to UPPC covering the following operations:

- 1. Rehabilitation and Upgrading of Existing Paper Manufacturing Plant ECC CO 9105-041-110 issued on 02 January 1992
- 2. Paper Manufacturing Expansion Project (Paper Machine 2) ECC CO 9604-002-110 issued on 30 October 1996
- 30MW Cogeneration Power Plant Project (Boiler Revision Project ECC Amendment) ECC CO 9803-004-207 issued on 04 August 1999

### Proposed development

UPPC is now proposing to the following development to its current operation:

- 1. Additional paper milling machine with an annual capacity of 220,000MT
- 2. Additional 25MW coal fired power plant
- 3. Additional ancillary support facilities to support current operation and proposed expansion

# Need for the project, goals and objectives

The demand for paper and board products continue to increase and there are only twenty four paper mills with various production capacity remaining in operation in the Philippines as of 2012. Some of the larger paper mills have shut down its operation in the country starting early 1990's to 2011 due to various challenges.

The industry is also plagued by lack of raw materials including inadequate supply and high cost of local waste paper while imported wastepaper supply is getting low. There is also no local source of pulp in the country.

High cost of energy also continue to be a burden to pulp and paper industry in the Philippines where electricity requires investment for lower-cost power and energy-efficient technologies, while the use of fuel requires investment to convert to coal, biomass and fuel efficient technologies.

Specifically for UPPC, it has to import at least 10 percent of its waste paper and carton requirements because of poor recovery rate in the Philippines - where waste paper are improperly disposed of. To widen UPPC's source of waste paper, it proposed to increase the

number of its baling stations. It is also proposing to increase it biomass use in generating electricity from 30 percent to 50 percent and putting up additional warehouse of its raw materials.

## Alternatives being considered

UPPC has prepared its Company Energy Efficiency Methodology and was used as a basis for the plant assessment to identify and implement options to reduce energy and other materials and wastes.

Under this plan, the company has a dedicated Environmental and Safety Engineer (ESE) and was an obvious choice as Team Leader. Other selected Team members were already involved in the implementation of the energy efficiency programs of the company. UPPC also decided to build a new cogeneration facility that would replace the existing boiler to which the recommended options applied. Also, the company established savings targets for water, steam, chemicals and other materials for all sections of the company. In order to meet these targets, several departments have initiated new energy and resource efficiency projects since the GERIAP project. Target setting by top management was found to be an effective incentive for departments to continue to look for energy efficiency opportunities.

Previously, the focus areas selected for the energy efficiency project were (1) Boiler and Paper Machine (PM 2) Dryer, (2) Boiler Plant and PM 2 boiler motors, and (3) Lighting System.

Nine feasible options were identified for the first two focus areas, but none of the recommended options were implemented due to the decision of the management to put up a new co-generation facility, which made the recommended options obsolete. The options for the lighting system are still to be implemented.

The table below shows the potential savings of alternatives considered:

FOCUS AREA/ OPTION	CP TECHNIQUE	FINANCIAL FEASIBILITY	ENVIRON MENTAL BENEFITS	COMMENTS
Boiler/ Improvement of insulation of the boiler shell/wall (see case study)	Good Housekeeping	<ul> <li>Investment: US\$ 5,672</li> <li>Cost savings: 3,839/yr</li> <li>Payback period: 1.5 yr</li> </ul>	<ul> <li>Bunker fuel oil savings: 17,197 l/yr</li> <li>GHG emission reduction: 52 tCO<sub>2</sub>/yr</li> </ul>	Projected savings only. Option will not be implemented because existing boiler will be replaced
Motors/ Installation of variable speed drive (VSD) for deaerator pump, heavy fuel oil pump and mill water pump (see case study)	Production process/ equipment modification	<ul> <li>Investment: US\$ 79,342</li> <li>Cost savings: US\$ 60,177/yr</li> <li>Payback period: 1.3 yr</li> </ul>	<ul> <li>Electricity savings:         <ul> <li>1,123,312 kWh</li> </ul> </li> <li>GHG emission reduction: 225 tCO<sub>2</sub>/yr</li> </ul>	Projected savings only. Option will not be implemented because existing boiler will be replaced
Lighting/ Replacement of 40-watt fluorescent lamps with 36-watt fluorescent lamps (see case study)	Production process/ equipment modification	<ul> <li>Investment required: US\$ 982</li> <li>Cost savings: 1,172/yr</li> <li>Payback period: 0.84 yr</li> </ul>	Electricity savings: 21,874     GHG emission reduction: 5 tCO <sub>2</sub> /yr	Option still to be implemented

Energy Efficiency Guide for Industry in Asia - www.energyefficencyasia.org

Source: <a href="http://www.greenindustryplatform.org/wp-content/uploads/2013/07/UPPC-Company-case-study.pdf">http://www.greenindustryplatform.org/wp-content/uploads/2013/07/UPPC-Company-case-study.pdf</a>

## Project type, component and size

UPPC is the leading manufacturer of high quality and cost efficient industrial grade paper. UPPC's product lines include the Extensible Sack Kraft paper, which is used in making industrial paper bags, and its major product line, the corrugating medium paper and liner board, which are used in carton packaging products.

UPPC falls under pulp and paper industry with current **annual production capacity of 200**, **000MT**, categorized as Category A or considered as Environmentally Critical Project. **A 30MW co-generator facility running on bunker fuel** supplies heat and electricity supporting the plant operation.

Table 1 shows the major project components, its current capacity and proposed capacity.

Table 8 Major project components, current and proposed capacities

Component	Current	Proposed
Paper Machine No. 1	annual production capacity of 50,000 MT	No change
paper machine number 2	annual production of 150,000MT	No change
Paper machine number 3	New	annual production of 220,000MT
Co generator facility	30MW	Additional 25MW
Ancillary facilities		Additional OCC yard and finished product warehouse
Expansion of effluent treatment plant	11,000 cum/day	Additional 11,000 cum/day

The paper machine no. 1 has an annual production capacity of 50,000 MT, while the paper machine number 2 has annual production of 150,000MT.

UPPC's Effluent Treatment Plant is one of the most technologically advanced waste water treatment facilities in the country today.

The UPPC manufacturing complex is powered by its own Co-Generation facility. Using 200 to 270 liters of bunker fuel per day, the Co-Gen Plant can generate 30 megawatts of electricity to run both Paper Machine Nos. 1 and 2.

UPPC has one of the most environmentally sound paper manufacturing operations in the Philippines. It uses 100% recycled paper, or when this is not possible, a combined furnish of recycled paper and virgin wood pulp.

## Process technology

The production process at UPPC consists of several steps:

Re-pulping –Dispersion of secondary fibers using a hydrapulper

The process of dispersing the dry and compacted pulp fibers (UKP) and secondary fibers (waste paper) in a water slush, slurry or suspension through the mechanical actions of hydrapulpers running simultaneously or alternately at range 3 to 5% consistency. An average beating time of 40 minutes.

Screening –Removal of undispersed particles

A stage screening process of removing dirt particles from 3-5 to 5% stock consistency through perforated and slotted type screen basket respectively. The lightweight particles move up to the top reject outlet while heavy debris is rejected at the bottom. The stock goes out tangentially at the middle part of the screen.

• Cleaning –Removal of contaminants from the stock

This is a three stage slot fine screening system which removes rejects such as knots, entanglements, shives, strings, foam particles, stickies and plastics coatings the utilization of vertical screen and minisorters. The rejects removed from this stage are then fed to oscillating wire for dewatering. The hot dispersion system includes dewatering of the pulp up to 30% consistency, heating, of the stock to melt stock, size and bitumen and fine dispersion of all impurities so that contaminants are unseen to the naked eye (for liner grades only).

Refining –Cutting or brushing of the pulp fibers for specific paper grades

The process of cutting or brushing the pulp fibers at 4-5% stock consistency through mechanical actions of series of refiners for purpose of achieving certain "freeness" targets for specific paper grades.

- Blending Mixing of different types of fibers and chemical additives
- Sheet Formation Forming of sheets of paper from the mixture

A hydrostatic process of forming the sheet of paper from an endless mat of finely woven fibers consistency and continuously flowing from pressurized head box into a high speed running fourdrinier wire. About 20-30% of the water is removed here.

Pressing – Compression of the paper sheets to remove water and consolidate the fibers.

Pressing is the process which involves compression of the sheet to take out water from the paper and to achieve good web consolidation. Through the utilization of two-shoe type

Flexonip pressing in series, higher sheet dryness, better runnability and reduction in costs is achieved. About 25-40% of the water is removed here.

 Drying – Further drying of the paper sheets by passing them through a series of steamheated dryer cylinders

After pressing, moisture is further reduced by evaporation through the introduction of steam in the dryer cylinders. The heat absorbed by the dryer cylinders is then transferred to the fiber to evaporate the moisture in the paper. A final dryness of 93-94% is attained after this section.

- Calendaring Paper sheets are passed through a series of calendar rolls to achieve the desired smoothness and thickness
- Reeling Winding or wrapping of paper around a reel drum to form the "jumbo roll".
- Rewinding and Finishing Reduction of the "jumbo roll" into desired sizes according to customers' specifications. The finished roll is labeled and strapped and transferred to the Finished Goods Warehouse.

#### PROCESS DESCRIPTION

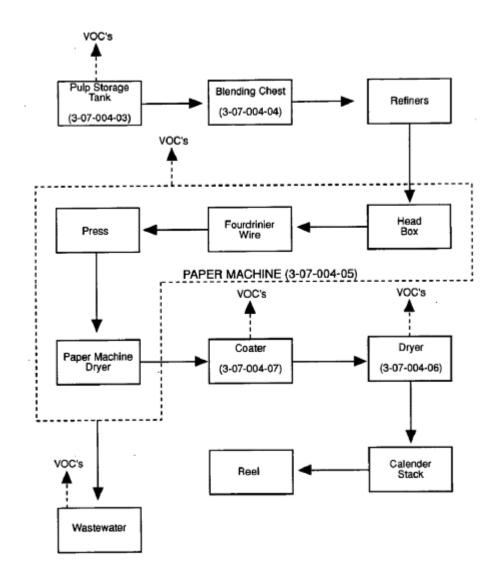


Figure 1 The Paper-Making Process

### Resource utilization

UPPC utilize 100% recycled materials for its paper production. Listed below are major materials used in the operation.

#### **MAJOR MATERIALS USED:**

- UKP Unbleached kraft pulp
- AOCC American old corrugated cartons
- MEOCC Middle East old corrugated cartons
- LDLK Local double lined kraft
- LOCC Local old corrugated carton
- RAW STARCH mostly cassava
- MODIFIED STARCH amphoteric
- ROSIN emulsion
- ALUM liquid & solid

### **ENERGY DEMAND:**

• 200 to 270 liters of bunker fuel per day (existing)

#### **WATER DEMAND:**

• 360 cum/hr for the new plant

# IV.Proposed location of project facilities/components and alternatives considered in the decision

The proposed additional facilities are planned to be located within the existing facilities in Barangay Iba Este, Bulacan, currently covered by the project's ECC. No additional lands will be acquired for the proposed expansion.

Figure 2 shows an aerial photo of the project site while Figure 3 shows the proposed development plan of UPPC.

# a. Map showing project site

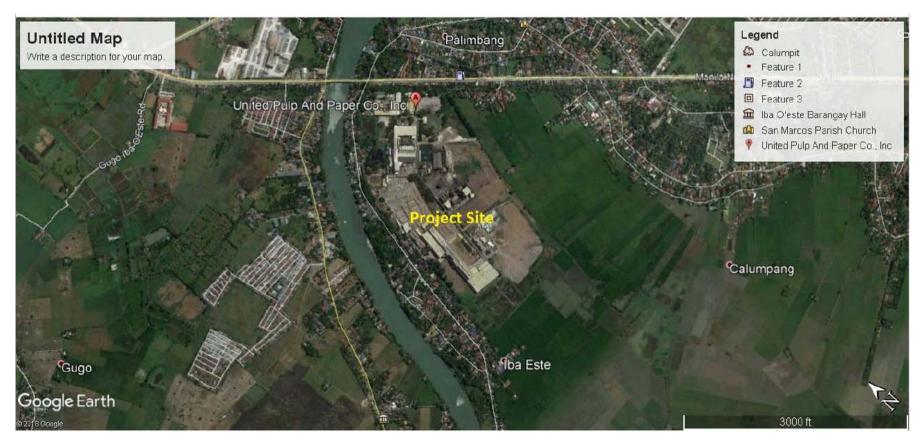


Figure 2. Aerial photo of the project site

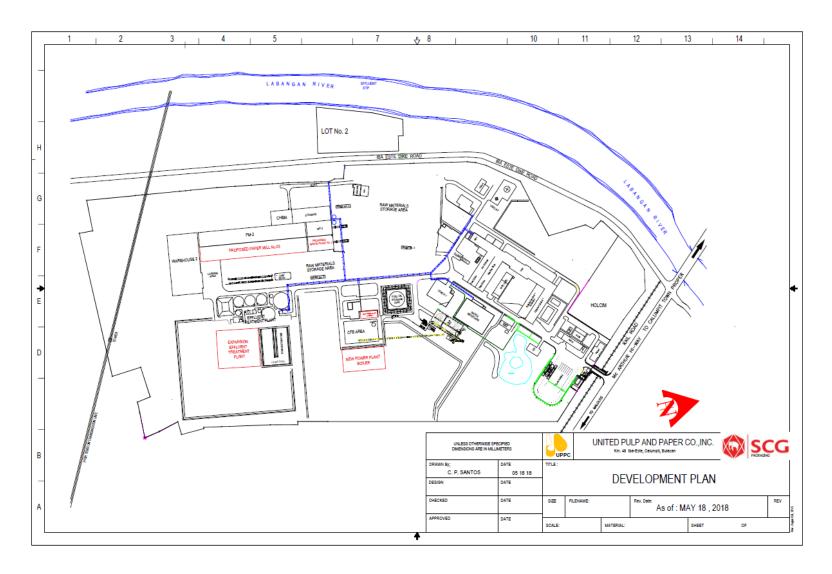


Figure 3 Proposed development plan

# V. Project proponent (indicating incorporators, subsidiaries)

UPPC was incorporated in December 1969 and started its commercial operations in August 1975. In 1995, the company entered into a joint venture with Siam Pulp & Paper Ltd. (SPPC), with SPPC investing 40% ownership of the Company. At the center of this joint venture is the Paper Machine No. 2, which had a successful start up in 1998.

# VI. Project timeframe of project phases

Major Project	2018	2018	2019	2019	2019	2019	2020	2020	2020	2020
Phases	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
PRE- CONSTRUCTION (FS, bidding plan, project approval, permitting, etc.,)										
CONSTRUCTION (civil works, delivery, machine installation, etc)										
OPERATION (commissioning & start up, commercial run)										

# VII. Preliminary impacts identified environmental aspects for each alternative

The proposed expansion will be carried out in three major development phases: preconstruction, construction and operation phase. The table below identified preliminary impacts for each project phase as well as its respective mitigation measures.

Table 9 Identification of preliminary impacts and mitigating measures for the proposed expansion project

PROJECT PHASE/ KEY ENVIRONMENTAL ASPECT	WASTE	ENVIRONMENTAL COMPONENT LIKELY TO BE AFFECTED	POTENTIAL IMPACTS/ISSUES	MITIGATING/BUILT IN MEASURES
CONSTRUCTION				
Site preparation for construction of new facilities	Spoils and construction debris  Domestic and construction	Land	Generation of wastes including debris from existing facilities	Implementation of proper clearing protocol and disposal of debris
Construction of papermill # 3  Construction of additional co-gen facility  Construction of additional facilities	wastes Fugitive dust	Air	Generation of fugitive dust during construction especially on dry and windy periods	Implementation of dust suppression management
Tacilities		Water	Increase demand for water to support construction and domestic supply of workers	Implementation water conservation measures and limit volume of water within permitted extraction limits

		People	Short term demand for construction workers	Implementation of prioritization of hiring qualified; provide short term training/capacity building support for skills required during construction
OPERATION				
Operation of papermill # 3				
Re-Pulping	Solid wastes	Land	Generation of solid wastes from raw materials	Continue implementation of proper waste management program; improvement in recovery rate
Pulp screening and cleaning	Wastewater	Water	Generation of sludge or waste water from pulping process	Continue implementation of Zero sludge to landfill program; improvement in recovery rate
Pulp drying	Energy	Air	Emission of vapors -sulfur and nitrogen oxides	Continue use state of the art technology (recovery boiler)
Paper manufacture	Solid wastes/Dissolved materials/Residual chemicals/waste water	Land Water	Increase demand for energy, water and chemical inputs	Continue implementation of zero sludge to landfill program; improvement in recovery rate; compliance to environmental standards

| Proposed UPPC Expansion Plan-Project Description for Scoping (*prepared by Prism Environmental Express*)

Operation of additional cogen facility	Emissions	Air	Generation of NOx and SOx emissions	Continue to implement high efficiency operation and installation of air pollution control devices
Operation of additional facilities	Solid wastes Energy	Land	Generation of solid wastes	Continue implementation of proper waste management program;

| Proposed UPPC Expansion Plan- Project Description for Scoping (*prepared by Prism Environmental Express*)

# VIII. List of invites for public scoping

Appendix C

## **IX.Draft invitation letter**

Appendix D

# X. Draft of the proposed program for the public scoping

Appendix E

# **Appendices**

Appendix A (Attendance sheet and photos	)	



### United Pulp and Paper Co., Inc. Calumpit, Bulacan



### Human Resources Office Training and Organizational Development

### ATTENDANCE SHEET

Title: Multipartite Monitoring Team Meeting
Facilitator: UPPC Date: September 07, 2018

	NAME	Company	Designation	Mobile No.	Signature
1	Lormelyn Claudio	DENR-EMB, Region III			- ,
2	Isabel Abando	DENR-EMB, Region III			l K
3	Reymar Saracanlao	DENR-EMB, Region III			8
4	Celia Esteban	PENRO			,
5	Myrla Castro	PENRO			to
6	Ma. Eva Valentin	MENRO - Office of the Mayor (Calumpit)	menpo		Que
7	Helen Christina Reyes	Office of the Mayor (Calumpit)			
8	Alfredo Cruz	Brgy. Chairman, Iba Este			/
9	Dr. Rizallie Lucas	Rural Health Unit, Calumpit, Bul.	mHo		9ml
10	Dr. Marites Santos	Rural Health Unit, Calumpit, Bul.	9.11-4		hat
11	Ricardo Halili	Chairman, Iba Este Farmer's Association			A.M
12	Perlito De Jesus	Chairman, Calumpit Fishermen Association			df-
13	Silverio De Guzman	UPPC			
14	Sherwin Rafael	UPPC			
15	Aldrin Juralbal	UPPC			9R.
16	Melvin De Jesus	UPPC			mes
17	Ariel Domingo	UPPC			112
18	Edgar De Leon	UPPC			Dus
19	Jun Lorenzo	UPPC			PIP
20					0//
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## United Pulp and Paper Co., Inc. Calumpit, Bulacan



### Human Resources Office Training and Organizational Development

### ATTENDANCE SHEET

Title: Multipartite Monitoring Team Meeting
Facilitator: UPPC Date: March 16, 2018

	NAME	Company	Designation	Mobile No.	Signature
1	Lormelyn Claudio	DENR-EMB, Region III		-	} \
2	Isabel Abando	DENR-EMB, Region III			h: /
3	Reymar Saracanlao	DENR-EMB, Region III		1	7-1
4	Celia Esteban	PENRO			Hlusa
5	Myrla Castro	PENRO			1
6	Elizabeth Apresto	BENRO			//-
7	Norberto Pulumbarit	BENRO	Supervising EMS	0.943-483-2200	Jolust air
8	Ma. Eva Valentin	MENRO - Office of the Mayor (Calumpit)		X	Marie
9	Helen Christina Reyes	Office of the Mayor (Calumpit)			
10	Alfredo Cruz	Brgy. Chairman, Iba Este			1000
11	James Valentin	Brgy. Chairman, Palimbang			Journ J
12	Ricardo Halili	Chairman, Iba Este Farmer's Association			A. Rai
13	Perlito De Jesus	Chairman, Calumpit Fishermen Association			Eulite de Lani
14	Silverio De Guzman	UPPC		1	uwe ai zaiii
15	Eleazar Dela Cruz	UPPC			Julyo
16	Aldrin Juralbal	UPPC			120-
17	Sherwin Rafael	UPPC			( Joh
18	Ariel Domingo	UPPC			12-
19	Edgar De Leon	UPPC			They are
20	Jun Lorenzo	UPPC			C Part
21	Melvin De Jesus	UPPC			

F	No.	HRO-FRM-23
0	Revision	3
R	Effectivity Date	27 October 2014
M	Page	1 of 2

Appendix B (Survey questionnaire)	

PERCEPTION SURVEY	
Date: Location (where the interview was conducted): Purok/Sitio: Barangay: Name of interviewer:	Time start: Time end:
Respondent's profile     1.1. Name	
1.2. Address	s (How many years have you live in your current
Less than 1 year 4 ☐ 5-6 years 7 ☐ More than	n 10 years
2 ☐ 1-2 years 5 ☐ 7-8 years	
₃ □ 3-4 years 6 □ 9-10 years	
1.4. Age 1.5. Sex	
1 ☐ Male	
2 ☐ Female 1.6. Civil status	
$_1$ $\square$ Married/Live-in $_3$ $\square$ Widow	
<sup>2</sup> ☐ Single <sup>4</sup> ☐ Others (pls. specify)	
<ul><li>1.7. Highest educational status</li><li>1 □ Elementary level 5 □ College 9 □ Others (pls.</li></ul>	specify)
2 ☐ Elementary graduate 6 ☐ College graduate _	
3 ☐ High school level 7 ☐ Vocational	
<ul> <li>4 ☐ High school graduate 8 ☐ None</li> <li>1.8. Employment status</li> </ul>	
ı □ Yes	
₂ □ No	
1.9. Are you working for UPPC?	
1 ☐ Yes, please specify position	<del>_</del>
<sup>2</sup> □ No 1.10. Specific occupation	
1 ☐ Farmer	
2 ☐ Housewife	
3 ☐ Government employee (brgy official, teacher,	. health worker. etc.)
4 □ Private employee (clerk, messenger, janitor, s	
Company other than UPPC, etc.)	
5 ☐ Business/ Entrepreneur (sari-sari store, produ	uct selling, shop owner, etc.)
6 ☐ Construction worker	

7 ☐ Factory worker
8 ☐ Service related (sewing, laundry, driver, etc.)
9 ☐ Engaged in small scale mining
10 Others (pls. specify)
1.11. Place of work
□ Within Barangay Iba Este
2 ☐ Outside Barangay Iba Este
Where? (name of barangay, town, province) Survey code: 2
<ul><li>2. Project awareness</li><li>2.1. Are you aware of the ongoing operation of UPPC?</li></ul>
1 ☐ Yes 2 ☐ No
2.2. If yes, How did you know (source of information)?
☐ Government/ barangay officials.
2 □ Relatives/ friends/ neighbor
₃ ☐ UPPC company
4  Meetings or consultation (pls. specify)
5 ☐ Observation
6 ☐ Others (pls. specify.)
2.3. Are you aware of the proposed expansion of UPPC operation (additional paper mill machine and co-gen facility)?
1 ☐ Yes 2 ☐ No
2.4. If yes, how did you know about the project (source of information)?
☐ Government/ barangay officials.
2 ☐ Relatives/ friends/ neighbor
₃ ☐ UPPC
4 ☐ Meetings or consultation (pls. specify)
5 ☐ Observation
6 ☐ Others (pls. specify.)
2.5. In your opinion, what would be the possible <u>environmental and social effects</u> of this project (existing and expansion) in your area?  Positive
□ Increase employment
2 🗆 Increase business/ establishment of business of the community
₃ ☐ Progress in barangay or town/ social development
<sup>4</sup> ☐ Improved public services (such as electricity, water, road, etc.)
5 ☐ No positive effect
6 ☐ None. No idea.
7 □ Others (pls. specify)

8 ☐ Others (pls. specify)	
9 ☐ Others (pls. specify)	
Negative	
□ Loss of property	
₂ ☐ Pollution to water	
₃ ☐ Pollution to air	
$_4$ $\square$ Removal of trees and other vegetation	
$_{5}$ $\square$ Removal of fishing grounds and other coastal areas	
$_6$ $\square$ Loss of work and livelihood opportunities	
7 ☐ Health problems	
8 ☐ No negative effect	
9 □ None. No idea.	
10 Others (pls. specify)	_
11 Others (pls. specify)	_
12 Others (pls. specify)	_
2.8. If a negative impact happen, what would you recommend to so a second secon	
Additional Notes by interviewer (if any):	

Appendix C (List of invitees for public scoping)	

### **Public Consultation Attendees**

Venue: Vicente T. Reyes Elementary School (formerly Iba Este Elem. School)
August 17, 2018 (Friday)
2:00 AM to5:00 PM

Name	Position	Office/address	Contact No.	Notes
HON JESSIE P. DE JESUS	Mun. Mayor	Calumpit, Bulacan	- Communication	1.0000
MYLEEN T. PANGAN	Municipal Admin	Office of the Municipal Administrator	0906 235 1819	Advised the ff. Dep'ts. to attend the PC:  a. MAO b. MENRO c. MPDO d. RHU e. ENG'G
MR. JOSE P. TOMAS	Chief	Municipal Planning and Dev't. Office	0933 052 5455	
ENGR. EVA VALENTIN	Chief	Municipal Env't. & Natural Res. Office		
HON. ALFREDO CRUZ	BRGY. CHAIRMAN	Brgy. Iba Este, Calumpit, Bulacan	0923 268 7081	Advised the ff. sectors to attend PC:  a. Fishermen's Group  b. Farmers' Group  c. Youth group  d. Senior Citizens' Leader  e. Church/Religious Group  f. Student-Academe Group  g. Transport Group  h. Kag. Committee on  Environment
MR. PERLITO DE JESUS	Chairman	MFARM, Iba Este		
MR. RICARDO HALILI	Chairman	BAF, Iba Este		
MS. CRISTINA M. ISAIS	Principal	Vicente T. Reyes Elem. School, Iba Este	0933 987 8411	Venue of PC
REV. FR. VON TETANGCO	Parish Priest	San Isidro Labrador Church, Iba Este	0939 889 2332	Diocese of Hagonoy
LARRY SANTA CRUZ	President	IBA ESTE TODA, Iba Este	0932 138 5927	
HO. JOSE ARNEL B. FAUSTINO	BRGY. CHAIRMAN	Brgy. Calumpang, Calumpit, Bulacan	0975 368 5238	Advised the ff. sectors to attend PC:  a. Fishermen's Group  b. Farmers' Group  c. Youth group  d. Senior Citizens' Leader  e. Church/Religious Group  f. Student-Academe Group

				g. Transport Group h. Kag. Committee on Environment
MR. EFREN M. SANTIAGO	PRINCIPAL	Calumpit National high School, Brgy. Calumpang, Calumpit. Bulacan	044 675 2066	
HON. EUGENIO E. GARZOTA	BRGY. CHAIRMAN	Brgy. Palimbang, Calumpit, Bulacan	0915 912 7922	Advised the ff. sectors to attend PC: a. Fishermen's Group b. Farmers' Group c. Youth group d. Senior Citizens' Leader e. Church/Religious Group f. Student-Academe Group g. Transport Group h. Kag. Committee on Environment

Appendix D (Draft Invitation letter)		



July 9, 2018

Lormelyn E. Claudio, CESO

Regional Director Environmental Management Bureau Regional Office 3 San Fernando City, Pampanga

Dear Director Claudio:

Greetings!

Prism Express Consulting, Inc., has been commissioned by United Pulp and Paper Co. Inc. to prepare the Environmental Impact Study for the planned expansion in the paper milling production line, additional 25MW coal fired power plant, and ancillary facilities of the plant. The expansion will take place in the same compound of the existing milling operation in Calumpit, Bulacan.

In this regard and following the guidelines set forth by DAO 2017-15, we wish to inform and provide you the basic information about the planned expansion in production paper milling capacity as part of the IEC campaign leading to the preparation of the EIA.

We are providing here as attached the basic Project Information and Description about the Project as reference documents for the holding of the scoping meeting.

You may contact or also send email to: prism.environment2013@gmail.com and jonesmelendres@yahoo.com

Thank you and we look forward to seeing you at the meeting.



July 9, 2018

Barangay \_\_\_\_\_
Calumpit, Bulacan

Dear Chairman \_\_\_\_:

Greetings!

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ROLANDO L. METIN

President



July 9, 2018

TODA
Barangay \_\_\_\_\_
Calumit, Bulacan

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ROLANDO L. METIN President



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