



# Environmental & Social Monitoring Report (July to December 2013)

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Project Number: 46904

## BAN: PRAN Agribusiness Project Sylvan Agriculture Limited

Prepared by PRAN RFL Group

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Asian Development Bank

**ENVIRONMENTAL AND SOCIAL  
MONITORING REPORT**

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SEMI-ANNUAL REPORT

(JULY 2013- DEC 2013)

SHORT COUNTRY NAME: Bangladesh

PROJECT TITLE-SUB PROJECT:

**PRAN AGRIBUSINESS PROJECT**

Company: PRAN-RFL GROUP

Project Name: **Sylvan Agriculture Limited Bangladesh**

REPORTING PERIOD: (July/13) through (Dec/13)

## Introduction

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### The Semi-Annual Monitoring Report

A comprehensive Semi-Annual Monitoring Report for **Sylvan Agriculture Limited (SAL)** facilities and operations. This document comprises environmental and social monitoring reporting.

## Preparation Instructions

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The following points should assist you in completing this form. Please be descriptive in your responses and attach additional information as needed.

- ADB's Investment Agreement requires designated Company personnel to complete and submit semi-annual environmental and social monitoring reports in compliance with the schedule stipulated in the Investment Agreement.
- Company must report qualitative and quantitative project performance data each year of the investment for the environmental and social monitoring parameters included in this report format.
- The main purpose of completing this form is to provide the following information:
  1. Environmental and Social Management
  2. Occupational Health and Safety (OHS) Performance
  3. Significant Environmental and Social Events
  4. General Information and Feedback
  5. Sustainability of Project and Associated Operations
  6. Compliance with ADB and local environmental requirements as specified in the Investment Agreement
  7. Compliance with ADB and local social requirements as specified in the Investment Agreement
  8. Data Interpretation and Corrective Measures
  9. Progress on implementing the Corrective Action Plan (CAP) agreed with ADB (if applicable)

## Specialist Contact Information

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If you have any questions regarding the SEMI-ANNUAL MONITORING REPORT or wish to discuss completion of the SEMI-ANNUAL MONITORING REPORT please contact the Officer in Section 1.1.

## 1 ENVIRONMENTAL AND SOCIAL MANAGEMENT

### 1.1 SEMI-ANNUAL MONITORING REPORT Preparer

<b>To be completed by Company authorized representative</b>	Name and Title: MD. RASEL KABIR, Manager-HRM-QMS Phone:88-02-8819209ext-272 Fax: 88-02-8820256 <b>Email:</b> <a href="mailto:hrm61@prangroup.com">hrm61@prangroup.com</a>
<b>Project Name/Information</b>	Project office physical address: Sylvan Agriculture Limited PRAN RFLCENTER,105/1-GA, Middle Badda, Dhaka-1212  Web page address: <a href="http://www.pranrflgroup.com">www.pranrflgroup.com</a>

I certify that the data contained in this SEMI-ANNUAL MONITORING REPORT completely and accurately represents **Sylvan Agriculture Limited**'s operations during this reporting period.

\_\_\_\_\_  
Company Employee Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Name of Third Party Organization and  
Representative Certifying This Document

\_\_\_\_\_  
Signature

### 1.2 Environmental Responsibility Chart

A contact detail is provided below for getting further information on responsibility for environmental and social performance.

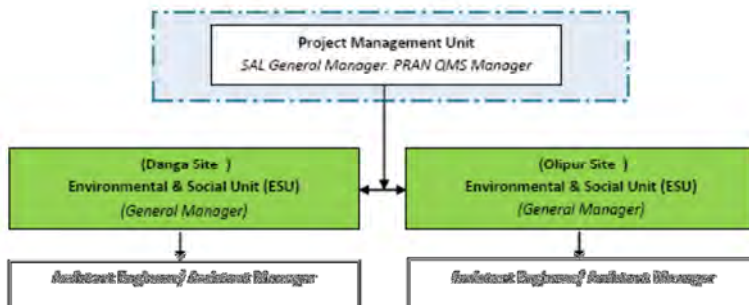
Name and Title: Md. RASEL KABIR Manager-HRM-QMS

Phone:88-02-8819209ext-272

Fax: 88-02-8820256

**Email:** [hrm61@prangroup.com](mailto:hrm61@prangroup.com)

Below is the organizational structure of the company in charged with environmental and social concerns:



### 1.3 Summary of Current Operations

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The company is manufacturing, processing, marketing, distributing liquid glucose. The company is committed to achieving highest level of customer satisfaction by continuous improvement of human resources in production and marketing of safe products using advanced technology that ensures continuous growth. More detailed information is provided in Annex 1.

## 2 OCCUPATIONAL HEALTH AND SAFETY PERFORMANCE (OHS)

**Sylvan Agriculture Limited (SAL)**'s personnel monitor, record, and report occupational health and safety incidents and workplace conditions (air quality and physical parameters, which are potentially impacted by industrial processes) throughout the reporting period.

### 2.1 Country of Investment Compliance

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It is the policy of **Sylvan Agriculture Limited (SAL)** to process safe food products consistently meeting national and international regulatory requirements. Management is committed to implementing and maintaining ISO 14000, OHSAS 18000, ISO 22000:2005, based management system throughout the process chain in the due course. Management will ensure resources and other required infrastructure to continuously improve effectiveness and adequacy of the system.

Basically we have separate department named Quality Management System (QMS) who are solely responsible for the compliance. They collect and monitor the entire data from the field and ensuring compliance regarding the issue. Recently we are in the process of implementing the international standards of ISO 14000 (Environment Management System), OHSAS 18000 (Occupational Health and Safety Management) and ISO 22000 (Food Safety Management System) in this factory for the sake of man, machines, materials, equipments and environment by following the legal and statutory requirement.

## 2.2 Workplace Monitoring:

Workplace table for monitoring the station is carried out while **Sylvan Agriculture Limited (SAL)** facilities are in operation.

Workplace Monitoring Station Number	Workplace Monitoring Description (Name)	Location
Station 1	<b>Sylvan Agriculture Limited</b>	Sylvan Agriculture Limited

Workplace Monitoring Parameter	Sample Collection and Analysis Frequency	SYLVAN AGRICULTURE LIMITED 's Performance (monthly Average of samples)	Bangladesh Regulatory Limits and Units	SYLVAN AGRICULTURE LIMITED 's Performance in Bangladesh units (quarterly average of samples)
<i>Workplace Noise</i>	monthly			
Light industry (decreasing demand for oral communication)		56dB(A)	<70db	55dB(A)
<i>Heat Exposure, continuous work</i>	daily			
Minimum to light work load		27°C	28-30°C	27.5°C

## 2.3 Incident Statistics Monitoring

### 1. Total Amounts

	This reporting period	
Report TOTAL numbers for each parameter	SYLVAN AGRICULTURE LIMITED 's employees	Contractor employees
Employees	170	100
Man-hours worked	85X 8X60=40,800	100X90X10=90,000
Fatalities	0	0

	This reporting period	
Non-fatal injuries <sup>1</sup>	0	0
Lost workdays <sup>2</sup>	0	0
Vehicle collisions <sup>3</sup>	0	0
Incidence <sup>4</sup>	0	0

**2. Fatality details for this reporting period: Nil**

**3. Non-fatal injuries details for this reporting period: Nil**

**4. Vehicle collision details for this reporting period : Nil**

**5. Training<sup>5</sup> for this reporting period**

SYLVAN AGRICULTURE LIMITED 's employees or contractor employees	Description of training	Number of employees that attended	No. of female employees that attended
Employees (All category)	Training on Occupational health and safety	30	10
Employees (All category)	Training on Basic Operator training course	29	10
	Training on hygiene & sanitation	30	10
Boiler Operator	Training on Maintenance of boiler	2	0
QC, Eng. and Production in-charge	Training on Food Safety Management	4	1
Fire- Marshal Team	Training on fire fighting	30	5
Employees (All category)	Application of FC Software	3	0

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<sup>5</sup> Trainings are provided by the training department as well as by third party.

SYLVAN AGRICULTURE LIMITED 's employees or contractor employees	Description of training	Number of employees that attended	No. of female employees that attended
Employees (SCM)	Application of SCM Software	2	1
Employees (All category)	Application of 4 Lessons & 5s	23	7
Employees (All category)	Basic Foundation Course (BFC)	14	4
Employees (All category)	Basic Computer Knowledge	20	10
Employees (common service)	Duties of Security Personnel	9	2
Employees (All category)	Guidelines for Female Supervisor	4	4
Employees (All category)	Motivation & Team Building	5	2
Employees (Engineers)	Maintenance of Substation	10	0

#### 2.4 Life and Fire Safety

SYLVAN AGRICULTURE LIMITED 's Fire Safety Verification Activities	Frequency	Date(s) Performed	Observed Deficiencies <sup>6</sup>	Corrective Actions and Schedule For Implementation <sup>7</sup>
Fire Drills	Minimum: three(3)/year	-----		
Inspect and certify fire detection and suppression electrical and mechanical systems.	Minimum: one(1)/year	10.07.13		
Inspect, refill/recharge portable fire extinguisher	Minimum: two(2)/year	15.07.13		



## 2.5 Significant OHS Events

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A medical center has been established in the factory premise which provides twenty four hours service to the employees. It provides free treatment and medicine. Nevertheless to say we are adopting advanced technology and various safety measures (apron, goggles, safety shoes, mask, helmet, ear cord, gloves etc.) for the safety of man, machine and materials.

An Emergency Preparedness Plan is also already in place effective 7.10.11.

## 3 SIGNIFICANT ENVIRONMENTAL AND SOCIAL EVENTS

As mark of its concern for environment degradation, particularly pollution of rivers caused by discharge of industrial effluents PRAN-RFL Group is already constructing an effluent treatment plant (ETP) in the factory premise which is developing wider awareness to help formulation of balanced action programs for minimizing river pollutions and at the same time, ensuring that productions are not hampered or employment threatened. Now, the ETP is under commissioning and the construction work will be completed within 15 July, 2014. Now effluent is being managed by helping local municipality as well as agreement with brick field & incinerator.

## 4 STAKEHOLDER CONSULTATION AND FEEDBACK

We have established formal and regular consultation with local community and other stakeholders for our smooth growth. No people affected regarding this issues during the reporting period.

Additional information are included below:

We are providing food(Lunch & Dinner) two times in a day for our workers. Kitchen wastage such as rice, vegetable, fish, meat waste are dumped in designated area while cartons, polythene are sold to selected vendor.

Our factory General Manager (GM) meet quarterly with local community at SAL conference room of Habigonj Industrial Park (inserted picture below).



They discussed environmental impact & social issues as well as presented our environmental monitoring plan & CSR activities.

## 5 SUSTAINABILITY OF PROJECT AND ASSOCIATED OPERATIONS

- ❑ We are in the process of implementation of an environmental management system(ISO 14000)
- ❑ An environment/sustainability or a corporate social responsibility report is published in print media. Corporate social responsibility report attached as Annex 4.CSR program of 2013 attached as Annex 5 as well as List of recruitment of deprived people including females attached as Annex 6.We are maintaining road maintenance from factory to main road up to two miles is managed by our own funds (see photo below).



- ❑ We are marketing products that are specifically environmentally friendly.
- ❑ We are improving local supplier relationships and providing technical assistance to suppliers for our mutual benefit.

For example, we provided training to suppliers (inserted picture below)on how to mitigate the environmental threat by raw materials, additives, dangerous chemical, flavour, seasoning, etc. as well as farming (used pesticide, chemicals, fertilizers etc.). In the regards of social issues we provided them medical facility for better treatment for their health. We also provided seed, fertilizer, technology as well as testing facilities. We also informed them that child labor is not allowed in their activities.



- ❑ Programs to benefit the local community: Scholarship scheme, financial support to poor people, generating employment for the deprived people besides normal procedure of recruitment.

- We recruit people from UCEP (Under Privileged Children Education Program)<sup>8</sup>

We recruited semi-skilled manpower by Central HRM Department from UCEP, BITAC, MAWTS, CARITAS, Bangla-German Samprity and other like-minded organizations who are given priority considering our social responsibility and quality of Trade Course Training in those institutions following the SOP on Semi Skilled Manpower Recruitment (Annex 7). We have already recruited about 450 people from UCEP since December, 2013.

## 6 ENVIRONMENT MODULES

### 6.1. Point Source Air Emissions:

Point Source Air Emissions refers to the air flow out from a specific location on the project site. These emissions can come from points such as process stacks, power generation stacks and vents.

**Sylvan Agriculture Limited (SAL)** is required to collect representative samples of point source air emissions at a minimum of agreed number of locations (the boiler, generator and plant boundaries), submit these samples for laboratory analysis and report the results to ADB. Individual samples and individual reports are required for each point source air emissions monitoring point. Monitoring should take place while facility is operating.

Test monitoring results are provided as Annex 8. The results show that the emissions are within the acceptable limits.

### 6.2. Drinking and Process Water

Drinking and Process Water refers to the water used in **Sylvan Agriculture Limited**. The health of employees and quality of products is maintained by knowing the quality of incoming water.

**Sylvan Agriculture Limited (SAL)** collects representative samples of drinking and process water at intake points from the distribution system/borewell water (raw water), and after treatment, submit these samples for laboratory analysis. Individual samples and individual reports will be required for each drinking and process water monitoring point. Monitoring took place while facility was operating. These are tested in our factory laboratory. The test results are presented in Annex 9. The water is also analysed by ICDDR,B.

### Drinking and Process Water Monitoring Point Location<sup>9</sup>:

<sup>8</sup> The Underprivileged Children's Educational Programs (UCEP) is a leading national non-government organization of Bangladesh. It strives to inculcate marketable skills among the hardcore poor urban working children and adolescents through Integrated General and Vocational education followed by Technical Education and on the job apprenticeship in close collaboration with potential entrepreneurs and enterprises / industries throughout Bangladesh. For more details, please visit their website (<http://www.ucepbd.org>).

<sup>9</sup> Sampled at water treatment plant and discharge point at Sylvan Agriculture Ltd of Habigonj Industrial Park.

Parameter	RAW Water (Before water treatment)	Treated Water standard	TREATED Water (ppm)	Remarks
p <sup>H</sup>	6.8	Std-6.5~7.5	6.9	
TDS	110	Max-150 ppm	110	
Hardness (ppm)	85	Max-5 ppm	01	
Chlorine (ppm)	0.1	Max-0.01 ppm	0.0	
Iron (ppm)	1.93	Max-0.05 ppm	0.05	

### 6.3. Solid Waste Management

Solid Waste refers to non-liquid, non-soluble materials that contain complex substances. Examples of solid wastes include sewage sludge, agricultural refuse, demolition wastes, and mining residues, some which are applicable only to specific sectors.<sup>10</sup> Annex 10 shows the Selected Vendors List.

#### Solid Waste Management Summary

Solid Waste Type  <i>Includes description</i>	Semi-Annual Quantity	SYLVAN AGRICULTURE LIMITED Method of Storage, Handling and/or Treatment
Reject Plastic Packet	30 Kg	Sold
Reject Cartoon	100 kg	Sold
PWS <sup>11</sup> Bag Reject	100 pcs	sold
Iron Scrap	35 Kg	Sold
Atop Bran	75 kg	Sold

### 6.4. Hazardous Materials Management

<sup>10</sup> Pollution Prevention and Abatement Handbook, Glossary of Environmental Terms

<sup>11</sup> PWS is a foil pack made of Low density polyethylene (LDP) and Polyethylene terephthalate (PET).

Hazardous materials are those materials that represent an excessive risk to property, the environment or human health because of their physical and/or chemical characteristics. Examples include explosives, toxic or flammable gases, flammable liquids and solids, oxidizing substances, radioactive materials and corrosive substances.

The company monitors the methods of collection, storage and disposal of hazardous materials<sup>12</sup>, and report these methods and measured quantities. A SOP has been developed for handling of dangerous chemical handling which is described below.

In the context of the present day needs, maintaining of an uninterrupted flow of chemical materials is an essential prerequisite for the attainment of organizational objectives. Shortage of dangerous chemical may be the largest contribution to production loss. Proper storage of the dangerous chemical is essential to keep the chemicals in good condition. Disorganised and unsafe storage of dangerous chemicals may lead to a great hazard in terms of burn, fire etc. To prevent such accident safe and proper store keeping is most important for the company.

The chemical which has very harmful effect to human is known as dangerous chemical example: Sulphuric Acid ( $H_2SO_4$ ), Nitric Acid ( $HNO_3$ ) etc. Other chemicals that are stored in the company's premises include Hydrochloric acid (HCl), Caustic soda (NaOH), Methyl ethyl ketone ( $C_4H_8O$ ), Toluene ( $C_6H_5CH_3$ ) and Ethyl Acetate ( $C_2H_5COOH$ )

#### **Safety & Security Related Functions maintained as per below mentioned way**

1. Dangerous chemical store is mark as RED and DANGER SIGN
2. There is one entry point of the chemical store and the store is spacious enough for easy access.
3. Chemicals are kept on 3 inch sand bed over main floor
4. The store is kept neat & clean, damp & leak proof with sufficient ventilation.
5. Personal Protective Equipment (PPE) is used while handling chemicals
6. First In-First Out (FIFO) is maintained strictly in the dangerous chemical store
7. Safety & Security related information hang in the factory places where applicable.
8. Hazard Identification & risk assessment have been completed as per criteria biased.
9. Hazard Identification & risk assessment communicated to those who are involving this issue
10. List of Aspect & Impact maintained each & every department for EMS purpose
11. EHSQ Policy Communicated to all who are engaged in Health Safety & Environmental issues.
12. Objectives of each & every department set as per Health Safety & Environmental Considerations
13. All of the employees are trained Aspect & Impact, HIRA, Accident & incident Management, Emergency Preparedness, Corrective & Preventive Actions.
14. Access control is strictly maintained not only our factory but also corporate office.

#### **6.5 Environmental Permits or Compliance Certificates –**

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The project has acquired the Environmental Compliance Certificate from the Department of Environment (DOE) 14.02.2014. Environmental permits certificate is attached as Annex 11. Other certificates are presented in Annex 2.

#### **6.6 Tree Plantation Program**

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##### **Purpose:**

To increase the beauty of factory premises & keep the environment sound & healthy.

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<sup>12</sup>Hazardous materials include ignitable, reactive, flammable, radioactive, corrosive and toxic substances.

**Scope:**

All footpaths, Island, On the bank inland waterway, Surrounding of Habiganj Industrial Park (HIP).

**Tree plantation status**

Area	Type of Plant	Remarks
In front of Main gate	Grass, Various types of flowers consider the season	
Island	Grass, various types crotons trees	
Beside footpath	Various types of flowers & crotons trees consider the season	
In front of Substation	Various types of flowers & crotons trees consider the season	
On the bank of inland waterway	Various types of flowers & crotons trees consider the season	
Beside the WTP	Nursery	
Surround the ETP	Various types of flowers & crotons trees consider the season	
Surround the HIP factory	Tamarisk tree, Neem tree, Coconut tree etc. surround the factory	







### **6.7 Compliance to Environmental Management and Monitoring Plan**

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A summary of compliance status to the Environmental Management and Monitoring Plan is presented in Annex 12.

## ***7 GRIEVANCE REDRESS MECHANISM***

The company has an established a Grievance Redress Mechanism (GRM) in the project site and the corporate headquarters. Attached is the detailed procedure and organizational arrangements (Annex 3). During the reporting period, no complaints, grievances, or protests received from local communities are recorded.

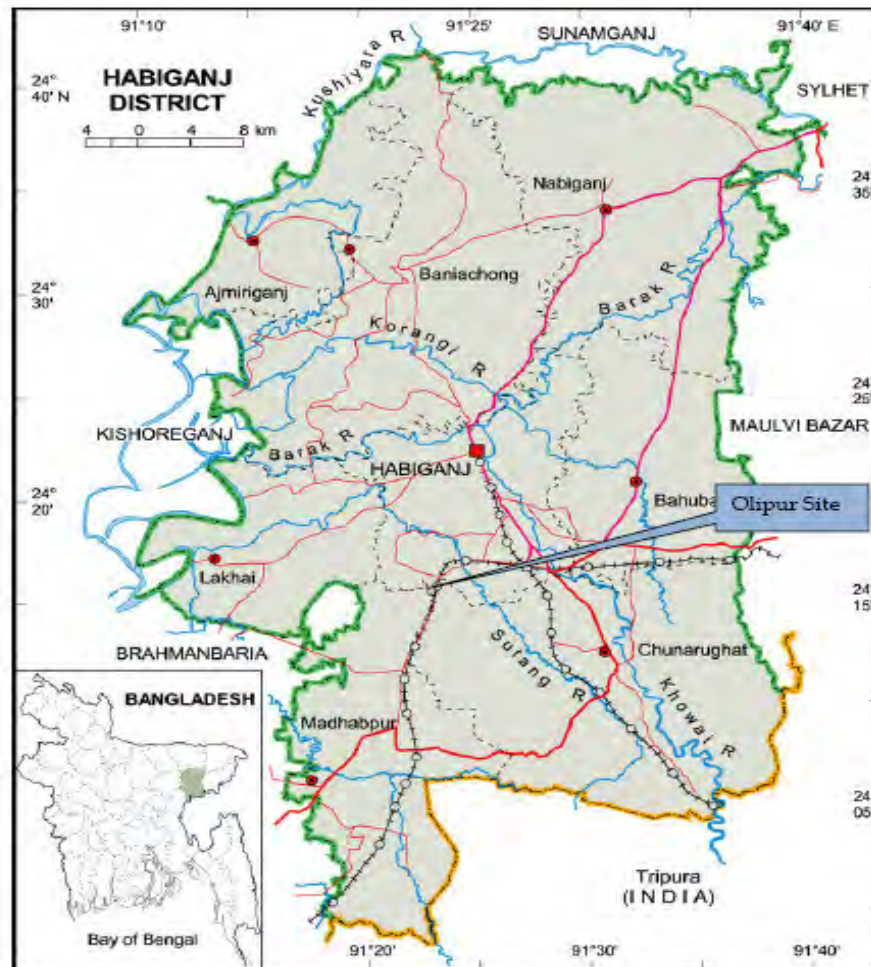


## Annex 1 – Location and production capacity

Sylvan Agricultural Limited

Liquid Glucose Industry site of SAL is located at about 120 km from Dhaka at Village: Olipur, Union: Sayestaganj, UPAZLLA: HabiganjSadar and District: Habiganj. The Project Location has been demarcated in Exhibit 7 (District map) and Exhibit 8 (Upazila map).

Exhibit 7. Location in Habiganj District Map





Presently, the total area of the Olipur Site owned by PRAN-RFL Group is 120 acres. We will continue to increase the project area. Currently total area for Sylvan Agricultural Limited(SAL) is 4 acres. Most of the land for SAL has been accommodated by the industrial buildings and other facilities for workers. Part of the land for SAL is waiting development.

The Olipur site is located in mostly rural area and along the national highway. Currently there are following industries from reputable industrial groups of the country within 10 KM radius of SAL.

- Square fashion Ltd. (Under construction)
- Square denim Ltd. (Under construction)
- Rubber garden and manufacturing ( Government)
- CP Bangladesh Ltd.
- Star ceramic Ltd.
- RAK Paints Ltd
- Shahjibazar power LTD
- Energy Prima Ltd
- Shajibazar power plant ( Government)
- Pioneer spinning ltd- ( Basdsha group)
- Charu ceramic ltd.
- MARR Ltd ( Starch manufacturing )
- TK GROUP ( Under construction)
- RAK MOSFLY (Mosquito coil)
- Shaiham group

The total land area has been purchased by the PRAN RFL GROUP in the various sister companies' names (that includes of Sylvan Agricultural Limited) from the local people. PRAN settled the value of the land with the local people, who used to be the owners of the land at the current market price. This site is for liquid glucose factory with production and selling of starch and liquid glucose having a huge demand locally and abroad.

The daily production capacity of the liquid glucose factory is given below:

- |                  |    |     |
|------------------|----|-----|
| • Starch         | MT | 150 |
| • Liquid Glucose | MT | 150 |

Current production of the liquid glucose is continuing under trial production. By January 2014, it will be run for trial production and primarily it will be consumed by the sister concerns of the PRAN GROUP.

## **Annex 2 – Business Licenses and Certificates Acquired by the Project**

**Government of the Peoples Republic of Bangladesh  
Office of the Chief Boiler Inspector  
ShilpaBhaban Annex Building  
91, Motijheel, Dhaka**

No 1968

Date: 02/10/13

Sender : **Sylvan Agriculture Limited**  
Olipur, Shayestagonj, Habigonj

Subject : Regarding transfer of ownership of Boiler No Ba B-5398.

In response to the above subject, the address of the said Boiler is hereby endorsed with this office as its present address at "Sylvan Agriculture Limited, Olipur, Shayestagonj, Habigonj instead its previous address PRAN Dairy Ltd, Bagpara, Polash, Narsingdhi. Ratings of this boiler is 1420 sft, and its effective pressure is 10 (ten) kg per cm.

**Trade Licence**

Union Form No. 7 Note to be rule (12/1)

7 No. Nurpur Union Prishad

Post of Office- Brahmandura, Upazilla- HobigonjSadar, District- Hobigonj

Book No. 10

Serial No. 829

License No. 98

Issue Date: 25/09/2013

Name of Licence Receiver : Ahsan Khan Chowdhury  
 Name of Father/Husband : Maj. Gen. Amjad Khan Chowdhury  
 Address : 228 Lake Road, Post Office- DOHS New Mohakhali, Dhaka.  
 Name of Business Firm : **SYLVAN AGRICULTURE LIMITED.**  
 Address : Village- Olipur, Post Office- Shahjibazar, Police Station- Shaistagonj, Upazilla- HobigonjSadar, District- Hobigonj.  
 Type of Business : Agriculture Goods Processing, Marketing, Import & Export.  
 Amount of Fees : In figure- 3000/- In word- Three thousand taka only.

Licence has been issued for conducting necessary business in favour of mentioned firm after realization paying licence fee limit of this union up to 01/07/2013 to 30/06/2014 assessment years.

Sd/Illegible  
 25/09/13  
 Collector

Sd/Illegible  
 Seal of  
 Chairman  
 Signature of Chairman  
 7 No. Nurpur Union Parishad  
 Upazilla- HobigonjSadar, Hobigonj

**Government of the People's Republic of Bangladesh**  
**Tax, customs and value adjoining Tax Commissionerate, Sylhet**  
**Division : HABIGANJ DIVISION**

Value adjoining Tax Registration Letter/Tran Over Tax listed Letter/Cottage Industries listed Letter  
 See (Rule 11 and / Order 4 (2))

Name : **SYLVAN AGRICULTURE LTD.**

Address : **OLIPUR SHAHJIBAZAR  
 SHAISTAGONJ  
 HABIGANJ**

TIN (If any) : 1402019972  
 Previous BIN (If any):

Phone No.  
 Fax:

You are been enlisted as registered / Turn Over Tax / cottage Industries under the Act of value Adjoining Tax of 1991 (22 No. Act of 1991 year) from **27/08/2012**.

Kind if your business : **Supplier (Mfg.) Supplier(Trade), Import & Exporter**  
 Activity of business : **COO7.71 :: Packaging material/products**

So you are to pay value adjoining Tax some times value adjoining Tax and Supplementary Tax for all Taxable goods or service.

Value adjoining Tax/Supplementary/ Turn over Tax are to be paid by current Account Adjustment/ or deposit of money Treasury or approved Bank by Treasury Challann.

Value adjoining Tax Submitting letter relating to any one month/ Turn over Tax will be submitted as per submitting letter rule within the 10<sup>th</sup> of next month of Tax term.

Yours Tax payers Identification and area Cede mentioned below:

Taxpayers Identification/Listed Number

**2211102713**

Area Code

**220401**

This members will be mentioned in connection of your payable all challan and all communication with value adjoining Tax office. Accordingly you are to bound to obey value adjoining Tax act 1991 and value adjoining Tax all rules of 1991. If you are need to any explanation and information in this subject you contact with local value adjoining Tax office at any time at office time. If any altered in your application to registration by giving once you inform concern value adjoining Tax office.

Sd/Illegible

04/06/2013

Dade : 04/06/2013

Mohammad AbdusSadaque  
 Assistant Commissioner  
 Customs Excise & Vat Division, Habiganj

Licence No  
279/2012-13

## Licence Form

Licence form prescribed per Fire Protection &amp; Prevention Act 2003

Fire Service and Civil Defence do hereby grant this Licence for a period of 2012-2013 favouring **M/s. Sylvan Agriculture Ltd**, located at Alipur, Police Station: Shayestagonj, District: Habigonj to use the above address for processing / storing, Agricultural Packaging Materials to process the same under Section 4 of Fire Protection & Prevention Act, 2003 subject to the terms and conditions mentioned in the reverse side of this page:

It is hereby acknowledge the receipt of total Tk 1,552/- against Annual Fee of the said licence at the rate of Tk 1,552/- (one thousand five hundred fifty two) for the period of 01-07-2012 to 30-06-2013.

(Name and Address of Original Owner of House / Place)

Mr Ahsan Khan Chowdhury

(Name and Address of the Possessor of the Godown / Factory)

Date: 06-12-2012

Signed/  
06/12/2012

Asst Director

**Bangladesh Fire Service and Civil Defence  
Sylhet Division**

## Place for Renewal

[illegible]

Form VI

Government of the People's Republic of Bangladesh  
Office of Chief Boiler Inspector

No Sha-1-13-14(1)/1969

Date: 02/10/13

### BOILER UTILIZATION CERTIFICATE

Boiler Registration No	:	Ba Bo 5398
Type of Boiler	:	Hari. Fire Tube
Boiler Rating	:	1420
Place & year of production	:	South Korea, 2007
Maximum continuous boiling:		
Name of Owner	:	<b>Sylvan Agriculture Limited</b>
Location of Boiler	:	Alipur, Shayestagonj, Habigonj
Repair	:	
Remarks	:	
Date	to	liquid tested

I do hereby certify that, by the virtue of the right given in Section 7/8 of Boiler Act 1923, I, the Chief Boiler Inspector, have given the permission to operate the above said Boiler at the Maximum Pressure 10KG/CM from 19-09-2013 to 18-09-2-14.

Pressure of Safety Valve should not exceed 10 Kg/CM.

I do also certify that the main vapor tube has been tested liquidly at the pressure on.

Fee Tk 6500/-, Date: 11-09-2-13 is paid.

Date: 29-09-2013      Place: Dhaka

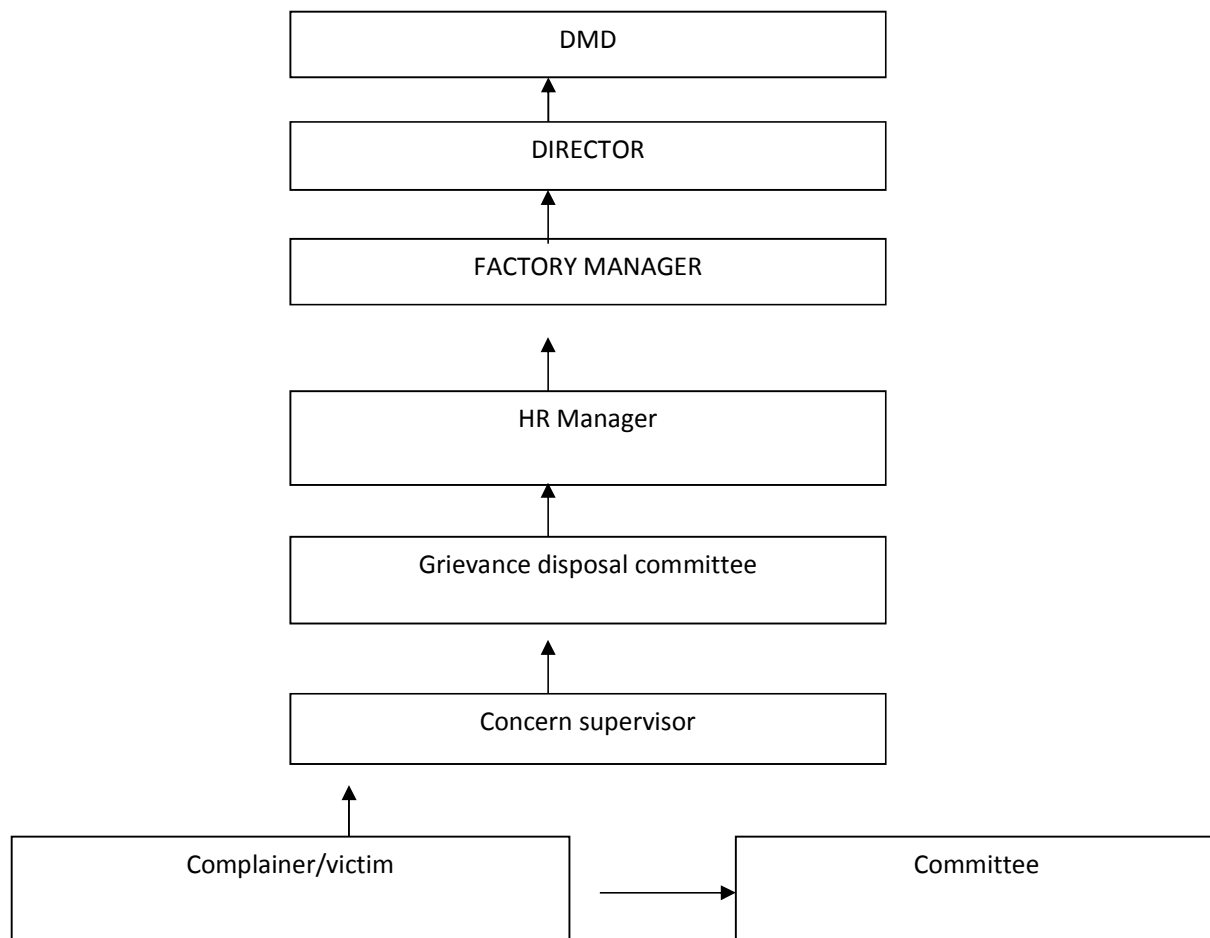
Sd./Illegible  
Boiler Inspector

Sd./Illegible  
02/10/2013  
Chief Boiler Inspector



**Annex 3 – PRAN RFL Group’s Grievance Redress Policy and Procedure****PRAN RFL GROUP**

105, Middle Badda, Dhaka-1212.

**GRIEVANCE FLOW-CHART****Grievance Disposal Procedure****Organogram**

	<p style="text-align: center;">25</p> <h2 style="text-align: center;">PRAN – RFL GROUP</h2> <p style="text-align: center;">PRAN-RFL Center, 105 Middle Badda, Dhaka-1212, Bangladesh</p>	
	<p><b>Document No: Grievence-Pran-pol-01</b> <span style="float: right;"><b>Revision: 00</b></span></p>	

### GRIEVANCE POLICY

PRAN-RFL Group built a committee for the rapid & proper solution of grievance. If any worker/employee has any grievance about their daily work they will solve their grievance activities which are given below:

10. If any grievance occurs by any employee, it should be informed to responsible officer within 3 days of the occurrence by worker/employee verbally. The responsible officer will receive the grievance & address these problems as soon as possible with appropriate action.
11. If the worker/employee is not satisfied about the decision of responsible officer, s/he will submit their grievance in writing to the factory manager within three days. After receiving the grievance the manager will call the victim & hear his/her insight & then take steps for proper investigation within three days. His investigation report must be submitted in writing in 3 days time.
12. If the worker/employee is not pleased with the judgment of the factory manager, they will bring the matter to the attention of the Manager of Human Resource. The HR Manager will mutually solve the issue with proper study of the matter in one week and then submit a written report.
13. If the worker/employee is not happy with the opinion of HR Manager, he/she/they may meet the Director (operation) & present their comprehension. In this situation The Director (operation) will give solution about these problems as soon as possible to the victim/victims.

The worker/employee has right to free access in the room of HR Department & Director (operation) about grievance regarding any aspect of work. Besides this, for the proper solution of grievance every worker/employee has rights to take action according to Bangladesh labor law 2006 act 33.

**Date:**  
**CEO/DMD**

**Date:**  
**CEO/DMD**

## GRIEVANCE HANDLING PROCEDURE

Maintaining quality of work life for our employees is an important concern of Sylvan Agriculture Ltd. The grievance handling procedure for Sylvan Agriculture Ltd has been established for harmonious environment of the organisation. The grievances of the employees may relate to the work contract, work rule, factory regulation, policy or procedure, health and safety regulation, past practice, changing the cultural norms unilaterally, individual victimization, wage, bonus, harassment etc. The management's approach is to understand the problems of employees and resolve the issues amicably in order to maintain a culture of work efficiency and high performance with great work enthusiasm. Managers must be educated about the importance of the grievance process and their role in maintaining favorable relations with the union. Grievance handling is an essential part of cultivating good employee relations and running a fair, successful, and productive workplace. Positive labor relations are two-way street both sides must give a little and try to work together. Relationship building is key to successful labor relations.

### Precautions and Prescriptions

We take care of following aspects to develop a culture of trust and confidence upon the employees of Sylvan Agriculture Ltd

1. We always ensure that the managers involved in the grievance handling procedures have a quiet place to meet with the complainant.
2. We always ensure that managers have adequate time to be devoted to the complainant.
3. We explain manager's role, the policy and the procedures clearly in the grievance handling procedure.
4. We fully explaining the situation to the employee to eliminate any misunderstanding and promote better acceptance of the situation complained of.
5. We try to let employee present their issues without prejudging or commenting
6. We use a positive, friendly ways to resolve the crisis than punitive steps, which disturb the system.
7. We remain calm, cool, collected during the course of the meeting.
8. We always focus on the subject of the grievance than allied issues.
9. We don't make threats manage the grievances.
10. We never make use of allegations against personalities.
11. We are aware of the staff member's potential concerns to the possible repercussions of raising a grievance.
12. We don't become angry, belligerent, or hostile during grievance handling procedure.
13. We listen for the main point of arguments and any possible avenue to resolve the grievance.
14. We listen and respond sensitively to any distress exhibited by the employees.
15. We are eliminating the source of the irritation or discomfort being complained of.
16. We reassure them that the managers will be acting impartially and that your hope is to resolve the matter if possible.
17. We don't "horse trade" or swap one grievance for another (where the union wins one, management wins one). Each case should be decided on its merits.
18. We avoid usage of verbalisms like "it will be taken care of."
19. We ensure effective, sensitive and confidential communication between all involved.
20. We take all possible steps to ensure that no victimization occurs as a result of the grievance being raised.
21. We ensure the investigator or decision maker acts impartially, which means they must exclude themselves if there is any bias or conflict of interest.
22. We ensure all parties are heard and those who have had complaints made against others are given an opportunity to respond.
23. We try to look upon the problem on different angles for appropriate understanding.

24. Ensuring that there is proper investigation of the facts and figures related the problem under concern.
25. We consider all relevant information in the investigation process.
26. We ask the staff member their preferred resolution option, although it is important to make it clear that this may not be a possible outcome.
27. We are aware of the limits of authority of the person who involved in the grievance handling procedures.
28. We ensure the appropriate person If the manager feels that he/she is not the appropriate person (senior manager) to deal with the issue refer the complainant to the appropriate person as soon as possible.
29. We try to get a better idea of whether the alleged discrimination or harassment happened or didn't happen.
30. We tell them exactly what they are supposed to have done, to whom and explain, why this may be seen as discrimination/harassment or as inappropriate.
31. We ensure that grievances are preferably to be settled informally at the level of the employee's immediate supervisor.
32. We try the level best to involve team members to resolve the crisis at unit level itself.
33. We avoid as far as possible the union involvement in conflict resolution situation process.
34. We follow documentation the procedures, of all necessary steps taken to resolve the problem/complaint.

#### **Grievance addressing helpline**

A telephone number has been displayed at a public area of all factories so that anyone can raise an issue. A team of Auditor is ready to take the complaint and pass on to appropriate authority with understanding the nature of the grievance. A log sheet is maintained by the auditors at head office for monthly review.

#### **Conclusion**

To a great extend the aggravation of industrial problems depends on manager's approaches and attitude in effective handling of employees grievances. We take Care in the way managers approaches the problem and perceiving the pros and cons of the situation. The conflict management approaches include the win-win strategy that help in the healthy organisational practices and which reflects the strong organizational culture. The cooperation from both parties is the pre-requisite to handle the problem and effective settlement of the grievances. We use Conscious of professional self that help managers in the conflict handling situations grievance redressal process.

## Annex 4- Social Responsibility Report which was published in print media



The daily Bangladesh Protidin & the daily Somokal published that PRAN-RFL Group has donated one hundred and fifty bag blood for Bangladesh Red Crescent Society as self blood donated program of PRAN-RFL employees



নতুন কাপড় না হলে আবার ঈদ হয় না! কারও কারও হয়। নতুন কাপড় পরা আর পোলাও-কোরমা খাওয়া ঈদের দিনেও থেকে যায় স্বপ্ন। দুই সেই শিশুদের মধ্য থেকেই কাল কিছু সৌভাগ্যবান ঈদের নতুন কাপড় পেল জাতীয় নলের দুই ক্রিকেটার মুশফিকুর রহিম ও নাসির হোসেনের হাত থেকে। ঢাকা এফএম ৯০.৪-এর অনুষ্ঠান 'প্রাণআপ আলোবাসার বাংলাদেশ'-এর উদ্যোগে কাল কমলাপুর রেলস্টেশন এলাকায় দুই শিশুদের নতুন কাপড় উপহার দিয়েছেন তারা। সৌজন্য ছবি

The daily ProthomAlo published that the Bangladesh National cricketer Mushfiq & Nasir Hossain provided new dress to Street poor people of Eid festival on behalf of PRAN UP Bhalobasa Bangladesh (Program of Dhaka FM 90.4) at Komlapur rail station of Dhaka.



## Annex 5 - DETAILS ACTIVITY FOR SCHOLARSHIP SCHEME, FINANCIAL SUPPORT

CSR PROGRAM 2013			
1	Education program		Taka
	a	Scholarship program	36000
	b	Donation for FAN at Mujaher High School, Habigonj	30000
	c	Three school ports, Habigonj	45000
	d.	Donation to school through DC	100000
2	Religious		
	a.	ShaoilJura Mosque construction, Habigonj	2000000
	b	Donation at Puja Mandap ( 3 mandap)	30000
	c.	Donation at Suraboi Mosque	1100000
	d.	Donation at Rubber garden mosque	600000
	e.	Iftar party	60000
3	Festival & Cultural		
	a.	Gift box comprising PRAN Product	50000
	b.	Pran product to our worker	200000
	c.	Gift to government office	100000
4	Medical		
	a.	Construction of clinic	4200000
5	Development		
	a.	HBB road construction from Shailjura Madrasha to Rail Line	3071457
	b.	Lighting at this road	100000
6	Expenses for National Day		
	a.	DC office	40000
	b.	OC office	20000
	c	SP office	20000
TOTAL		TAKA	39097457
		USD	494904.519

### Annex 6 -Summary of Recruitment list of Deprived people (Male & Female)

Category/Gender	Positions	Number
Male	Trainee	41
Female	Trainee	42
Total		83

### Annex 7 - SOP on Semi Skilled Manpower Recruitment

	<b>PRAN-RFL GROUP</b>	
<b>PRAN DEVELOPMENT MANUAL</b>		
<b>SOP on Semi Skilled Manpower Recruitment</b>	<b>DOC NO. : PRAN-RECURIT-01</b> <b>PAGE NO. : _1_OF_3_</b>	

#### 1. PURPOSE:

To ensure that quality people are getting recruited in our organization where production or maintenance or other technical works are going on and where skilled as well as semi-skilled workers are needed.

#### 2. SCOPE

This policy has been laid down for all the establishments of PRAN Group including factories, Head Office, Stores etc.

#### 3. RECRUITMENT RESPONSIBILITIES

##### 3.1. Recruitment of Semi-Skilled Manpower:

The semi-skilled manpower will be recruited by Central HRM Department. In case of such type of recruitment, graduates from UCEP, BITAC, MAWTS, CARITAS, Bangla-German Samprity and other like-minded organizations will be given priority considering our social responsibility and quality of Trade Course Training in those institutions.

##### 3.2. Recruitment Procedure of Semi-Skilled Worker:

When the Central HRM Department receives approved manpower requisition for semi-skilled workers, they address the requisition as per follows:

1. Recruitment and selection test will be held.
2. Selected Candidates will submit necessary papers including NID/Birth Certificate, Academic Certificates etc.
3. Selected candidates will get **Appointment Letter /Job Offer Letter** issued by HRM Dept.



#### 4. RECRUITMENT PROCEDURE

- 4.1.** Head of Production unit will raise requisition along with organogram approved by COO for replacement and by Director for new position specifying work nature, job description, number of worker, and duty hour for the semi-skilled worker.
- 4.2.** After getting the approved requirement through HRMS recruitment procedure will start.
- 4.3.** The recruitment committee shall scrutinize each of the candidates to determine whether their age, health, education & other criteria meet the compliance standard prior to their engagement.
- 4.4. Entry Age Limit :**

Minimum 18 Years

Maximum 30 Years

If any confusion arises regarding the age determination of the worker, a registered physician will examine the person and will ascertain the fitness for work in our establishments.

**4.5. Academic Qualification:**

-Minimum Class VIII Pass or Trade Course Certified (**UCEP, BITAC, CARITAS, Bangla- German Samprity or equally qualified organization**)

-SSC (Vocational)

**4.6. Salary:** As per company policy.

**6. RECORD KEEPING:** Personnel section of factory is solely responsible for keeping recruitment related necessary records & documents. It should maintain digital filing system or excel file to find out any document instantly whenever asked for.

<b>Revised by :</b>	<b>Compiled by :</b>	<b>Approved by:</b>
<b>Chief –Recruitment</b>	<b>SM-Central Personnel</b>	<b>C-HRM</b>
<b>PRAN-RFL Group</b>	<b>PRAN-RFL Group</b>	<b>PRAN-RFL Group</b>



## Annex 8- Environmental Monitoring Test Results



**Global  
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**GEC LABORATORY ANALYSIS REPORT**

**AMBIENT NOISE LEVEL ASSESSMENT REPORT**

GECL/Code (TR) : 133

Factory Name : Sylvan Agriculture Ltd.

Factory Address : Oilpur, Sayestaganj, Habiganj, Bangladesh.

GPS Coordinate : N- 24°14'15.4", E-91°22'54.8"

\*\*\*\*\*

Sample Collector : Global Environment Consultant (Monitoring Team).

Description of Sample : Ambient Noise Level Assessment Report

Sampling date : 10 May, 2014.

Reporting date : 12 May, 2014.

\*\*\*\*\*

**Description of analysis**

SN	Sample Location	Site condition	Concentration present (LA <sub>eq</sub> ) dBA	
			Day time	Night Time
01	Project West Side (Inside Boundary area)	Running Condition	60.19	54.29
02	Project East Side (Inside Boundary area)	Running Condition	64.33	62.17
03	Project South Side (Inside Boundary area)	Running Condition	59.37	55.16
04	Project North Side (Inside Boundary area)	Running Condition	67.44	61.39
Bangladesh [DoE] standard for industrial area			-	-
Industrial area			75	70
Commercial Area			70	60
Mixed Area			60	50
Residential Area			55	45
World Bank/IFC Standard			-	-
Industrial			70	70
Residential; Institutional; Educational			55	45

**All units are in (LA<sub>eq</sub>) dBA. Note:** This noise data was usually accomplished by – Lutron Sound Level Meter (Model – 4010)

**Comment:** According to Department of Environment [DoE] "SRO no 212-law/2006" the standard for ambient noise level in the industrial area is 75 and 70 decibels and IFC Standard for ambient noise level in the industrial area is 70 decibels of day and night time respectively. But the results were found satisfactory.



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## Global Environment Consultant

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### GEC LABORATORY ANALYSIS REPORT AMBIENT AIR QUALITY ANALYSIS REPORT

GECL/Code (TR) : 133  
 Factory Name : Sylvan Agriculture Ltd.  
 Factory Address : Olipur, Sayestaganj, Habiganj, Bangladesh.  
 GPS Coordinate : N- 24°14'15.4", E-91°22'54.8"  
 Sample Collector : Global Environment Consultant (Monitoring Team).  
 Description of Sample : Ambient Air Quality Analysis Report.  
 Sampling date : 10 May, 2014.  
 Reporting date : 12 May, 2014.

#### Description of analysis

Sample Description	Concentration present of different parameter in ambient air ( $\mu\text{g}/\text{m}^3$ )						
	PM <sub>2.5</sub>	PM <sub>10</sub>	SPM	SO <sub>2</sub>	NO <sub>x</sub>	CO	O <sub>3</sub>
Test result in Project middle area	37	64	174	23	32	165	27
Unit	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
Test Duration (Hour)	8	8	8	8	8	8	8
Method of Analysis	Gravimetric	Gravimetric	Gravimetric	West-Gaeke	Jacob and Hochheiser	CO Meter	O <sub>3</sub> Meter
Bangladesh (DoE) Standard for ambient Air	65	150	200	365	100	10,000	157
WHO/WHO Standard	75	150	NF	125	200	NF	160
Remark	Good	Good	Good	Good	Good	Excellent	Good

**Note:** This ambient air monitoring report was usually accomplished by - Respirable Dust Sampler (Model-Envirotech India APM-460 NL) and Fine Particulate Sampler (Model-Envirotech India APM-550)

**Abbreviation:** 1. Fine Particulate Matter (PM<sub>2.5</sub>), 2. Respirable Dust Content (PM<sub>10</sub>), 3. Suspended Particulate Matter (SPM), 4. Oxides of Nitrogen (NO<sub>x</sub>), 5. Sulphur Di-Oxide (SO<sub>2</sub>), 6. Carbon Mono-Oxide (CO), 7. Ozone (O<sub>3</sub>) & 8. DoE- Department of Environment, NF - Not found, WB - World Bank, IFC - International Finance Corporation.

**Comment:** - The above result for ambient air quality monitoring shows the PM<sub>2.5</sub>, PM<sub>10</sub>, SPM, SO<sub>2</sub>, NO<sub>x</sub>, CO & O<sub>3</sub> concentrations of the ambient air. From the above analysis it is observed that the concentration of all these parameters is far below the allowable limit as per DoE Bangladesh Standard and international standard for ambient air. The weather was sunny. Since the wind direction was from the North-west to South-East corner.

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**GEC LABORATORY ANALYSIS REPORT**

**STACK/POINT SOURCE EMISSION ANALYSIS REPORT (GENERATOR EXHAUST EMISSION)**

GEC/Code (TR) : 130  
 Factory Name : Sylvan Agriculture Ltd.  
 Factory Address : Oilpur, Sayestaganj, Habiganj, Bangladesh.  
 GPS Coordinate : N- 24°14'15.6", E-91°22'54.8"  
 Sample Collector : Global Environment Consultant (Monitoring Team).  
 Description of Sample : Stack/Point Source Emission Analysis Report.  
 Used Fuel : Natural Gas.  
 Sampling date : 10 May, 2014.  
 Reporting date : 12 May, 2014.

**Description of analysis**

SN	Description	SPM	NO <sub>x</sub>	SO <sub>2</sub>	CO	CO <sub>2</sub>	O <sub>2</sub>
01	Method of Analysis	Gravimetric	EPA Method (7-1)	Hydrogen per - Oxide	ORSAT Method	ORSAT Method	ORSAT Method
02	Emission Source from Generator Exhaust - (Capacity- 3945 KW)	44.19	29.17	12.11	3.8 %	3.4 %	15.9 %
03	Unit	mg/Nm <sup>3</sup>	ppm	mg/Nm <sup>3</sup>	V/v	V/v	V/v
04	Duration (Minutes)	30	30	30	30	30	30
05	Bangladesh (DoE) Standard	350	30	NYS	NYS	NYS	NYS
06	IFC/World bank Standard	100	460	2000	NF	NF	NF
07	Remarks	Good	Good	Excellent	Good	Good	Good

(Note: These above mentioned parameters are GNG & ODS substance)

Abbreviation: - 1. SPM - Suspended Particulate Matter, 2. NO<sub>x</sub> - Oxides of Nitrogen, 3. SO<sub>2</sub> - Sulphur Di-Oxide, 4. CO - Carbon Mono-oxide, 5. CO<sub>2</sub> - Carbon Di-oxide, 6. O<sub>2</sub> - Oxygen, 7. NYS - Not Yet Set, NF - not found, 8. V/v - Volume / volume & 9. DoE - Department of Environment.

Comment: Stack/Point source emission from the Generator which is run 100% by Natural Gas has been analyzed to evaluate SPM, NO<sub>x</sub>, SO<sub>2</sub>, CO, CO<sub>2</sub> & O<sub>2</sub> emission level. It was observed that the factory emission of SPM, NO<sub>x</sub>, SO<sub>2</sub>, CO, CO<sub>2</sub> & O<sub>2</sub> to environment were within the standard limits as per Bangladesh and IFC/World Bank Standard.

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### GEC LABORATORY ANALYSIS REPORT

#### STACK/POINT SOURCE EMISSION ANALYSIS REPORT (BOILER EXHAUST EMISSION)

GECL/CODE (TR) : 133  
 Factory Name : Sylvan Agriculture Ltd.  
 Factory Address : Oilpur, Sayestaganj, Habiganj, Bangladesh.  
 GPS Coordinate : N- 24°16'15.6", E-91°22'56.8"

Sample Collector : Global Environment Consultant (Monitoring Team).  
 Description of Sample : Stack/Point Source Emission Analysis Report.  
 Used Fuel : Natural Gas.  
 Sampling date : 10 May, 2014.  
 Reporting date : 12 May, 2014.

#### Description of analysis

SN	Description	SPM	NO <sub>x</sub>	SO <sub>2</sub>	CO	CO <sub>2</sub>	O <sub>2</sub>
01	Method of Analysis	Gravimetric	EPA Method (7-1)	Hydrogen Per - oxide	ORSAT Method	ORSAT Method	ORSAT Method
02	Emission Source from Boiler Exhaust - (Bangladesh Boiler # 5398)	11.19	77.44	06.27	1.9 %	1.6 %	14.3 %
03	Unit	mg/Nm <sup>3</sup>	mg/Nm <sup>3</sup>	mg/Nm <sup>3</sup>	V/v	V/v	V/v
04	Duration (Minutes)	30	30	30	30	30	30
05	Bangladesh [DoE] Standard	100	150	NYS	NYS	NYS	NYS
06	IFC/ World Bank Standard	100	320	2000	NF	NF	NF
07	Remarks	Excellent	Good	Excellent	Good	Good	Good

(Note: These above mentioned parameters are GHG & ODS substance)

Abbreviation: - 1. SPM - Suspended Particulate Matter, 2. NO<sub>x</sub> - Oxides of Nitrogen, 3. SO<sub>2</sub> - Sulphur Dioxide, 4. CO - Carbon Mono-oxide, 5. CO<sub>2</sub> - Carbon Di-oxide, 6. O<sub>2</sub> - Oxygen, 7. NYS - Not Yet Set, NF - not found, 8. V/v - Volume / volume, 9. DoE - Department of Environment.

Comment: Stack/Point source emission from the boiler exhaust which is run 100% by Natural Gas has been analyzed to evaluate SPM, NO<sub>x</sub>, SO<sub>2</sub>, CO, CO<sub>2</sub> & O<sub>2</sub> emission level. It was observed that the factory emission of SPM, NO<sub>x</sub>, SO<sub>2</sub>, CO, CO<sub>2</sub> & O<sub>2</sub> to environment were within the standard limits as per Bangladesh and IFC/World Bank Standard.

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### GEC LABORATORY ANALYSIS REPORT AMBIENT AIR QUALITY ANALYSIS REPORT

GEC/Code (TR) : 133  
Factory Name : Sylvan Agriculture Ltd.  
Factory Address : Olipur, Sayestaganj, Habiganj, Bangladesh.  
GPS Coordinate : N- 24°14'15.6", E-91°22'34.8"

Sample Collector : Global Environment Consultant (Monitoring Team).  
Description of Sample : Ambient Air Quality Analysis Report.  
Sampling date : 10 May, 2014.  
Reporting date : 12 May, 2014.

#### Description of analysis

Sample Description	Concentration present of different parameter in ambient air ( $\mu\text{g}/\text{m}^3$ )						
	PM <sub>2.5</sub>	PM <sub>10</sub>	SPM	SO <sub>2</sub>	NO <sub>x</sub>	CO	O <sub>3</sub>
Test result in Project middle area	37	44	174	23	32	145	27
Unit	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$	$\mu\text{g}/\text{m}^3$
Test Duration (Hours)	8	8	8	8	8	8	8
Method of Analysis	Gravimetric	Gravimetric	Gravimetric	West-Gaeke	Jacob and Hochheiser	CO Meter	O <sub>3</sub> Meter
Bangladesh (DoE) Standard for ambient Air	45	150	200	365	100	10,000	157
IFC/World Standard	75	150	NF	125	200	NF	160
Remark	Good	Good	Good	Good	Good	Excellent	Good

**Note:** This ambient air monitoring report was usually accomplished by - Respirable Dust Sampler (Model-Envirotech India APM-460 NL) and Fine Particulate Sampler (Model-Envirotech India APM-550).

**Abbreviation:** 1. Fine Particulate Matter (PM<sub>2.5</sub>), 2. Respirable Dust Content (PM<sub>10</sub>), 3. Suspended Particulate Matter (SPM), 4. Oxides of Nitrogen (NO<sub>x</sub>), 5. Sulphur Di-Oxide (SO<sub>2</sub>), 6. Carbone Mono-Oxide (CO), 7. Ozone (O<sub>3</sub>) & 8. DoE- Department of Environment, NF - Not found, WB - World Bank, IFC - International Finance Corporation.

**Comment:** - The above result for ambient air quality monitoring shows the PM<sub>2.5</sub>, PM<sub>10</sub>, SPM, SO<sub>2</sub>, NO<sub>x</sub>, CO & O<sub>3</sub> Concentrations of the ambient air. From the above analysis it is observed that the concentration of all these parameters is far below the allowable limit as per DoE Bangladesh Standard and International standard for ambient air. The weather was sunny. Since the wind direction was from the North-west to South-East corner.

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## Annex 9 - Water Analysis Report



**HABIGONI AGRO LTD**  
 Chhapra, Bhadgaon, Bhadgaon, Bhadgaon  
**WATER TREATMENT PLANT**



## WATER ANALYSIS REPORT

Date	Time	DWTP				DOZ				Treated water (After Softener)					Sign (QC)	Remarks
		Fe (ppm)	pH	TDS (ppm)	Hardness (ppm)	Ca (ppm)	MgCO <sub>3</sub> (ppm)	CaO (ppm)	Alum (ppm)	Fe (ppm)	Ca (ppm)	pH	TDS (ppm)	Hardness (ppm)		
						(1-2)	(2-3)	(2-3)	(1-2)	Min-0.05	Max-0.01	(6.5-7.5)	Min-120	Max-5		
20/05/24	12:00 am		6.5	130	61					0.01		6.5	120	61		
20/05/24	02:00 pm		6.5	130	64					0.01		6.5	120	61		
20/05/24	04:00 pm		6.5	130	65					0.01		6.7	120	62		
20/05/24	10:00 pm		6.5	130	100					0.01		6.9	120	62		
20/05/24	04:00 am		6.5	130	67					0.01		6.5	120	65		
20/05/24	06:00 am		6.5	130	69					0.01		6.9	120	66		
20/05/24	10:00 am		6.7	130	100					0.01		7.1	120	69		
20/05/24	12:00 pm		6.8	140	68					0.01		7.0	120	68		
20/05/24	02:00 pm		6.7	130	66					0.01		7.0	120	66		
20/05/24	05:00 am		6.9	130	69					0.01		7.1	120	69		
20/05/24	10:00 am		7.0	130	67					0.01		7.3	120	68		
20/05/24	01:00 pm		6.7	130	65					0.01		6.9	120	62		
20/05/24	03:00 pm		6.7	130	69					0.01		7.0	120	65		
20/05/24	05:00 am		6.9	130	100					0.01		7.3	120	100		
20/05/24	10:00 am		7.0	130	69					0.01		7.4	120	69		

Form no.


Sign M (QC)

ISSUE: 0

## Annex 10 - Selected Vendors List

<b>HABIGANJ AGRO LIMITED</b> <b>SELECTED VENDOR LIST</b>			
S.L	NAME OF SCRAP MATERIALS	VENDOR NAME & ADDRESS	REMARKS
1	Wastage Foil	Fahim Enterprise, Md. Ziaur Rahman, Baligoan, Kaligonj, Gazipur.	
2	Wastage Foil	Bismillah Plastic, Shakhil Mollah, Kamrangichar, Kamrangichar, Dhaka.	
3	Empty MS Drums, Wastage Foil, Wastage Cake, Wastage Biscuit, Wastage Wafer, Empty Ink Jar, Reject Preform Green.	Sonali Traders, J.A Mahamud, Kamargaon, Pubail, Gazipur.	
4	Wastage Polythin, Wastage Preform, Wastage LDPE Film.	Kana Plastic, Kamal Hossain, 15/5 Islambaghh, Islambagh , Dhaka.	
5	Plastic Drums, Wastage Cable, Wastage Jelly Candy, Wastage Foil , Reject Palm Oil.	Prodip Babu, M/S Mukta Traders, Vhoirob Bazer,	
6	Reject Iron Scrap, Tin.	Bhai Bhai Traders, Shahidul Islam, Narayangonj Iron Market, Ponchoboti, Narayangonj.	
7	Wastage Jelly Candy.	Shahin Sarker Traders, Shahin Sarker, Hasam Sarker Market, Joy Road, Kunia, Borobari. Tongi, Gazipur.	
8	Wastage Paper / Cartons.	Ayesha Traders, Hafiz Abdul Jalil, Chittagong Road, Siddirgonj, Narayangonj, Dhaka.	
9	Reject Iron, Tin, Wood & Bamboo.	Sathee Enterprise. Nur Mohammad, 193, Munshi Bari, New Road, West Jurain, Postagola, Dhaka 1204.	

## Annex 11 - Environmental Permits



Govt. of the peoples Republic of Bangladesh  
Environment Department  
Sylhet Division Office  
House No 16, Road No 37, Block-C  
Shahjalal Uposhohor Sylhet.  
e-mail : [sylhet@doe-bd.org](mailto:sylhet@doe-bd.org)

No : Po/cb/liquid glucose/10147/2014-496 Date : 19/12/1420 Bs  
02/04/2014

Managing Director  
Silvan Agriculture Ltd.  
Vill-Olipur, P.O-Shahjibazar  
P.S-Shaistaganj, Dist-Habiganj.

Subject: Regarding issuance of licence to Silvan Agriculture Ltd.

In favour of Silvan Agriculture Ltd. reports and comments by the authority and on scrutiny of all papers submitted on 30/01/2014 in the 30<sup>th</sup> meeting on request for Kha (03) part to set up proposal Liquid Glucose producing Co. Licence is given at P.S-Shaistaganj, Dist-Habiganj, Mouza-Sailjura, JI No-103, 139, S.A Khatian No-252, 258, 298, S.A Dag No-150j, 1900, 1902, 1906 under the following terms and conditions :

1. As per the report of IEE for the Mitigation of all measures in respect of structural point of view every aspect is to be fulfilled.
2. ETP is to be constructed as per layout for purification of liquid wastage.
3. Environmentally Sound Disposal System is to be setup to dispose of hard wastage.
4. Good House Keeping system is to be given preference.
5. Air pollution is to be kept within the limit of the factory and for that sufficient dust collector and exhaust fans are to be setup. In case of air pollution high boundary is to be constructed.
6. Licence is to be secured in respect of this factory from Civil Defence and Fire Service and licence is to be renewed properly. Sufficient fire extinguishers are required to be kept in the factory.
7. Safetic tank and safetic device for floor washing and domestic liquid wastage is to be used.
8. within the grounds of the factory 33% space is to be covered by green suitable trees.
9. Before materializing 'I'-'8' systems environmental clearance certificate is to be obtained.
10. Production work can't be started without environmental clearance certificate.
11. According to Bangladesh environment preservation law 1995 (amended-2010) and environment preservation rules 1997, all conditions are to be enforced.
12. Change of place/Change of caption/Extension/Change of the farm, any

ATTESTED BY  
T. K. B. 03/07





(Page 2 of 2)

- This Licence is not transferable at any cost.
14. All facilities are to be provided to the representative of this establishment and datas of environment are to be given as and when by the representative of this office comes for inspection.
  15. In future any complain regarding pollution and on spot enquiry, if found, activities of this factory may cased or removed any where.
  16. For conducting Structural development programme and for environmental works certificate may be issued for electrical connection.
  17. This environment clearance certificate is issued on the basis of materials so far received, any incomplete defective and false information is traced out in future if proved, this certificate may be liable to cancellation.
  18. The environment directorate reserves any change, addition, correction to this certificate.
  19. This certificate shall remain valid for one year from the date issue. Application for renewal of this certificate must be done at least 30 days prior to its termination on payment of renewal fee.
- Any violation of conditions from 1 to 19 or any fret, over writing in the certificate, this certificate may be treated as cancelled and legal action may be taken against this establishment under environment preservation Act, 1995 and environment preservation rules 1997.

Sd/ Illegible  
02/04/2014  
(Md. Salah Uddin Chowdhury)  
Director  
Phone : 71140

Copy for information and necessary action :

1. Director General, Environment Directorate, Principal Office, Dhaka.
2. Deputy Commissioner, Habiganj.
3. Director General, Polli Bidyut Samity, Habiganj.
4. Chief of Abika, Jalalabad Gas System T & D Ltd. Abika, Shahjibazar, Madhabpur, Habiganj.






ATTESTED BY

T. K. B. *ins*  
03/07  
2014

TAMAL KUMAR BISWAS  
Advocate, Judge's Court, Habiganj  
& Notary Public  
For whom of Bangladesh





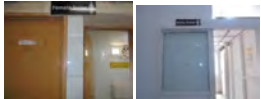


## Annex 12 – Summary of Compliance to Environmental Management and Monitoring Plan



Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
Construction Stage					
Air Pollution	<ul style="list-style-type: none"><li>Air quality can be affected by vehicle exhaust emissions and combustion of fuels.</li><li>Air quality can be affected by emissions from machinery and combustion of fuels.</li><li>Dust generation from construction sites, material stockpiles and access roads</li></ul>	<ul style="list-style-type: none"><li>Fit vehicles with appropriate exhaust systems and emission control devices.</li><li>Maintain vehicles and construction equipment in good working condition including regular servicing.</li><li>Operate the vehicles in a fuel efficient manner</li><li>Cover haul vehicles carrying dusty materials moving outside the construction site</li><li>Impose speed limits (20 km/hr) on all vehicle movement at the worksite and through access roads to reduce dust emissions</li><li>Control the movement of construction traffic in the access road</li><li>Water spray construction materials (specially sands &amp; boulder/brick chips) prior to loading and transport</li><li>Focus special attention on containing the emissions from generators</li><li>Machinery causing excess pollution (e.g. visible smoke) will be banned from construction sites or fixed immediately prior to usage</li><li>Provide filtering systems, duct</li></ul>	Contractor		<div></div> <div><p>Sand covered with cloth</p></div> <div><p>Traffic management related sign</p></div> <div><p>Generator emission report</p></div> <div></div>



Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
		<p>collectors or humidification or other techniques (as applicable) to the concrete mixing plant to control the particle emissions at all its stages, including unloading, collection, aggregate handling, cement dumping, circulation of trucks and machinery inside the installation</p> <ul style="list-style-type: none"> <li>• Water spray to the material stockpiles, access roads and bare soils as and when required to minimize the potential for environmental nuisance due to dust. Increase the watering frequency during periods of high risk (e.g. high winds and dry periods). Stored materials such as boulders and sand shall be covered and confined to avoid them being wind-drifted</li> <li>• Erect dust barriers along the boundary of the land to reduce dust movement to the surrounding areas</li> <li>• Minimize the extent and period of exposure of the bare surfaces</li> <li>• Reschedule earthwork activities when practical, if necessary to avoid during periods of high wind and if visible dust is blowing off-site</li> <li>• Restore disturbed areas as soon as possible by vegetation/grass-turfing</li> </ul>			

Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
		<ul style="list-style-type: none"> <li>Establish adequate locations for storage, mixing and loading of construction materials, in a way that dust dispersion is prevented because of such operations</li> </ul>			
Noise Pollution	<ul style="list-style-type: none"> <li>Increased noise levels due to vehicular traffic</li> <li>Increased noise and vibration may have an impact on nearby sensitive receptors</li> </ul>	<ul style="list-style-type: none"> <li>Maintain all vehicles in order to keep them in good working order in accordance with manufacturers maintenance procedures</li> <li>Make sure all drivers will comply with the traffic codes concerning maximum speed limit, driving hours, etc. (@20 km/hr night time)</li> <li>Organize the loading and unloading of trucks, and handling operations for the purpose of minimizing construction noise on the work site</li> <li>Appropriately site all noise generating activities to avoid noise pollution to local residents</li> <li>Modify equipment to reduce noise (for example, noise control kits, lining of truck trays or pipelines, silencers)</li> <li>Maintain all equipment in order to keep it in good working conditions in accordance with manufacturers' maintenance procedures.</li> <li>Equipment suppliers and contractors shall present proof of maintenance register of their equipment.</li> </ul>	Contractor	Project Management	


Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
		<ul style="list-style-type: none"> <li>• Install acoustic enclosures around generators to reduce noise levels.</li> <li>• Fit high efficiency mufflers to appropriate construction equipment</li> <li>• Avoid the unnecessary use of alarms, horns and sirens</li> <li>• Notify adjacent landholders prior any typical noise events outside of daylight hours</li> <li>• Educate the operators of construction equipment on potential noise problems and the techniques to minimize noise emissions</li> <li>• Employ best available work practices on-site to minimize occupational noise levels</li> <li>• Install temporary noise control barriers where appropriate</li> <li>• Notify affected people if major noisy activities will be undertaken</li> <li>• Plan activities on site and deliveries to and from site to minimize impact</li> <li>• Monitor and analyze noise and vibration results and adjust construction practices as required.</li> <li>• Avoid undertaking the noisiest activities, when working at night</li> <li>• Establish a grievance mechanism as part of a stakeholder engagement plan</li> </ul>			 <p>Noise level reading</p> 



Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
Sewage Pollution/ Sanitation Hazard	<ul style="list-style-type: none"> <li>Lack of proper sanitation facilities will pose health hazards and risks</li> </ul>	<ul style="list-style-type: none"> <li>Provide hygienic sanitary facilities and sewerage system. The toilets and domestic waste water will be collected through a common sewerage.</li> <li>Provide separate latrines and bathing places for males and females with total isolation by wall or by location. The minimum number of toilet facilities required is one toilet for every ten persons.</li> <li>Ensure the sanitary facilities are kept clean and without any odor</li> <li>Educate the workers of using the facilities</li> </ul>	Contractor	Project Management	 <p>Separated toilet</p>  <p>Clean toilet</p>
Solid Waste Pollution	<ul style="list-style-type: none"> <li>Solid and water pollution from the improper management of waste and excess materials from construction sites.</li> </ul>	<ul style="list-style-type: none"> <li>Dispose all wastes generated during construction in an environmentally acceptable manner.</li> <li>Minimize the production of waste materials by 3R (Reduce, Recycle and Reuse) approach.</li> <li>Segregate and reuse or recycle all the wastes, wherever practical.</li> <li>Prohibit burning of solid waste</li> <li>Train and instruct all personnel in waste management practices and procedures as a component of the environmental induction process.</li> <li>Provide refuse containers at each worksite and worker camps.</li> </ul>			





Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
		<ul style="list-style-type: none"> <li>Request suppliers to minimize packaging where practicable.</li> <li>Place a high emphasis on good housekeeping practices.</li> <li>Maintain all construction sites in a cleaner, tidy and safe condition and provide and maintain appropriate facilities as temporary storage of all wastes before transportation and final disposal by the Union Parishad.</li> <li>Ensure proper collection and disposal of wastes within the construction camps from where Union Parishad will take by their vehicle and dispose at their dumping area.</li> <li>Insist on waste separation and store by source; organic wastes in one container and inorganic wastes in another container.</li> <li>Clear wastes on daily basis to waste collector. Establish waste collection, transportation and disposal at the dumping site in the adequate size of concrete chambers/boxes.</li> <li>Dispose organic wastes in a designated safe place and should be kept covered so that flies, mosquitoes, dogs, cats, rats, etc. are not attracted.</li> </ul>			 <p>Solid waste management policy</p>  <p>Good house keeping</p>


Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
		<ul style="list-style-type: none"> <li>Encourage composting of organic waste that can be used for tree planting purposes.</li> <li>All solid waste will be collected and removed from the work camps and disposed in approved waste disposal sites.</li> </ul>			<p>Waste management team collect waste twice in a day.</p> <p>Waste disposal site made of concrete.</p>
Landscape	<ul style="list-style-type: none"> <li>Construction activities especially earthworks, stock piling of construction materials, parking of vehicles etc. will change topography and disturb the natural rainwater drainage as well as will change the local landscape temporarily.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure the topography of the construction yard is conducive to enhance natural draining of rainwater at all times Parking of construction vehicles and stockpiling of construction materials should be done in systematic way to avoid any drainage blockages, to enhance the aesthetics of the site.</li> <li>Duration of stockpiling should be minimized as much as possible</li> </ul>	Contractor	Project Management	 <p>Drain cleaning checklist</p>
Access Road/ Traffic Congestion	<ul style="list-style-type: none"> <li>Increased traffic use of narrow access road by construction vehicles will affect the movement of normal road traffics and the safety of the road-users.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure uninterrupted traffic movement during construction. Provide signs at strategic locations of the roads complying with the schedules of signs contained in the Bangladesh Road Traffic Regulations of BRTA.</li> <li>Install and maintain a display board at each important road intersection on</li> </ul>	Contractor	Project Management	 <p>Speed related sign</p>






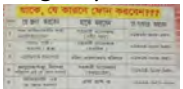
Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
		<p>the roads to be used during construction, which shall clearly show the following information in Bangla: Location: village name Duration of construction period /Period of proposed detour / alternative route Suggested detour route map</p> <ul style="list-style-type: none"> <li>Name and contact address/telephone number of the concerned Personnel Name and contact address / telephone number of the Contractor</li> <li>Inconvenience is sincerely regretted</li> <li>Restrict truck deliveries to day time working hours (as common practice in Bangladesh) to avoid road accidents and to reduce inconveniences to the road users.</li> <li>Restrict the transport of oversize loads.</li> <li>Operate construction vehicles to non-peak periods (night) to minimize traffic disruptions.</li> <li>Enforce on-site and access road speed limits.</li> <li>Establish a grievance mechanism as part of a stakeholder engagement plan</li> </ul>			 <p>Grievance policy</p>


Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
		<ul style="list-style-type: none"> <li>Note: Improvement of the access road has been started by LGED. Access road Should be improved fully prior to starting construction.</li> </ul>			
Liquid/hazardous waste	<ul style="list-style-type: none"> <li>Improper storage and handling of fuels, lubricants, chemicals and hazardous liquid on-site, and potential spills from these liquid materials will pose health hazards or risks to construction workers and contaminate the environment.</li> </ul>	<ul style="list-style-type: none"> <li>Train the relevant construction personnel in handling of fuels and spill control procedures.</li> <li>Store dangerous goods in enclosed areas with a covering of a sealed plastic sheet away from watercourses.</li> <li>Refueling shall occur only within enclosed areas.</li> <li>Provide protective clothing, safety boots, helmets, masks, gloves, goggles, to the construction personnel, appropriate to handle construction materials.</li> <li>Make sure all containers, drums, and tanks that are used for storage are in good condition and are labeled with expiry date. Any container, drum, or tank that is dented, cracked, or rusted might eventually leak. Check for leakage regularly to identify potential problems before they occur.</li> <li>Put containers and drums in temporary storages in clearly marked areas, where they will not be run over by vehicles or heavy machinery. The area shall be</li> </ul>	Contractor	Project Management	 <p>Petrol pump</p>           <p>Chemical storing room</p>




Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
		<p>established in higher ground if possible preferably with a slope or drain to a safe collection area in the event of a spill.</p> <ul style="list-style-type: none"> <li>Put containers and drums in permanent storage areas on an impermeable floor. Take all precautionary measures when handling and storing fuels and lubricants, avoiding environmental pollution.</li> <li>Ensure basic firefighting equipment are in place outside these storage areas in case of a fire</li> </ul>			  <p>Fire equipment</p> 
Construction Camp Management	<ul style="list-style-type: none"> <li>Improper location of construction camp and facilities (such as water supply) will put pressure on local resources used by nearby communities and will have impacts related to health, social and security matters.</li> </ul>	<ul style="list-style-type: none"> <li>Locate the construction camps inside the proposed construction area.</li> <li>Create awareness among the camp users on health and safety requirements to be maintained and code of conduct</li> </ul>	Contractor	Project Management	 <p>Awareness camp</p>
	<ul style="list-style-type: none"> <li>Lack of adequate facilities, such as housing, water supply and sanitation facilities will pose health risks</li> </ul>	<ul style="list-style-type: none"> <li>Provide adequate housing for all workers avoiding over crowding</li> <li>Provide safe and reliable water supply from deep tube wells of 300 m depth that meets the national standards</li> </ul>	Contractor	Project Management	 <p>worker labor shed</p>

Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
	and hazards and substandard living conditions for construction workers	<ul style="list-style-type: none"> <li>Hygienic sanitary facilities and sewerage system. The toilets and domestic waste water will be collected through a common sewerage. Provide separate latrines and bathing places for males and females with total isolation by wall or by location. The minimum number of toilet facilities required is one toilet for every ten persons.</li> <li>Treatment facilities for sewerage of toilet and domestic wastes</li> </ul>			 <p>Toilet worker shed</p>
	<ul style="list-style-type: none"> <li>Disposal of waste: Management of wastes is crucial to minimize impacts on the environment</li> </ul>	<ul style="list-style-type: none"> <li>Ensure proper collection and disposal of solid wastes from the construction camps</li> <li>Insist waste separation by source; organic wastes in one container and inorganic wastes in another container at sources.</li> </ul>	Contractor	Project Management	
		<ul style="list-style-type: none"> <li>Store inorganic wastes in a safe place within the site and clear organic wastes on daily basis to waste collector or compost the waste.</li> <li>Store and cover organic wastes so that flies, mosquitoes, dogs, cats, rats, etc. are not attracted.</li> <li>All solid waste will be collected and removed from the work camps and disposed in approval waste disposal sites.</li> </ul>			


Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
	<ul style="list-style-type: none"> <li>Health and Hygiene: There will be a potential for diseases to be transmitted including malaria, exacerbated by inadequate health and safety practices. There will be an increased risk of work crews spreading sexually transmitted infections and HIV/AIDS</li> </ul>	<ul style="list-style-type: none"> <li>Provide first aid facility round the clock. Maintain stock of medicines in the facility and appoint fulltime designated first aider or nurse.</li> <li>Provide ambulance facility for the laborers during emergency to be transported to nearest hospitals.</li> <li>Conduct an initial health screening of the laborers coming from outside areas</li> <li>Train all construction workers in basic sanitation and health care issues and safety matters, and on the specific hazards of their work</li> <li>Provide HIV awareness programming, including STI (sexually transmitted infections) and HIV information, education and communication for all workers on regular basis</li> <li>Establish a code of conduct for the contractor staff. Provide adequate drainage facilities throughout the camps to ensure that disease vectors such as stagnant water bodies and puddles do not form.</li> <li>Regular mosquito repellent spraying during monsoon periods.</li> </ul>	Contractor	Project Management	 <p>ambulance</p>  <p>Training on HIV awareness</p>
	<ul style="list-style-type: none"> <li>Safety: Inadequate safety facilities to the</li> </ul>	<ul style="list-style-type: none"> <li>Provide appropriate security personnel (police / home guard or</li> </ul>	Contractor	Project Management	We have security people.



Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
	construction camps may create security problems and fire hazards	<p>private security guards) and enclosures to prevent unauthorized entry into the camp area.</p> <ul style="list-style-type: none"> <li>• Maintain register to keep a track on a head count of persons present in the camp at any given time.</li> <li>• Encourage use of flameproof material for the construction of labor housing / site office. Also, ensure that these houses/rooms are of sound construction and capable of withstanding wind storms/cyclones.</li> <li>• Provide appropriate type of firefighting equipments suitable for the construction camps</li> <li>• Display emergency contact numbers clearly and prominently at strategic places in camps.</li> <li>• Communicate the roles and responsibilities of laborers in case of emergency in the monthly meetings with contractors.</li> </ul>			<p>Firefighting equipment</p>  <p>Emergency number</p> 
Worker Health and Safety	<ul style="list-style-type: none"> <li>• Construction works may pose health and safety risks to the construction workers and site visitors leading to severe injuries and deaths. The population in the proximity of the</li> </ul>	<ul style="list-style-type: none"> <li>• Implement suitable safety standards for all workers and site visitors which shall not be less than those laid down on the international standards (e.g.</li> <li>• International Labor Office guideline on „Safety and Health in Construction; ADB's „Safeguard Policy Statement</li> </ul>	Contractor	Project Management	ESH policy



Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
	construction site and the construction workers will be exposed to a number health risk factors, (e.g. noise, dust, chemicals, construction material, solid waste, waste water, vector transmitted diseases), risk factors resulting from human behavior (e.g. STD, HIV etc) and road accidents from construction traffic;	<p>2009) and contractor's own national standards or statutory regulations, in addition to complying with the national standards of the Government of Bangladesh (e.g. 'The Bangladesh Labor Code, 2006')</p> <ul style="list-style-type: none"> <li>• Provide the workers a safe and healthy work environment, taking into account inherent risks of this particular construction activity and specific classes of hazards in the work areas,</li> <li>• Provide personal protection equipment (PPE) for workers, such as safety boots, helmets, masks, gloves, protective clothing, goggles, full-face eye shields, and ear protection. Maintain the PPE properly by cleaning dirty ones and replacing them with the damaged ones.</li> <li>• Safety procedures include provision of information, training and protective clothing to workers involved in hazardous operations and proper performance of their job</li> <li>• Appoint an environment, health and safety manager to look after the health and safety of the workers</li> <li>• Inform the local authorities responsible for health, religious and</li> </ul>			


Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
		security before commencement of civil works and establishment of construction camps so as to maintain effective surveillance over public health, social and security matters			
	<ul style="list-style-type: none"> <li>Child and pregnant labor</li> </ul>	<ul style="list-style-type: none"> <li>Not hire children of less than 14 years of age and pregnant women or women who delivered a child within 8 preceding weeks, in accordance with the Bangladesh Labor Code, 2006</li> </ul>	Contractor	Project Management	 <p>Child policy</p>  <p>and maternity policy</p>
	<ul style="list-style-type: none"> <li>Accidents: Lack of first aid facilities and health care facilities in the immediate vicinity will aggravate the health conditions of the victim</li> </ul>	<ul style="list-style-type: none"> <li>Provide health care facilities and first aid facilities are readily available.</li> <li>Appropriately equipped first-aid stations shall be easily accessible throughout the place of work</li> <li>Document and report occupational accidents, diseases, and incidents and actions taken.</li> <li>Prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work by minimizing, so far as reasonably practicable, the causes of</li> </ul>	Contractor	Project Management	<p>First aid box</p> 







Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
		<p>hazards in a manner consistent with good international industry practice.</p> <ul style="list-style-type: none"> <li>Identify potential hazards to workers, particularly those that may be life threatening and provide necessary preventive and protective measures.</li> <li>Provide awareness to the construction drivers to strictly follow the driving rules</li> <li>Provide adequate lighting in the construction area and along the roads</li> </ul>			<p>Accident report</p> 
	<ul style="list-style-type: none"> <li>Construction Camps: lack of proper infrastructure facilities, such as housing, water supply and sanitation facilities will increase pressure on the local services and generate substandard living standards and health hazards.</li> </ul>	<ul style="list-style-type: none"> <li>Adequate ventilation in all facilities</li> <li>Safe and reliable water supply. Water supply from deep tube wells that meets the national standards</li> <li>Hygienic sanitary facilities and sewerage system. The toilets and domestic waste water will be collected through a common sewerage.</li> <li>Treatment facilities for sewerage of toilet and domestic wastes</li> <li>Storm water drainage facilities.</li> <li>Safe storage facilities for petroleum and other chemicals</li> <li>Solid waste collection and disposal system</li> <li>Paved internal roads.</li> <li>Security fence at least 2 m height.</li> </ul>	Contractor	Project Management	

Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
		<ul style="list-style-type: none"> <li>Sick bay and first aid facilities</li> </ul>			
	<ul style="list-style-type: none"> <li>Water and sanitation facilities at the construction sites: lack of Water sanitation facilities at construction sites cause inconvenience to the construction workers and affect their personal Hygiene.</li> </ul>	<ul style="list-style-type: none"> <li>Contractor shall provide safe drinking water facilities to the construction workers at all the construction sites.</li> </ul>	Contractor	Project Management	 ICDDR test report .pdf
	<ul style="list-style-type: none"> <li>Other management: potential risks on health and hygiene of construction workers</li> </ul>	<ul style="list-style-type: none"> <li>To reduce health risks to the construction workers and nearby community should follow:</li> <li>Liquid Waste Mitigation Measures</li> </ul>	Contractor	Project Management	
	<p>and general public</p> <ul style="list-style-type: none"> <li>Trainings: lack of awareness and basic knowledge in health care among the construction workforce, make them susceptible to potential diseases.</li> </ul>	<ul style="list-style-type: none"> <li>Air Pollution Mitigation Measures</li> <li>Noise Mitigation Measures</li> <li>Road/Road Traffic Management</li> <li>Train all construction workers in basic sanitation and health care issues (e.g., how to avoid malaria and transmission of sexually transmitted infections (STI) HIV/AIDS</li> </ul>	Contractor	Project Management	 Basic training about sanitation
<b>Operational Stage</b>					

Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Action
			Implement	Supervising	
Industrial Effluent	<ul style="list-style-type: none"> <li>From the liquid glucose plant</li> </ul>	<ul style="list-style-type: none"> <li>Effluent from will be collected and transported through concealed pipes to ETP which will discharge treated effluent</li> <li>Effluent standard need to meet DoE and IFC guideline.</li> <li>No treated/non treated water and solid waste generated from the ETP should be let out to land/drain/existing water sources or discharged to other areas ( ETP Details are presented in ANNEX-C)</li> <li>The Contractor/ Construction firm should include the main mitigation measures in the treatment process, to ensure that effluent standards are met</li> </ul>	ESU	SAL	 <p>ETP</p>  <p>ETP water test report</p>

Issue	Potential Environmental Impacts	Proposed Mitigation measures	Responsible Institution		Remarks
			Implement	Supervising	
Air Pollution	Processing plant, vehicles, boiler, generator	<ul style="list-style-type: none"> <li>Suitable dust collectors (bag filters) will be provided at all major emission sources. Use of masks should be made compulsory for the workers.</li> <li>Gas based generator will be used.</li> <li>Boiler/generator will be regularly inspected to ensure that they are operating efficiently and emission standards are met</li> <li>For well dispersion of the hot air from boiler stack, it is recommended that the height of the stack chimney should be at least 15.0 m Installing and modifying equipment to reduce solvent use</li> <li>Adopting water based methods for removing oil and grease from fabric instead of using volatile solvents</li> <li>Periodical monitoring of air pollutants and if values exceed the standard limits, suitable mitigation measures will be taken.</li> <li>Green belt program will be maintained.</li> <li>Public awareness programs to be undertaken</li> </ul>	ESU	SAL	<p>All generator are gas generator</p>  <p>Generator room</p>
Noise Pollution	From industrial activities and vehicle load- unload	The workers and employees working at the factory premises should use ear plugs and ear muffs for protection against the noise.	ESU	SAL	

		<p>Using enclosure for all generator sets.</p> <p>Carryout regular maintenance of the equipment to minimize the noise level.</p> <p>Carry out periodic monitoring of noise levels, if values exceed the standard limits, suitable mitigation measures to be taken.</p> <p>Green belt will be maintained.</p> <p>Public awareness programs to be undertaken.</p> <p>Establish a grievance mechanism as part of a stakeholder engagement plan</p>			 <p>PPE use in the floor</p>
Traffic Control and Safety	Vehicle traffic	<p>Traffic management plan will be implemented</p> <p>Traffic control measures to be enforced strictly.</p>			 <p>Traffic control policy</p>
Odour	From industrial production	<p>Installing and modifying equipment to reduce use of odorous chemicals</p> <p>Routing of stack emissions through boilers to reduce odour emissions</p> <p>The designers should have included the main mitigation measures in the treatment process (ETP, STP, to ensure that odor standards meet national/ international standards</p> <p>Establish a grievance mechanism as part of a stakeholder engagement plan</p>			

Maintenance of Existing Canals	Canal water pollution	The existing canals will be periodically cleared to sustain storm water flow.			<p>Clean canal</p> 
Drainage congestion:	Local drainage system may get clogged due to improper management of Solid waste, and other materials.	<p>Maintain drains regularly as and when required</p> <p>Solid wastes should not be dumped into the drain.</p> <p>Blocked drains should be cleaned properly and debris disposed at approved sites</p>			 <p>Drain cleaning check list</p>
Solid Waste Generation and Disposal	<p>Water, air and land pollution</p> <p>Cause diseases to man and other lives</p> <p>Public health, eyesore, odour</p> <p>Disease vector proliferation, sanitary problems</p>	<p>Setting up of separate waste collectors at different points</p> <p>Regular cleaning and replacing of waste collectors</p> <p>Waste disposal at a safe place</p> <p>Union Parishad to collect solid waste everyday and disposed to the landfill site</p> <p>Encourage waste sorting by the facility users</p>			

### Environmental Monitoring Program during Pre-Construction, Construction and Operation Stages

Environmental Aspect	Monitoring Parameter	Means of Monitoring	Frequency	Location	Cost (in USD)	Responsible Agency Implemented By	Supervised By	Compliance Status Compliant/ Non-Compliant
<b>Construction Stage</b>								
Ground Water Quality	pH, Arsenic(As), Iron(Fe), Ammonia Nitrogen(NH <sub>3</sub> -N), Total Hardness, Chloride, Fecal	Laboratory analysis against the baseline established	During construction of deep tube-well	Inside the boundary	1500	Contractor through a recognized laboratory	ESU/Project Management	Compliant
	Coliform(FC), Total Coliform(TC)							
Portable water for the construction Camp	pH, Arsenic(As), Iron(Fe), Ammonia Nitrogen(NH <sub>3</sub> -N), Total Hardness, Chloride, Fecal	Laboratory analysis against the baseline established	Every month During construction period	Construction Camp	1500/ month x 6 month = 9000	Contractor through a recognized laboratory	ESU/Project Management	Compliant
	Coliform(FC), Total Coliform(TC)							
Surface water Quality	pH, DO, BOD <sub>5</sub> , COD, TDS, Lead, Hg, Fe	Laboratory analysis against the baseline established	During construction	River ( beside the site) and Canal	1500/ month x 6 month = 9000	Contractor through a recognized laboratory	ESU/Project Management	Compliant
Air Quality	PM 10, PM 2.5, SPM, SO <sub>2</sub> , NO <sub>x</sub>	Laboratory analysis against the baseline established	During construction (1 in 3 months)	At the construction site	2000 x 2 = 6000	Contractor through a recognized laboratory	ESU/Project Management	Compliant
Noise Level	Measurement of noise dB(A)	Laboratory analysis against the baseline established Visual inspection to ensure good standard equipment are in use, Visual inspection to ensure ear plugs are in use by the construction workers Inspection of vehicle	During day time and whenever any complains are received about disturbance due to construction noise Noise measurements and routine checks on maintenance records once in each month	Near Residential area, mosque institutional area and site.	200 x 6 = 1200	Contractor By through a nationally recognized laboratory	ESU/Project Management	Compliant

		and equipment maintenance records						
Occupational health	<p>Check of personal protective equipment (PPE) for workers at the sites</p> <p>Check if Health, First-Aid facility, and staff trained in First Aid are available at the sites</p> <p>Check if medical checkup of workers is on going</p>	Visual inspection	Weekly	Construction Site	Internal employer ( salary details in <a href="#">Exhibit 67</a> )	Contractor	ESU/Project Management	Compliant
Other specified mitigation measures as per the EMP	Check if all requirements are adhered to	Visual inspection	Weekly	Construction Site, the surroundings including access roads and contractor-managed off sites	Internal employer ( salary details in Exhibit 67 )	Contractor	ESU/Project Management	Compliant
<b>Operation Stage</b>								
Ground Water Quality	<p>pH, Manganese (Mn), Arsenic( As), Iron(Fe), Ammonia Nitrogen(NH3-N), Total Hardness, Chloride, Fecal Coliform(FC), Total Coliform(TC)</p>	Laboratory analysis	Quarterly	Building water supply system	1500 x 4 = 6000	ESU	SAL-Project Management Unit	Compliant



Noise Level	Measurement of noise dB(A)	Laboratory analysis	Monthly (24 hours) and whenever any complain is received about disturbance due to noise level	Four corners of the site boundary, at 200 m and 300 m from the following locations: (i) residential, (ii) institutional (school, mosque), (iii) silent (hospital) area	200 x 12 = 2400	ESU	SAL-Project Management	Compliant
Air Quality	PM 10, PM 2.5, SPM, SO <sub>2</sub> , NO <sub>x</sub>	Laboratory analysis	Quarterly (8 hours continuous for two days)	Inside the project boundary	2000 x 4 = 8000	ESU	SAL/Project Management Unit	Compliant
Tree plantation Program	Select healthy sapling to confirm survival rate Monitoring plantation procedure Maintenance of plants	Visual inspection to ensure plantations in green areas and other designated sites.	Monthly	As per Master Plan	2100	Contractor and ESU	SAL/Project Management Unit	Compliant
Water of ETP	pH, Manganese( Mn), Arsenic(As), Iron(Fe), Ammonia Nitrogen(NH <sub>3</sub> -N), Total Hardness, Chloride, Fecal Coliform(FC), Total Coliform(TC), BOD <sub>5</sub>	Laboratory analysis against the baseline established	Monthly	ETP treated water	1500 x 12 = 18000	ESU	SAL/Project Management Unit	Compliant