ဝါးခယ်မရောင်းဝယ်ရေးကုမ္ပဏီလီမိတက်
WAKHEMA TRADING CO., LTD.
No. 127 , Ground Floor, 21st Street , Latha Township, Yangon, Myanmar.
Tel: (959) 770852410 , (959) 696969122
E-mail : management2023@gmail.com

To follow Commitments and Mitigation Measures stated in the Environmental Management Plan of Initial Environmental Examination (IEE) Report

We, Wakhema Trading Co., Ltd., assure that IEE report prepared for our United Group Rice Mill Project is strong and complete. It is prepared in compliance with EIA Procedure. We commit to implement mitigation measures according to the environmental management plans and environmental monitoring plans, CSR Plan and Grievance Redness Mechanism which are mentioned in the IEE report. If there are methods and techniques advised or instructed that enhance the approved environmental management plans during operation period, we will implement a better environmental management plan based on the system and business requirements. Plans will be also implemented to prevent environmental and social impacts at project closure stage.

Your Sincerely,

Commitment to follow and compliance with Environmental Conservation Law, Rules, Environmental Impact Assessment Procedure, National Environmental Quality (Emission) Guidelines, Standards and Mitigation Measures Stated in the Initial Environmental Examination (IEE) Report

With regards to the above matter, we, Guardians of Green Environmental Services Co., Ltd. has prepared the Initial Environmental Examination (IEE) Report for the United Group Rice Mill Project, proposed by Wakhema Trading Co., Ltd. Our company strongly commits that this proposed IEE report for this project is strong and complete, and prepared by following Environmental Conservation Law (2012), Environmental Conservation Rules (2014), Environmental Impact Assessment Procedure (2015), National Environmental Quality (Emission) Guidelines (2015) and relevant environmental standards through successful implementation of mitigation measures, environmental management plans and environmental monitoring plans stated in the Initial Environmental Examination (IEE) report.

Yours Sincerely,

Moh Moh Khaing
Director
Guardians of Green
Environmental Services Co., Ltd.

Yangon- No 256, 2A, Insein Road (near Phayar Lan Bus Stop), Hlaing Township, 11051
Mandalay- No 61, 27th Street, Between 73rd & 74th Street, Chan Aye Thar Zan Township
+95(0)9 765 890 118, +95(0)9 765 990 118
gog.info.18@gmail.com

Initial Environmental Examination (IEE) Report

For United Group Rice Mill Project

Proposed by; Wakhema Trading Co., Ltd.

Prepared by; Guardians of Green Environmental Services Co., Ltd.

.

Version 00

July, 2022

Table of Contents

List of Tables

List of Figures

List of Abbreviations

%	: Percentage
ºC	: Degrees Celsius
µm	: Micro Milligram
µg/m^3	: Micro Gram per Cubic meter
BOD	: Biochemical Oxygen Demand
CO	: Carbon Monoxide
CO_2	: Carbon Dioxide
COD	: Chemical Oxygen Demand
CSR	: Corporate Social Responsibilities
dB (A)	: Decibel unit
ECD	: Environmental Conservation Department
EMP	: Environmental Management Plan
EMoP	: Environmental Monitoring Plan
HSE	: Health, Safety and Environment
kWh	: Kilo Watt Hour
km	: Kilometer
mg/l	: Milligram per Liter
MWh	: Mega Watt per Hour
MIC	: Myanmar Investment Commission
MONREC	: Ministry of Natural Resources and Environmental Conservation
MT	: Metric Tons
IEE	: Initial Environmental Examination
NO_2	: Nitrogen Dioxide
O_3	: Ozone
pH	: Pond us Hydrogenium
PM	: Particulate Matter
ppm	: Part Per Million
TSP	: Total Suspended Particulates
WHO	: World Health Organization
PAP	: Project Affected Persons

အစီရင်ခံစာအကျဉ်းချုပ်

Chapter 1: Project Description

ဤကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာသည် Wakhema Trading Co., Ltd. မှ အကောင်အထည်ဖော် ဆောင်ရွက်လျက်ရှိသည့် United Group ဆန်စက်စီမံကိန်းအတွက် ရေးသားပြုစုထားခြင်း ဖြစ်ပါသည်။ စီမံကိန်း၏ အဓိကရည်ရွယ်ချက်မှာ ဆန်ကြိတ်ခွဲခြင်း၊ ဆန်ဖွတ်ချောသန့်စင် ထုတ်လုပ်ခြင်းဖြစ်ပြီး ပြည်ပသို့တင်ပို့ရန်ဖြစ်သည်။ မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်၏ သဘောထားမှတ်ချက်အရ ဤစီမံကိန်းသည် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးမူဝါဒ၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေနှင့် အခြားသော ပတ်ဝန်းကျင်နှင့် သက်ဆိုင်သည့် စည်းမျဉ်းစည်းကမ်းများအရ ပတ်ဝန်းကျင်ဆိုင်ရာထိခိုက်မှုများအား ဆန်းစစ်ရန်အတွက် ကနဦး ပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာ တင်သွင်းရန်လိုအပ်သည်။ ထို့ကြောင့် စီမံကိန်းအကောင်အထည်ဖော်သူ Wakhema Trading Co., Ltd. သည် Guardians of Green Environmental Services Co., Ltd. (GOG Environmental Services Co., Ltd.) အား ပတ်ဝန်းကျင်ဆိုင်ရာလေ့လာမှုများ ပြုလုပ်ရန်ငှားရမ်းခဲ့သည်။ ပတ်ဝန်းကျင်ဆိုင်ရာလေ့လာမှုများ ဆောင်ရွက်ခြင်း၏ ရည်ရွယ်ချက် များမှာ

၁။ အခြေခံပတ်ဝန်းကျင်အရည်အသွေးများအား အခြေခံအချက်အလက်များအဖြစ် ကောက်ယူရန်

၂။ စီမံကိန်းလုပ်ငန်းများဆောင်ရွက်ခြင်းကြောင့် စီမံကိန်းပတ်ဝန်းကျင်ရှိ သဘာဝ ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားဝန်းကျင်အပေါ် သက်ရောက်မှုရှိနိုင်သည့် ကောင်းသော သက်ရောက်မှုများနှင့် ဆိုးရွားသောသက်ရောက်မှုများအား လေ့လာရန်

၃။ လေ့လာတွေ့ရှိသော ဆိုးရွားသောသက်ရောက်မှုများအား ဆန်းစစ်ရန်

၄။ ဆိုးရွားသောသက်ရောက်မှုများအား လျှော့ချရန်နည်းလမ်းများအား အကြံပြုပေးရန်

၅။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်နှင့် ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှုအစီအစဉ်တို့အား ရေးသားပြုစုပေးရန်

၆။ လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် ဘေးအန္တရာယ်ကင်းရှင်းရေးအစီအစဉ်၊ မီးဘေး အန္တရာယ်ကင်းရှင်းရေး အစီအစဉ်၊ အရေးပေါ်ကိစ္စရပ်များအတွက် တုံ့ပြန်မှုနှင့် ကာကွယ်မှုအစီအစဉ်၊ လူမှုစီးပွားတာဝန်ယူမှု အစီအစဉ်နှင့် မကျေလည်မှုများကို ဖြေရှင်းပေးမည့်အစီအစဉ်တို့အား ရေးသားပြုစုပေးရန်

၇။ စီမံကိန်းနှင့်ပတ်သက်သော အချက်အလက်များအား အများပြည်သူနှင့် အခြားသော သက်ဆိုင်သည့်ပုဂ္ဂိုလ်များအား ရှင်းလင်းတင်ပြဖြန့်ဝေရန် တို့ဖြစ်သည်။

အဆိုပြုစီမံကိန်းအတွက် ပတ်ဝန်းကျင်ဆိုင်ရာလေ့လာမှုများ ဆောင်ရွက်ရန် ဧရိယာအား စီမံကိန်းဗဟိုမှ အချင်းဝက် ၀.၅ ကီလိုမီတာသတ်မှတ် လေ့လာထားခြင်းဖြစ်သည်။ ထိုဧရိယာသည် စီမံကိန်းလုပ်ငန်းများ ဆောင်ရွက်ခြင်းကြောင့် ဖြစ်ပေါ်လာနိုင်သည့် ပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားဆိုင်ရာ ထိခိုက်မှုများအား လေ့လာရန်အတွက် လုံလောက်မှုရှိသည်။ ရရှိနိုင်သော ကိုးကားအချက်အလက်များနှင့် ကွင်းဆင်းလေ့လာကောက်ယူမည့် အချက်အလက်များအား အဆိုပြုစီမံကိန်းအတွက် ပတ်ဝန်းကျင်ဆိုင်ရာ လေ့လာမှုများဆောင်ရွက်ရန် အသုံးပြုထားသည်။ အဆိုပြုစီမံကိန်းသည် ၁၀၀ ရာခိုင်နှုန်း ပြည်တွင်းရင်းနှီးမြှုပ်နှံမှုဖြစ်ပြီး Wakhema Trading Co., Ltd. မှ ရင်းနှီးမြှုပ်နှံကာ ဆန်အမျိုးမျိုးသန့်စင်ထုတ်လုပ်ပြီး ပြည်ပစျေးကွက်သို့ တင်ပို့ရောင်းချခြင်းဖြစ်သည်။ စီမံကိန်းမှ သန့်စင်ထုတ်လုပ်သည့် ဆန်အမျိုးအစား ၆ မျိုးရှိပြီး Rice 5%, Rice 15%, Rice 25%, A (1-2), B (1:2) and B (2:3:4) တို့ပါဝင်သည်။ ဆန်အမျိုးအစားတစ်ခုချင်းအလိုက် ထုတ်လုပ်မှုပမာဏသည် ဝယ်လိုအားနှင့် ဝယ်ယူသူတို့၏ အမှာစာများအပေါ်တွင်မူတည်ပြီး တစ်နှစ်လျှင် စုစုပေါင်း ၇၂၀၀၀ မက်ထရစ်တန်ခန့် ထုတ်လုပ်သည်။ စီမံကိန်း၏ ဆန်စက်လုပ်ငန်းများတွင် ဆန်ကြမ်းများသိုလှောင်ခြင်းနှင့် ထည့်သွင်းခြင်း၊ အကြိုသန့်စင်ခြင်းနှင့် အရောင်တင်ခြင်း၊ သန့်စင်ခြင်းနှင့်အရောင်ခွဲခြင်း၊ သန့်စင်ခြင်းနှင့်အရွယ်အစားခွဲခြင်း၊ ထုတ်ပိုးခြင်းနှင့်ထုတ်ကုန်များအားသိုလှောင်ပြီး ပြည်ပသို့ တင်ပို့ခြင်းတို့ပါဝင်သည်။

အဆိုပြုစီမံကိန်းသည် အမှတ် (၉၅)၊ ဦးဖိုးလှိုင်လမ်း၊ ရွှေပြည်သာစက်မှုဇုန် (၂)၊ ရွှေပြည်သာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးတွင် တည်ရှိပြီး စီမံကိန်းတည်နေရာမှာ မြောက်လတ္တီကျူ ၁၆ ဒီဂရီ ၅၆ မိနစ် ၈.၆၁ စက္ကန့်နှင့် အရှေ့လောင်ဂျီကျူ ၉၆ ဒီဂရီ ၄ မိနစ် ၃၀.၈၂ စက္ကန့်ဖြစ်သည်။ စီမံကိန်းဧရိယာမှာ ၁.၅၈၅ ဧကကျယ်ဝန်းပြီး မြေပိုင်ဆိုင်မှု အမျိုးအစားမှာ ဂရန်မြေဖြစ်သည်။ စီမံကိန်းမြေနှင့်အဆောက်အဦများအား ဦးအောင်ဝင်းမှ ပိုင်ဆိုင်ခြင်းဖြစ်ပြီး ကနဦးမြေ အသုံးပြုခွင့်သက်တမ်း (ဂရန်သက်တမ်း)မှာ နှစ် ၆၀ ဖြစ်သည်။ စီမံကိန်းအကောင်အထည်ဖော်သူသည် မြေနှင့်အဆောက်အဦများအား ပိုင်ရှင်ထံမှငှားရမ်းထားခြင်းဖြစ်ပြီး ငှားရမ်းသည့်ကာလမှာ ၅ နှစ် (၂၀၂၀-၂၀၂၅) ဖြစ်ပါသည်။

စီမံကိန်း၏ နှစ်စဉ်သုံးရေလိုအပ်မှုပမာဏမှာ ၇၃၀၀၀၀ ဂါလန် (တစ်ရက်လျှင် ၂၀၀၀ ဂါလန်)ဖြစ်ပြီး နှစ်စဉ် သောက်ရေ လိုအပ်မှုပမာဏမှာ ၇၃၀၀၀ လီတာ (တစ်ရက်လျှင် လီတာ ၂၀၀) ဖြစ်သည်။ သုံးရေရယူသည့် အရင်းအမြစ်များမှာ စီမံကိန်းရှိအဝိစိတွင်းမှဖြစ်ပြီး သောက်ရေသန့်အား နီးစပ်ရာဆိုင်များမှ ဝယ်ယူမည်ဖြစ်သည်။ နှစ်စဉ်လျှပ်စစ်မောတ်အား လိုအပ်မှုပမာဏမှာ ၁၀၀၉၃၃၃ ကီလိုဝပ်နာရီ (တစ်ရက်လျှင် ၂၇၆၆ ကီလိုဝပ်နာရီ)ဖြစ်ပြီး မဟာမောတ်အားလိုင်းနှင့် မီးစက်မှ လျှပ်စစ်မောတ်အားရယူသည်။ စီမံကိန်းရှိ မီးစက်များတွင် အသုံးပြုရန်အတွက် ဒီဇယ်ဆီကို နီးစပ်ရာဆီဆိုင်များမှ ဝယ်ယူသုံးစွဲသည်။ နှစ်စဉ်လောင်စာဆီလိုအပ်မှု ပမာဏမှာ ၁၀၉၅၀၀ လီတာ

(တစ်ရက်လျှင် လီတာ ၃၀၀) ဖြစ်သည်။ အလုပ်သမားလိုအပ်မှုမှာ ၃၅ ဦးဖြစ်ပြီး စီမံကိန်း၏ အလုပ်ချိန်မှာ ၂ ချိန် (နံနက် ၈ နာရီမှ ညနေ ၅ နာရီထိနှင့် ညနေ၆ နာရီမှ နံနက် ၄ နာရီထိ) ဖြစ်သည်။ အလုပ်ချိန်တစ်ချိန်လျှင် ၈ နာရီရှိပြီး တစ်လလုပ်ငန်းလည်ပတ်ရက်မှာ ၃၀ ရက်ဖြစ်သည်။

Chapter 2: Identification of the Project Proponent

ထို့ကြောင့် စီမံကိန်းသည်လက်ရှိတွင် လုပ်ငန်းများလည်ပတ်ဆောင်ရွက်လျက်ရှိကာ ၂၀၂၁ ခုနှစ်တွင် စတင်၍လုပ်ငန်းများ လည်ပတ်ဆောင်ရွက်ခဲ့သည်။ စီမံကိန်းအကောင်အထည်ဖော်သူ ကုမ္ပဏီသည် ၂၀၀၉ ခုနှစ်တွင် စတင်တည်ထောင်ခဲ့ပြီး ဌာနလေးခုဖြင့်ဖွဲ့စည်းတည်ထောင်ခဲ့သည်။ စီမံကိန်း အတွက် စုစုပေါင်း ကျပ်သန်းပေါင်း ၁၃၁၄.၃၁၆ သန်းဖြင့်ရင်းနှီးမြှုပ်နှံထားပြီး ငွေသားရင်းနှီးမြှုပ်နှံမှု၊ စက်ပစ္စည်းများ ဝယ်ယူခြင်းနှင့် ရုံးသုံးပရိဘောဂနှင့်အခြားကိရိယာများ ဝယ်ယူခြင်းတို့တွင် အဓိက ရင်းနှီးမြှုပ်နှံ ထားသည်။

Chapter 3: Experts for Conducting Initial Environmental Examination (IEE)

ဤကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း အစီရင်ခံစာအား GOG Environmental Services Co., Ltd. မှ ရေးသားပြုစုခြင်းဖြစ်ပြီး ပါဝင်သော ကျွမ်းကျင်ပညာရှင်များအား ဖော်ပြထားသည်။

Chapter 4: Policy, Legal and Institutional Frameworks

ထို့ပြင် စီမံကိန်းဆောင်ရွက်ရာတွင် လိုက်နာရမည့် နိုင်ငံတော်မှ ပြဋ္ဌာန်းထားသော ပတ်ဝန်းကျင်ထိန်းသိမ်းကာကွယ်ရေးနှင့် သက်ဆိုင်သည့် ဥပဒေများ၊ စည်းမျဉ်းစည်းကမ်း များကိုလည်း ဖော်ပြထားပါသည်။ ထိုဥပဒေများ၊ စည်းမျဉ်းစည်းကမ်းများ အနက်မှ ပတ်ဝန်းကျင်ထိန်းသိမ်းကာကွယ်ရေးနှင့် သက်ဆိုင်သော ဥပဒေများ၊ စည်းမျဉ်း စည်းကမ်းများမှာ ဖွဲ့စည်းပုံအခြေခံဥပဒေ (၂၀၀၈)၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဥပဒေ၊ ပတ်ဝန်းကျင် ထိန်းသိမ်းရေးနည်းဥပဒေ၊ အမျိုးသားပတ်ဝန်းကျင်မူဝါဒ၊ အမျိုးသားမြေအသုံးချမှုမူဝါဒ၊ ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ တို့ဖြစ်သည်။

Chapter 5: Description of the Surrounding Environment

အဆိုပြုစီမံကိန်းရှိ ပတ်ဝန်းကျင်ဆိုင်ရာအခြေအနေများအား လေ့လာဆန်းစစ်ရန်အတွက် ကိုးကားအချက်အလက်များအား မှီငြမ်းခြင်းနှင့် ကွင်းဆင်းလေ့လာပြီး အချက်အလက်များ ကောက်ယူခြင်းနည်းလမ်းများအား အသုံးပြုသည်။ ကွင်းဆင်းလေ့လာပြီး အချက်အလက်များ ကောက်ယူခြင်းတွင် စီမံကိန်းရှိပတ်ဝန်းကျင်အခြေအနေများဖြစ်သည့် လေအရည်အသွေး၊ ရေအရည်အသွေးနှင့် ဆူညံသံပမာဏတိုင်းတာခြင်းတို့ပါဝင်သည်။ ကွင်းဆင်းလေ့လာပြီး အချက်

အလက်များကောက်ယူခြင်းအား ၂၄ နာရီဆက်တိုက် စောင့်ကြပ်ကြည့်ရှုသည့်စနစ်ဖြင့် ကောက်ယူရန်အတွက် ၂၀၂၂ ခုနှစ်၊ ဖေဖော်ဝါရီလ ၂၂ ရက်နေ့ ၂၃ ရက်တို့တွင် ဆောင်ရွက်ခဲ့သည်။ ထို့ပြင် ကိုးကားအချက်အလက်များအား မှီငြမ်းခြင်းအတွက် ရာသီဥတု၊ မြေမျက်နှာသွင်ပြင်၊ ရေဆင်း၊ ဧဝဝန်းကျင်၊ လူမှုစီးပွားဝန်းကျင်၊ စီးပွားရေးနှင့် ယဉ်ကျေးမှုအခြေအနေများအား စုဆောင်းခြင်းနှင့် လေ့လာဆန်းစစ်ခြင်းပြုလုပ်သည်။ ကောက်ယူရရှိသောအချက်အလက်များအား စီမံကိန်း ပတ်ဝန်းကျင်ရှိ အခြေအနေများအား ဖော်ပြရန် လေ့လာဆန်းစစ်သည်။ ၂၄ နာရီဆက်တိုက် စောင့်ကြပ်ကြည့်ရှုသည့်စနစ်ဖြင့် ကောက်ယူထားသည့် လေထုအတွင်းအမှုန်ပါဝင်မှု ပမာဏ တိုင်းတာမှုများအရ PM_{10} နှင့် $PM_{2.5}$ ပမာဏတို့သည် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များအတွင်းရှိနေသည်။ လေထုအတွင်း ဓာတ်ငွေ့ပါဝင်မှုပမာဏ တိုင်းတာမှုများအရ ကာဗွန်မိုနောက်ဆိုဒ်၊ ကာဗွန်ဒိုင်အောက်ဆိုဒ်၊ ဆာလဖာဒိုင်အောက်ဆိုဒ်၊ နိုက်ထရိုဂျင်ဒိုင်အောက်ဆိုဒ်နှင့် အိုဇုန်းဓာတ်ငွေ့များသည် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၊ ကမ္ဘာ့ဘဏ်နှင့် ACGIH တို့မှ သတ်မှတ်ထားသည့် သက်ဆိုင်ရာလမ်းညွှန်ချက်များအတွင်း ရှိသည်။ မြေအောက်ရေအရည်အသွေးတိုင်းတာမှုတွင် Iron မှလွဲ၍ အခြားသောအချက်အလက်များသည် ကမ္ဘာ့ဘဏ်မှသတ်မှတ်ထားသော သောက်သုံးရေအတွက်လမ်းညွှန်ချက်များ အတွင်းရှိနေသည်။ စီမံကိန်းရှိဆူညံသံပမာဏသည် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ အတွင်းရှိသောကြောင့် စီမံကိန်းမှ ပြင်းထန်သောဆူညံသံများမထွက်ဟု သတ်မှတ်နိုင်သည်။ စီမံကိန်းပတ်ဝန်းကျင်တွင် ရေနေသတ္တဝါများ၊ ငါးများ၊ သန္ဓာကျောက်တန်းများ၊ သားရဲတိရိစ္ဆာန်များ၊ မျိုးသုဉ်းလုနီးပါးမျိုးစိတ်များ၊ ကာကွယ်ထားသောဇရိယာများ၊ သဘာဝ ပေါက်ပင်များ မတွေ့ရှိရပါ။ ထို့ပြင် ရွှေပြည်သာမြို့နယ်၏ ရာသီဥတုအခြေအနေ၊ ရေဆင်း၊ အုပ်ချုပ်မှုဆိုင်ရာ အချက်အလက်များ၊ လူမှုစီးပွားဆိုင်ရာအချက်အလက်များ၊ မြေအသုံးချမှု၊ စီးပွားရေး၊ ပညာရေးနှင့် ကျန်းမာရေးအခြေအနေများကိုလည်း ဖော်ပြထားသည်။

Chapter 6: Identification, Assessment and Mitigation Measures of Potential Impacts of the Proposed Project

စီမံကိန်းကြောင့်ဖြစ်ပေါ်လာနိုင်သော ကောင်းသောသက်ရောက်မှုများနှင့် ဆိုးရွားသောသက်ရောက်မှုများကို ကာလအပိုင်းသုံးပိုင်းခွဲ၍ တည်ဆောက်ရေးကာလ၊ စီမံကိန်းလည်ပတ်သည့်ကာလ၊ စီမံကိန်းပိတ်သိမ်းသည့်ကာလဟူ၍ လေ့လာဆန်းစစ်သည်။

တည်ဆောက်ရေးကာလ။ ။ တည်ဆောက်ရေးကာလတွင် ပင်မအဆောက်အဦ၊ ၂ထပ် အဆောက်အဦ တည်ဆောက်ခြင်းနှင့် စီမံကိန်းလည်ပတ်ရန်လိုအပ်သော စက်ပစ္စည်းများ၊ ယန္တရားများ၊ မီးစက်၊ ထရန်စဖော်မာများနှင့် အခြားလိုအပ်သောကိရိယာများ တပ်ဆင်ခြင်း တို့ပါဝင်သည်။ သို့သော် စီမံကိန်းအကောင်အထည်ဖော်သူသည် မြေနှင့်အဆောက်အဦများအား

ပိုင်ရှင်ထံမှ ၂၀၂၀ ပြည့်နှစ်တွင်ငှားရမ်းထားခြင်းဖြစ်ပြီး စီမံကိန်းလုပ်ငန်းလည်ပတ်မှုသည် ၂၀၂၁ ခုနှစ်တွင်စတင်ခဲ့သောကြောင့် တည်ဆောက်ရေးလုပ်ငန်းနှင့်ပတ်သက်သော သက်ရောက်မှုများ လေ့လာခြင်း၊ ဆန်းစစ်ခြင်းနှင့် လျှော့ချရန်နည်းလမ်းများဖော်ပြခြင်းတို့သည် ဤလေ့လာမှုတွင် မပါဝင်ပါ။

စီမံကိန်းလည်ပတ်သည့်ကာလ။ ။ စီမံကိန်းလည်ပတ်သည့်ကာလတွင် ဆန်ကြိတ်ခွဲခြင်း၊ ဆန်ဖွတ်ချောသန့်စင်ခြင်းလုပ်ငန်းများ ဖြစ်သည့် ဆန်ကြမ်းများသိုလှောင်ခြင်းနှင့် ထည့်သွင်းခြင်း၊ အကြိုသန့်စင်ခြင်းနှင့် အရောင်တင်ခြင်း၊ သန့်စင်ခြင်းနှင့်အရောင်ခွဲခြင်း၊ သန့်စင်ခြင်းနှင့် အရွယ်အစားခွဲခြင်း၊ ထုတ်ပိုးခြင်းနှင့် ထုတ်ကုန်များအားသိုလှောင်ခြင်းတို့ပါဝင်သည်။ အဆိုပြု စီမံကိန်းလည်ပတ်ရန်ကာလမှာ နှစ် ၂၀ (၂၀၂၁-၂၀၄၂) ဖြစ်သည်။

စီမံကိန်းပိတ်သိမ်းသည့်ကာလ။ ။ စီမံကိန်းပိတ်သိမ်းသည့်ကာလတွင် စီမံကိန်းရှိ အဆောက်အဦများ ဖြိုဖျက်ခြင်းနှင့် စက်ပစ္စည်းများနှင့် ယန္တရားများဖြုတ်သိမ်းခြင်းတို့ ပါဝင်သည်။ သို့သော်စီမံကိန်းအကောင်အထည်ဖော်သူသည် အငှားစာချုပ်ပြည့်ပါက မြေနှင့်အဆောက်အဦအား ပိုင်ရှင်ထံပြန်လည်လွှဲပြောင်းပေးရမည် ဖြစ်သောကြောင့် စီမံကိန်းမှ စက်ပစ္စည်းများ၊ ယန္တရားများနှင့် အခြားကိရိယာများ ဖြုတ်သိမ်းခြင်းလုပ်ငန်းကိုသာ စီမံကိန်းပိတ်သိမ်းသည့်ကာလအတွက် ထည့်သွင်းစဉ်းစားထားသည်။

စီမံကိန်းကြောင့် လေ၊ ရေ၊ မြေအရည်အသွေး၊ ဇီဝမျိုးစုံမျိုးကွဲများ၊ လူသားများနှင့် စွန့်ပစ်ပစ္စည်းများ စွန့်ပစ်ခြင်းတို့အား ထိခိုက်မှုများကိုလေ့လာရန် အောက်ဖော်ပြပါ လေ့လာဆန်းစစ်သည့် နည်းလမ်းအား အသုံးပြုသည်။ ထိခိုက်မှုများလေ့လာခြင်းသည်၄င်းတို့၏ ပြင်းအား၊ ကြာချိန်၊ ပုံနှံနိုင်မှုနှင့် ဖြစ်နိုင်စွမ်းတို့ပေါ်တွင် မူတည်၍ ကာလများအလိုက် တွက်ချက်ခြင်း ဖြစ်သည်။

ဆန်းစစ်ခြင်း	သတ်မှတ်ချက်				
	၁	၂	၃	၄	၅
ပြင်းအား	မသိသာ	သိသာမှု အနည်းငယ် ရှိပြီး လုပ်ငန်းခွင်တွင် သက်ရောက်မှု မရှိ။	သိသာမှု အလည် အလတ် ရှိပြီး လုပ်ငန်းခွင်တွင် သက်ရောက်မှု အနည်းငယ်ရှိ	သိသာမှု များပြီး လုပ်ငန်းခွင်တွင် သက်ရောက်မှု ထင်ရှား။	သိသာမှု အလွန် များပြီး လုပ်ငန်းခွင်တွင် ပြောင်းလဲမှု ထင်ရှား။

ဆန်းစစ်ခြင်း	သတ်မှတ်ချက်				
	၁	၂	၃	၄	၅
ကြာချိန်	၀- ၁ နှစ်	၂- ၅ နှစ်	၆- ၁၅ နှစ်	လုပ်ငန်း လည်ပတ်ချိန် တစ်လျှောက်	လုပ်ငန်း ဖျက်သိမ်းသည် အထိ
ပျံ့နှံ့နိုင်မှု	လုပ်ငန်းခွင် အတွင်းသာ	အနီးအနား ပတ်ဝန်းကျင် ထိ	ဒေသတွင်း	နိုင်ငံတွင်း	နိုင်ငံတကာထိ
ဖြစ်နိုင်စွမ်း	လုံးဝ မဖြစ်နိုင်	မဖြစ်နိုင်	ဖြစ်နိုင်သည်	အလွန်ဖြစ်နိုင် သည်။	ဖြစ်နိုင်မှု သေချာသည်။

ထိခိုက်မှုများကိုအောက်ဖော်ပြပါ ပုံသေနည်းအတိုင်းတွက်ချက်သည်။

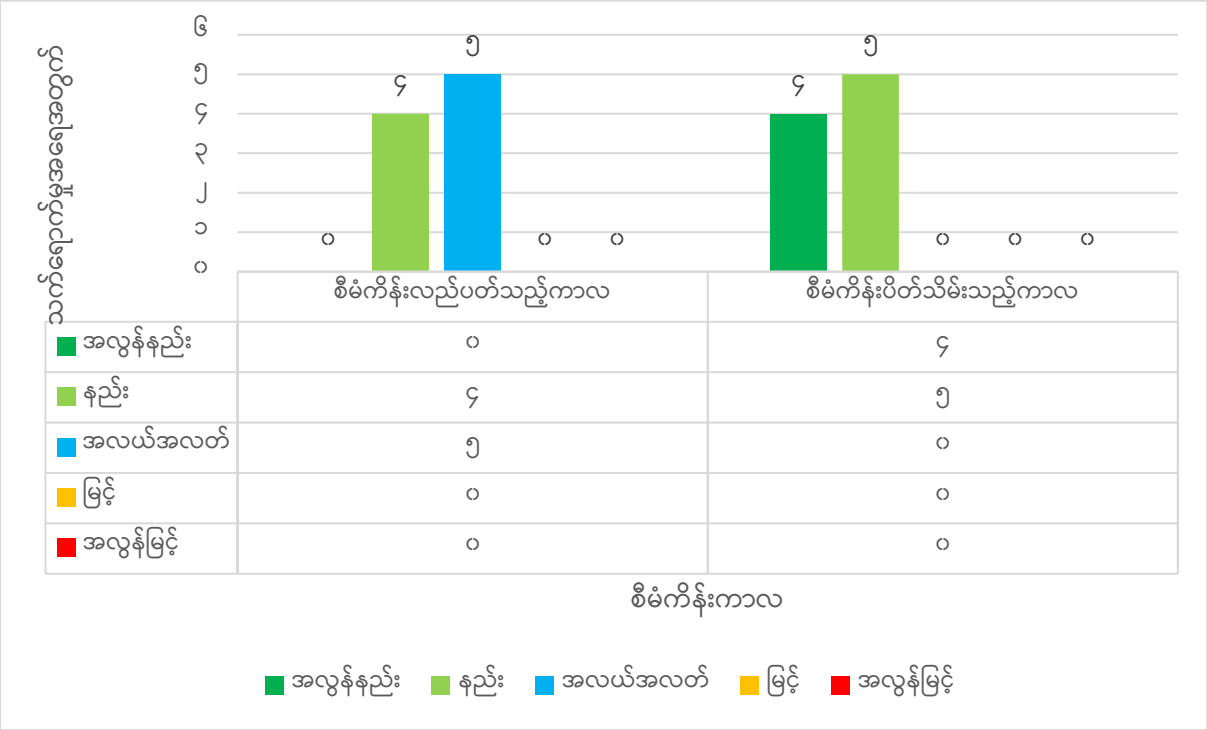
ထင်ရှားမှု= (ပြင်းအား+ ကြာချိန်+ ပျံ့နှံ့နိုင်မှု) * ဖြစ်နိုင်စွမ်း

ထိခိုက်မှုများ၏ ထင်ရှားမှုများကိုအောက်ပါအတိုင်း အပိုင်းငါးပိုင်းခွဲခြားနိုင်သည်။

ထင်ရှားမှု	ထိခိုက်မှုများ၏ ထင်ရှားမှု
<၁၅	အလွန်နည်းသည်
၁၅-၂၉	နည်းသည်
၃၀-၄၄	အလယ်အလတ်ဖြစ်သည်
၄၅-၅၉	မြင့်သည်
>၆၀	အလွန်မြင့်သည်

ထိခိုက်မှုများကိုလေ့လာဆန်းစစ်ခြင်း ရလဒ်များအရ စီမံကိန်းလည်ပတ်သည့်ကာလတွင် လေအရည်အသွေး၊ ဆူညံသံနှင့်တုန်ခါမှု၊ လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် ဘေးအန္တရာယ်ကင်းရှင်းရေး မီးဘေးအန္တရာယ်၊ အစိုင်အခဲစွန့်ပစ်ပစ္စည်းစွန့်ပစ်ခြင်းတို့သည် အလယ်အလတ်ထိခိုက်မှု အဆင့်တွင်ရှိသည်။ အခြားသော ထိခိုက်မှုများသည် နည်းသည့်ထိခိုက်မှု အဆင့်တွင်ရှိသည်။ စီမံကိန်းပိတ်သိမ်းသည့် ကာလတွင် လေထုအရည်အသွေး၊ ဆူညံသံနှင့်တုန်ခါမှု၊ လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် ဘေးအန္တရာယ်ကင်းရှင်းရေး၊ မီးဘေးအန္တရာယ်၊ အစိုင်အခဲစွန့်ပစ်ပစ္စည်း စွန့်ပစ်ခြင်းတို့သည် နည်းသည့်ထိခိုက်မှုအဆင့်တွင်ရှိကာ အခြားသော ထိခိုက်မှုများသည် အလွန်နည်းသည့်ထိခိုက်မှု အဆင့်တွင်ရှိသည်။ သို့သော် အဆိုပြုစီမံကိန်းသည် ဒေသခံပြည်သူများအတွက် အလုပ်အကိုင်အခွင့်အလမ်းများ ဖန်တီးပေးခြင်း၊ စီးပွားရေးအခွင့်

အလမ်းများ ဖန်တီးပေးခြင်းစသည့် ကောင်းသောသက်ရောက်မှုများကိုလည်း ဖြစ်စေသည်။ အောက်ဖော်ပြပါပုံတွင် စီမံကိန်းကြောင့် ဖြစ်ပေါ်သော ဆိုးရွားသည့်ထိခိုက်မှုများ၏ အဆင့်များကို ကာလနှစ်ခုလုံးအတွက်ဖော်ပြထားသည်။



Chapter 7: Institutional Requirements and Environmental Management Plan (EMP)

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုများ၊ လုပ်ထုံးလုပ်နည်းများနှင့် တာဝန်ယူမှုများသည် အဆိုပြုစီမံကိန်းအတွက် ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်၏ တည်ဆဲပတ်ဝန်းကျင်ဆိုင်ရာနည်းဥပဒေ၊ ဥပဒေ၊ မူဝါဒ၊ စည်းမျဉ်းစည်းကမ်းများနှင့် အညီဆောင်ရွက်ရန် လိုအပ်သည်။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်တွင် အပိုင်း ၇ ပိုင်းပါရှိသည်။

၁။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်
၂။ ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှုအစီအစဉ်
၃။ လူမှုစီးပွားတာဝန်ယူမှုအစီအစဉ်
၄။ လုပ်ငန်းခွင်ကျန်းမာရေးနှင့် ဘေးအန္တရာယ်ကင်းရှင်းရေးအစီအစဉ်
၅။ မီးဘေးအန္တရာယ်ကင်းရှင်းရေးအစီအစဉ်
၆။ အရေးပေါ်ကိစ္စရပ်များအတွက်တုံ့ပြန်မှုနှင့် ကာကွယ်မှုအစီအစဉ်
၇။ မကျေလည်မှုများကို ဖြေရှင်းပေးမည့်အစီအစဉ်တို့ဖြစ်သည်။

ထို့ပြင် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်နှင့် ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှုအစီအစဉ်တို့အား အကောင်အထည်ဖော်ရန် ခန့်မှန်းကုန်ကျစရိတ်အား ထည့်သွင်းဖော်ပြထားသည်။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်သည် စီမံကိန်းကြောင့်ဖြစ်ပေါ်နိုင်သော ဆိုးရွားသည့်သက်ရောက်မှုများ၊ သက်ရောက်မှုအရင်းအမြစ်များ၊ လျှော့ချရန်နည်းလမ်းများ၊ လျှော့ချပြီးနောက်ကျန်ရှိသည့် သက်ရောက်မှုများ၊ တာဝန်ယူဆောင်ရွက်ရမည့်အဖွဲ့အစည်းများအား ကာလနှစ်မျိုးအတွက် ဖော်ပြခြင်းဖြစ်သည်။ ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှု အစီအစဉ်သည် လေအရည်အသွေး၊ ရေအရည်အသွေး၊ ဆူညံသံ၊ ပတ်ဝန်းကျင်ဆိုင်ရာစစ်ဆေးခြင်းနှင့် စွန့်ပစ်ပစ္စည်းစွန့်ပစ်ခြင်းတို့အတွက် တိုင်းတာရမည့် အချက်အလက်များ၊ အကြိမ်အရေအတွက်၊ တာဝန်ယူဆောင်ရွက်ရမည့် အဖွဲ့အစည်းများအား ဖော်ပြခြင်းဖြစ်သည်။ လူမှုစီးပွားတာဝန်ယူမှုအစီအစဉ်သည် အလုပ်သမားများ၏ လူမှုဖူလုံရေး၊ ပိုမိုကောင်းမွန်သော ပတ်ဝန်းကျင်ဖန်တီးရေး၊ အနီးပတ်ဝန်းကျင်နှင့် ကောင်းမွန်သော၊ ပွင့်လင်းမြင်သာသော ဆက်ဆံရေးတည်ဆောက်ရေးတို့ အတွက် ရည်ရွယ်သည်။ လုပ်ငန်းခွင် ကျန်းမာရေးနှင့် ဘေးအန္တရာယ်ကင်းရှင်းရေး အစီအစဉ်သည် အလုပ်သမားများအတွက် လုံခြုံဘေးကင်းကျန်းမာစိတ်ချရသော လုပ်ငန်းခွင်အား မည်သို့ ဖန်တီးမည်ကိုဖော်ပြခြင်းဖြစ်သည်။ မီးဘေးအန္တရာယ်ကင်းရှင်းရေး အစီအစဉ်သည် မီးဘေးဖြစ်ပေါ်ပါက မည်သို့ကာကွယ်ဆောင်ရွက်မည်ကို ဖော်ပြခြင်းဖြစ်သည်။ အရေးပေါ်ကိစ္စရပ်များ အတွက်တုံ့ပြန်မှုနှင့် ကာကွယ်မှု အစီအစဉ်သည် ငလျင်လှုပ်ခြင်းနှင့်ရေကြီးခြင်းကဲ့သို့သော အရေးပေါ်ကိစ္စရပ်များ ဖြစ်ပေါ်ပါက မည်သို့ကာကွယ်ဆောင်ရွက်မည်ကို ဖော်ပြခြင်းဖြစ်သည်။ မကျေလည်မှုများကို ဖြေရှင်းပေးမည့်အစီအစဉ်သည် စီမံကိန်းနှင့်ပတ်သက်သော မကျေလည်မှုများကို မည်သို့ဖြေရှင်းမည်ဖြစ်ကြောင်း ဖော်ပြခြင်းဖြစ်သည်။

Chapter 8: Public Consultation and Information Disclosure

ထို့ပြင် ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းဆောင်ရွက်ရာတွင် စီမံကိန်းနှင့်ပတ်သက်သော အချက်အလက်များအား အများပြည်သူအားရှင်းလင်းတင်ပြရန်နှင့် အများပြည်သူ၏ အမြင်၊ အကြံဉာဏ်များအား ထည့်သွင်းစဉ်းစားရန်အရေးကြီးသည်။

Chapter 9: Conclusion and Recommendations

နိဂုံးချုပ်အားဖြင့် အဆိုပြုစီမံကိန်းသည် ကာလနှစ်ခုလုံးတွင် ဒေသခံပြည်သူများအတွက် အလုပ်အကိုင်အခွင့်အလမ်းများနှင့် စီးပွားရေးအခွင့်အလမ်းများ ဖန်တီးပေးနိုင်သည်။ စီမံကိန်းကြောင့်ဖြစ်ပေါ်လာနိုင်သည့် ဆိုးရွားသောသက်ရောက်မှုများအား လျှော့ချရန်နည်းလမ်းများ အသုံးပြုခြင်း၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အကောင်အထည် ဖော်ခြင်းတို့ဖြင့် လျှော့ချနိုင်သည်။ ထို့ပြင် ပတ်ဝန်းကျင်စောင့်ကြပ်ကြည့်ရှုမှု အစီအစဉ်အား စီမံကိန်း၏ ပတ်ဝန်းကျင်အရည်အသွေး

များကို စောင့်ကြပ်ကြည့်ရှုရန်အတွက် အကောင်အထည် ဖော်ရမည်။ စီမံကိန်းအဆိုပြုသူသည် စီမံကိန်းအတွက် ပြင်ဆင်ရေးသားထားသော ဤကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာအား သက်ဆိုင်ရာမှ စိစစ်ပြီးပါက ပြန်လည်ပေးပို့လာမည့် အကြံပြုချက်များ၊ သဘောထားမှတ်ချက်များအား လိုက်နာဆောင်ရွက်ရမည်။ ဤကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာတွင် ပါဝင်သော ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အား သက်ဆိုင်ရာမှ အတည်ပြုပြီးပါက ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်အား စီမံကိန်းအကောင်အထည်ဖော်သူမှ မဖြစ် မနေ အကောင်အထည် ဖော်ရမည်။ စီမံကိန်းအကောင်အထည်ဖော်သူသည် စီမံကိန်းအား ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော်၏ တည်ဆဲပတ်ဝန်းကျင်ဆိုင်ရာနည်းဥပဒေ၊ ဥပဒေ၊ မူဝါဒ၊ စည်းမျဉ်း စည်းကမ်းများနှင့် အညီဆောင်ရွက်ရန်လိုအပ်သည်။

Executive Summary

Chapter 1: Project Description

This Initial Environmental Examination (IEE) Report is prepared for United Group Rice Mill Project which is currently implemented and operated by Wakhema Trading Co., Ltd. The objective of the proposed project is for rice milling, polishing and production, then exporting to foreign countries. As per the remarks from MIC, this proposed project needs to conduct IEE to fulfill the environmental assessment requirements of the Environmental Policy, Environmental Conservation Law and other environmental related rules and regulations. Therefore, Wakhema Trading Co., Ltd. made consultations with Guardians of Green Environmental Services Co., Ltd. (GOG Environmental Services Co., Ltd.) for conducting environmental studies. The followings are the specific objectives of this environmental study.

1. Conduct baseline environmental quality measurement as baseline data of the project
2. Identify positive and negative impacts of the proposed project on surrounding natural environmental and socio-economic environment of the project area due to the activities of the project
3. Evaluate the identified adverse impacts of the proposed project
4. Propose and describe the mitigation measures to minimize these negative impacts
5. Prepare Environmental Management Plan and Environmental Monitoring Plan for the project
6. Provide Occupational Health and Safety Plan, Firefighting Plan, Emergency Response and Preparedness Plan, Corporate Social Responsibility Plan and Grievance Redress Mechanism for the project
7. Disclose the information of the project to the public and relevant stakeholders

The scope of the study area for the proposed project is roughly defined to be the area within 0.5 km radius from the center of the project. This area would be large enough to cope with most potential environmental and socio-economic impacts of the operations processes of the project. Available secondary data and primary data collected from field survey were used for conducting environmental study for the proposed project. The proposed project is 100% local investment by Wakhema Trading Co., Ltd and produce different rice products and export to foreign countries. Totally six types of finished products are produced from the proposed project. These are Rice 5%, Rice 15%, Rice 25%, A (1-2), B (1:2) and B (2:3:4). Annual production of each type can be varied depend on demands and orders of customer and it is estimated that totally 72,000 metric tons of finished products are produced by the project annually. The rice milling processes of the project are raw materials storage and input, pre-cleaning and polishing, cleaning and color sorting, cleaning and size grading, packaging, finished products storage and then export to foreign countries.

The proposed project is located at No. (95), U Phoe Hlaing Road, Shwe Pyi Thar Industrial Zone (2), Shwe Pyi Thar Township, North Yangon District, Yangon Region at the coordinate of Latitude 16° 56' 8.61" N and Longitude 96° 4' 30.82" E. The project area is 1.585 acres and land type is the grant land. Land and buildings are owned by U Aung Win and initial period permitted to use the land (validity of land grant) is 60 years. The project proponent leased the land and buildings from the owner and land lease period is five years (2020-2025).

Annual domestic water consumption for the proposed project is 730,000 gallons/ year (2,000 gallons/ day) and drinking water consumption is 73,000 liters/ year (200 liters/ day). The source of domestic water is from the tube well in the project and drinking water is purchased from local suppliers. The annual energy requirement for the proposed project is 1,009,833 kWh/ year (2,766 kWh/ day) and the source is electricity is from the National Grid Line and diesel generator. On the other hand, diesel is purchased from nearby fuel station for generator. Annual fuel requirement is 109,500 liters/ year (300 liters/ day). Human resource requirement for the proposed project is 35 workers and there are two shifts (8:00 am – 5:00 pm and 6:00 pm – 4:00 am). Total working hours of the proposed project is 8 hours/ day for one shift and there are 30 working days per month.

Chapter 2: Identification of the Project Proponent

The project is currently operating the production processes since 2021. The project proponent company was established since 2009 with four Departments, which are Finance, Admin, Purchasing / Sales & Marketing and Internal Audit Department. Totally, 1,314.316 million kyats are invested for the project in terms of investments in cash, machinery equipment and office equipment.

Chapter 3: Experts for Conducting Initial Environmental Examination (IEE)

This IEE report is prepared by GOG Environmental Services Co., Ltd and experts for conducting Initial Environmental Examination are also described.

Chapter 4: Policy, Legal and Institutional Frameworks

Moreover, the National Laws and Regulations for the Environmental Protection applicable to the proposed project are also described. Among these laws and regulations, the main concern for the environmental conservation in Myanmar are the Constitution of the Republic of the Union of Myanmar (2008), Environmental Conservation Law, Environmental Conservation Rules, National Environmental Policy, National Land Use Policy, Environmental Impact Assessment Procedures, National Environmental Quality (Emission) Guidelines.

Chapter 5: Description of the Surrounding Environment

In order to analyze the environmental conditions of the proposed project two data collection methods were applied; primary data collection and secondary data collection. Primary data collection is the measurement of baseline environmental quality of the proposed project including air quality, water quality and noise level measurement. Therefore, primary data collection was carried out on 22nd and 23rd February, 2022 for 24 hours-continuous data collection. Secondary data collection is collecting literature and data with regards to physical environment such as climate, topography, tectonic and hydrology, biological environment, socio-economic environment, economic conditions and cultural features of the location of the project. Collected data were analyzed to describe baseline environmental conditions of the proposed project. According to the observed results of dust emissions, the value of PM_{10} and $PM_{2.5}$ is within the guideline value for 24 hours continuously. With regards to the results of gaseous emission, gases such as Carbon monoxide, Carbon dioxide, Sulphur dioxide, Nitrogen dioxide and Ozone are within the limit of guideline values which are standardized by respective organizations like ECD, WHO and ACGIH. For groundwater quality, most of the parameters except Iron are within the limit of guideline values for drinking water, standardized by WHO

Noise level of the proposed project is also within the NEQEG guideline values therefore it can be considered that there is no serious noise generation from the proposed project. There is no aquatic life, fisheries, coastal resources, wildlife, forests, endangered species, protected areas and natural vegetations near the project area. Furthermore, climate conditions, hydrology, administrative structure, demographic profile, land use, economic conditions, educational and health status, social and culture features of Shwe Pyi Thar Township are also described.

Chapter 6: Identification, Assessment and Mitigation Measures of Potential Impacts of the Proposed Project

Potential impacts of the project are generally identified for three phases; construction phase, operation phase and decommissioning phase in terms of positive impacts and negative impacts.

Construction Phase: construction phase of the project includes construction of main building and two-storied building as well as installation of machines, equipment, generator, transformer and necessary instruments to operate the project. However, the project proponent leases the land and buildings from the owner since 2020 and the operation processes of the project has started since 2021, therefore, consideration of impacts identification, impacts assessment and mitigation measures formulating for the construction phase of the proposed project is excluded in this study.

Operation Phase: operation phase of the project includes rice milling, polishing and production processes such as raw materials storage and input, pre-cleaning and polishing, cleaning and color sorting, cleaning and size grading, packaging and finished products storage. Proposed operation period of the project is 20 years from (2021-2042).

Decommissioning Phase: decommissioning phase of the project includes demolition of existing buildings and related facilities of the project. However, the project proponent has to return land and building to the owner after land lease period. Therefore, activities related to uninstall machines, equipment and related instruments of the project at the project closure stage are only considered for the decommissioning phase of the project.

The following methodology has been applied to assess the environmental impacts of the project mainly on air, water, soil, biodiversity including human beings and waste generation. Each source of impact has been assessed by four parameters; magnitude, duration, extent and probability and each assess have five scales as mentioned below:

Assessment	**Scale**				
	1	**2**	**3**	**4**	**5**
Magnitude (M)	Insignificant	Small and will have no effect on working environment	Moderate and will result in minor changes on working environment	High and will result in significant changes on working environment	Very high and will result in permanent changes on working environment
Duration (D)	0-1 year	2-5 year	6-15 year	Life of operation	Post Closure

Assessment	Scale				
	1	2	3	4	5
Extent (E)	Limited to the site	Limited to the local area	Limited to the region	National	International
Probability (P)	Very improbable	Improbable	Probable	Highly probably	Definite

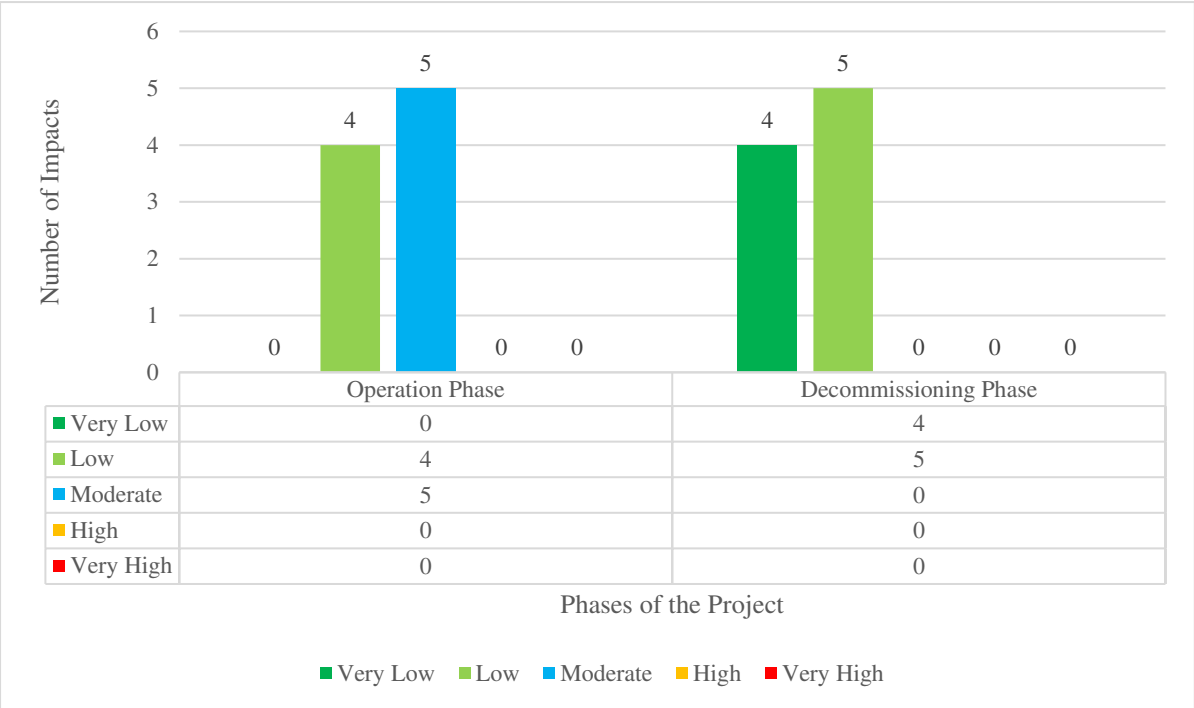
Then, the Significant Point (SP) is calculated by following formula.

Significant Point (SP) = (Magnitude+ Duration+ Extent) * Probability

Impact Significance: Based on calculated significant point, impact significance can be categorized as follows:

Significant Point (SP)	Impact Significance
<15	Very Low
15-29	Low
30-44	Moderate
45-59	High
>60	**Very High**

According to the results of impacts assessment, it is concluded that impacts on air, noise and vibration impacts, impacts on occupational health and safety, fire hazard impacts and impacts of solid waste generation are found Moderate level impacts. Other impacts are categorized in Low level impacts during the ***operation phase*** of the propose project. Moreover, it is also concluded that impacts on air, noise and vibration impacts, impacts on occupational health and safety, fire hazard impacts and impacts of solid waste generation are Low level and other impacts are categorized as Very Low level impacts during the ***decommissioning phase*** of the proposed project. On the contrary, there are some positive impacts due to implementation of the project such as employment opportunities and business opportunities for local people at both phases. The following figure illustrates the negative impact significance of the proposed project for both operation phase and decommissioning phase.



Chapter 7: Institutional Requirements and Environmental Management Plan (EMP)

The environmental management practices, procedures and responsibilities are defined to get full compliance with the existing environmental policy, laws, rules and regulations of the Republic of the Union of Myanmar for the proposed project. There are seven main sections in this Environmental Management Plan (EMP):

1) Environmental Mitigation Plan
2) Environmental Monitoring Plan
3) Cooperate Social Responsibility (CSR) Plan
4) Occupational Health and Safety Plan
5) Firefighting Plan
6) Emergency Response and Preparedness Plan
7) Grievance Redress Mechanism (GRM)

Moreover, cost estimation for EMP and EMoP are also described. The **Environmental Management Plan (EMP)** identifies potential environmental negative impacts, source of impacts, how to mitigate these impacts and residual impacts after mitigation and responsible persons for both operation and decommissioning phases. The **Environmental Monitoring Plan (EMoP)** identifies parameters, frequency and responsible persons to monitor the air quality, water quality, noise level, environmental auditing and waste generations for two phases. The **Corporate Social Responsibility (CSR) Plan** aims to secure social well-being of the workers and their family members, better community living and transparent and friendly relationship with neighboring communities. The **Occupational Health and Safety Plan** provides how to create safe and healthy working environment for the workers. The **Firefighting Plan** identifies how to prepare and overcome fire cases effectively. The **Emergency Response and Preparedness Plan** identifies how to prepare and overcome emergency cases such as floods and earthquakes effectively. The **Grievance Redress Mechanism (GRM)** identifies the steps to solve complaints related to the proposed project.

Chapter 8: Public Consultation and Information Disclosure

It is important to disclose the information about the project during the preparation of IEE report and the opinion of all stakeholders should be considered in the preparation of the IEE report.

Chapter 9: Conclusion and Recommendations

In conclusion, this project can create job opportunities and business opportunities for local people in two phases. All of the negative impacts during operation and decommissioning phases can be minimized by using mitigation measures and implementing Environmental Management Plan (EMP). Moreover, Environmental Monitoring Plan (EMoP) must need to implement for monitoring the environmental quality of the proposed project. Finally, the proponent shall follow the comments and suggestions that will be given by ECD after reviewing this IEE report. Once EMP stated in IEE report will be approved by concerned authorities, effective implementation of EMP by the project proponent is essential to reduce impacts. Finally, the project proponent shall abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar throughout the lifespan of the project.

1. Project Description

This report is the Initial Environmental Examination (IEE) Report for United Group Rice Mill Project, which is currently implemented and operated by Wakhema Trading Co., Ltd. at No. (95), U Phoe Hlaing Road, Shwe Pyi Thar Industrial Zone (2), Shwe Pyi Thar Township, North Yangon District, Yangon Region, Myanmar. The objective of the proposed project is for rice milling, polishing and production. The Project proponent submitted a proposal to Myanmar Investment Commission (MIC) for the proposed project in April, 2021. As per the remarks from MIC, this proposed project needs to conduct IEE to fulfill the environmental assessment requirements of the Environmental Policy, Environmental Conservation Law and Environmental Impact Assessment Procedure. In Myanmar, it was stated in EIA Procedure (2015) that every development project in Myanmar shall submit an Environmental Management Plan (EMP) or Initial Environmental Examination (IEE) or Environmental Impact Assessment (EIA) depending on the criteria for specific kind of economic activity. Therefore, Guardians of Green Environmental Services Co., Ltd. (GOG Environmental Services Co., Ltd.) conduct environmental studies and prepare IEE report for the United Group Rice Mill Project, operated by Wakhema Trading Co., Ltd.

The specific objectives of the environmental studies for the project include

1. To conduct baseline environmental quality measurements as baseline data of the project
2. To identify positive and negative impacts of the proposed project on surrounding natural environmental and socio-economic environment of the project area due to the activities of the project
3. To evaluate the identified adverse impacts of the proposed project
4. To propose and describe the mitigation measures to minimize these negative impacts
5. To prepare Environmental Management Plan and Environmental Monitoring Plan for the project
6. To provide Occupational Health and Safety Plan, Firefighting Plan, Emergency Response and Preparedness Plan, Corporate Social Responsibility Plan and Grievance Redress Mechanism for the project
7. To encourage and provide opportunities for public consultation and
8. To disclose the information of the project to the public and relevant stakeholders

1.1 Scope of the Study

The scope of study for IEE will vary according to the scale and type of the development project. In this IEE, a study was made in order to cover rice milling, polishing and production activities of the proposed project. Consideration of resource conservations and pollution abatements like air pollution, water pollution, soil pollution, solid waste, liquid waste, hazardous waste generation, noise and vibration generation, dust emission, occupational health and safety impacts are taking into account for this study. The site survey was carried out by GOG Environmental Services Co., Ltd. which have environmental assessments experiences for various kind of development projects for all project related environmental, socio-economic

issues and baseline data collection from possible sources of pollution. Data analysis and interpretation were done based on those collected baseline data for the present and future conditions. In this IEE report, recommended mitigation measures and monitoring plans were also included to minimize negative impacts of the proposed project. Site survey and environmental quality measurements were done on 22nd February, 2022 for the proposed project.

The scope of the study area for IEE project is not specifically defined for the environmental study in the EIA Procedure of Myanmar. It is estimated that there will be not much significant negative impacts on the environment and socio-economic conditions of the surrounding area due to type, location and operation processes of the proposed project. Therefore, the scope of the study area for the proposed project is roughly defined to be the area within 0.5 km radius from the center of the project. This area would be large enough to cope with most potential environmental and socio-economic impacts of the operation processes of the project. Available secondary data and primary data collected from field survey were used for conducting environmental study for the proposed project. The scope of the study for the propose project is described in the following figure.

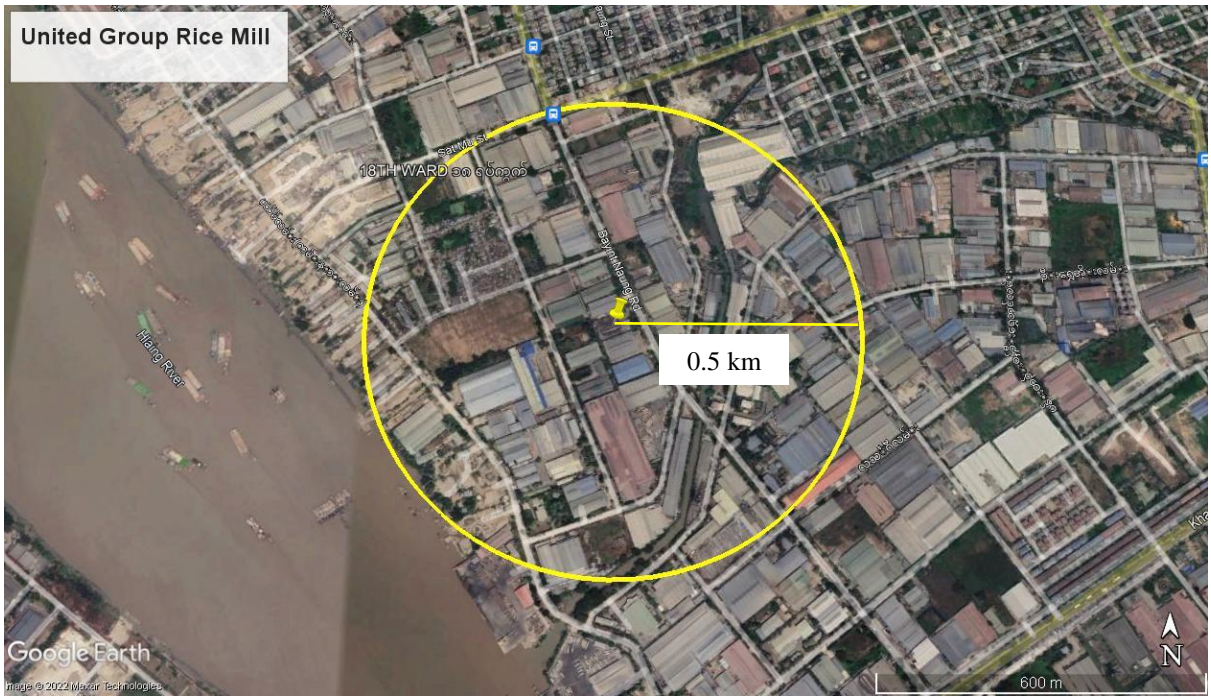


Figure 1. 1 Scope of the Study Area

1.2 Type of the Project

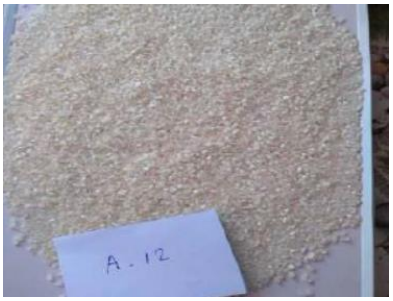
The proposed project is 100% local investment by Wakhema Trading Co., Ltd. and the operation activities include rice milling, polishing and production. Finished products are fully exported to foreign countries especially China, Madagascar and India.

Totally six types of finished products are produced from the proposed project. These are Rice 5%, Rice 15%, Rice 25%, A (1-2), B (1:2) and B (2:3:4). The following figure shows the samples of different rice products.

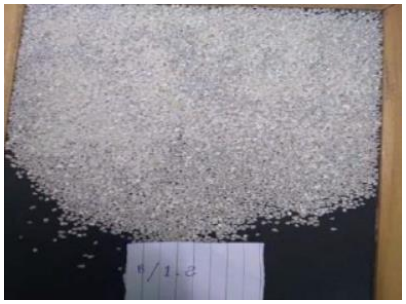
Rice 5%

Rice 15%

Rice 25%



A (1-2)



B (1:2)

B (2:3:4)

Figure 1. 2 Finished Products of the Project

The following table describes the estimated annual production of the proposed project by different types of rice products.

Table 1. 1 Annual Production of the Project

Type of Rice Products	Year				Exported Countries
	Year 1 (MT)	Year 2 (MT)	Year 3 (MT)	Year 4 - 10 (MT)	
Rice 5%	14,400	14,400	14,400	86,400	China, Madagascar, India
Rice 15%	14,400	14,400	14,400	86,400	China, Madagascar, India
Rice 25%	14,400	14,400	14,400	86,400	China, Madagascar, India
A (1-2)	10,800	10,800	10,800	64,800	China, Madagascar, India
B (1:2)	10,800	10,800	10,800	64,800	China, Madagascar, India
B (2:3:4)	7,200	7,200	7,200	43,200	China, Madagascar, India
Total	**72,000**	**72,000**	**72,000**	**432,000**	

1.3 Project Size and Location

The proposed project is located at No. (95), U Phoe Hlaing Road, Shwe Pyi Thar Industrial Zone (2), Shwe Pyi Thar Township, North Yangon District, Yangon Region, Myanmar at the coordinate of Latitude 16° 56' 8.61" N and Longitude 96° 4' 30.82" E. The project area is 1.585 acres and land type is the grant land. Land and buildings are owned by U Aung Win and initial period permitted to use the land (validity of land grant) is 60 years. The project proponent leased the land and buildings from the owner and land lease period is five years (2020-2025). The following figures describe the location of the proposed project.

Figure 1. 3 Location Map of the Project

The proposed project has two buildings; main building and two-storied building. In main building, there are office room, packaging bag storage room, finished products storage area,

raw rice storage area, machineries areas are included. On the other hand, security room and workers dormitory are included in two-storied building.

The following figure shows the details site layout map of the proposed project.

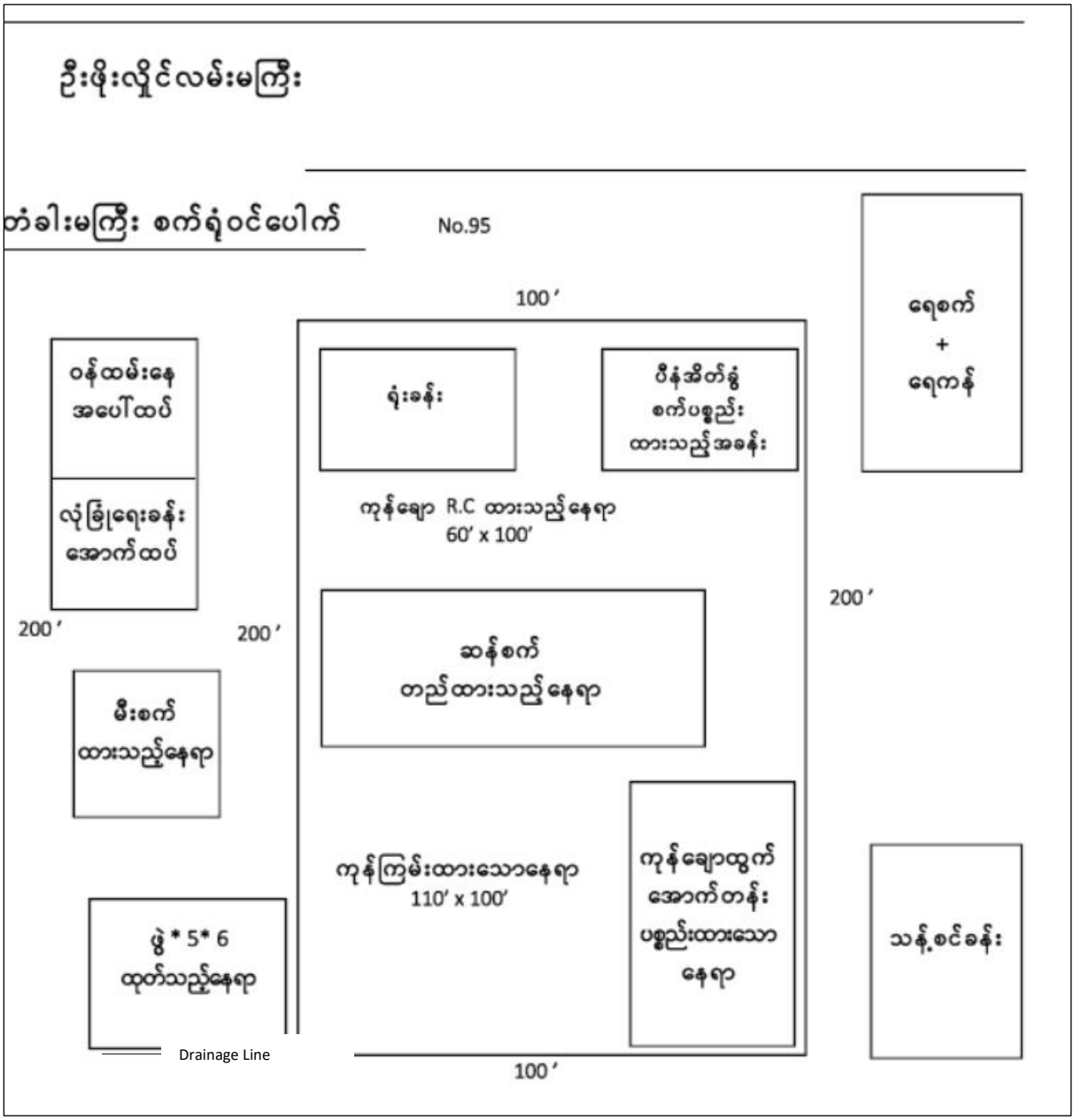


Figure 1. 4 Site Layout Map of the Project

Gate and Entrance

Main Building

Main Building

Two-storied Building

Figure 1. 5 Buildings in the Project

1.4 Rice Milling Processes

Raw Materials Storage and Input: The proposed project uses raw rice for rice milling and purchased from local suppliers. The raw rice is transported by trucks to the project and stored at raw rice storage area. Raw rice is put into four raw rice tanks through inlet of the machine to start rice milling and polishing process. After putting into raw rice tanks, conveyor is used for delivering to the cleaner.

Figure 1. 6 Raw rice Storage Area

Figure 1. 7 Inlet, Raw Rice Tank and Conveyor

Pre-cleaning and Polishing: In order to attain good quality rice, pre-cleaning of the rice is necessary. If not done properly, the fines in the rice can create dust and can reduce the airflow through the rice gain. Raw rice is initially separated at the cleaner (1) to obtain good quality rice and destoning is carried out during this step to remove undesired stones present in the rice using a gravity separator or a destoner. The process includes passing the raw rice through a series of sieves. After finishing pre-cleaning, rice is put into the polisher to polish color of rice by removing the remaining bran particles. The project uses two polishers, which utilize fine mist of water to remove dust retained on the rice for improving the luster of rice.

Figure 1. 8 Cleaner I

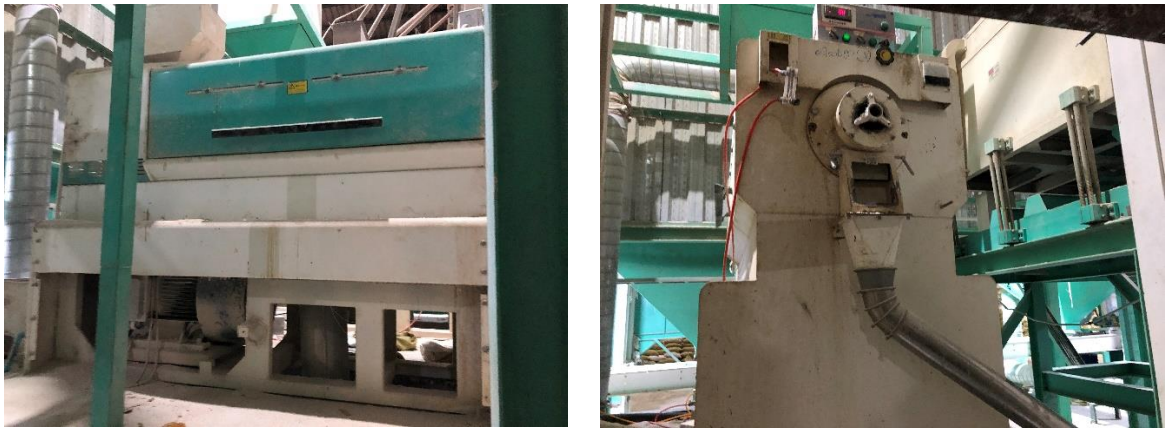


Figure 1. 9 Polishers

Cleaning and Color Sorting: Once polishing is done, rice is fed into the cleaner (2) for additional separating and sorted by color sorter to separate color of rice.

Figure 1. 10 Cleaner II and Color Sorter

Cleaning and Size Grading: Color sorted rice is put into the cleaner (3) for finalize cleaning and graded by size in size grading machine. During this process, the broken rice is removed from the whole rice and small and large head brokers are separated from the head rice.

Figure 1. 11 Cleaner III and Size Grading Machine

Packaging: After finishing size grading, rice is delivered into the ready cargo tanks and finished rice product is packed into the bags with packaging machines as per customer's requirement.

Figure 1. 12 Ready Cargo Tank and Outlet for Packaging

Figure 1. 13 Control Room

Finished Products Storage: Finished products are stored at finished products storage area and exported to foreign countries.

Figure 1. 14 Finished Products Storage Area

The following figure illustrates the detail rice milling processes of the proposed project.

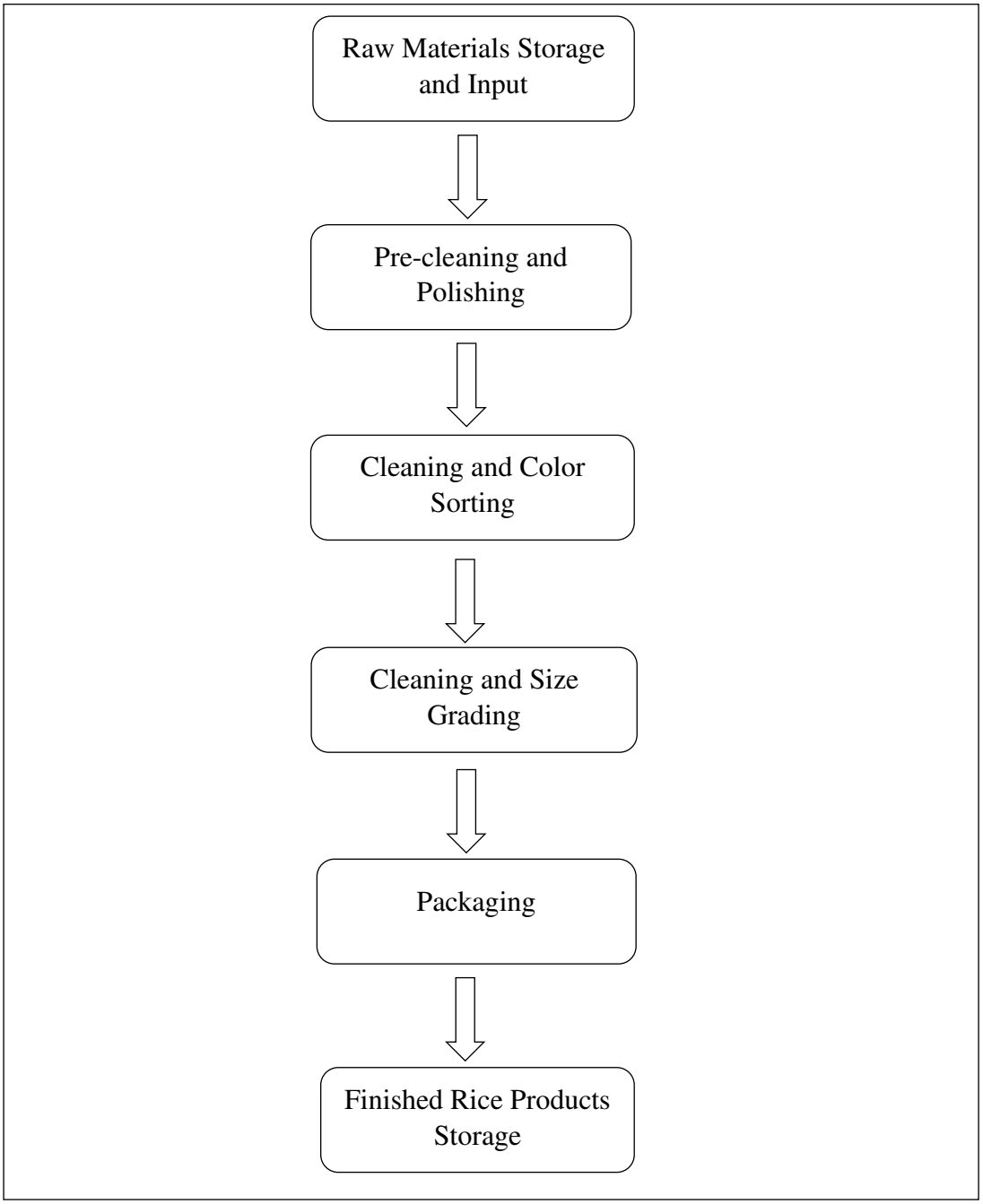


Figure 1. 15 Rice Milling Processes of the Project

1.5 Uses of Materials and Resources

1.5.1 Raw Materials Requirement

The raw material of the proposed project is raw rice and purchased from local suppliers in Ayeyarwaddy, Bago and Yangon Region. The following table describes annual raw material requirement of the proposed project.

Table 1. 2 Annual Raw Rice Requirement of the Project

Type of Raw rice	Months	Year				Purchasing Sources
		Year 1 (MT)	Year 2 (MT)	Year 3 (MT)	Year 4 - 10 (MT)	
Rice (Emata)	January	6,000	6,000	6,000	36,000	Ayeyarwaddy, Bago and Yangon Region
Rice (Emata)	February	7,000	7,000	7,000	42,000	Ayeyarwaddy, Bago and Yangon Region
Rice (Emata)	March	6,000	6,000	6,000	36,000	Ayeyarwaddy, Bago and Yangon Region
Rice (Emata)	April	5,000	5,000	5,000	30,000	Ayeyarwaddy, Bago and Yangon Region
Rice (Emata)	May	4,050	4,050	4,050	24,300	Ayeyarwaddy, Bago and Yangon Region
Rice (Emata)	June	7,000	7,000	7,000	42,000	Ayeyarwaddy, Bago and Yangon Region
Rice (Emata)	July	9,000	9,000	9,000	54,000	Ayeyarwaddy, Bago and Yangon Region
Rice (Emata)	August	8,000	8,000	8,000	48,000	Ayeyarwaddy, Bago and Yangon Region
Rice (Emata)	September	7,000	7,000	7,000	42,000	Ayeyarwaddy, Bago and Yangon Region
Rice (Emata)	October	6,000	6,000	6,000	36,000	Ayeyarwaddy, Bago and Yangon Region
Rice (Emata)	November	4,030	4,030	4,030	24,180	Ayeyarwaddy, Bago and Yangon Region
Rice (Emata)	December	4,000	4,000	4,000	24,000	Ayeyarwaddy, Bago and Yangon Region
Total		**73,080**	**73,080**	**73,080**	**438,480**	

1.5.2 Machines and Equipment Requirement

The machines used in rice milling processes of the proposed project is shown in the following table.

Table 1. 3 List of Machines Used in the Project

No.	Description	Quantity
1.	Rotary Sieve MNJP 150x4	2

No.	Description	Quantity
2.	Rotary Sieve MNJP 150x5	1
3.	Rotary Sieve 4.75 kW	4
4.	Rotary Sieve 1.50 kW	2
5.	Polisher 7.5 kW	2
6.	Yiesun Color Sorter	1
7.	Bran Sieve 10' BTM	1
8.	Conveyor	1

The following table describes the furniture and equipment used for the proposed project.

Table 1. 4 List of Furniture and Equipment Used in the Project

No.	Description	Quantity
1.	Office Table and Chair	15
2.	Settee	2
3.	Meeting Table	1
4.	Computer	6
5.	Printer	2
6.	Save	2
7.	Shelf	12
8.	Copier	1
9.	Air Conditioner	5
10.	CCTV	5
11.	Generator	1

The following table shows the list of vehicles used for the proposed project.

Table 1. 5 List of Vehicles Used in the Project

No.	Type of Vehicles	Quantity
1.	Lexus Rx 350-1	1
2.	Tractor Head and Body	1

1.5.3 Water Requirement

Annual domestic water consumption of the proposed project is 730,000 gallons/ year (2,000 gallons/ day). Moreover, the proposed project use drinking water for 73,000 liters/ year (200 liters/ day). The source of domestic water is from the tube well in the project and drinking water is purchased from local suppliers. For domestic water, water is pumped out with motors and stored with underground tank and overhead tank. The capacity of underground water tank is 700 gallons and overhead tank is 300 gallons, respectively.

1.5.4 Energy and Fuel Requirement

The annual energy requirement for the proposed project is 1,009,833 kWh/ year (2,766 kWh/ day) and the source of electricity is from the National Grid Line. The proposed project installed

one transformer for electricity and its capacity is 315 kVA. Furthermore, one generator is used for emergency cases and electricity blackout conditions and its capacity is 350 kVA. On the other hand, diesel is purchased from nearby fuel station for generator. Annual fuel requirement is 109,500 liters/ year (300 liters/ day).

Figure 1. 16 Diesel Generator

1.5.5 Human Resources Requirement

Human resource requirement for the proposed project is 35 workers and there are two shifts (8:00 am – 5:00 pm and 6:00 pm – 4:00 am). Total working hours of the proposed project is 8 hours/ day for one shift and there are 30 working days per month. The following table describes the detail workers list of the proposed project.

Table 1. 6 Human Resources Requirement of the Project

No.	Position	Number of Workers
1.	Manager	1
2.	Admin Manager	1
3.	Purchasing Manager	1
4.	Skill Worker	4
5.	Accountant	2
6.	Supervisor	1
7.	Driver	2
8.	Security	3
9.	General Worker	20
	Total	**35**

2. Identification of the Project Proponent

The proposed United Group Rice Mill Project is developed by Wakhema Trading Co., Ltd. at Shwe Pyi Thar Township on 2021.

2.1 Project Proponent Information and Management

The name of project proponent is Wakhema Trading Co., Ltd. (Company Registration No. 101485358) and type of investment business is rice milling, polishing and production. The proposed project is 100% local investment and main products are different types of rice including Rice 5%, Rice 15%, Rice 25%, A (1-2), B (1:2) and B (2:3:4) and exported to foreign countries. The following table shows the detail management persons of the project proponent.

Table 2. 1 List of Management Persons of the Project

No.	Name	Position and Nationality	NRC Number	Address
1.	Dr. Soe Tun	Managing Director, Myanmar	3/ Ba Ah Na (N) 008136	21 Street, No. (127), Ground Floor, Latha Township, 11131, Yangon.
2.	Daw Khin Myo Nwe	Director, Myanmar	3/ Ba Ah Na (N) 009447	21 Street, No. (127), Ground Floor, Latha Township, 11131, Yangon.
3.	U Soe Win Naing	Director, Myanmar	10/ Tha Pha Ya (N) 047494	21 Street, No. (127), Ground Floor, Latha Township, 11131, Yangon.

2.2 Organization of the Project Proponent

Wakhema Trading Co., Ltd. is a one of the strong and well-experienced organization in crop and animal production, hunting and related service activities. The company is established since 2009 with four Departments, which are Finance, Admin, Purchasing / Sales & Marketing and Internal Audit Department. Totally, 150 staff are employed at company. The following figure describes organization chart of the proposed project.

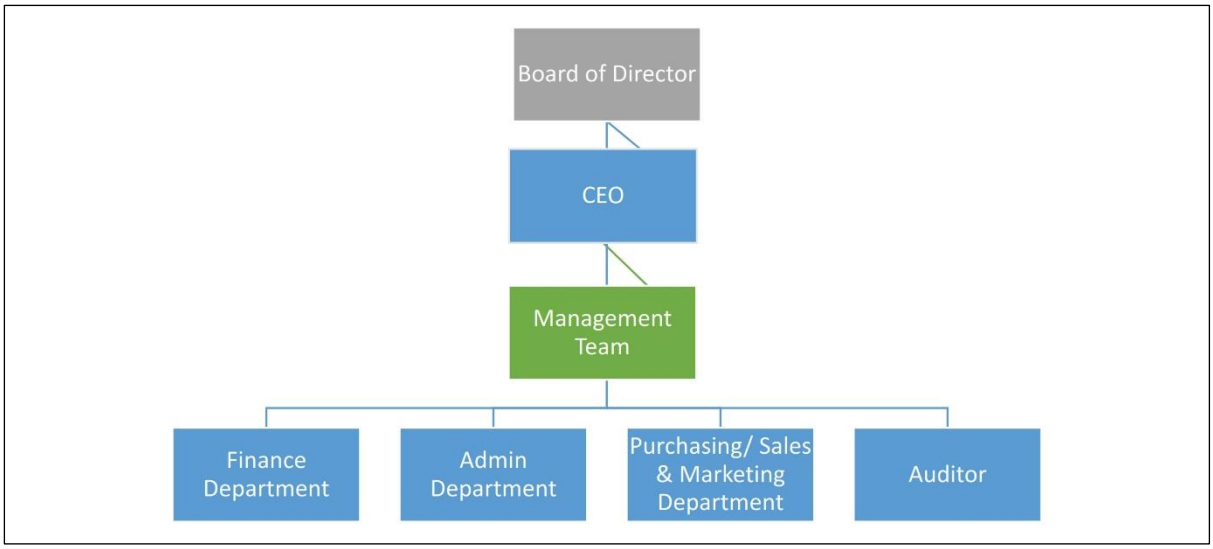


Figure 2. 1 Organization Chart of the Project Proponent

2.3 Investment Plan

With regards to investment plan of the project, investments in cash, machinery equipment and office equipment are included. Proposed operation period of the project is 20 years from (2021-2042). The following table shows details investment plan of the project.

Table 2. 2 Detail Investment Plan of the Project

No.	Description	Amount (Kyats in Million)
1.	Cash	418.200
2.	Machinery Equipment	377.983
3.	Office Equipment	518.133
Total		**1,314.316**

3. Experts for Conducting Initial Environmental Examination (IEE)

The following table describes the organization which prepared this IEE report and the experts who are included for conducting IEE.

Table 3. 1 Organization and Experts for Conducting Initial Environmental Examination

No.	Name	Position	Consultant Registration Number	Roles and Responsibilities
	Guardians of Green Co., Ltd.	EIA Organization	0042	
1.	Daw Yu Wai Yan Thein Tan	Team Leader	0071	Manage and lead preparation of IEE report
2.	Daw Moh Moh Khaing	Co-team Leader	0072	
3.	Daw Khin May Lwin	Member	0102	Prepare IEE report, assess potential impacts of the project
4.	U Si Thu Min Naing	Member	0223	Prepare IEE report, assess potential impacts of the project
5.	U Tun Lin Mg	Member	N/A	Legal analysis
6.	U Min Thu Hlaing	Member	N/A	Environmental qualities data analysis
7.	Daw Su Myat Noe	Member	N/A	Socioeconomic data analysis
8.	U Thiha Tun	Member	N/A	Survey environmental qualities

Daw Yu Wai Yan Thein Tan (Director)

Daw Yu Wai Yan Thein Tan is a Consultant, who holds Transitional Consultant Certificate No 0071; described expertise are Master of Engineering with specializing in Environmental Engineering and Management from Asian Institute of Technology in Thailand and Master of engineering with specializing in Chemical Engineering from Mandalay Technology

University. She has seven years consulting experience in the environmental field including her master's degree research. She also served as an engineer at Mandalay City Development Committee for three years. She has input Air Pollution Control, Noise and Vibration Assessment, Solid Waste Management Wastewater Treatment, Environmental Quality Management, Hazardous Waste Technology and Management in this project.

Daw Moh Moh Khaing (Director)

Daw Moh Moh Khaing is a Consultant who holds Transitional Consultant Certificate No. 0072, described expertise are Biodiversity and Ecology and Marine Biology and Microbiology. She has Master of Research Degree in Microbiology and Master of Science Degree in Marine Science from University of Pathein, Myanmar, at 2013 and 2012. She also held the post graduate diploma in Aquaculture. She has more than eight years of consulting experiences in Environmental and Social Impact Assessment field, which include project management, assessment, monitoring and technical report writing. She also has an experience as Research Fellow in Conservation. She participated in this project as management, recruitment personnel, planning and initiating, identify the methodologies, sampling area, impact prediction, Impact Assessment and Management, Risk assessment and Hazard Management, Environmental Quality Control, Compile and analyze the data and Develop Impact Mitigation Measures, Assessment, EMPs, EMoP, CSR and facilitation and stakeholder's engagement in this project.

Daw Khin May Lwin (Senior Consultant)

Daw Khin May Lwin is a Consultant who holds Transitional Consultant Certificate No 0102 and Area of Expertise Permitted are Ground water and Hydrology, Water Pollution Control and Waste Management. She has completed a Post Graduated Diploma on Pulp and paper technology from Deemed University, Dehradune, India and Bechlor of Science Degree on Industrial Chemistry from Yangon Arts and Science University. She has 32 years experiences in Forest Research Institute, Forest Department. Her responsibilities are concerning with overviewing project scope, Identification of Methodology, Impact Assessment and Management, Impact identification and mitigation measures, Water pollution control, Ground water and hydrology, Waste Management, develop EMP, EMoP.

U Si Thu Min Naing (Consultant)

U Si Thu Min Naing is a Consultant who holds Transitional Consultant Certificate No 0223 and Area of Expertise Permitted is Soil. He has accomplished in Bachelor of Engineering (Mining) at Technological University, Mandalay and also received a Post Graduate Diploma of GIS & RS from Dagon University. He has experience in Processing and Interpretation of Geotechnical data, instrumentation and soil analysis report and GeoMapping. He is responsible for consulting in the Processing and Interpretation of Geotechnical data, instrumentation, and soil analysis report. Impact Identification and Mitigation Measures.

U Tun Lin Maung (Legal Analysis Expert)

U Tun Lin Maung is an affiliate consultant of GOG who received a Post Graduate Diploma in Business Law from Yangon University and a Post Graduate Diploma in International Law from

Yangon University, He is currently a practicing lawyer and he is responsible for overviewing laws and regulations, legal analysis and technical report writing.

U Min Thu Hlaing (Technical Expert)

U Min Thu Hlaing is a Technical Expert who working with Guardians of Green Environmental Services since 2020. He has accomplished in Bachelor of Science (Geology) at Pathein University. He has experiences in Project Management, Risk Assessment, Occupational Health and Safety, Wastewater Plan and Process water system. He is responsible for consulting in Risk Assessment, Occupational Health and Safety, Environmental Quality Monitoring, Environmental Quality Analysis, Project Design and Wastewater Treatment System, Hazard Management and Technical Report Writing.

Daw Su Myat Noe (Socioeconomic Expert)

Daw Su Myat Noe is a Project Coordinator, member of socioeconomic team who received Bachelor of Economic, Diploma of Human Resources Management (IQN-UK). She has more than two years of experiences in Project Management, Coordination, Facilitation, Stakeholder engagement, Public consultation, Social survey.

U Thiha Tun (Surveyor)

U Thiha Tun matriculates and they have more than 2 years of surveyor experience. He specializes in instrumentation and field data collection of environmental condition of the site and measuring of environment baseline data.

This IEE report is prepared by GOG Environmental Services Co., Ltd. and the full address of the company is as followed.

Guardians of Green Environmental Services Co., Ltd.
No. (256), 2 A, Insein Road,
Hlaing Township (11051)
Yangon Region, Myanmar.
Phone No.: 09765790118, 09797765989
Email: gog.info.18@gmail.com

4. Policy, Legal and Institutional Frameworks

4.1 National Laws and Regulations

The National Laws and Regulations for the Environmental Protection applicable to the proposed project are described in the followings. Among these laws and regulations, the main concern for the environmental conservation in Myanmar are the Constitution of the Republic of the Union of Myanmar (2008), Environmental Conservation Law, Environmental Conservation Rules, National Environmental Policy, National Land Use Policy, Environmental Impact Assessment Procedure, National Environmental Quality (Emission) Guidelines. Moreover, the others laws, rules and regulations such as The Conservation of Water Resources and Rivers Law**,** Building Regulations**,** Myanmar Investment Law**,** Multi Different Kind of Biological Life and Environmental Protection Law, Factories Act, Myanmar Fire Services Law**,** Labor Organization Law, Prevention of Hazard from Chemical and Related Substances Law, Import Export Law, Social Security Law, Commercial Tax Law, Union Tax Law, Settlement of Labor Dispute Law, Vehicle Safety and Motor Vehicle Management Law, Vehicle Rules and other project related laws and rules must be followed by the project proponent for the proposed project.

We, Wakhema Trading Co., Ltd had made commitment that this report is strongly prepared by following the related existing laws and rules including EIA Procedure and National Environmental Quality (Emission) Guidelines. Moreover, we also committed to operate the project by following the plans and mitigation measures stated in this IEE report.

We, GOG Environmental Services Co., Ltd. had also made commitment to follow and compliance with the related existing laws and rules such as Environmental Conservation Law, Environmental Conservation Rules, Environmental Impact Assessment Procedure, National Environmental (Quality) Emission Guidelines, Standards and Mitigation Measures stated in this IEE Report for the proposed rice mill project, operated by Wakhema Trading Co., Ltd.

Constitution of the Republic of the Union of Myanmar (2008)

Section 45: The Union shall protect and conserve natural environment.

Section 390 (b): Every citizen has the duty to assist the Union carrying out the environmental conservation.

National Environmental Policy (1994)

Objectives:

- To achieve harmony and balance between socioeconomic, natural resources and environment through the integration of environmental considerations into the development process enhancing the quality of the life of all its citizens.

National Land Use Policy (2016)

Objectives:

- (a) To promote sustainable land use management and protection of cultural heritage areas, environment, and natural resources for the interest of all people in the country;

- (b) To strengthen land tenure security for the livelihood's improvement and food security of all people in both urban and rural areas of the country;
- (c) To recognize and protect customary land tenure rights and procedures of the ethnic nationalities;
- (d) To develop transparent, fair, affordable and independent dispute resolution mechanisms in accordance with rule of law;
- (e) To promote people centered development in land resources and accountable land use administration in order to support the equitable economic development of the country;
- (f) To develop a National Land Law in order to implement the above objectives of National Land Use Policy.

Environmental Conservation Law (2012)

Objectives: Section 3:

- (c) To enable to emerge a healthy and clean environment and to enable to conserve natural and cultural heritage for the benefit of present and future generations;
- (d) To reclaim ecosystems as may be possible which are starting to degenerate and disappear;
- (e) To enable to manage and implement for decrease and loss of natural resources and for enabling the sustainable use beneficially;

Provisions of Duties and Powers relating to the Environmental Conservation of the Ministry: Section 7:

- (a) To specify categories and classes of hazardous wastes generated from the production and use of chemicals or other hazardous substances in carrying out industry, agriculture, mineral production, sanitation and other activities;
- (b) To prescribe categories of hazardous substances that may affect significantly at present or in the long run on the environment;
- (c) To promote and carry out the establishment of necessary factories and stations for the treatment of solid wastes, effluents and emissions which contain toxic and hazardous substances;
- (j) To prescribe the terms and conditions relating to effluent treatment in industrial estates and other necessary places and buildings and emissions of machines, vehicles and mechanisms;
- (m) To lay down and carry out a system of EIA and SIA as to whether or not a project or activity to be undertaken by any Government department, organization or person may cause a significant impact on the environment;
- (o) To manage to cause the polluter to compensate for environmental impact, cause to contribute fund by the organizations which obtain benefit from the natural environmental service system, cause to contribute a part of the benefit from the businesses which explore, trade and use the natural resources in environmental conservation works.

Environmental Quality Standards: Section 10:

The Ministry may, with the approval of the Union Government and the Committee, stipulate the following environmental quality standards:

- Suitable surface water quality standards in the usage in rivers, streams, canals, springs, marshes, swamps, lakes, reservoirs and other inland water sources of the public;
- Water quality standards for coastal and estuarine areas;
- Underground water quality standards;
- Atmospheric quality standards;
- Noise and vibration standards;
- Emissions standards;
- Effluent standards;
- Solid wastes standards;
- Other environmental quality standards stipulated by the Union Government.

Monitoring: Section 13:

The Ministry shall, under the guidance of the Committee, maintain a comprehensive monitoring system and implement by itself or in co-ordination with relevant Government departments and organizations in the following matters:

- The use of agro- chemicals which cause to impact on the environment significantly;
- Transport, storage, use, treatment and disposal of pollutants and hazardous substances in industries;
- Disposal of wastes which come out from exploration, production and treatment of minerals, industrial mineral raw materials and gems;
- Carrying out waste disposal and sanitation works;
- Carrying out development and construction;
- Carrying out other necessary matters relating to environmental pollution.

Section 14: A person causing a point source of pollution shall treat, emit, discharge and deposit the substances which cause pollution in the environment in accord with stipulated environmental quality standards.

Section 15: The owner or occupier of any business, material or place which causes a point source of pollution shall install or use an on-site facility or controlling equipment in order to monitor, control, manage, reduce or eliminate environ -mental pollution. If it is impracticable, it shall be arranged to dispose the wastes in accord with environmentally sound methods.

Section 16: A person or organization operating business in the industrial estate or business in the SEZ or category of business stipulated by the Ministry:

- (a) is responsible to carry out by contributing the stipulated cash or kind in the relevant combined scheme for the environmental conservation including the management and treatment of waste;
- (b) shall contribute the stipulated users' charge s or management fees for the environmental conservation according to the relevant industrial estate, SEZ and business organization;

- (c) shall comply with the directives issued for environmental conservation according to the relevant industrial estate, SEZ or business.

Environmental Conservation Rules (2014)
Rules 58: The Ministry shall form the Environmental Impact Assessment Report Review Body with the experts from the relevant Government departments, Government organizations.

Rules 60: The Ministry may assign duty to the Department to scrutinize the report of environmental impact assessment prepared and submitted by a third person or organization relating to environment impact assessment and report through the Environmental Impact Assessment Report Review Body.

Rules 61: The Ministry may approve and reply on the environmental impact assessment report or environmental management plan with the approval of the Committee.

Environmental Impact Assessment Procedure (2015)
Screening: Section 23:

- (a) The project proponent shall submit the Project Proposal to the Ministry for Screening.
- (b) The Ministry will send the Project Proposal to the Environmental Conservation Department to determine the need for environmental assessment.
- (c) Following the preliminary Screening and verification that the Project Proposal contains all required documents and related materials, subject to Articles 8, 9, 10, 11, 26 and 27 the Department shall make a determination in accordance with Annex 1 'Categorization of Economic Activities for Assessment Purposes', taking into account Article 25 and the additional factors listed in Article 28 in order to designate the Project as one of the following, and then submit it to the Ministry:
  - An EIA Type Project, or
  - An IEE Type Project, or
  - A Non IEE or EIA Type, and therefore not required to undertake any environmental assessment.

Screening: Section 24: Ministry shall also make a determination whether an EMP shall be required in respect of any Project.

Screening: Section 29: Within fifteen (15) working days of receiving the complete Project Proposal, the Department shall determine the type of environmental assessment (EIA, IEE, or none) which the Project will require, and the Department shall inform the Project Proponent in writing as to such determination in accordance with the Ministry guidance.

- The project proponent has to be liable for all adverse impacts caused by doing or omitting of project owner or contractor, sub-contractor, officer, employee, representative or consultant who is appointed or hired to perform on behalf of project owner, under sub-paragraph (a) of paragraph 102.
- The project proponent has to support, after consultation with effected persons by project, relevant governmental organization, governmental department and other

related persons to resettlement and rehabilitation for livelihood until the effected persons by the project receiving the stable socio-economy, which is not lower than the status in pre-project, under sub-paragraph (b) of paragraph 102.

- The project proponent has to implement fully all commitments of project and conditions included in EMP. Moreover, the project proponent has to be liable for contractor and sub-contractor who perform on behalf of him/her have to fully abide by the relevant laws, rules, this procedure, EMP and all conditions, under paragraph 103.
- The project proponent has to be liable and fully & effectively implement all requirements included in ECC, relevant laws and rules, this procedure and standards under rule 104.
- The project proponent has to inform the completed information, after specifying the adverse impacts caused by the project, from time to time, under paragraph 105.
- The project proponent has to continuously monitor all adverse impacts in the pre-construction phrase, construction phrase, operation phrase, suspension phrase, closure phrase and post-closure phrase, moreover has to implement the EMP with abiding the all conditions included in ECC, relevant laws & rules and this procedure, under paragraph 106.
- The project proponent has to submit, as soon as possible, the failures of his or her responsibility, other implementation, ECC or EMP. If dangerous impact caused by this failure or failure should be known by the Ministry the project proponent has to submit within 24 hours and other than this situation has to submit within 7 days from knowing it, under paragraph 107.
- The project proponent has to submit the monitoring report semiannually prescribed time by Ministry in line with the schedule of EMP, under paragraph 108.
- The project proponent has to prepare the monitoring report in accord with the rule 109.
- The project proponent has to show this monitoring report in public place such as library, hall and website and office of project for the purpose to know this report by public within 10 days from the date, which the report is submitted to the Ministry. Moreover, has to give the copy of this report, by email or other way which way agreed with the asked person, to any asked person or organization, under paragraph 110.
- The project proponent has to allow inspector to enter and inspect in working time and if it is needed by Ministry has to allow inspector to enter and inspect in the office and work place of project and other work place related to this project in any time, under paragraph 113.
- The project proponent has to allow inspector to immediately enter and inspect in any time if it is emergency or failure to implement the requirements related to social or environment or caused to it, under paragraph 115.
- The project proponent has to allow inspector to inspect the contractor and sub-contractor who implements on behalf of project, under paragraph 117.

National Environmental Quality (Emission) Guidelines (2015)
Objectives: To provide the basis for regulation and control of noise and vibration, air emissions, and liquid discharges from various sources in order to prevent pollution for purposes of protection of human and ecosystem health.

Implementation Procedures: Section 13: Air emissions, noise, odor, and liquid/effluent discharges will be sampled and measured at points of compliance as specified in the project EMP and ECC.

The project proponent has to emit, discharge (or) dispose anything in line with the standards stipulated in said guideline.

The Conservation of Water Resources and Rivers Law (2006)
Purposes:

- The project proponent will avoid the disposal of stipulated materials into river-creek.
- The project proponent has to avoid any performance to damage to the river, creek and water resource, under sub-section (a) of section 8.
- The project proponent has to avoid the violation of conditions stipulated by the directorate for prevention of water pollution, under sub-section (b) of section 24.

Building Regulations (2014)
The developer should follow the instructions made by concerned departments for the following activities: installation of electrical meters, installation of transformers, emergency exits, to develop systems for disposal of sewage and waste, fire safety system and matters relating to road and bridges.

Myanmar Investment Law (2016)
Objectives: Section 3:

- (a) To develop responsible investment businesses which do not cause harm to the natural environment and the society for the benefit of the Union and its citizens;
- (b) To protect the investors and their investments in accordance with the law;
- (c) To create job opportunities for the people;
- (d) To develop human resources;
- (e) To develop high functioning production, service, and trading sectors.
- (f) To develop technology and the agriculture, livestock and industrial sectors;
- (g) To develop various professional fields including infrastructure across the Union;
- (h) To enable the citizens to be able to work alongside with the international community; and
- (i) To develop businesses and investments that meet international standards.

Section 36: The investor shall submit a proposal to the Commission and invest after receiving the Permit in the following businesses;

- (a) Businesses /investment activities that are strategic for the Union and
- (b) Large capital-intensive investment projects

- (c) Projects which have large potential impact on the environment and the local community,
- (d) Businesses/ investment activities which used state-owned land and building
- (e) Businesses/ investment activities which are designated by the government to require the submission of a proposal to the Commission.

Section 51: The investor:

- (a) May appoint a qualified person of any citizenship in the investor's investment within the Union as senior manager, technical and operational expert, and advisor in accordance with applicable laws;
- (b) Shall arrange to provide capacity building programs in order to be able to appoint citizens to positions of management, technical and operational experts, and advisors;
- (c) Shall appoint only citizens for the works which does not require skill;
- (d) Shall appoint skilled citizen and foreign workers, technicians, and workers by signing an employment contract between employer and employee in accordance with the existing labor laws and rules;
- (e) Shall ensure the entitlements and rights contained in applicable labor laws and rules including minimum wages and salary, leave, holiday, overtime fee, damages, workman's compensation, social welfare, and other insurance relating to workers by stipulating the rights and duties of employers and employees and other employment terms and conditions contained in the employment contract; and
- (f) Shall settle disputes arising amongst employers, amongst workers, between employers and workers, between workers and technicians or workers in accordance with applicable laws.

Section 65: The Investor:

- (a) Shall respect and comply with the customs, traditions and culture of the national races in the Union;
- (b) Shall establish and register a company or sole proprietorship or legal entities or branches under the applicable laws in order to invest;
- (c) Shall abide by the rules and stipulations of special licenses, permits, and business operation certificates issued to them, including the rules, procedures, notifications, orders and directives issued under applicable laws and this law, terms and conditions of contract and tax obligations;
- (d) Shall carry out in accordance with the stipulations of department concerned if it is required by the nature of business or other need to obtain any license or permit from the relevant Union Ministries, governmental bodies and organizations, or to carry out registration;
- (e) Shall immediately inform to the Commission if natural mineral resources or antique objects and treasure trove, which are not related to the permitted business and not included in original contracts, are found above and under the land on which the investor is entitled to lease or use. If the Commission allows shall continue to carry out business

on such land, and carry out the business at the substituted place which is selected and submitted by the investor if not applicable;

- (f) Shall not make any significant alteration of topography or elevation of the land on which he is entitled to lease or has rights to use, without the approval of the Commission;
- (g) Shall in relation to the investment business, abide by applicable laws, rules, procedures and best standards practiced internationally so as not to cause damage, pollution, loss to the natural and social environment and not to cause damage to cultural heritage;
- (h) Shall prepare and keep proper records of books of account and annual financial statement, and necessary financial matters relating to the investments which are performed by permit or endorsement in accordance with internationally and locally recognized accounting standards;
- (i) Shall discontinue the business only after payment of compensation to employees in accordance with applicable laws for any breach of employment contracts, closure of investment, sale and transfer of investment, discontinuation of investment, or reduction of workforce;
- (j) Shall pay wages and salaries to employees in accordance with applicable laws, rules, procedures and directives during the period of suspension of business for a concrete reason;
- (k) Shall pay compensation and indemnification in accordance with applicable laws to the relevant employee or his/her successor for injury, disability, disease and death due to the work;
- (l) Shall supervise foreign experts, supervisors and their families, who employ in investment, to abide by applicable laws, rules, orders and directives, and the customs and traditions of Myanmar;
- (m) Shall respect and comply with existing labor laws;
- (n) Shall have the right to sue and be sued in accordance with laws;
- (o) Shall pay effective compensation for loss incurred to victim, if the investor causes damage to the natural environment and causes socioeconomic losses, such as that caused by logging or extraction of natural resources, which are not related to the scope of the permitted investment, except from carrying out the activities which are required to conduct investment which includes in a Permit or an Endorsement.
- (p) If the investor received the prior notice for inspection from Commission, investor shall allow the Commission to inspect in any places related with the investment.
- (q) The investments, which need to obtain prior approval under the environmental conservation law and the procedures, shall take permit or endorsement of Commission before undertaking the assessment. Such Investments which obtained permit or endorsement, shall report environmental and social impact assessment to the Commission along the period in which the activities of the investments.

Section 73: The investor shall obtain all types of insurance prescribing in rules at any insurance enterprise, which is entitled to carry out insurance activities within the Union.

Multi Different Kind of Biological Life and Environmental Protection Law (2018)
Purpose: To ensure abiding by the prohibitions and stipulations to protect biodiversity and protected area

Section 35:

- (a) The project proponent has to avoid entering the prohibited area located in protected area without permission
- (c) The project proponent has to avoid digging on the land or carrying out any activity in protected area
- (d) The project proponent has to avoid extracting, collecting or destroying in any manner, any kind of wild or cultivated plant in protected area

Section 39:

- The project proponent has to avoid polluting soil, water and air, damaging a water-course or poisoning water, electrification, using chemical or explosive materials in protected area
- The project proponent has to avoid possessing or disposing of toxic objectives or mineral wastes in protected area

Factories Act (1951)
Section 3: Mentions responsibilities of employer and manager regarding waste disposal, ventilation, extreme temperature, dust and gas generation, minimum space for each worker, lighting, portable drinking water and toilets for employees.

Section 4: States responsibilities of employer and manager concerning with machine guarding, personal protective equipment, housekeeping, aisles and exits, chemical storage and fire protection system to avoid accidents.

Labor Organization Law (2011)
Section 17: The labor organizations shall have the right to carry out freely in drawing up their constitution and rules, in electing their representatives, in organizing their administration and activities or in formulating their programs. The labor organizations have the right to negotiate and settle with the employer if the workers are unable to obtain and enjoy the rights of the workers contained in the labor laws and to submit demands to the employer and claim in accord with the relevant law if the agreement cannot be reached.

Section 18: The labor organization has the right to demand the relevant employer to re-appoint a worker if such worker is dismissed by the employer and if there is cause to believe that the reasons of such dismissal were based on labor organization membership or activities, or were not inconformity with the labor laws.

Section 19: The labor organizations have the right to send representatives to the Conciliation Body in settling a dispute between the employer and the worker. Similarly, they have the right to send representatives to the Conciliation Tribunals formed with the representatives from the various levels of labor organizations.

Section 20: In discussing with the Government, the employer and the complaining workers in respect of worker's rights or interests contained in the labor laws, the representatives of the labor organization also have the right to participate and discuss.

Section 21: The labor organizations have the right to participate in solving the collective bargains of the workers in accord with the labor laws.

Section 22: The labor organizations shall carry out peacefully in carrying out holding of meetings, going on strike and carrying out other collective activities in accord with their procedures, regulations, by-laws and any directives prescribed by the relevant Labor Federation.

Section 23: The labor organizations shall assist in making agreements relating to management of works, individual employment agreements, bonds and other individual agreements between the employer and the workers.

Section 29: The employer shall recognize the labor organizations of his trade as the organizations representing the workers.

Section 30: The employer shall allow the worker who is assigned any duty on the recommendation of the relevant executive committee to perform such duty not exceeding two days per month unless they have agreed otherwise. Such period shall be deemed as if he is performing the original duty of his work.

Import Export Law (2012)

Objectives: The objectives of this law are as follows: -

- (a) To enable to implement the economic principles of the State successfully;
- (b) To enable to lay down the policies relating to export and import that support the development of the State;
- (c) To cause the policies relating to export and import of the State and activities are to be in conformity with the international trade standards;
- (d) To cause to be streamlined and speedy in carrying out the matters relating to export and import.

Section 5: Prohibitions: No persons shall export or import restricted, prohibited and banned goods.

Section 6: Prohibitions: Without obtaining license, no person shall export or import the specified goods, which is to obtain permission.

Section 7: Prohibitions: A person who obtained any license shall not violate the conditions contained in the license.

The Social Security Law (2012)

Objectives:

- (a) Causing to support the development of the State’s economy through the increase of production to enjoy more security in social life and health care of workers who are

major productive force of the Union by the collective guaranty of the employer, worker and the Union for enabling to fulfill health and social needs of the workers;

- (b) Causing to enjoy more security in social life and health care by the public by their voluntary insurance;
- (c) Causing the raise of public reliance upon the social security system by providing benefits which are commensurate with the realities;
- (d) Causing to have the right to draw back some of the contributions paid by the employers and the workers as savings, in accord with the stipulations;
- (e) Causing to obtain the right to continued medical treatment, family assistance benefit, invalidity benefit, the right to residency and ownership of housing after retirement in addition to health care and pecuniary benefit for sickness, maternity, decease and employment injury of the workers.

Commercial Tax Law (2014)

Section 4: Commercial tax as specified in the Schedule shall be imposed on anybody engaging in the following activities:

- Domestic manufacturing and distribution,
- Importing,
- Trading,
- Providing services

Section 5: The tax under section 4: Shall be paid by the manufacture or importer of Special Goods.

Union Tax Law (2014)

Chapter 5: Commercial Tax: No commercial tax shall be charged on the proceeds from the subsequent sale of any of the goods produced in the country (including rice). 5% commercial tax shall be charged on the landed costs if such goods are imported.

Settlement of Labor Dispute Law (2012)

Chapter II: Formation of the Workplace Coordinating Committee:

Section 3: In any trade in which more than 30 workers are employed, the employer, with the view to negotiating and concluding collective agreement, shall: if there is any labor organization, form the Workplace Coordinating Committee with the view to make a collective bargaining as follows:

- Two representatives of workers nominated by each of the labor organizations;
- An equivalent number of representatives of employer;
- If there is no labor organization, form the Workplace Coordinating Committee as follows:
- Two representatives of workers elected by them;

Section 5: The Coordinating Committee shall promote the good relationship between the employer and worker or labor organization, negotiation and coordination on the conditions of employment, terms and conditions and occupational safety, health, welfare and productivity.

Section 6: (a) If the worker or labor organization or the employer, by themselves or by representative, request and complain their grievances to the Coordinating Committee, it shall be negotiated and settled by the Coordinating Committee within five days, not including the official holidays, from the day of the receipt of the request. (b) The Coordinating Committee shall keep the record of settlement and shall send report on the situation of performance in accord with the stipulation to the relevant Conciliation Body.

Chapter III: Formation of the Conciliation Body

Section 10: The Region or State Government shall form the Conciliation Body in the townships.

Chapter IV: Formation of the Dispute Settlement Arbitration Body

Section 16: (a) The Ministry shall, with the approval of the Union Government, form the Dispute Settlement Arbitration Body in the Regions or States.

Chapter V: Formation of Dispute Settlement Arbitration Council

Section 19: The Ministry shall, with the approval of the Union Government, form the Dispute Settlement Arbitration Council with 15 qualified persons of good standing from legal experts and experts in labor affairs.

Chapter VI: Settlement of Dispute

Section 23: A party, employer or worker, may complain individual dispute relating to his grievance to the Conciliation Body and if he is not satisfied with the conciliation of such body in accord with stipulated manners, may apply to the competent court in person or by the legal representative.

Vehicle Safety and Motor Vehicle Management Law (2015)

Purpose: When the construction period and if it is needed in operation and production period for the all vehicles.

Section 9: (a) The project proponent has to comply with the restrictions and restrictions on the use of domestic vehicles by the Ministry of Transport and Communications with the approval of the Union Government.

Section 12: (c) The project proponent has to comply with safety, environmental regulation, standards and regulations regarding the initial registration of vehicles issued by the Ministry.

Section 14: (r) The project proponent has to drive at the speed limit set by the Road Transport Directorate to ensure the safe movement of vehicles on public roads.

Section 18: (a) The project proponent has to maintain the vehicles in accordance with the standards set by the Department so that it can be driven safely.

Section 81: (g) The project proponent has not to carry or transport hazardous materials in public places in accordance with the regulations.

Vehicle Rules (1989)

Section 4: Central Registration Team is in charge of providing registration of vehicles. This team can transfer its authority to the Registration Team.

Section 5: Vehicles other than those, which are described in Vehicle Rule 6, must be registered by Registration Team.

Section 7: (a) Registration period of a vehicle should be in line with the period fixed by Central Registration Team. Expiry date must be the last day of that period.

Section 9: (a) Registration Team must check a vehicle prior to registration of a vehicle, before the renewal of the registration and according to requirements of Section 5.

Section 56: (a) A person must have a legal license to drive any vehicle in public areas. This license must be for the respective vehicle only. (b) No one should have more than one license adopted by this section.

Section 58: Types of driving licenses are as follows:

"Ga Gyi" license is for private heavy-duty vehicles and private-buses including taxis and funeral-services vehicles, "Nga" license is for any hired vehicles, "Tha" license is for vehicles used for training.

Prevention and Control of Communicable Disease Law (1995)

Purpose: to ensure the healthy work environment and prevention the communicable diseases by the cooperation with the relevant health department

The project owner will cooperate with the health officer in line with the clause (9) of subsection (a) of section 3 of said law.

The project owner will abide by any instruction or stipulation for public health.

Section 4: The project owner will inform promptly to the nearest health department or hospital if the following are occurred;

(a) mass death of birds or chicken
(b) mass death of mouse
(c) suspense of occurring of communicable disease or occurring of communicable disease
(d) occurring of communicable disease which must be informed

Section 11: The project owner will accept any inspection, anytime, anywhere if it is needed.

Myanmar Fire Services Law (2015)

Objectives: (a) To take precautionary and preventive measure and loss of state own property, private property, cultural heritage and the live and property of public due to fire and other natural disasters

(b) To organize fire brigade systemically and to train the fire brigade
(c) To prevent from fire and to conduct release work when fire disaster, natural disaster, epidemic disease or any kind of certain danger occurs

(d) To educate, organize an inside extensively so as to achieve public corporation
(e) To participate if in need for national security, peace for the citizens and law and order

Section 8: Fire Safety Procedures, Rules 17: The relevant Government Department or organization shall, for the purpose of precaution and prevention, obtain the approval of the Fire Services Department before granting permission for the following cases:

(a) Constructing three-storied and above buildings market and condominium buildings,
(b) Operating hotel, motel, guest house enterprise
(c) Constructing factory, workshop, storage facilities and warehouse
(d) Operating business expose to fire hazard by using in inflammable materials or explosive materials
(e) Producing and selling fire-extinguishing apparatuses
(f) Doing transport business, public utility vehicles train, airplane, helicopter, vessel, ship, Tonkin tug

The relevant government department or organization shall obtain the opinion of the Fire Services Department for the purpose of fire precaution and prevention, when laying down plans for construction for town, village and downtown or village development plans.

The Private Industrial Enterprise Law (1990)

Basic Principles, Section 3: The State Law and Order Restoration Council enacted this law by Law No.22/90 on 26th November, 1990. According to this law, all private industrial enterprises shall avoid or reduce the use of polluting technology.

Private Industrial Enterprises shall be conducted in accordance with the following basic principles:

a) To enhance the higher proportion of the manufacturing value added in the gross national product and related to the industrial enterprises;
b) To acquire modern technical know-how for raising the efficiency of industrial enterprises and to establish the sale of finished goods produced of the industrial enterprise not only in the local market, but also in the foreign market;
c) To cause utilization by relying mainly as local natural resources;
d) To cause narrowing down of the gap between rural development and urban development by causing the development and improvement of industrial enterprises;
e) To cause opening up of more employment opportunities;
f) To cause avoidance of or reduction of the use of technical know-how which cause environmental pollution;
g) To cause the use of energy in the most economical manner.

Section 11: The duties and powers of the Supervisory Body are as follows:

a) Giving opinion in respect of the inspection, recommending or refusing to recommend for grant of registration, causing to be removed or to be terminated

or to be closed down private industrial enterprises which are conducting on the day this law is enacted;

b) Inspecting, recommending or refusing to recommend for grant of registration in respect of cases where applications are submitted for registration of new private industrial enterprises;
c) In recommending for grant of registration of private industrial enterprises, the following factor shall be taken into consideration:
    i. No cause of being injurious to the health of the public residing in the vicinity of the private industrial enterprise;
    ii. Being safe from the danger of fire;
    iii. No cause of being a nuisance to the environmental and no cause of there being any pollution;
    iv. No cause of being injurious to the health of the workers of the private industrial enterprise and no like hood also of there being any danger;
    v. Being also in compliance with the existing laws;
d) Supervising to ensure the compliance by the entrepreneurs in the conducting of the industrial enterprises in accordance with the basic principles;
e) Informing the relevant Government department to take action against the entrepreneur if it is discovered that any private industrial enterprise is not in conformity with any existing law;
f) Giving opinion for the determination of industrial, areas and for the granting of leases of land for the private industrial enterprise;
g) In granting lease of land in an industrial area to entrepreneurs, causing to be done so in accordance with the stipulations;

Carrying out the duties and powers assigned by the Ministry or by the private industrial enterprise coordination body.

Yangon City Development Committee Law (2013)

Powers of Committee: The Committee has the power to develop policies, directions, inspection and implementation of the following activities:

• To develop policies, directions and inspections implementation of land resources
• Environmental protection and waste management
• Providing waste collections receptacles, allocating temporary waste collection locations, transport of wastes and final disposal at YCDC waste disposal facilities and proper management of waste
• In order to upgrade and promote the environmental quality of the Yangon City, the Committee shall implement and give directions relating to emissions, effluents and solid wastes, production methods and procedures and standards of products in line with the environmental emission standards
• For the natural disasters such as fire, floods, storms early warning systems including provision of fire trucks and fire extinguishing equipment, having insurance of the properties owned by the Committee and removal of buildings that are susceptible to fire hazards

• Managing, implementing and taking disciplinary actions for the use of roads within the territorial limit of the City of Yangon Municipality
• Providing permission, management and regulations for the extraction and distribution of groundwater
• To use modern methods and techniques for the more effective implementation of the municipal works
• Within the territorial limit of the City of Yangon Municipality, despite the complaints of the neighbors, if the committee decides that the operation is in line with the quality of International Standards and appropriate, it should be put up to the government and if approved, will get permission.
• For the construction of buildings within the territorial limit of the City of Yangon Municipality, the Committee can decide the land use, number of floors and height.
• If the following activities are necessary to implement within the territorial limit of the City of Yangon Municipality, by the State Government, Regional Government. Organization and Private organization should consult with the Committee:
1) Land use, construction of buildings, land preparation within the territorial limit of the City of Yangon Municipality
2) Development of Special Economic Zones and Industrial Zones
3) Construction of road and bridges, connection of cables, culverts and pipelines, underground tunnels

Responsibilities of HIC: Checking the land property and C/Map, D/Map, Inspecting whether there is any objection concerning with this land or not

Engineering Department (Building): Inspecting whether the proposed samples are fit or not with by law and building rules and regulations, Checking room building ratio for ventilation and lighting of the building, Checking slenderness ratio for the building inclination, Alignment checking for nearby building, Analyzing whether there is any former case and objections or not, concerning with the proposed buildings

Engineering Department (Water Supply and Sanitation): Checking the amount of water usage in building depending on population and type of usage and the amount of water specified by Fire Department for fire protection, analyzing how to obtain the required amount of water, Analyzing the sewage system and wastewater treatment system

Pollution Control and Cleansing Department: Inspection of garbage volume of proposed building, disposal system of the garbage and how to dispose of the final garbage, Inspection of the disposing system of garbage from site during construction period, Inspection of the arrangement of how to control air pollution, water pollution and land pollution

The Minimum Wage Law (2013)

Chapter 7: The duties of the employers:

Section 12: The employer:

(a) shall not pay wage to the worker less than the minimum wage stipulated under this Law;

(b) may pay more than the minimum wage stipulated under this Law;
(c) shall not have the right to deduct any other wage except the wage for which it has the right to deduct as stipulated in the notification issued under this Law;
(d) shall pay the minimum wage to the workers working in the commercial, production and service business in cash. Moreover, if the specific benefits, interests or opportunities are to be paid, it may be paid in cash or partly in cash and partly in property, with prevailing regional price, jointly according to the desire of the worker;
(e) in paying minimum wage to the workers working in the agricultural and livestock business, some cash and some property at prevailing regional price may be paid jointly according to local custom or desire of the majority of workers or collective agreement. Such payment shall be for any personal use and benefit of the worker and his family and the value shall also be considerable and fair

Section 13: The employer:
(a) shall inform the workers the rates of minimum wage relating to the business among the rates of minimum wage stipulated under this Law and advertise it at the workplace to enable to be seen by the relevant workers
(b) shall prepare and maintain the lists, schedules, documents and wages of the workers correctly
(c) shall report the lists, schedules and documents prepared and maintained under sub-section(b) to the relevant department in accord with the stipulations;
(d) shall accept the inspection when summoned by the inspection officer. Moreover, he shall produce the said lists and documents upon asking to submit;
(e) shall allow the entry and inspection of the inspection officer to the commercial, production and service businesses, agricultural and livestock breeding workplaces and give necessary assistances
(f) if the workers cannot work due to sickness, shall give them holiday for medical treatment in accord with the stipulations
(g) if the funeral matter of the member of the family of worker or his parent occurs, shall give holiday without deducting from the minimum wage, in accord with the stipulations

Chapter 8: The Rights of the Workers Relating to the Minimum Wage: 14. A worker working in any establishment relating to this Law:
(a) has the right to obtain the minimum wage stipulated under this Law or, if the employer pay more than the said wage;
(b) has the right to continue to enjoy the pay paid more, if the pay received is more than the minimum wage stipulated under this Law, before the coming into force of this Law;
(c) has the right to enjoy the minimum wage stipulated under this Law, if the minimum wage contained in the employment agreement is less than the minimum wage stipulated under this Law;
(d) has the right to enjoy not less than the minimum wage stipulated for each work where he is working when working in two or more works;
(e) has the right to enjoy the stipulated minimum wage for the time worked in the part-

time job, hourly job;
(f) has the right to enjoy a holiday per week with pay in the salary-paid work. If he is employed in such holiday, he shall have the right to obtain over-time fee in accord with the existing law;
(g) if working less than the working hours per day stipulated in a daily-waged job is not due to reduced working according to the desire of the worker, or if work has to be paused due to the failure of employer to give job, the full wage shall be paid as if the work is done full-time;
(h) has the right to enjoy the stipulated minimum wage without discriminating between man and woman;
(i) has the right to enjoy the minimum wage in cash, if he is a worker working in the commercial, production and service business. Moreover, if the specific benefits, interests or opportunities are to be paid, it may be paid in cash or partly in cash and partly in property at prevailing regional price jointly according to the desire of the worker;
(j) if he is a worker working in the agricultural and livestock breeding business, the minimum wage may be enjoyed in some cash and some property at prevailing regional price jointly according to local custom or desire of the majority of workers or collective agreement for the worker and his family in accord with the stipulations

Section 15: The worker who is entitled to obtain the wage and other benefits under section 14:
(a) if he does not obtain all wages or other benefits entitled to be obtained, or obtains less than the stipulated minimum wage, may submit to the relevant Union Committee, Region or State Committee and Department within one year from the day he is entitled to obtain such injured wages and other benefits;
(b) he may sue for all the entitled wages civil proceeding

Section 16: If an employer is convicted by a court for his failure to pay the minimum wages and other benefits stipulated under this Law or for the payment to worker less than such minimum wage and although ordered to pay defaulted wages and other benefits to the relevant worker, if such worker does not obtain injured wages and other benefits which is entitled to obtain under section 14, it shall not affect the right to institute civil proceeding

Chapter 10: Prohibitions and Penalties: 22. Any employer:
(a) shall not fail to pay the workers the minimum wage stipulated under this Law;
(b) shall not pay to the workers less than the minimum wages and other benefits which is entitled by the worker under section 14;
(c) relating to the accounts, schedules, documents and lists of wage of the workers:
(i)shall not make false entry, deceitful recording or false and deceitful reporting;
(ii)shall not fail to report to the relevant department in accord with the stipulations;
(iii) shall not fail to produce when required by the inspection officer
(d) shall not fail to go and accept inspection when summoned by the inspection officer
(e) shall not obstruct or interfere with the inspection officer who comes and inspects on duty

Section 23: Any employer who violates any of the prohibitions contained in section 22 shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine not exceeding 5 lakhs or with both.

Section 24: Any employer:

(a) shall not violate any term and condition contained in the minimum wage notification;

(b) shall not fail to inform the workers relating to the rates of minimum wage concerning to his workers among the rates of minimum wage stipulated under this Law and announce at the place where the workers are able to see it in the work center and workplace.

Section 25: Any employer who violates any prohibition contained in section 24 shall, on conviction, be punished with imprisonment for a term not exceeding six months or with fine not exceeding kyat 3lakhs or with both.

Section 26: The court shall, in sentencing a punishment under sections 23 and 25, pass the wage defaulted to pay by the employer as fine and give it to the worker.

Section 27: Any person who violates any prohibition contained in the rules and orders issued under this Law shall, on conviction, be punished with imprisonment for a term not exceeding 3months or with fine or with both.

Prevention of Hazard from Chemical and Related Substances Law (2013)

Aims: (a) To protect from being damaged the natural environmental resources and being hazardous any living beings by chemical and related substances;

(b) To supervise systematically in performing the chemical and related substances business with permission for being safety;

(c) To perform the system of obtaining information and to perform widely educative and research for using the chemical and related substance systematically;

(d) To perform the sustainable development for the occupational safety, health and environmental conservation

Section 15: (a) The project owner will be inspected for the safety and resistance of the machinery and equipment by the respective Supervisory Board and Board of Inspection before starting the business

(b) The project owner will assign the employees, who will serve with the hazardous chemical and substances, to attend the trainings on prevention of hazardous chemical and substances in local or abroad

Section 16: (a) The project owner will abide by the conditions included in the license

(b) The project owner will abide by and assign to the employees who serve in this work to abide by the instructions for safety in using the hazardous chemical and related substances

(c) The project owner will arrange the enough safety equipment in the work-place and provide the safety dresses to the employees who serve in this work with free of charge

(d) The project owner will train, in work-place my arrangement, the know-how to use the occupational safety equipment, personal protection equipment and safety dresses systemically in the work-place
(e) The project owner will allow the receptive Supervisory Board and Board of Inspection to inspect whether the hazard may be injured to health of human or animal or damaged to environment
(f) The project owner will assign the healthy employees who have obtained the recommendation that is fit for this work after taken medical check- up and keep systematically the medical records of employees
(g) The project owner will inform the copy of storage permission for hazardous chemical and related substances to the relevant township administrative office
(h) The project owner will obtain the approval with instructions of relevant fire force before starting the work if the project will use the fire hazard substances or explosive substances
(i) The project owner will transport only the limited amount of the chemical and related substance in accord with the prescribed stipulations in local transportation

Section 17: The project owner will insure, in accord with the stipulations, to pay the compensation if the project cause injury to person or animals or damage to environment

Section 22: The project owner will abide by the conditions included in the registration certificate. Moreover, the project owner will abide by the orders and directives issued by the Central Supervisory Board from time to time

Section 27: The project owner will classify the level of hazard to protect it in advance according to the properties of chemical and related substances
The project owner will provide the safety equipment, personal protection equipment to protect and reduce the accident and assign to attend the training to use the equipment systematically

Employment and Skill Development Law (2013)
Purpose: To ensure the job security and to develop the employee's skill with the fund of project owner.

Section 5: The project proponent has to appoint employees with the contract in line with the provision of section 5 of said law

Section 14: The project proponent has to carry out the training programs with the policy of Skill Development Body to develop the employment skill of employees who is appointed or will be appointed

Section 30: (a) The project proponent has to monthly pay to the fund, which is fund for development of skill of employees, not less below 0.5 percentage of the total payment to the level of worker supervisor and the workers below such level
(b) The project proponent has to promise not to deduct from the payment of employees for above mentioned fund

Natural Disaster Management Law (2013)

Purpose: To implement natural disaster management programs and to coordinate with national and international organizations in carrying out natural disaster management activities; to conserve and restore the environment affected by natural disaster and to provide health, education, social and livelihood programs in order to bring about better living conditions for victims.

Section 13: (i) The project proponent has to perform preparatory and preventive measures for natural disaster risks reduction before the natural disaster strikes

(iii) The project proponent has to undertake rehabilitation and reconstruction activities for improving better living standard after the natural disaster strikes and conservation of the environment that has been affected by natural disaster

Section 14: The project proponent has to carry out better improvement on early warning system of natural disaster

The project proponent has to carry out together with the measures of natural disaster risk reduction in development plans of the State

Section 25: Whoever if the natural disaster causes or is likely to be caused by any negligent act without examination or by willful action which is known that a disaster is likely to strike, shall be punished with imprisonment for a term not exceeding three years and may also be liable to fine

Section 26: Whoever interferes, prevents, prohibits, assaults or coerces the department, organization or person assigned by this law to perform any natural disaster management shall, on conviction, be punished with imprisonment for a term not exceeding two years or with fine or with both

Section 29: Whoever violates any prohibition contained in rules, notifications and orders issued under this law shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both

Section 30: Whoever willful failure to comply with any of the directives of the department, organization or person assigned by this law to perform any natural disaster management shall, on conviction, be punished with imprisonment for a term not exceeding one year or with fine or with both

Electricity Law (2014)

Purpose: To ensure the compliance with the conditions of permission for productions of electricity, abiding by any stipulation, implementing with the best practices and paying compensation in line with above law

Section 10: The project proponent will implement the project with the best practices to reduce the damages on the environment, health and socio-economy, also will pay compensation for the damages and will pay the fund for environmental conservation

Section 18: The project proponent has to take the certificate of electric safety, issued by the chief-inspector, before the commencement of power generation

Section 21: The project proponent has to be liable for damages to any person or enterprise by failure to abide by the quality standards or rules, regulation, by-law, order and directive issued under said law

Section 22: The project proponent has to be liable for damages to any person or enterprise by negligence of project owner

Section 26: The project owner has to comply with the permission for electric searching and generation

Section 27: The project proponent will inform promptly to chief-inspector and head officer of related office while occurring of accident in electricity generation

Section 40: The project proponent will comply with the standards, rules and procedure. Moreover, will allow the inspection by respected governmental department and organization if it is necessary

Section 68: The project proponent will pay the compensation to anyone who is injured or caused to death in electric shock or fire caused by the negligence or omitting of the project owner or representative of project owner

Occupational Safety and Health Law (2019)

Purpose: To effectively implement measures related to safety and health in every industry and to set occupational safety and health standards

Section 26: (a) The project proponent has to carry out as necessary the scale assessment management of the equipment used in the industry

(b) The project proponent has to carry out as necessary to assess the situation of the region of occupational environmental risk capabilities

(c) The project proponent has to appoint a certified doctor for the employees

(e) The project proponent has to provide adequate and relevant personal protective equipment to workers free of charge and make them wear it during work so as not to expose workers to any serious occupational diseases or hazards

(f) The project proponent has to develop a preventive plan and also a plan of action for any emergency situation

(j) The project proponent has to make systematic arrangements for ensuring safety and the absence of health risks to persons at the workplace and nearby, in connection with the use of machines, any parts of a machine, buildings, tools, substances, or handling and transportation of wastes relating to any process or workplace

(l) The project proponent has to arrange and display occupational safety and health instructions, warning signs, notices, posters, and signboards

(o) The project proponent has to formulate a fire prevention plan; arrange fire drills; and train workers on the systematic use of fire extinguishers

(p) The project proponent has to allow the chief inspector and the inspectors access to the workplace to carry out inspections or investigations and provide them with documents and other forms of evidence on request

(q) The project proponent has to ensure that workers who are engaged in any hazardous industries prescribed by the Ministry, work only the hours per day as specified

(r) The project proponent has to pay for any expenditure regarding occupational safety and health measures

Payment of Wages Law (2016)

Purpose: To ensure the way of payment and avoiding delay payment to the employees.

Section 3 and 4: The project proponent has to pay the wages in accord with the section 3 and 4 of said law

Section 5: The project proponent has to submit with the agreements of employees & reasonable ground to department if it is difficult to pay because of force majeure included in natural disaster

Section 14: The project proponent has to abide by the provisions of section 7 to 13 in chapter (3) in respect of deduction from wages.

The project proponent has to pay the overtime fees, prescribed by law, to the employees who work over working hours

Underground Water Act (1930)

According to Act the President of the Union may, by notification, direct and shall apply only to the tubes, exceeding a depth to be prescribed the President of the Union and may prescribe different depths for different local areas.

Accordingly, "underground water" means water obtained from below the surface of the ground by the sinking of tubes. It is also stated that no person shall sink a tube for the purpose of obtaining underground water except under and in accordance with the terms of a license granted by the water officer, an officer by notification prescribed on his behalf.

4.2 International Guidelines

Besides National Laws and Regulations, international guidelines such as World Health Organization's Guidelines, World Bank Safeguard Policies and IFC Performance Standards are referred for Initial Environmental Examination of the proposed project.

ဝါးခယ်မရောင်းဝယ်ရေးကုမ္ပဏီလီမိတက်
WAKHEMA TRADING CO., LTD.
No. 127 , Ground Floor, 21st Street , Latha Township, Yangon, Myanmar.
Tel: (959) 770852410 , (959) 696969122
E-mail : management2023@gmail.com

Commitment to follow Legal Frameworks including Environmental Conservation Law, Rules and Standards Stated in the Initial Environmental Examination (IEE) Report

We, Wakhema Trading Co., Ltd., commit that all our operations will be performed in an environmentally friendly manner by following existing laws and regulations, especially Environmental Conservation Law (2012), Environmental Conservation Rules (2014) and relevant environmental standards through successful implementation of mitigation measures stated in the Initial Environmental Examination (IEE) Report.

Your Sincerely,

5. Description of the Surrounding Environment

In order to analyze the environmental conditions of the proposed project two data collection methods were applied; primary data collection and secondary data collection. Primary data collection is the measurement of baseline environmental quality of the proposed project including air quality, water quality and noise level measurement. Secondary data collection is collecting literature and data with regards to physical environment such as climate, topography, tectonic and hydrology, biological environment, socio-economic environment, economic conditions and cultural features of the location of the project. Collected data were analyzed to describe baseline environmental conditions of the proposed project.

5.1 Physical Environment

5.1.1 Climate

The proposed project is located at Shwe Pyi Thar Township, North Yangon District, Yangon Region. The climate of Shwe Pyi Thar Township is a tropical monsoon climate and the highest temperature is 38°C and the lowest temperature is 30°C. The following table shows the details temperature and precipitation of Shwe Pyi Thar Township at last four years.

Table 5. 1 Temperature and Precipitation in Shwe Pyi Thar Township

No.	Year	Rainfall		Temperature	
		Raining Days	Total Rainfall (inches)	Summer (°C) Highest	Winter (°C) Lowest
1.	2017	105	84.91	34	30
2.	2018	103	102.40	34	30
3.	2019	97	92.80	38	30
4.	2020	100	79.79	41	30

5.1.2 Topography and Tectonic

The location of the project site is flat and Eastern part of Shwe Pyi Thar Township (Hlaw Ga Watershed area) is hilly region, then eventually transformed into flat region in Western part. Shwe Pyi Thar Township shares the border with Mingalardon Township and Hlawga Lake at the East, Htan Ta Pin Township and Hlaing River at the West, Insein Township at the South and Hmawbi Township at the North.

5.1.3 Hydrology

In Shwe Pyi Thar Township, surface water and runoff water from Easter Region flowed into 11 creeks and then flowed into the Hlaing River (or) Wataya River, which is the well-known river of Shwe Pyi Thar Township. Freshwater is occupied in the Hlaing River (or) Wataya River and can be used for agricultural and drinking purposes. Navigation by ships and boats can be found in the Hlaing River.

5.1.4 Air Quality

Ambient air quality of the project was measured by using with EPAS (HAZ-SCANNER) Environmental Perimeter Air Station. The portable HAZ-SCANNER EPAS is a true

environmental air station providing ambient air quality monitoring of critical EPA criteria pollutants and air parameters including Nitrogen dioxide, Sulfur dioxide, Ozone, Carbon dioxide, Carbon monoxide and particulates mattes such as PM_{10}, $PM_{2.5}$, etc. At the initial stage of the project, baseline air quality should be measured in the vicinity of the site to assess background levels of key air pollutants and to differentiate between existing ambient conditions and project-related impacts in future. Air quality is composed of dust and gas emissions of the ambient air and for the proposed project, dust emissions and gaseous emissions were measured by EPAS (HAZ-SCANNER) Environmental Perimeter Air Station and measured for 24 hours continuously on 22nd and 23rd February, 2022 at the project site. Location of the air quality measurement is Latitude 16° 56' 9.21" N and Longitude 96° 4' 30.65" E at 0 m elevation. The following figures show the air quality measurement at the project site and its location.

Figure 5. 1 Air Quality Measurement at the Project

Figure 5. 2 Location of Air Quality Measurement

(a) Dust Level: Dust emissions such as particulate matters are air-suspended mixtures of both solid and liquid particles. They are often separated into three classifications; coarse, fine and ultrafine particles. Coarse particles have a diameter of between 10 µm and 2.5 µm and settle relatively quickly whereas fine (1 to 2.5 µm in diameter) and ultrafine (<1 µm in diameter) particles remain in suspension for longer. Specifically, PM_{10} (coarse) also automatically contains $PM_{2.5}$ (fine) and $PM_{1.0}$ (ultrafine). Additionally, $PM_{2.5}$ (fine) contains $PM_{1.0}$ (ultrafine) as well. With regards to comparison with size of particulate matters, human hair has a diameter of 50-70 µm and a grain of sand has a diameter of 90 µm. For the proposed project, the observed air quality data for 24-hour average are compared with National Environmental Quality (Emission) Guidelines as shown in the following table**.**

Table 5. 2 Observed Dust Level and Comparison with NEQEG Guideline Values

No.	Parameter	Averaging Period	Observed Value (µg/m^3)	Guideline Value(µg/m^3)
1	PM_{10}	24 hours	21	50
2	$PM_{2.5}$	24 hours	17	25

According to the observed results, the value of PM_{10} is 21 µg/m^3 and it was found that it is within the guideline value (50 µg/m^3) for 24 hours continuously. Similarly, the value of $PM_{2.5}$ is 17 µg/m^3 and it is also within the guideline value (25 µg/m^3) for 24 hours continuously. Therefore, ambient dust level of the project is quite good and the proponent shall maintain this good air quality throughout the project lifespan.

Gaseous Emission: Emission of gases such as Carbon monoxide (CO), Carbon dioxide (CO_2), Sulphur dioxide (SO_2) and Nitrogen dioxide (NO_2) were also investigated during ambient air quality measurement at project site. The observed values were compared with National Environmental Quality (Emission) Guidelines, WHO Guidelines and ACGIH Guidelines and results are shown in the following table.

Table 5. 3 Observed Gaseous Emissions Level and Comparison with Guideline Values

No.	Gaseous Parameters	Averaging Period	Mean Observed Value	Guideline Values	Standardized by
1.	Carbon monoxide (CO)	24 hours	0.25 mg/m^3	10 mg/m^3	WHO
2.	Carbon dioxide (CO_2)	24 hours	378.2 ppm	5,000 ppm	ACGIH
3.	Sulphur dioxide (SO_2)	24 hours	2.62 $\mu g/m^3$	20 $\mu g/m^3$	ECD
4.	Nitrogen dioxide (NO_2)	1 hour	44.9 $\mu g/m^3$	200 $\mu g/m^3$	ECD
5.	Ozone (O_3)	8 hours	33.3 $\mu g/m^3$	100 $\mu g/m^3$	ECD

According to the results of gaseous emission, gases such as Carbon monoxide, Carbon dioxide, Sulphur dioxide, Nitrogen dioxide and Ozone are within the limit of guideline values which are standardized by respective organizations like ECD, WHO and ACGIH. Therefore, ambient air quality of the project is quite good and the proponent shall maintain this good air quality throughout the project lifespan.

Carbon monoxide (CO) is emitted by burning gasoline, wood, propane, charcoal or other fuel. Improperly ventilated appliances, engines and particularly in a tightly sealed or enclosed space may allow carbon monoxide to accumulate to dangerous levels. It can cause damage to human especially on brain, heart and even death.

Carbon dioxide (CO_2) is emitted from not only natural sources but also human sources. Natural sources include decomposition, ocean release and respiration, whereas, human sources are cement production, deforestation and burning fossil fuel such as coal, oil and natural gases. It is also a poisonous gas and cause damage to the respiratory system of human.

Sulphur dioxide (SO_2) comes from the coal burning and oil in power plants as well as it is emitted by trains, large ships, and some diesel equipment that burns high sulfur fuel, and by volcanic eruptions. It can enter human body through ingestion, inhalation and skin contact.

As a result, it can cause problems in nose, throat and lungs, frostbite, eyes irritation, decreased human fertility, loss of smell, headache, dizziness, nausea, vomiting, bronchitis and shortness of breath.

Nitrogen dioxide (NO_2) is emitted from the burning of fuel from cars, trucks, buses, power plants and off-roads equipment. Breathing high NO_2 concentration air impact on human respiratory system and asthma. Moreover, it interacts with other chemical in the air to form both particulate matters and ozone, consequently, it leads to damaging respiratory system and form acid rain.

Ozone (O_3) is a highly reactive gas composed of three oxygen atoms. It is both a natural and a man-made product that occurs in the Earth's upper atmosphere (the stratosphere) and lower atmosphere (the troposphere). Depending on occurrence in the atmosphere, ozone affects life on Earth in either good or bad ways. Ozone has two properties of interest to human health. First, it absorbs UV light, reducing human exposure to harmful UV radiation that causes skin cancer and cataracts. Second, when inhaled, it reacts chemically with many biological molecules in the respiratory tract, leading to a number of adverse health effects.

5.1.5 Water Quality

The existing water quality was measured by sampling groundwater from the tube well in the project area in order to compare the differences in quality of groundwater between current and future due to implementation of the project. There is no operation liquid waste discharged from operation processes of the project and it is considered that no need to measure effluent water quality for the project. The survey team from GOG Environmental Services sampled groundwater on 22nd February, 2022 and sent to ISO Tech Laboratory for testing groundwater quality. The result of groundwater quality is compared with guideline values which is standardized by WHO and groundwater quality results is described in the following table and laboratory results are attached in **APPENDIX (3)**. Location of groundwater sampling point is Latitude 16° 56' 8.54" Nand Longitude 96° 4' 32.21" E. The following figures show collecting water samples and location of water sampling point.

Figure 5. 3 Water Quality Sampling at the Project

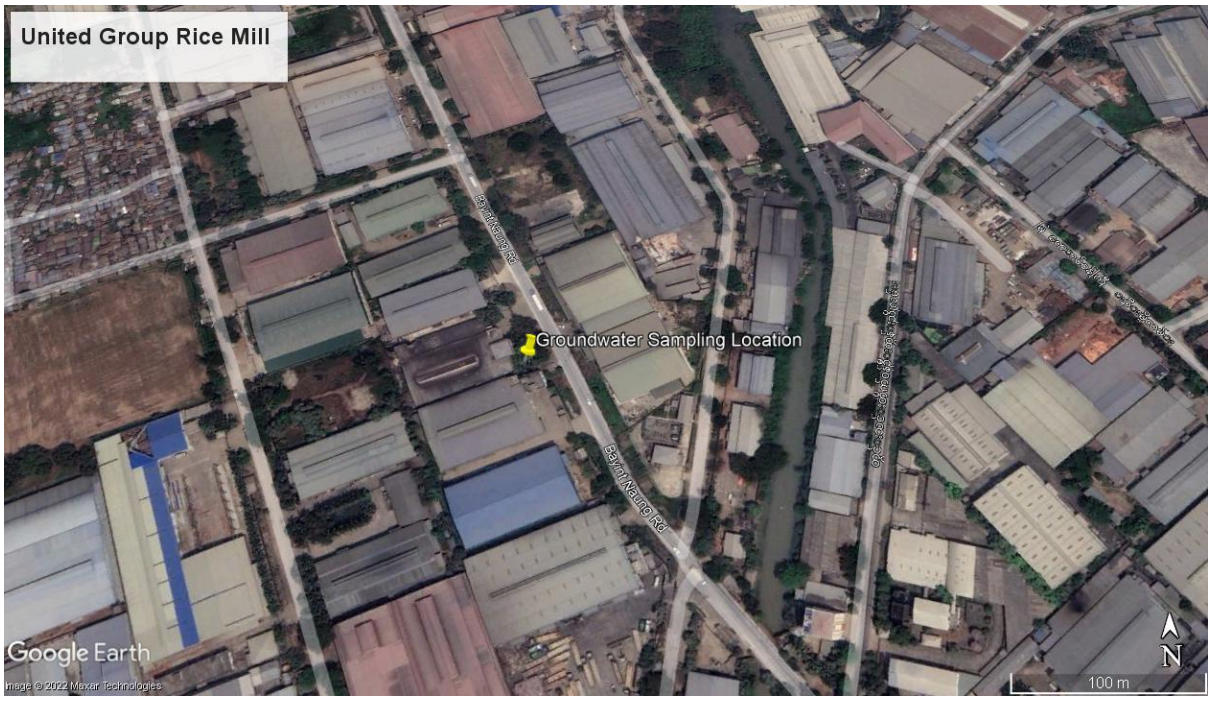


Figure 5. 4 Locations of Water Quality Sampling

Table 5. 4 Observed Groundwater Quality and Comparison with Guideline Values

No.	Parameter	Unit	Result	WHO Drinking Water Guideline Values
1.	pH	pH	7.2	6.5 ~ 8.5

No.	Parameter	Unit	Result	WHO Drinking Water Guideline Values
2.	Carbonate	mg/l as $CaCO_3$	Nil	
3.	Iron	mg/l	0.53	0.3
4.	Total Suspended Solids (TSS)	mg/l	5	
5.	Arsenic (As)	mg/l	Nil	0.01
6.	Nitrate ($N.NO_3$)	mg/l	0.3	50
7.	Chlorine (Residual)	mg/l	Nil	
8.	Chemical Oxygen Demand (COD)	mg/l	32	130
9.	Biochemical Oxygen Demand (BOD) (5 days at 20°C)	mg/l	2	50
10.	Cyanide (CN)	mg/l	Nil	0.07

According to the results of groundwater quality, most parameters are within the limit of guideline values for drinking water, standardized by WHO. However, Iron in groundwater is slightly higher than the guideline value because it was found that Iron is 0.53 mg/l compared to 0.3 mg/l (guideline value). Although iron in drinking water is safe to ingest, the iron sediments may contain trace impurities or harbor bacteria that can be harmful. Iron bacteria are naturally occurring organisms that can dissolve iron and some other minerals. These bacteria also form a brown slime that can build up in water pipes and they are most commonly problematic in wells, where water has not been chlorinated.

5.1.6 Noise Level

Ambient noise level for the proposed project was measured with Digital Sound Level Meter at the project site in order to compare the differences in noise level between current and future due to implementation of the project. Digital sound level meter can be used to measure the amount of noise pollution in heavy industries and aviation and they are capable of detecting minute pressure fluctuations in the air and convert into an electrical signal. The noise level measurement is conducted at 1 point within the project on 22nd and 23rd February, 2022. Location of the noise level measurement is Latitude 16° 56' 9.21" N, Longitude 96° 4' 30.65" E at 0 feet elevation. The observed values and NEQEG guideline values, standardized by ECD are described in the following table and the following figures describe noise level measurement at the proposed project and its location.

Figure 5. 5 Noise Level Measurement at the Project

Figure 5. 6 Location of Noise Level Measurement

Table 5. 5 Observel Noise Level and Comparison with Guideline Values

Receptor	One Hour LAeq (dBA)	
	Daytime 07:00 – 22:00 (10:00 – 22:00 for public holidays)	Nighttime 22:00 – 07:00 (22:00 – 10:00 for public holidays)
Residential, institutional, educational	55	45

Receptor	One Hour LAeq (dBA)	
	Daytime 07:00 – 22:00 (10:00 – 22:00 for public holidays)	Nighttime 22:00 – 07:00 (22:00 – 10:00 for public holidays)
Industrial, commercial	70	70
Observed noise level at the project	59.09	60.11

As the project is located at the industrial area, guideline value for noise level can be considered as industrial receptor. Therefore, guideline value for noise level is 70 dBA for not only daytime but also nighttime. According to the observed values, noise level of the proposed project is within the NEQEG guideline values for daytime (59.09 dBA) and nighttime (60.11 dBA). Therefore, it can be considered that there is no serious noise generation from the proposed project.

Noise pollution can damage physiological problems, high blood pressure, stress related illness, sleep disruption and hearing loss for human. The continuous noise of intensity 120 dBA to 150 dBA may cause permanent deafness. Any source above 85 dBA can cause hearing loss and above 60 dBA may cause nausea and headache.

5.2 Biological Environment

As the proposed project is located at industrial zone, there is no aquatic life, fisheries, coastal resources, wildlife, forests, endangered species, protected areas and natural vegetations near the project area and even in Shwe Pyi Thar Township.

5.3 Socio-economic Environment

5.3.1 Administrative Structure

The proposed project is located at Shwe Pyi Thar Township, North Yangon District, Yangon Region. Shwe Pyi Thar Township had 23 wards, 4 village tracts and 5 villages. Detail administrative structure of Shwe Pyi Thar Township is described in following table.

Table 5. 6 Detail Administrative Structure of Shwe Pyi Thar Township

No.	Subject	Houses	Households	Wards	Village Tracts	Villages
1.	Urban	45,413	51,247	23	-	-
2.	Rural	8,499	10,498	-	4	5
Total		**53,912**	**61,745**	**23**	**4**	**5**

5.3.2 Demographic Profile

Total population of Shwe Pyi Thar Township was 303,421 in 2020 and total male population was 141,836 and total female population was 161,585. Details population of the ethnic group and foreigner that lived in Shwe Pyi Thar Township are shown in the following table.

Table 5. 7 Details Population of Shwe Pyi Thar Township

No.	Ethnic Group/ Foreign Citizen	Number of Inhabitants	Percentage of Township Population
Ethnic groups			
1.	Kachin	388	0.127
2.	Kayah	114	0.037
3.	Kayin	5,687	1.874
4.	Chin	1,783	0.587
5.	Mon	1,600	0.527
6.	Bama	285,757	94.178
7.	Rakhine	5,792	1.908
8.	Shan	548	0.180
Total		**301,669**	**99.420**
Foreign citizens			
1.	China	66	0.021
2.	India	379	0.124
3.	Pakistan	20	0.006
4.	Bangladesh	34	0.011
5.	Other citizens	1,253	0.412
Total		**1,752**	**0.577**
Grand Total		**303,421**	**100.000**

Religions in the Shwe Pyi Thar Township are also described in the following table.

Table 5. 8 Religion in Shwe Pyi Thar Township

No.	Religion	Population
1.	Buddhist	288,099
2.	Christian	7,501
3.	Hindu	2,752
4.	Islam	4,869
5.	Other	200
Total		**303,421**

5.3.3 Land Use

Main types of land use in Shwe Pyi Thar Township include agricultural land, fellow land, grazing land, industrial land, urban land, rural land, religious land, virgin land, wild land, non-agricultural land and religious land. Details area of each land category is described in the following table.

Table 5. 9 Land Use in Shwe Pyi Thar Township

No.	Land Use Type	Area (acres)
1.	Agricultural land	

No.	Land Use Type	Area (acres)
	(a) Paddy land	1,527
	(b) Farm land	-
	(c) Alluvial	-
	(d) Horticultural land	300
	(e) Dain land	30
2.	Fellow land	-
3.	Pasture land	60
4.	Industrial land	2,618
5.	Urban land	8,185
6.	Rural land	3,570
7.	Other land	-
8.	Reserved forest/ protected public forest	-
9.	Virgin land	-
10.	Wild land	-
11.	Non-agricultural land	-
Total		**16,290**

5.3.4 Economic Conditions

GDP in Shwe Pyi Thar Township were 2,645,597 MMK (2017-2018), 3,044,673 MMK (2018-2019) and 2,190,000 MMK (2019-2020). Unemployment population in Shwe Pyi Thar Township was 18,865 and unemployment rate was 8.57%. Detail workers in each livelihood activity is described in the following table.

Table 5. 10 List of Workers of Each Livelihood Activity in Shwe Pyi Thar Township

No.	Livelihood Activity	Number of Workers
1.	Government workers	26,743
2.	Service providing	25,664
3.	Agriculture	993
4.	Livestock	3,448
5.	Trading	25,627
6.	Industrial	800
7.	Fisheries	54
8.	Wage labors	41,515
9.	Others	46,197
Total		**171,041**

There are four industrial zones in Shwe Pyi Thar Township: Industrial Zone (1), Industrial Zone (2), Thardukan Industrial Zone and Wataya Industrial Zone. Totally, 15 public industries and 368 private industries are located in these industrial zones and employed 48,760 workers. Moreover, there are 956 small and medium enterprises in Shwe Pyi Thar Township and employed 2,381 workers.

5.3.5 Education and Health

Literacy rate of Shwe Pyi Thar Township was 100% in 2020 and all children above five years-old went to primary school. Matriculation exam pass rate were 29.13% in 2018-2019 and 29.97% in 2019-2020. Frequently occurred diseases in Shwe Pyi Thar Township were diarrhoea, tuberculosis, dysentery, hepatitis and AIDS. The following table shows numbers of schools and hospitals Shwe Pyi Thar Township.

Table 5. 11 Numbers of Schools and Hospitals in Shwe Pyi Thar Township

No.	Subject	Number
Education		
1.	University	1
2.	High school	7
3.	High school (branch)	2
4.	Middle school	9
5.	Middle school (branch)	2
6.	Post primary school	6
7.	Primary school	39
8.	Pre primary school	1
9.	Monastery education	13
Health Care		
10.	Hospital	4
11.	Clinic	20
12.	Rural health care center	2
13.	Sub rural health care center	9

5.3.6 Social and Cultural Features

There are three INGOs and five NGOs in Shwe Pyi Thar Township as per township data. There are 17 social teams to help the development of township in Shwe Pyi Thar Township. Moreover, there is no cultural heritage sites in Shwe Pyi Thar Township according to the township data issued by Shwe Pyi Thar General Administration Department in 2020.

6. Identification, Assessment and Mitigation Measures of Potential Impacts of the Proposed Project

6.1 Objectives of the Study

The objectives of the study are to identify not only potential positive impacts but also potential negative impacts of the project on environmental resources, ecological resources, human and waste generation, to assess the significance of potential negative impacts and to formulate mitigation measures in order to minimize or reduce the potential negative impacts of the project.

6.2 Phases of the Project

Potential impacts of the project are generally identified for three phases; construction phase, operation phase and decommissioning phase.

Construction Phase: construction phase of the project includes construction of main building and two-storied building as well as installation of machines, equipment, generator, transformer and necessary instruments to operate the project. However, the project proponent leases the land and buildings from the owner since 2020 and the operation processes of the project has started since 2021, therefore, consideration of impacts identification, impacts assessment and mitigation measures formulating for the construction phase of the proposed project is excluded in this study.

Operation Phase: operation phase of the project includes rice milling, polishing and production processes such as raw materials storage and input, pre-cleaning and polishing, cleaning and color sorting, cleaning and size grading, packaging and finished products storage. Proposed operation period of the project is 20 years from (2021-2042).

Decommissioning Phase: decommissioning phase of the project includes demolition of existing buildings and related facilities of the project. However, the project proponent has to return land and building to the owner after land lease period. Therefore, activities related to uninstall machines, equipment and related instruments of the project at the project closure stage are only considered for the decommissioning phase of the project.

6.3 Methodology of the Assessment

The assessment of each impact is based on consideration of the magnitude, duration, extent and probability of project activities, which are going to be carried out during two phases and characteristics of the project site. The assessment is qualitative and the significance of each impact is classified into five categories.

The following methodology has been applied to assess the environmental impacts of the project mainly on air, water, soil, biodiversity including human beings and waste generation. Each source of impact has been assessed by four parameters; magnitude, duration, extent and probability and each assess have five scales as mentioned below:

Table 6. 1 Impact Assessment Parameters and Its Scale

Assessment	Scale				
	1	2	3	4	5
Magnitude (M)	Insignificant	Small and will have no effect on working environment	Moderate and will result in minor changes on working environment	High and will result in significant changes on working environment	Very high and will result in permanent changes on working environment
Duration (D)	0-1 year	2-5 year	6-15 year	Life of operation	Post Closure
Extent (E)	Limited to the site	Limited to the local area	Limited to the region	National	International
Probability (P)	Very improbable	Improbable	Probable	Highly probably	Definite

Then, the Significant Point (SP) is calculated by following formula.

Significant Point (SP) = (Magnitude+ Duration+ Extent) * Probability

Impact Significance: Based on calculated significant point, impact significance can be categorized as follows:

Table 6. 2 Impact Significance

Significant Point (SP)	Impact Significance
<15	Very Low
15-29	Low
30-44	Moderate
45-59	High
>60	Very High

6.4 Identification of Impacts

There may be some positive and negative impacts on surrounding environment of the proposed project due to the implementation of the project. The possible environmental impacts are identified based on the analysis of environmental baseline information and project activities. Most of the identified impacts have been quantified to the extent possible on the professional judgment. Each of the environmental issues has been examined in terms of their current conditions, likely impacts during not only operation phase but also decommissioning phase because impacts assessment for construction for construction phase is excluded in this study.

6.5 Positive Impacts

Employment Opportunities: the proposed project creates permanent employment opportunities for 35 workers. Especially, local people get job opportunities due to operation

activities of the propose project such as office works, rice milling processes, transporting raw rice and finished products, machinery maintenance, etc. Security services, cleaning and waste collection are some of the services that will benefit indirectly. Professional knowledge and skills of the workers will be improved due to gaining the experiences from the project. The net effects of creation employment opportunities are livelihoods improvement, living standards improvement, poverty reduction of local people and economic development of the country.

Business Opportunities: Local suppliers for the machines, equipment and raw rice for the project also gain advantages in business opportunities due to implementation of the proposed project. Moreover, the finished products of the project are exported to foreign countries, it leads to increasing tax for the country. Small vendors around the project can also enhance business opportunities due to project implementation.

6.6 Negative Impacts

The following figure briefly describes the potential negative impacts of the proposed project. There are four main types of impacts; impact on environmental resources, impact on ecological resources, impacts on human and impacts of waste generation.

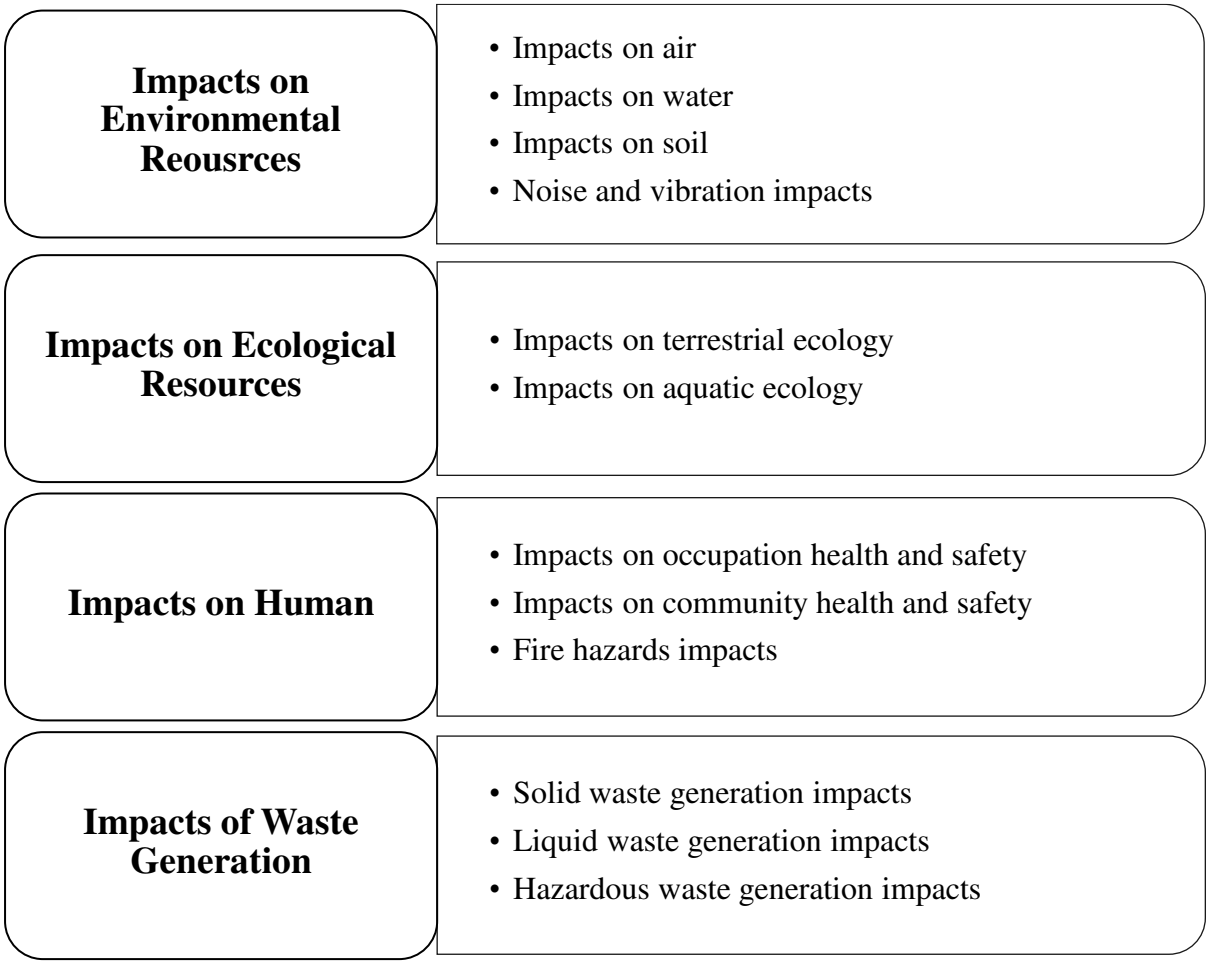


Figure 6. 1 Potential Negative Impacts of the Project

6.6.1 Impacts on Environmental Resources

Impacts on Air

Operation Phase: the main sources dust emissions from the proposed project are spillage and improper handling of raw rice, which are highly probable of rice dust generation. Pre-cleaning and cleaning processes can generate rice dust because of separating good quality rice. Moreover, the movements of the vehicles and trucks which are used for transporting raw rice and finished products lead to dust emissions, however, the project site's ground is paved with concrete and dust emissions from these vehicles are insignificance. On the other hand, the main sources of gaseous emissions like CO, CO_2, SO_2, NO_2 and other greenhouse gases can emit from the diesel generator, air conditioning systems, refrigerators and vehicles' exhaust. Moreover, smoke and odor can emit from cooking at workers dormitory's kitchen during the operation phase of the project.

Decommissioning Phase: the main sources of dust emissions include operating trucks for transporting machines and equipment of the project. Furthermore, gaseous emissions from these trucks can also be anticipated during the decommissioning phase of the project.

Impacts on Water

Operation Phase: the proposed project uses groundwater from the tube well within the project area for water usage. However, polishing system uses only mist of water to polish color of rice, therefore, there is no significant impact on groundwater quantity. On the other hand, sewage discharged from the toilets within the project, oil spill and leakage from the diesel generator and vehicles can contaminate groundwater. These spillages can flow through the drains and can contaminate nearby surface water bodies such as streams and rivers, however, this is an insignificant impact on surface water quality during the operation phase of the project.

Decommissioning Phase: groundwater quality can be contaminated due to oil spill and leakage from trucks used for transporting machines and equipment of the project during the decommissioning phase of the project.

Impacts on Soil

Operation Phase: the main source of soil contamination for the proposed project is diesel generator. Oil spill and leakage from the vehicles and trucks which are used for transporting raw rice and finished products can also impact on soil. However, the project proponent paved ground with concrete and these impacts on soil are insignificances during the operation phase of the project.

Decommissioning Phase: soil can be contaminated by oil spill and leakage from the trucks for transporting machines and equipment of the project during the decommissioning phase of the project.

Noise and Vibration Impacts

Operation Phase: operation activities of cleaners, polishers, color sorter and size grading machine generate noise mainly from the project. Working shift of the project is two shifts, thus, operation time of these machines are almost the whole day, depending on the customer order and noise impact is one of the significant impacts for the project. Other sources of noise

generation are operating diesel generator and movements of vehicles and transportation trucks for raw rice and finished products. On the contrary, there is no significant vibration impacts from the proposed project because all of the rice milling processes do not generate intensive vibration during the operation phase of the project.

Decommissioning Phase: main sources of noise generation are uninstalling machines and equipment of the project as well as transporting these machines and equipment. There is no significant vibration impact during the decommissioning phase of the project.

6.6.2 Impacts on Ecological Resources

Impacts on Terrestrial Ecology

As the proposed project is located at industrial zone, there is no forest, wildlife, endangered species, protected areas and natural vegetations near the project area and even in Shwe Pyi Thar Township. The nearest Hlawga National Park's boundary is 5.97 km far away from the project and it is not located within the scope of the study. Therefore, it is anticipated that there is no significant impact on terrestrial ecology during not only operation phase but also decommissioning phase of the project.

Impacts on Aquatic Ecology

As the proposed project is located at industrial zone, there is no marine protected area, coral reefs and endangered aquatic plants and animals near the project area and even in Shwe Pyi Thar Township. The nearest water body is Hlaing River, which is 0.53 km far away from the project and it is not located within the scope of the study. Therefore, it is anticipated that there is no significant impact on aquatic ecology during not only operation phase but also decommissioning phase of the project because of type and nature of the project.

6.6.3 Impacts on Human

Impacts on Occupational Health and Safety

Operation Phase: Falling objects in raw rice storage area and finished products storage area have high risk to expose accident and incident. As the proposed project is rice mill, backache, headache, cough, catarrh, skin rashes, eye injuries, tuberculosis, asthma, bronchitis and other respiratory tract infections are high potential diseases for rice mill workers. Rice dust is one of the potential sources to affect on health of workers. Moreover, physical injuries like bruises, wounds and amputation are the most common occupational hazards suffered during raw rice unloading and finished products loading by manpower. Movements of vehicles and transportation trucks can also cause injuries to workers accidentally, if not managed properly. Domestic wastewater such as grey water and black water can impact on workers's health if not managed properly because of its adverse smell. Poor waste management can also lead to the blocking of drains, which in turn can lead to flooding and unsanitary conditions within the project area. Improper housekeeping is also an important factor in causing injuries, illness and property damage that may results from hazards such as trips, slips and falls, falling objects, fires and pest infestation. Especially, the workers can be infected COVID-19 virus due to improper personal behavior such as taking off masks, do not wash hands regularly, gathering, do not practice social distancing and do not follow instructions issued by the authorities during the operation phase of the project.

Decommissioning Phase: activities with regards to decommissioning processes such as uninstalling machines and equipment of the project can expose injuries to workers accidentally. Moreover, movements of trucks for transporting machines, materials and waste can impact on health of workers and expose to accidents during the decommissioning phase of the project.

Impacts on Community Health and Safety

The proposed project is located at industrial zone and neighboring plots are factories and warehouses, therefore, there is no significant impact on community health and safety during not only operation phase but also decommissioning phase of the project.

Fire Hazards Impacts

Operation Phase: Main fire hazard sources of the proposed project are raw rice storage area, finished products storage area and diesel generator. Besides, fire hazards can be occurred due to poor installation of electrical equipment and overloads, heating from bunched cables and damaged cables during the operation phase of the project.

Decommissioning Phase: there is no significant fire hazard impacts except electric shock from misuse of machines and equipment during the decommissioning phase of the project.

6.6.4 Impacts of Waste Generation

Impacts of Solid Waste Generation

Operation Phase: solid waste produced from the rice milling, polishing and production processes includes packaging bags, brans and rejected rice. However, packaging bags are used either for packaging brans or selling to the local dealers. Brans are also distributed to the local market and rejected rice are disposed at designated area. Domestic solid waste from office, dining area, kitchen and workers dormitory can be considered. The proposed project generates almost 2,000 packaging bags, 5,397.75 kg brans and 4.6 kg rejected rice per day as operation solid waste. On the contrary, daily domestic solid waste generation is 2 kg per day during the operation phase of the project.

Decommissioning Phase: the main sources of solid waste are residual of raw rice, wrecked or damaged machines and equipment during the decommissioning phase of the project.

Impacts of Liquid Waste Generation

Operation Phase: there is no effluent water generated from the rice milling, polishing and production processes of the proposed project. It can be considered that only domestic liquid waste is generated and it mainly includes black water from toilets and grey water from basins and showers during the operation phase of the project.

Decommissioning Phase: there is no significant liquid waste generation except from black waster from toilets of decommissioning workers. However, the time is very limited during the decommissioning phase of the project.

Impacts of Hazardous Waste Generation

Operation Phase: there is no hazardous waste generated from the rice milling, polishing and production processes of the proposed project. Engine oil leakage from vehicles and

transportation trucks and spillage during refueling diesel to diesel generator are other sources of hazardous waste generation. Used oil and lubricant discharged from the maintenance of machines can be considered as hazardous wastes during the operation phase of the project.

Decommissioning Phase: there is no significant hazardous waste generation except oil spillage and leakage from transportation trucks. However, the time is very limited during the decommissioning phase of the project.

6.7 Impacts Significance

In order to assess the adverse impacts of the proposed project, it is essential to evaluate these impacts by using reliable and adequate methodology. Therefore, the methodology which was stated in Section 6.3 is used to assess the adverse impacts of the project.

Table 6. 3 Detail Negative Impact Assessments for the Project

No.	Potential Adverse Impacts	Project Activities	Significance of Potential Adverse Impacts					Impact Significance
			M	D	E	P	SP	
A.	***Operation Phase***							
1.	Impacts on Air	• Spillage and improper handling of raw rice, which are highly probable of rice dust generation • Pre-cleaning and cleaning processes can generate rice dust because of separating good quality rice • Movements of the vehicles and trucks which are used for transporting raw rice and finished products lead to dust emissions • Gaseous emission from the diesel generator, air conditioning systems, refrigerators and vehicles' exhaust	4	4	2	4	40	Moderate

No.	Potential Adverse Impacts	Project Activities	Significance of Potential Adverse Impacts					Impact Significance
			M	D	E	P	SP	
		• Smoke and odor can emit from cooking at workers dormitory's kitchen						
2.	Impacts on Water	• Use groundwater from the tube well for water usage • Polishing system uses only mist of water to polish color of rice • Sewage discharged from the toilets within the project • Oil spill and leakage from the diesel generator and vehicles • These spillages can flow through the drains and can contaminate nearby surface water bodies such as streams and rivers	2	4	2	3	24	Low
3.	Impacts on Soil	• Main source of soil contamination is diesel generator • Oil spill and leakage from the vehicles and trucks	2	4	2	3	24	Low
4.	Noise and Vibration Impacts	• Operation activities of cleaners, polishers, color sorter and size	3	4	2	4	36	Moderate

No.	Potential Adverse Impacts	Project Activities	Significance of Potential Adverse Impacts					Impact Significance
			M	D	E	P	SP	
		grading machine generate noise mainly from the project • Working shift of the project is two shifts, thus, operation time of these machines are almost the whole day, depending on the customer order • Operating diesel generator and movement of vehicles and transportation trucks						
5.	Impacts on Occupational Health and Safety	• Falling objects in raw rice storage area and finished products storage area have high risk to expose accident and incident • Backache, headache, cough, catarrh, skin rashes, eye injuries, tuberculosis, asthma, bronchitis and other respiratory tract infections are high potential diseases for rice mill workers • Rice dust is one of the potential sources to affect on health of workers	5	4	1	4	40	Moderate

No.	Potential Adverse Impacts	Project Activities	Significance of Potential Adverse Impacts					Impact Significance
			M	D	E	P	SP	
		• Physical injuries like bruises, wounds and amputation are the most common occupational hazards suffered during raw rice unloading and finished products loading by manpower • Movement of vehicles and transportation trucks can also cause injuries to workers accidentally • Domestic wastewater such as grey water and black water can impact on workers' health • Poor waste management can also lead to the blocking of drains, which in turn can lead to flooding and unsanitary conditions • Improper housekeeping is also an important factor in causing injuries, illness and property damage • Workers can be infected COVID-19 virus due to improper personal behavior such as taking off masks, do not wash hands regularly,						

No.	Potential Adverse Impacts	Project Activities	Significance of Potential Adverse Impacts					Impact Significance
			M	D	E	P	SP	
		gathering, do not practice social distancing and do not follow instructions issued by the authorities						
6.	Fire Hazard Impacts	• Main fire hazard sources of the proposed project are raw rice storage area, finished products storage area and diesel generator. • Fire hazards can be occurred due to poor installation of electrical equipment and overloads, heating from bunched cables and damaged cables	5	4	2	3	33	Moderate
7.	Impacts of Solid Waste Generation	• Solid waste produced from the rice milling, polishing and production processes include packaging bags, brans and rejected rice • Domestic solid waste from office, dining area, kitchen and workers dormitory can be considered	3	4	1	5	40	Moderate

No.	Potential Adverse Impacts	Project Activities	Significance of Potential Adverse Impacts					Impact Significance
			M	D	E	P	SP	
8.	Impacts of Liquid Waste Generation	• There is no effluent water generated from the rice milling, polishing and production processes • Domestic liquid waste is generated, which includes black water from toilets and grey water from basins and showers	2	4	1	4	28	Low
9.	Impacts of Hazardous Waste Generation	• There is no hazardous waste generated from the rice milling, polishing and production processes • Engine oil leakage from vehicles and transportation trucks and spillage during refueling diesel to diesel generator • Used oil and lubricant discharged from the maintenance of machines	2	4	1	4	28	Low
B.	***Decommissioning Phase***							
1.	Impacts on Air	• Main sources of dust emissions include movement of trucks for transporting machines and equipment of the project	3	1	2	3	18	Low

No.	Potential Adverse Impacts	Project Activities	Significance of Potential Adverse Impacts					Impact Significance
			M	D	E	P	SP	
		• Gaseous emissions from these trucks can also be anticipated						
2.	Impacts on Water	• Groundwater quality can be contaminated due to oil spill and leakage from trucks used for transporting machines and equipment	2	1	1	3	12	Very Low
3.	Impacts on Soil	• Soil can be contaminated by oil spill and leakage from the trucks for transporting machines and equipment	2	1	1	3	12	Very Low
4.	Noise and Vibration Impacts	• Uninstalling machines and equipment of the project • Transporting these machines and equipment	3	1	2	3	18	Low
5.	Impacts on Occupational Health and Safety	• Uninstalling machines and equipment of the project can expose injuries to workers accidentally • Movements of trucks for transporting machines, materials	4	1	1	4	24	Low

No.	Potential Adverse Impacts	Project Activities	Significance of Potential Adverse Impacts					Impact Significance
			M	D	E	P	SP	
		and waste can impact on health of workers and expose to accidents						
6.	Fire Hazard Impacts	• Electric shock from misuse of machines and equipment	5	1	2	3	24	Low
7.	Impacts of Solid Waste Generation	• Residual of raw rice, wrecked or damaged machines and equipment	3	1	1	3	15	Low
8.	Impacts of Liquid Waste Generation	• Black waster from toilets of decommissioning workers	2	1	1	3	12	Very Low
9.	Impacts of Hazardous Waste Generation	• Oil spillage and leakage from transportation trucks	2	1	1	3	12	Very Low

According to the results of impacts assessment, it is concluded that impacts on air, noise and vibration impacts, impacts on occupational health and safety, fire hazard impacts and impacts of solid waste generation are found Moderate level impacts. On the other hand, other impacts such as impacts on water, impacts on soil, impacts of liquid waste generation and hazardous waste generation are categorized in Low level impacts during the ***operation phase*** of the propose project. Moreover, it is also concluded that impacts on air, noise and vibration impacts, impacts on occupational health and safety, fire hazard impacts and impacts of solid waste generation are Low level and impacts on water, impacts on soil and impacts of liquid waste generation and hazardous waste generation are categorized as Very Low level impacts during the ***decommissioning phase*** of the proposed project. The following figure illustrates the impact significance of the proposed project for both operation phase and decommissioning phase.

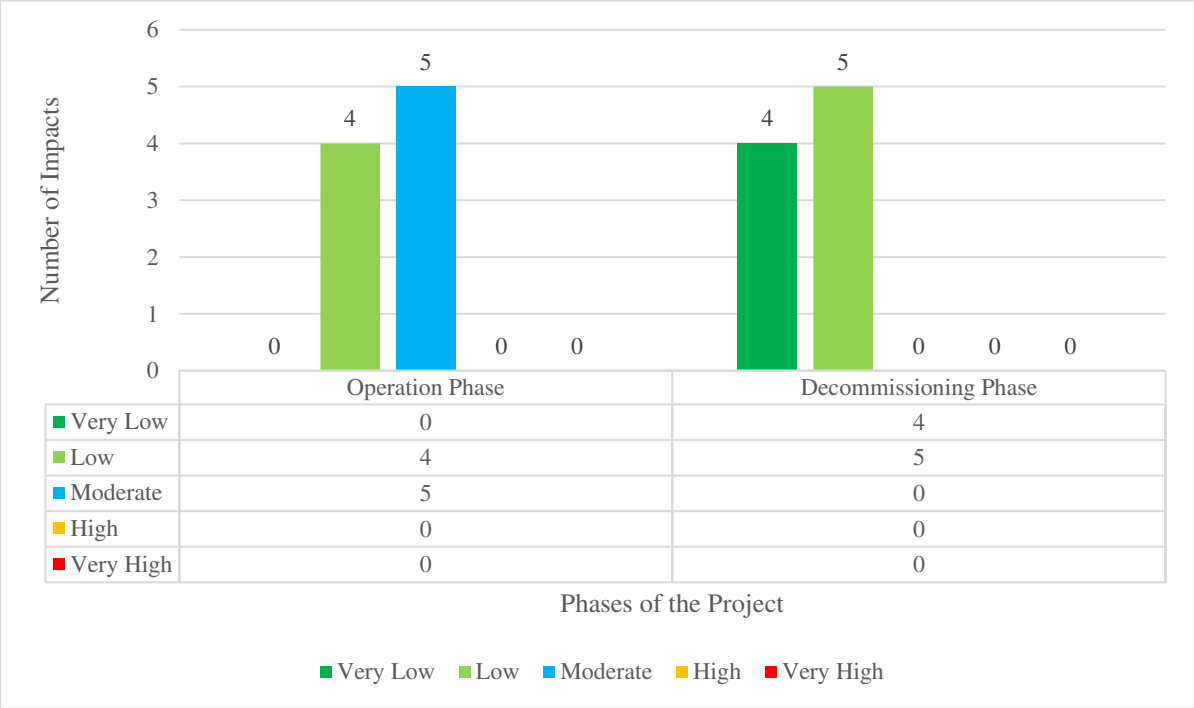


Figure 6. 2 Impact Significance Level of the Project

6.8 Mitigation Measures on Potential Negative Impacts

6.8.1 Mitigation Measures for Impacts on Environmental Resources

Mitigation Measures for Impacts on Air

Operation Phase: the exhaust fans and cyclone dust collector are installed for ventilation system at the project. Totally, 6 exhaust fans and 1 cyclone dust collector have installed at the project and they must be inspected regularly for their efficiency of ventilation system. Collected dust must be disposed of by contacting YCDC for final disposal. Raw rice must be handled carefully in order to avoid accidental spillage which can lead to rice dust. Moreover, the project area's ground is paved with concrete, thus, dust emissions from vehicles and trucks for transporting raw rice and finished products can be controlled. However, routes for transportation trucks and entrance area of the project must be sprayed with water twice a day

during summer and winter season in order to control dust emissions. Regular inspection and maintenance of vehicles, diesel generator, machines and equipment used for rice milling, polishing and production processes must be carried out for controlling dust and gaseous emissions. Transportation trucks must be stopped engines while unloading and loading. There are some trees and ornamental plants in front of the project, therefore, this is one of the mitigation measures to reduce impacts on air during the operation phase of the project.

Figure 6. 3 Installed Exhaust Fans and Cyclone Dust Collector

Decommissioning Phase: uninstalling activities of machines and equipment must be properly managed for reduction and control of dust emission. Water spraying must be done for increasing moisture content to minimize dust from transportation vehicles. Moreover, burning residual waste after project closure must not be carried out in the project area during the decommissioning phase of the project.

Mitigation Measures for Impacts on Water

Operation Phase: polishing system uses only mist of water to polish color of rice, therefore, there is no significant impact on groundwater quantity. There is no effluent water discharged from the rice milling, polishing and production processes of the project and it is considered that no operation wastewater is discharged from the project. Sanitary wastewater must be managed by contacting YCDC, which has adequate sanitation facilitations for final disposal at their wastewater treatment plant and regular pumping out must be carried out in order to avoid full of septic tanks. Regular inspection and maintenance for diesel generator and vehicles must be implemented to reduce impacts on water by preventing fuel and engine oil leakage as well as diesel refueling must be done carefully. The project proponent must manage the drainage system properly by checking and cleaning drains regularly. Waste from office, workers dormitory, kitchen and dining area must not be disposed of directly into the drains for preventing drainage block during the operation phase of the project.

Decommissioning Phase: the residual waste after project closure must not be disposed of directly into the drains which can disturb water flow and pollute water as well as temporary covers must be used to cover the drainage system. Moreover, proper uninstalling machines and equipment must be done during the decommissioning phase of the project.

Mitigation Measures for Impacts on Soil

Operation Phase: the whole ground of the project is paved with concrete especially diesel generator and route for transportation trucks. Moreover, the project proponent buy diesel from nearby fuel stations and no fuel storage in the project, however, refueling to diesel generator must be done properly in order to avoid diesel spillage. Regular inspection and maintenance for diesel generator and vehicles must be implemented to reduce impacts on soil by preventing fuel and engine oil leakage during the operation phase of the project.

Decommissioning Phase: proper uninstalling machines and equipment must be done during the decommissioning phase of the project.

Mitigation Measures for Noise and Vibration Impacts

Operation Phase: although working shift of the project is two shifts (8:00 am – 5:00 pm and 6:00 pm – 4:00 am), the project is located at industrial zone and it has insignificant impact on residential area. Moreover, the project proponent uses silence-type diesel generator, therefore, noise generation is lower than other types of generators. Workers who are working in noisy areas must wear ear muffs to protect their hearing system. In addition, the project proponent must instruct vehicle and transportation truck drivers not to gun vehicles' engines and hoot within the project area, if not necessary. Unloading raw rice and loading finished products must be done properly to prevent noise generation. Furthermore, regular inspection and maintenance of vehicles, diesel generator, machines and equipment used for rice milling, polishing and production processes must be carried out for controlling noise and vibration generation. There are some trees and ornamental plants in front of the project, therefore, this is one of the mitigation measures to reduce noise impacts during the operation phase of the project.

Figure 6. 4 Installed Silence-type Diesel Generator

Decommissioning Phase: uninstalling machines and equipment of the project as well as transporting these machines and equipment must be carried out properly to reduce noise and vibration during the decommissioning phase of the project.

6.8.2 Mitigation Measures for Impacts on Ecological Resources

Mitigation Measures for Impacts on Terrestrial Ecology

There is no significant impact on terrestrial ecology during not only operation phase but also decommissioning phase of the project because the propose project is located at industrial zone. Therefore, no specific mitigation measures are required to reduce impacts on terrestrial ecology for both phases of the project.

Mitigation Measures for Impacts on Aquatic Ecology

There is no significant impact on aquatic ecology during not only operation phase but also decommissioning phase of the project because there is no water body within the scope of the study and type of the project has no significant impact. Therefore, no specific mitigation measures are required to reduce impacts on aquatic ecology for both phases of the project.

6.8.3 Mitigation Measures for Impacts on Human

Mitigation Measures for Impacts on Occupational Health and Safety

Operation Phase: raw rice and finished products must be stored properly to reduce falling objects. Main building must be ventilated properly, therefore, 6 exhaust fans and 1 cyclone dust collector have been installed in the project to ensure well-ventilation environment and they must be inspected and maintained regularly. The project proponent provides first aid kits for accidental cases in the project. In addition, there is a plan for regular medical checkup for the workers and need to implement accordingly. Smoking must be prohibited strictly in the project area. Unloading raw rice and loading finished products should be carried out by conveyor instead of using manpower to reduce physical injury. Moreover, safety trainings, first aid trainings, fire drills, machine handling trainings and other operational trainings must be provided for the workers to ensure safe working environment. The workers must wear safety helmets, splash goggles, ear muffs, safety gloves, safety jackets and safety boots for ensuring safe working environment and reducing occupational health and safety impacts when working at high-risk area and maintaining the machines. Besides, the project proponent must tag safety notices and emergency phone numbers of the Fire Services Department, Hospitals and Police Stations for emergency cases. Electrical maintenance workers must be assigned and implement regular inspection and maintenance of electrical equipment to prevent electrical hazards. Moreover, housekeeping workers must be trained and assigned to take measures to do regular cleaning for prevention of accidents due to poor housekeeping. The project proponent must manage the drainage systems of the project properly and has provided purified drinking water to prevent health risk of the workers. Vehicles, diesel generator, machines and equipment used for rice milling, polishing and production processes must be maintained and inspected regularly to prevent accidental cases. Especially, the workers must follow the instructions issued by the authorities as well as they must wear masks, wash hands regularly, avoid gathering if not necessary and practice social distancing to prevent COVID-19 virus transmission during the operation phase of the project. The following table describes the list of PPEs and their functions.

Table 6. 4 List of Personal Protective Equipments and Their Functions

No.	Types of PPEs	Functions of PPEs	Photos of PPEs
1.	Safety helmet	To protect the head from injury due to falling objects, impact with other objects, debris, rain and electrical shock.	
2.	Splash goggles	To fully protect eyes against flying dust, debris and chemicals	
3.	Ear muffs	To protect ears from excessively loud environment.	
4.	Safety gloves	To provide hand and arm protection for chemical handlings.	
5.	Safety jackets	To enhance visibility with colors of protected outwear.	
6.	Safety boots	To protect the foot from falling objects and chemicals.	

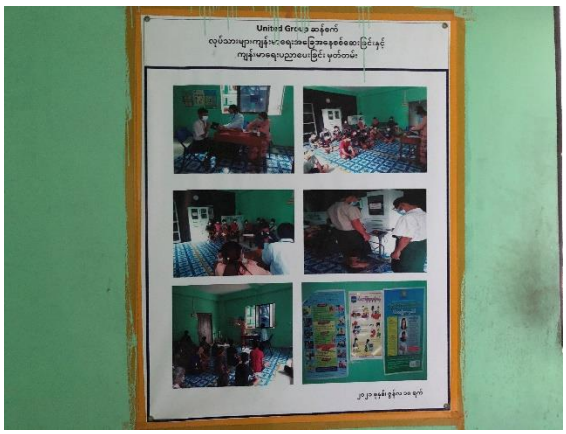


Figure 6. 5 Provided First Aid Kits and Record of Medical Checkup

Decommissioning Phase: all workers who are working at high-risk area of uninstalling machines and equipment must wear PPEs such as safety helmets, splash goggles, ear muffs,

safety gloves, safety jackets and safety boots for ensuring safe working environment and reducing occupational health and safety impacts. First aid kits must be provided and safety notices and emergency phone numbers must be tagged for emergency cases during the decommissioning phase of the project.

Mitigation Measures for Impacts on Community Health and Safety

There is no significant impact on community health and safety during not only operation phase but also decommissioning phase of the project because the proposed project is located at industrial zone. Therefore, no specific mitigation measures are required for impacts on community health and safety.

Mitigation Measures for Fire Hazard Impacts

Operation Phase: totally, 30 fire extinguishers and 2 fire hose reels (100 feet) was installed in the project for fire hazards. The firefighting equipment must be inspected regularly. In case of fire, totally water 1,000 gallons are stored in overhead and underground tanks. Besides, the project proponent must tag safety notices and emergency phone numbers of the Fire Services Department, Hospitals and Police Stations for emergency cases and fire cases. The visible and audible emergency alarm system should be installed in the project for alerting workers in case of fire and an assembly point must defined for emergency cases. The main entrances, emergency exits and routes for emergency cases of the project must be defined and these shall not be blocked with materials or machines for fire emergency cases. Electrical maintenance workers must be assigned and implement regular inspection and maintenance of electrical equipment to prevent electrical hazards. Regular maintenances for machines and equipment of the project must be carried out in order to prevent fire hazards. In addition, the project proponent must arrange firefighting trainings and emergency drill. Smoking must be strictly prohibited during the operation phase of the project. The following figures describe the installed fire extinguishers at the project.

Figure 6. 6 Installed Fire Extinguishers

Decommissioning Phase: main entrance of the project must not be blocked with machines, equipment and vehicles. Moreover, fire extinguishers must be installed as well as safety notices and emergency phone numbers of the Fire Services Department, Hospitals and Police Stations must be tagged in the project for emergency cases and fire cases during the decommissioning phase of the project.

6.8.4 Mitigation Measures for Impacts of Waste Generation

Mitigation Measures for Impacts of Solid Waste Generation

Operation Phase: operation solid waste such as packaging bags are used either for packaging brans or selling to the local dealers. These bags are stored temporarily at temporary storage places before reusing and selling. Brans are also distributed to the local market and rejected rice are disposed at designated area before final disposal. Domestic solid waste from office, dining area, kitchen and workers dormitory are disposed at disposal place designated by YCDC, daily. Before final disposal, domestic solid waste such as plastic, organic items, glass items and metal must be collected separately in provided separate bins in the project during the operation phase of the project.

Figure 6. 7 Temporary Storage Places of Packaging Bags


Figure 6. 8 Provided Separate Waste Bins

Decommissioning Phase: residual waste after project closure must be stored in dedicated waste storage area in the project site temporally and transferred to final disposal site, which is allowed by YCDC during the decommissioning phase of the project.

Mitigation Measures for Impacts of Liquid Waste Generation

Operation Phase: there is no effluent water generated from the rice milling, polishing and production processes of the proposed project. Therefore, no specific mitigation measures are required for operation liquid waste. There are 10 toilets and 6 washing basins in the project and toilets must be cleaned with disinfectant cleaners regularly and ensured good exhaust ventilation system. Black water from toilets is collected systematically at two septic tanks and then contacted with YCDC for pumping out as final disposal. Pumping out must be done regularly in order to avoid full of septic tanks. Grey water is flowed through systematic constructed drainage system within the project and then discharged into public drains in front of the project during the operation phase of the project.


Figure 6. 9 Toilets, Washing Basins and Drainage System

Decommissioning Phase: adequate sanitation facilities must be provided for all workers in order to control black water as domestic wastewater. The existing toilets must be cleaned during the decommissioning phase of the project.

Mitigation Measures for Impacts of Hazardous Waste Generation

Operation Phase: used oil and lubricants from vehicles and diesel generator must be stored in specific containers as temporary storage with paved ground to prevent leakage from primary containers and then must be transferred to recyclers, if maintenance activities carry out in the project during the operation phase of the project.

Decommissioning phase: used oils and lubricants from transportation vehicles and machines must be kept and handled systematically, if maintenance activities carry out in the project. It must be disposed by recycling in accordance with YCDC for final disposal during the decommissioning phase of the project.

7. Institutional Requirements and Environmental Management Plan (EMP)

7.1 Institutional Requirement

This Initial Environmental Examination (IEE) is prepared as an environmental management framework for United Group Rice Mill Project, proposed by Wakhema Trading Co., Ltd. The environmental management practices, procedures and responsibilities are defined herein to get full compliance with the existing environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar. The project proponent should appoint one Health, Safety and Environment (HSE) Coordinator or Environmental workers throughout the life span of the project. The Environmental workers of the project will review and update this plan at least once per year to cover all potential impacts, mitigations measures and modifications as necessary. Revisions will be made as necessary throughout the year. Wakhema Trading Co., Ltd. is a responsible party for this Environmental Management plan of the rice milling, polishing and production project. Moreover, if the cost estimation for the implementation of Environmental Management Plan and Environmental Monitoring Plan does not fully cover the practical solutions stated in this report at the time of implementation, we, Wakhema Trading Co., Ltd. will add additional funds to get the target of these plans throughout the project lifespan. Any suggestions, comments and questions must be directed to Wakhema Trading Co., Ltd.

7.2 Environmental Management Plan

The Environmental Management Plan (EMP) prepared for the proposed project covers the anticipated potential impacts of the project, mitigation measures, environmental management and monitoring plans during each of the phases:

- Operation Phase and
- Decommissioning Phase

The objectives of EMP areas are as follows:

- Identify the potential environmental impacts of the proposed activities;
- Develop mitigation measures to minimize, mitigate and manage these impacts and
- Estimate the budget of EMP for each phase.

Wakhema Trading Co., Ltd. must manage the development of the proposed project by implementing this EMP, which is composed of the following parts:

- Environmental Management Plan
- Environmental Monitoring Plan
- Corporate Social Responsibility (CSR) Plan
- Occupational Health and Safety Plan
- Firefighting Plan
- Emergency Preparedness and Response Plan
- Community Grievance Redress Mechanism

The Environmental Management Plan and Environmental Monitoring Plan for construction phase are excluded in this report because this project is already in the operating phase.

Responsible Persons for EMP and Mitigation Measures

Implementation of the Environmental Management Plan and mitigation measures is the responsibility of all site personnel: however, key personnel (Site Director, Site Manager, HSE Officer, HSE Assistant, Ministry of Natural Resources and Environmental Conservation (MONREC)) are mainly responsible for communicating environmental matters and ensuring management practices and procedures are being implemented. The list of responsible persons for implementing EMP and mitigation measures are described as follow in terms of their name, position, department and responsibilities:

Table 7. 1 Responsible Persons for Implementing EMP and Mitigation Measures

No.	Name	Position	Responsibilities
1.	Dr. Soe Tun	Managing Director	• Implementation of the EMP • Supervision and monitoring of the implementation of EMP
2.	U Pyae Phyo Aung	Site Manager	• Implementation of the EMP • Supervision and monitoring of the implementation of EMP
3.	HSE Officer		• Implementation of the EMP • Oversight of overall implementation of the project environmental activities • Supervision and monitoring of the implementation of EMP • Supervision, monitoring and performing of Occupational Health and Safety for workers
4.	Members of MONREC	Regulatory Body	• Monitoring and inspection of projects to determine compliance with all environmental and social requirements • The Ministry may impose penalties and/ or require the project proponent to undertake corrective action • Where, the Ministry views that the project is not in compliance, it shall o Promptly inform the project proponent o Indicate specific non-compliances of the project environmental and social requirements; and o Specify a time period for the project proponent to bring the project into compliance • In the event of noncompliance

No.	Name	Position	Responsibilities
			○ Inform the project proponent indicating the specific non-compliances with environmental and social requirements; • Where a project is not in compliance or not likely to comply with its environmental and social requirements, take enforcement action including: ○ Suspension of project operation; and ○ Employing third parties to correct non-compliance *Source: Environmental Impact Assessment Procedure (2015).*

The following tables describe detail Environmental Management Plans for both operation phase and decommissioning phases of the proposed project.

Table 7. 2 Environmental Management Plan for Operation Phase

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
A.	***Environmental Resources***						
1.	Air quality	All operation area	Dust emissions and gaseous emissions	• The exhaust fans and cyclone dust collector are installed for ventilation system • They must be inspected regularly for their efficiency of ventilation system • Collected dust must be disposed of by contacting YCDC for final disposal • Raw rice must be handled carefully in order to avoid accidental spillage • The project area's ground is paved with concrete • Regular inspection and maintenance of vehicles, diesel generator, machines and equipment used for rice milling, polishing and production processes must be carried out	Already included in cost estimation for EMP	Low	Wakhema Trading Co., Ltd.

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				• Transportation trucks must be stopped engines while unloading and loading • There are some trees and ornamental plants in front of the project			
		Routes for transportation trucks and entrance area		• Routes for transportation trucks and entrance area of the project must be sprayed with water twice a day during summer and winter season			
2.	Water resources	All operation area	Quantity and quality of groundwater depletion	• Polishing system uses only mist of water to polish color of rice • There is no effluent water discharged from the rice milling, polishing and production processes • Sanitary wastewater must be managed by contacting YCDC • Regular pumping out must be carried out in order to avoid full of septic tanks	Already included in cost estimation for EMP	Very Low	Wakhema Trading Co., Ltd.

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				• Regular inspection and maintenance for diesel generator and vehicles must be implemented • Diesel refueling must be done carefully • Drainage system must be managed properly by checking and cleaning drains regularly • Waste from office, workers dormitory, kitchen and dining area must not be disposed of directly into the drains			
3.	Soil	All operation area	Soil contamination	• The whole ground of the project is paved with concrete especially diesel generator and route for transportation trucks • The project proponent buy diesel from nearby fuel stations and no fuel storage in the project	Already included in cost estimation for EMP	Very Low	Wakhema Trading Co., Ltd.

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				• Refueling to diesel generator must be done properly • Regular inspection and maintenance for diesel generator and vehicles must be implemented			
4.	Noise and Vibration	All operation area	Noise pollution and vibration	• Although working shift of the project is two shifts, the project is located at industrial zone • The project proponent uses silence-type diesel generator • Workers who are working in noisy areas must wear ear muffs • The project proponent must instruct vehicle and transportation truck drivers not to gun vehicles' engines and hoot within the project area, if not necessary	Already included in cost estimation for EMP	Low	Wakhema Trading Co., Ltd.

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				• Unloading raw rice and loading finished products must be done properly • Regular inspection and maintenance of vehicles, diesel generator, machines and equipment used for rice milling, polishing and production processes must be carried out • There are some trees and ornamental plants in front of the project			
B.	***Human Resources***						
5.	Occupational health and safety	All operation area	Health and safety problems for workers	• Raw rice and finished products must be stored properly to reduce falling objects • Main building must be ventilated properly, therefore, 6 exhaust fans and 1 cyclone dust collector have been installed in the project • They must be inspected and maintained regularly	Already included in cost estimation for EMP	Low	Wakhema Trading Co., Ltd.

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				• The project proponent provides first aid kits • There is a plan for regular medical checkup for the workers and need to implement accordingly • Smoking must be prohibited strictly in the project area • Unloading raw rice and loading finished products should be carried out by conveyor instead of using manpower • Safety trainings, first aid trainings, fire drills, machine handling trainings and other operational trainings must be provided • The workers must wear safety helmets, splash goggles, ear muffs, safety gloves, safety jackets and safety boots when working			

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				at high-risk area and maintaining the machines • The project proponent must tag safety notices and emergency phone numbers • Electrical maintenance workers must be assigned and implement regular inspection and maintenance of electrical equipment • Housekeeping workers must be trained and assigned to take measures to do regular cleaning • The project proponent must manage the drainage systems of the project properly • The project proponent provides purified drinking water for workers • Vehicles, diesel generator, machines and equipment used for rice milling,			

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				polishing and production processes must be maintained and inspected regularly • The workers must follow the instructions issued by the authorities as well as they must wear masks, wash hands regularly, avoid gathering if not necessary and practice social distancing to prevent COVID-19 virus transmission			
6.	Fire hazards	All operation area	Loss properties and human life	• Totally, 30 fire extinguishers and 2 fire hose reels (100 feet) was installed in the project • The firefighting equipment must be inspected regularly • In case of fire, totally water 1,000 gallons are stored in overhead and underground tanks	Already included in cost estimation for EMP	Low	Wakhema Trading Co., Ltd.

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				• The project proponent must tag safety notices and emergency phone numbers • The visible and audible emergency alarm system should be installed • The main entrances, emergency exits and routes for emergency cases of the project must be defined and these shall not be blocked with materials or machines • Electrical maintenance workers must be assigned and implement regular inspection and maintenance of electrical equipment • Regular maintenances for machines and equipment of the project must be carried out • The project proponent must arrange firefighting			

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				trainings and emergency drill • Smoking must be strictly prohibited			
C.	***Waste Generation***						
7.	Solid waste, liquid waste and hazardous waste disposal	All operation area	Water and soil contamination	• Packaging bags are used either for packaging brans or selling to the local dealers • Brans are also distributed to the local market and rejected rice are disposed at designated area before final disposal • Domestic solid waste from office, dining area, kitchen and workers dormitory are disposed at disposal place designated by YCDC, daily • Before final disposal, domestic solid waste must be collected separately in provided separate bins • There is no effluent water generated from the rice	Already included in cost estimation for EMP	Low	Wakhema Trading Co., Ltd.

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				milling, polishing and production processes • There are 10 toilets and 6 washing basins in the project • Toilets must be cleaned with disinfectant cleaners regularly and ensured good exhaust ventilation system • Black water from toilets is collected systematically at two septic tanks and then contacted with YCDC for pumping out as final disposal • Pumping out must be done regularly • Grey water is flowed through systematic constructed drainage system within the project and then discharged into public drains in front of the project			

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				• Used oil and lubricants from vehicles and diesel generator must be stored in specific containers as temporary storage with paved ground and transferred to recyclers, if maintenance activities carry out in the project			

Table 7. 3 Environmental Management Plan for Decommissioning Phase

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
A.	***Environmental Resources***						
1.	Air quality	All decommissioning area	Dust and gaseous emissions	• Uninstalling activities of machines and equipment must be properly managed • Water spraying must be done for increasing moisture content to minimize dust from transportation vehicles	Already included in cost estimation for EMP	Very Low	Wakhema Trading Co., Ltd.

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				• Burning residual waste after project closure must not be carried out			
2.	Water resources	All decommissioning area	Quantity and quality of groundwater depletion	• The residual waste after project closure must not be disposed of directly into the drains • Temporary covers must be used to cover the drainage system • Proper uninstalling machines and equipment must be done	Already included in cost estimation for EMP	Very Low	Wakhema Trading Co., Ltd.
3.	Soil	All decommissioning area	Soil contamination	• Proper uninstalling machines and equipment must be done	Already included in cost estimation for EMP	Very Low	Wakhema Trading Co., Ltd.
4.	Noise and vibration	All decommissioning area	Negative impacts to the workers	• Uninstalling machines and equipment of the project must be carried out properly • Transporting these machines and	Already included in cost estimation for EMP	Very Low	Wakhema Trading Co., Ltd.

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				equipment must be carried out properly			
B.	***Human Resources***						
5.	Occupational health and safety	All decommissioning area	Health and safety problems for workers	• All workers who are working at high-risk area of uninstalling machines and equipment must wear PPEs such as safety helmets, splash goggles, ear muffs, safety gloves, safety jackets and safety boots • First aid kits must be provided and safety notices and emergency phone numbers must be tagged	Already included in cost estimation for EMP	Very Low	Wakhema Trading Co., Ltd.
6.	Fire hazards	All decommissioning area	Loss of properties and human life	• Main entrance of the project must not be blocked with machines, equipment and vehicles • Fire extinguishers must be installed	Already included in cost estimation for EMP	Very Low	Wakhema Trading Co., Ltd.

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				• Safety notices and emergency phone numbers must be tagged			
C.	***Waste Generation***						
7.	Solid waste, liquid waste and hazardous waste disposal	All decommissioning area	Water and soil contamination	• Residual waste after project closure must be stored in dedicated waste storage area in the project site temporally and transferred to final disposal site, which is allowed by YCDC • Adequate sanitation facilities must be provided for all workers • The existing toilets must be cleaned • Used oils and lubricants from transportation vehicles and machines must be kept and handled	Already included in cost estimation for EMP	Very Low	Wakhema Trading Co., Ltd.

No.	Potential Impacts	Location	Impacts	Mitigation Measures	Estimated Cost for Proposed Measures	Residual Impacts	Responsible Party
				systematically, if maintenance activities carry out in the project • It must be disposed by recycling in accordance with YCDC for final disposal			

7.3 Environmental Monitoring Plan

The following table describes the detail Environmental Monitoring Plans for both operation phase and decommissioning phase of the proposed project.

Table 7. 4 Environmental Monitoring Plan

No.	Environmental Concerns	Parameters	Frequency	Location	Estimated Cost	Responsible Person
A.	***Operation Phase***					
1.	Air quality	PM_{10}, $PM_{2.5}$, CO, CO_2, SO_2, NO_2	Twice a year	Same location with baseline measurement	Already included in cost estimation for EMP	Wakhema Trading Co., Ltd.
2.	Groundwater quality	pH, Carbonate, Iron, Total Suspended Solids, Arsenic, Nitrate, Chlorine, BOD, COD, Cyanide	Twice a year	Same location with baseline measurement	Already included in cost estimation for EMP	Wakhema Trading Co., Ltd.

No.	Environmental Concerns	Parameters	Frequency	Location	Estimated Cost	Responsible Person
3.	Noise level	Equivalent Noise Level dB (A)	Twice a year	Same location with baseline measurement	Already included in cost estimation for EMP	Wakhema Trading Co., Ltd.
4.	Environmental auditing	Assess the compliance with this EMP as well as laws, rules, policies and regulations described in this report	Once a year	Within the project	Already included in cost estimation for EMP	Wakhema Trading Co., Ltd.
5.	Waste generation	Solid wastes, liquid wastes and hazardous waste disposal	Quarterly	Within the project	Already included in cost estimation for EMP	Wakhema Trading Co., Ltd.
B.	***Decommissioning Phase***					
1.	Air quality	PM_{10}, $PM_{2.5}$, CO, CO_2, SO_2, NO_2	Once	Same location with baseline measurement	Already included in cost estimation for EMP	Wakhema Trading Co., Ltd.
2.	Groundwater quality	pH, Carbonate, Iron, Total Suspended Solids, Arsenic, Nitrate, Chlorine, BOD, COD, Cyanide	Once	Same location with baseline measurement	Already included in cost estimation for EMP	Wakhema Trading Co., Ltd.
3.	Noise level	Equivalent Noise Level dB (A)	Once	Same location with baseline measurement	Already included in cost estimation for EMP	Wakhema Trading Co., Ltd.

7.4 Corporate Social Responsibility (CSR) Plan

Wakhema Trading Co., Ltd. will implement Corporate Social Responsibility (CSR) Plan with Environmental Management Plan throughout the lifespan of proposed project. The objectives of this plan are to create social welfare of project workers and local community as well as to prove that the implementation of the proposed project is benefit for project proponent, workers and local community. The project proponent has a plan to use ***2% of net profit*** for fund to implement CSR plan. The following table shows the detail CSR plan of the propose project.

Table 7. 5 Corporate Social Responsibility Plan of the Project

No.	Subject	Percentage of Fund
1.	Education	20%
2.	Health Care	20%
3.	Social Welfare	20%
4.	Natural Disaster Prevention	20%
5.	Local development	20%

7.5 Cost Estimation for EMP

The following table shows the expenditures for the implementation of Environmental Management Plan and mitigation measures. Estimated prices may be varied according to the situation, time and service providers. We, Wakhema Trading Co., Ltd. strongly commit that we will add required funds for the implementation of Environmental Management Plan and mitigation measures including monitoring plan if the following cost estimation for EMP is not enough at the time of real practices throughout the project lifespan.

Table 7. 6 Budget Estimation for EMP

No.	Item	Unit	Frequency	Unit Cost (MMK)	Cost (MMK)
A.	***Mitigation Measures for Operation Phase***				
1.	Provide regular medical checkup for the workers			Lump sum	1,000,000
2.	Provide trainings for the workers			Lump sum	800,000
3.	Provide PPEs for the workers			Lump sum	1,000,000
4.	Regular inspection and maintenance of vehicles, diesel generator, machines and equipment	Month	12	100,000	1,200,000
5.	Install visible and audible emergency alarm system			Lump sum	500,000

No.	Item	Unit	Frequency	Unit Cost (MMK)	Cost (MMK)
6.	Wastes disposal	Month	12	100,000	1,200,000
Subtotal					**5,700,000**
B.	***Mitigation Measures for Decommissioning Phase***				
1.	Install temporary control covers or equipment			Lump sum	300,000
2.	Provide PPEs for the workers			Lump sum	100,000
3.	Provide first aid kits for the workers			Lump sum	100,000
4.	Wastes disposal			Lump sum	300,000
Subtotal					**800,000**
Contingency					**1,000,000**
Total					**7,500,000**

The following table describes the cost estimation for Environmental Monitoring Plan and Supervision and these will cost annually. Prices may be varied according to the situation, time and services providers.

Table 7. 7 Budget Estimation for EMoP and Supervision

No.	Item	Unit	Quantity	Unit Cost (MMK)	Annual Cost (MMK)
A.	***Environmental Monitoring Plan***				
1.	Air quality	Frequency per year	2	500,000	1,000,000
2.	Water quality	Frequency per year	2	400,000	800,000
3.	Noise level	Frequency per year	2	200,000	400,000
Subtotal					**2,200,000**
B.	***Supervision***				
1.	HSE officer	Months	12	500,000	6,000,000
Subtotal					**6,000,000**
Total					**8,200,000**

7.6 Occupational Health and Safety Plan

The project proponent shall appoint one Health, Safety and Environment (HSE) Officer for Health, Safety and Environment (HSE) issues throughout the lifespan of the proposed project. HSE Officer is responsible for implementation and monitoring of Environmental Management Plan (EMP) and Environmental Monitoring Plan as well as coordination with project

proponent, local authorities and the nearby communities. HSE Officer also makes regular review of EMP to cover all potential impacts, amendments and modifications.

The responsibilities of HSE Officer are as follows:

- The HSE Officer must carried out regular site visits and reporting during operation and decommissioning phase to check whether the objectives of EMP are being followed.
- The HSE Officer must keep full records of environmental management activities and present to independent third-party environment audit annually.
- The HSE Officer must assess the risks in performing various activities of all rice milling processes of the project.
- The HSE Officer must provide necessary information and instructions, as well as provide and arrange trainings to the workers and supervise them to follow safety rules and safety working procedures strictly.
- The HSE Officer undertake regular safety and health inspections and audits on-site.
- The HSE Officer must provide and enforce wearing of effective PPEs such as safety helmets, splash goggles, ear muffs, safety gloves, safety jackets and safety boots for all workers who work at high-risk area.
- The HSE Officer must manage for water usage in every workplace at suitable and easily accessible place for the whole phases.
- The HSE Officer must monitor all the workers to follow the instructions issued by the authorities as well as enforce the workers to wear masks, wash hands regularly, avoid gathering and practice social distancing to prevent COVID-19 virus transmission

7.7 Firefighting Plan

The following activities must be followed by all workers in case of fire.

- Alert all workers in case of fire
- Activate fire alarm systems
- Switch off electricity system
- Gather all workers at assembly point
- If small, control using fire extinguishers and fire hose reels
- Contact the Fire Services Department, if not under immediate control
- Carry out the activities of firefighting by the assigned teams
- For oil and lubricant fire, DON'T USE WATER, rather use fire extinguishers
- Carry out the activities of first aids by the assigned teams for the injured workers and if necessary, call the ambulances and transfer to the nearest clinic or hospital
- Keep record the lists of injured workers and damaged properties by the assigned team and submit to management responsible persons.
- Follow all instructions instructed by the management responsible persons

The following persons are responsible team for prevention of fire.

1. U Pyae Phyo Aung (Team Leader)
2. U Than Lwin (Member)

3. U Kaung Htet (Member)
4. U Kyaw Lin Tun (Member)
5. General Workers

This fire prevention team has to

- To clear garbage and flammable materials within the project
- To prohibit smoking strictly
- To check electric equipment and wire
- To provide adequate fire extinguishers
- To tag emergency contact numbers
- To install fire alarm system
- To check project area everytime

Other supporting teams are also assigned for firefighting and their duties include

- To check machines and equipment
- To check electric system
- To fill water tanks for firefighting

7.8 Emergency Response and Preparedness Plan

The project proponent prepares an emergency response and preparedness plan in order to prevent consequences of natural disasters such as floods and earthquakes and man-made errors. Systematic handling and great care must be given to rice milling processes in order to prevent man-made errors (e.g., electricity shock, fire hazards etc). All workers must be trained in order to evacuate systematically during emergency cases. All the employers, guests and workers should be evacuated systematically as soon as possible in case any emergency cases occur. Recovery plan must be developed because recovery plan should be followed after severe damages.

In case of floods, the following emergency response plan must be implemented immediately.

- Avoid entering into the building in flood areas;
- Construct barriers (levees, beams, floodwalls) to stop floodwater from entering;
- If a flood is likely in your area, listen to the radio or television for information;
- Do not walk-through moving water;
- If you have to walk in water, wherever possible, walk where the water is not moving; Use a stick to check the firmness of the ground in front of you;
- Do not drive into flooded areas. If floodwaters rise around your car, abandon the car and move to higher ground if you can do so safely;
- Do not touch electrical equipment if you are wet or standing in water;
- Avoid floodwaters; water may be contaminated by oil, gasoline, or raw sewage; Water may also be electrically charged from underground or downed power lines;
- Stay out of any building if it is surrounded by floodwaters;

- Service damaged septic tanks, cesspools, pits, and leaching systems as soon as possible. Damaged sewage systems are serious health hazards; and
- Clean and disinfect everything that got wet. Mud left from floodwater can contain sewage and chemicals.

In case of earthquake, the following emergency response plan must be done immediately.

- Avoid windows, hanging objects, mirrors, tall furniture, large appliances and cabinets filled with heavy objects;
- Do not try to run out of the structure during strong shaking and stay under a table or desk;
- Move to a clear area if you can safely walk. Avoid power lines, buildings and trees;
- Check around you for dangerous conditions, such as fires, downed power lines and structure damage;
- Check the people around you for injuries; provide first aid. Do not move seriously injured persons unless they are in immediate danger;
- Move as little as possible so that you don't kick up dust. Cover your nose and mouth with a handkerchief or clothing;
- Do not switch on electrical switches, appliances or open-flame equipment if gas leaks are suspected. Sparks or flames can ignite gas from broken lines causing an explosion;
- Inspect your work area carefully for structural damage. Carefully open exit doors - they sometimes jam; and
- Protect hands and feet from broken glass or debris. Keep head and face protected.

7.9 Grievance Redress Mechanism

People who settle nearby project area or stakeholders can complain about the problems and impacts that they suffer; they can complain though telephone, letter, email and social media to the Grievance Committee, which includes the responsible persons of project proponent, representative from Management Committee of Shwe Pyi Thar Industrial Zone (2) and representative from General Administration Department (Shwe Pyi Thar Township). Small issues will be solved at the Grievance Committee stage and other unsolved problems will be submitted to higher responsible authority (Yangon Region ECD or YCDC) and finally the complaints will be decided by the court in legal terms. The following diagram show steps of Grievance Redress Mechanism of the proposed project.

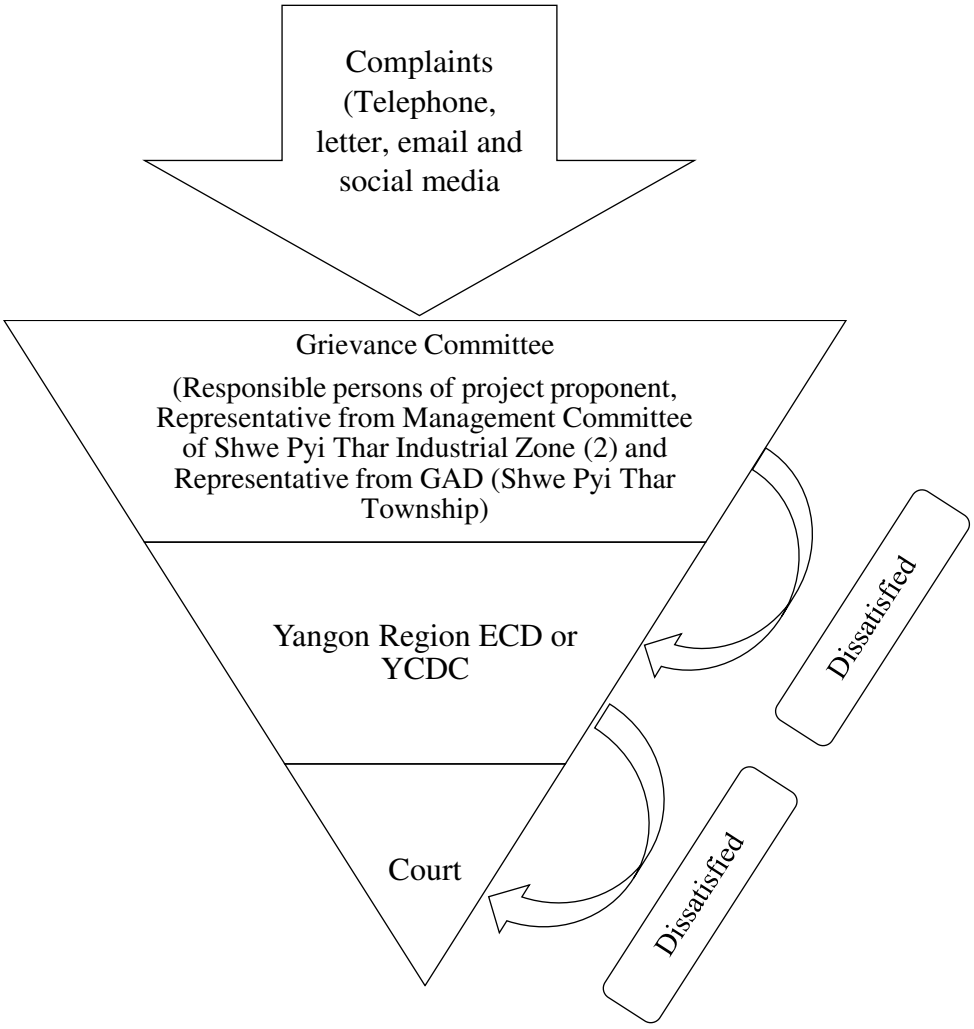


Figure 7. 1 Grievance Redress Mechanism of the Project

8. Public Consultation and Information Disclosure

8.1 Purposes of Public Consultation Meeting

It is important to disclose the information about the project during the preparation of IEE report and the opinions, suggestions and comments of all stakeholders shall be considered in implementation of the project, implementation of environmental management plans and environmental monitoring plans. Public consultation meeting should be held with people potentially to be affected by the project, administrative bodies, community-based organizations, non-governmental organizations, local people and other interested persons. Especially results of public consultation meeting should be considered in evaluation of impacts, design of mitigation measures, environmental management plans and environmental monitoring plans.

8.2 Methodology and Approach

The final IEE report will be prepared and submitted to MIC for environmental approval. The submitted IEE report will be made available to interested parties and public through office of project, office of third party and office of Industrial Zone Management Committee for comments and suggestions.

9. Conclusion and Recommendations

9.1 Conclusion

This Initial Environmental Examination (IEE) Report is prepared by GOG Environmental Services for United Group Rice Mill Project which is currently implemented and operated by Wakhema Trading Co., Ltd. at No. (95), U Phoe Hlaing Road, Shwe Pyi Thar Industrial Zone (2), Shwe Pyi Thar Township, North Yangon District, Yangon Region, Myanmar. The objective of the proposed project is for rice milling, polishing and production, then exporting to foreign countries. As per the remarks from MIC, this proposed project needs to conduct IEE to fulfill the environmental assessment requirements of the Environmental Policy, Environmental Conservation Law and other environmental related rules and regulations. The main objective of the study is to identify the major environmental impacts due to the implementation of the project activities in three phases (construction phase, operation phase and decommissioning phase) of the project, however, impacts consideration for construction phase is excluded in this report because the proposed project is currently operated rice milling activities. Moreover, the project proponent has to implement the proposed project in compliance with the National laws and regulations for environmental protection.

The study team of GOG Environmental Services conducted baseline data collection for air quality, water quality, noise level measurement and site visit on 22nd February, 2022 and analyzed the primary data and secondary data. According to the observed results, the value of PM_{10} and $PM_{2.5}$ is within the guideline value for 24 hours continuously. Similarly, gases such as Carbon monoxide, Carbon dioxide, Sulphur dioxide, Nitrogen dioxide and Ozone are within the limit of guideline values which are standardized by respective organizations like ECD, WHO and ACGIH. With regards to groundwater quality, most of the parameters are within the guidelines value, except Iron. For noise level, noise level of the proposed project is within the NEQEG guideline values and it is considered that there is no serious noise generation from the project.

Although the proposed project provides employment opportunities and business opportunities for local people, some negative impacts are generated due to the rice milling processes. As per results of impact assessment, it is concluded that impacts on air, noise and vibration impacts, impacts on occupational health and safety, fire hazard impacts and impacts of solid waste generation are found Moderate level impacts and other impacts are categorized in Low level impacts during the ***operation phase*** of the propose project. Moreover, it is also concluded that impacts on air, noise and vibration impacts, impacts on occupational health and safety, fire hazard impacts and impacts of solid waste generation are Low level and are categorized as Very Low level impacts during the ***decommissioning phase*** of the proposed project.

Therefore, the project proponent must implement Environmental Management Plan in order to minimize these adverse impacts and Environmental Monitoring Plan for assessing how the rice milling processes affect on environment in the future in terms of air quality, water quality and noise level by comparing with collected baseline data. Moreover, the project proponent must implement CSR plan, occupational health and safety plan, firefighting plan and emergency

response and preparedness plan for ensuring safe working environment for the project as well as for minimizing the adverse environmental impacts.

9.2 Recommendations for Future Works

The following recommendations are mandatory for effective and efficient implementation of Environmental Management Plan and Environmental Monitoring Plan of the proposed project. The project proponent shall:

- Appoint an HSE Officer
- Install visible and audible fire alarm system
- Provide a safe and healthy environment
- Provide the necessary resources regularly for managing health and safety in the project
- Issue safety rules and safe working procedures, and ensure that the rules and procedures comply with current legislation
- Ensure that experience and knowledge of the workers are suitable for the assigned task
- Ensure that all accidents and hazards are investigated and recommendations provided are properly followed up
- Provide first aid trainings, firefighting trainings, machines handling training and other essential operational trainings regularly
- Provide medical checkup regularly for the workers
- Ensure good ventilation system for the project
- Implement Grievance Redress Mechanism (GRM) to solve the complaints
- Implement Corporate Social Responsibility (CSR) plan
- Implement EMP and EMOP for balancing development and environmental conservation

Finally, the proponent shall follow the comments and suggestions made by ECD after reviewing this IEE report. Once EMP in this IEE report is approved by concerned authorities, effective implementation of EMP and EMoP by the project proponent is essential. The project proponent shall abide by environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

References

- Ministry of Environmental Conservation and Forestry (MOECAF), 2015, *"Environmental Impact Assessment Procedure"*.
- Ministry of Environmental Conservation and Forestry (MOECAF), 2015, *"National Environmental Quality (Emission) Guidelines"*.
- General Administration Department (Shwe Pyi Thar Township), 2020, *"Shwe Pyi Thar Township Data"*.

Appendix

(1) Remarks to Prepare IEE

Myanmar Investment Commission

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင်
အမှတ်(၁)၊ သစ္စာလမ်း၊ ရန်ကင်းမြို့နယ်၊ ရန်ကုန်မြို့

ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော် မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုကော်မရှင် စာအမှတ်..... ရက်စွဲ..... kl

တယ်လီဖုန်း-၀၁-၆၅၇၈၉၃ စာအမှတ် ၊ မရက-၉ / မ- ထွေ / ၂၀၂၂ (၀၈၃၀)
ဖက်(စ်) -၀၁-၆၅၇၈၂၄ ရက်စွဲ ၊ ၂၀၂၂ ခုနှစ်၊ ဖေဖော်ဝါရီလ ၂၅ ရက်
သို့

မန်နေဂျင်းဒါရိုက်တာ

Wakhema Trading Co.,Ltd.

အကြောင်းအရာ ။ **Wakhema Trading Co.,Ltd.က စီးပွားဖြစ်စတင်သည့်နေ့ သတ်မှတ်ပေးပါရန် တင်ပြလာခြင်းကိစ္စ**

ရည် ညွှန်း ချက် ။ Wakhema Trading Co.,Ltd. ၏ ၁၂-၁-၂၀၂၂ ရက်စွဲပါစာ

၁။ ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ၏ ၂၀၂၁ ခုနှစ်၊ ဇွန်လ ၁၈ ရက်စွဲပါ အတည်ပြုမိန့်အမှတ် ရကတ (၄၃၅ /၂၀၂၁) ဖြင့် မြေကွက်အမှတ် (၉၅)၊ မြေတိုင်းရပ်ကွက် အမှတ် ၃၉ (စက်မှု)၊ ရွှေပြည်သာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးတွင် ဆန်ကြိတ်ခွဲခြင်း၊ ဆန်ဖွတ်ချောသန့်စင်ထုတ်လုပ်ခြင်းလုပ်ငန်းဆောင်ရွက်လျက်ရှိသည့် Wakhema Trading Co.,Ltd.က ရည်ညွှန်းပါစာဖြင့် စီးပွားဖြစ်စတင်သည့်နေ့သတ်မှတ်ပေးပါရန် တင်ပြလာခြင်းနှင့် စပ်လျဉ်း၍ ကုမ္ပဏီအနေဖြင့် ကနဦးပတ်ဝန်းကျင် ဆန်းစစ်ခြင်း (Initial Environment Examination -IEE) အစီရင်ခံစာကို အတည်ပြုချက်ရရှိသည့်အထိ ဆောင်ရွက်ရန်လိုအပ်ပါကြောင်း ကော်မရှင်က စိစစ်တွေ့ရှိရပါသည်။

၂။ သို့ဖြစ်ပါ၍ ကုမ္ပဏီအနေဖြင့် ကနဦးပတ်ဝန်းကျင် ဆန်းစစ်ခြင်း (Initial Environment Examination -IEE) အစီရင်ခံစာကို အတည်ပြုချက်ရရှိသည့်အထိ ဆောင်ရွက်၍ ကော်မရှင်သို့ ဆောလျင်စွာ ပြန်လည်တင်ပြရန် အကြောင်းကြားပါသည်။

ဥက္ကဋ္ဌ (ကိုယ်စား)
(သန့်စင်လွင်၊ အတွင်းရေးမှူး)

မိတ္တူကို
ရုံးလက်ခံ/ မျှောစာတွဲ

(2) Company Registration Card

ကုမ္ပဏီမှတ်ပုံတင်လက်မှတ်

Certificate of Incorporation

ဝါးခယ်မ ရောင်းဝယ်ရေး ကုမ္ပဏီ လီမိတက်

WAKHEMA TRADING COMPANY LIMITED

Company Registration No. 101485358

မြန်မာနိုင်ငံကုမ္ပဏီများအက်ဥပဒေ ၁၉၁၄ ခုနှစ် အရ

ဝါးခယ်မ ရောင်းဝယ်ရေး ကုမ္ပဏီ လီမိတက်

အား ၂၀၀၉ ခုနှစ် မေ ၁၅ ရက်နေ့တွင်

အစုရှယ်ယာအားဖြင့် တာဝန်ကန့်သတ်ထား သည့် အများနှင့်မသက်ဆိုင်သောကုမ္ပဏီ

အဖြစ် ဖွဲ့စည်းမှတ်ပုံတင်ခွင့် ပြုလိုက်သည်။

This is to certify that

WAKHEMA TRADING COMPANY LIMITED

was incorporated under the Myanmar Companies Act 1914 on 15 May 2009 as a Private Company Limited by Shares.

ကုမ္ပဏီမှတ်ပုံတင်အရာရှိ

Registrar of Companies

ရင်းနှီးမြှုပ်နှံမှုနှင့်ကုမ္ပဏီများညွှန်ကြားမှုဦးစီးဌာန

Directorate of Investment and Company Administration

Former Registration No. 147/2009-2010

(3) Laboratory Results of Groundwater Quality

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No. 688600

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 1 of 2

W0222 1061

WATER QUALITY TEST RESULTS FORM

Client	United Group - ဆန်စက်
Nature of Water	Tube Well Water
Location	Shwe Pyi Thar Township
Date and Time of collection	22.2.2022
Date and Time of arrival at Laboratory	22.2.2022
Date and Time of commencing examination	23.2.2022
Date and Time of completing	28.2.2022

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
pH	7.2		6.5 - 8.5
Colour (True)		TCU	15 TCU
Turbidity		NTU	5 NTU
Conductivity		micro S/cm	
Total Hardness		mg/l as $CaCO_3$	500 mg/l as $CaCO_3$
Calcium Hardness		mg/l as $CaCO_3$	
Magnesium Hardness		mg/l as $CaCO_3$	
Total Alkalinity		mg/l as $CaCO_3$	
Phenolphthalein Alkalinity		mg/l as $CaCO_3$	
Carbonate ($CaCO_3$)	Nil	mg/l as $CaCO_3$	
Bicarbonate (HCO_3)		mg/l as $CaCO_3$	
Iron	0.53	mg/l	0.3 mg/l
Chloride (as CL)		mg/l	250 mg/l
Sodium Chloride (as NaCL)		mg/l	
Sulphate (as SO_4)		mg/l	500 mg/l
Total Solids		mg/l	1500 mg/l
Total Suspended Solids	5	mg/l	
Total Dissolved Solids		mg/l	1000 mg/l
Manganese		mg/l	0.05 mg/l
Phosphate		mg/l	
Phenolphthalein Acidity		mg/l	
Methyl Orange Acidity		mg/l	
Salinity		ppt	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint
Assistant Technical Officer
ISO Tech Laboratory

(a division of WEG Co.,Ltd.)

No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

ISO TECH LABORATORY

Laboratory Technical Consultant: U Saw Christopher Maung
B.Sc Engg: (Civil), Dip S.E(Delft) Lecturer of YIT (Retd). Consultant (Y.C.D.C), LWSE 001.
Former Member (UNICEF, Water quality monitoring & Surveillance Myanmar)

ISO 9001:2015 Cert. No. 688600

WTL-RE-001
Issue Date - 01-12-2012
Effective Date - 01-12-2012
Issue No - 1.0/Page 2 of 2

W0222 1061

WATER QUALITY TEST RESULTS FORM

Client	United Group - ဆန်စက်
Nature of Water	Tube Well Water
Location	Shwe Pyi Thar Township
Date and Time of collection	22.2.2022
Date and Time of arrival at Laboratory	22.2.2022
Date and Time of commencing examination	23.2.2022
Date and Time of completing	28.2.2022

Results of Water Analysis			WHO Drinking Water Guideline (Geneva - 1993)
Temperature (°C)		°C	
Fluoride (F)		mg/l	1.5 mg/l
Lead (as Pb)		mg/l	0.01 mg/l
Arsenic (As)	Nil	mg/l	0.01 mg/l
Nitrate ($N.NO_3$)	0.3	mg/l	50 mg/l
Chlorine (Residual)	Nil	mg/l	
Ammonia Nitrogen (NH_3)		mg/l	
Ammonium Nitrogen (NH_4)		mg/l	
Dissolved Oxygen (DO)		mg/l	
Chemical Oxygen Demand (COD)	32	mg/l	
Biochemical Oxygen Demand (BOD) (5 days at 20 °C)	2	mg/l	
Cyanide (CN)	Nil	mg/l	0.07 mg/l
Zinc (Zn)		mg/l	3 mg/l
Copper (Cu)		mg/l	2 mg/l
Silica (SiO_2)		mg/l	

Remark: This certificate is issued only for the receipt of the test sample.

Tested by
Signature:
Name: Zaw Hein Oo
Sr.Chemist
ISO Tech Laboratory

Approved by
Signature:
Name: Thinzar Theint Theint
Assistant Technical Officer
ISO Tech Laboratory

(a division of WEG Co.,Ltd.)

No.18. Lanthit Road, Nanthargone Quarter, Insein Township, Yangon, Myanmar.
Ph: 01-640955, 09-880100172, 09-880100173, 01-644506, E-mail: isotechlaboratory@gmail.com, Website: weg-myanmar.com

(4) Transitional Consultant Registration Certificates of IEE Experts

THE REPUBLIC OF THE UNION OF MYANMAR

Ministry of Natural Resources and Environmental Conservation

Environmental Conservation Department

CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION

(ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

No. 00042 Date 24 MAY 2019

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the organization under Environmental Impact Assessment Procedure, Notification No. 616/2015.

(ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၆၁၆/၂၀၁၅ အရ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို ထုတ်ပေးလိုက်သည်။)

(a)	Name of Organization (အဖွဲ့အစည်းအမည်)	Guardians of Green Environmental Services Co., Ltd.
(b)	Name of the representative in the organization (အဖွဲ့အစည်းကိုယ်စားလှယ်၏အမည်)	Daw Moh Moh Khaing
(c)	Citizenship of the representative in the organization (အဖွဲ့အစည်းကိုယ်စားလှယ်၏နိုင်ငံသား)	Myanmar
(d)	Identity Card /Passport Number of the representative person in the organization (အဖွဲ့အစည်းကိုယ်စားလှယ်၏ မှတ်ပုံတင်/ နိုင်ငံကူးလက်မှတ် အမှတ်)	14/PTN (N) 249929
(e)	Address of organization (ဆက်သွယ်ရန်လိပ်စာ)	No 13, Building 7L, Mar Ga Street, Hlaing Myint Mo Housing, Hlaing Township, Yangon. Telephone (office): +95(0)9 765 790 118 Mobile phone: +95(0)9 765 890 118, +95(0)9 765 990 118 E mail: gog.info.18@gmail.com
(f)	Type of Consultancy (အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား)	Organization
(g)	Duration of validity (သက်တမ်းကုန်ဆုံးရက်)	31 December 2019

Director General

Environmental Conservation Department

Ministry of Natural Resources and Environmental Conservation

Areas of Expertise Permitted

(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Ecology and Biodiversity,
2. Facilitation of meeting,
3. Forestry,
4. Geology and Soil,
5. Ground water and Hydrology,
6. Land use,
7. Legal Analysis,
8. Marine and Microbiology,
9. Modeling for Water Quality,
10. Waste Management,
11. Water Pollution Control

EXTENSION
သက်တမ်းတိုးခြင်းခြင်း
The VALIDITY of this certificate is extended
ear from (1.1.2020) to (31.12.2020)
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးခြင်းခြင်း
The VALIDITY of this certificate is extended
for six month from (1.1.2021) to (30.6.2021)
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးခြင်းခြင်း
The VALIDITY of this certificate is extended
for six months from (1.7.2021) to (31.12.2021)
For Director General
(Soe Naing. Director)
Environmental Conservation Department

EXTENSION (သက်တမ်းတိုးခြင်းခြင်း)
The VALIDITY of this certificate is extended
for one year from (1.1.2022) to (31.12.2022)
For Director General
(Soe Naing, Director)
Environmental Conservation Department

REPUBLIC OF THE UNION OF MYANMAR

Ministry of Natural Resources and Environmental Conservation

CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION

(ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

No. 0000071 Date .....

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the person under Environmental Impact Assessment Procedure, Notification No. 616/2015.

(ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၆၁၆/၂၀၁၅ အရ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို လူပုဂ္ဂိုလ်အားထုတ်ပေးလိုက်သည်။)

(a)	Name of Consultant (အကြံပေးပုဂ္ဂိုလ်အမည်)	Daw Yu Wai Yan Thein Tan
(b)	Citizenship (နိုင်ငံသား)	Myanmar
(c)	Identity Card / Passport Number (မှတ်ပုံတင်/နိုင်ငံကူးလက်မှတ်အမှတ်)	9/Kha Ah Za (N) 008402
(d)	Address (ဆက်သွယ်ရန်လိပ်စာ)	No.99, Mya Kan Thar Lane, Nyein Chan Yay Street, 10 mile, Pyay Road, Saw Bwa Gyi Quarter, Insein Township, Yangon, Myanmar. yuyu@eguardservices.com, yu.yuwaiyan@gmail.com 09798788196 , 09797005192
(e)	Organization (အဖွဲ့အစည်း)	E Guard Environmental Services Co.,Ltd.
(f)	Type of Consultancy (အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား)	Person
(g)	Duration of validity (သက်တမ်းကုန်ဆုံးရက်)	31 March 2018

EXTENSION
သက်တမ်းတိုးချဲ့ခြင်း
The VALIDITY of this certificate is extended for one year from (1.4.2018) to (31.3.2019)
ဤလက်မှတ်အား (၁-၄-၂၀၁၈) ရက်မှစ၍ (၃၁-၃-၂၀၁၉) ရက်နေ့အထိ တစ်နှစ်သက်တမ်း တိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

Director General
Environmental Conservation Department
Ministry of Natural Resources and Environmental Conservation

Areas of Expertise Permitted
(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Water Pollution Control

EXTENSION
သက်တမ်းတိုးပြုခြင်း
The VALIDITY of this certificate is extended for one year from (1.1.2020) to (31.12.2020)
ဤလက်မှတ်သက်တမ်း(၁-၁-၂၀၂၀)ရက်နေ့မှ (၃၁-၁၂-၂၀၂၀) ရက်နေ့အထိ တစ်နှစ်သက်တမ်းတိုးပြုပြီးသည်။
29.1.2020
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးပြုခြင်း
The VALIDITY of this certificate is extended for nine months from (1.4.2019) to (31.12.2019)
ဤလက်မှတ်သက်တမ်း(၁-၄-၂၀၁၉) ရက်နေ့မှ (၃၁-၁၂-၂၀၁၉) ရက်နေ့အထိ (၉)လသက်တမ်း တိုးပြုပြီးသည်။
7.6.2019
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးပြုခြင်း
The VALIDITY of this certificate is extended for six month from (1.1.2021) to (30.6.2021)
ဤလက်မှတ်သက်တမ်း(၁-၁-၂၀၂၁)ရက်နေ့မှ(၃၀-၆-၂၀၂၁) ရက်နေ့အထိ (၆)လသက်တမ်းတိုးပြုပြီးသည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးပြုခြင်း
The VALIDITY of this certificate is extended for six months from (1.7.2021) to (31.12.2021)
ဤလက်မှတ်သက်တမ်း(၁-၇-၂၀၂၁)ရက်နေ့မှ(၃၁-၁၂-၂၀၂၁) ရက်နေ့အထိ (၆)လသက်တမ်းတိုးပြုပြီးသည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION (သက်တမ်းတိုးပြုခြင်း)
The VALIDITY of this certificate is extended for one year from (1.1.2022) to (31.12.2022)
ဤသက်မှတ်သက်တမ်း(၁-၁-၂၀၂၂)ရက်နေ့မှ(၃၁-၁၂-၂၀၂၂) ရက်နေ့အထိ တစ်နှစ်သက်တမ်းတိုးပြုပြီးသည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

REPUBLIC OF THE UNION OF MYANMAR

Ministry of Natural Resources and Environmental Conservation

CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION

(ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

No. 10072 Date 01 JUN 2017

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the person under Environmental Impact Assessment Procedure, Notification No. 616/2015.

(ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၅၁၆/၂၀၁၅ အရ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို လူပုဂ္ဂိုလ်အားထုတ်ပေးလိုက်သည်။)

(a)	Name of Consultant (အကြံပေးပုဂ္ဂိုလ်အမည်)	Daw Moh Moh Khaing
(b)	Citizenship (နိုင်ငံသား)	Myanmar
(c)	Identity Card / Passport Number (မှတ်ပုံတင်/နိုင်ငံကူးလက်မှတ် အမှတ်)	14/ Pa Ta Na (N) 249929
(d)	Address (ဆက်သွယ်ရန်လိပ်စာ)	No.99, Mya Kan Thar Lane, Nyein Chan Yay Street, 10 mile, Pyay Road, Saw Bwa Gyi Quarter, Insein Township, Yangon, Myanmar. mohmohkhaing@eguardservices.com , 09797765989
(e)	Organization (အဖွဲ့အစည်း)	E Guard Environmental Services Co.,Ltd.
(f)	Type of Consultancy (အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား)	Person
(g)	Duration of validity (သက်တမ်းကုန်ဆုံးရက်)	31 March 2018

EXTENSION
သက်တမ်းတိုးခြင်း၊
The VALIDITY of this certificate is extended for one year from (1.4.2018) to (31.3.2019)
ဤသက်မှတ်ထားသော (၀-၄-၂၀၁၈) ရက်နေ့မှ (၃၁.၃.၂၀၁၉) ရက်နေ့အထိ တစ်နှစ်သက်တမ်း တိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

Director General
Environmental Conservation Department
Ministry of Natural Resources and Environmental Conservation

Areas of Expertise Permitted
(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Ecology and Biodiversity

2. Marine and Microbiology

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for nine months from (1.4.2019) to (31.12.2019)
ဤလက်မှတ်အား(၁-၄-၂၀၁၉) ရက်နေ့မှ (၃၁-၁၂-၂၀၁၉) ရက်နေ့အထိ (၉)လသက်တမ်း တိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for one year from (1.1.2020) to (31.12.2020)
ဤလက်မှတ်အား(၁-၁-၂၀၂၀) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၀) ရက်နေ့အထိ တစ်နှစ်သက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for six month from (1.1.2021) to (30.6.2021)
ဤလက်မှတ်အား(၁-၁-၂၀၂၁) ရက်နေ့မှ (၃၀-၆-၂၀၂၁) ရက်နေ့အထိ (၆)လသက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for six months from (1.7.2021) to (31.12.2021)
ဤလက်မှတ်အား(၁-၇-၂၀၂၁) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၁) ရက်နေ့အထိ (၆)လသက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION (သက်တမ်းတိုးမြှင့်ခြင်း)
The VALIDITY of this certificate is extended for one year from (1.1.2022) to (31.12.2022)
ဤလက်မှတ်အား(၁-၁-၂၀၂၂) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၂) ရက်နေ့အထိ တစ်နှစ်သက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

REPUBLIC OF THE UNION OF MYANMAR

Ministry of Natural Resources and Environmental Conservation

CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION

(ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

No. 0000102 Date 15 JUN 2017

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the person under Environmental Impact Assessment Procedure, Notification No. 616/2015.

(ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၆၁၆/၂၀၁၅ အရ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို လူပုဂ္ဂိုလ်အားထုတ်ပေးလိုက်သည်။)

(a)	Name of Consultant (အကြံပေးပုဂ္ဂိုလ်အမည်)	Daw Khin May Lwin
(b)	Citizenship (နိုင်ငံသား)	Myanmar
(c)	Identity Card / Passport Number (မှတ်ပုံတင်/ နိုင်ငံကူးလက်မှတ် အမှတ်)	12/ Ya Ka Na (Naing) 085388
(d)	Address (ဆက်သွယ်ရန်လိပ်စာ)	No. 350, Tabin Shwe Hti Road, No.1 Ward, Mayangone Township, Yangon. Jwincherry1@gmail.com , 09 420705177
(e)	Organization (အဖွဲ့အစည်း)	E Guard Environmental Services Co., Ltd.
(f)	Type of Consultancy (အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား)	Person
(g)	Duration of validity (သက်တမ်းကုန်ဆုံးရက်)	31 March 2018

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for one year from (1.4.2018) to (31.3.2019)
ဤလက်မှတ်အား (၁-၄-၂၀၁၈) ရက်နေ့မှ (၃၁.၃.၂၀၁၉) ရက်နေ့အထိ တစ်နှစ်သက်တမ်း တိုးမြှင့်သည်။
8.11.2018
For Director General
(Soe Naing, Director)
Environmental Conservation Department

Director General
Environmental Conservation Department
Ministry of Natural Resources and Environmental Conservation

Areas of Expertise Permitted
(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Ground Water and Hydrology

2. Water Pollution Control

3. Waste Management

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for nine months from (1.4.2019) to (31.12.2019)
ဤလက်မှတ်အား(၁-၄- ၂၀၁၉) ရက်နေ့မှ (၃၁-၁၂-၂၀၁၉) ရက်နေ့အထိ (၉)လသက်တမ်း တိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for one year from (1.1.2020) to (31.12.2020)
ဤလက်မှတ်အား(၁-၁-၂၀၂၀) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၀) ရက်နေ့အထိ တစ်နှစ်သက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for six month from (1.1.2021) to (30.6.2021)
ဤလက်မှတ်အား(၁-၁-၂၀၂၁) ရက်နေ့မှ (၃၀-၆-၂၀၂၁) ရက်နေ့အထိ (၆)လသက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for six months from (1.7.2021) to (31.12.2021)
ဤလက်မှတ်အား(၁-၇-၂၀၂၁) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၁) ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION (သက်တမ်းတိုးမြှင့်ခြင်း)
The VALIDITY of this certificate is extended for one year from (1.1.2022) to (31.12.2022)
ဤလက်မှတ်အား(၁-၁-၂၀၂၂) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၂) ရက်နေ့အထိ တစ်နှစ်သက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

THE REPUBLIC OF THE UNION OF MYANMAR

Ministry of Natural Resources and Environmental Conservation

Environmental Conservation Department

CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION

(ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)

No. 00223 Date 24 MAY 2019

The Ministry of Natural Resources and Environmental Conservation, hereby, issues this certificate to the person under Environmental Impact Assessment Procedure, Notification No. 616/2015.

(ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာလုပ်ထုံးလုပ်နည်း၊ အမိန့်ကြော်ငြာစာအမှတ်၊ ၆၁၆/၂၀၁၅ အရ သယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာနသည် ဤအထောက်အထားလက်မှတ်ကို ထုတ်ပေးလိုက်သည်။)

(a)	Name of Consultant (အကြံပေးပုဂ္ဂိုလ်အမည်)	U Si Thu Min Naing
(b)	Citizenship (နိုင်ငံသား)	Myanmar
(c)	Identity Card / Passport Number (မှတ်ပုံတင်/ နိုင်ငံကူးလက်မှတ် အမှတ်)	9/AhMaZa (Naing) 032489
(d)	Address (ဆက်သွယ်ရန်လိပ်စာ)	No. 11, Airport Avenue Road, Yangon Airport Road, Saw Bwar Gyi Gone Quarter, Insein Township, Yangon, Myanmar. Mobile phone: 09 797005217, 09 43096583, E mail: sithuminnaing@eguardserveses.com
(e)	Organization (အဖွဲ့အစည်း)	E Guard Environmental Services Co., Ltd.
(f)	Type of Consultancy (အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား)	Person
(g)	Duration of validity (သက်တမ်းကုန်ဆုံးရက်)	31 December 2019

EXTENSION

သက်တမ်းတိုးမြှင့်ခြင်း

The VALIDITY of this certificate is extended for one year from (1.1.2020) to (31.12.2020)

ဤလက်မှတ်အား(၁-၀-၂၀၂၀) ရက်နေ့မှ (၃၁-၁၂-၂၀၂၀) ရက်နေ့အထိ တစ်နှစ်သက်တမ်း တိုးမြှင့်သည်။

For Director General

(Soe Naing, Director)

Environmental Conservation Department

Director General

Environmental Conservation Department

Ministry of Natural Resources and Environmental Conservation

Areas of Expertise Permitted

(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Soil Test

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for six month from (1.1.2021) to (30.6.2021)
ဤလက်မှတ်အား(၁-၁-၂၀၂၁)ရက်နေ့မှ (၃၀-၆-၂၀၂၁)
ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION (သက်တမ်းတိုးမြှင့်ခြင်း)
The VALIDITY of this certificate is extended for one year from (1.1.2022) to (31.12.2022)
ဤလက်မှတ်အား(၁-၁-၂၀၂၂)ရက်နေ့မှ (၃၁-၁၂-၂၀၂၂)
ရက်နေ့အထိ တစ်နှစ်သက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

EXTENSION
သက်တမ်းတိုးမြှင့်ခြင်း
The VALIDITY of this certificate is extended for six months from (1.7.2021) to (31.12.2021)
ဤလက်မှတ်အား(၁-၇-၂၀၂၁)ရက်နေ့မှ (၃၁-၁၂-၂၀၂၁)
ရက်နေ့အထိ (၆)လ သက်တမ်းတိုးမြှင့်သည်။
For Director General
(Soe Naing, Director)
Environmental Conservation Department

(5) CSR Plan

ဝါးခယ်မရောင်းဝယ်ရေးကုမ္ပဏီလီမိတက်
WAKHEMA TRADING CO., LTD.
No. 127 , Ground Floor, 21st Street , Latha Township, Yangon, Myanmar.
Tel: (959) 770852410 , (959) 696969122
E-mail : management2023@gmail.com

ရက်စွဲ။ ။ ၂၀၂၁ ခုနှစ်၊ ဧပြီလ (၅) ရက်

သို့

ဥက္ကဋ္ဌ
ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ
ရန်ကုန်မြို့။

အကြောင်းအရာ။ ။ **လူမှုရေးဆိုင်ရာ တာဝန်ယူဆောင်ရွက်မှုအစီအစဉ်။**

လူမှုရေးဆိုင်ရာ တာဝန်ယူဆောင်ရွက်မှု အစီအစဉ်အနေဖြင့် အသားတင်အမြတ်ငွေ၏ ၂ % အား ထည့်ဝင်ရန် စီစဉ်ထားသည့်အပြင် စက်မှုကဏ္ဍ ဖွံ့ဖြိုးစေရန် ရည်ရွယ်ပြီး ကျွန်တော်တို့၏ ဝန်ထမ်းများအတွက် စွမ်းရည်တည်ဆောက်ခြင်း မူဝါဒလမ်းစဉ်အား အသုံးပြုသွားရန်လည်း စီစဉ်ထားပါသည်။

- ပညာရေးကဏ္ဍ
- ကျန်းမာရေး ဆောင်ရွက်မှုကဏ္ဍ
- လူမှုရေးကဏ္ဍ
- သဘာဝဘေးအန္တရာယ် ကာကွယ်ရေး
- ဒေသခံပြည်သူများ ဖွံ့ဖြိုးရေး

Dr. Soe Tun
Managing Director
Wakhema Trading Co., Ltd.

ဌာနဆိုင်ရာရုံးအတွက်သာ

Wakhema Trading Co., Ltd ၏

လူမှုရေးဆိုင်ရာတာဝန်ယူဆောင်ရွက်မှုအစီအစဉ်

နိဒါန်း

Wakhema Trading Co., Ltd မှ ရန်ကုန်တိုင်းဒေ သကြီး၊ ချောပြည်သာမြို့နယ်၊ ချောပြည်သာစက်မှုဇုန်(၂)၊ ဦးဖိုးလှိုင်လမ်း၊ အမှတ်(၉၅)တွင် ဆောင်ရွက်မည့် စပါးကြိတ်ခွဲ၊ သိုလှောင်၊ တင်ပို့ရောင်းချမည့် လုပ်ငန်းမှအသားတင် အကျိုးအမြတ်၏ ၂% ကို ဝန်ထမ်းများ၏ ပညာရေး၊ ကျန်းမာရေး၊ လူမှုရေး၊ သဘာဝဘေး အန္တရာယ်ကာကွယ်ရေးနှင့် ဒေ သခံပြည်သူများဖွံ့ဖြိုးရေးအတွက် သုံးစွဲသွားမည်ဖြစ်ပါသည်။

ရည်ရွယ်ချက်.

- ဒေ သခံများ၏ ပညာရေး၊ ကျန်းမာရေး၊ လူမှုရေးနှင့် သဘာဝဘေးအန္တရာယ်ကာကွယ်ရေးလုပ်ငန်းများတွင် ကုမ္ပဏီမှပူးပေါင်းပါဝင်ဆောင်ရွက်ရန်
- ဝန်ထမ်းများနှင့်ပြည်သူများအတွင်း တာဝန်ယူမှု၊ တာဝန်ခံမှုနှင့် လူမှုရေးစိတ်ဓာတ်များ မြင့်မားလာစေရန်
- သဘာဝဘေးအန္တရာယ်များနှင့် ပတ်သက်၍အသိပညာတိုးတက်လာစေရန်နှင့် ကာကွယ်ရေးလုပ်ဆောင်ချက်များတွင်ဝန်ထမ်းများ ပူးပေါင်းပါဝင်ဆောင်ရွက်လာစေရန်
- ဒေ သ၏စီးပွားရေး၊ လူမှုရေး၊ ပညာရေးလုပ်ငန်းများတွင် ကုမ္ပဏီမှ ပူးပေါင်းပါဝင်ဆောင်ရွက်ရန်

ကြီးကြပ်မှုကော်မတီ

- တာဝန်ခံမန်နေဂျာမှ အဖွဲ့ခေါင်းဆောင်အဖြစ် ဆောင်ရွက်၍ ရပ်မိရပ်ဖများ၊ ဝန်ထမ်း ကိုယ်စားလှယ်များပါဝင်၍ ကြီးကြပ်မှုကော်မတီဖွဲ့ရန်
- စိတ်ပါဝင်စားသည့် လူငယ်၊ လူရွယ်များကပိုပါဝင်ဆောင်ရွက်ရေးအတွက်စည်းရုံးရန်

ဘတ်ဂျက်

- ဆန်စက်လုပ်ငန်းမှအခွန်ဆောင်ပြီး အသားတင်အမြတ်ငွေ၏ ၂% အား လူမှုရေးဆိုင်ရာကိစ္စများတွင် သုံးစွဲရန်
- အမြတ်ငွေရရှိခြင်းမရှိသေးပါက ကုမ္ပဏီ၏ BOD မှ သတ်မှတ်ထားသောဘတ်ဂျက်အားသုံးစွဲရန်

လုပ်ငန်းစဉ်

- စက်ရုံပတ်ဝန်းကျင်ရှိ လူမှုရေးအစီအစဉ်များတွင် ပူးပေါင်းပါဝင်ဆောင်ရွက်ရန်
- ပညာသင်ကြားရန်အခက်အခဲရှိသူများကို ထောက်ပံ့ပေးရန်
- Covid-19 ကာကွယ်ရေးလုပ်ငန်းများတွင် ပူးပေါင်းပါဝင်ဆောင်ရွက်ရန်

နိဂုံး

ဝန်ထမ်းများ၏ လူမှုရေးဆိုင်ရာကိစ္စရပ်များအတွက် Wakhema Trading Co., Ltd မှ တာဝန်ရှိသူများ၊ ဝန်ထမ်းများနှင့် ပူးပေါင်းဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။

(6) Social Welfare Plan for the Workers

ဝါးခယ်မရောင်းဝယ်ရေးကုမ္ပဏီလီမိတက်
WAKHEMA TRADING CO., LTD.
No. 127 , Ground Floor, 21st Street , Latha Township, Yangon, Myanmar.
Tel: (959) 770852410 , (959) 696969122
E-mail : management2023@gmail.com

ရက်စွဲ။ ။ ၂၀၂၁ ခုနှစ်၊ ဧပြီလ (၅) ရက်

သို့

ဥက္ကဋ္ဌ
ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ
ရန်ကုန်မြို့။

အကြောင်းအရာ။ ။ **ဝန်ထမ်းသက်သာချောင်ချိရေးအစီအစဉ်။**

ကျွန်တော်တို့ Wakhema Trading Co.,Ltd အနေဖြင့် ဝန်ထမ်းသက်သာချောင်ချိရေး အစီအစဉ်အတွက် စီမံဆောင်ရွက်မှုအားလုံးအား အောက်ဖော်ပြပါအတိုင်း ပြုလုပ်ဆောင်ရွက်မည်ဖြစ်ကြောင်း တင်ပြအပ်ပါသည်။

- တူညီဝတ်စုံပေးခြင်း
- ရုံးတက်မှန်ကြေးပေးခြင်း
- အချိန်ပိုကြေးပေးခြင်း
- နားနေခန်း၊ အရေးပေါ်ဆေးသတ္တာထားရှိခြင်း
- အလုပ်ရှင်၊ အလုပ်သမား နှစ်ဦးစလုံးအတွက် လူမှုဘဝလုံခြုံရေးပေးခြင်း
- ဆုကြေးပေးခြင်း

Dr. Soe Tun
Managing Director
Wakhema Trading Co., Ltd.

ဌာနဆိုင်ရာရုံးအတွက်သာ

Wakhema Trading Co., Ltd ၏
ဝန်ထမ်းသက်သာချောင်ချိရေးအစီအစဉ်

ယေဘုယျ

Wakhema Trading Co., Ltd မှ ရန်ကုန်တိုင်းဒေသကြီး၊ ရွှေပြည်သာမြို့နယ်၊ ရွှေပြည်သာစက်မှုဇုန်(၂)၊ ဦးဖိုးလှိုင်လမ်း၊ အမှတ်(၉၅)တွင် လုပ်ငန်းဆောင်ရွက်မည့် စပါးကြိတ်ခွဲ၊ သိုလှောင်၊ တင်ပို့ရောင်းချမည့် လုပ်ငန်းအတွက် ဝန်ထမ်းသက်သာချောင်ချိရေး အစီအစဉ်များကို အောက်ပါအတိုင်း ပြုလုပ်ဆောင်ရွက်မည်ဖြစ်ပါသည်။

တူညီဝတ်စုံပေးခြင်း

- ဝန်ထမ်းများအဆင်ပြေစွာ လုပ်ငန်းလုပ်ဆောင်နိုင်ရန်အတွက် လုပ်ငန်းနှင့်လိုက်လျောညီထွေဖြစ်သော တူညီဝတ်စုံများ စီစဉ်ထားပေးပါသည်။

ရုံးတက်မှန်ကြေးပေးခြင်း

- ကုမ္ပဏီမှဝန်ထမ်းများ၏ ရုံးတက်/ရုံးဆင်းချိန်များအား သေချာကြပ်မတ်ဆောင်ရွက်၍ တစ်လလုံးပျက်ရက်မရှိပါက ရုံးတက်မှန်ကြေးပေးခြင်းကို ဆောင်ရွက်ပေးပါသည်။

အချိန်ပိုကြေးပေးခြင်း

- ကုမ္ပဏီ၏လုပ်ငန်းဆောင်ရွက်မှု အခြေအနေအလိုက် လိုအပ်၍အချိန်ပိုဆင်းရန်ဆောင်ရွက်ရပါက အချိန်ပိုကြေးပေးခြင်းနှင့် နှစ်ဆပေးခြင်းကို ဆောင်ရွက်ပေးပါသည်။

နားနေခန်း၊ အရေးပေါ်ဆေးသေတ္တာထားရှိခြင်း

- ဝန်ထမ်းများအတွက် ရုံးခန်းတစ်ခန်းအား နားနေခန်းအဖြစ်သတ်မှတ်၍ TV ထားရှိပေးခြင်း၊ Sky Net ရုပ်သံလိုင်းတပ်ဆင်ပေးထားခြင်းတို့ကို ဆောင်ရွက်ထားရှိပါသည်။
- ဝန်ထမ်းများ၏ ကျန်းမာရေးအတွက် လိုအပ်သောအချိန်တွင် အသုံးပြုနိုင်ရန်အတွက် အရေးပေါ် ဆေးသေတ္တာထားရှိပေးခြင်းတို့ကို ဆောင်ရွက်ထားရှိပါသည်။

အလုပ်ရှင်၊ အလုပ်သမားနှစ်ဦးလုံးအတွက် လူမှုဖူလုံရေးပေးခြင်း

- ကုမ္ပဏီရှိဝန်ထမ်းများအား လူမှုဖူလုံရေးတွင် ပါဝင်စေခြင်း၊ အလုပ်ရှင်၊ အလုပ်သမားနှစ်ဦးလုံးအတွက် လူမှုဖူလုံရေးကြေးပေးသွင်းပေးခြင်း စသည့်ကိစ္စရပ်များကို ကုမ္ပဏီအနေဖြင့် တာဝန်ယူဆောင်ရွက်ပေးလျှက် ရှိပါသည်။

ဆုကြေးပေးခြင်း

- ကုမ္ပဏီအနေဖြင့် လုပ်ငန်းလုပ်ကိုင်မှု၊ အသားတင်အမြတ်ရရှိမှုတို့အပေါ်မူတည်၍ ဝန်ထမ်းများအား နှစ်စဉ်၊ နှစ်တိုင်း ဇယားတွင် အပိုဆုကြေး (Bonus) ပေးခြင်းများ ဆောင်ရွက်ပေးလျှက်ရှိပါသည်။

နိဂုံး

Wakhema Trading Co., Ltd အနေဖြင့် ကုမ္ပဏီရှိဝန်ထမ်းများ၏ လိုအပ်ချက်များအလိုက် ဝန်ထမ်းသက်သာချောင်ချိရေးလုပ်ငန်းများကို စီစဉ်ဆောင်ရွက်သွားမည်ဖြစ်ပါသည်။

(7) Firefighting Plan

ဝါးခယ်မရောင်းဝယ်ရေးကုမ္ပဏီလီမိတက်
WAKHEMA TRADING CO., LTD.
No. 127 , Ground Floor, 21st Street , Latha Township, Yangon, Myanmar.
Tel: (959) 770852410 , (959) 696969122
E-mail : management2023@gmail.com

ရက်စွဲ။ ။ ၂၀၂၁ ခုနှစ်၊ ဧပြီလ (၅) ရက်

သို့

ဥက္ကဋ္ဌ
ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ
ရန်ကုန်မြို့။

အကြောင်းအရာ။ ။ **မီးဘေးကာကွယ်ရေးစီမံချက်။**

ကျွန်တော်တို့ Wakhema Trading Co.,Ltd အနေဖြင့် မီးဘေးကြိုတင်ကာကွယ်ရေး အစီအစဉ်အား အောက်ဖော်ပြပါ အချက်အလက်များအတိုင်း ပြင်ဆင်ထားပြီးဖြစ်ကြောင်း တင်ပြအပ်ပါသည်။

- စက်ရုံတွင် မီးငြိမ်းသတ်နိုင်သည့် ပစ္စည်းများထားရှိခြင်း
- မီးဘေးအန္တရာယ်ကြိုတင်ကာကွယ်ရေးဦးစီးကော်မတီဖွဲ့စည်းတာဝန်ပေးအပ်ခြင်း
- အထောက်အကူပြုကော်မတီများဖွဲ့စည်းခြင်း
- စက်ရုံအတွင်းဆောင်ရွက်ထားရှိသည့် အစီအစဉ်
- ကွပ်ကဲအုပ်ချုပ်မှု
- ဆက်သွယ်ရေး

Dr. Soe Tun
Managing Director
Wakhema Trading Co., Ltd.

ဌာနဆိုင်ရာရုံးအတွက်သာ

Wakhema Trading Co., Ltd ၏

ရန်ကုန်တိုင်းဒေသကြီး၊ သ္ဃပြည်သာစက်မှုဇုန်(၂) ဆန်စက်

မီးဘေးကြိုတင်ကာကွယ်ရေးစီမံချက်

နိဒါန်း

၁။ Wakhema Trading Co., Ltd ၏ သ္ဃပြည်သာစက်မှုဇုန် (၂) ရှိ ဆန်စက်အား မီးဘေးအန္တရာယ်မှ ကြိုတင်ကာကွယ်နိုင်ရေးအတွက် ဤစီမံချက်ကို ရေးဆွဲခြင်းဖြစ်ပါသည်။

၂။ ဆန်စက်ရှိ အဆောက်အဦးနှင့် လုပ်ငန်းသုံးစက်ပစ္စည်းများ မီးဘေး၊ လျှပ်စစ်ဘေးအန္တရာယ်စသည်တို့မှ ကင်းဝေးစေရေး၊ စက်ရုံပိုင်ပစ္စည်းများ ဆုံးရှုံးမှုမရှိစေရေး၊ ပတ်ဝန်းကျင်နှင့်အသက်အိုးအိမ်စည်းစိမ်များ ဆုံးရှုံးမှုမဖြစ်ပေါ်စေရေးတို့အတွက် ရည်ရွယ်ပါသည်။

မိမိအင်အား

၃။ မိမိတို့စက်ရုံရှိဝန်ထမ်းအင်အားမှာ အောက်ပါအတိုင်းဖြစ်ပါသည်။

(၁) ကြီးကြပ်သူ	(၁) ဦး
(၂) တာဝန်ခံ	(၁) ဦး
(၃) စာရင်းကိုင်	(၃) ဦး
(၄) မေဆရာ	(၃) ဦး
(၅) လျှပ်စစ်ကျွမ်းကျင်	(၁) ဦး
(၆) လုံခြုံရေး	(၃) ဦး
(၇) လုပ်သားဦးရေ	(၂၀) ဦး

အဆောက်အဦးများ

၄။ ဆန်စက်ဝန်းအတွင်းရှိ အဆောက်အဦးများဆောက်လုပ်ထားရှိမှုမှာ အောက်ပါအတိုင်းဖြစ်ပါသည်။

(က) ဆန်စက်တည်ဆောက်ထားသည့် အဆောက်အဦး၏ အကျယ်အဝန်းမှာ (၂၀၀' × ၁၀၀' × ၄၀') အကျယ်အဝန်းရှိ ကွန်ကရစ်ခင်းသံတိုင်အုတ်ညှပ် အဆောက်အဦးဖြစ်ပြီး ဆန်စက်အပြင် ဆန်အိတ်(၄၀၀၀၀)ခန့် သိုလှောင်နိုင်ပါသည်။ ထို့အပြင် စက်ရုံတွင်း၌ ပေ(၂၀)ပတ်လည်ခန့်ရှိ ရုံးခန်းကိုပါ ပူးတွဲတည်ဆောက်ထားရှိပါသည်။

မီးငြိမ်းသတ်နိုင်သည့်ပစ္စည်းများထားရှိခြင်း

၅။ မီးငြိမ်းသတ်နိုင်သည့် ပစ္စည်းများကို အောက်ပါအတိုင်းထားရှိပါသည်။

(၁) မီးချိန်၊ မီးကပ်၊ သဲပုံး၊ ရေပုံး၊ မီးသတ်ပိုက်

(၂) မီးသတ်ဆေးဗူး၊ ဆန်စက်တွင် (၁၀)ဗူး၊ ရုံးခန်းတွင် (၂)ဗူး

(၃) ရေဂါလံ (၂၀၀၀)ဆံ့ ရေကန် (၁) ကန်

မီးဘေးအန္တရာယ်ကြိုတင်ကာကွယ်ရေးဦးစီးကော်မတီဖွဲ့စည်းတာဝန်ပေးအပ်ခြင်း

၆။ မီးဘေးအန္တရာယ်ကြိုတင်ကာကွယ်ရေးဦးစီးကော်မတီကို အောက်ပါအတိုင်းဖွဲ့စည်းထားရှိပါသည်။

(၁) ဦးပြည့်ဖြိုးအောင် တာဝန်ခံ အဖွဲ့ခေါင်းဆောင်

(၂) ဦးသန်းလွင် စာရင်းကိုင် အဖွဲ့ဝင်

(၃) ဦးကောင်းထက် မေဆရာ အဖွဲ့ဝင်

(၄) ဦးကျော်လင်းထွန်း လျှပ်စစ် အဖွဲ့ဝင်

လုပ်ငန်းတာဝန်များ

(၁) စက်ရုံဝန်းကျင်နှင့်စက်ရုံအတွင်း အလွယ်တကူမီးလောင်စေနိုင်သည့် ပစ္စည်းများ၊ အမှိုက်များ ရှင်းလင်းထားရန်နှင့် နေ့စဉ်ကြီးကြပ်ရန်

(၂) စက်ရုံအတွင်းဆေးလိပ်သောက်ခြင်းကို ပြင်းထန်စွာတားမြစ်ရန်

(၃) သွယ်တန်းထားသော မီးကြိုးများအန္တရာယ်ရှိ/မရှိ စီစစ်ရန်

(၄) မီးသတ်ဆေးဗူးများ အလုံအလောက်ထားရှိရန်

(၅) အရေးပေါ်ဆက်သွယ်ရေးဖုန်းနံပါတ်များ ချိတ်ဆွဲထားရန်

(၆) အန္တရာယ်အသိပေး၊ အချက်ပေးကိရိယာများ တပ်ဆင်ထားရန်

(၇) ဆန်စက်ဝန်ထမ်းများမှ စက်ရုံဝန်းအတွင်း နေ့/ညမပြတ်လှည့်လည်စစ်ဆေးရန်

အထောက်အကူပြုကော်မတီများဖွဲ့စည်းခြင်း

၇။ အထောက်အကူပြုကော်မတီများကို အောက်ပါအတိုင်းဖွဲ့စည်းထားရှိပါသည်။

(က) လျှပ်စစ်နှင့်မေပိုင်းဆိုင်ရာ မီးဘေးကာကွယ်ရေးအဖွဲ့

(၁) ဦးကောင်းထက် မေဆရာ ခေါင်းဆောင်

(၂) ဦးကျော်လင်းထွန်း လျှပ်စစ် အဖွဲ့ဝင်

(၃) လုပ်သား (၅) ဦး အဖွဲ့ဝင်

လုပ်ငန်းတာဝန်များ

(၁) ဆန်စက်လည်ပတ်စဉ်နှင့် ရပ်နားချိန်များတွင် မေပိုင်းနှင့်လျှပ်စစ်ပိုင်းဆိုင်ရာ စက်အစိတ်အပိုင်းများ ချို့ယွင်းမှုမဖြစ်ပေါ်စေရေးနှင့် အမြဲမပြတ်စစ်ဆေးရန်

(၂) လျှပ်စစ်ပိုင်းဆိုင်ရာများ မှားယွင်းမှုမရှိစေရေးအတွက် အမြဲမပြတ်သတိရှိရန်

(၃) အရေးပေါ်ဖြစ်လာပါက အလွယ်တကူမီးငြိမ်းသတ်နိုင်ရေးအတွက် မီးသတ်ရေကန်အား အမြဲမပြတ်ရေဖြည့်တင်းထားရန်

(ခ) ရုံးပိုင်းဆိုင်ရာမီးဘေးကာကွယ်ရေးအဖွဲ့

(၁) ဦးပြည့်ဖြိုးအောင် တာဝန်ခံ ခေါင်းဆောင်

(၂) ဦးသန်းလွင် စာရင်းကိုင် အဖွဲ့ဝင်

လုပ်ငန်းတာဝန်များ

(၁) ရုံးအတွင်းရှိ မီးချောင်း၊ မီးသီးများ၊ ကွန်ပျူတာများ၊ တီဗီများ စနစ်တကျဖွင့်/ပိတ်ရန်

(၂) ဆန်စက်နှင့်သိုလှောင်ရုံရှိ မီးသီးများ အချိန်မှန်ဖွင့်/ပိတ်ရန်

(၃) ရေမော်တာများအား မလိုအပ်လျှင်ပိတ်ထားရန်၊ လိုအပ်မှဖွင့်ပေးရန်

(၄) ရုံးသုံးစာရွက်စာတန်းများ၊ ဖိုင်များ ဦးစားပေးအစီအစဉ်အလိုက်ထားရှိရန်နှင့် သယ်ယူရွှေ့ပြောင်းရေး လွယ်ကူစေရေးစီစဉ်ထားရှိရန်

(၅) အရေးပေါ်အသုံးပြုနိုင်ရန်အတွက် ကားနှင့်ဆိုင်ကယ်များ အသင့်အနေအထားဖြစ်စေရန်

(၆) ဆက်သွယ်ရေးအမြဲကောင်းမွန်စေရေးအတွက် ပြင်ဆင်ထားရှိရန်

စက်ရုံအတွင်းဆောင်ရွက်ထားရှိသည့်အစီအစဉ်

၈။ လုပ်ငန်းတာဝန်သတ်မှတ်ချက်များနှင့်အညီ မီးဘေးကြိုတင်ကာကွယ်ရေးအတွက် အောက်ပါအတိုင်း စီစဉ်ဆောင်ရွက်ထားရှိပါသည်။

(၁) မီးလောင်စေနိုင်သည့် ပစ္စည်းများကို စနစ်တကျသိုးခြားထားပြီး အမှိုက်များကို အမှိုက်ပုံးထဲသို့ စနစ်တကျ စွန့်ပစ်လျက်ရှိပါသည်။

(၂) စက်ရုံနှင့် စက်ရုံအတွင်းဆေးလိပ်သောက်ခြင်းကို ပြင်းထန်စွာတားမြစ်သည့် ညွှန်ကြားချက်များ ထုတ်ပြန်ထားပါသည်။

(၃) အသုံးပြုထားသော လျှပ်စစ်မီးကြိုးများ၊ မီးခလုတ်များ၊ စက်ပစ္စည်းများ အန္တရာယ်ရှိနိုင်/ မရှိနိုင်ကို နေ့စဉ်စစ်ဆေးပါသည်။

(၄) မီးငြိမ်းသတ်ရန် ကုဗပေ (၂၀၀၀)ဆံ့ ရေကန် (၁) ကန်ထားရှိပါသည်။

(၅) စက်ရုံအတွင်းနေထိုင်သည့် ဝန်ထမ်းများမှ နေ့ညမပြတ်လှည့်လည်စစ်ဆေးလျက်ရှိပါသည်။

(၆) အန္တရာယ်အချက်ပေးကိရိယာများ တပ်ဆင်ထားပြီးဖြစ်ပါသည်။

(၇) လုံခြုံရေးကင်မရာများလည်းတပ်ဆင်ထားရှိပါသည်။

(၈) အရေးပေါ်ဆက်သွယ်ရမည့် ဖုန်းနံပါတ်များကို အများမြင်သာသည့်နေရာများတွင် ချိတ်ဆွဲထားရှိပါသည်။

(၉) စက်ရုံနှင့်ကိုက် (၄၀၀၀)ခန့်အကွာအဝေးတွင် ရွှေပြည်သာမြို့နယ် မီးသတ်စခန်းတည်ရှိသည့်အတွက် အခါမလတ်လာရောက်စစ်ဆေး၍ လိုအပ်သည့် ညွှန်ကြားချက်များအပေါ် လိုက်နာဆောင်ရွက်လျက် ရှိပါသည်။

ကွပ်ကဲအုပ်ချုပ်မှု

၉။ ဆန်စက်ကြီးကြပ်သူ ဦးသန်းလွင်မှ ကြီးကြပ်ကွပ်ကဲအုပ်ချုပ်မည်ဖြစ်ပါသည်။

ဆက်သွယ်ရေး

၁၀။ မိုဗိုင်းလ်ဖုန်းများ၊ ကား၊ ဆိုင်ကယ်(၁)စီး၊ ဆတ်သားဖြင့်ဆက်သွယ်မည်။

နိဂုံး

၁၁။ မိမိတို့ဆန်စက်အနေဖြင့် ဆန်စက်၏ မြောက်ဖက်မျက်နှာစာကိုက် (၂၀၀) အကွာတွင် လှိုင်မြစ်စီးဆင်းနေခြင်း၊ ဆန်စက်နှင့် ကိုက် (၇၀၀၀) ခန့်အကွာတွင် ရွှေပြည်သာမြို့နယ် မီးသတ်စခန်းတည်ရှိနေခြင်း၊ မိမိတို့ဆန်စက်တွင် မြင်းကောင်ရေ (၅) ကောင်အား ရေမော်တာ (၁) လုံးနှင့် ကုဗမေ (၂၀၀၀) ဆံ့ ရေကန် (၁) ကန် တည်ရှိနေခြင်းတို့ကြောင့် မီးဘေးအန္တရာယ် ကျရောက်လာပါက အသင့်အနေအထားတွင် ရှိနေပြီး တာဝန်ပေးအပ်ထားသော ဝန်ထမ်းများ၊ ပတ်ဝန်းကျင်ရှိ လုပ်သားများအားဖြင့် ထိုးဝန်းပြိမ်းသတ်ဆောင်ရွက်သွားမည်ဖြစ်ပါကြောင်းနှင့် အထက်အဆင့်ဆင့်၏ လမ်းညွှန်မှုများ ခံယူပြီး လိုက်နာဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။

Wakhema Trading Co.,Ltd ဆန်စက်

ဦးဖိုးလှိုင်လမ်း

ရွှေပြည်သာစက်မှုဇုန်(၂)

(8) Waste Management Plan

ဝါးခယ်မရောင်းဝယ်ရေးကုမ္ပဏီလီမိတက်
WAKHEMA TRADING CO., LTD.
No. 127 , Ground Floor, 21st Street , Latha Township, Yangon, Myanmar.
Tel: (959) 770852410 , (959) 696969122
E-mail : management2023@gmail.com

ရက်စွဲ။ ။ ၂၀၂၁ ခုနှစ်၊ ဧပြီလ (၅) ရက်

သို့

ဥက္ကဋ္ဌ
ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ
ရန်ကုန်မြို့။

အကြောင်းအရာ။ ။ **ပတ်ဝန်းကျင် သန့်ရှင်းရေးနှင့် စွန့်ပစ်ပစ္စည်းစနစ်တကျရှိစေရေးစီမံချက်။**

ကျွန်တော်တို့ Wakhema Trading Co.,Ltd အနေဖြင့် ပတ်ဝန်းကျင် သန့်ရှင်းရေးနှင့် စွန့်ပစ်ပစ္စည်း စနစ်တကျရှိစေရေးစီမံချက်အား အောက်ဖော်ပြပါ အချက်အလက်များအတိုင်း ပြင်ဆင်ထားပြီးဖြစ်ကြောင်း တင်ပြအပ်ပါသည်။

- စက်ရုံပတ်ဝန်းကျင် သန့်ရှင်းရေးအစီအမံ
- စွန့်ပစ်ပစ္စည်း ထွက်ရှိမှုအခြေအနေ
- ဝန်ထမ်းများ ကျန်းမာရေးနှင့် လုံခြုံရေး အစီအစဉ်

Dr. Soe Tun
Managing Director
Wakhema Trading Co., Ltd.

ဌာနဆိုင်ရာရုံးအတွက်သာ

ရန်ကုန်တိုင်းဒေသကြီး၊ မြေပြည်သာစက်မှုဇုန် (၂)
Wakhema Trading Co.,Ltd ဆန်စက်၏
ပတ်ဝန်းကျင်သန့်ရှင်းရေးနှင့်စွန့်ပစ်ပစ္စည်းစနစ်တကျရှိစေရေးစီမံချက်

နိဒါန်း

၁။ Wakhema Trading Co.,Ltd ဆန်စက်အနေဖြင့် ဆန်နှင့် ဆန်ကွဲများလည် ပြန်လည်ကြိတ်ဖွတ်သန့်စင်ခြင်း လုပ်ငန်းများ ဆောင်ရွက်ရာတွင် ထွက်ရှိလာသော စွန့်ပစ်ပစ္စည်းအနည်းငယ်အား စနစ်တကျ ထိန်းသိမ်းထားရှိ၍ စွန့်ပစ်နိုင်ရေးတို့ကို ဂရုမူ၍ ဤစီမံချက်ကို ရေးဆွဲခြင်းဖြစ်ပါသည်။

ရည်ရွယ်ချက်

၂။ ဆန်စက်အနေဖြင့် ပြန်လည်ကြိတ်ဖွတ်သန့်စင်ရာမှ ထွက်ရှိလာသော စွန့်ပစ်ပစ္စည်းများအား စနစ်တကျ စွန့်ပစ်ခြင်းဖြင့်လည်း ပတ်ဝန်းကျင်သန့်ရှင်းမှုနှင့် ကျန်းမာရေးကို ထိခိုက်မှု မရှိစေရေးတို့ကို ရည်ရွယ်ပါသည်။

ဆန်စက်၏ ပထဝီအနေအထား

၃။ အမှတ် (၉၅) ဆန်စက်၏ ပထဝီအနေအထား အရပ်လေးမျက်နှာ တည်ရှိမှုမှာ အောက်ပါအတိုင်း ဖြစ်ပါသည်။

(က) အရှေ့ဘက်လားသော – ဦးဖိုးလှိုင်လမ်းမ
(ခ) အနောက်ဘက်လားသော – အမှတ် (၉၇) သိုလှောင်ရုံ
(ဂ) တောင်ဘက်လားသော – အမှတ် (၉၄) သိုလှောင်ရုံ
(ဃ) မြောက်ဖက်လားသော – အမှတ် (၉၆) သိုလှောင်ရုံ

ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၏ စစ်ဆေးတွေ့ရှိချက်နှင့် ညွှန်ကြားချက်

၄။ (က) ဆန်စက်၏ ပတ်လည်တွင် လူနေအိမ်များမရှိသော်လည်း စက်ရုံဝန်ထမ်းများ၏ကျန်းမာရေးဆိုင်ရာ ထိခိုက်မှုများ အတိုးအတာတစ်ခုအထိ ဖြစ်ပေါ်လာနိုင်သဖြင့် စက်ရုံဘာဝန်ခံမှ ဓောင့်ကြပ်ကြည့်ရှုရန် လုပ်ငန်းခွင်အထောက်အကူပြုပစ္စည်း (သို့) ထိန်းချုပ်ရေးကိရိယာတပ်ဆင်ခြင်း (သို့) သုံးစွဲရေးကို အမြဲတစေပြုလုပ်ရန်။

(ခ) နိုင်ထိတော်မှ ပေးထားသော လျှပ်စစ်မီးအား မော်တာများ တပ်ဆင်၍ အသုံးပြုထားရာတွင် သုံးစွဲမှုသက်တမ်း (သို့) အဆင့်မြှင့်တင်မွမ်းမံမှုများ၌ ပတ်ဝန်းကျင်ထိခိုက်မှုလျော့နည်းစေရေးအတွက် စနစ်တကျ ဖွဲ့စည်းတည်ဆောက်ထားသည့် စက်တပ်ဆင်မှုများအား ဆောင်ရွက်ရန်။

(ဂ) လုပ်ငန်းရှင်အနေဖြင့် ဆန်စက်လည်ပတ်ရာတွင် ထွက်ရှိလာသော စွန့်ပစ်ပစ္စည်းများနှင့် ပတ်သက်၍ လိုအပ်သလို ပတ်ဝန်းကျင်ထိခိုက်ညစ်ညမ်းမှု လျော့ချစေရန်အတွက် စီမံခန့်ခွဲမှု အစီအစဉ်များ ရေးဆွဲတင်ပြ အကောင်အထည် ဖော်ဆောင်ရွက်ရန်။

(ဃ) မီးဘေးအန္တရာယ်ကာကွယ်ရေး အစီးအမံများ ၊ မီးသတ်ဦးစီးဌာန၏ ညွှန်ကြားချက်များ ကို အလေးထား လိုက်နာပြီး ကြိုတင်ဇာတ်တိုက်လေ့ကျင့်မှု ဆောင်ရွက်ရန်နှင့် မီးသတ်ဆေးဘူးများအား ထပ်မံဖြည့်တင်းသွားရန်။

(င) လုပ်ငန်းများ၏ ကျန်းမာရေး၊ လူမှုရေးလိုအပ်ချက်များ ကူညီစောင့်ရှောက်မှု၊ ရပ်ကွက်ဖွံ့ဖြိုးရေးလုပ်ငန်း များတွင် ပါဝင်ကူညီပေးသွားရန်နှင့် မှတ်တမ်းများ ထားရှိရန်။

ဆန်စက်တည်ဆောက်ထားရှိမှုနှင့် စွန့်ပစ်ပစ္စည်းဆက်စပ်မှုအခြေအနေ

၅။ မိမိဆန်စက်သည် နိုင်ငံတော်မှ ပေးသော လျှပ်စစ်မီးအားမှ တဆင့် မော်တာများ တပ်ဆင်အသုံးပြုပြီး ဆန်နှင့် ဆန်ကွဲများအား ပြန်လည်ကြိတ်ဖွတ် သန့်စင်သော ဆန်စက်ဖြစ်ပါသဖြင့် စွန့်ပစ်ပစ္စည်းမှာ အနည်းငယ်ခန့် ထွက်ရှိပါသဖြင့် ဆန်စက်နှင့် ပတ်ဝန်းကျင်အား ကြီးကြီးမားမား ဆိုးကျိုးမရှိနိုင်ပါ။

ကုန်ကြမ်းထားရှိသည့်စနစ်

၆။ ဆန်စက်အနေဖြင့် အသုံးပြုသည့်ကုန်ကြမ်းမှာ ဆန်နှင့်ဆန်ကွဲများဖြစ်ပြီး အဆိုပါကုန်ကြမ်းများအား ရေလမ်း၊ ကုန်းလမ်းများမှ သဘော်၊ ကားများနှင့်သယ်ဆောင်ကာ စက်ရုံအတွင်းရှိ သိုလှောင်ရာနေရာတွင် စနစ်တကျ စီထပ်သိုလှောင် ထားရှိပါသည်။ ထို့အပြင် ကြိတ်ခွဲပြီး ဆန်နှင့်ဆန်ထွက်ပစ္စည်းများကိုလည်း စက်ရုံအတွင်းပိုင်း နေရာလွတ်များတွင် သိုလှောင်ထား ရှိပါသည်။

စွန့်ပစ်ပစ္စည်းများထားရှိမှုနှင့် စွန့်ပစ်မှုစနစ်

၈။ (က) ဖုန်မှုန့်များထားရှိစွန့်ပစ်မှုစနစ်

စက်ကြိတ်ဖွတ်သန့်စင်ရာမှ ထွက်ရှိလာသော ဖုန်မှုန့်များအား ပိုနံအိတ်များနှင့် ထုပ်ပိုး၍ သိုလှောင်ရုံ တွင် စီထပ်ထားရှိခြင်း။

(ခ) ဆူညံသံနှင့်အနံ့ဆိုးများ မထွက်ရှိစေရန် ထိန်းချုပ်မှု

ဆန်စက်လည်ပတ်ခြင်းကြောင့် ဆူညံသံအနည်းငယ်ရှိပါသည်။ သို့သော် ဆူညံသံအတွက် စက်ရုံ ဧရိယာကျယ်ဝန်းမှုနှင့် ပတ်ဝန်းကျင်တွင် လူနေအိမ်၊ ရပ်ကွက်/ကျေးရွာများ မရှိသည့်အတွက်ကြောင့် ပတ်ဝန်းကျင်ကို ထိရောက်သော ဆိုကျိုးမရှိနိုင်ပါ။

နိဂုံး

၇။ ရွှေပြည်သာစက်မှုဇုန် (၂) ရှိ အမှတ် (၉၅) ဆန်စက်အနေဖြင့် ပတ်ဝန်းကျင်သန့်ရှင်းရေးနှင့် စွန့်ပစ်ပစ္စည်း စွန့်ပစ်ရေးစီမံချက်ကို သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန၏ လမ်းညွှန်ချက်များအရ ဖွ သန့်ရှင် ဆောင်ရွက်နိုင်သည့် အချက်များအား လိုက်နာအကောင်အထည်ဖော်ဆောင်ရွက်ခြင်းဖြင့် ပတ်ဝန်းကျင်ထိခိုက်ညစ်ညမ်းမှုများကို လျော့နည်းစေရန် ထိန်းချုပ်နိုင်မည် ဖြစ်ပါသည်။