

GREEN NATURE MANUFACTURING COMPANY LIMITED

Environmental Management Plan

Manufacturing of Garments on CMP Basis



Prepared by
Myanwei Environmental Solutions Company Limited

11/5/2022

Commitment

EMP report describes the environmental condition of a project, including significant impact, formulation of mitigation measures and preparation of institutional requirements and environmental monitoring.

Myanwei Environmental Solutions Company Limited has prepared this report with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporating our General Terms and Conditions of Business and taking into account of the resources devoted to it by agreement with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

We strongly commit that this report was prepared in compliance with Myanmar Environmental Laws and Regulations.



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Commitment

We refer to the captioned EMP report, which has been prepared by Myanwei Environmental Solutions Co., Ltd. (Third Party Consultant) in compliance with EIA procedure (2015) and other related laws/rules.

We believe, to the best of our knowledge at the time of writing, that;

- The EMP report is accurate and complete
- The EMP report has been prepared in strict compliance with all applicable laws, rules, regulations and procedures in force.

Green Nature Manufacturing Co., Ltd. will at all times comply fully with all commitment and obligations in the EMP report.

We acknowledge and understand that


Tin Win Aung
Executive Director
Green Nature Manufacturing Co., Ltd.

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Environmental Management Plan

Abbreviation

1. CEMP	= Construction Environmental Management Plan
2. CMP	= Contract Manufacturing Process
3. CSR	= Corporate Social Responsibility
4. ECC	= Environmental Compliance Certificate
5. ECD	= Environmental Conservation Department
6. EIA	= Environmental Impact Assessment
7. EMoP	= Environmental Monitoring Plan
8. EMP	= Environmental Management Plan
9. GIIP	= Good International Industry Practices
10. HSE	= Health, Safety and Environment
11. IEE	= Initial Environmental Examination
12. IFC	= International Finance Corporation
13. NEQG	= National Environmental Quality (Emission) Guidelines
14. MIC	= Myanmar Investment Commission
15. MOECF	= Ministry of Environmental Conservation and Forestry
16. MONREC	= Ministry of Natural Resources and Environmental Conservation
17. OEMP	= Operation Environmental Management Plan
18. OSHA	= Occupational Safety and Health Administration
19. PPE	= Personal Protective Equipment
20. WHO	= World Health Organization
21. YCDC	= Yangon City Development Committee
22. YESB	= Yangon City Electricity Supply Board

အစီရင်ခံစာအကျဉ်းချုပ်

အဆိုပြုလုပ်ငန်းသည် CMP စနစ်ဖြင့် အဝတ်အထည်ချုပ်လုပ်ခြင်းလုပ်ငန်းအတွက် ရင်းနှီးမြှုပ်နှံသော ကုမ္ပဏီဖြစ်ပါသည်။ ရင်းနှီးမြှုပ်နှံမှုလိုင်စင်ကို ၂၀၁၈ ခုနှစ်၊ ဧပြီလ ၁၁ ရက်နေ့တွင် (ထောက်ခံချက်အမှတ် ၀၄၃/၂၀၁၈)ဖြင့် ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှုကော်မတီမှ ရရှိပြီးဖြစ်ပါသည်။ လုပ်ငန်းလည်ပတ်ရန်အတွက် မြန်မာနိုင်ငံသယံဇာတနှင့် သဘာဝပတ်ဝန်းကျင် ထိန်းသိမ်းရေးဝန်ကြီးဌာန (MONREC) ၏ အတည်ပြုချက်ရယူရန် လိုအပ်ကြောင်း ကော်မရှင်မှ မှာကြားခဲ့ပါသည်။

ထို့ကြောင့် မြန်မာနိုင်ငံ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဥပဒေ (၂၀၁၂)အရ၊ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) ပြုလုပ်ရန်လိုအပ်ကြောင်း ၂၀၂၀ ခုနှစ်၊ ဇန်နဝါရီလ (၂၇) ရက်နေ့တွင် (စာအမှတ်၊ ရက-၁/၃/၄ (အီးအိုင်အေ) (၃၂၅/၂၀၂၀) ဖြင့် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန ရန်ကုန်တိုင်းဒေသကြီးမှ သဘောထားမှတ်ချက် ရရှိပြီးဖြစ်ပါသည်။ ထို့ကြောင့် EMP အစီအရင်ခံစာရေးဆွဲရန် တတိယအဖွဲ့အစည်းဖြစ်သော MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITEDမှ တာဝန်ယူရေးဆွဲခဲ့ပါသည်။

EMP အစီအစဉ်တွင် Green Nature Manufacturing Company Limited ၏ CMP စနစ်ဖြင့် အဝတ်အထည်ချုပ်လုပ်ခြင်းလုပ်ငန်းအတွက် MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITEDမှ ရေးသားပြုစုထားသော ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီရင်ခံစာဖြစ်သည်။ အဆိုပါ လေ့လာဆန်းစစ်ခြင်း၏ ရည်ရွယ်ချက်များမှာ-

- ✓ သဘာဝပတ်ဝန်းကျင်နှင့် လူမှုစီးပွားပတ်ဝန်းကျင်အပေါ် စီမံကိန်းဆောင်ရွက်ချက်များကြောင့် ထိခိုက်မှုများကိုလေ့လာရန်။
- ✓ ထိုထိခိုက်မှုများကို လျော့ချနိုင်ရန် လျော့နည်းစေမည့်နည်းလမ်းများကို ဖော်ပြရန်။
- ✓ စီမံကိန်းအတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ပြင်ဆင်ရန်နှင့် အကောင်အထည်ဖော်ရန်။
- ✓ စီမံကိန်းအတွက် ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ် အစီရင်ခံစာ လုပ်ဆောင်ရာတွင် လုံလောက်မှုရှိစေရန်။
- ✓ ဒေသခံများ၏ လူမှုရေးသက်သာချောင်ချိမှုများ တိုးမြှင့်ရန်နှင့် ဒေသတွင်း ဖွံ့ဖြိုးတိုးတက်မှုများ အတွက်မရှိမဖြစ်အရေးပါသော လူမှုစီးပွားတာဝန်ယူမှုအစီအစဉ်အား အကောင်အထည် ဖော်ရန်တို့ ဖြစ်ပါသည်။

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ရေးဆွဲခြင်းသည် နိုင်ငံနှင့် နိုင်ငံတကာမှ ထုတ်ပြန်ထားသော ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ စည်းမျဉ်း၊ စည်းကမ်းများ၊ ဥပဒေများ ကို လိုက်နာရန်နှင့် စီမံကိန်းအဆိုပြုသူမှ တာဝန်ယူဆောင်ရွက်ရန် ရည်ရွယ်ပါသည်။

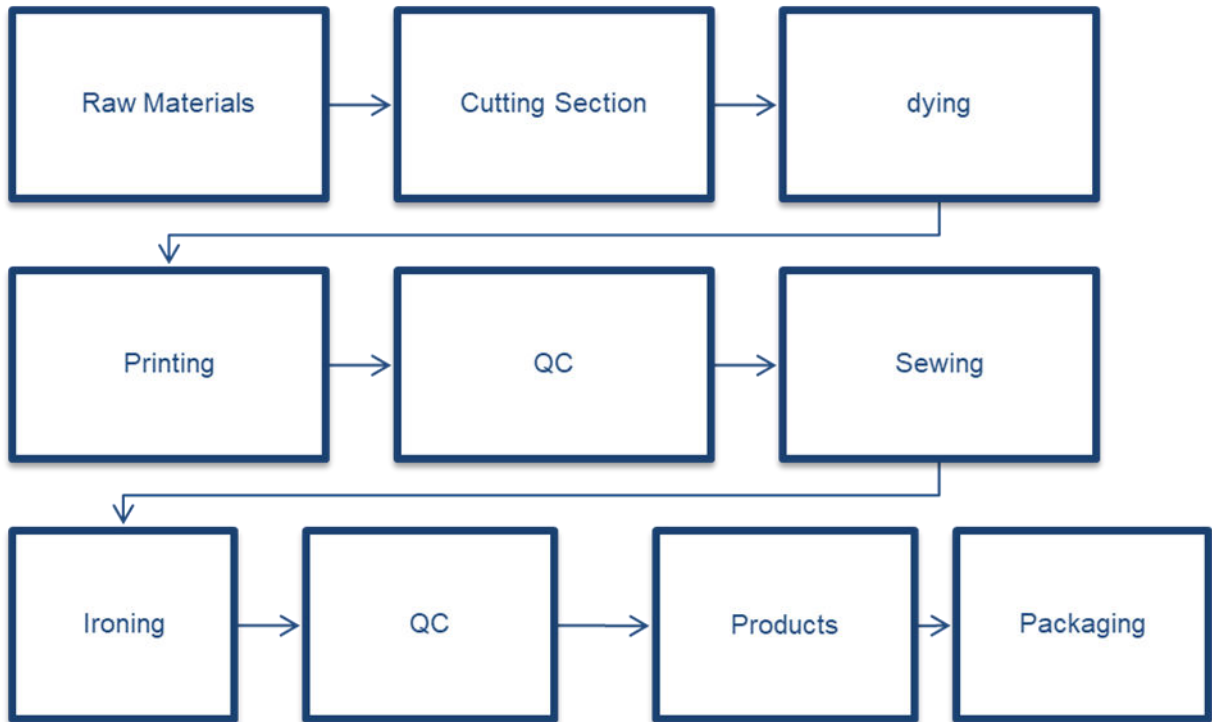
Environmental Management Plan**ဥပဒေနှင့် မူဝါဒဆိုင်ရာ အချက်အလက်များ**

EMP ရေးဆွဲခြင်း၏ရည်ရွယ်ချက်မှာ နိုင်ငံတော်နှင့် နိုင်ငံတကာမှ ချမှတ်ထားသော ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးအစီအစဉ်များ၊ စည်းမျဉ်းစည်းကမ်းများ၊ ဥပဒေနှင့် နည်းဥပဒေများကို လိုက်နာပြီး ပတ်ဝန်းကျင်နှင့်လိုက်ရောညီထွေရှိသော ထိခိုက်မှုလျော့ချရေး အစီအစဉ်များပြုလုပ်ရန်ဖြစ်ပါသည်။

စီမံကိန်းဆိုင်ရာအချက်အလက်

အဆိုပြုထားသော စီမံကိန်း	အဝတ်အထည်ချုပ်လုပ်ခြင်းလုပ်ငန်း
ရင်းနှီးမြှုပ်နှံမှုပုံစံ	မြန်မာနိုင်ငံသားရင်းနှီးမြှုပ်နှံမှု
ကုမ္ပဏီအမည်	Green Nature Manufacturing Company Limited
အဆိုပြုရင်းနှီးမြှုပ်နှံမှုကာလ	နှစ် ၃၀
စုစုပေါင်းမြေကွပ်ဧရိယာ	၄.၈၅၅ ဧက (၅၀.၁၉၆၄၇ စတုရန်းမီတာ)
မြေနေရာပုံစံ	စက်မှုဇုန်မြေ
တည်ဆောက်မှုကာလ	၁ နှစ်
စီမံကိန်း တည်နေရာ	မြေကွက်အမှတ်-၂၉+၃၀၊ မြေတိုင်းရပ်ကွက်အမှတ်-ရလပ ၂၅၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး
ဆက်သွယ်ရန် ဖုန်းနံပါတ်	ဦးတင်ဇော်(၀၉၇၃၁၂၆၈၉၉)

အဆိုပြုစီမံကိန်းသည် ရန်ကုန်တိုင်းဒေသကြီးတွင် တည်ရှိပါသည်။ စက်ရုံ၏ အကျယ်အဝန်းသည် ၄.၈၅၅ ဧက (၁၉၆၄၇.၅၀ စတုရန်းမီတာ)ကျယ်ဝန်းပါသည်။ အဆိုပြုလုပ်ငန်းအတွက် တည်နေရာနှင့် စက်ရုံအတွင်းပါရှိသည့် အဆောင်များ၊ စားသောက်ဆောင်၊ စတိုး၊ ပြုပြင်ထိန်းသေးရေးအခန်း၊ မီးဖိုချောင် အစရှိသည်တို့ကို သီးခြားဖော်ပြထားပါသည်။ စက်ရုံဖွဲ့စည်းတည်ဆောက်ပုံအား အစီရင်ခံစာတွင် ထည့်သွင်းဖော်ပြထားပါ သည်။ Green Nature Manufacturing Co., Ltd.သည် အထည်ချုပ်လုပ်ငန်းဖြစ်ပါသည်။ စက်ရုံတွင် လျှပ်စစ်စွမ်းအင်၊ ဒီဇယ်သုံး မီးစက်များ၊ စက်ရုံအတွင်းရေအသုံးပြုမှု စသည်တို့လိုအပ်ပါသည်။ လျှပ်စစ်ကို အထည်ချုပ်လုပ်ငန်းများတွင် မီးအလင်းရောင်အသုံးပြုခြင်းအတွက်လည်း အဓိကသုံးပါသည်။

Environmental Management Plan**Green Nature Manufacturing Co., Ltd. ၏ ကုန်ထုတ်လုပ်ပုံအဆင့်ဆင့်**

Green Nature Manufacturing Co., Ltd. ၏ နှစ်စဉ်ကုန်ထုတ်လုပ်မှုမှာ ပထမ (၅) နှစ် နှင့် (၁၀) နှစ်အတွင်းတွင် ၆၀၉၂၇ မှ ၁၃၁၃၀၃ ဖြစ်ပါသည်။ နိုင်ငံခြားသားလုပ်သား (၄) ဦး နှင့် နိုင်ငံသား (ပြည်တွင်း) လုပ်သား (၇၅၀) ဦးဖြင့် ဆောင်ရွက်သွားမည်ဖြစ်သည်။

စီမံကိန်းအကြောင်းအရာနှင့် ပတ်ဝန်းကျင်အခြေအနေ အကျဉ်းချုပ်ဖော်ပြချက်

ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်ရေးဆွဲရန် ပဏာမစစ်တမ်းကောက်ယူခြင်း နှင့် ဒေသဆိုင်ရာအခြေခံ အချက်အလက်များကို အဓိကထား၍ ရေးသားပြုစုရပါသည်။ ထို့ကြောင့် တတိယအဖွဲ့အစည်းဖြစ်သော MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED သည် စက်တင်ဘာလ၂၅ရက် ၂၀၁၉ခုနှစ်တွင် စက်ရုံအတွင်း လေအ ရည်အသွေး၊ ရေအရည်အသွေး နှင့် ဆူညံသံတိုင်းတာမှုများကို ပြုလုပ်ခဲ့ပါသည်။ စက်ရုံကြောင့် ပတ်ဝန်းကျင်ထိခိုက်နိုင်မှုများကို လျော့ချနိုင်ရန် အမျိုးသားထုတ်လွှတ်မှု အရည်အသွေးလမ်းညွှန်ချက်များနှင့် အညီ စိစစ်သွားမည်ဖြစ်ပါသည်။ မြို့နယ်ဆိုင်ရာအချက်အလက်များဖြစ်သည့် မိုးရေချိန်၊ ရာသီဥတုအခြေအနေ နှင့် လူမှုစီးပွားစစ်တမ်းကောက်ယူခြင်း တို့ကိုလည်းဖော်ပြထားပါသည်။

ကုန်ကြမ်းပစ္စည်းများကို တရုတ်နိုင်ငံနှင့် မြန်မာနိုင်ငံတို့မှ ဝယ်ယူအသုံးပြုပါသည်။ လျှပ်စစ်ဓာတ်အားအသုံးပြုမှုမှာ တစ်နှစ်လျှင် ၇၆၇၉၀၀ ယူနစ်ဖြစ်ပါသည်။ ဘွိုင်လာနှင့် ကုတ်ထုတ်လုပ်မှုအတွက် ရေအသုံးပြုမှုမှာ နှစ်စဉ် ၁၃၂၀၀ ဂါလံဖြစ်ပါသည်။ ဘွိုင်လာအတွက် ထင်းလောင်စာကို အသုံးပြုပါသည်။ အစိစစ်တွင်းရေကို အသုံးပြုပါသည်။ မီးစက်အတွက် ဒီဇယ်လောင်စာအသုံးပြုမှုမှာ ၉၆၀၀ ဂါလံဖြစ်ပါသည်။

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ပိတ်ဖြတ်စာအပါအဝင် အခြားသော စက်ရုံထွက်အမှိုက်များကို ရန်ကုန်မြို့တော် စည်ပင်သာယာရေးကော်မတီ နှင့် ချိတ်ဆက်၍ စွန့်ပစ်ပါသည်။

ပတ်ဝန်းကျင်ထိခိုက်မှုနှင့် လျော့ချရေး အစီအစဉ်

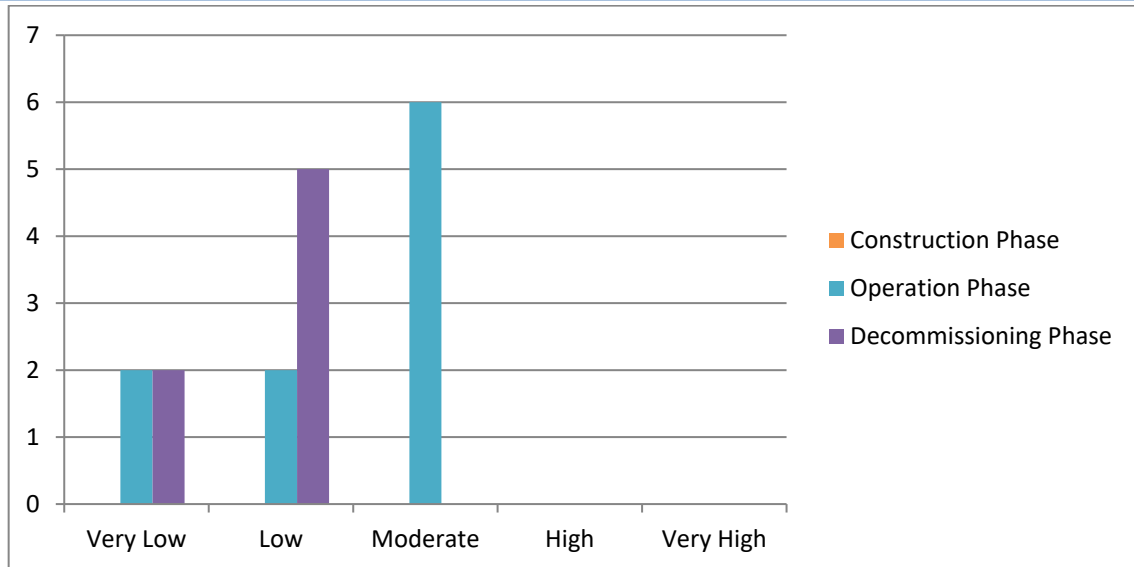
စီမံကိန်းဆောင်ရွက်ချက်များကြောင့် ပတ်ဝန်းကျင်ဆိုင်ရာအရင်းအမြစ်များ၊ ဂေဟဆိုင်ရာ အရင်းအမြစ်များ၊ လူ့စွမ်းအားအရင်းအမြစ်များနှင့် စွန့်ပစ်ပစ္စည်းများစွန့်ပစ်ခြင်း စသည့်ဖြစ်လာနိုင်သည့်ထိခိုက်မှုများကို ခွဲခြားသတ်မှတ်ပြီး ၎င်းတို့၏ ရလဒ်များကို ထိခိုက်မှုဆန်းစစ်သည့် နည်းလမ်းများကို အသုံးပြု၍ သတ်မှတ်ခဲ့ပါသည်။ စီမံကိန်းအား ထိခိုက်မှုများကို အပိုင်းသုံးပိုင်းခွဲ၍ သတ်မှတ်ထားသည်။ အမျိုးအစားမှာ တည်ဆောက်သည့်ကာလ၊ လုပ်ငန်းလည်ပတ်သည့်ကာလ နှင့် လုပ်ငန်းဖျက်သိမ်းသည့်ကာလများ ဖြစ်ပါသည်။ ပတ်ဝန်းကျင်ထိခိုက်မှု လျော့ပါးစေရေး နည်းလမ်းများကိုလဲထည့်သွင်းဖော်ပြထားပါသည်။

စီမံကိန်းကြောင့် သက်ရောက်မှုများအား အထွေထွေလျော့ချရေးနည်းလမ်းများကိုဖြင့် လုပ်ဆောင်သွားမည် ဖြစ်သည်။ ထို့ကြောင့် အထွေထွေလျော့ချရေး နည်းလမ်းများဖြင့် သက်ရောက်မှုများကို လျော့ချခြင်းများ ပြုလုပ်သွားပါမည်။ တိကျသော လျော့ပါးရေးအစီအမံများဖြင့် သဘာဝပတ်ဝန်းကျင် သက်ရောက်မှုများကို ထိရောက်စွာ ပြုလုပ်သွားမည်ဖြစ်ပါသည်။

ပတ်ဝန်းကျင် လက္ခဏာ	လုပ်ငန်းလုပ်ဆောင်မှု	ထိခိုက်မှုအဆင့်
တည်ဆောက်ရေးကာလ။ ။ပတ်ဝန်းကျင်ထိခိုက်မှုလေ့လာချိန်တွင် စက်ရုံတည်ဆောက်ပြီး လုပ်ငန်းလည်ပတ်နေချိန်ဖြစ်သော ကြောင့် ဤကာလကိုထည့်သွင်း မစဉ်းစားတော့ပါ။		
လုပ်ငန်းလည်ပတ်ခြင်းကာလ		
လေထုညစ်ညမ်းမှု	<ul style="list-style-type: none"> သယ်ယူပို့ဆောင်ရေးသုံး မော်တော်ယာဉ်တို့ကြောင့် ဖုန်မှုန့်ထွက်ခြင်း လုပ်ငန်းခွင်အတွင်းဖုန်မှုန့်ထွက်ခြင်း မီးဖိုနှင့် ရေနွေးငွေ့ဘွိုင်လာတို့မှ မီးခိုးထွက်ခြင်း အရေးပေါ်သုံးမီးစက်မှာ စွန့်ထုတ်အခိုးအငွေ့ ထွက်ခြင်း ကုန်ထုတ်လုပ်မှုအတွက် ဘွိုင်လာအသုံးပြုခြင်း နှင့် ဘွိုင်လာမှထွက်သော အခိုးအငွေ့များကို စစ်ထုတ်ရန် စစ်ထုတ်မှု စနစ်တပ်ဆင်ခြင်း။ 	အသင့်တင့်
ရေ	<ul style="list-style-type: none"> မိလ္လာစွန့်ထုတ်ရေ စက်ပစ္စည်း၊ မော်တော်ယာဉ်များမှ ဆီယိုဖိတ်ခြင်း 	အနည်းငယ်
မြေဆီလွှာညစ်ညမ်းမှု	<ul style="list-style-type: none"> မော်တော်တစ စက်ပစ္စည်း၊ မော်တော်ယာဉ်များမှ ဆီယိုဖိတ်ခြင်း 	အလွန်နည်း
ဆူညံသံ	<ul style="list-style-type: none"> ဘွိုင်လာ၊ မီးစက် နှင့် မော်တော် ယာဉ် အသုံးပြု မှုကြောင့် ပတ်ဝန်းကျင် ဆူညံမှု 	အသင့်တင့်

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မီးဘေးအန္တရာယ်	<ul style="list-style-type: none"> ကုန်ကြမ်းသိုလှောင်မှု နှင့် လျှပ်စစ်သုံးစွဲ ပေါ့လျော့မှု 	အသင့်တင့်
စွန့်ပစ်အမှိုက်	<ul style="list-style-type: none"> ထုတ်လုပ်ရာတွင် ကျန်ရှိသော ပိတ်စ အပိုင်းအစများ။ မီးဖိုချောင်နှင့် ရုံးတွင်းစွန့်ပစ်ပစ္စည်းများ 	အသင့်တင့်
စွန့်ပစ်အရည်	<ul style="list-style-type: none"> နေအိမ်၊ စားသောက်ဆောင် တို့မှစွန့်ထုတ်ရေ၊ မိလ္လာကန်စနစ် 	အသင့်တင့်
အန္တရာယ်ရှိအမှိုက်	<ul style="list-style-type: none"> စက်များမှ ဆီယိုစိမ့်မှုများ၊ မော်တော်ယာဉ်များပြုပြင်ထိန်းသိမ်းမှုက ထွက်ရှိသည့်အမှိုက်များ 	အလွန်နည်း
လူမှုစီးပွားဘဝ	<ul style="list-style-type: none"> ဒေသခံပြည်သူများအတွက် အလုပ်အကိုင်အခွင့်အလမ်းများ ရရှိစေခြင်း 	
လုပ်ငန်းပိတ်သိမ်းခြင်းကာလ		
လေထုညစ်ညမ်းမှု	<ul style="list-style-type: none"> အဆောက်အဦများ ဖြိုချမှုများ ဖြိုချပစ္စည်းများ သယ်ယူမှုများ 	အနည်းငယ်
ရေ	<ul style="list-style-type: none"> ဖြိုချပစ္စည်းများနှင့် မိလ္လာဖျက်ဆီးမှုများ 	အနည်းငယ်
မြေဆီလွှာညစ်ညမ်းမှု	<ul style="list-style-type: none"> အဆောက်အဦနှင့် ဆက်စပ်ပစ္စည်းများ ဖြိုချပစ္စည်းများ သယ်ယူမှုများ 	အနည်းငယ်
အမှိုက်စွန့်ပစ်မှု	<ul style="list-style-type: none"> အဆောက်အဦများ ဖြိုချပစ္စည်းများ သယ်ယူမှုများ 	အလွန်နည်း
အန္တရာယ်ရှိအမှိုက်	<ul style="list-style-type: none"> စက်များမှ ဆီယိုစိမ့်မှုများ၊ မော်တော်ယာဉ်များပြုပြင်ထိန်းသိမ်းမှုက ထွက်ရှိသည့်အမှိုက်များ ဖြိုချပစ္စည်းများ သယ်ယူမှုများ 	အလွန်နည်း
မတော်တဆ ထိခိုက်မှုများ	<ul style="list-style-type: none"> အဆောက်အဦများ ဖြိုချမှုများ ဖြိုချပစ္စည်းများ သယ်ယူမှုများ 	အနည်းငယ်
လူမှုစီးပွားဘဝ	<ul style="list-style-type: none"> ဒေသခံပြည်သူများအတွက်အလုပ်အကိုင် ခေတ္တရရှိခြင်း 	

Environmental Management Plan**စီမံကိန်းအပေါ် ထင်ရှားသော သက်ရောက်မှုများ****မှတ်ချက်**

အခြေခံစစ်တမ်းကောက်ယူမှုများ အနေဖြင့် စက်ရုံအနီးနားပတ်ဝန်းကျင်ရှိ လေထုအရည်အသွေး နှင့် ဆူညံသံကို တိုင်းတာခဲ့ပါသည်။ လေ အရည်အသွေး နှင့် ဆူညံသံများသည် အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာထုတ်လွှတ်မှု အရည်အသွေး လမ်းညွှန်မှုအောက်တွင်ရှိကြောင်းတွေ့ရှိခဲ့ပါသည်။

ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု အစီအစဉ်

အဆိုပြုလုပ်ငန်း၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်အတွက် Plan-Do-Check-Act (P D C A) စက်ဝိုင်းဖြင့် အစီစဉ်တကျ ပြုလုပ်သွားမည်ဖြစ်ပါသည်။ အစီအစဉ်တွင် စက်ရုံကြောင့် ဖြစ်ပေါ်စေနိုင်သော ပတ်ဝန်းကျင်နှင့် လူမှုဘဝအပေါ် ဆိုးကျိုးသက်ရောက်မှုများကို လျော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့် စောင့်ကြပ်ကြည့်ရှုရေး အစရှိသည့် အစီအစဉ်များ ပါဝင်ပါသည်။ ၎င်း EMP အစီအစဉ်များကို အကောင်အထည်ဖော်ရန်အတွက်သည် စက်ရုံတွင် ကျန်းမားရေး၊ ဘေးအန္တရာယ်ကင်းရှင်းရေးနှင့် ပတ်ဝန်းကျင်ဆိုင်ရာ အဖွဲ့အစည်းတစ်ခုထားရှိပြီး လျော့ချရေး၊ စီမံခန့်ခွဲရေးနှင့် စောင့်ကြပ်ကြည့်ရှုရေး အစီအစဉ်များကို အကောင်အထည်ဖော်သွားမည်ဖြစ်ပါသည်။ အဆိုပါစက်ရုံ၏ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်ကို ရေရှည်ဖွံ့ဖြိုးတိုးတက်ကောင်းမွန်သော ပတ်ဝန်းကျင် အဖြစ် အကောင်အထည်ဖော်ဆောင်ရွက်ရန် ပတ်ဝန်းကျင်ဆိုင်ရာ ဆိုးကျိုးသက်ရောက်မှုများကို လျော့နည်းစေရန် စီမံခန့်ခွဲမှုအစီအစဉ်များနှင့် စောင့်ကြပ်ကြည့်ရှုရမည့်အစီအစဉ်များကို အောက်ပါအတိုင်းပတ်ဝန်းကျင်ဆိုင်ရာ အကြောင်းအရာတစ်ခုချင်းစီအလိုက် ခွဲခြားမှု ပြုလုပ်ထားပါသည်။

၁။ လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်ဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်

- လေထုညစ်ညမ်းမှုနှင့် ကာဘွန်ထွက်ရှိမှုကို လျော့ချရန် သစ်ပင်များစိုက်ပျိုးခြင်း

Environmental Management Plan

- ဖုံထူထပ်သောနေရာများတွင် အလုပ်သမားများကို တစ်ကိုယ်ရေသုံး အကာအကွယ်ပစ္စည်းများ အသုံးပြုစေခြင်း
 - တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၁၀၀၀၀၀၀ကျပ်
- ၂။ ဆူညံမှုထိန်းခြင်းဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်
- မီးစက်ခန်းများတွင် ဆူညံသံထိန်းချုပ်ကိရိယာများတပ်ဆင်ခြင်း
 - လုံလောက်သော တစ်ကိုယ်ရေကာကွယ်ရေးပစ္စည်းများအသုံးပြုစေခြင်း
 - ဆူညံသော နေရာများတွင် အလုပ်လုပ်သော အလုပ်သမားများအတွက် တစ်ကိုယ် ရေသုံးကာကွယ်ရေးပစ္စည်းများကို အသုံးပြုစေခြင်း
 - တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၅၀၀၀၀၀ ကျပ်
- ၃။ အမှိုက်စွန့်ပစ်မှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်
- စွန့်ပစ်အစိုင်အခဲများကို အစိုအခြောက်ခွဲခြား၍ သီးခြားစွန့်ပစ်စေခြင်း
 - နေ့စဉ်ထွက်စွန့်ပစ်ပစ္စည်းများကို ရန်ကုန်စည်ပင်သာယာရေးကော်မတီနှင့် ချိတ်ဆက်စွန့်ပစ်ခြင်း
 - တစ်နှစ် ခန့်မှန်းကုန်ကျစရိတ် ၅၀၀၀၀၀ ကျပ်
- ၄။ ရေဆိုးစွန့်ပစ်မှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်
- စက်ရုံမြောင်း ရေစီးရေလာကောင်းစေရန် ထိန်းချုပ်ခြင်း နှင့်
 - မိလ္လာစနစ်ကို စစ်ဆေးခြင်း
 - စက်ရုံရေမြောင်းများ ပိတ်ဆို့ခြင်းမဖြစ်စေရန် စစ်ဆေးခြင်း
 - တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၅၀၀၀၀၀ကျပ်
- ၅။ စွမ်းအင်အသုံးပြုမှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်
- စွမ်းအင်အသုံးပြုမှုလျော့ချရေးစနစ်ကို အသုံးပြုခြင်း
 - မလိုအပ်သော နေရာများတွင် လျှပ်စစ်အသုံးပြုခြင်း၊ မီးထွန်းထားခြင်း စသည်တို့ကို ကြည့်ရှုထိန်းသိန်းခြင်း
 - တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၅၀၀၀၀၀ကျပ်
- ၆။ ရေအသုံးပြုမှုဆိုင်ရာ စီမံခန့်ခွဲမှု အစီအစဉ်
- ရေအသုံးပြုမှုကို သိရှိနိုင်ရန် water meter အသုံးပြုခြင်း
 - ရေအသုံးပြုမှုကို ထိန်းသိမ်းမှုများ ပြုလုပ်နိုင်စေရန် ဝန်ထမ်းများကို သင်ကြားပေးခြင်း
 - တစ်နှစ်လျှင် ခန့်မှန်းကုန်ကျစရိတ် ၅၀၀၀၀၀ကျပ်
- ၇။ အရေးပေါ်တုန့်ပြန်ရေး အစီအစဉ်
- မီးသတ်စနစ်များကို ကောင်းမွန်အောင်ပြုလုပ်ခြင်း
 - အရေးပေါ်စနစ်ထားရှိခြင်း (ဥပမာ- အရေးပေါ်ထွက်ပေါက်)
 - ငလျင်နှင့် တခြားသော အရေးပေါ်ကိစ္စရပ်အများအတွက် ဆေးဝါး၊ ကြက်ခြေနီသင်တန်းများထားရှိခြင်း

Environmental Management Plan

- မီးသတ်တပ်ဖွဲ့များ၊ ကယ်ဆယ်ရေးတပ်ဖွဲ့များ ဖွဲ့စည်းခြင်း၊ လုံခြုံရေးအတွက် စက်ရုံဝန်ထမ်းများကို သင်တန်းပေးခြင်း။

၈။ လူမှုအကျိုးတူ ပူးပေါင်းပါဝင်မှု အစီအစဉ် CSR Plan

- ကျန်းမာရေးစောင့်ရှောက်မှု - ၇၅၀၀၀၀ ကျပ်
- ပညာရေး - ၁၀၀၀၀၀၀ ကျပ်
- ဖွံ့ဖြိုးရေး - ၇၅၀၀၀၀ ကျပ်

သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း

သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း အစီအစဉ်တွင် စက်ရုံ၏ EMPအစီရင်ခံစာ အကြောင်းကို ရှင်းလင်းတင်ပြခြင်းဖြစ်သည်။ တွေ့ဆုံပွဲကို ၇ ရက်၊ ဖေဖော်ဝါရီလ၊ ၂၀၂၀ ခုနှစ်တွင် အနော်ရထာစီမံခန့်ခွဲရေးရုံး၊ အစည်းအဝေးခန်းမ၊ လှိုင်သာယာမြို့နယ်တွင် ပြုလုပ်ခဲ့ပါသည်။ တွေ့ဆုံပွဲတွင် စက်ရုံ၏သက်ဆိုင်ရာပုဂ္ဂိုလ်များ၊ အစိုးရအဖွဲ့ရုံးများဖြစ်သော ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဦးစီးဌာန၊ စက်မှုကြီးကြပ်နှင့် စစ်ဆေးရေး ဦးစီးဌာန ၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနှင့် သန့်ရှင်းရေးဌာန အစရှိသော သက်ဆိုင်ရာဌာနများ၏ တာဝန်ရှိပုဂ္ဂိုလ်များ၊ စက်မှုဇုန်စီမံခန့်ခွဲမှု ကော်မတီ၏ တာဝန်ရှိပုဂ္ဂိုလ်များမှ လိုအပ်သည်များကို အကြံပေးခြင်း၊ စီမံကိန်း၏ အစီရင်ခံစာတွင် လိုအပ်သည်များကို ဖြည့်စွက်ပေးရန် အကြံပြုချက်များပေးခဲ့ပါသည်။ ပြုလုပ်ခဲ့သည့် အစီအစဉ်အကျဉ်းကိုပါ ထည့်သွင်းဖော်ပြထားပါသည်။

အချိန်	၇ ရက်၊ ဖေဖော်ဝါရီလ၊ ၂၀၂၀ ခုနှစ် (သောကြာနေ့)
နေရာ	အနော်ရထာစီမံခန့်ခွဲရေးရုံး၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်မြို့။
အစီအစဉ်အကျဉ်း	<ul style="list-style-type: none"> • စက်ရုံနောက်ခံအကြောင်း • စက်ရုံလုပ်ငန်းအကြောင်း • ပတ်ဝန်းကျင်ထိခိုက်မှုနှင့် လျော့ချရေးအစီအစဉ် • ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်နှင့် စောင့်ကြပ်ကြည့်ရှုမှုအစီအစဉ် • အမေးအဖြေကဏ္ဍ

နိဂုံး

အကျဉ်းချုပ်အားဖြင့် ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေ၊ စည်းမျဉ်းစည်းကမ်းများနှင့် ချမှတ်ထားသော မူဝါဒ လမ်းညွှန်ချက်များအတိုင်း ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှု အလေ့အကျင့်များ၊ လုပ်ငန်းစဉ်များနှင့် လိုက်နာဆောင်ရွက် ကျင့်သုံးရန်တာဝန်များကို ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှု အစီအစဉ်တွင် ဖော်ပြရှင်းလင်း တင်ပြထားပါသည်။ စီမံကိန်းနှင့် သက်ဆိုင်သူများအား စီမံကိန်းဆိုင်ရာ အကြောင်းအရာများ ရှင်းလင်းတင်ပြခြင်း၊ အကြံပြုချက်များနှင့် ဆွေးနွေးတင်ပြလာသည့် သေ

Environmental Management Plan

သဘောထား: အကြံဉာဏ်များကိုရယူပြီး အစီအရင်ခံစာတွင် ဖော်ပြထားပါသည်။ အဆ
အဆိုပြုစီမံကိန်းသည် ဒေသခံများ အလုပ်အကိုင် အခွင့်အလမ်းများ ဖန်တီးရန်နှင့် ဝန်ထမ်းများ၏ လူ
လုပ်ငန်းခွင်စွမ်းဆောင်ရည်တို့ကို မြှင့်တင်သွားမည် ဖြစ်ပါသည်။ အလားတူစွာ ဒေသခံများ၏ လူ
လူနေမှုဘဝသည်လည်း မြှင့်တက်လာစေရန် ညွှန်ကြားထားသော လူမှုအကျိုးတူ ပူးပေါင်းပါဝင်မှု အစီအစဉ်များကို ဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။ ထိ
ထို့ကြောင့် ဒေသခံပြည်သူများ၏ တိုးတက်မှုအတွက် များစွာ အထောက်အကူပြုမည်ဟု ဆိုနိုင်ပါသည်။

အကြံပြုချက်များအရ

- အစီရင်ခံစာတွင် ဖော်ပြထားသည့်ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်နှင့် ကတိကဝတ်များကို စီမံကိန်း၏ သက်တမ်းတလျှောက်တွင် အကောင်အထည်ဖော် ဆောင်ရွက်ရမည်။
- အစီရင်ခံစာနှင့်အညီစွန့်ပစ်ပစ္စည်းများကို ရန်ကုန်မြို့တော် စည်ပင်သာယာရေးကော်မတီ၏ စည်းကမ်းများ အတိုင်းစွန့်ပစ်ရမည်။
- အလုပ်သမားများအား သင့်တော်သော သင်တန်းများပေးခြင်း၊ လုပ်ငန်းခွင်အတွင်း တစ်ကိုယ်ရည် ကာကွယ်ရေး ပစ္စည်းများ အသုံးပြုစေခြင်းများ ဆောင်ရွက်ရမည်။
- ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ်များကို နေ့စဉ်၊ လစဉ်နှင့် နှစ်စဉ် လုပ်ငန်းခွင်အတွင်း လုပ်ဆောင်ရမည်။
- ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုအစီအစဉ် မှတ်တမ်းများကို သေချာသိမ်းဆည်း၍ တတိယအဖွဲ့အစည်း သို့ တင်ပြရမည်။
- ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ၊ နည်းစည်းဥပဒေ၊ စည်းမျဉ်းစည်းကမ်းများနှင့် ချမှတ်ထားသောမူဝါဒ လမ်းညွှန်ချက်များအတိုင်း ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှု အလေ့အကျင့်များ၊ လုပ်ငန်းစဉ်များနှင့် လိုက်နာဆောင်ရွက်ရမည်။

အချုပ်အားဖြင့်ဆိုသော် အဆိုပြုသူသည် ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဦးစီးဌာန မှ ညွှန်ကြားလာသော အ
အဆိုပြုချက်များ၊ အကြံပြုချက်များကို လိုက်နာဆောင်ရွက်ရမည်။ ထိရောက်သော ပတ်ဝန်းကျင်ဆိုင်ရာ စီမံခန့်ခွဲမှုကို
အဆိုပြုသူမှ ဆောင်ရွက်ရမည်။အဆိုပြုသူသည်
ပြည်ထောင်စုသမ္မတ မြန်မာနိုင်ငံတော်၏ လမ်းညွှန်ချက်များ၊ ပတ်ဝန်းကျင်ဆိုင်ရာ ဥပဒေ နည်းစည်းဥပဒေ
၊စည်းမျဉ်းစည်းကမ်းများနှင့် ချမှတ်ထားသော မူဝါဒ လမ်းညွှန်ချက်များ အတိုင်းလိုက်နာဆောင်ရွက်ရမည်။

EXECUTIVE SUMMARY

Introduction

Environment Management Plan is required for ensuring sustainable development. It should not affect the surrounding environment adversely. The management plan presented in this chapter needs to be implemented by the proposed expansion of Green Nature Manufacturing Company Limited. The Environment Management Plan (EMP) aims at controlling pollution at source with available and affordable technology followed by treatment measures. Waste minimization and waste recycling measures are emphasized. In addition to the Industry specific control measures, the proposed industry should adopt following guidelines.

The project is new investment for manufacturing of garment by Contract Manufacturing Process (CMP) basic company from local. The project is issued by the Yangon Region Investment Committee (YRIC) on 11 April 2018 with the Endorsement No. (YGN- 043/2018). YRIC notified for the environmental approval and comments of the Ministry of the Natural Resources and Environmental Conservation (MONREC) on the proposed project and had approved the proposal for investment in Manufacturing of various kinds of garment on CMP basis under the name of Green Nature Manufacturing Company Limited as a solely owned local investment from the Myanmar.

According to the Myanmar Environmental Conservation Law (2012), it requires that the proponents of every development project in the country submit either an Initial Environmental Examination (IEE) or an Environmental Impact Assessment (EIA) to Ministry of Natural Resources and Environmental Conservation (MONREC). As per the comments of Environmental Conservation Department (ECD), said project requires an Environmental Management Plan (EMP) to meet the environmental assessment requirements of Notification No. Yaka- 1/3/4 (EIA) (325/2020) on 27 January 2020. Therefore, Green Nature Manufacturing Company Limited commissioned MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED for EMP report study. The specific objectives of this study are

- ✓ Identify the major impacts that are may arise from the activities of the proposed project on natural environmental and socio-economic environment of the project area
- ✓ Describe the mitigation measures to minimize these impacts
- ✓ Prepare and implement Environmental Management Plan for the project
- ✓ Make sure that EMP is developed sufficiently and sound for the proposed project and
- ✓ Corporate Social Responsibility Plan (CSR Plan) plays an essential part for the improvement of the social welfare of community as well as development of the region.

The main purpose of this EMP report is to obey the rule and regulation of Local and International Environmental Protection programs and harmonize with the environmental and also describes the responsible person and his responsibility.

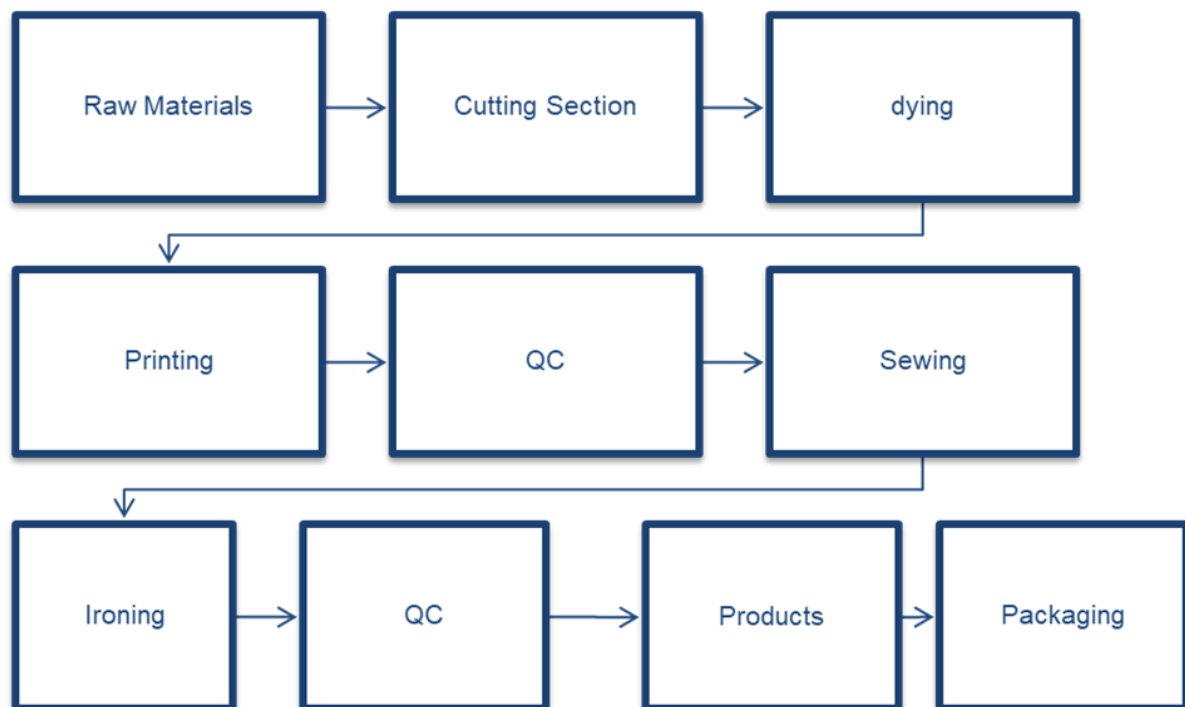
Policy, Legal and Institutional Framework

National Laws and Regulations, international guidelines are referred for Environmental Management Plan of the proposed project.

Environmental Management Plan**Project Description**

Type of Proposed Business	Manufacturing of various kinds of garment on CMP Basis
Type of investment	100% Local Investment
Name of Company	Green Nature Manufacturing Company Limited
Land lease year	30 years
Total land area	4.855 acre (19647.50 sq meters)
Type of land	Industrial Land
Construction Period	1 year
Address of Proposed Project	Plot No. (29+30), Myay Taing Block No.YaLaPa (25), Shwe Lin Ban Industrial Zone, Hlaing Thar Yar Township, Yangon Region
Contact Person	U Tin Zaw (0973126899)

The proposed project is located at Yangon region. The total area of project site is 4.855 acre (19647.50 square meters). Main structure is designed into production area for one building. Transformer room, generator room and water treatment plant are separated by main factory building structure. The factory layout plan which is also can be seen in this report. The main product of the Green Nature Manufacturing Company Limited factory is garment. The Utilities for proposed factory include electrical power, fuel oil for emergency used generator and water for domestic use. Electric power is used for the purpose to provide lighting.



Production Process of Green Nature Manufacturing Company Limited

Environmental Management Plan

Production rate of Green Nature Manufacturing Company Limited is produced between first year of operation and ten years operation as 60,927 to 131,303 pieces annually. It is required of work force (4) foreign technician and (750) local employees for first year operation to 10 years operation.

Brief Description of Surrounding Environment

Primary data and secondary data collections are very imported to assess environmental impacts. Primary data collections (environmental quality measurements and monitoring) play an important role for conducting EMP. Therefore, MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED conducted air quality, temperature and humidity, noise level measurement and light pollution measurement on 25 September 2019 and compared with the National Environmental Quality (Emission) Guidelines and also described how to reduce the impact and how to maintain the pollutions. Also described the weather conditions, rainfalls and socio-economic component of the proposed project.

Raw materials are imported from China and Myanmar. Electricity usage for annually is 767900 unit. Water usage for production and boiler usage is 13200 gallons annually and tube well water is used. Wood boiler is used for operation. Wood is used 565869 viss annually. Estimated energy consumption of diesel usage is 9600 gallons. Wastes such as fabric and other factory wastes are disposed by connecting with YCDC.

Environmental Impact and Mitigation Measure

Possible effects, such as impacts on environmental resources, ecological resources, human and waste disposal due to construction, operation and decommissioning processes. Potential impacts for the proposed projects are normally differentiated into three main categories, viz, Construction phase, Operation phase and Decommissioning phase.

The relative importance of each impact is assessed based on the understanding that general mitigation measures will be integrated into the baseline project. Therefore, when the general mitigation measures reduce impacts to the point of rendering them negligible, they are excluded from further analysis. Once the significance of the impact is established as more than negligible, it is described and additional, specific mitigation measures may be proposed to allow optimal integration of the project into the environment.

Evaluation and Perdition of Significant Impacts

Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance
		M	D	E	P	SP	
Construction Phase; It is not assessed in this phase, because of construction is already completed during EMP preparation.							
Operation Phase							
Air pollution	<ul style="list-style-type: none">Dust and GHGs emission from vehicles used for transporting raw materials and final productsParticulate matters emission from the activities of production processEmission of smoke from steam boiler (rice briquettes) and kitchenEmission from emergency diesel generator	3	4	2	3	27	Moderate

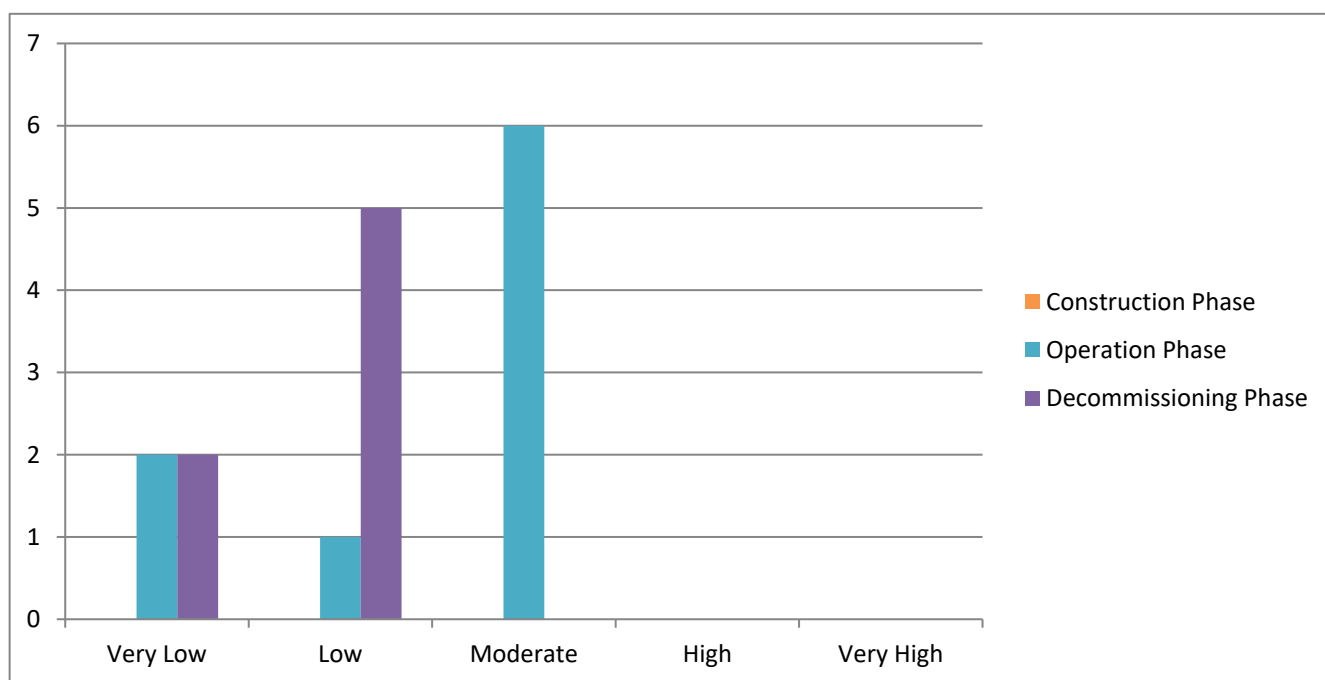
Environmental Management Plan

Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance
		M	D	E	P	SP	
	<ul style="list-style-type: none"> Boiler used in production process and gas filtration system is set up in boiler 						
Water pollution	<ul style="list-style-type: none"> Sewage disposed of from the toilets Oil spill and grease leaks from transporting vehicles and machinery equipment used in operation phase 	2	4	2	3	24	Low
Soil Contamination	<ul style="list-style-type: none"> Accidental spillage of oil used by vehicles operating 	1	4	1	2	12	Very Low
Noise Pollution	<ul style="list-style-type: none"> Generating noise from the production machinery Noise from the generating of the emergency generators 	3	4	1	4	32	Moderate
Fire Hazard	<ul style="list-style-type: none"> Poor electrical installations waste disposed area Raw materials storage 	3	5	2	4	48	Moderate
Solid waste	<ul style="list-style-type: none"> residual pieces of fabric scraps from the production lines Waste from packaging materials Waste from kitchen, dormitory and office. 	3	4	1	4	32	Moderate
Liquid waste	<ul style="list-style-type: none"> Septic system and sewage. Domestic liquid waste disposal from office, kitchen and dormitory. 	2	4	2	4	32	Moderate
Hazardous waste	<ul style="list-style-type: none"> Engine oil leaks, spills at diesel storage and during fuel refueling. Used oil and lubricant discharged from the maintenance of vehicles and machines. 	2	4	1	2	14	Very Low
Occupational Health and Safety (Accidents, Injuries)	<ul style="list-style-type: none"> Accidental cases cause by operating machines. Electricity and emergency diesel generators. Unloading, mixing, cutting, pressing and packaging activities. Accidental cases of thermic fluid heater 	3	4	1	4	32	Moderate
Social-economic Condition	<ul style="list-style-type: none"> Job opportunities for local people 	-	-	-	-	-	Positive Impact
Decommissioning Phase							
Air pollution	<ul style="list-style-type: none"> Decommissioning of buildings and related materials Transportation of demolished materials 	3	1	1	4	20	Low
Water pollution	<ul style="list-style-type: none"> Sewage form decommissioning workers Demolition machinery equipment 	3	1	1	3	15	Low

Environmental Management Plan

Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance
		M	D	E	P	SP	
Soil Contamination	<ul style="list-style-type: none"> Decommissioning of buildings and related materials Transportation of demolished materials 	3	1	1	3	15	Low
Noise Pollution	<ul style="list-style-type: none"> Decommission activities Transportation of demolished materials 	3	1	1	3	15	Low
Waste disposal	<ul style="list-style-type: none"> Sewage system Demolished debris such as bricks, concrete materials 	2	1	1	3	12	Very Low
Hazardous waste	<ul style="list-style-type: none"> Used lubricants from decommissioning vehicles and machines 	2	1	1	3	12	Very Low
Occupational Health and Safety (Accidents, Injuries)	<ul style="list-style-type: none"> Decommissioning activities Transportation of demolished materials 	3	1	2	3	18	Low
Social-economic Condition	<ul style="list-style-type: none"> Temporary job opportunities for local people 	-	-	-	-	-	Positive Impact

According to the result of analysis, it can be concluded that most of the project activities have low significance on environment, in all phases. Project activities that can produce solid waste and liquid waste are moderate significance. Moreover, project activities that emit dust and GHGs and accidental cases are moderately significant. Fire hazard potential of the proposed project and noise pollution are highly significant. But this can be prevented or mitigated by using the following mitigation measures. The following figure shows the impact significance of the proposed project.



Impact significance of the proposed factory project

Environmental Management Plan**Note**

As a data collection, ambient air quality and noise was monitored inside and outside factory. All the parameters are within the National Environmental Quality Emission Guideline.

Environment Management Program

The proposed project of environmental management plan, which need to made the PDCA plan especially Plan-Do-Check-Act cycle. In that plan, it includes not only reducing to the environmental and social-economic impact but also includes the environmental management plan and the monitoring plan. In this EMP to implement the health, safety and occupational for the industry, they need to create a team and to must be implemented that. The EMP for Green Nature Manufacturing Company Limited has been prepared to address potential issues based upon discussion with factory management, workers, local community's view, stakeholder consultation and from the site visit of experts. The EMP is additional to and compliments the factory's safety management system. Environmental related works about the project is responsible by HSE manager from the factory. The following environmental issues that require environmental management plans based upon the potential impacts of activities by for Green Nature Manufacturing Company Limited are as follows:

1. Air pollution/Dust Management Plan
 - . The Factory has Planted Trees to reduce the carbon and Minimize the air pollution
 - . Workers are provided mask during working in any dusty area
 - 1000000 kyat per year
2. Noise Management
 - . Building noise insulated generator room
 - . Provide sufficient personal protective equipment (PPE) at the work place
 - . All the related personal will be provided proper training about the relevant issues and ensure PPE wear during working in noisy area.
 - 500000 kyat per year
3. Solid waste Management Plan
 - . The solid wastes are stored properly and separately in a certain in proper manner
 - . The daily domestic waste of workers hands over to YCDC waste collector to collect every day
 - . All related personal is provided proper training about the relevant issues.
 - 50000 kyat per month
4. Wastewater Management Plan
 - . Ensure that drainage lines and sewage system of factory and the nearest public drainage are watertight and sufficient capacity
 - . Regular check and maintain sewerage facility
 - . Clean the Factory's drainage to avoid odor emission and to avoid the block of water flow
 - 500000 kyat per year
5. Energy Consumption Management Plan
 - . Used of energy saving devices must be installed
 - . Ensure that good housekeeping measures such as turning off equipment and lights when not in use
 - 500000 kyats per year**
6. Water Consumption Management Plan
 - . Install water meter for internal control of water consumption

Environmental Management Plan

- . All staff trains and makes aware conservation practices and proper methods of water use must be place in toilets and other areas of water consumption
- . Trees plantation surrounding the factory
500000 kyats per year
- 7. Emergency Response Plan
 - . Provision and inspection of firefighting equipment and fire hydrant system in all the sections
 - . A detail evaluation plan (fire exist, emergency exit door, etc.) is established and communicated with workers
 - . Workers are informed about what to do in earthquake and physics hazards. A medical team has been prepared for primary treatment (First Aid)
 - . Build a safety committee which from firefighting team, rescue team. The committee arrange a meeting every month to discuss about safety management
- 8. Corporate Social Responsible (CSR) Plan
 - Health Care – 7500000 Kyats
 - Education – 10000000 Kyats
 - Community Development – 7500000 Kyats

Public Consulting

This chapter presents results of public consultation and information disclosure conducted for the Green Nature Manufacturing factory. Public participation can be considered as the required element of the EMP process. In this study various stakeholder 's participation was made. Public consultation during preparation of EMP report was conducted on 7, February 2020, following the EIA procedure. The project's stakeholders in this category are key officials or representatives of the regional and local authorities who have direct responsibilities for the administration of the EMP process for environmental and social clearance and issuing operation permits for proposed development projects. For this factory, relevant key offices at the national level are Environmental Conservation Department (ECD) and Industry Supervision and Inspection Department. Relevant key office at the regional level is Yangon City Development Committee (YCDC), General Administrative Department, Fire Department, Factories and General Labor Law Inspection Department, Public Health Department, Industrial Supervision and Inspection Department.

According to the public consultation meeting, summary of suggestion is expressed below.

- ❖ To provide 2 % of net profit for CSR program according to MIC's guideline for implementation of CSR program for education, health, society, and environment.
- ❖ Factory workers shall be aware for using the person protective equipment
- ❖ To provide long time care of medical checking for workers
- ❖ To provide the medicines for aliment and must be enough the medicines for injuries
- ❖ To provide the PPE to the employees who work in that factory and
- ❖ To provide healthy drinking water for employees
- ❖ To compliance with YCDC procedure for solid waste management and disposed process
- ❖ To implement the sufficient septic tank design for workers

Time and Date	7 February 2020 (Friday) 10:30-12:30
Venue	Anawrahta Office, Hlaing Tharyar Township, Yangon.

Environmental Management Plan

Agenda	<ul style="list-style-type: none"> • Presentation on the Background Information of Project, • Project Description, • Impact Assessment, Environmental Mitigation • Environmental Management Plan and Monitoring Plan • Received and Answer from feedback of participants
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Note

According to public consultation meeting, all the suggestions are basic necessary for a garment factory. Almost all the suggestions are done by the project proponent. If there are any requirements like environmental or social related case, project owner will provide the requirements.

Conclusion & Recommendation

In Conclusion, the environmental management practices, procedures and responsibilities are defined here in to get full compliance with the existing environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar. All the feed backs, desired and needs of local public recorded in public consultation meetings are well addressed and incorporated in formulation of EMP. It has been figured out that, the proposed garment factory is going to generate local employment opportunities and enhance capabilities and working skills of employees. Consequently, their socio-economic standard is expected to be improved and undertaking corporate social responsibilities (CSR) as recommended. The study further concluded that positive impacts will be of immense benefit to the local community and national development as well.

This is recommended that;

- All appropriate environmental management measures detailed in this report, together with any other environmental management commitments should be implemented throughout the entire life of the factory
- Solid wastes and liquid wastes need to dispose according to YCDC rules and regulation
- Workers should be provided proper training and it should be ensured that workers use PPE during factory operation area.
- Daily, monthly and annual action plan shall be formulated based on this EMP and practiced at operation level.
- Keep full records of environmental management activities and present to annual independent third-party environment audit.
- Abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

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

Environmental Management Plan

1. INTRODUCTION

Everyone wants to live in a place that's clean and healthy. That is why one of the world's primary concerns is the environment. As sad as it is, the world today is dying. The environment is slowly decaying, and it's all because of human negligence. Environmental Management Plan is required for ensuring sustainable development. It should not affect the surrounding environment adversely. The management plan presented. Which needs to be implemented by the proposed expansion of Green Nature Manufacturing Co., Ltd. The Environmental Management Plan (EMP) aims at controlling pollution at source with available and affordable technology followed by treatment measures. Waste minimization and waste recycling measures are emphasized. In addition to the industry specific control measures, the proposed industry should adopt following guidelines.

1.1. AIM OF ENVIRONMENTAL MANAGEMENT PLAN

- Provide environmental management plan that minimize the environmental impact of the works and identify those responsible for its implementation.
- Define the monitoring program, which assess the implementation.

1.2. OBJECTIVE OF ENVIRONMENTAL MANAGEMENT PLAN

An Environmental Management System (EMS) is a framework that helps an organization achieves its environmental goals through consistent review, evaluation, and improvement of its environmental performance. The assumption is that this consistent review and evaluation will identify opportunities for improving and implementing the environmental performance of the organization. The EMS itself does not dictate a level of environmental performance that must be achieved; each organization's EMS is tailored to its own individual objectives and targets.

An EMS encourages an organization to continuously improve its environmental performance. The system follows a repeating cycle the organization first commits to an environmental policy, then uses its policy as a basis for establishing a plan, which sets objectives and targets for improving environmental performance. The next step is implementation. After that, the organization evaluates its environmental performance to see whether the objectives and targets are being met. If targets are not being met, corrective action is taken. The results of this evaluation are then reviewed by top management to see if the EMS is working. Management revisits the environmental policy and sets new targets in a revised plan. The company then implements the revised plan. The cycle repeats, and continuous improvement occurs.

Environmental Management Plan

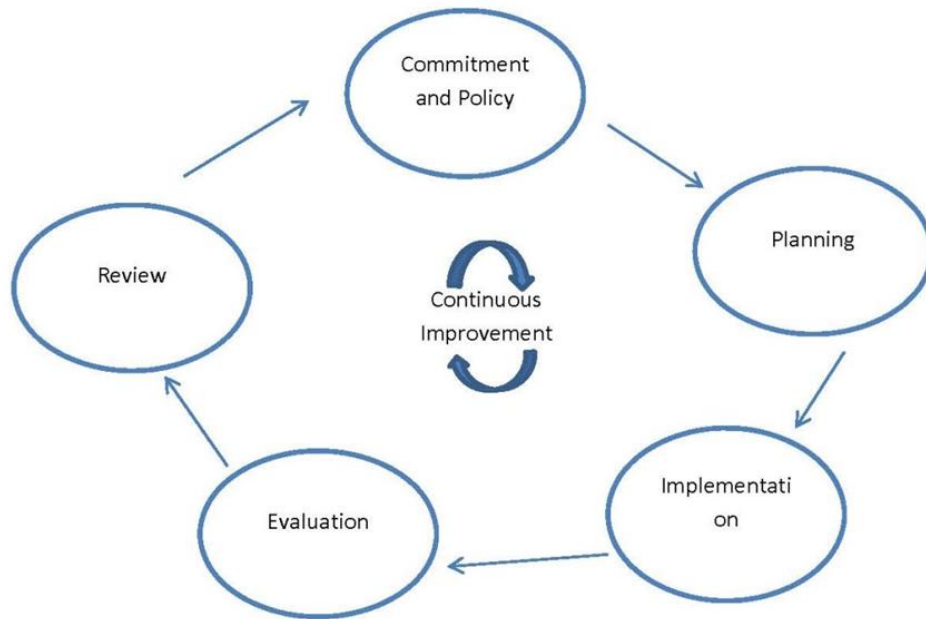


Figure 1-1 Continuous Improvement Circle

- **Commitment and Policy** – Top management commits to environmental improvement and establishes the organization's environmental policy. The policy is the foundation of the EMS.
- **Planning** – An organization first identifies environmental aspects of its operations. Environmental aspects are those items, such as air pollutants or hazardous waste that can have negative impacts on people and the environment. An organization then determines which aspects are significant by choosing criteria considered most important by the organization. For example, an organization may choose worker health and safety, environmental compliance, and cost as its criteria. Once significant environmental aspects are determined, an organization sets objectives and targets. An objective is an overall environmental goal (e.g., minimize use of chemical X). A target is a detailed, quantified requirement that arises from the objectives (e.g., reduce use of chemical X by 25% by September 1998). The final part of the planning stage is devising an action plan for meeting the targets. This includes designating responsibilities, establishing a schedule, and outlining clearly defined steps to meet the targets.
- **Implementation** – An organization follows through with the action plan using the necessary resources (human, financial, etc.). An important component is employee training and awareness for all employees. Other steps in the implementation stage include documentation, following operating procedures, and setting up internal and external communication lines.
- **Evaluation** – A company monitors its operations to evaluate whether targets are being met. If not, the company takes corrective action.
- **Review** – Top management reviews the results of the evaluation to see if the EMS is working. Management determines whether the original environmental policy is consistent with the organization's values. The plan is then revised to optimize the effectiveness of the EMS. The review stage creates a loop of continuous improvement for a company.

Environmental Management Plan

1.2.1. Institutional Requirement

Green Nature Manufacturing Co., Ltd. will manage the development of the proposed project. The project proponent should appoint Health, Safety and Environment (HSE) issues throughout the duration of the project phases. HSE team is responsible for implementation and monitoring of EMP and Environmental Monitoring Plan (EMP) as well as coordination with local authorities and the nearby communities. The HSE Team also makes regular review of EMP to cover all potential impacts, amendments and modifications.

1.2.2. Responsibilities of the EMP

In order to ensure the sound development and effective implementation of the EMP, it will be necessary to identify and define the responsibilities. The environmental management practices, procedures, and responsibilities are defined herein to get full compliance with the existing environmental policy, laws, rules and regulations of the Republic of the Union of Myanmar. The following entities should be involved in the implementation of this EMP:

Green Nature Manufacturing Co., Ltd.: The proponent will be charged with the responsibility for ensuring that the proposed development has been accomplished in an environmentally sound manner. This can be achieved by inclusion of environmental specifications in the tender specifications, selection of environmentally conscious contractors, and supervision to ensure that the objectives of this EMP are met. The implementation of Environmental Management Plan (EMP) process will prepare and follow up by appointed persons for health, safety, and environmental management under the instruction of management team of Green Nature Manufacturing Co., Ltd. for EMP implementation facilities.

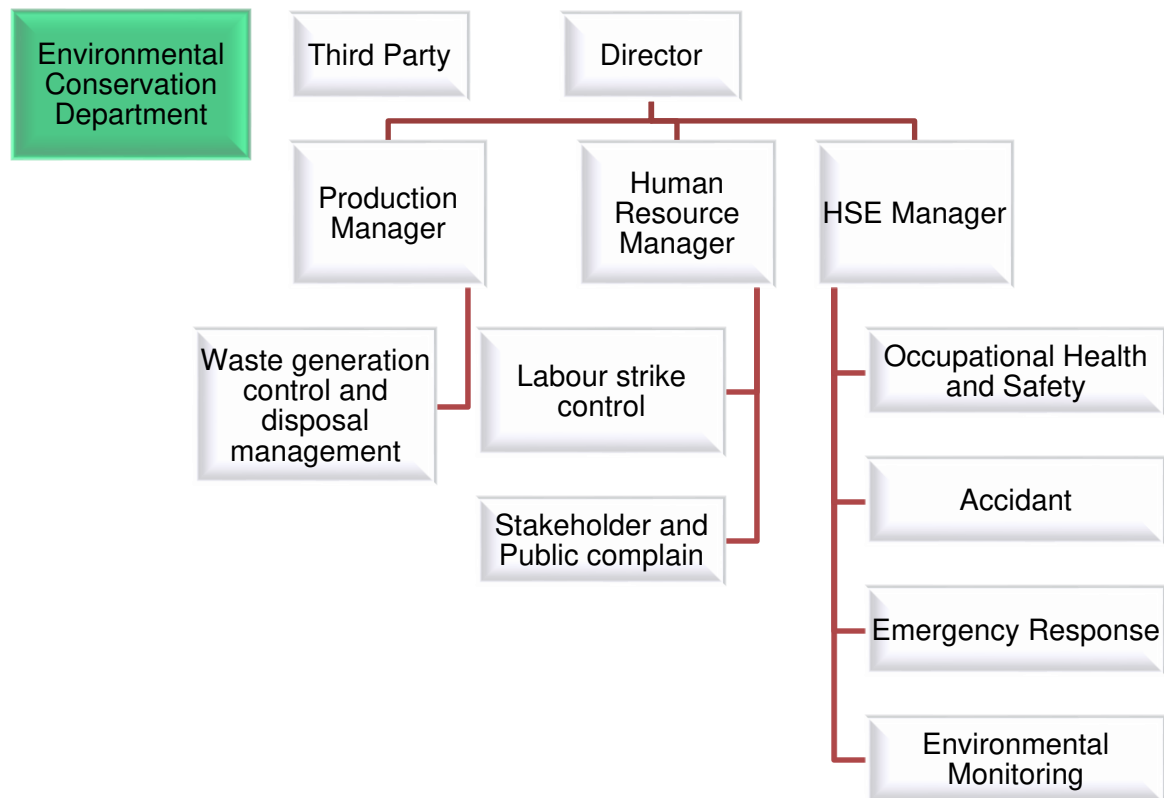
ECD (Yangon Region): The responsibility of ECD is to exercise general supervision and coordinating over all matters relating to the environment and to be instrumental in providing guidance for recognized regulatory frameworks.

Third-Party Environmental Consultant: The environmental consultant will have to ensure that the proposed EMP is up to date and is being followed properly by the proponent. Periodic audits of the EMP will have to be done to ensure that its performance is as expected, by comparing with operating standards so that any corrective actions can be taken.

1.2.3. Structure and Responsibilities for the EMP Development and Implementation

The HSE officer is responsible to the HSE components of the project and on matters relating to the implementation of the EMP throughout operation life. The S&E officer will have responsibilities that include:

- Ensure a monitoring system is in place to track and report all health, safety and environmental incidents;
- Carry out a thorough initial site inspection of environmental controls prior to work commencement;
- Record and provide a written report to the General Manager and production team of non-conformances with the EMP and require the HR supervisor to undertake mitigation measures to avoid or minimize any adverse impacts on environment or report required changes to the EMP.

Environmental Management Plan**Figure 1-2 Organization Structure of Environmental Management Plan****Table 1-1 Responsibilities of HSE Members**

Roles	Responsibilities
General Manager	<p>The General Manager will be assisted by the Operations Manager and also the HR and HSE Officer. In terms of environmental protection commitments, the Operation Manager will be the key driving force and will be responsible for:</p> <ul style="list-style-type: none"> • Establishing overall environmental direction and policy • Ensuring the implementation of the EMP • Ensuring investigation of all environmental incidents are reviewed and that reports are submitted on time • Ensuring an effective system of internal and external communication is in place • Providing advice regarding the environmental program
Operation Manager	<p>The Operation Manager will assist the General Manager in looking into the overall environmental matters during the operational phase of the Project. The Operation Engineer will also be responsible for:</p> <ul style="list-style-type: none"> • Adherence to the overall environmental direction and policy • Ensuring the implementation of the recommended actions in the investigation of all environmental incidents • Managing resources for operation wastes
HR Manager	<p>The HR Manager will carry out the day-to-day management of workers and social issues in the factory. The HR Manager will be responsible for:</p> <ul style="list-style-type: none"> • Assisting the management in publicising and implementing corporate and local policies, objectives and programs

Environmental Management Plan

Roles	Responsibilities
	<ul style="list-style-type: none"> • Maintaining key environmental-related documents and information • Communicating/ liaising with the local authorities on environmental issues
HSE Officer	<p>The HSE Officer will be the key person in charge of all environmental matters pertaining to the site. The HSE Officer will be responsible for:</p> <ul style="list-style-type: none"> • Coordinating the implementation of environmental programs, including monitoring of the project site environmental performance • Performing periodic internal environmental audits and inspections to ensure compliance with the legal environmental requirements • Ensure a monitoring system is in place to track and report all health, safety and environmental incidents; • Carry out a thorough initial site inspection of environmental controls prior to work commencement; • Record and provide a written report to the General Manager and production team of non-conformances with the EMP and require the HR Manager to undertake mitigation measures to avoid or minimize any adverse impacts on environment or report required changes to the EMP.

1.3. PROJECT BACKGROUND

The project is new investment for manufacturing of High-Quality Garment on Contract Manufacturing Process (CMP) basic company from Myanmar. The Yangon Region Investment Committee (YRIC) issues the project on 11 April 2018 with the Endorsement No. (YGN- 043/2018). YRIC notified for the environmental approval and comments of the Ministry of the Natural Resources and Environmental Conservation (MONREC) on the proposed project and had approved the proposal for investment in manufacturing of garment on Cutting, Making and Packaging (CMP) basis under the name of Green Nature Manufacturing Company Limited.

According to the Myanmar Environmental Conservation Law (2012), it requires that the proponents of every development project in the country submit either an Initial Environmental Examination (IEE) or an Environmental Impact Assessment (EIA) to Ministry of Natural Resources and Environmental Conservation (MONREC). As per the comments of Environmental Conservation Department (ECD), said project requires an Environmental Management Plan (EMP) to meet the environmental assessment requirements of Notification No. Yaka-1/3/4 (EIA) (325/2020) on 27 January 2020. Therefore, Green Nature Manufacturing Company Limited commissioned MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED for EMP report study.

1.4. PROJECT PROPONENT PROFILE

This is the information of project proponent from the MIC's registration that is describing in below Table 1-2 and Table 1-3.

Table 1-2 Information of Investor

Investor Name:	U Tin Win Aung
ID No.:	12/ASaNa (N) 227534
Citizenship:	Myanmar

Environmental Management Plan

Address of Registration office:	No 81, Yate Thar (5) Street, Waizayannar Housing, Mikyaung Kan section (1) quarter, Thingangyun Township, Yangon Region
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1.4.1. Director List

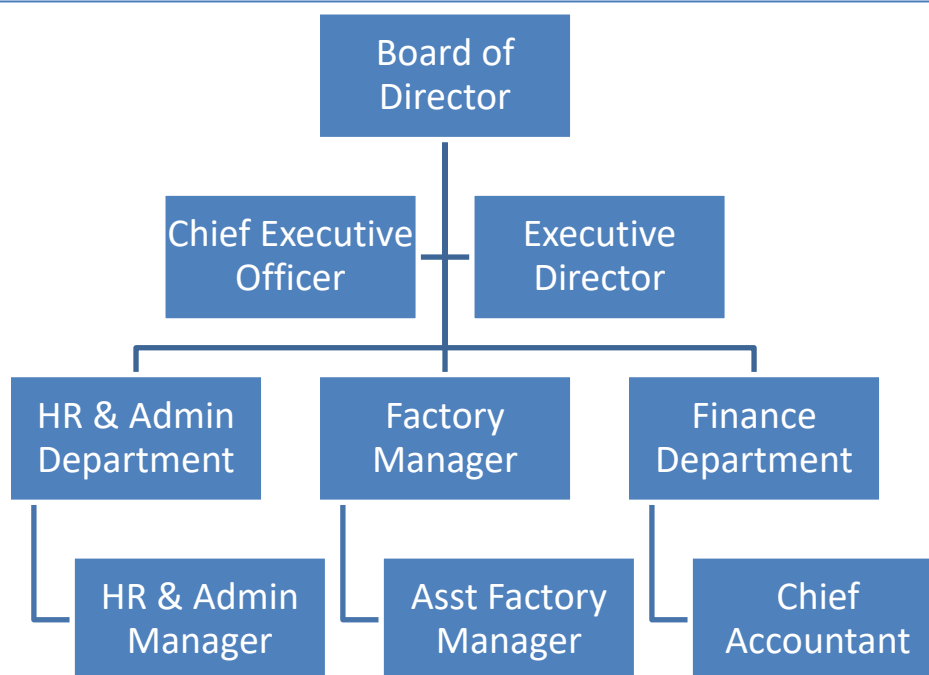
Name of Shareholder	Citizenship	Percentage
U Khin Maung Oo	Myanmar	25%
Daw Sein Sein Aye	Myanmar	15%
U Aung Lwin	Myanmar	20%
Daw Soe Myint	Myanmar	10%
U Tin Win Aung	Myanmar	20%
Daw Yee Mon Oo	Myanmar	10%

1.4.2. Investment Plan and Salient Features of the Project

The estimated authorized capital investment is 1500 Million Kyats (Table 1-3). Organization chart of Green Nature Manufacturing Company Limited is presented in Figure 1-3.

Table 1-3 Salient features of the project

Type of Proposed Business	Manufacturing of garment on CMP Basis
Type of investment	100% local investment
Type of Share	Ordinary Share
Type of land	Industrial Land
Total land area	4.855 acre (19647.50 sq meters)
Land lease year	30 years
Construction period	1 years
Operation starting date	30 years investment permit
Address	Plot No. (29+30), Myay Taing Block No.YaLaPa (25), Shwe Lin Ban Industrial Zone, Hlaing Thar Yar Township, Yangon Region.
Contact person	09-73126899 (U Tin Zaw)

Environmental Management Plan**Figure 1-3 Organization chart of Green Nature Manufacturing Company Limited****1.5. ENVIRONMENTAL CONSULT PROFILE**

MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED prepares the EMP for the proposed project. The field studies were carried out by MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED having experiences in conducting environmental assessments for various types of projects in Myanmar. The MYANWEI ENVIRONMENTAL SOLUTIONS COMPANY LIMITED team conducted field survey, assessment activities, and prepared the report. A reconnaissance study was performed on the proposed project site and baseline environmental data were also collected from possible sources using the appropriate measuring devices. Data interpretation and analysis were made based on those collected data for the present and potential future conditions. Suitable measures were proposed for the impacts to be mitigated to reduce to acceptable ones. The environmental study was carried out by the study team and the following is a summary of team member's responsibilities during the study period.

Table 1-4 Member of EMP Study Team

Member List	Responsibility
Dr. Hein Lynn Aung (Director) M.B, B.S (Yangon), Master of Management from Australia	Health Impact Assessment, Mitigation and Monitoring Report Reviewing
Mr. Lin Htet Sein (Environmental Consultant) MSc (Regional Geology) BSc (Hons) Geology	Base Line Data Collecting Management, Project Description, Legal Assessment, Impact Assessment, Mitigation Measure, Monitoring plan, Report Preparation and Reviewing
Mr. Sai Poeng Saing Kham (Member) B.A History	Report Writing, Secondary Data Study

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Mr. Kyaw Win Han (Member) B.E. Chemical Engineering B. Tech Chemical Engineering	Baseline Data Monitoring, Site Surveying Communication with Stakeholder in Project Area
Mr. Aung Kyaw Moe (Member) B.E. Chemical Engineering B. Tech Chemical Engineering	Report Writing, Secondary Data Study
Mr. Saw Yan Naung (Member) B.E. Chemical Engineering B. Tech Chemical Engineering	Baseline Data Monitoring, Site Surveying, Communication with Stakeholder in Project Area
Mr. Myat Ko Ko (Member) B.Sc (Hons) Geology M.Sc (Economic & Mining Geology)	Baseline Data Monitoring, Site Surveying, Communication with Stakeholder in Project Area
Mr. Si Yan Hein (Member) B.Sc (Geology)	Baseline Data Monitoring, Site Surveying, Communication with Stakeholder in Project Area
Ms. Khin Thuzar Myint (Member) B.E. Materials and Metallurgy Engineering Diploma in Environmental Planning and Management	Report Writing, Secondary Data Study
Mr. Htoo Nanda Aung (Member) B.Sc (Forestry)	Baseline Data Monitoring, Site Surveying, Communication with Stakeholder in Project Area
Ms. Wah Wah Zaw (Member) B.E. Material and Metallurgy Diploma in Environmental Planning and Management M.S Environmental Planning and Management	Report Writing, Secondary Data Study



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Environmental Management Plan**2. POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK**

This section provides a brief summary of relevant national environmental legislations established by the MONREC and overview of current local and international environmental and social policies including related international or regional convention for the proposed project.

2.1. MYANMAR REGULATORY FRAMEWORK

Myanmar has 24 ministries under the Office of the President as of May 2016. The leading ministries in-charge of environmental and social considerations is the Environmental Conservation Department (ECD) of the MONREC that was reorganized Ministry of Environmental Conservation and Forestry (MOECAF) in April 2016.

2.1.1. Laws and Regulations Related to Environmental and Social Considerations

Requirements related to environmental (and social) impact management for development projects are described in Table 2-1.

Table 2-1 List of Myanmar's Law relating to environmental management

Law and Regulation	Description
National Environmental Policy of Myanmar, (Notification No. 26/94 dated 5 December 1994)	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.
Constitution 2008	
Section 37, (a)	The Union is the ultimate owner of all lands and all-natural resources above and below the ground, above and beneath the water and in atmosphere in the Union.
Section 37, (b)	The Union shall permit citizens rights of private property, right of inheritance, right of private initiative and patent in accord with the laws.
Section 372	The Union guarantees the right to ownership, the use of property and the right to private invention and patent in the conducting of business if it is not contrary to the provisions of this Constitution and the existing laws.
Section 45	The Union shall protect and conserve natural environment.
Section 390, (a),(b),(c),(d)	Every citizen has the duty to assist the Union in preserving and safeguarding the cultural heritage, conserving the environment, striving for the development of human resources, and protecting and preserving the public property.
Environmental Conservation Law, 30 March 2012	
Objectives	to contract a healthy and clean environmental and to conserve natural and cultural heritage for the benefit of present and future generations; to maintain the sustainable development through effective management of natural resources and to enable to promote international, regional and bilateral cooperation in the matters of environmental conversation.
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;

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	(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	<p>(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;</p> <p>(b) To prescribe categories of hazardous substances that may affect significantly at present or in the long run on the environment;</p> <p>(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;</p> <p>(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;</p> <p>(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;</p> <p>(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.</p>
Chapter VI Environmental Quality Standards: Section10	<p>The Ministry may, with the approval of the Union Government and the Committee, stipulate the following environmental quality standards:</p> <p>(a) 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;</p> <p>(b) water quality standards for coastal and estuarine areas;</p> <p>(c) underground water quality standards;</p> <p>(d) atmospheric quality standards;</p> <p>(e) noise and vibration standards;</p> <p>(f) emissions standards;</p> <p>(g) effluent standards;</p> <p>(h) solid wastes standards;</p> <p>(i) other environmental quality standards stipulated by the Union Government.</p>
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 environmental pollution. If it is impracticable, it shall be arranged to dispose the wastes in accord with environmentally sound methods.
Section 16	<p>A person or organization operating business in the industrial estate or business in the SEZ or category of business stipulated by the Ministry:</p> <p>(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;</p> <p>(b) shall contribute the stipulated users 'charge s or management fees for the environmental conservation according to the relevant industrial estate,</p>

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	SEZ and business organization; (c) shall comply with the directives issued for environmental conservation according to the relevant industrial estate, SEZ or business.
Section 24	The project proponent has to allow relevant governmental organization or department to inspect whether performing is conformity with the terms and condition include in prior permission, stipulated by the ministry, or not.
Section 25	The project proponent has to comply with the terms and conditions include in prior permission.
Section 29	The project proponent has to abide by the stipulations included in the rules, regulations, by-law, order, notification and procedure, which are issued by said law.
Environmental Conservation Rules, 2014	
Rules 58	The Ministry shall form the EIA Report Review Body with the experts from the relevant Government departments, organizations.
Rules 59	The Ministry may assign duty to the Department to scrutinize the report of EIA prepared and submitted by any organization or person relating to EIA and report through the EIA Report Review Body.
Rules 61	The Ministry may approve and reply on the EIA report o IEE or EMP with the guidance of the Committee.
Sub-rule (a) of rule 68	The project proponent has to avoid emit, discharge or dispose the materials which can pollute to environment, or hazardous waste or hazardous material prescribed by notification in the place where directly or indirectly injure to public.
Sub-rule (b) of rule 68	The project proponent has to avoid performing to damage to ecosystem and the environment generated by said ecosystem.
Environmental Impact Assessment Procedure (December 2015)	
Objectives	<p>The project proponent has to be liable for all adverse impacts caused by doing or emitting 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.</p> <p>The project proponent has to support, after consulting with effected persons by project, relevant government organization, government 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</p> <p>The project proponent has to fully implement 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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

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	<p>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.</p> <p>The project proponent has to submit the monitoring report dually or prescribed time by Ministry in line with the schedule of EMP, under paragraph 108.</p> <p>The project proponent has to prepare the monitoring report in accord with the rule 109.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>The project proponent has to allow inspector to inspect the contractor and sub-contractor who implement on behalf of project, under paragraph 117.</p>
Screening: Section 23	<p>a) The project proponent shall submit the Project Proposal to the Ministry for Screening.</p> <p>b) The Ministry will send the Project Proposal to the Environmental Conservation Department to determine the need for environmental assessment.</p> <p>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:</p> <p>i) An EIA Type Project, or</p> <p>ii) An IEE Type Project, or</p> <p>iii) A Non IEE or EIA Type, and therefore not required to</p>
National Environmental Quality (Emission) Guidelines (NEQG) (December 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.
National Environmental Policy of Myanmar (2019)	

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National Environmental Policy Vision & mission	<p>Vision</p> <p>A clean environment, with healthy and functioning ecosystem, that ensures includes development and wellbeing for all people in Myanmar.</p> <p>Mission</p> <p>To establish national environmental policy principle for guiding environmental protection and sustainable development and for mainstreaming environmental consideration into all policies, laws, regulation, plans, strategic, programmes and projects in Myanmar.</p>
Foreign Investment Law, 2012	
Section 8	<p>(a) To support the primary objectives of the national economic development plan, and for businesses that cannot yet be run by the State and citizens or businesses that have insufficient funds and technology.</p> <p>(b) Development of employment activities</p> <p>(l) Protection and conservation of the environment.</p> <p>(q) Appearing the required modern services for the Union and citizens.</p>
Section 17	<p>(a) To abide by the existing laws of the Republic of the Union of Myanmar.</p> <p>(b) To carry out the business by forming a company under the existing laws of Myanmar by the investor.</p> <p>(h) To carry out not to cause environmental pollution or damage in accord with existing laws in respect of investment business.</p> <p>(k) To carry out the systematic transfer of high technology relating to the business which are carried out by the investor to the relevant enterprises, departments or organizations in accord with the contract.</p>
Foreign Investment Rule, 2013	
Rule 54	<p>The promoter or investor shall:</p> <p>(a) comply with Environmental Protection Law in dealing with environmental protection matters related to the business;</p> <p>(b) shall carry out socially responsible investment in the interest of the Union and its people;</p> <p>(c) shall co-operate with authorities for occasional or mandatory inspection;</p> <p>(d) shall exercise due diligence to be in conformity and harmony with norms and standards prescribed by relevant Union Ministry in conducting construction of factories, workshops, buildings, and other activities;</p> <p>(e) shall enforce Safety and Health</p>
Myanmar Investment Rules, 2017	
Rule 202	The project proponent has to comply with the conditions of the permit issued by the MIC and applicable laws when making the investment
Rule 203	The project proponent has to fully assist while negotiating with the authority for settling the grievance of the local community which has been affected due to investment
Rule 206	The project proponent has to submit the passport, expert evidence or document of degree and profile to the MIC office for approval if decide to appoint a foreigner as senior management, technician expert or consultant according to subsection (a) of section 51 of Myanmar Investment Law
Myanmar Insurance Law (1993)	<p>Section 15 - If the project proponent uses the owned vehicles the project owner has to ensure the insurance for the injured person.</p> <p>Section 16 - The project proponent has to ensure insurance to compensate for general damages because the project may cause damages to the environment and injury to the public.</p>

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Payment of Wages Law (2016)	
Section 3 & 4	The project proponent has to pay the wages in accord with section 3 and 4 of said law,
Section 5	The project proponent has to submit with the agreements of employees & reasonable ground to the department if it is difficult to pay because of force majeure included in a natural disaster
Section 7-13	The project proponent has to abide by the provisions of section 7 to 13 in the chapter (3) in respect of deduction from wages.
Section 14	The project proponent has to pay the overtime fees, prescribed by law, to the employees who work over working hours
Yangon City Development Committee Law (2018)	
Section (317)	The proponent shall not block the natural river channel, change the course, and disrupt the water channel, filling with soil within the city boundaries without the consent of the Committee
Section (318)	The project proponent shall not construct buildings, factories, and industries without sewage, toilet, septic tanks, and wastewater treatment system
Section (322)	The project proponent is not allowed to make activities that will produce noise pollution, water pollution, air pollution, and soil pollution to impact the environment within the city's boundaries
The Amended Law for Factories Act, 1951 (2016)	
Hygiene in Working Environment: 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.
Safety in Working Environment: 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 accident.
The Private Industrial Enterprise Law, 1990	
Basic Principles: Section 3	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 value of services, and to increase the production of the respective economic enterprises which are related to the industrial enterprise; (b) to acquire modern technical know-how for raising the efficiency of industrial enterprises and to establish the sale of finished goods produced by the industrial enterprise not only in the local market, but also in the foreign market; (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.
The Export and Import Law (2012)	
Objectives	The objectives of this law are as follows:

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	<p>a) To enable to implement the economic principles of the State successfully.</p> <p>b) To enable to lay down the policies relating to export and import that supports the development of the State.</p> <p>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.</p> <p>d) To cause to be streamlined and speedy in carrying out the matters relating to export and import.</p>
Prohibitions: Section 5	No persons shall export or import restricted, prohibited and banned goods.
Prohibitions: Section 6	Without obtaining license, no person shall export or import the specified goods which are to obtain permission.
Prohibitions: Section 5	A person who obtained any license shall not violate the conditions contained in the license.
The Prevention of Hazard from Chemical and Related Substances Law, 2013	
<p>This law was enacted with the objectives of :</p> <p>a. To protect from being damaged the natural environment resources and being hazardous any living beings by chemical and related substances;</p> <p>b. To supervise systematically in performing the chemical and related substances business with permission for being safety;</p> <p>c. To perform the system of obtaining information and to perform widely educative and research for using the chemical and related substance systematically;</p> <p>d. To perform the sustainable development for the occupational safety, health and environmental conservation.</p> <p>Regarding the chemical management and storage, currently, regulations governing chemicals management are divided between various Acts, mostly dating from colonial times; hence the legislation is in many respects related to the British framework. The Factory Act and the Public Health Act contain the provisions for chemicals management and storage. Some chemicals are likely to require permits.</p>	
Underground Water Act	
<p>The underground water act enacted on the date of 21st June in 1930 whereas it is expedient to conserve and protect underground sources of water supply in the Union of Burma. This act prohibits sinking of 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. Township Officer or sub-divisional officer had power to close a license tube after exercising jurisdiction over the local area concerned and the expense of such closure shall be recoverable from the owner of the tube as if it were an arrear of land-revenue.</p>	
Myanmar Fire Brigade Law (2015)	
<p>The Pyidaungsu Hluttaw enacted this law by Law No.11/2015 on the date of 17th March, 2015 with the following objectives:</p> <p>(a) to take precautionary and preventive measures and loss of state own property, private property, cultural heritage and the live and property of public due to fire and other natural disasters</p> <p>(b) to organize fire brigade systemically and to train the fire brigade</p> <p>(c) to prevent from fire and to conduct release work when fire disaster, natural disaster, epidemic disease or any kind of certain danger occurs</p> <p>(d) to educate, organize and inside extensively so as to achieve public corporation</p> <p>(e) to participate if in need for national security, peace for the citizens and law and order</p>	
Section-8 Fire Safety Procedures	
Rule17	<p>The relevant Government Department or organization shall, for the purpose of precaution and prevention obtain the approval of the Fire force Department before granting permission for the following cases:</p> <p>a. Constructing three-storied and above buildings market and condominium</p>

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	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
Rule18	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 Electricity Law (2014)	
In 2014, the new Electricity Law, a comprehensive piece of legislation covering licensing, a new regulatory commission, standards, inspection, tariff, and restrictions, replaced the Electricity Law of 1984. The Electricity Law divides projects into “small” (up to 10 MW), “medium” (between 10 MW to 30 MW) and large (upwards of 30 MW); the states and regions can issue permits for small and medium power plants. In case these plants are not connected to the national grid, the Union Government Ministry is not the primary authority involved. The authorities have a legal right to use land for the purpose of power plants under the Electricity Law, and have the right to expand and maintain their facilities. The law also provides that the authorities can build transmission lines in accordance with existing laws.	
Boiler Law (2015)	
Chapter (2) Objective	The objectives of this law are as follows: (a) To obtain boilers in compliance with Myanmar Standards or International Standards (b) To prevent the country and citizens from hazards caused by boiler accidents (c) To use boilers in compliance with Myanmar Standards or International Standards within the country (d) To develop boiler technology and to produce experts capable of manufacturing, handling, repair, and maintenance of boilers (e) To optimize the use of boilers through effective utilization of fuel energy (f) To reduce the environmental, social and health impacts through long-lasting use of boilers.
Chapter (3) 4. With the permission of the Ministry, the inspector general can:	Notify the inspection methods and instructions according to the national or international standards for safe operations of boilers in line with this law, procedures and instructions Only the results obtained from the prescribed boiler standards and inspection methods will be approved.
Chapter (4). Boiler Registration	5. Anybody who would like to use a boiler in any kind of business should be registered. 6. Boiler should be manufactured according to Myanmar Standards or International Standards. 7. Those who would like to apply for boiler registration according to Section 5 should apply to the inspector with the application, documents and vouchers related to boiler 8. If the application regarding registration of boiler according to Section 7, the Registration Officer should conduct necessary inspection and submit results of the findings to the Inspector General. 9. The Inspector General should assess and inspect the submission of the Registration Officer according to Section 8 and could allow or reject for

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	<p>registration of the boiler.</p> <p>10. The Inspector General shall define boiler size according to heated surface area in accordance with adopted procedures.</p>
Chapter (13) Prohibitions	<p>59. According to Section 21, nobody must alter, change, deface, deform or make embossed registration unnoticeable illegitimately.</p> <p>60. Nobody is allowed to repair a boiler without boiler repair certificate.</p> <p>61. Nobody is allowed to maintain a boiler without boiler maintenance certificate.</p> <p>62. Nobody must alter safety relief valve in order to exceed the allowable pressure due to his consent or direction given by the owner.</p> <p>63. Nobody must manufacture boilers against Section 25, Subsection 25 (a) and (b) enacted.</p>
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
The Pyidaungsu Hluttaw hereby enacts this Law for safeguarding the right of workers or having good relationship between employer and workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly.	
The Social Security Law (2012)	
The Social Security Law, enacted in 2012, was amended the Social Security Act in 1954. It stipulates the formation and implementation of social security systems.	
Section 53(a)	The employers and workers shall co-ordinate with the Social Security Board or insurance agency in respect of keeping plans for safety and health in order to prevent employment injury, contracting disease and decease owing to occupation and in addition to safety and educational work of the workers and accident at the establishment;
Labor Dispute Settlement Law (28 Mar 2012 replacing 1929 version)	
This law was enacted for safeguarding the right of workers or having good relationship between employer and workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly. It stipulates that employer in which more than 30 workers are employed shall form the workplace coordinating committee consisting of the representatives of workers and the representatives of employer.	
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.
Section 24	The relevant Conciliation Body shall, in respect of the collective dispute known or received by the complaint of either party, employer or worker, in respect of the dispute; information sent by the Minister or the Region or State Government or any other means, carry out as follows: (a) conciliating so as to be settled within three days, not including the official holidays, from the day of knowing or receipt of such dispute; (b) concluding mutual agreement if the settlement is reached in conciliating under sub-section (a), before the Conciliation Body.
Section 25	The Conciliation Body shall refer the collective dispute which does not reach settlement to the relevant Arbitration Body and inform the persons relating to the dispute.
Section 38	No employer shall fail to negotiate and coordinate in respect of the complaint within the prescribed period without sufficient cause.
Section 39	No employer shall alter the conditions of service relating to workers concerned in such dispute at the consecutive period before commencing the dispute within the period under investigation of the dispute before the Arbitration Body or Tribunal, to affect the interest

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	of such workers immediately.
Section 40	The project proponent has to not close the work without negotiation, discussion on dispute in accord with this law, decision by Tribunal
Section 51	The project proponent has to pay the compensation decided by Tribunal if violates any act or any omission to damage the interest of labour by reducing of product without efficient cause.
Section 46	Any employer who violates any prohibition contained in sections 38 and 39 shall, on conviction, be punished with a fine for a minimum of one-lakh kyats.
The employment and skill development (2013)	
This law was enacted for safeguarding the right of workers or having skillful of workers and making peaceful workplace or obtaining the rights fairly, rightfully and quickly by settling the dispute of employer and worker justly. Employer shall conduct occupational training to enhance the skills of workers.	
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	Employer shall conduct occupational training to enhance the skills of workers who are to be employed as well as workers who are presently employed in accordance with the requirements of the enterprise and the policy of the Skills Development Agency.
The Worker's Compensation Act, 1923	It stipulates that employer is required to make payments to employees who become injured or who die in any accidents arising during and in consequence of their employment. Such compensation also must be made for diseases which arise as a direct consequence of employment, such as carpal tunnel syndrome.
The Payment of Wages Act, 1936	The Payment of Wage Act defines the payment obligation to the workers employed in the factories or railway administration. It stipulates the method of payment stating that the payment should be made in cash on a regular payday, and allows legal action against delayed payment or un-agreeable deduction
The Leave and Holidays Act (1951, partially revised in 2014)	This act has been used as the basic framework for leaves and holidays for workers with minor amendment in 2006 and 2014. This defines the public holidays that every employee shall be granted with full payment. It also defines the rules of leaves for workers including medical leave, earned leave and maternity leave
The Minimum Wage Law (2013)	The minimum wage law, passed in March 2013, was replaced the 1949 Minimum Wage Act. The law provides a framework for minimum wage determination: the presidential office establishing a tripartite minimum wage committee shall decide minimum wage with industrial variation based on a survey on living costs of workers possibly every two years. This also stipulates equal payment
Public Health Law (1972)	Chapter 2; Prevention of Public Health
Objectives	<p>To ensure the public health include not only employees but also resident people and cooperation with the authorized person or organization of health department. This law focuses as follows</p> <p>The project owner has to cooperate with the authorized person or organization in line with the section 3 and 5 of said law.</p> <p>The project proponent has to abide by any instruction or stipulation for public health under the section 3 of said law.</p> <p>The project proponent has to allow any inspection, anytime, anywhere if it is needed under the section 5 of said law.</p>
Prevention and Control of Communicable Disease Law 1995 (Amendment in 2011)	

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Chapter 2 Prevention	4. When a Principal Epidemic Disease of a Notifiable Disease occurs; Immunization and other necessary measures shall be undertaken by the Department of Health, in order to control the spread thereof; The public shall abide by measures undertaken by the Department of Health under sub-section (a).
Chapter 4 Environmental Sanitation	For prevention of the outbreak of Communicable Disease and effective control of Communicable Disease when it occurs, the public shall under the supervision and guidance of the Health Officer of the relevant area, undertake the responsibility of carrying out the following environmental sanitation measures;- Indoor, outdoor sanitation or inside the fence outside the fence sanitation; Well, ponds and drainage sanitation; Proper disposal of refuse and destruction thereof by fire; Construction and use of sanitary latrines; Other necessary environmental sanitation measures.
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 Sub-section (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.
Section-26 Sub-section (1)	The project proponent has to arrange and display occupational safety and health instructions, warning signs, notices, posters, and signboards.
Section-30 Sub-section (a)	The worker shall wear or use at all times any protective clothes, equipment and tools provided by the employer for the purpose of safety and health.
Section-30 Sub-section (d)	The worker shall proper and systematic use any equipment and tools, machines, any parts of the machines, vehicles, electricity and other substances being used at the workplace.
Section-30 Sub-section (e)	The worker shall take reasonable care for the safety and health of himself/ herself and of other persons who may be affected by his/ her acts or omissions at work.
The law on Standardization	
Objectives	The Objectives of this Law are as follows: to enable to determine Myanmar Standard to enable to support export promotion by enhancing quality of production organizations and their product, production processes and services to enable to protect the consumers and user by guaranteeing imports and products are not lower than prescribed standard, and safe from health hazards to enable to support protection of environment related to products, production process and services from impact, and conservation of natural resources to enable to protect manufacturing, distributing and importing the disqualified goods which do not meet the prescribed standard and those which are not safe and endangered to the environment to support on establishing the ASEAN Free Trade Area and to enable to reduce technical barriers to trade to facilitate technological transfer and innovation by using the standards for the development of national economic and social activities in accordance

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	with the national development programme.
Chapter 7 Taking Action by Committee No. 19	The committee may, if it is found out that holder of certificate of certification violates any term or condition contained in the relevant recommendation, pass any of the following administrative order: warning suspending the certificate of certification for limited period cancelling the certificate of certification.
လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများဆိုင်ရာဥပဒေ (၂၀၁၈)	
ရည်ရွယ်ချက်	လုပ်ငန်းခွင်သုံးပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများကို စနစ်တကျပြုလုပ်ခြင်း၊ တင်သွင်းခြင်း၊ သယ်ယူခြင်း၊ သိုလှောင်ခြင်းနှင့် သုံးစွဲခြင်းတို့ပြုနိုင်ရန်၊ ယမ်းဘီလူးနှင့် ဆက်စပ်သုံးပစ္စည်းများ အသုံးပြုသည့် လုပ်ငန်းခွင်ဘေးအန္တရာယ် ကင်းရှင်း၍ လုံခြုံမှုရှိစေရန်၊ လုပ်ငန်းခွင်သုံး ပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများ ပြုလုပ်သုံးစွဲမှုများကို စနစ်တကျ ကြီးကြပ်နိုင်ရန်။
အခန်း ၇ တားမြစ်ချက်များ အမှတ် ၁၈	လိုင်စင်ရရှိသူနှင့် ခွင့်ပြုချက်ရရှိသူ မည်သူမျှ စစ်ဆေးရေးအရာရှိချုပ် သို့မဟုတ် စစ်ဆေးရေးအရာရှိ၏ စစ်ဆေးခြင်းကို ခံယူရန် ငြင်းပယ်ခြင်းမပြုရ။
အမှတ် ၁၉ (ခ)	ပုဒ်မ ၈ အရ ကာကွယ်ရေးဌာနကောင်စီ အမှုဆောင်အဖွဲ့၏ အတည်ပြုချက်မရရှိဘဲ လုပ်ငန်းခွင် ပေါက်ကွဲစေတက်သော ဝတ္ထုပစ္စည်းများကို ဖျက်ဆီးခြင်းမပြုရ။
အမှတ် ၁၉ (ဂ)	ဤဥပဒေအရ ထုတ်ပြန်သည့် နည်းဥပဒေ၊ စည်းမျဉ်း၊ စည်းကမ်း၊ အမိန့်ကြော်ငြာစာ၊ အမိန့်နှင့် ညွှန်ကြားချက်များနှင့်အညီ ဆောင်ရွက်ရန် ပျက်ကွက်ခြင်း မရှိစေရ။
The Motor Vehicles Law (2015)	
Objectives	When the constructions periods and if it is needed in operation and production period for all vehicles <ul style="list-style-type: none"> The project proponent has to promise to abide by the nearly all provisions of said law and rules, especially the provisions related to air pollution, noise pollution and life safety.
The Conservation of Water Resources and Rivers Law (2006)	
Aims	The aims of this Law are as follows: <ul style="list-style-type: none"> (a) to conserve and protect the water resources and rivers system for beneficial utilization by the public; (b) to smooth and safety waterways navigation along rivers and creeks; (c) to contribute to the development of State economy through improving water resources and river system; (d) to protect environmental impact.
Chapter 5 Prohibitions No. 8	No person shall: <ul style="list-style-type: none"> (a) carry out any act or channel shifting with the aim to ruin the water resources and rivers and creeks. (b) cause the wastage of water resources wilfully.
No. 10	No person shall anchor the vessels where vessels are prohibited from anchoring in the rivers and creeks.

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No.11 (a)	No person shall: dispose of engine oil, chemical, poisonous material and other materials which may cause environmental damage, or dispose of explosives from the bank or from a vessel which is plying, vessel which has berthed, anchored, stranded or sunk.
No. 12	No person shall carry out growing of garden, digging, filling, silt trapping, closing pond, dyke building or erecting spur in the river-creek boundary, bank boundary and waterfront boundary without the permission of the relevant government department and organization.
No. 15	No person shall carry out the construction of switchback, dockyard, wet dockyard, water-tight dockyard, building of jetty, pier, landing stage or vessel landing by drainage in the river-creek boundary, bank boundary and waterfront boundary without the permission of the Directorate.
The Commercial Tax Law (1990) Amended 2014	
Chapter 5 Registration and Intimation of Commencement of Enterprise 11 (b)	Any Person who commences operation of a goods production enterprise or service enterprise shall furnish letter of intimation on the commencement of the operation as such to the relevant Township Revenue Officer as stipulated by regulations.
Chapter 6 Monthly Payment of Tax and Sending of Three-Monthly Return 12 (a)	Any person who has taxable proceed of sale or receipt from service within a year, shall pay due monthly tax within ten days after the end of the relevant month. Moreover, a three-monthly return shall be furnished to the relevant Township Revenue Officer within one month after the end of relevant three-month.
12 (b)	The Township Revenue Officer may intimate any person to pay due monthly tax and send three-monthly return if there is cause to consider that he has taxable proceed of sale or receipt from service within a year.
12 (c)	If it is failed to pay tax under sub-section (a) or (b), or if there is cause to consider that the tax paid is less than the tax payable, the Township Revenue Officer may, based on the information received, estimate and claim the tax payable or the additional tax payable.
12 (d)	The tax paid under sub-section (a), (b) or (c) shall be set-off from the tax due in the assessment.
12 (e)	The tax payable on goods imported under sub-section (c) of section 4 of the Law shall be collected together with the customs duties by the Customs Department in accord with the manner of collecting customs duties.

2.2. NATIONAL ENVIRONMENTAL QUALITY (EMISSION) GUIDELINES

As specified in the EIA Procedure, all projects are obliged to use, comply with and refer to applicable national guidelines or standards or international standards adopted by the Ministry. As specified in the EIA Procedure, following project approval a project shall commence implementation strictly in accordance with the project EMP and any additional requirements set out in the project ECC, which will encompass conditions relating to emissions. While these Guidelines generally apply to all projects subject to the EIA Procedure, it is the prerogative of the Ministry to decide how the Guidelines should be applied to existing projects as referred to in the EIA Procedure.

According to the Environmental Conservation Law, MOECA shall set standards of environmental qualities as agreed by the Union Government and the Environmental Conservation

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Committee 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.

2.2.1. General Guidelines

General guidelines of related environmental impact guideline for proposed project are -

2.2.1.1. Air emission

Projects with significant sources of air emissions, and potential for significant impacts to ambient air quality, should prevent or minimize impacts by ensuring that: (i) emissions do not result in concentrations that reach or exceed national ambient quality guidelines and standards, or in their absence current World Health Organization (WHO) Air Quality Guidelines¹ for the most common pollutants as summarized below; and (ii) emissions do not contribute a significant portion to the attainment of relevant ambient air quality guidelines or standards (i.e. not exceeding 25 percent of the applicable air quality standards) to allow additional, future sustainable development in the same air shed. Industry-specific guidelines summarized hereinafter shall be applied by all projects to ensure that air emissions conform to good industry practice. Reference should be made to WHO's Air Quality Guidelines for Europe² for air pollutants not included in the following Table 2 2.

Table 2-2 WHO's Air Quality Guideline

Parameter	Averaging Period	Guideline Value
Nitrogen Dioxide	1-year	40
	1-hour	200
Ozone	8-hour	100
Particulate Matter PM10 ^a	1-year	10
	24-hour	50
Particulate Matter PM2.5 ^b	1-year	10
	24-hour	25
Sulfur dioxide	24-hour	20
	10-minute	500

^a Particulate matter 10 micrometers or less in diameter

^b Particulate matter 2.5 micrometers or less in diameter

2.2.1.2. Wastewater

Industry-specific guidelines apply during the operations phase of projects and cover direct or indirect discharge of wastewater to the environment. They are also applicable to industrial discharges to sanitary (domestic) sewers that discharge to the environment without any treatment. Wastewater generated from project operations includes process wastewater, wastewater from utility operations, runoff from process and storage areas, and miscellaneous activities including wastewater from laboratories, and equipment maintenance shops. Projects with the potential to generate process wastewater, sanitary sewage, or storm water should incorporate the necessary precautions to avoid, minimize, and control adverse impacts to human health, safety or the environment. Industry-specific guidelines summarized hereinafter shall be applied by all projects, where applicable, to ensure that effluent emissions conform to good industry practice.

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For project types where industry-specific guidelines are not set out in these Guidelines, the following general guideline values, or as stipulated on a case-by-case basis, apply during project operations.

Table 2-3 Wastewater, Storm Water Runoff, Effluent and Sanitary Discharges (general application)

Parameter	Unit	Guideline Values
5-day Biochemical oxygen demand	mg/l	50
Ammonia	mg/l	10
Arsenic	mg/l	0.1
Cadmium	mg/l	0.1
Chemical oxygen demand	mg/l	250
Chlorine (total residual)	mg/l	0.2
Chromium (hexavalent)	mg/l	0.1
Chromium (total)	mg/l	0.5
Copper	mg/l	0.5
Cyanide (free)	mg/l	0.1
Cyanide (total)	mg/l	1
Fluoride	mg/l	20
Heavy metals (total)	mg/l	10
Iron	mg/l	3.5
Lead	mg/l	0.1
Mercury	mg/l	0.01
Nickel	mg/l	0.5
Oil and grease	mg/l	10
pH	S.U. ^a	6-9
Phenols	mg/l	0.5
Selenium	mg/l	0.1
Silver	mg/l	0.5
Sulphide	mg/l	1
Temperature increase	°C	<3 ^b
Total coliform bacteria	100 ml	400
Total phosphorus	mg/l	2
Total suspended solids	mg/l	50
Zinc	mg/l	2

a Standard Unit

b At the edge of a scientifically established mixing zone which takes into account ambient water quality, receiving water use, potential receptors and assimilative capacity; when the zone is not defined, use 100 meters from the point of discharge

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This guideline applies to textile manufacturing using natural fibers, synthetic fibers (made entirely from chemicals), and regenerated fibers (made from natural materials by processing these materials to form a fiber structure). It does not include polymer synthesis and natural raw material production.

2.2.2.1. Effluent levels

Parameter	Unit	Guideline Value
5-day Biochemical oxygen demand	mg/l	30
Absorbable organic halogens	mg/l	1
Ammonia	mg/l	10
Cadmium	mg/l	0.02
Chemical oxygen demand	mg/l	160
Chromium (hexavalent)	mg/l	0.1
Chromium (total)	mg/l	0.5
Cobalt		0.5
Color		7 (436 nm ^a , yellow) 5 (525 nm, red) 3 (620 nm, blue)
Copper	mg/l	0.5
Nickel	mg/l	0.5
Oil and grease	mg/l	10
Pesticides		0.05-010 ^b
pH	S.U. ^c	6-9
Phenol	mg/l	0.5
Sulfide	mg/l	1
Temperature increase	°C	<3 ^d
Total coliform bacteria	100 ml	400
Total nitrogen	mg/l	10
Total phosphorus	mg/l	2
Total suspended solids	mg/l	50
Zinc	mg/l	2

^a Nanometers

^b 0-05 mg/l for total pesticides (organ phosphorus pesticides excluded); 0.10 mg/l for organo phosphorus pesticides

^c Standard Unit

^d at the edge of a scientifically established mixing zone which takes into account ambient water quality, receiving water use, potential receptors and assimilative capacity; when the zone is not defined, use 100 meters from the point of discharge

2.2.2.2. Air emission levels

Parameter	Unit	Guideline Value
Ammonia	mg/Nm ^{3a}	30

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Carbon disulfide	mg/Nm ³	150
Chlorine	mg/Nm ³	5
Formaldehyde	mg/Nm ³	20
Hydrogen sulfide	mg/Nm ³	5
Particulates	mg/Nm ³	50 ^b
Volatile organic compounds	mg/Nm ³	2/20/50/75/100/1 150 ^{c, d}

a Milligrams per normal cubic meter at specified temperature and pressure

b as the 30-minute mean for stack emissions

c Calculate as Total carbon

d As the 30-minute mean for stack emissions; 2 mg/Nm³ for volatile organic compounds classified as carcinogenic or mutagenic with mass flow greater than or equal to 10 g/hr; 20 mg/Nm³ for discharges of halogenated volatile organic compounds with a mass flow equal or greater than 100 g/hr; 50 mg/ Nm³ for waste gases from drying of large installations (solvent consumption > 15 tons/year); 75 mg/Nm³ for coating application processes for large installations (solvent consumption > 15 tons/year); 100 mg/Nm³ for small installations (solvent consumption < 15 tons/year); if solvent is recovered from emissions and reused, the guideline value is 150 mg/Nm³

2.2.3. IFC EHS Guidelines

The EHS Guidelines¹ by International Finance Cooperation (IFC) are technical reference documents with general and industry-specific examples of Good International Industry practice (GIIP), as defined in IFC's Performance Standard 3: Resources Efficiency and Pollution Prevention. The EHS Guidelines contain the performance levels and measures that are normally acceptable to IFC, and that are generally considered to be achievable in new facilities at reasonable costs by existing technology.

There are two kinds of guidelines, General EHS Guidelines and Industry Sector Guidelines. The General EHS Guidelines contain information on cross-cutting environmental, health, and safety issues potentially applicable to all industry sectors in the following section: (1) Environment, (2) Occupational Health and Safety, (3) Community Health and Safety and (4) Construction and Decommissioning. Table 2-4 shows the contents of the section of Community Health and Safety.

Table 2-4 Community health and safety contents

Contents	Brief Description
Water Quality and Availability	Drinking water sources should at all times be protected so that they meet or exceed applicable national acceptability standards or in their absence the current edition of WHO Guidelines for Drinking-Water Quality. Project activities should not compromise the availability of water for personal hygiene needs and should take account of potential future increases in demand. The overall target should be the availability of 100 liters per person per day.
Structural Safety of Project Infrastructure	Reduction of potential hazards is best accomplished during the design phase when the structural design, layout and site modifications can be adapted more easily. The following issues should be considered and incorporated as appropriate into the planning, siting, and design phases of a project (1) inclusion of buffer strips or other methods of physical separation around project sites to protect the public from major hazards associated with hazardous materials incidents or process failure (2) incorporation of siting and safety engineering criteria to prevent failures due to natural risks posed by earthquakes, tsunamis, wind, flooding, landslides and fire, and (3) application of locally regulated or internationally recognized building codes, standards and regulations, and mitigation measures.
Traffic Safety	Traffic safety should be promoted by all project personnel during displacement to and from the workplace, and during operation of project equipment on private or public roads. Prevention and control of traffic related injuries and fatalities should include the adoption of safety measures that are protective of project workers and of road users, including those who

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Contents	Brief Description
	are most vulnerable to road traffic accidents.
Transport of Hazardous Materials	Projects should have procedures in place that ensure compliance with local laws and international requirements applicable to the transport of hazardous materials.
Disease Prevention	Recommended interventions against the communicable diseases at the project level include (1) providing surveillance and active screening and treatment of workers, (2) preventing illness among workers in local communities by undertaking health awareness and education initiatives, training health workers in disease treatment and conducting immunization programs for workers, and (3) providing treatment through standard case management in on-site or community health care facilities.
Emergency preparedness and Response	All projects should have an Emergency preparedness and Response Plan that is commensurate with the risks of the facility and that includes the following basic elements: (1) Administration (policy, purpose, distribution, definitions, etc.) (2) Organization of emergency areas (command centers, medical stations, etc. (3) Roles and responsibilities, (4) Communication systems, (5) Emergency response procedures, (6) Emergency resources, (7) Training and updating, (8) Checklists (role and action list and equipment checklist), and (9) Business Continuity and Contingency.

Source: IFC, Environmental, Health, and Safety (EHS) Guidelines, General EHS Guidelines: Community Health and Safety (April 30.20070)

2.3. INSTITUTIONAL ARRANGEMENT

The Ministry of Environmental Conservation and Forestry (MOECF) was reformed as the Ministry of Natural Resources and Environmental Conservation (MONREC) on 30th March, 2016 in order to undertake both environmental and natural resources conservation and management more effectively. Under Section 3 of the Environmental Impact Assessment Procedure (2015), pursuant to section 21 of the law and Articles 52, 53 and 55 of the Environmental Conservation Rules, all projects and project expansions undertaken by any organization, which may cause impact on environmental quality that, are required to obtain prior permission. This is to be in accordance with section 21 of the Environmental Conservation Law, and Article 62 of the Environmental Conservation Rules, having the potential to cause adverse impacts, that are required to undertake IEE or EIA or to develop an EMP, and to obtain an Environmental Compliance Certificate (ECC) in accordance with this EIA procedure.

2.4. COMMITMENT OF GREEN NATURE MANUFACTURING COMPANY LIMITED

Green Nature Manufacturing Company Limited has made the commitments and responsible for the preservation of the environment at and around the area of project site. In addition to this, it shall carry out as per instructions made by Ministry of MONREC in which to conduct an EMP which describe the measure to be taken for preventing, mitigation and monitoring significant environment impacts resulting from the implementation and operation of proposed project or business or activity has to be prepared and submitted and to perform activities in accordance with this EMP and be abided by the environment policy, Environmental Conservation Law and other environmental related rules and procedures.

- Monitoring the factory area operations according to EMP and Environmental Monitoring Plan (EMoP)
- Submitting environmental monitoring reports to ECD
- Planning and implementation of CSR activities

Environmental Management Plan

- To set up welfare plan such as staff medical checkup, training program and Public talk for getting knowledge, risk prevention, bonus and social security services
- To carry out fire safety assessment and ensure adequate and appropriate fire safety measures for employees

Environmental Management Plan

3. PROJECT DISCRIPTION

3.1. LOCATION OF PROPOSED PROJECT

The proposed project is located at Latitude 16°55'12"N and Longitude 96°4'48"E, Plot No. (29+30), Myay Taing Block No.YaLaPa (25), Shwe Lin Ban Industrial Zone, Hlaing Thar Yar Township, Yangon Region. The location map of the proposed project size is shown in Figure 3-1.

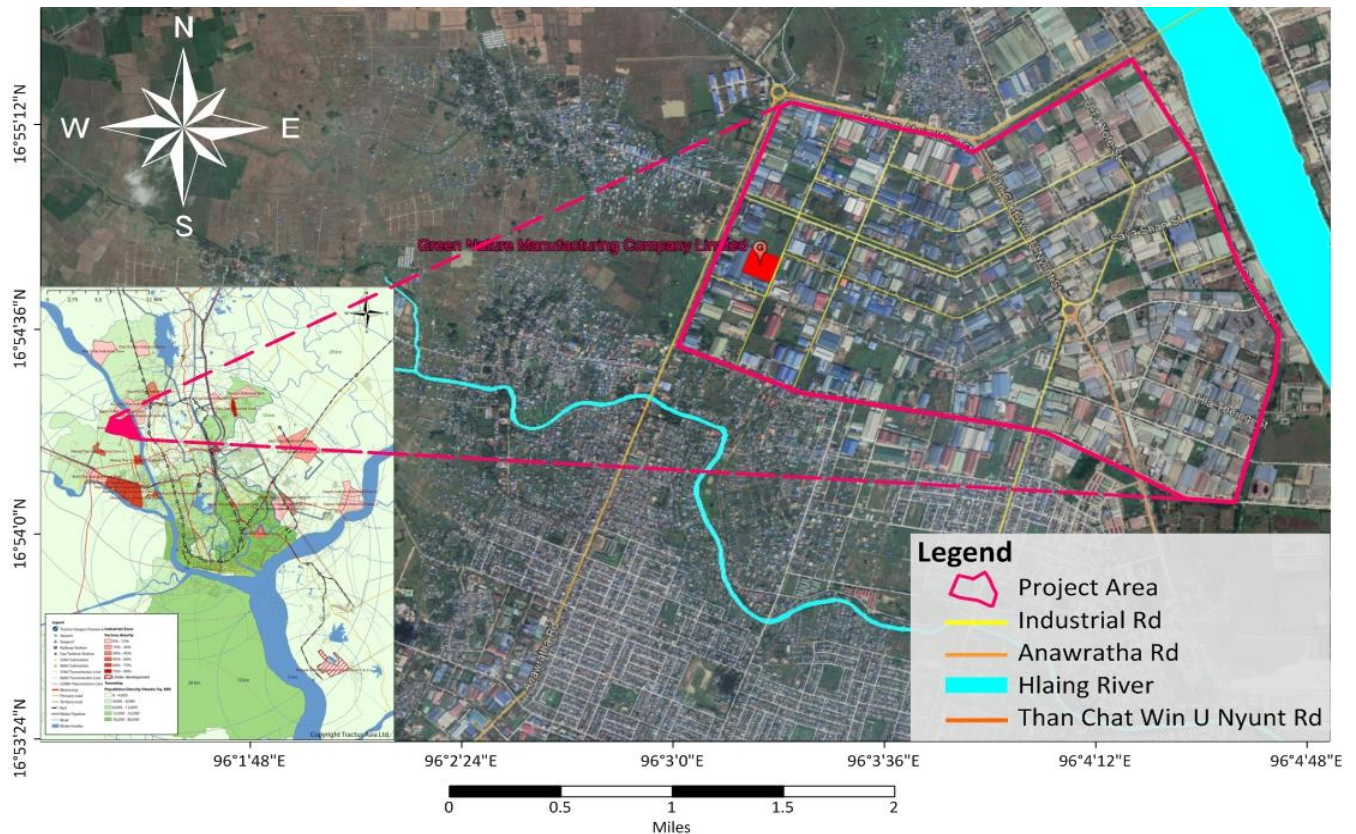


Figure 3-1 Location Map

3.2. OBJECTIVES OF PROPOSED PROJECT

The proposed project intends to manufacture garment on CMP basic and to export 100% of the finished products. Green Nature Manufacturing Company Limited uses raw materials for garment in People Republic of Union of Myanmar. New Ever Best Trading Company Limited agrees to buy products from Green Nature Manufacturing Company Limited.

3.2.1. Site Description of Proposed project site

The total land area is 4.855 acre (19647.50 sq meters) and build main factory buildings, warehouse, kitchen, canteen, maintenance house, etc. which were built on its land area. Project was constructed in 1st January 2008 and the factory was commercially run in 2nd April 2019. Also factory layout drawing is able to seen in Figure 3-2 and Figure 3-3. The factory was constructed in

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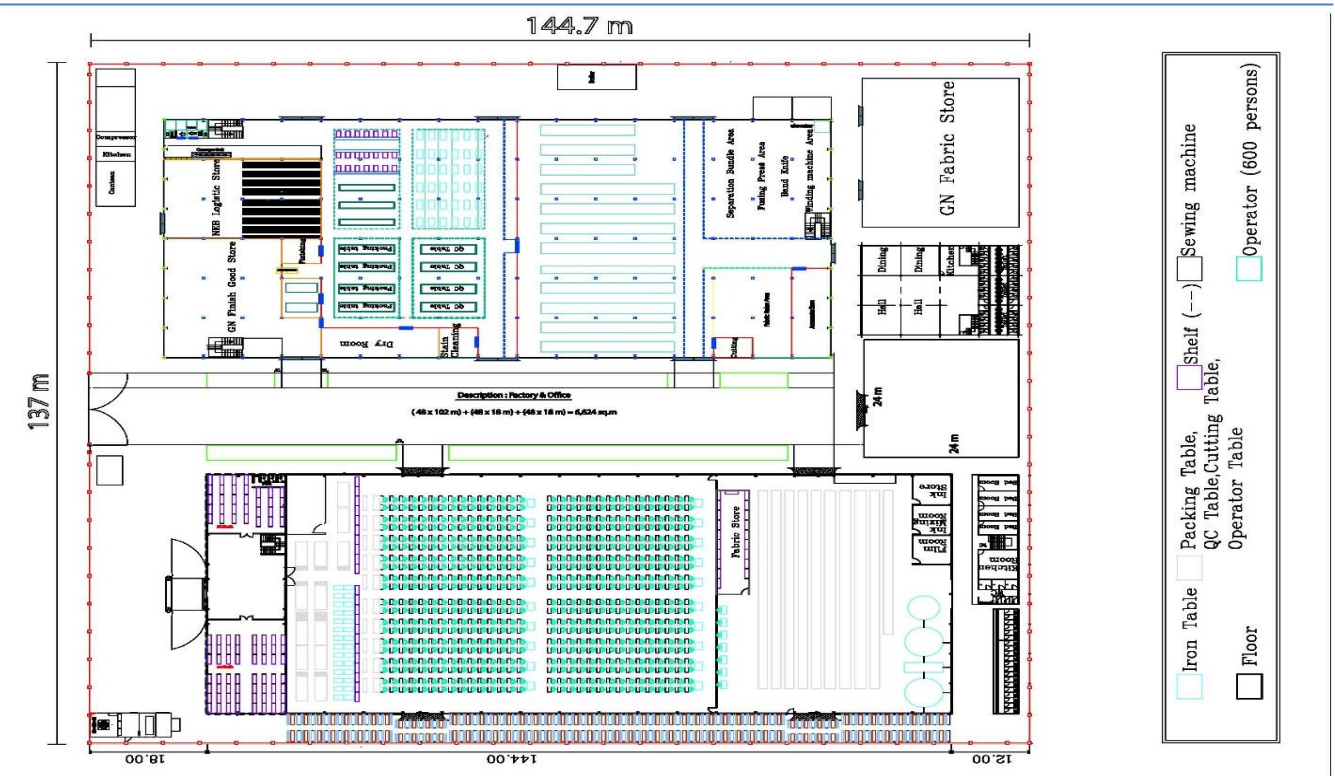


Figure 3-2 Factory Layout Drawing

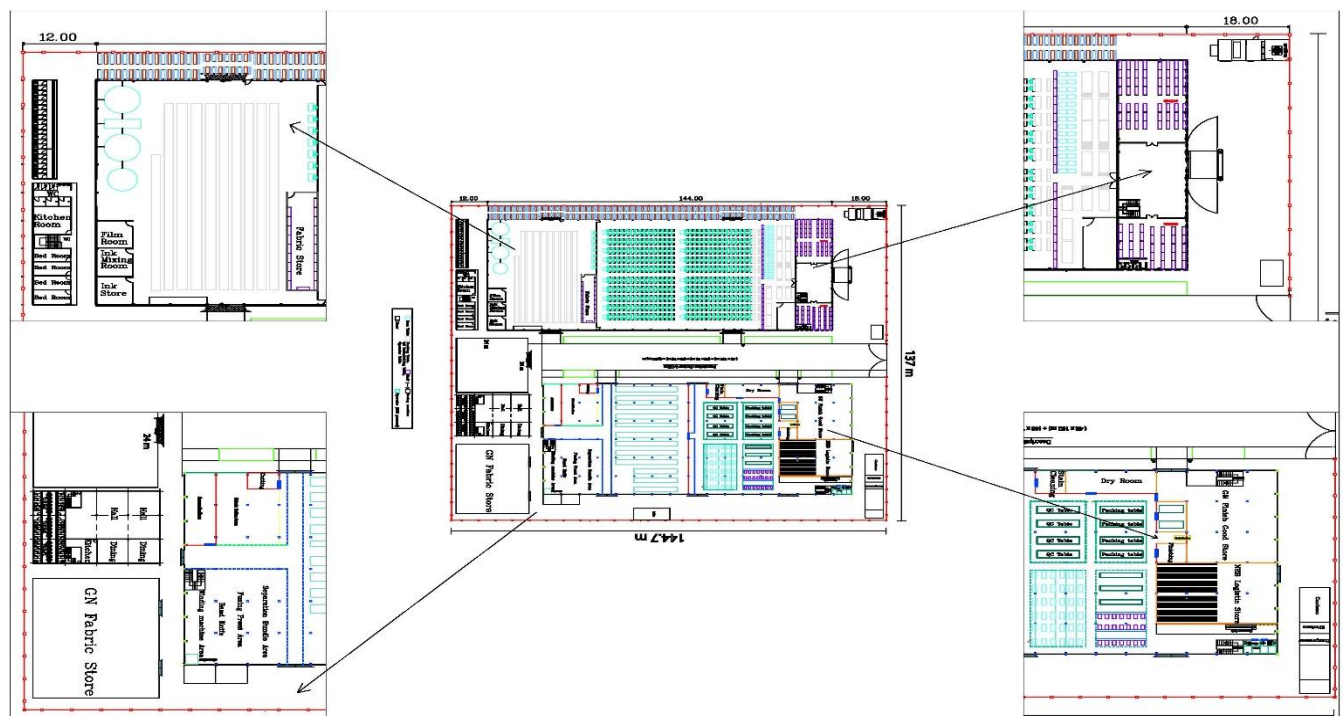


Figure 3-3 Factory Layout Drawing (Detail)

GREEN NATURE MANUFACTURING COMPANY LIMITED.
(Garment and Silkscreen Printing Factory)



3-3

Environmental Management Plan**3.2.2. Production Process**

Printing process is the process that art work document of E document is received firstly and then spreading the layer, preparation and checking. And then layout the film and receiving the film, check the dots size and matching all the layer. And then cutting pcs are received, preparation the layer frame and preparation the dye and then printing. The receiving pcs are checking the quality and then sending to customers according to orders.

The production process is based on CMP system in which the production on consignment in which the main raw materials (fabrics, leather, etc.) are provided by overseas buyers and imported free of charge, then cut, sewn and packed in the domestic factories, after which all of the finished products are exported. The main operation of the proposed factory is sewing. The sewing was operated one and two needle sewing machine and checked by quality control supervisor on each sewing line. The ironing process is completed after QC process. Then garment packing is completed and prior to shipping to destinations. The process flow diagram for garment manufacturing is illustrated in Figure 3-8.

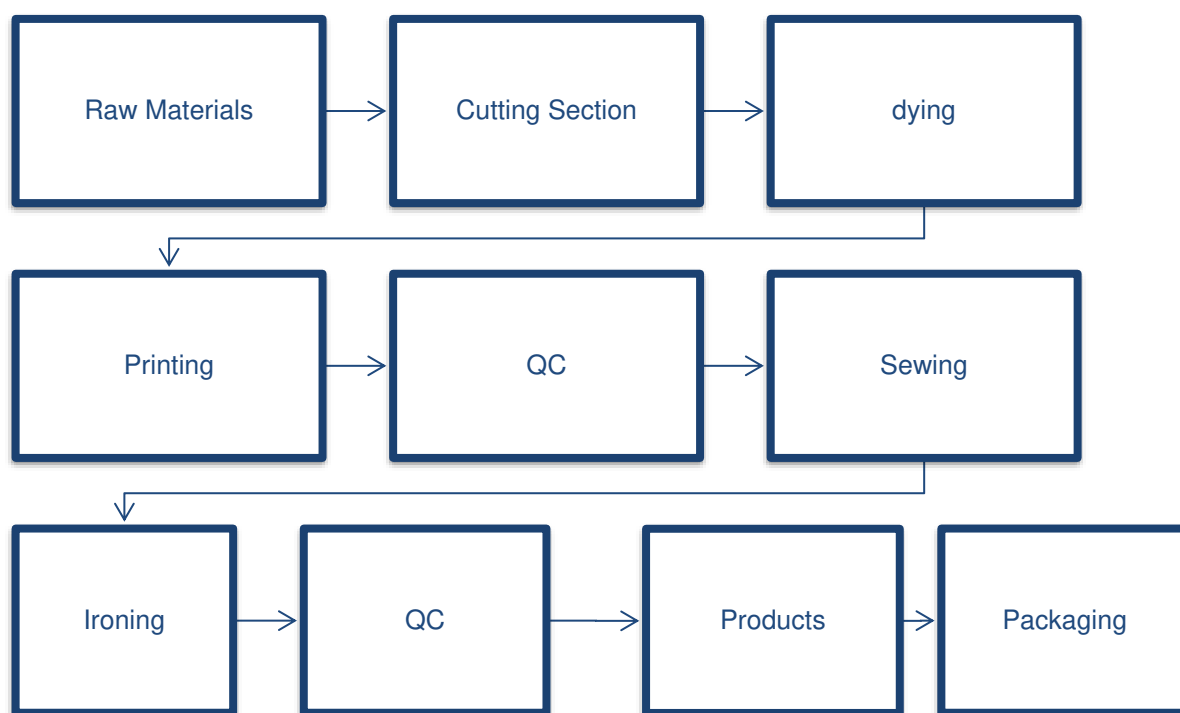


Figure 3-8 Production flow diagram of Green Nature Manufacturing Company Limited

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Cutting



Sewing Section



QC



Printing



Ironing



Packing

Environmental Management Plan**Packing****Product****Figure 3-9 Production Photos of Green Nature Manufacturing Company Limited**

During operation, the proposed factory is expected to produce garment products as per Table 3-1.

Table 3-1 Annual Production Rate

No	Particular	One-year production rate	Total
1.	T-shirt	216000	172800000
2.	Blouse	936000	1684800000
3.	Skirt	144000	244800000
4	Dress	144000	360000000

3.3. UTILITIES**3.3.1. Raw Material**

The main Raw Materials are Cotton, Knit, Thread, Zip, Lining, Main Label, Care Label, Polybag, Button, and Accessories. List of Raw materials are described in Table 3-2.

Table 3-2 List of Raw Materials Requirement

No	Particular	AI	Consumption			
			Blouse	T-shirt	Skirt	Dress
1	Cotton	Yds	1080000	-	172800	360000
2	Knit	Kg	756000	46800	-	-
3	Thread	Cones	35280	6480	5760	18000
4	Zip	Pcs	14400	-	115200	72000
5	Lining	Yds	108000	-	28800	72000

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No	Particular	AI	Consumption			
6	Main Label	Pcs	936000	216000	144000	144000
7	Care Label	Pcs	936000	216000	144000	144000
8	Polybag	Pcs	936000	216000	144000	144000
9	Button	Pcs	2376000	-	-	-
10	Accessories	Pcs	180000	-	-	-

**Figure 3-10 Raw Material Storage Area in Factory****3.3.2. Chemical used in Printing Process**

Chemical used in printing process are expressed in the following Table 3-3.

Table 3-3 Chemical List used in Printing process

No	Description	Item Code	unit
1	Neo Yellow (MGR)	101001	KG
2	Neo Gold Yellow (MGR)	101002	KG
3	Neo Orange (MGR)	101003	KG
4	Neo Violet (MFB)	101006	KG
5	Neo Navy Blue (MB)	101007	KG
6	Neo Dark Brown (MB)	101008	KG
7	Neo Yellow Brown (MGR)	101009	KG
8	Neo Black (MG)	101010	KG
9	Neo Sky Blue (MB)	101011	KG
10	Neo Blue (FFG-P)	101017	KG

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11	Neo Light Green	101021	KG
12	Neo Light Red	101022	KG
13	Neo Light Orange	101023	KG
14	Neo Light Pink	101024	KG
15	Neo Green (MB) CONC	101026	KG
16	Neo Blue (MG)	101027	KG
17	"MSTSUI" Top Coat 301 TCN	102006	KG
18	Pull Base 3D (Foaming Binder 3D) (Foam Pulp 3)	102007	KG
19	Sliver Powder Stabilizer	102010	KG
20	311T Clear	102014	KG
21	Printgen EG	102016	KG
22	Matsui Pritgen C- 0912	102017	KG
23	Rubber Binder (MSB- L)	102018	KG
24	Top Clear	102019	KG
25	"Matsui" Metallic Binder 301	102020	KG
26	311 White	102021	KG
27	Clear 301C-8-1	102024	KG
28	MP3399C	102027	KG
29	1228B Clear	102029	KG
30	AKP-8 (Table Glue) A	102030	KG
31	Matsumin Stretch White 301-5	102032	KG
32	Matsumin Stretch Clear 301C-9	102033	KG
33	Matsumin Stretch White 301-W-10	102034	KG
34	P P Plup (SL-1)	102036	KG
35	Stripping Powder	102038	KG
36	MA+MB	102039	KG
37	Under Coat Binder 301-1	102040	KG
38	Matsui Dyestone	102041	KG
39	AP Peral Shape	102042	KG
40	TC-869	102043	KG
41	Discharge Powder	102044	KG
42	Matsumin Pearl Binder 301(MoQ:300kg)	102045	KG
43	MR-50-NF(Water)	102046	KG
44	Fixer N	102047	KG

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45	CBA Catalyzer Fixer	102049	KG
46	NH 4060	102050	KG
47	Paper Glue 306	102051	KG
48	Gold Paper A60	102054	KG
49	Hight Flexible clear Rubber 1870C	102055	KG
50	Hight Flexible white Rubber 1870W	102056	KG
51	CMYK Rubber White Y13W	102057	KG
52	Nylon White Rubber 4890W	102059	KG
53	Nylon Clear Rubber 4890C	102059	KG
54	ST-60 (Clear)	102062	KG
55	ST- 62 (White)	102063	KG
56	Silicon White (XG- 102)	102065	KG
57	Silicon Yellow (XG-203)	102068	KG
58	Silicon Blue (XG-404)	102069	KG
59	Silicon Black (XG- 501)	102070	KG
60	Silicon Red (XG- 302)	102071	KG
61	Silicon Tinner (XG – 128AH)	102072	KG
62	R-508 B1	102074	KG
63	P-110	102075	KG
64	PY-104	102076	KG
65	P-802	102077	KG
66	AK – 991	102078	KG
67	AOKE -1	102079	KG
68	AOKE -2	102080	KG
69	Silicon TG- 11A	102083	KG
70	Silicon Pink	102086	KG
71	“Matsui” Gold Binder 620	102087	KG
72	“Matsui” Silver Binder 620	102088	KG
73	Silicone Glossy	102089	KG
74	Silicone Matte	102090	KG
75	Silicone FL Pink Piement	102091	KG
76	Silicone FL Magent Piement	102092	KG
77	Silicone FL Yellow Piement	102093	KG
78	Silicone FL Blue Pigement	102094	KG

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79	Silicone FL Orange Piement	102095	KG
80	Silicone FL Green Piement	102096	KG
81	Silicone FL Purple Piement	102097	KG
82	Silicone FL Red Piement	102098	KG
83	#7 Super Soft Primer	102100	KG
84	780 A	102102	KG
85	780B	102103	KG
86	101-1	102104	KG
87	101-2	102105	KG
88	9166 Clear	102109	KG
89	9166 White	102110	KG
90	0.01 Silver Flash Films	103001	KG
91	0.01 Green Gold Flash Films	103002	KG
92	0.01 Violet Gold Flash Films	103003	KG
93	0.01 Pink Dye Gold Flash Films	103004	KG
94	0.01 Bright Green Flash Films	103005	KG
95	0.01 Pure Gold Gold Flash Films	103006	KG
96	0.01 Sky Blue Gold Flash Films	103007	KG
97	0.01 Green Gold Flash Films	103008	KG
98	0.01 Marron Flash Films	103009	KG
99	0.01 Copper Flash Films	103010	KG
100	HO Violet M2	201001	KG
101	HO Blue 1 M2	201002	KG
102	HO Blue 2 M2	201003	KG
103	Hormarine M2	201004	KG
104	Opaque Fluorescent Green	201005	KG
105	Opaque Fluorescent Yellow	201007	KG
106	Homarine M2	201008	KG
107	Permend Red	201009	KG
108	Mixing Glitter (Sparkle Base)	201012	KG
109	Chino Base	202004	KG
110	Opaque Chino Base	202005	KG
111	Meteor Base	202008	KG
112	Qultra Gel Clear	20210	KG

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113	Super Gel Clear	202011	KG
114	Foam Plasm	202012	KG
115	Plus Base	202013	KG
116	Dulling Paste	202014	KG
117	New Top Code Super Gel Clear	202017	KG
118	Luminescent	202021	KG
119	New Men Tape (40cm)	203999	KG
120	New Men tape (60cm)	204001	KG
121	Textile Printing Inks(Yellow Gum)	302005	KG
122	Kiwoset HP	302006	KG
123	Pregan Duoprep	302007	KG
124	Grafic HX	302012	KG
125	Texsol- 44 DC (M)	302013	KG
126	PHW Red	302014	KG
127	"KIWO" KEO AZOCOL 2009	302015	KG
128	7000 (Frames Paint)	302016	KG
129	18T/136CM – 180W	403001	Yard
130	Flocking Paper (All size) 97 Color	404003	KG
131	L05, FX Color Gold Paper (Fol.L05, FX.MTS12)	404007	KG
132	L67, VS Color Gold Paper (Fol.L67, VS.MTS:	405001	KG
133	"Swiss Flock" Villud 3.3*1.0(13) Color	405002	KG
134	"Swiss Flock" Villus 1.7*0.6 (22) Color	405003	KG
135	"Swiss Flock" Villus 1.5*0.6	405004	KG
136	"Swiss Flock" Villus3D*1.0	406001	KG
137	"Swiss Flock" Viscose Wool 1.5*0.8 (23) Color	503001	KG
138	Japan Smart Screen Mesh 86 (32T)	503002	KG
139	200 Zar	503006	Yard
140	Guaze (80T)	503007	Yard
141	Gauze (47T- 120)	503008	Yard
142	Gauze (120T- 300)	503009	Yard
143	Gauze 59T (150)	503010	Yard
144	Gauze 180T	603023	Yard
145	Win Mylon Blue 14-007	603028	KG
146	Correction Ink 14-50 (CYC)	603037	KG

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147	KL-865 Mordant	603038	KG
148	G – 010	603039	KG
149	S- 1705	603044	KG
150	Win Nylon Uhramwine Blue 14-057	603048	KG
151	Textile Printing Ink 102 (White) – TPU	603049	KG
152	Nylon TPU - 005	603050	KG
153	Reflective Powder	603052	KG
154	TPU – 100	603053	KG
155	Yellow	702001	KG
156	Navy	702002	KG
157	Scarlet	702005	KG
158	Fluor Lemon Yellow CB	702006	KG
159	Fluor Violet CB	702007	KG
160	Fluor Orange CB	702008	KG
161	Fluor Pink CB	702009	KG
162	Marine Color Booster	702010	KG
163	Fluor Magenta CB	702011	KG
164	Thickener Powder	702012	KG
165	Spand-E- Sol Clear	702013	KG
166	Spand - E- Sol White	702014	KG
167	Syno Grey	702015	KG
168	Foil Adhesive HG -2	702021	KG
169	(EH9069) EV CITTON WHITE	702022	KG
170	(CB 1440) VIOLET COLOR BOSSTER	702024	KG
171	(CB3033) FLOUR GREEN COLOR BOOSTER	702025	KG
172	(CB3443) GREEN COLOR BOOSTER	702026	KG
173	(CB/C3 6447) RED COLOR BOOSTER	702027	KG
174	(C3 4449) NPT YELLOW CONC	702028	KG
175	S – 1712	702030	KG
176	S – 1714	702031	KG
177	S – 7A20	702036	KG
178	S – 1709	702037	KG
179	NPT HO LB 24 KT GOLD JEWEL TONE	703002	KG

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180	Foil- Silver	704002	KG
181	Foil – Gold	704003	Yard
182	Foil – Copper	704004	Yard
183	Foil – Red	704005	Yard
184	Foil – Pink 1 (Magenta)	704006	Yard
185	Foil – Pink 2	704007	Yard
186	Foil – Pink 3 (Light Pink)	704008	Yard
187	Foil – Green	704009	Yard
188	Foil – Sky Blue	704010	Yard
189	Foil – Blue	704011	Yard
190	Foil - Rainbow	704012	Yard
191	Turpentine	811001	GL
192	Tinner (ET71)	811002	GL
193	Acetone	811006	GL
194	Xylene	811007	GL

**Figure 3-11 Chemical used in Printing Process****3.3.3. Machinery and Equipment**

List of machinery and equipment required for Green Nature Manufacturing Company Limited is following in Table 3-4.

Table 3-4 List of Machinery

No.	Description	Unit	Price	Amount
1.	Single Sewing Machine (Manual)	178 Nos	11,0000	19,580,000
2.	Single Sewing Machine (Auto)	312 Nos	145,000	45,240,000
3.	Over Lock (4 Threads) Sewing Machine	110 Nos	95,000	10,450,000
4.	Over Lock (5 Threads) Sewing Machine	18 Nos	95,000	1,710,000
5.	King Lon Sewing Machine	18 Nos	100,000	1,800,000

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6.	King Flat Sewing Machine	32 Nos	100,000	3,200,000
7.	Two Needle Sewing Machine (Auto)	5 Nos	220,000	1,100,000
8.	Two Needle Sewing Machine (Manual)	2 Nos	180,000	360,000
9.	Two Needle Flat Change Sewing Machine (Auto)	4 Nos	400,000	1,760,000
10.	Peacord Sewing Machine	1 Nos	325,000	325,000
11.	Button Setting Machine (Auto)	2 Nos	380,000	760,000
12.	Button Setting Machine (Manual)	4 Nos	280,000	1,120,000
13.	Button Holing Machine	6 Nos	180,000	1,080,000
14.	Piping Cutting Machine	5 Nos	150,000	750,000
15.	Kansai Special Sewing Machine	2 Nos	200,000	4,000,000
16.	Kansai Special Sewing Machine (12 Needle)	1 Nos	500,000	500,000
17.	Thread Rewind Machine	7 Nos	350,000	2,450,000
18.	Snap Button Attle Machine (Double)	1 Nos	500,000	500,000
19.	Two Needle Double Chain Stitch Overlap Sewing	1 Nos	108,0000	10,80,000
20.	Snap Pressure Machine	1 Nos	500,000	500,000
21.	Snap Sewing Machine	1 Nos	675,000	675,000
22.	Bar Tacking Sewing Machine	1 Nos	675,000	675,000
23.	Side Cutter Sewing Machine	19 Nos	810,000	153,900,00
24.	Cylinder Bod Needle Feed Lock Stitch sewing Machine	2 Nos	135,0000	2,700,000
25.	Blind-Stitch Sewing Machine (With Servo Motor)	2 Nos	148,5000	2,970,000
	Total	735 Nos		120,000,000

3.3.4. Human Resource

Human resource required by foreign experts/technicians and local persons for administrative and production process are about 754 persons which are also described in Table 3-5. Number of employees for one-time production is 30. Total operation per year is 264 days.

Table 3-5 Employment Schedule of Green Nature Manufacturing Company Limited

No	Position	Persons
1	Foreign Technicians	4
2	Local Persons	750
	Total	754

3.3.5. Water Requirement

Shwe Lin Ban industrial zone has no centralized water supply system and the factory gets water from the tube wells installed inside the factory compound. Groundwater from this tube well is pumped in the storage tanks for the factory and domestic use. The main water use in the proposed project is for domestic usage such as for personal washing, food preparation, and washing of utensils.

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Drinking water will be provided by water tank supplier. It's described by water storage tank and drinking water supply for Green Nature Manufacturing Company Limited. There is one tube well and 120 ft depth. Water usage for one day is 50 gallons, for one month is 1100 gallons and 13200 gallons for a year.



Figure 3-12 Water storage tank and drinking water supply

3.3.6. Boiler

The factory has boiler fire tube twin furnace, capacity 10,000 kg per hour installed photo is shown in Figure 3-14. Boiler use wood as a fuel. Wood is used 565869 viss for a year and 47155 viss for a month. Chimney height is about 100 ft from the base. To control particulate matters released from boiler chimney is filtered. That filtration system is also set up in boiler base.

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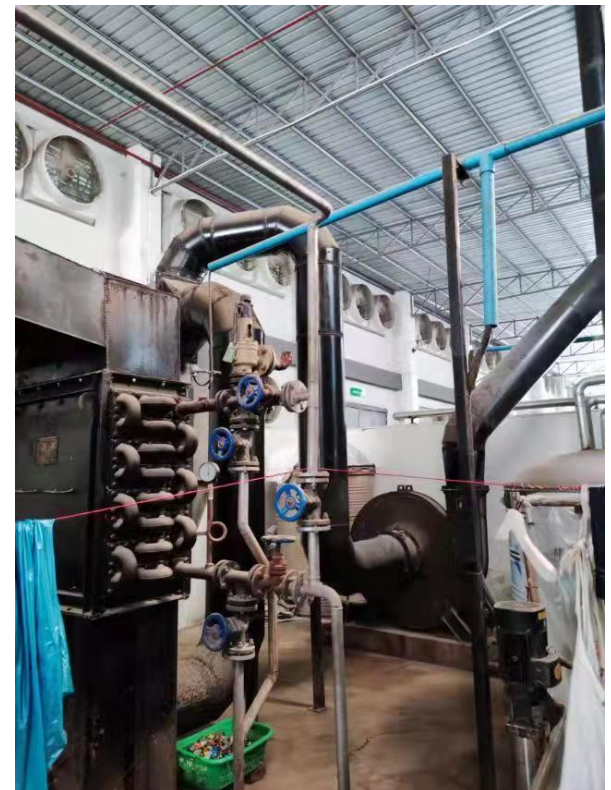


Figure 3-13 Particulate Matter Filtration System of Boiler

Environmental Management Plan**Figure 3-14 Boiler Photo****Figure 3-15 Boiler Chimney****3.3.7. Wastewater and sewage collection system within the factory**

All type of sewage drained from toilet, bathroom and other areas in which there is water usage was collected into underground septic tank. Wastewater pipes from kitchen, dish washing sink and office area to drain into factory drainage channel for further draining into oil and grease trap prior to sending to the silt trap then discharge to the storm water channel.

Environmental Management Plan**3.3.8. Water Drainage and flood protection**

Kitchen and dishwashing sink were drainage pipe with 4-inch diameter PVC to drain wastewater from washing area into the concrete channel. Within the factory compound, there was drainage channel with concrete to collect rainwater in the factory area. The factory has already provided internal rainwater drainage system in connection with local drainage system outside the factory to drain into Industrial Zone water channel.

3.3.9. Electricity and Fuel Requirement

The proposed project intended to get required electricity supply form Yangon City Electricity Supply Board (YESB) and distributed by 500 kVA of Transformer and another sources of energy 350 kVA generator, 165 kVA generator and 88 kVA generator which also be kept as the emergency generator if normal electricity supply could not provide for the proposed project. Annual estimated electricity consumption is about 767888 units.



Figure 3-16 Electricity Facilities at Green Nature Manufacturing Company Limited

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3.4. STATUS OF THE FACTORY

Green Nature Manufacturing Company Limited is using groundwater for both industrial and household (drinking and sanitation) purpose, which is supplied by deep tube well. The factory also has generators for electricity generation. The fuel used in the industry is Diesel and Purchased electricity. The sanitary liquid waste of the factory is stored in septic tank.

The major pollution caused by the factory's operation are water pollution by discharging liquid waste generated in wet process i.e. air pollution by generator's effluent gas emission, noise pollution created during the operation of generator and other transportation machines.

Solid waste such as sludge, broken machine parts is hand over to local waste buyer/YCDC. Although the factory causes some pollution but also has a positive side and that is the factory has created employment for many people, due to this factory local community has built up daily.

3.5. GENERATION OF WASTE, EMISSION AND DISTURBANCES**3.5.1. Industrial wastes**

Wastes generated from the factory are fabric scraps and packing materials of plastic sheet and carton box in the operation section. Total amount of waste about maximum 33 kg per day are generated from operation process.

3.5.2. Human wastes

The number of staff and workers required in the day shift for the factory is maximum 660 persons during operation. Solid waste generated from maximum number of operators and office staffs with assumption of waste generation rate at 257.4 kg/day was calculated based on solid waste generation rate of 0.39 kg/person/day.

Domestic wastewater generated by maximum amount of 660 persons with assumption rate at 5,146 gallons per day. Wastewater can be calculated at 80% of amount of water use. This water will be released in operation hour discharge to septic tank or factory drainage.

3.5.3. Waste Balance

A mass balance Green Nature Manufacturing Co., Ltd is illustrated in below Figure which presents water and energy inputs and the outputs with respect to residue and sub-products, liquid effluents and air emissions.

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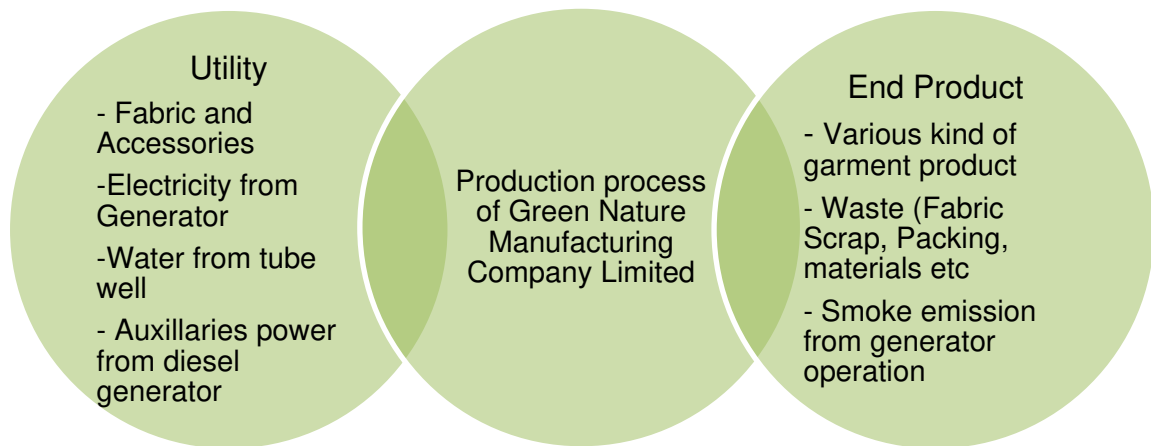


Figure 3-17 Balance Diagram of Green Nature Manufacturing Company Limited

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4. BRIEF DESCRIPTION OF SURROUNDING ENVIRONMENT

The purpose of this Chapter is to predict how environmental and socio-economic conditions will affect because of the implementation of the proposed Project. This requires a sound understanding of the baseline conditions at the project site, which established through desktop study research, site surveys, primary data collection and projections for future developments. Findings provide the current and future characteristics of the project site and the value and vulnerability of the key environmental and socio-economic resources and receptors. The following sections provide a description of the environmental and socio-economic aspects of the project.

4.1. METHODOLOGY FOR DATA COLLECTION AND ANALYSIS

The followings methodologies are used for Environmental Management Plan (EMP) for this report preparation;

- Onsite Measurements and Analysis – Baseline parameters such as Indoor temperature, humidity, operation light conditions, noise and water quality of the project site during operation phase were measured onsite. The analyzed results are mentioned in this chapter.
- Secondary data collection of proposed project site area – Socio economic condition, physical/biological environment, and weather data are collected from official township data of Hlaing Thar Yar Township, Yangon Region.

4.2. PHYSICAL COMPONENT IN PROJECT AREA

4.2.1. Topography

The proposed project area is situated in Shwe Lin Ban Industrial Zone, Hlaing Thar Yar Township, and its topographic condition is flat. The proposed project site is primarily agricultural land, but now is initiated into the industrial zone area.

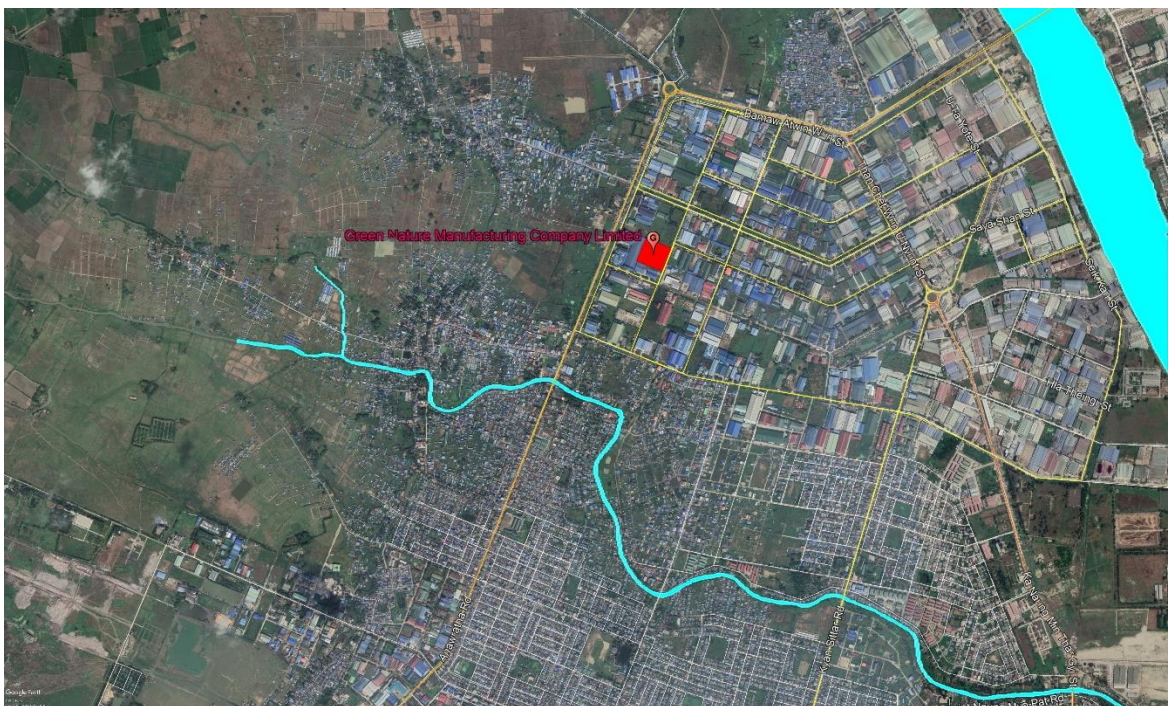


Figure 4-1 Project's Adjacent Area

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4.2.2. Geology

The Yangon area is underlain by alluvial deposits (Pleistocene to Recent), the non-marine fluvial sediments of Irrawaddy formation (Pliocene), and hard, massive sandstone of Pegu series (early-late Miocene). Alluvial deposits are composed of gravel, clay, silts, sands and laterite which lie upon the eroded surface of the Irrawaddy formation at 3-4.6 m above mean sea level (MSL). The rock type in Yangon is mainly soft rocks, which consist of sandstone, shale, limestones and conglomerate. Geological map of Yangon Regional area is shown in Figure 4-2

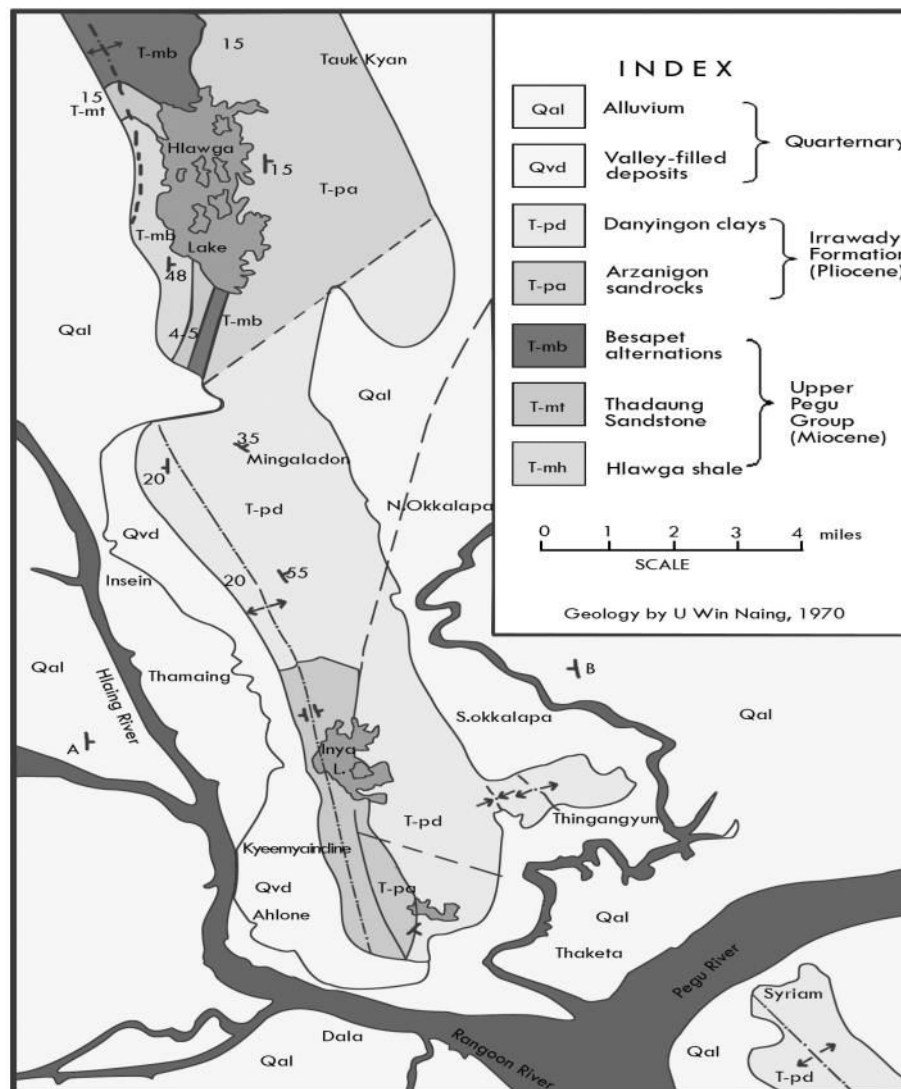


Figure 4-2 Geological Map of Yangon Region

4.2.3. Air Quality

To determine the existing baseline ambient air quality status within the project site on 25, September 2019, 8-hours of working period air pollutants level, which include dust (PM₁₀ and PM_{2.5}) were measured at the selected site using the Hold Peak HP-5800D (Laser PM 2.5 meter). To reveal the existing status of baseline air quality, the average ambient air qualities measured were compared with National Environmental Quality (Emission) Guideline and international ambient air quality standard

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(NAAQS, ACGIH) guidelines. The measurement location point is situated at latitude 16°55'12"N and Longitude 96°4'48"E.

It was observed that the air quality of PM₁₀ and PM_{2.5} concentration level is within the limit of NEQ (emission) guideline. Outdoor air quality also exists the NEQ emission guideline limit.

Table 4-1 Observed air quality results

Parameters	Observed value	Guideline value	Unit	Organization	Period
PM ₁₀	42.5	50	µg/m ³	NEQG	8 hrs
PM _{2.5}	33.4	25	µg/m ³	NEQG	8 hrs

NEQ = National Environmental Quality (Emission) Guideline

NAAQS = National Ambient Air Quality Standards were developed by the U.S. EPA

ACGIH = the American Council of Governmental Industrial Hygienists recommends

**Figure 4-3 Indoor Air Quality Measurement Photos****Table 4-2 Outdoor Air Quality Result**

Parameters	Observed Value	Guideline Value	Unit	Organization	Period
PM ₁₀	18.56	50	µg/m ³	NEQG	8 hours
PM _{2.5}	15.43	25	µg/m ³	NEQG	8 hours
TSP	24.44	-	µg/m ³	-	8 hours
SO ₂	7.9	20	µg/m ³	NEQG	8 hours
NO ₂	52.9	200	µg/m ³	NEQG	8 hours
O ₃	7.7	100	µg/m ³	NEQG	8 hours
VOC	18.25	-	ppm	-	8 hours
Air Pressure	1006.28	-	hPa	-	8 hours
CO	0.3	NG	ppm	NEQG	8 hours
CO ₂	1	NG	ppm	NEQG	8 hours

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NEQ = National Environmental Quality (Emission) Guideline

NAAQS = National Ambient Air Quality Standards were developed by the U.S. EPA

ACGIH = the American Council of Governmental Industrial Hygienists recommends



Figure 4-4 Outdoor Air Quality Monitoring

4.2.4. Tectonics

Yangon is situated in the southern part of the Central Lowland which is one of the three major tectonic provinces of Myanmar. The Taungnio Range of the Gyophyu catchments area of Taikkyi District, north of Yangon, through the Thanlyin Ridge, south of Yangon forming a series of isolated hills probably resulted from the progressive deformation of the Upper Miocene rocks as the eastern continuation of the subduction or stretching and compression along the southern part of the Central Basin and regional uplifting of the Pegu Yoma (Aung Lwin 2012). [2]

4.2.5. Hydrogeology

Yangon is rich in groundwater resources conserved by unconsolidated Tertiary-Quaternary deposits. In Yangon, groundwater is mostly extracted from Valley filled deposits and Ayeyarwady sandstones.

Groundwater: Groundwater availability is generally based on the distribution of permeable and relatively impermeable rocks. The nature of openings in the rocks determines permeability of rocks. Based on local geological considerations, potential groundwater source of Yangon can be roughly divided into two sub regions, namely the low potential area and high potential area. Low potential areas are areas with those rock units of Hlawga Shale, Thadugan Sandstones and Basepet Alternation of upper Pegu Group (Miocene epoch) and Danyingon Clays of Irrawaddy rocks. These rocks and formations are a dense, massive and consolidated nature and have impervious characteristic. High potential areas are underlain by Pliocene Series and recent Formations. High potential area covers approximately 85 percent of the Yangon city including Pabedan. Stand pipe piezometers were installed at a depth of up to 30 m from the existing ground level while a pumping well was installed upon completion of the soil investigation works. Based on the results recorded up to the 8th of December 2012, stabilized groundwater level was observed to range between 0.49 m MSL to -1.81 m MSL4.

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Water Supply: The Yangon City Development Committee (YCDC) has an overall responsibility for the management and distribution of water for Yangon City. Presently, YCDC's water supply is obtained from two main sources: (1) reservoir (Hlawga, Gyobu, Pugyi and Ngameoyeik reservoirs) and, (2) groundwater from YCDC's tube wells. Water from these sources is utilized to varying degrees. Areas not supplied with water from the YCDC rely on shallow surface wells and private boreholes. Water supply for the Project Site will be obtained from onsite borewells for both construction and operations due to the poor reliability of municipal supply. Permitting is part of the Planning Consent Application currently underway. The boreholes will be provided and operated by the Developer.

Hydrology: The Project Site lies along the catchment of the Pazundaung River which flows east of the site in a southerly direction to converge into the Yangon River. The Yangon River (also known as the Rangoon River or Hlaing River) is formed by the confluence of the Pegu and Myitmaka rivers and flows into the Gulf of Martaban which is part of the larger Andaman Sea. The river flows along a 40 km stretch flowing from southern Myanmar as an outlet of the Ayeyarwady River into the Ayeyarwady delta. A small portion of the Bago River (the estuary) lies within the Yangon Division. The Pazundaung Creek and Bago River joins the Yangon River and from there, flow towards the southwestern direction into Andaman Sea. ^[2]

4.2.6. Soil

The underlying soil type at the Project Site and its surroundings is characterized as the Meadow and Meadow Alluvial Soil. Meadow Soil is soil which occurs near the river plains exposed to occasional tidal floods, is non-carbonate and usually contains a large amount of salt. Both materials mainly comprise silty clay loam and neutral soil rich in plant nutrient. The upper layers (approximately 0 to 7 m) of the soil at the Project Site comprise largely of cohesive layers with traces of sand and gravel, followed by sand layers with low silt content and trace gravel from 7 to 35 m. The lower layers comprise denser silt layer with traces of sand and gravel from approximately 57 to 70 m. Standard Penetration Test (SPT) results obtained from testing at the Project Site indicate that the soil strength generally increases with depth. The STP results showed that the current soil quality can accommodate the construction of the Project. ^[2]

Environmental Management Plan

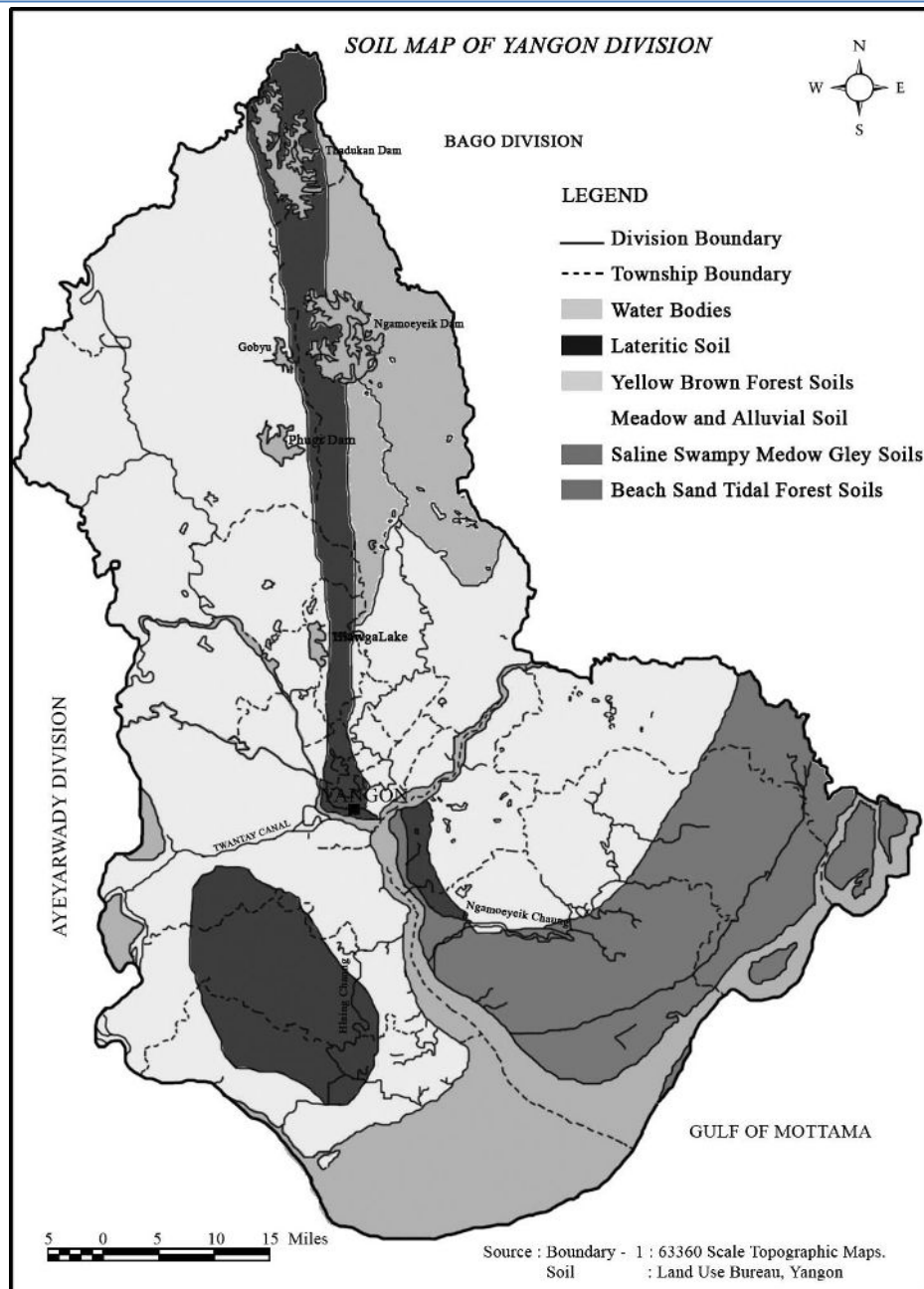


Figure 4-5 Soil map of Yangon (Source: Land use of Bureau of Yangon)

4.2.7. Climate and Meteorology

Yangon has a tropical monsoon climate under the Koppen climate classification system. The city typically experiences a distinct rainy season from the month of May through to October when a substantial amount of precipitation occurs; and dry season, which commences from November and ends in April. During the course of a year, average temperatures show some variance with average highs ranging from 26 °C to 36 °C and average lows occurring between 18 °C and 25 °C. The hottest period is between February and May, with little or no rain. At the end of this season, generally from March to April, the average monthly temperature reaches the upper 30°C. The average temperatures in Yangon range from 24 °C to 36 °C in April during the hot season and it ranges from 18 °C to 32 °C in January during the cooler season.

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Rainfall and Relative Humidity: The climate of Myanmar follows a typical monsoon pattern. Historically, the average annual mean rainfall for Yangon is 2,681 mm with the annual average rainy days of 129.3 days. During the course of 2013, the Department of Meteorology and Hydrology (Myanmar) reported an annual precipitation of approximately 2,700 mm. The month with the most precipitation was in July. The relative humidity was generally higher from May to October 2013. The dry season occurs from November to April. Based on the historical weather for the last twelve months in Yangon, no precipitation was observed in December 2012, February 2013 and March 2013. The least humid month of the last 12 months was February 2013 with an average daily low humidity of 34%, and the most humid month was September with an average daily high humidity of 80%.

The proposed project is located at Shwe Lin Ban Industrial Zone, Hlaing Thar Yar Township and Yangon Region. The climate condition of Hlaing Thar Yar Township in which the project lies is the dry season, starts in December and ends in March. The raining season starts in June and ends in September and the cold season follow with the cooler, drier months of October to January. The highest temperature ranging 42°C and low range 27°C reference from Township Meteorology data, Regional Data of Hlaing Thar Yar Township. 2012 to 2017 Yearly data of rainfall and temperature is presented in Table 4-3. The weather condition during 21 May 2019 shows the average temperature of 36.43 °C while the average humidity is 75.5 percent Table 4-4. ^[1]

Table 4-3 Annual rainfall and temperature

Year	Rainfall		Temperature	
	Raining day	Rainfall value	Summer season Max (°C)	Winter season Min (°C)
2012-2013	121	53.46	41	27
2013-2014	131	61.25	40	26
2014-2015	128	58.35	39	25
2015-2016	113	48.45	40	26
2016-2017	126	56.97	41	27

Source: Department of Administrative Hlaing Thar Yar Township, Regional data (www.gad.gov.mm.com)

Table 4-4 Relative humidity and temperature measure at factory

Date and Time	Description	Result value	Environmental parameter air station guideline
25 September 2019 (1:00 am to 4:00 pm)	Relative Humidity RH %	75.5 (%)	Present condition
	Temperature	36.43 °C	Present condition

Wind Speed and Direction. Based on 2013 data, it was reported that the month with the highest wind speed was April 2013 with an average wind speed of 3 m/s while the least windy month was December 2012 with an average wind speed of 1m/s. The highest sustained wind speed was 54 m/s, occurring on September 19, 2013 and the highest daily mean wind speed was 4 m/s, occurred on May 14, 2013.

Natural Hazards: Myanmar is exposed to multiple natural hazards including cyclones, earthquakes, floods and fire. It has been periodically exposed by natural disasters. The Yangon District is in the vicinity of the southern section of the Sagaing Fault which has not been active in the past 50 to 75 years indicating that the faults may be under accumulating stress increasing the potential for an earthquake to occur. The Sagaing Fault is the most prominent active fault in Myanmar trending roughly

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north to south. It has been the originator of a large proportion of destructive earthquakes in Myanmar. The Project Site is also located in an earthquake zone and therefore the building construction design needs to cater for this hazard with adequate planning on emergency response procedures. Myanmar is exposed to cyclones and associated storm surges from the Bay of Bengal. Annually, there are approximately 10 tropical storms in the Bay of Bengal from April to December. Severe cyclones occur during the pre-monsoon period of April to May and post-monsoon period of October to December. The threat of flooding usually occurs in three waves each year: June, August and late September to October.

4.2.8. Noise

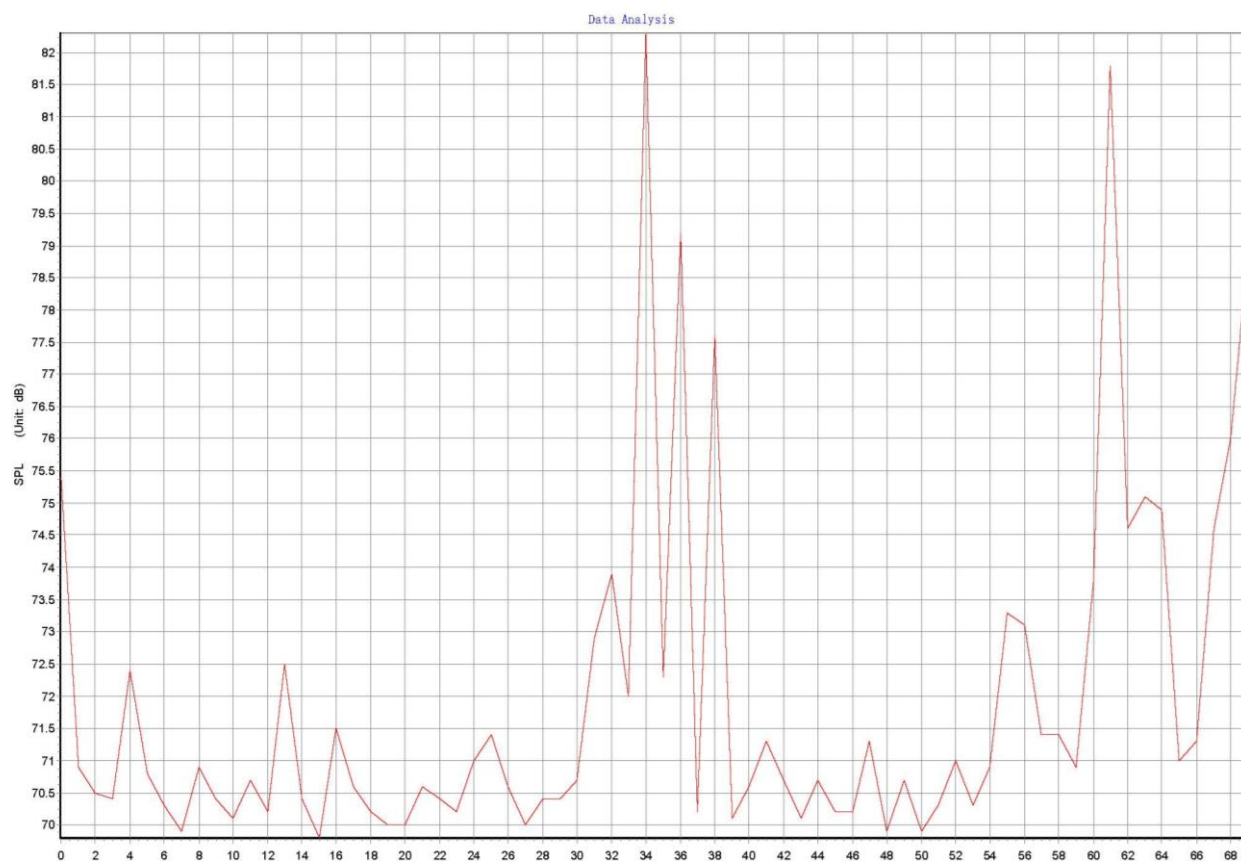
The Noise level was measured by using Digital Sound Level Meter for working hours on 25 September 2019. The average noise level in the project site area is presented in Table 4-5 compared with NEQE guideline. However, according to the Noise source monitoring at operation area (inside the production sector) of noise level is exceeding the acceptable level of National Environmental Quality (Emission) Guideline. ^[4]

Table 4-5 Noise level measurement result

Date and Time	Location	GPS value	Result value	NEQ Guideline
25 September 2019 (1:00PM to 4:00PM)	Production area	16° 55' 12"N 96° 04' 48"E	71.92	70 dBA



Figure 4-6 Noise Level Monitoring

Environmental Management Plan**Figure 4-7 Noise level result graph**

According to the monitoring results, Green Nature Manufacturing Company Limited the noise level is a little bit higher than the NEQ guideline. Therefore, in that factory ought to use the ear protection to all labors. In this way can reduce the noise level.

4.2.9. Light

Activities of the workers in the garment factory are highly dependent on the quality of light. Therefore, the consultant conducted the light measurement in the garment factory is presented in Table 4-7. The illustrates the recommended illumination and limiting glare index applicable to typical works (fairly severe to very severe tasks) in garment factory is provided in Table 4-6.

Appropriate lighting is the need for every department, irrespective to the task being handled. Although, there are some areas where focus on maintaining proper illumination is very crucial in a garment factory, like the inspection points (on-floor and in stores), sampling, and the finishing section, as these areas are crucial for the quality of the production. The tasks involved in these areas require high levels of worker focus and accurate lighting to ensure lower errors and defects passing on to the next stage.

However, according to the result of light measurement at operation area (inside the production sector) is in good condition and at the acceptable level of standard.

Environmental Management Plan**Table 4-6 Recommended illumination and limiting glare index based on IES Code, 1968**

Visual test	Illumination (lux)	Glare index
Casual seeing	100	28
Rough task with large detail	200	25-28
Ordinary task medium detail	400	25
Fairly severe task, small detail (e.g. drawing office, sewing)	600	19-22
Severe, prolonged task, very small detail (e.g. fine assembly, hand tailoring)	900	16-22
Very severe, prolonged task, very small detail (e.g. gem cutting, hosiery mending, gauging very small parts)	1,300 -2,000	13-16

Source: Koenigsberger, et al. 1975

**Figure 4-8 Light quality measurement****Table 4-7 Result of light measurement in Green Nature Manufacturing Company Limited**

No	Location	Measure value (Lux)	Standard*
1	Curing area (1)	528	1000
2	Curing area (2)	466	1000
3	Sewing Area (1)	663	600
4	Sewing Area (2)	529	600
5	Sewing Area (3)	402	600
6	QC (1)	611	600
7	QC (2)	542	600
8	Printing	330	300
9	Fusing	565	600
10	Ironing	591	600
11	Warehouse	215	300

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12	Packing	1029	2000
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* Lighting standards and codes usually provide recommended illuminance ratios between the task area and its surroundings (EN 12464-1 2002) (CIBSE 1997) (IESNA 2000, 676708).

According to the monitoring results, Green Nature Manufacturing Company Limited light level is normal the NEQ guideline. But some place is a little bit higher than NEQ guideline. So, that's need to reduce the light level and ought to put on the electricity bulb more over the higher places. On the other hand, some places are a bit lower than the NEQ guideline that is why which need to change like a more powerful light bulb in that light level lower places. In these ways is able to adjust the light pollution of this factory.

4.3. BIOLOGICAL COMPONENT

The proposed project site is not located in or near a sensitive ecosystem as the proposed project area is situated in the Shwe Lin Ban Industrial zone. The Project Site is a built-environment and the species of flora surveyed at the site are native species uncommon to the Yangon area. There were no protected species or species of conservation value identified.

4.4. SOCIO-ECONOMIC COMPONENT**4.4.1. Population**

Green Nature Manufacturing Company Limited is located across Hlaing Thar Yar Township in Yangon Region. In 2017, the population of Hlaing Thar Yar Township is about 414,209 people as present in Table 4-8.

Table 4-8 Population of Males and Females at Hlaing Thar Yar Township (2017)

Item	Older 18 year			Younger 18 year			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
Urban	105,075	119,903	224,978	44,884	49,782	94,666	149,959	169,685	319,644
Rural	33,257	31,319	64,576	14,953	10,536	29,989	48,210	46,355	94,565
Total	138,332	151,222	289,554	59,837	64,818	124,655	198,169	216,040	414,209

Source: Department of Administrative Hlaing Thar Yar Township, Regional data (www.gad.gov.mm.com)

4.4.2. Religion

The different kinds of religion present in Hlaing Thar Yar Township are shown in Table 4-9. More than 90% of the people living in the township are Buddhists.

Table 4-9 Religion in Hlaing Thar Yar Township (2017)

Township	Buddhist	Christian	Hindu	Muslim	Total
Hlaing Tharyar	395,789	6,400	8,320	3,700	414,209

Source: Department of Administrative Hlaing Thar Yar Township, Regional data (www.gad.gov.mm.com)

4.4.3. Local Economy

Among regional towns, Hlaing Thar Yar Township has a variety of businesses and services operating in the community with other businesses/services, based in the region. Most of the source of livelihood in the Township is employment of factory. Services and facilities available include:

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- post office
- beauticians
- butcher
- hairdressers
- furniture and electrical store
- restaurants
- cafes
- shoe and clothing shops
- industrial services
- pharmacy
- veterinarian
- bus service
- gift stores
- music store
- pubs and bars
- florist

4.4.4. Public Infrastructure and Access**4.4.4.1. Communication and Transportation**

Major transportation route in Hlaing Thar Yar Township are port and car road as presented in Table 4-10.

Table 4-10 Transportation route

Categories	Township		Miles
	From	to	
Sail	Pan hlaing River and Hlaing confluence	Ngwe pin Lae Industrial	8
Bus line (61, 23, 68, 16, 6, 69, 17, 74, 20, 52, 53, 54, 67) City Bus	WYTU	Downtown area	
Car (Yangon - Patheingyi road)	King Ba Yin Naung bridge	Mya Sein yaung Stream	5.4
Car (Yangon – Nyaung U road)	Aung zaya Bridge	BOC traffic circle	3.2
Car (King Anawmyathari Road)	Shwe Pyi Thar Bridge	Thamakone Traffic circle	4.6

Source: Department of Administrative Hlaing Thar Yar Township, Regional data (www.gad.gov.mm.com)

4.4.4.2. Electricity

The electricity demand of Hlaing Thar Yar Township is higher and higher due to the normally increased in population and infrastructure.

4.4.4.3. Education

Location of major schools was situated i.e. basic education primary school (B.E.P.S.), basic education middle school (B.E.M.S), basic education high school (B.E.H.S) and West Yangon

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Technological University, in the Hlaing Thar Yar Township. The name and the located village tract/ward of schools are described in Table 4-11.

Table 4-11 List of major school in Hlaing Thar Yar Township

No.	Name of School	Location
1	West Yangon Technological University	Outside Padan Village Tract
2	BEHS (1)	NO (2) ward
3	BEHS (2)	No (12) ward
4	BEHS (3)	NO (17). Ward
5	BEHS (4)	NO (5) ward
6	BEHS (5)	NO (7) ward
7	BEHS (6)	Yae Okken
8	BEHS(7)	NO (16) ward
9	BEHS (8)	NO (20) ward
10	BEMS (Branch) (1)	NO (6). Ward
11	BEMS (Branch) (2)	Nyaung Village Tract
12	BEMS (Branch) (3)	Dine Su, Nyaung Village
13	BEMS (Branch) (4)	NO (6) ward
14	BEMS (Branch) (5)	NO (1) ward
15	BEMS (Branch) (6)	NO (10) ward
16	BEMS (Branch) (7)	Outside Padan Village Tract
17	BEMS (Branch) (8)	NO (18) ward
18	BEMS (Branch) (9)	Shwe Lin Pan Village Tract
19	BEMS (Branch) (10)	NO (9). Ward
20	BEMS (Branch) (11)	NO (12). Ward
21	BEMS (Branch) (12)	NO (18). Ward
22	BEMS (Branch) (13)	NO (15). Ward
23	BEMS (Branch) (14)	NO (14). Ward
24	BEMS (Branch) (15)	NO (13). Ward
25	BEMS (Branch) (16)	NO (11). Ward
26	BEMS (Branch) (17)	NO (7). Ward
27	BEMS (Branch) (18)	NO (11). Ward
14	BEPS (1 to 32)	Hlaing Thar Yar
15	Pre School (1 to 6)	Hlaing Thar Yar

Source: Department of Administrative Hlaing Thar Yar Township, Regional data (www.gad.gov.mm.com)

4.4.4.4. Health Status

The diseases of high prevalence reported in 2013 are Tuberculosis (TB), followed by Acute Respiratory Infection (ARI), Diarrhea, TB and snakebites. With reference to the Township Health

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Profile 2014 of Hlaing Thar Yar Township, no accidental work injuries reported to the township hospital in 2013. The common diseases are shown in Table 4-8.

Table 4-8 Common Diseases in the Hlaing Thar Yar Township

Disease	Hlaing Thar Yar	
	Morbidity	Mortality
Malaria (Per 100000P)	-	-
Dysentery	21	-
Diarrhea (Per 100000P)	37	-
TB (Sputum+)(Per 10000P)	67	-
Hepatitis	5	-

Table 4-9 Lists of hospital in the Hlaing Thar Yar Township

Hospital Name	Beds/Services	Responsible
Township Hospital	200	Government
Cottage Hospital (Shwe Lin Pan)	16	Government
Pan Hlaing	95	Private
Tun Foundation	20	Private
Total	330	-

Source: Department of Administrative Hlaing Thar Yar Townships, Regional data (www.gad.gov.mm.com)

4.5. CULTURAL AND VISUAL COMPONENTS

Hlaing Thar Yar Township is growing into a busy and vibrant community. The population fluctuates; however, there has been steady growth over the last decade. It tends to be a stopover on a journey rather than a destination. It has a number of sites that are interesting; however, there is no main attraction. Visitors to the town are generally visiting for work, investment or family reasons.

5. RISK ASSESSMENT AND MITIGATION MEASURE PLAN

5.1. IMPACT IDENTIFICATIONS

The development of infrastructure for the proposed project likely to happen changes in the local environment in terms of physical, biological and socio-economic aspects along with the perspective on both positive and negative impacts. The potential environmental impacts brought by various activities of proposed factory project will be identified and judged by site surveying with checklist, meeting with client team, including plant manager and supervisor, representatives from the factory operators and assessing the environmental baseline information for operation and decommissioning phases along with its mitigation measure.

5.1.1. Positive Impact

During the project implementation, local people can get job opportunities in administrative sectors, office works, transportation sectors, skill and unskilled workers, etc. Due to the implementation of the project, there will be employment opportunities especially for workers from the local community. Employees will also improve more in their professional knowledge and skills. The net effect of job creation is the improvement of the livelihoods and living standards of the beneficiaries and poverty reduction, development of local people's livelihood. Cause of the proposed project is located in Shwe Lin Ban Industrial Zone, there may have business opportunities to local people. Local people can have a market by selling foods, snacks and drinks nearby the factory.

5.1.2. Negative Impact

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

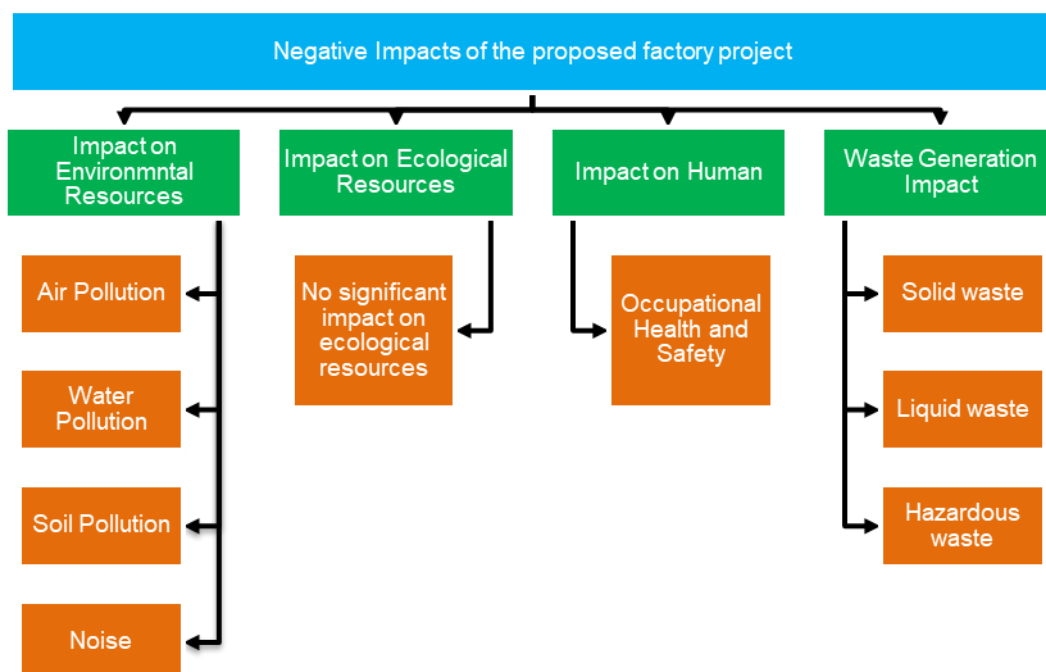


Figure 5-1 Potential Negative Impact Affect from Proposed Project

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5.2. METHODOLOGY FOR THE ASSESSMENTS

The assessment of each impact is based on consideration of the magnitude, duration, spatial and frequency of activities, which are going to be carried out during three phases and characteristics of the project site. The assessment is qualitative and the significance of each impact is classified into 5 categories in overall.

The following methodology has been applied to assess the environmental impacts of the factory mainly on air, water, land, biodiversity, including human beings. Each source of impact has been assessed by four parameters, magnitude, duration, extent and probability and each assess point have 5 scales as mentioned in Table 5-1.

Table 5-1 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 probable	Definite

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

$$\text{Significant Point (SP)} = (\text{Magnitude} + \text{Duration} + \text{Extent}) * \text{Probability}$$

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

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

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5.3. POTENTIAL ENVIRONMENTAL IMPACT DURING CONSTRUCTION AND DECOMMISSIONING PHASE

5.3.1. Impact on Air Quality

The project factory is already constructed during environmental assessment study and site visit. During construction phase, dust emission was addressed as potential environmental impact and is expected to be non-significant because the construction phase is a short-term affect. So, we are not assessed potential environmental impact during construction phase.

During the operation phase, there is no emission of smoke from the process of production. Particulate matters are generated during cutting and pressing the raw materials. But that particles amount is low. Dust particles, CO₂ and SO₂ would be emitted from the activities of loading, unloading and transportation of the raw materials and final product. Various activities as cooking from kitchen, using air conditioners in office building, storage of raw materials, vehicles movements, operating diesel generators combustion would also be a factor slightly affecting to air quality.

Though main electricity source for the factory is the national grid line, sound-proof diesel generators will be set-up in case of electricity shortages. So, 350 kVA, 165 kVA and 88 kVA of standby generators will be used for both operation and administration appliances. The proposed project will use annually 1,660 gallons of diesel for vehicles such as transportation vehicle and emergency use of a generator. The following table shows the amount of CO₂ emission coming from the combustion of fuels.

Burning diesel or other fuels creates exhaust gasses. Diesel generators produce carbon dioxide (CO₂), nitrogen oxide (NO_x), and particulate matter. These generators release this into the atmosphere and substantially reduce air quality in the nearby regions. Every liter of fuel has 0.73 kg of pure carbon, 2.6 kg of carbon dioxide released per liter of diesel fuel.

Table 5-2 Category of GHGs Assessment

Category	Range
Negligible	no GHG assessment necessary
Low	< 20 kt/y CO ₂ -equivalent per year
Medium-Low	20 – 100 kt CO ₂ - equivalent per year
Medium-High	100 kt – 1 Mt CO ₂ - equivalent per year
High	>1 Mt CO ₂ -e equivalent per year

Source: EBRD GHG Assessment Methodology, 2010

Table 5-3 CO₂ Emission by the Uses of Fuel

No.	Type	Amount(gallon/year)	Equivalent CO ₂ emission (Kilotons)	Status
1	Diesel for generator	1660	0.2947	Negligible

Furthermore, likewise the construction phase, negative impact on ambient air quality such as emissions of dust particles emission from the movement of vehicles used for carrying decommissioned materials and gaseous emission from these vehicles and machines can be expected during the decommissioning phase of the proposed project after its lifespan, 30 years.

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5.3.2. Impact on Water Quality

During the construction period, water consumption is for implementation of the construction works and domestic water usage by construction workers. Surface water and ground water could be contaminated from the several activities of construction works such as mixing of the concrete, wetting of dry surfaces, washing of the equipment, etc. Moreover, oil spill from the vehicles and machinery can pollute water quality and can enter into the ground water and run into near river during the rainy season. However, the project factory is already constructed during environmental assessment study and site visit. Therefore, impact on water quality is not assessed for this project.

During operation phase of garment manufacturing factory, there is no water use for processing purpose. Tube well is the main source of raw water for factory waster use. The raw water is provided for the whole factory use of general office facilities such as canteen, toilets and kitchen. Moreover, sewage disposed from the employees, staffs, oils spill and grease leakage from transporting vehicles and machinery equipment used in operating the production of garment can seriously pollute the quality of underground water source. But the factory plans to use separate waste water channels, septic type toilet system and sewage treatment plants in accordance with YCDC guidelines to avoid potential contaminations and hazards by waste water and sewages. So, it can cause low impact to the water quality.

During the decommissioning phase, oil spill from the demolished vehicles and machinery can penetrate into the ground water quality. Water can also be contaminated by activities related with decommissioning works and waste disposed by workers.

5.3.3. Impact on Soil Quality

During the construction phase, the excavation works from the construction activities must be the major impact on soil. The soil is compacted by the vehicles and the solid waste disposal improperly by the workers can affect the soil quality. Oil spillage from the vehicles could be also polluted to the soil. However, the project factory is already constructed during environmental assessment study and site visit. Therefore, impact on water quality is not assessed for this project.

During the operational phase, there is no significant impact on soil quality due to garment manufacturing activities because concrete road facilities have been implemented at the whole project site area. However, there may be effect on soil if wastes from the operation period are disposed improperly.

During the decommissioning phase, transportation of decommissioning materials and transferred of heavy machinery may happen oil leakage and lubricants, and thus it can lead to impact on soil. Moreover, hazardous releases of materials or oil utilized in the infrastructure can contaminate the existing soil during the decommissioning phase.

5.3.4. Impact of Noise

During the construction phase, significant impact on noise and vibration to surrounding environment must be generated from the movements of vehicles, operating the machinery, excavation activities and transportation of equipment and construction materials by heavy trucks. However, the project factory is already constructed during environmental assessment study and site visit. Therefore, the proposed project is located in industrial zone and already finished the construction, the potential

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impact on noise and vibration is not assessed and short-term affect must be caused the construction period is temporary.

During the operation phase, noise impact may be a significant impact for garment production sectors. The significant sources of noise impact activities are the operation of various machinery and equipment listed in for sewing line, cutting line and the emergency used of generator, vehicles and automobile movements (short-term noise) will be noise impacts sources. According to the noise results of 8 hours continuously measurement, at the source of operation area inside the factory and within the factory area are slightly exceeding the noise level of 70 dB of NEQ (emission) guideline. Therefore, no obvious influence can be caused expected to environment.

During the decommissioning phase, the heavy vehicles, machineries and equipment used for decommissioning activities can affect the noise level and vibration of the area.

5.4. IMPACT ON ECOLOGICAL RESOURCES

The proposed project is located in the industrial zone. Therefore, there is no wildlife, forests, protected area, coastal resource or mangrove area and rare and endangered species are found around the project area. The nearest water body is Hlaing River.

5.5. IMPACT ON HUMAN**5.5.1. Socio-economic**

The proposed project is the long-term investment in the industrial sector. Most of the impacts of the proposed project on socio-economic environment may be positive. Implementation of proposed project may create temporary employment during construction and decommissioning phases and permanent jobs in the operation phase. Subsequently, socio-economic standards of local people will be increased and eventually it may lead to the economic growth at local and regional level.

5.5.2. Occupational Health and Safety

During the construction phase, significant accidents and injuries like electric shocks, falling from heights, chemical exposure, crushing injury, fire hazards can be occurred due to the construction activities including metal grinding and cutting, concrete work and welding the metals. Moreover, accidents and injuries to workers and local communities could be caused from heavy vehicles movement for the transport of construction materials and equipment. Small injuries due to slips, headache and sickness must be caused of the noise, air pollution and odor could also be affected to the workers and local people. However, the project factory is already constructed during environmental assessment study and site visit. Therefore, impact on water quality is not assessed for this project.

During the operation phase, using the machinery for production process can get injuries. Noise from the generating of the machine and generator may also affect the health of people working in the project area. Fire and explosion hazards are mainly cause from the storage of raw materials and poor management of waste disposal. The usage of fuel must carefully handle because spillage and leakage of oil and grease can cause ignition of fire. Domestic wastewater or grey water produced from canteen, kitchen and toilets will cause enormous breeding of mosquitos, which can lead to diseases like malaria and dengue fever, if not carefully managed.

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During the decommissioning phase, activities related with decommissioning process can cause injuries and can affect the health of decommissioning workers.

5.5.3. Waste Disposal**5.5.3.1. Solid Waste**

During the construction and decommissioning phase, various kinds of solid wastes will be generated. These wastes will be collected and clean every day to avoid any undesirable working condition and environmental impacts. Based on their types (glass, metal, plastic, wood, cement residues, oil spills and paper based), these solid wastes will be collected separately in rubbish bins and regular and proper disposal will be done in accordance with YCDC guidelines.

In the operation phase, major solid wastes of the proposed garment factory may be generated from production lines, cutting and packaging. Factory shall use textile, thread and carton box as raw materials. The residual pieces of the fabric scraps from the production lines and cutting line used carton box, plastic sheet from the packaging are the main source of solid waste. In addition to factory solid waste, canteen, kitchen and dormitory will produce solid wastes mainly personal remnants, household wastes and food residues.

5.5.3.2. Liquid Waste

There may be expected no significant liquid waste from the construction and decommissioning phase. The main source of the liquid waste of these two phases may be from the sanitary wastewater.

During the operation phases, sanitary wastewater from the usage of toilet facilities, kitchen and canteens will be discharged as liquid waste. All of the liquid waste will be collected in septic tanks which are attached with proper sewage treatment tanks (as mentioned in factory site plan) and regular monitoring should be done in cooperation with YCDC and follow the YCDC guideline for proper disposal.

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5.6. PROJECT ACTIVITIES AND ITS SIGNIFICANT IMPACTS

The relative importance of each impact is assessed based on the understanding that general mitigation measures will be integrated into the baseline project. Therefore, when the general mitigation measures reduce impacts to the point of rendering them negligible, they are excluded from further analysis. Once the significance of the impact is established as more than negligible, it is described and additional, specific mitigation measures may be proposed to allow optimal integration of the project into the environment.

Table 5-4 Evaluation and Perdition of Significant Impacts

Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Construction Phase; It is not assessed in this phase, because of construction is already completed during EMP preparation.									
Operation Phase									
Air pollution	<ul style="list-style-type: none">Dust and GHGs emission from vehicles used for transporting raw materials and final productsParticulate matters emission from the activities of production processEmission of smoke from kitchenEmission from emergency diesel generatorBoiler using in production process	3	4	2	3	27	Low	Air pollution in atmosphere. Inhaling them can increase the chance you'll have health problems. People with heart or lung disease, older adults and children are at greater risk from air pollution. Wood boiler use in production and particulate matter emission	To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. Ensuring vehicles, compressor and generator are well maintained. Smoke emission should be fitted with the bag filter. Particulate matter emitting filtration system set up in boiler
Water pollution	<ul style="list-style-type: none">Sewage disposed of from the toiletsOil spill and grease leaks from transporting vehicles and machinery equipment used in operation phaseBoiler blow down water	2	4	2	3	24	Low	The factory not generated wastewater from production process on CMP basic Boiler blow down water is used by recycling	No Mitigation measures

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Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
	releasing								
Soil Contamination	<ul style="list-style-type: none"> Accidental spillage of oil used by vehicles operating 	1	4	1	2	12	Very Low	The factory compound area was paved with concrete and hence, contamination due to the oil spillage at this area is insignificant.	No Mitigation Measure
Noise Pollution	<ul style="list-style-type: none"> Generating noise from the production machinery Noise from the generating of the emergency generators 	3	4	1	4	32	Moderate	<p>The factory not operate heavy machinery the major noise source of CMP basic operation activities such as cutting, stitching/finishing and packaging by respective machines.</p> <p>There is insignificant impact on surrounding environment.</p>	No Mitigation Measure
Fire Hazard	<ul style="list-style-type: none"> Poor electrical installations waste disposed area Raw materials storage 	3	5	2	4	40	Moderate	<p>Serious damage to property and even injury and death</p>	<p>To provide fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases.</p> <p>Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening.</p> <p>The emergency fire alarms are installed at the factory for alerting the workers in case of fire.</p> <p>The main entrances and route for emergency cases of the factory must not be blocked with</p>

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Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
									materials or machines for fire emergency cases.
Solid waste	<ul style="list-style-type: none"> residual pieces of fabric scraps from the production lines Waste from packaging materials Waste from kitchen, dormitory and office 	3	4	1	4	32	Moderate	Surrounding environmental pollution and soil contamination	<p>Provides separate garbage bins at each building.</p> <p>All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste storage area</p> <p>Final wastes should be disposed by using YCDC's service.</p>
Liquid waste	<ul style="list-style-type: none"> Septic system and sewage Domestic liquid waste disposal from office, kitchen and dormitory 	2	4	2	4	32	Moderate	Contamination of soil, surface water, ground water	Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations.
Hazardous waste	<ul style="list-style-type: none"> Engine oil leaks, spills at diesel storage and during fuel refueling. Used oil and lubricant discharged from the maintenance of vehicles and machines 	2	4	1	2	14	Very Low	<p>Reduce the risk of contamination from fuels, oils and hazardous wastes</p> <p>Response effectively to incident and accident</p>	<p>Proper inspection and maintenance in storage of hazardous waste.</p> <p>Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements.</p> <p>The empty chemical containers will hand over to suppliers for recycle or appropriate disposal</p> <p>The hazardous wastes are transported by specially licensed carriers and disposed in a licensed faculty (eg., DOWA and YCDC)</p>

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Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
Occupational Health and Safety (Accidents, Injuries)	<ul style="list-style-type: none"> Accidental cases cause by operating machines. Electricity and emergency diesel generators. Unloading, mixing, cutting, pressing and packaging activities Accidental cases of thermic fluid heater 	3	4	1	4	32	Moderate	<p>Accident in workplace (physical injuries or even death) can occur during operation.</p> <p>First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers.</p> <p>According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers.</p> <p>Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for each department.</p> <p>To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures.</p>	
Decommissioning Phase									
Air pollution	<ul style="list-style-type: none"> Decommissioning of buildings and related materials Transportation of demolished materials 	3	1	1	4	20	Low	<p>Emissions of particulate matters and carbon dioxide gases into the air</p> <p>Spray water twice a day</p> <p>Cover mesh trap around the decommission area</p> <p>Install shading net about 2 meters above temporary fence of decommission area</p> <p>Carry broken material with cover by canvas.</p>	
Water pollution	<ul style="list-style-type: none"> Sewage form 	3	1	1	3	15	Low	Contamination of surface	Systematically demolish the

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Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
	<ul style="list-style-type: none"> decommissioning workers Demolition machinery equipment 							water and ground water	septic tanks.
Soil Contamination	<ul style="list-style-type: none"> Decommissioning of buildings and related materials Transportation of demolished materials 	3	1	1	3	15	Low	Contamination of soil	Manage the spillage of oil and diesel and sewage.
Noise Pollution	<ul style="list-style-type: none"> Decommission activities Transportation of demolished materials 	3	1	1	3	15	Low	Noise pollution to the surrounding	Carry out the activities during day time. Maintain the machines and vehicles to reduce noise pollution. Provide the ear plugs to the workers.
Waste disposal	<ul style="list-style-type: none"> Sewage system Demolished debris such as bricks, concrete materials 	2	1	1	3	12	Very Low	Dumping to the surrounding environment	Recyclable materials and dispose to the define areas.
Hazardous waste	<ul style="list-style-type: none"> Used lubricants from decommissioning vehicles and machines 	2	1	1	3	12	Very Low	Spillage of lubricant	Manage the disposal way of hazardous waste.
Occupational Health and Safety (Accidents, Injuries)	<ul style="list-style-type: none"> Decommissioning activities Transportation of demolished materials 	3	1	2	3	18	Low	Injuries and accidents	Provide protective fencing or demarcation with tape at the boundaries of dangerous / hazardous zone and the appropriate warning signs, marking and safety signs and installation of the lost time injury notice board. Clean up excessive waste debris and liquid spills regularly.

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Environmental Impact	Project Activities	Significant of Potential Impacts					Impact Significance	Reason	Mitigation Measure
		M	D	E	P	SP			
									Use the third-party expert assisted by trained personnel to identify and remove hazardous materials.

According to the result of analysis, it can be concluded that most of the project activities have low significance on environment, in all phases. Project activities that can produce solid waste and liquid waste are moderate significance. Moreover, project activities that emit dust and GHGs and accidental cases are moderately significant. Fire hazard potential of the proposed project and noise pollution are highly significant. But this can be prevented or mitigated by using the following mitigation measures. The following figure shows the impact significance of the proposed project.

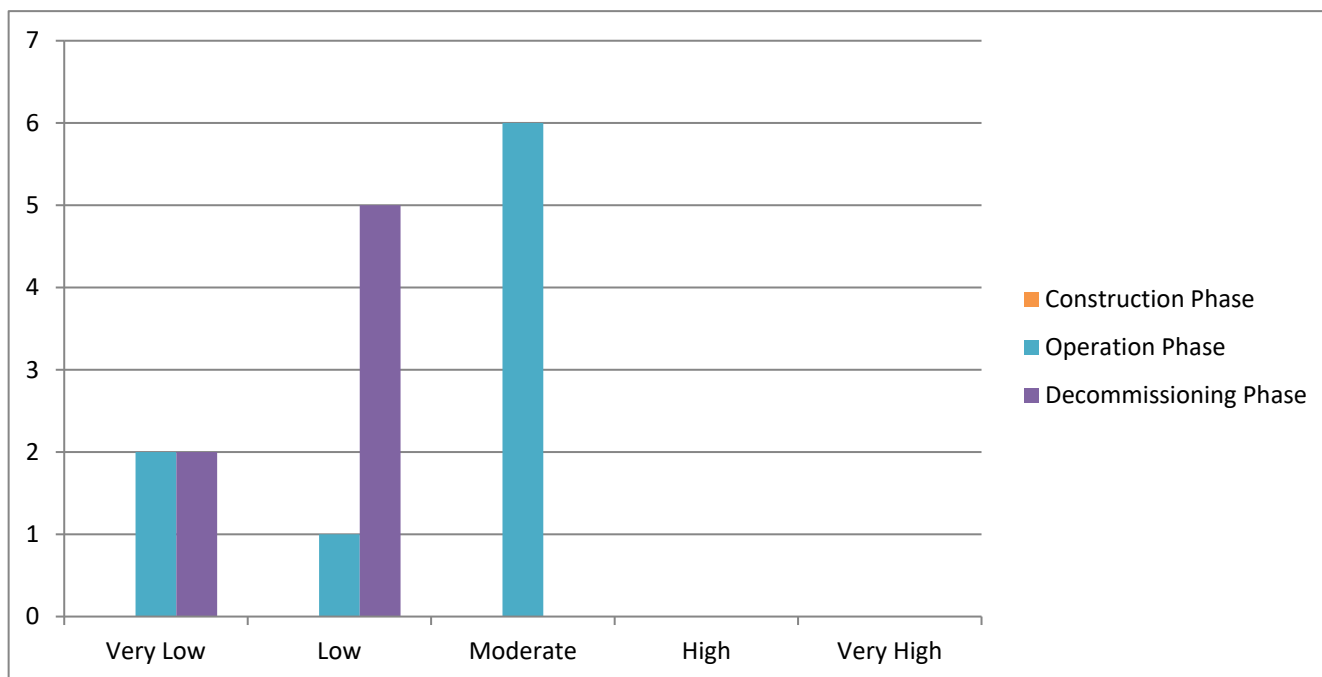
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Figure 5-2 Impact significance of the proposed factory project

5.7. MITIGATION MEASURES OF IMPACT ON ENVIRONMENTAL RESOURCES

5.7.1. Recommended Air Impact Mitigation Measures

During the operation phases, ventilation system of the factory is enough for the workers cause the proponent has installed Moist Fan around the factory building. To control air pollution, the vehicles, generators and machineries have to check and maintain regularly. Since the factory compound area is paved with concrete, dust emission from the movements of vehicles and cars is not significant. The project proponent must install good exhaust system at the kitchen to reduce adverse impacts of indoor air quality. The factory uses chimney for generator through which the flue gas is emitted for reducing the impact of stack emission on environment. Monitoring and check installed cyclones and ventilation system. The factory has planted trees in its premises to reduce carbon emission and thus minimize air pollution. Ensuring vehicles, compressor and generator are well maintained.

During the decommissioning phases, the impact on air quality can be controllable and reduced to minimum level and minimized dust emissions from material handling sources. Sprinkling water on the top soil can reduce dust emission from the demolishing activities. In the proposed project area, vehicle movements should be limit and maintain and check the vehicles and machineries regularly. Burning the demolished materials and residual wastes must not be allowed.

5.7.2. Mitigation Measure of Impact on Water

During the operation phase, water discharge from the factory site will be treated by silts track tank before discharging. Water effluent levels should be within acceptable limit of the National Environmental Quality (Emissions) Guidelines values. The factory plan has kitchen, canteen and toilet facilities attached in various buildings of the factory. In the kitchen, separated drainage lines are

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provided to flow wastewater from the activities washing and cooking, etc. And around the compound area of the project area, drainages are also provided and maintain to flow storm water (rain water, snow and surface water). The compound area of the factory is paved with concrete and the drainages are covered and holes are there to flow the storm water. The existing drainage at the project area can be seen in Figure 5-3. Besides, the factory plans to use separate wastewater channels, septic type toilet system. Wastewater from the dining room, canteens and toilet facilities are collected in septic tanks which are attached with sewer treatment plant and the proponent will connect and cooperate with YCDC to be carried out for disposing of these septic tank wastes. To mitigate the impact on water, the drainages around the compound area of the factory have to maintain and clean regularly. Spillage and leakages of oil and grease should also be minimized.



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Figure 5-3 Drainage and Septic tank in project area

During the decommissioning phases, appropriate sanitary facilities should be provided for demolishing workers. An accidental spill of fuel and oil should be avoided. Wastes generated from the demolishing activities should not be disposed directly into the drainage channels.

5.7.3. Mitigation Measure of Impact on Soil Contaminate

During the operation phase, the compound area of the factory area will be paved with concrete and hence, contamination due to the oil spillage at this area is insignificant. But refilling fuel must be done with great care for preventing spillage.

During the decommissioning phase, impact on soil can be mitigated by using modernized machineries, these machines would be maintained regularly and isolated maintenance area would be identified. Any accidental spills of fuel, oil or other hazardous waste must be avoided. Construction wastes and demolishing debris should be disposed properly.

5.7.4. Mitigation Measure of Impact on Noise

During the operation phase, the regular maintenance plans for vehicles, machines generators should be provided to mitigate impact on noise. Using modernized low noise machines should be used if possible. Noise impact to employees shall be minimized by providing earmuffs and ear plugs to those working near the noisy machines.

During the decommissioning phases, temporary noise pollution can be controlled by planning regular maintenance for decommissioning vehicles and machines. Moreover, construction and decommissioning activities should not be worked during nighttime.

5.8. MITIGATION MEASURES OF IMPACT ON HUMAN**5.8.1. Mitigation Measures on Fire Hazard**

The project proponent has provided fire extinguishers, fire hose reels and fire hydrants on the walls of the factory for fire emergency cases. Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening is also constructed with the capacity of 25,000 gallons at the proposed area. The emergency contact numbers of township and

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district fire services department must be printed and tagged at easily visible places for fire emergency cases. The emergency fire alarms are installed at the factory for alerting the workers in case of fire. The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases. In addition, the project proponent has plans to provide trainings on firefighting for the workers by a professional or otherwise by sending to training courses. The plan to install fire alarm system and fire-frightening system are mentioned in Figure 5-4.



Figure 5-4 Firefighting plan and Escape plan

Environmental Management Plan**5.8.2. Mitigation Measure for Occupational Health and Safety**

The proposed project has a clinic and a nurse. Medicines and first aid kits are provided in this clinic. Moreover, these medicines and first aid kits are provided for emergency cases of workers. First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for workers. According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers. Personal Protective Equipment (PPEs) like earmuffs, safety gloves, helmets and goggles are provided for each department. To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures. The project proponent must manage the drainage systems of the factory to prevent health risk of the workers.

The Occupational Safety and Health Administration (OSHA) have recommended permissible noise exposure limit for industrial workers, which is based on 90 dB (A) for 8 hours exposure a day with 5dB trading rates. The limits are mentioned in Table 5-5. According to OSHA, the maximum allowable noise level for workers is 90 dB (A) for 8 hours exposure a day. Thus, adequate protective noise impact measures in the form of ear muffs/ear plugs to the workers working in high noise areas, need to provide if actual noise level monitoring results are more than 90 dB (A) at the work site for working time hours for 8 hours.

Table 5-5 Permissible exposure of noise limits

Total Time of Exposure Per Day in Hours	Noise Level dB(A)
8	90
6	92
4	95
3	97
5	100
1	105
1/2	110
1/4	115

5.8.3. Mitigation Measure of Waste Generation

During the operation phase, the project proponent provides separate garbage bins at each building. All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste houses: Non-hazardous Waste Production related house, Hazardous Waste Production related house, Non- Hazardous Waste Non-Production related house and Hazardous Waste Non-Production related house and final wastes will be disposed by using YCDC's service.

During the decommissioning phase, some of demolished solid wastes must be recycled and the other solid wastes should be stored in dedicated waste storage area in the project site and transferred to YCDC for final disposal.

Environmental Management Plan**5.8.4. Mitigation Measurement of Disasters During Construction and Operation**

Disasters like earthquakes, floods, drought, landslides and cyclones for Management Plan should include Emergency Preparedness Plan, Emergency Response Team, Emergency Communication, Emergency Responsibilities, Emergency Facilities, and Emergency Actions.

The objective of the Industrial Disaster Management Plan is to make use of the combined resources of the plant and the outside services to achieve the following:

- Effect the rescue and medical treatment of casualties;
- Safeguard other people;
- Minimize damage to property and the environment;
- Initially contain and ultimately bring the incident under control;
- Identify any dead;
- Provide for the needs of relatives;
- Provide authoritative information to the news media;
- Secure the safe rehabilitation of affected area;
- Preserve relevant records and equipment for the subsequent inquiry into the cause and circumstances of the emergency.

It is attempted to plan and construct the buildings following all safety norms. However, it is not always possible to totally eliminate such eventualities and random failures of equipment or human errors. An essential part of major hazard control has therefore, to be concerned with mitigating the effects of such emergency and restoration of normalcy at the earliest. Detailed Table showing activities during construction and operation phases along with mitigation measures are given in Table.

Table 5-6 Activities during Construction and Operation along with Mitigation Measures

Hazards Associated with Activities	Control / Mitigation Measures
Manual Handling Strains and sprains - incorrect lifting - too heavy loads -twisting - bending - repetitive movement - body vibration.	Exercise/ warm up-get help when needed control loads-rest breaks/ no exhaustion-no rapid movement/ twisting/bending/repetitive movement – good housekeeping.
Falls - Slips - Trips Falls on same level - falls to surfaces below - poor housekeeping- slippery surfaces uneven surfaces -poor access to work areas climbing on and off plant-unloading materials into excavations wind - falling objects.	Housekeeping - tidy workplace - guardrails, handholds, harnesses, hole cover, hoarding, no slippery floors/trip hazards - clear/ safe access to work areas-egress from work areas - dust/water controlled - PPE.
Fire Flammable liquids/Gases like LPG, Diesel Storage area and combustible building materials - poor housekeeping - grinding sparks – open flames, absence of Fire hydrant network.	Combustible/ flammable materials properly stored /used -good housekeeping-fire extinguishers made available & Fire hydrant Network with reserve Fire water (As per NFPA Code) - Emergency Plan in case of Fire or collapse of structure.

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Absence of Personal Protective Equipment Lack of adequate footwear- head protection hearing/ eye protection - respiratory protection gloves-goggles.	Head / face- footwear- hearing / eye-skin respiratory protection provided - training maintenance.
Defective or wrong Hand Tools Wrong tool - defective tool - struck by flying debris- caught in or on -missing guards -carbon monoxide - strains and sprains - dust.	Right tool for the job - used properly – good condition/ maintenance guards- isolation eye/ face protection - flying debris controlled.
Electricity Electrocution – overhead / underground services - any leads damaged or poorly insulated temporary repairs -no testing and tagging circuits overloaded-nonuse of protective devices.	Leads good condition and earthed – no temporary repairs - no exposed wires-good insulation-no overloading - use of protective devices - testing and tagging -no overhead/ underground services
Scaffolding Poor foundation-lack of ladder access insufficient planking-lack of guardrails and toe boards-insufficient ties or other means-all scaffolds incorrectly braced or stabilized to prevent overturning.	All scaffolds correctly braced and stabilized - 3:1 height to base ratio - firm foundation, plumb and level - ladder access provided and used - proper platform (3 planks/ 675 mm) - planks secured-guardrails and toe boards – 900 mm to 1100mm high, within 200 mm of working face, mid - rail.
Ladders Carrying loads - not secured against dislodgement - defective ladders– not sufficient length- wrong positions - incorrectly placed (angles, in access ways, vehicle movements.	Secured against movement or footed - ladders in good condition – regularly inspected - extend one (1 m) meter above platform - 4:1 angle - out of access ways, vehicle movements - climbing - no carrying loads - 3 points of contact - no higher than 3rd step down - use for access only, not working platforms.
Excavations Trench collapse - material falling in undetected underground services-falls-hazardous atmosphere struck by traffic and mobile plant.	Soil stability known-no water accumulation existing services known - material 600 mm from edge - clear of suspended loads hardhats/ PPE- ladders - public protection - atmospheric testing- traffic controls - Emergency Plan.
Gas Cutting and Welding Fire-welding flash, burns, fumes, electrocution in wet conditions- flashback in oxygen set, leaking cylinders, acetylene cylinders lying down-poorly maintained leads.	Welding flash and burns controlled with PPE and shields -fumes controlled with ventilation and PPE (in good condition and properly positioned), Gas cylinders be kept upright & secured position (properly tied) - combustible materials to be kept at secured place to avoid fire & Fire Extinguishers to be kept in fire prone area with training to people for its use.
Noise Unknown noise levels - known noise levels over 85 decibels	Levels below 85 decibels – proper protection.
Falling Material Fall during carrying/ Lifting materials dislodged tools and materials from overhead work areas.	Materials to be secured-kept away from edge- toe boards -Use of hard hats.

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Carnage& Lifts Display of carrying capacity i. e load (No. of person) incorrectly slung, defective lifting equipment, unsecured loads, craning in close proximity to building people and plant- falls falling materials.	Periodic testing by competent authority correctly slung/ secured loads, lifting equipment good condition-use of proper hand signals - falls while unloading controlled.
Visitors Presence at site Falls -struck by - dropped materials-road accidents -insufficient hoarding or fencing pedestrian access past site-mechanical plant movement on and off site	Sufficient hoarding - fencing and barricades safe pedestrian access past site traffic management for loading and delivery construction separated from occupied areas of projects

Environmental Management Plan**6. ENVIRONMENTAL MANAGEMENT ACTION****6.1. AIR POLLUTION/DUST MANAGEMENT PLAN**

Objectives:	<ul style="list-style-type: none"> ➤ To minimize the adverse impact to air quality caused by stack gas emission from generator and also dust management generated from vehicular movement. ➤ To comply with relevant government rules 	
Relevant government law and rule	<ul style="list-style-type: none"> ➤ National Environmental Quality (Emission) Guidelines (2015) ➤ Motor Vehicles Act, (2015) 	
Time Frame	➤ Entire life spans of the factory operation	
Management Action	<ul style="list-style-type: none"> ➤ Must be plant around the proposed project to reduce carbon emission ➤ Should be prohibited burning of waste material at the proposed project site ➤ Must be control air pollution, the vehicles, boiler, generators and machineries have to check and maintain regularly. ➤ The factory should use chimney for generator through which the flue gas is emitted for reducing the impact of stack emission on environment. ➤ Must be ensuring vehicles, compressor and generator are well maintained. 	
Monitoring & Reporting	Frequency	Biannually
	Monitoring Point	Indoor and Outdoor of proposed project
	Parameters	PM _{2.5} , PM ₁₀ , SO ₂ , NO ₂ , O ₃ , CO
Estimated cost	1000000 Kyats per year	
Responsibility	Management of the factory; <ul style="list-style-type: none"> • Head of maintenance -Total implementation of above of air pollution management plan • Production manager -Air quality in the production area is good enough • Manager -To hire organization/independent third-party testing air quality • EHS officer-Monitor the hygiene of ambient air quality in surrounding of the factory 	

6.2. WATER CONSUMPTION MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> • The water consumption management is aimed at minimizing ground water use
Performance Indicator:	<ul style="list-style-type: none"> • Prohibitions on accessing and using underground water without a license • Water consumption saving of general water use from groundwater
Relevant government law and rule	<ul style="list-style-type: none"> • The Underground Water Act (1930)
Management Plan	<ul style="list-style-type: none"> • Install water meter for internal control of water consumption • All staff trains and makes aware conservation practices and proper methods of water use must be place in toilets and other areas of water consumption • The contamination of water is avoided by suitable management of oil and fuel used in

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	machineries and vehicles <ul style="list-style-type: none"> • Trees plantation surrounding the factory • Using Boiler blow down water by recycling
Monitoring & Reporting	<ul style="list-style-type: none"> • Daily visual inspections
Time Frame	<ul style="list-style-type: none"> • Once in a year throughout the factory life
Estimated cost	<ul style="list-style-type: none"> • Approximately 5 million kyats (annually)
Responsibility	Manager <ul style="list-style-type: none"> • Arrange audit on water usage controls environmental officer

6.3. WASTEWATER MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> ➤ To implementation plan for the management of liquid waste from collection, through treatment and resource recovery, to residual disposal 	
Relevant government law and rule	<ul style="list-style-type: none"> ➤ Yangon City Development Committee Law (2018), National Environmental Quality (Emission) Guidelines (2015), Underground Water Act 	
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of the factory operation 	
Management Plan	<ul style="list-style-type: none"> ➤ Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations. 	
Monitoring & Reporting	Frequency	Biannually
	Parameters	pH, Turbidity, Conductivity, Iron, Sulphate, TSS, TDS, Manganese, COD, BOD, Cyanide, Copper, Zinc, Carbonate
	Proper maintenance of drainage and sewerage system will be conducted periodically	
Estimated cost	500000 Kyats per year	
Responsibility	Manager -To hire organization/independent third-party testing wastewater quality EHS officer-Monitor the condition of factory's drainage and sewerage system	

6.4. NOISE MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> ➤ To avoid nuisance noise to nearby residents generated from generator and other machineries. ➤ To comply with noise standard of National Environmental Quality (Emission) Guideline 	
Relevant government law and rule	<ul style="list-style-type: none"> ➤ National Environmental Quality (Emission) Guidelines (2015) 	
Time Frame	<ul style="list-style-type: none"> ➤ Throughout the project life 	
Management Plan	<ul style="list-style-type: none"> ➤ Building noise insulated generator room and ensure satisfactory maintenance of relevant equipment ➤ Impose speed limit to track and vehicles at the transportation route. ➤ Provide sufficient personal protective equipment (PPE) at the work place ➤ All the related personnel will be provided proper training about the relevant issues 	

Environmental Management Plan

	and ensure PPE wear during working in noisy area.	
Monitoring & Reporting	Frequency	Biannually
	Monitoring Point	Two points in operation area (especially cutting and sewing)
	Parameters	Sound Decibel
Estimated cost	500000 Kyats per year	
Responsibility	HSE Manager or Environmental Management Team of Green Nature Manufacturing Co., Ltd.	

6.5. SOLID WASTE MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> ➤ To minimize waste generation by developing strategies for the management and disposal of all waste in a manner that is sustainable and sensitive to the environment ➤ To comply government waste management policy 	
Relevant government law and rule	<ul style="list-style-type: none"> ➤ Yangon City Development Committee Law (2018), National Waste Management Strategy and Action Plan (Draft 2018) 	
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of the factory operation 	
Management Plan	<ul style="list-style-type: none"> ➤ Must be provides separate garbage bins at each building. ➤ All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste storage area ➤ Final wastes should be disposed by using YCDC's service. 	
Monitoring & Reporting	<ul style="list-style-type: none"> ➤ Daily wastes have to be collected and hand over to YCDC waste collector ➤ The inventory record of waste disposal will be maintained as proof for proper management as designed 	
Estimated cost	50000 Kyats per month	
Responsibility	Manager (HR) <ul style="list-style-type: none"> ➤ Responsible for overall site cleanliness and waste management ➤ Regular waste collection to minimize excessive waste storage 	

6.6. SOLID WASTE MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> ➤ To minimize waste generation by developing strategies for the management and disposal of all waste in a manner that is sustainable and sensitive to the environment ➤ To comply government waste management policy 	
Relevant government law and rule	<ul style="list-style-type: none"> ➤ Yangon City Development Committee Law (2018), National Waste Management Strategy and Action Plan (Draft 2018) 	
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of the factory operation 	

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Management Plan	<ul style="list-style-type: none"> ➤ Must be provides separate garbage bins at each building. ➤ All of the solid wastes will be collected separately in garbage based on their types and stored in relevant separated waste storage area ➤ Final wastes should be disposed by using YCDC's service.
Monitoring & Reporting	<ul style="list-style-type: none"> ➤ Daily wastes have to be collected and hand over to YCDC waste collector ➤ The inventory record of waste disposal will be maintained as proof for proper management as designed
Estimated cost	50000 Kyats per month
Responsibility	Manager (HR) <ul style="list-style-type: none"> ➤ Responsible for overall site cleanliness and waste management ➤ Regular waste collection to minimize excessive waste storage

6.7. LIQUID WASTE MANAGEMENT PLAN (WASTEWATER)

Objectives:	<ul style="list-style-type: none"> ➤ To implementation plan for the management of liquid waste from collection, through treatment and resource recovery, to residual disposal 	
Relevant government law and rule	<ul style="list-style-type: none"> ➤ Yangon City Development Committee Law (2018), National Environmental Quality (Emission) Guidelines (2015), Underground Water Act 	
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of the factory operation 	
Management Plan	<ul style="list-style-type: none"> ➤ Regular inspection and cleaning, oil traps, septic tank and adequate covers for all storage and waste disposal areas can decrease these contaminations. 	
Monitoring & Reporting	Frequency	Biannually
	Parameters	pH, Turbidity, Conductivity, Iron, Sulphahte, TSS, TDS, Manganese, COD, BOD, Cyanide, Copper, Zinc, Carbonate
	Proper maintenance of drainage and sewerage system will be conducted periodically	
Estimated cost	500000 Kyats per year	
Responsibility	Manager -To hire organization/independent third-party testing wastewater quality EHS officer-Monitor the condition of factory's drainage and sewerage system	

6.8. FIRE MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> ➤ To ensure that fire control practices are implemented on site to minimise the risk of fire from site operations and bush fires
Relevant government law and rule	<ul style="list-style-type: none"> ➤ Myanmar Fire Brigade Law 2015
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of proposed project operation
Management Plan	<ul style="list-style-type: none"> ➤ Must be provide fire extinguishers, fire hose reels and fire hydrants on the walls of

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	<p>the factory for fire emergency cases.</p> <ul style="list-style-type: none"> ➤ Must be indicated the emergency exit and assembly point in public area. ➤ Regular inspection for existing firefighting equipment must be done. In case of fire emergency, water storage tank for fire frightening. ➤ The emergency fire alarms are installed at the factory for alerting the workers in case of fire. ➤ The main entrances and route for emergency cases of the factory must not be blocked with materials or machines for fire emergency cases.
Monitoring & Reporting	To check monthly Visual inspection, Firefighting equipment (fire extinguish, firefighting hose, portable fire pumps, fire hose reels, fire monitor and firefighting nozzles)
Estimated cost	1200000 Kyats per year
Responsibility	HSE Manager, Operation Manager or Environmental Management Team of Green Nature Manufacturing Co., Ltd.

6.9. OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT PLAN

Objective	<ul style="list-style-type: none"> ➤ To provide a broad framework for improving standards of workplace health and safety to reduce work-related injury and illness.
Relevant Government Law and Rule	<ul style="list-style-type: none"> ➤ Public Health Law (1972), Prevention and Control of Communicable Diseases Law 1995 (Amendment 2011), Occupational Safety and Health Law (2019)
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of proposed project
Management Action	<ul style="list-style-type: none"> ➤ First aid training, safety training, firefighting training or other essential training for machinery handling must be provided for emergency cases of workers. ➤ According to the observed light intensity values, the proponent provides sufficient lighting for workers for safe working and reducing optical problems of the workers. ➤ Personal Protective Equipment (PPE) like earmuffs, safety gloves, helmets and goggles are provided for each department. ➤ To prevent electric shock hazards, electrical maintenance staff (handyman) is to be assigned to do regular inspections and take preventive measures. ➤ Manage the drainage systems of the factory to prevent health risk of the workers. ➤ The maximum allowable noise level for workers is 90dB(A) for 8hours exposure a day. Thus, adequate protective noise impact measures in the form of ear muffs/ear plugs to the workers working in high noise areas.
Monitoring and Reporting	<ul style="list-style-type: none"> ➤ Weekly check fire extinguishers and water hydrant in position ➤ Daily inspect that all fire exist are open ➤ Servicing fire extinguisher and records accidents

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Estimated Cost	1200000 Kyats per year
Responsible Person	HSE Manager, Operation Manager or Environmental Management Team of Green Nature Manufacturing Co., Ltd.

6.10. HAZARDOUS WASTE MANAGEMENT PLAN

Objective	<ul style="list-style-type: none"> ➤ To avoid environmental pollution and adverse health effects due to its improper handling & disposal.
Relevant Government Law and Rule	<ul style="list-style-type: none"> ➤ Yangon City Development Committee Law (2018), Explosive Ordnance Disposal Law (2018)
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of proposed project
Management Action	<ul style="list-style-type: none"> ➤ Proper inspection and maintenance in storage of hazardous waste. ➤ Dispose of hazardous chemicals and containers in accordance with occupational health, safety and environmental requirements. ➤ The empty chemical containers will hand over to suppliers for recycle or appropriate disposal ➤ The hazardous wastes are transported by specially licensed carriers and disposed in a licensed faculty (e.g. DOWA and YCDC)
Monitoring and Reporting	Any hazardous materials purchased should include a Material Safety Data Sheet (MSDS), otherwise known as a Safety Data Sheet (SDS) or Product Safety Data Sheet (PSDS). By mandate of the World Health Organization's Inter-Organization Programme for the Sound Management of Chemicals (IOMC), all manufacturers of hazardous materials are required to provide a MSDS so that end users can treat the materials properly.
Estimated Cost	1000000 Kyats per year
Responsible Person	HSE Manager or Environmental Management Team of Green Nature Manufacturing Co., Ltd.

6.11. ENERGY MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> ➤ To improve energy efficiency, reduce cost, optimize capital investment, reduce environmental and greenhouse gas emissions, and conserve natural resources
Relevant government law and rule	<ul style="list-style-type: none"> ➤ National Energy Management Committee (Myanmar Energy Master Plan 2015)
Time Frame	Once in a year throughout the factory life
Management Plan	<ul style="list-style-type: none"> ➤ Installation of timers and thermostats to control heating and cooling ➤ Energy saving light installed in different area of the factory for saving energy ➤ Used of energy saving devices must be installed

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	<ul style="list-style-type: none"> ➤ Ensure that good housekeeping measures such as turning off equipment and lights when not in use
Monitoring & Reporting	Conduct annual energy efficiency of audit to find out the scope for energy saving
Estimated cost	Approximately 1000000 Kyats per year
Responsibility	Manager <ul style="list-style-type: none"> ➤ To arrange energy audit technical personnel ➤ To monitor and record electricity consumption, other related energy issues and take necessary actions if any problem arises

6.12. EMERGENCY RESPONSE AND MANAGEMENT PLAN

Objectives:	<ul style="list-style-type: none"> ➤ To reduce the harmful effects of all hazards, including disasters. The World Health Organization defines an emergency as the state in which normal procedures are interrupted, and immediate measures (management) need to be taken to prevent it from becoming a disaster, which is even harder to recover from.
Relevant government law and rule	<ul style="list-style-type: none"> ➤ The Employment and Skill Development Law (August 2013), ILO guide to Myanmar Labour Law (2017)
Time Frame	<ul style="list-style-type: none"> ➤ Entire life spans of the factory operation
Management Plan	<ul style="list-style-type: none"> ➤ The factory management has taken proper measures to handle any emergency situation like fire, earthquake, flood and storm ➤ Provision and inspection of firefighting equipment and fire hydrant system in all the sections ➤ A detail evaluation plan (fire exist, emergency exit door, etc.) is established and communicated with workers ➤ Periodic inspection of safety relief valve provided with pressure vessels and equipment, preventive maintenance; aware the workers about electric shock by necessary training. ➤ Regular fire drill operation is conducted ➤ Workers are informed about what to do in earthquake like stay in a safe place such as under table of desk, not to try move outside during earthquake, workers who will be outside during earthquake shall remain stay out of the building, trees, lump post, etc. Other relevant safety instruction of emergency situation it informed to workers by training ➤ Workers are aware of dangers from physical hazards such as obstacles covered by floodwater (storm debris, drainage opening, ground erosion) and from displaced reptiles (Snake) or other animals. ➤ A medical team has been prepared for primary treatment (First Aid) ➤ Prepare an emergency contact directory consisting contact numbers of nearest fire service, local police station, hospitals, etc. and display it in a place that everybody can see it easy. ➤ Build a safety committee which from firefighting team, rescue team. The committee arrange a meeting every month to discuss about safety management ➤ Ensure proper training of the employees about the disaster management, fire

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	safety as well as occupational health and safety
Monitoring & Reporting	Weekly check fire extinguishers and water hydrant in position Daily inspect that all fire exist are open Servicing fire extinguisher and records accidents,
Estimated cost	Approximately 1500000 Kyats per year
Responsibility	Manager and EHS officer <ul style="list-style-type: none"> ➤ Arrange firefighting training after every 3 months ➤ Responsible for fire control and response ➤ Monitoring daily danger warning and bans

6.13. ENVIRONMENTAL MONITORING SCHEDULE AND REPORTING

The EMoP cell members responsible may conduct daily, weekly or monthly general inspections of the project area and facilities. The objectives are to identify non-compliances to EMoP. Table 6-1 is provided the environmental monitoring schedule for Green Nature Manufacturing factory. The factory submits monitoring report to the Ministry not less frequently than every six (6) months, as provided in a schedule in the EMP,

Table 6-1 Environmental monitoring schedule for Green Nature Manufacturing Company Limited

Issues	Parameter	Frequency	Area to be monitored	Monitoring cost	Responsible Organization
Operation Phase					
Common	Monitoring of mitigation measures	Yearly (3 years after operation)	The project	2500,000 Kyats	Environmental Management Team's Green Nature Manufacturing Co., Ltd.
Air quality	PM 2.5, PM 10, SO ₂ , NO ₂ , O ₃ , CO	Biannually monitoring and reporting to ECD (first 3 years after operation)	Outdoor and Indoor of proposed project	800,000 Kyats	Environmental Management Team's Green Nature Manufacturing Co., Ltd.
Waste Generation	Solid waste, Liquid waste and Hazardous waste	weekly	Recycle house and waste house and at the factory office	50,000 Kyats	Environmental Management Team's Green Nature Manufacturing Co., Ltd.
Noise	Noise level in decibel (dBA)	Biannually monitoring and reporting to ECD (first 3 years after)	Outdoor and Indoor of proposed project	1000,000 Kyats	Environmental Management Team's Green Nature Manufacturing

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Issues	Parameter	Frequency	Area to be monitored	Monitoring cost	Responsible Organization
		operation)			Co., Ltd.
Fire Hazardous	Visual inspection, firefighting equipment	Monthly	At the factory	500000 Kyats	Environmental Management Team's Green Nature Manufacturing Co., Ltd.
Light intensity	Illuminance	Monthly	At the production line (especially cutting and QC)	20,000 Kyats	Environmental Management Team's Green Nature Manufacturing Co., Ltd.
Decommissioning Phase					
Air quality	PM 2.5, PM 10, SO ₂ , NO ₂ , O ₃ , CO	One time during this phase	One point in the production area	1000000 Kyats	Land Owner
Noise	Noise level in decibel (dBA)	One time during this phase	One points in demolishing area	1000000 Kyats	Land Owner
Rehabilitation	Recovering and Revegetation		All decommissioning area		Land Owner

6.14. CAPACITY BUILDING AND TRAINING PLAN

The emergency preparedness is vital, as quick and correct response is necessary in case of emergency to reduce injuries, harm and other damage. Care should be given for during processing activities in order to prevent synthetic errors and accidental cases (e.g., electricity shock and fire hazards).

The emergency response plans should be established for handling all foreseeable emergencies in the workplace and must provide the following;

6.14.1. Assignment of Responsibilities

All senior staff such as a line/production manager or safety officer should be assigned to lead the emergency response team and charged with the duties of (1) assessing the emergency and taking necessary actions (2) overseeing the implementation of the emergency response plan (3) organizing regular drill (4) ensuring all emergency equipment is well maintained.

6.14.2. Emergency Procedures

Emergency procedures are operating instructions for employees to follow in emergency case
About work safety in the concerned processing, the management team should







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- a) Identify and list out all possible emergency situations in the workplace
- b) Assess the effects and impacts of the emergency situations
- c) Establish emergency response plans
- d) Provide and maintain emergency equipment and other necessary resources
- e) Ensure that staff are familiarized with the arrangements in case of emergencies by providing procedural instructions and employee training and organizing drills

6.14.3. Training for Emergencies

The type, amount and frequency of training varies, depending upon the task's employees are expected to perform. Although training must be provided to employees at least annually, safety meetings and drills should be conducted at more frequent intervals.

Regardless of the specific type of facility, training should include, though not be limited to the following;

-  Hazard recognition and prevention (fire, explosion, etc.)
-  Proper use of fire extinguishers
-  Emergency reporting procedures
-  Preventive maintenance
-  Hazardous materials spill response
-  First Aid

6.14.4. Fire Prevention and Protection

The fire prevention and protection program must address the following topics:

Prevention; policies, practices and procedures designed to keep the conditions necessary for a fire from coming together

- Hot work permits
- Lockout/tag out policies
- Design specifications for storage of flammable materials

Severity reduction; policies, practices and procedures designed to reduce the spread of fire and end the fire.

- Emergency plans
- Alarm systems
- Portable fire extinguishers
- Fire Protection Equipment

Cleanup; policies, practices and procedures designed to return the affected area to an operational level and reduce other losses created by improper cleanup

- First aid
- Removal of debris to an appropriate waste site
- Equipment and facility repair

6.14.5. Fire Protection Equipment

1. Explosion Suppression Systems: Explosion suppression systems should be used in unusually hazardous areas such as elevator legs, boots and head, or in areas such as bins, distributors and tanks.

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2. **Portable Fire Extinguishers:** All buildings within a facility must have fully charged and operable portable fire extinguishers. If employees are expected to use portable extinguishers or other firefighting equipment against incipient fires, they must be trained to use the equipment. Training must include the following:
 - Correct type of extinguisher to use on different classes of fire
 - Proper techniques for use of the equipment to extinguish a fire
3. **Standpipes and Hoses:** All areas within a facility that are above 75 feet from ground level and in which combustible materials other than grain are stored should have wet or dry standpipes and hoses installed.
4. **Automatic Sprinkler Systems:** Automatic sprinkler systems are recommended in areas containing combustible materials.
5. **Fire Hydrants:** All grain and feed mill facilities should have adequate public or private fire hydrants on site. Each fire hydrant should have an adequate water supply.

6.14.6. Fire Safety and Evacuation Plan

Fire Evacuation plans should include the following information

- Emergency escape routes must be clearly shown on floor plans and workplace maps
- Employers must know that their employees know the emergency escape routes
- Procedures for employees who must remain to operate critical equipment before evacuating
- Identification and assignment of personnel responsible for rescue or emergency medical aid

Fire Safety Plans should include the following information:

1. Procedure for reporting a fire or other emergency
2. Site plans indicating the following
 - The Occupancy assembly point
 - The locations of fire hydrants
 - The normal routes of fire department vehicles access
3. Floor Plans identifying the locations of the following
 - Exits
 - Primary evacuation routes
 - Secondary evacuation routes
 - Accessible egress routes
 - Areas of refuge
 - Exterior area for assisted rescue
 - Manual fire alarm boxes
 - Portable fire extinguishers
 - Occupant-use hose stations
 - Fire alarm annunciators and controls

The following American National Fire Fighting Association (NFFA) Standards must be following.

Environmental Management Plan**Table 6-2 American National Fire Fighting Association (NFFA) Standards**

No.	Parameters	Proposed Capacity	Remark
1.	Fire water flow	14 bars	
2.	Deluging rate	12.0 liters/m2/min	
3.	Foam rate	10.0 liters/m2/min	
4.	Maximum water pressure	190 liters/min	For storage area

Emergency evacuation Drill: An exercise performed to train staff and occupants and to evaluate their efficiency and effectiveness in carrying out emergency excavation procedures

Employee Training and Response Procedures: Employee shall be trained in the fire emergency procedure described in their fire evacuation and fire safety plans and training should be based on these plans;

Frequency: Employee shall receive training in the contents of fire safety and evacuation plans and their duties as part of new employee orientation and at least annually thereafter. Records shall be kept and made available to the fire code official upon request.

Employee Training Program: Employee shall be trained in fire prevention, evacuation and fire safety in accordance with the following sections.

Fire Prevention Training - Employee shall be apprised of the fire hazards of the materials and processes to which they are exposed. Each employee shall be instructed in the proper procedures for preventing fires in the conduct of their assigned duties

Evacuation Training – Employees shall be familiarized with the fire alarm and evacuation signals, their assigned duties in the event of an alarm or emergency, evacuation routes, areas of refuge, exterior assembly areas and procedures for evacuation

Fire Safety Training – Employee assigned fire-fighting duties shall be trained to know the locations and proper use of portable fire extinguishers or other manual fire-fighting equipment and the protective clothing or equipment required for its safe and proper use.

6.14.7. Site Fire Control

1. Alert other people through fire alarm
2. If small, control using an extinguisher
3. Contact fire brigade if not under immediate control
4. Attend to human life in immediate danger
5. For electrical fires turn off power before fighting
6. Once out of the building, stay out. Do not allow people to go back into the burning building to collect valuables. While evacuating the building, close doors (but do not lock) to slow down the spread of fire
7. Obey all instructions
8. Proceed to an emergency evacuation area (Muster Point)

6.14.8. Employee Information and Training

Employees must be informed about any operations in their work area where hazardous chemicals or materials are present. They must also be informed about the locations and availability of

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the hazard communication program, list of chemicals and SDSs. Employees must receive training on the following:

- Methods for detecting the presence or release of a hazardous chemical, such as monitoring devices and the visual
- appearance or odor of the chemical
- Physical and health hazards of chemicals in their work area
- How to protect themselves using work practices, emergency procedures and personal protective equipment
- How to interpret the information on the labels and MSDS of chemical materials

6.14.9. Health and Safety Training Plan for Worker

Health and Safety Training plan currently used and provided in Green Nature Manufacturing Co., Ltd. to all employees and workers by trainings internally and externally. Specific trainings are recommended and conducted according to the health and safety guidelines to enhance worker's health and to prevent all potential risks and hazards might occur in the factory. All required trainings related to health and the respective departments propose safety or operational parts, top management makes decision and HR organizes and conducts the trainings.

Table 6-3 Training Plan Used in Green Nature Manufacturing Co., Ltd.

No.	Health and Safety Guidelines	Training needs
1.	Management	General fire and emergency response plan, evacuation. All training materials and procedures covering health and safety for workers and employees
2.	Machine safety and noise management	Training for machine operations to all operators Use of PPE and proper use of any necessary protection Maintenance and Emergency procedures
3.	Environment safety	Understanding and training on recognition and maintenance not to affect environment
4.	Material storage and safety	Safety use of related devices and machines Use of necessary protections in working areas Sanitation work
5.	Fire Safety	Firefighting and evacuating training and practices Firefighting materials/ devices use
6.	First Aid	first aid / CPR/ AED training from providers (Outsource) training on hazard of pathogens

6.15. GRIEVANCE REDRESS MECHANISM (GRM)

People who live near the project affected area or stakeholders can complain about the problems and impacts that they suffer; they can complain through Grievance Committee, which includes the responsible persons of Green Nature Manufacturing Co., Ltd. representative from Shwe Lin Ban Industrial Zone and representative from General Administration Department (Hlaing Thar Yar Township). Small issues will be solved at the Grievance Committee stage and other unsolved problems will be submitted to higher responsible authorities and finally the responsible person decided

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by the court in legal terms. The following diagram show steps of Grievance Redress Mechanism of Proposed Factory Project.

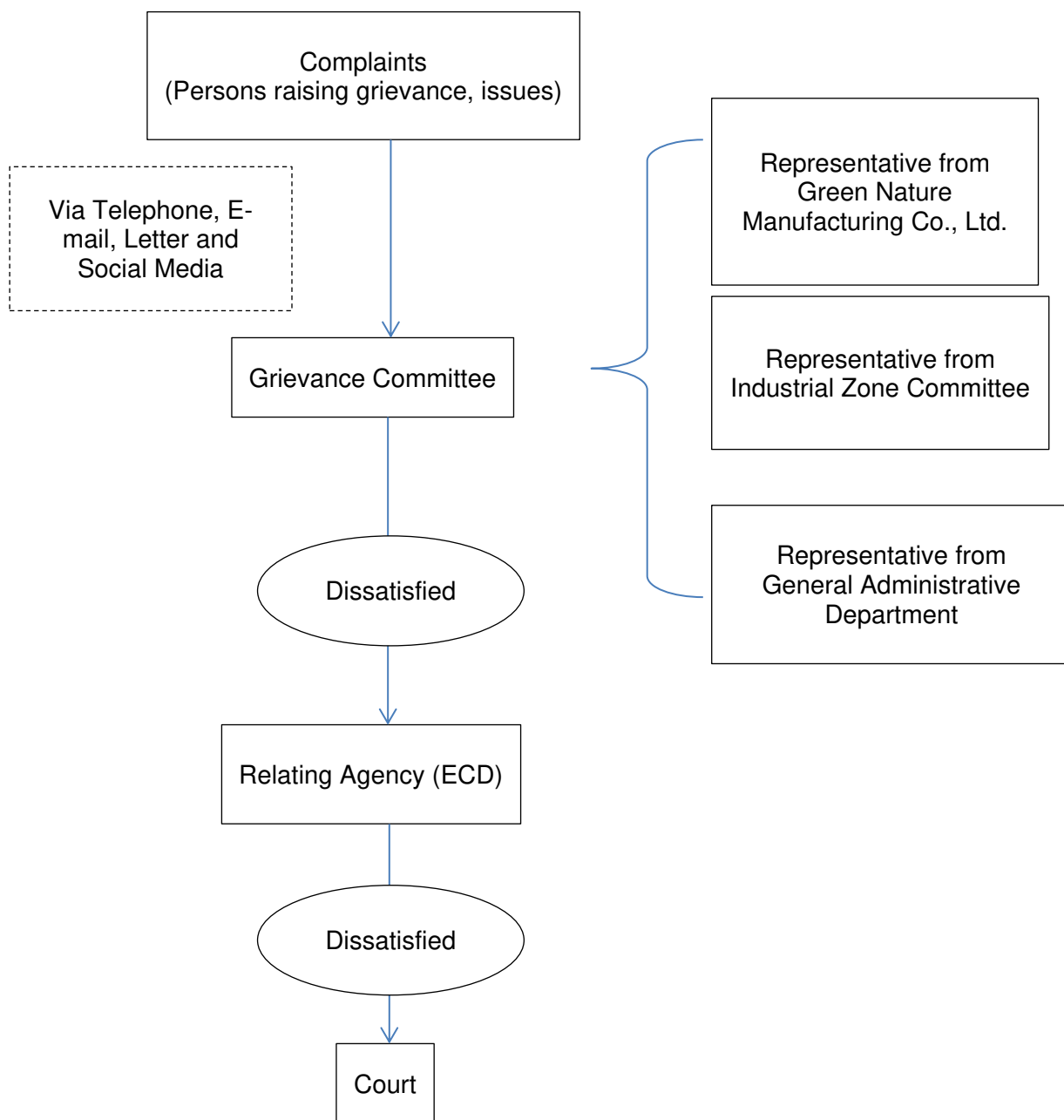


Figure 6-1 Grievance Redress Mechanism Flow Diagram

6.16. CORPORATE SOCIAL RESPONSIBILITY (CSR) PLAN

The CSR activities have the objective to uplift quality of life and gain favorable relations from all communities in the operation area. The CSR program for Green Nature Manufacturing Co., Ltd. consists of three main sectors; Health, Education and Communities Development Sector. CSR activities are conducted in compliance with MIC's guideline for implementation of CSR program.

Green Nature Manufacturing Co., Ltd. has a plan to implement and donate 2 percent of the profit per year for Corporate Social Responsibility (CSR) and Employee Welfare Arrangement.

Environmental Management Plan**Table 6-4 CSR Plan at Green Nature Manufacturing Co., Ltd.**

Area	Priority item	Contribution (%)	Estimated Cost (Kyats)	Detail targets
Health	Healthcare for employees and their family	0.5 %	7,500,000	One of our main concerns is the well-being of our employees. We will contribute 0.6 % of our net profit for the healthcare which includes medical checkup for the employees and providing health education to our workers.
Education	Raising awareness education level and human right	0.5 %	10,000,000	We will contribute 0.6 % of our net profit to the public school near the factory to be a part of creating the better community. We will also work together with the school to understand more about the needs and we will also ensure that our contributions will be used in the most effective and efficient way for the society.
Community Development	Donation to local community	1%	7,500,000	<ul style="list-style-type: none"> • Donate to local charities with a worthy cause • Actively participate in community events • Encourage staff to participate, and to form a community engagement team to actively support community events • Embedding understanding and consciousness about human rights issues among the employees • Development of sexual harassment and power harassment (workplace bullying & harassment) prevention efforts

7. PUBLIC CONSULTATION

7.1. PUBLIC CONSULTATION PROCESS

This chapter presents results of public consultation and information disclosure conducted for the Green Nature Manufacturing Factory. Public participation can be considered as the required element of the EMP process. In this study various stakeholder's participation was made.

Public consultation during preparation of EMP report was conducted on 7, February 2020, following the EIA procedure.

The project's stakeholders in this category are key officials or representatives of the regional and local authorities who have direct responsibilities for the administration of the EMP process for environmental and social clearance and issuing operation permits for proposed development projects.

For this factory, relevant key offices at the national level are Environmental Conservation Department (ECD) and Industry Supervision and Inspection Department.

Relevant key office at the regional level is Yangon City Development Committee (YCDC), General Administrative Department, Fire Department, Factories and General Labor Law Inspection Department, Public Health Department, Industrial Supervision and Inspection Department.

Public consultation carried out after the presentation on the project, followed by questions, answers and discussion. Daw Khin Thuzar Myint presented EMP study and findings from MYANWEI CONSULTING GROUP LIMITED, after the presentation following question and answer section. Summary of public consultation meeting is presented. **Error! Reference source not found.** shown the consultation meeting photo. **(PCM attendant list and presentation power point slide are described in Appendix)**

Table 7-1 Summary of public consultation meeting

Time and Date	Friday, 7 February 2020 10:30-12:30
Venue	Anawrahta Office, Hlaing Tharyar Township.
Agenda	Presentation on the Background Information of Project, Project Description, Impact Assessment, Environmental Mitigation Environmental Management Plan and Monitoring Plan Received and Answer from feedback of participants

7.2. RECOMMEND SUGGESTION AND COMMENT

After the presentation, the floor opened for questions and answers. There is no suggestion and comment for presentation and EMP draft report, because the project is sample manufacturing of various kinds of garment (CMP basic). In addition,

Suggestion; U Htun Naing Win; Director (General Administration Office)

- To provide 2 % of net profit for CSR program according to MIC's guideline for implementation of CSR program for education, health, society, and environment.

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Suggestion; U Vial Ngaih Lian; Public Health Department

- Factory workers shall be aware for using the person protective equipment
- To provide long time care of medical checking for workers
- To provide the medicines for aliment and must be enough the medicines for injuries
- To provide the PPE to the employees who work in that factory and
- To provide the nurse who is not only reality nurse but also got the experience in concerning filed.
- To provide healthy drinking water for employees

Suggestion; U Kyaw Kyaw; Assistant supervisor (Environmental Conservation and Cleaning Department-Industrial Section) YCDC

- To compliance with YCDC procedure for solid waste management and disposed process
- To implement the sufficient septic tank design for workers



Figure 7-1 Public Consultation Meeting

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Note

According to public consultation meeting, all the suggestions are basic necessary for a garment factory. Almost all the suggestions are done by the project proponent. If there are any requirements like environmental or social related case, project owner will provide the requirements.

8. CONCLUSION & RECOMMENDATION

8.1. CONCLUSION

Environmental Management Plan (EMP) has been prepared by Green Nature Manufacturing Company Limited is located at Plot No. (29+30), Myay Taing Block No.YaLaPa (25), Shwe Lin Ban Industrial Zone, Hlaing Thar Yar Township, Yangon Region. The main objective of the study is focused specially on the required environmental management measures or creating environmentally friendly workplace. An EMP has been carried out for the factory according to the requirement of the proponent as it has been made for garment product manufacturing factory.

Thus, the factory management can take proper mitigation steps against adverse environmental impacts by following this EMP. The necessary measure to mitigate impact regarding different environmental parameter such as air, water, waste, noise has been proposed in this EMP.

However, all necessary implementation measures to mitigate adverse environmental, health and safety impacts have already been taken to meet National Environmental Quality (Emission) Guideline (2015). On the other, the factory has positive impacts in terms of environmental in the operation phase. Further, this will indirectly help in boosting up the national economic condition through foreign investment. An outline of EMP has been given in the present report to mitigate/enhance the impacts, which occurs during operation phase of the factory.

The effective implementation of the mitigation measures proposed will ensure towards good environmental management within the proposed project area. Furthermore, the environmental monitoring plan prepared as part of the EMP will provide adequate opportunities to address any residual impacts during the operation phase.

In conclusion, it has been figured out that, the proposed industrial safety and sport gloves factory is going to generate local employment opportunities and enhance capabilities and working skills of employees. Consequently, their socio-economic standard is expected to be improved and undertaking corporate social responsibilities (CSR) as recommended. The study further concluded that positive impacts will be of immense benefit to the local community and national development as well.

8.2. RECOMMENDATION

This is recommended that;

- All appropriate environmental management measures detailed in this report, together with any other environmental management commitments should be implemented throughout the entire life of the factory
- Solid wastes and liquid wastes need to dispose according to YCDC rules and regulation
- Workers should be provided proper training and it should be ensured that workers use PPE during factory operation area.
- Daily, monthly and annual action plan shall be formulated based on this EMP and practiced at operation level.

Environmental Management Plan

- Keep full records of environmental management activities and present to annual independent third-party environment audit.
- Abide environmental policy, laws, rules and instructions of the Republic of the Union of Myanmar.

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

9. REFERENCE

- [1] General Administrative Department (Hlaing Thar Yar Township), Hlaing Thar Yar Township Data (2017).
- [2] Hla Hla Aung, "Potential Seismicity of Yangon Region (Geological Approach), "Yangon Surface Displacement as Detected by Insar Time Series Analyisi" July 2011.
- [3] Ministry of Natural Resources and Environmental Conversation (MONREC), "Environmental Impact Assessment Procedure" December 2015.
- [4] Ministry of Natural Resources and Environmental Conversation (MONREC), "National Environmental Quality (Emission) Guidelines" December 2015.

APPENDIX A

Company Document's Green Nature Manufacturing Company Limited



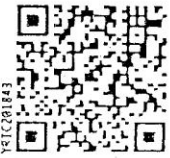
ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်
ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ
အတည်ပြုမိန့်



ပြုမိန့်အမှတ် ရကတ-၀၄၃/၂၀၁၈ ၂၀၁၈ ခုနှစ် ဧပြီလ ၁၁ ရက်
ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီသည် မြန်မာနိုင်ငံရင်းနှီးမြှုပ်နှံမှုဥပဒေပုဒ်မ-

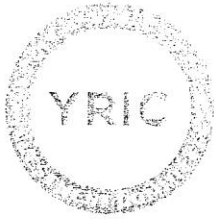
၂၅ ပုဒ်မခွဲ(ဃ) အရ ဤအတည်ပြုမိန့်ကို ထုတ်ပေးလိုက်သည် -

- (၁) ရင်းနှီးမြှုပ်နှံသူအမည် ဦးတင်ဝင်းအောင်
- (၂) နိုင်ငံသား မြန်မာ
- (၃) နေရပ်လိပ်စာ အမှတ်(၈၁)၊ ရိပ်သာ(၅)လမ်း၊ ဝေဇယန္တဥယျာဉ်အိမ်ရာ၊ မိကျောင်းကန်
အပိုင်း(၁)ရပ်ကွက်၊ သင်္ဃန်းကျွန်းမြို့နယ်၊ ရန်ကုန်မြို့
- (၄) ပင်မအဖွဲ့အစည်းအမည်နှင့် လိပ်စာ -
- (၅) ဖွဲ့စည်းရာအရပ် -
- (၆) ရင်းနှီးမြှုပ်နှံသည့်လုပ်ငန်းအမျိုးအစား CMP စနစ်ဖြင့် အဝတ်အထည်ချုပ်လုပ်
ခြင်းလုပ်ငန်း
- (၇) ရင်းနှီးမြှုပ်နှံသည့်အရပ်ဒေသ(များ) မြေကွက်အမှတ်-၂၉+၃၀၊ မြေတိုင်းရပ်ကွက်
အမှတ် ၇လပ ၂၅၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီး
- (၈) နိုင်ငံခြားမတည်ငွေရင်းပမာဏ -
- (၉) နိုင်ငံခြားမတည်ငွေရင်းယူဆောင်လာရမည့်ကာလ -
- (၁၀) စုစုပေါင်းမတည်ငွေရင်းပမာဏ(ကျပ်) ကျပ် ၁၅၀၀.၀၀ သန်း (စုစုပေါင်းကျပ်တစ်
ထောင် ငါးရာသန်း တိတိ)
- (၁၁) တည်ဆောက်မှု/ပြင်ဆင်မှုကာလ -
- (၁၂) အတည်ပြုမိန့် သက်တမ်း -
- (၁၃) ရင်းနှီးမြှုပ်နှံမှုပုံစံ မြန်မာနိုင်ငံသားရင်းနှီးမြှုပ်နှံမှု
- (၁၄) မြန်မာနိုင်ငံတွင်ဖွဲ့စည်းမည့်ကုမ္ပဏီအမည် အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီ
လီမိတက် (Green Nature Manufacturing Company Limited)



၂၀၂၀
ဇွန် ၄

ရန်ကုန်တိုင်းဒေသကြီးရင်းနှီးမြှုပ်နှံမှုကော်မတီ



ကန့်သတ်

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

၁၇၆
၁၁-၄-၂၀၁၈

☎ ၀၁-၆၅၇၈၉၂၊ ၆၅၇၈၉၃

စာအမှတ်၊ ရကတ/အ-၀၄၃/ ၂၀၁၈ (၁၇၆)

📠 ၀၁-၆၅၇၈၉၂

ရက်စွဲ၊ ၂၀၁၈ ခုနှစ် ဧပြီလ ၁၁ ရက်

အကြောင်းအရာ။ အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီ လီမိတက် (Green Nature Manufacturing Company Limited) ၏ CMP စနစ်ဖြင့် အဝတ် အထည်ချုပ်လုပ်ခြင်းလုပ်ငန်း အတည်ပြုမိန့်အပေါ် ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှု ကော်မတီ၏ ဆုံးဖြတ်ချက်

ရည်ညွှန်းချက် ။ အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီလီမိတက် (Green Nature Manufacturing Company Limited) ၏ ၂၀၁၈ ခုနှစ် မတ်လ ၅ ရက်စွဲပါစာ

၁။ အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီ လီမိတက် (Green Nature Manufacturing Company Limited)၏ မြေကွက်အမှတ် ၂၉+၃၀၊ မြေတိုင်းရပ်ကွက်အမှတ် ၇လပ ၂၅၊ လှိုင်သာယာမြို့နယ်၊ ရန်ကုန်တိုင်းဒေသကြီးရှိ မြေဧရိယာ ၄.၈၅၅ ဧက (၁၉၆၄၇.၅၀ စတုရန်းမီတာ) တွင် CMP စနစ်ဖြင့် အဝတ်အထည်ချုပ်လုပ်ခြင်းလုပ်ငန်းအား မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ဥပဒေ နှင့်အညီ ဆောင်ရွက်ခွင့်ပြုပါရန် အတည်ပြုလျှောက်ထားလွှာ တင်ပြခြင်းအား ၂၀၁၈ ခုနှစ် မတ်လ ၂၁ ရက်နေ့တွင် ကျင်းပပြုလုပ်ခဲ့သော ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှု ကော်မတီ၏ (၅/၂၀၁၈) ကြိမ်မြောက် အစည်းအဝေးသို့ တင်ပြခဲ့ရာ ခွင့်ပြုကြောင်း ဆုံးဖြတ်ခဲ့ပါသည်။ အဆိုပါ ဆုံးဖြတ်ချက်အရ ရန်ကုန်တိုင်းဒေသကြီး ရင်းနှီးမြှုပ်နှံမှု ကော်မတီသည် မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ဥပဒေ၊ နည်းဥပဒေကို ကျင့်သုံးလျက် အစိမ်းရောင် သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီ လီမိတက် (Green Nature Manufacturing Company Limited)အား CMP စနစ်ဖြင့် အဝတ်အထည်ချုပ်လုပ်ခြင်းလုပ်ငန်း ဆောင်ရွက်နိုင်ရန်အတွက် အတည်ပြုမိန့်အမှတ်၊ ရကတ- ၀၄၃ /၂၀၁၈ ကို ထုတ်ပေးလိုက်သည်။

၂။ အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီ လီမိတက် (Green Nature Manufacturing Company Limited)အနေဖြင့် ဤအတည်ပြုမိန့်အရ လုပ်ငန်းဆောင်ရွက်ရာတွင် တစ်ဖက်ပါအချက်များကို လိုက်နာ ဆောင်ရွက်ရမည် -

ကန့်သတ်

ကန့်သတ်

၂

- (က) အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီ လီမိတက် (Green Nature Manufacturing Company Limited)အနေဖြင့် ဤအတည်ပြုမိန့်အရ CMP စနစ်ဖြင့် အဝတ်အထည်ချုပ်လုပ်ခြင်းလုပ်ငန်း ဆောင်ရွက်ရာတွင် မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ဥပဒေ အခန်း (၁၈)၊ ပုဒ်မ ၇၇ နှင့် ၇၈ အရ ကင်းလွတ်ခွင့် နှင့် သက်သာခွင့်များကို ပြဋ္ဌာန်းထားသည့် အချက်များနှင့်အညီ ခံစားခွင့်ပြုနိုင်ရန် လျှောက်ထားနိုင်သည်။
- (ခ) အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီလီမိတက် (Green Nature Manufacturing Company Limited)သည် ဤအတည်ပြုမိန့်အရ လုပ်ငန်း ဆောင်ရွက်ရာတွင် ထုတ်လုပ်မှု ရည်မှန်းချက်များကို အနိမ့်ဆုံး ရည်မှန်းချက်များ အဖြစ်ထားရှိ ဆောင်ရွက်အကောင်အထည်ဖော်ရမည်။
- (ဂ) အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီလီမိတက် (Green Nature Manufacturing Company Limited) အနေဖြင့် မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ဥပဒေပုဒ်မ ၆၅ နှင့် နည်းဥပဒေအခန်း (၂၀) တို့တွင် ပြဋ္ဌာန်းထားသည့် ရင်းနှီးမြှုပ်နှံသူ၏ တာဝန်ဝတ္တရားများ နှင့်အညီ လိုက်နာဆောင်ရွက်ရမည်။
- (ဃ) အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီလီမိတက် (Green Nature Manufacturing Company Limited)သည် အတည်ပြုလုပ်ငန်း ဆောင်ရွက်ရာ တွင် ပြဋ္ဌာန်းထုတ်ပြန်ထားပြီးဖြစ်သော ပတ်ဝန်းကျင် ထိန်းသိမ်းရေး ဥပဒေ၊ နည်းဥပဒေ၊ ပတ်ဝန်းကျင်ထိခိုက်မှု ဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၊ အမျိုးသားပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက်များ တွင် ဖော်ပြပါရှိသည့် လိုက်နာ ဆောင်ရွက်ရမည့်အချက်များ၊ လုပ်ထုံးလုပ်နည်းများ၊ လမ်းညွှန်ချက်များ နှင့် အညီ လိုက်နာဆောင်ရွက်ရမည်။
- (င) အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီလီမိတက် (Green Nature Manufacturing Company Limited)သည် ရင်းနှီးမြှုပ်နှံမှုအား လုပ်ငန်း သက်တမ်းကာလအတွင်း အခြားပုဂ္ဂိုလ် တစ်ဦးဦးသို့ တစ်ဆင့် ငှားရမ်းခြင်း၊ ပေါင်နှံခြင်း၊ အစုရှယ်ယာ လွှဲပြောင်းခြင်းနှင့် လုပ်ငန်း လွှဲပြောင်းခြင်းတို့ကို မြန်မာ နိုင်ငံရင်းနှီးမြှုပ်နှံမှု ဥပဒေ ပုဒ်မ ၇၂ နှင့် မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု နည်းဥပဒေ ၁၉၁ တို့အရ မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု ကော်မရှင်သို့ တင်ပြရမည်။

ကန့်သတ်

ကန့်သတ်

၃

(စ) အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီလီမိတက် (Green Nature Manufacturing Company Limited) သည် မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု နည်းဥပဒေ ၁၉၆ အရ ခွင့်ပြုမိန့် သို့မဟုတ် သက်သာခွင့် ရရှိထားသော ရင်းနှီးမြှုပ်နှံသူသည် နှစ်စဉ်ဘဏ္ဍာရေးနှစ် ကုန်ဆုံးပြီး နောက် သုံးလအတွင်း သတ်မှတ်ချက်ပါ အသေးစိတ်များပါရှိသည့် နှစ်စဉ် အစီရင်ခံစာအား သတ်မှတ်ပုံစံဖြင့် ကုမ္ပဏီ၏ ဝက်(ဘ်)ဆိုဒ် (သို့မဟုတ်) ကော်မရှင်ရုံး၏ ဝက်(ဘ်)ဆိုဒ် သို့ တင်ပြရမည်။

(ဆ) အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီ လီမိတက် (Green Nature Manufacturing Company Limited) သည် မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှု နည်းဥပဒေ ၁၉၇ အရ လုပ်ငန်း ဆောင်ရွက် နေစဉ်အတွင်း လုပ်ငန်း အစီရင်ခံစာကို သုံးလလျှင် တစ်ကြိမ် ကော်မရှင်က သတ်မှတ်တောင်းခံသည့်ပုံစံဖြင့် တင်ပြရမည်။

၃။ အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီ လီမိတက် (Green Nature Manufacturing Company Limited)သည် အတည်ပြုလုပ်ငန်း ဆောင်ရွက်ရာတွင် လုပ်ငန်းသဘာဝအရဖြစ်စေ၊ အခြားလိုအပ်ချက်အရ ဖြစ်စေ သက်ဆိုင်သည့် ပြည်ထောင်စု ဝန်ကြီးဌာနများ၊ အစိုးရဌာနနှင့် အဖွဲ့အစည်းများမှ လိုင်စင် သို့မဟုတ် ခွင့်ပြုမိန့် ရယူရန် လိုအပ်လျှင်ဖြစ်စေ၊ သက်ဆိုင်ရာဌာနနှင့် မြေငှားရမ်းခြင်း စာချုပ်ချုပ်ဆိုသည်ဖြစ်စေ၊ မှတ်ပုံတင်ရန် လိုအပ်လျှင်ဖြစ်စေ သက်ဆိုင်ရာဌာန၏ သတ်မှတ်ချက်များ နှင့်အညီဆောင်ရွက်ပြီး မိတ္တူ (၅) စုံစီအား ကော်မရှင်သို့ ပေးပို့ရမည်။



(ဖြိုးမင်းသိန်း)

ဥက္ကဋ္ဌ

အုပ်ချုပ်မှုဒါရိုက်တာ၊

အစိမ်းရောင်သဘာဝထုတ်လုပ်မှု ကုမ္ပဏီ လီမိတက် (Green Nature Manufacturing Company Limited)

ဖြန့်ဝေခြင်း

ပြည်ထဲရေးဝန်ကြီးဌာန

ကန့်သတ်

ပြည်ထောင်စုအစိုးရအဖွဲ့ရုံးဝန်ကြီးဌာန
သယံဇာတနှင့်သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန
အလုပ်သမား၊ လူဝင်မှုကြီးကြပ်ရေးနှင့်ပြည်သူ့အင်အားဝန်ကြီးဌာန
စက်မှုဝန်ကြီးဌာန
စီးပွားရေးနှင့်ကူးသန်းရောင်းဝယ်ရေးဝန်ကြီးဌာန
စီမံကိန်းနှင့်ဘဏ္ဍာရေးဝန်ကြီးဌာန
မြန်မာနိုင်ငံ ရင်းနှီးမြှုပ်နှံမှုကော်မရှင်ရုံး
ဥက္ကဋ္ဌ၊ CMP လုပ်ငန်းများကြီးကြပ်ရေးကော်မတီ
ညွှန်ကြားရေးမှူးချုပ်၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန
ညွှန်ကြားရေးမှူးချုပ်၊ အလုပ်သမားညွှန်ကြားရေးဦးစီးဌာန
ညွှန်ကြားရေးမှူးချုပ်၊ လူဝင်မှုကြီးကြပ်ရေးနှင့် အမျိုးသားမှတ်ပုံတင်ရေးဦးစီးဌာန
ညွှန်ကြားရေးမှူးချုပ်၊ စက်မှုကြီးကြပ်ရေးနှင့် စစ်ဆေးရေးဦးစီးဌာန
ညွှန်ကြားရေးမှူးချုပ်၊ ကုန်သွယ်ရေးဦးစီးဌာန
ညွှန်ကြားရေးမှူးချုပ်၊ ရင်းနှီးမြှုပ်နှံမှုနှင့်ကုမ္ပဏီများညွှန်ကြားမှုဦးစီးဌာန
ညွှန်ကြားရေးမှူးချုပ်၊ အမျိုးသားမှတ်တမ်းများမော်ကွန်းတိုက်ဦးစီးဌာန
ညွှန်ကြားရေးမှူးချုပ်၊ ပြည်တွင်းအခွန်များဦးစီးဌာန
ညွှန်ကြားရေးမှူးချုပ်၊ အကောက်ခွန်ဦးစီးဌာန
ရင်းနှီးမြှုပ်နှံမှု ကြီးကြပ်ရေးဌာန၊ ရင်းနှီးမြှုပ်နှံမှုနှင့် ကုမ္ပဏီများညွှန်ကြားမှု ဦးစီးဌာန

APPENDIX B

Transitional Consultant Registration Certificate



REPUBLIC OF THE UNION OF MYANMAR
Ministry of Natural Resources and Environmental Conservation
CERTIFICATE FOR TRANSITIONAL CONSULTANT REGISTRATION
(ကြားကာလအကြံပေးလုပ်ကိုင်သူမှတ်ပုံတင်ခြင်းအထောက်အထားလက်မှတ်)



No.

10048

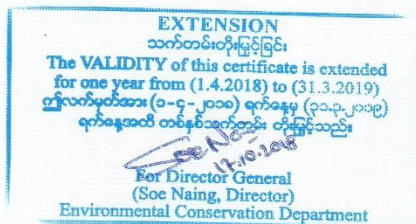
Date

07 JUL 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) | U Lin Htet Sein |
| (b) Citizenship
(နိုင်ငံသား) | Myanmar |
| (c) Identity Card / Passport Number
(မှတ်ပုံတင်/နိုင်ငံကူးလက်မှတ် အမှတ်) | 7/ Tha Ka Na (N) 101377 |
| (d) Address
(ဆက်သွယ်ရန်လိပ်စာ) | No.54, Room No.704, Waizayantar Tower,
Waizayantar Road, Thingangyun Township,
Yangon.
lin.tbs@gmail.com , 09 421137569 |
| (e) Organization
(အဖွဲ့အစည်း) | Total Business Solution Co., Ltd. |
| (f) Type of Consultancy
(အကြံပေးလုပ်ကိုင်မှုအမျိုးအစား) | Person |
| (g) Duration of validity
(သက်တမ်းကုန်ဆုံးရက်) | 31 March 2018 |



31.3.2018

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

Areas of Expertise Permitted
(ခွင့်ပြုသည့် ကျွမ်းကျင်မှုနယ်ပယ်များ)

1. Geology and Soil

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။
Soe Naing
10.6.2019
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 တစ်နှစ်သက်တမ်း တိုးမြှင့်သည်။
Soe Naing
16.1.2020
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. 10068 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) | Myanwei Consulting Co., Ltd. |
| (b) Name of the representative in the organization
(အဖွဲ့အစည်းကိုယ်စားလှယ်၏အမည်) | U Nyan Lynn Aung |
| (c) Citizenship of the representative in the organization
(အဖွဲ့အစည်းကိုယ်စားလှယ်နိုင်ငံသား) | Myanmar |
| (d) Identity Card /Passport Number of the representative person in the organization
(အဖွဲ့အစည်းကိုယ်စားလှယ်၏ မှတ်ပုံတင်/ နိုင်ငံကူးလက်မှတ် အမှတ်) | 12/Sakhana(N)056196 |
| (e) Address of organization
(ဆက်သွယ်ရန်လိပ်စာ) | No. 28, Myay nu street, Sanchaung Township,
Yangon, Myanmar.
Mobile phone: 09440251888
E mail: ceo@myanweiconsulting.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. Facilitation of meeting,
2. Land use,
3. Legal analysis,
4. Geology and soil,
5. Occupational Safety and Health,
6. Public Health



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)
ရက်နေ့တစ်နှစ်သက်တမ်းတိုးမြှင့်သည်။

For Director General
(Soe Naing, Director)
Environmental Conservation Department

APPENDIX C

Monitoring Result

Light result



Plot No. (36, 38), Room No. 9A, 9th floor, Grand Myay Nu Condominium, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Project Name:	Green Nature Manufacturing Company Limited
Project Location:	Land Plot No (29+30), Myay Taing Block No YaLaPa (25), Shwe Lin Ban Industrial Zone, Hlaing Thar Yar Township, Yangon Region
Sampling Date:	25 September 2019
Sampling Time:	1:00 pm to 4:00 pm
Sampling Condition:	Good
Sampling By:	Environmental Team Represented By Myanwei Consulting Group Company Limited

Instrument	Type	Sampling Rate	Location
Uni-T (Luminometer)	UT380 Series	100 times/second	16°55'12"N 96°4'48"E

No	Measure area	Unit	Result	Standard	Remark
1	Cutting Area (1)	Lux	528	1000	Normal
2	Cutting Area (2)	Lux	466	1000	Normal
3	Sewing Area (1)	Lux	663	600	Normal
4	Sewing Area (2)	Lux	529	600	Normal
5	Sewing Area (3)	Lux	402	600	Normal
6	QC (1)	Lux	611	600	Normal
7	QC (2)	Lux	542	600	Normal
8	Printing	Lux	330	300	Above
9	Fusing	Lux	565	600	Normal
10	Ironing	Lux	591	600	Normal
11	Warehouse	Lux	215	300	Normal
12	Packing	Lux	1029	900-1500	Normal

IESNA Lighting Handbook

Department	Type of Light	Wattage of Light	Lux Level
Fabric store	Fluorescent tube light	40 W	300
Sewing floor	LED tube light	20 W (T8)	400
Cutting floor	LED tube light	22 W (T8)	1000
Finishing	LED tube light	28 W (T8)	600
Inspection points	LED tube light	28 W (T8)	900 (except 1500 at audit tables)
Sampling	LED tube light	22 W (T8)	500
Office areas	Fluorescent tube light	36 W (T)	300



Lin Htet Sein
Environmental Consultant
Myanwei Consulting Co., Ltd.

Noise Result



Plot No. (36, 38), Room No. 9A, 9th floor, Grand Myay Nu Condominium, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Project Name:	Green Nature Manufacturing Company Limited
Project Location:	Plot No (29+30), Myay Taing Block No Ya La Pa (25), Shwe Lin Ban Industrial Zone, Hlaing Thar Yar Township, Yangon region
Sampling Date:	25 September 2019
Sampling Time:	1:00 Am To 4:00 pm
Sampling Condition:	Good
Sampling By:	Environmental Team Represented By Myanwei Consulting Group Company Limited

Instrument	Type	Sampling Rate	Location
Digital Sound Level Meter	GM 1356 USB	30 -130 dB	16°55'12"N and 96° 4'48"E

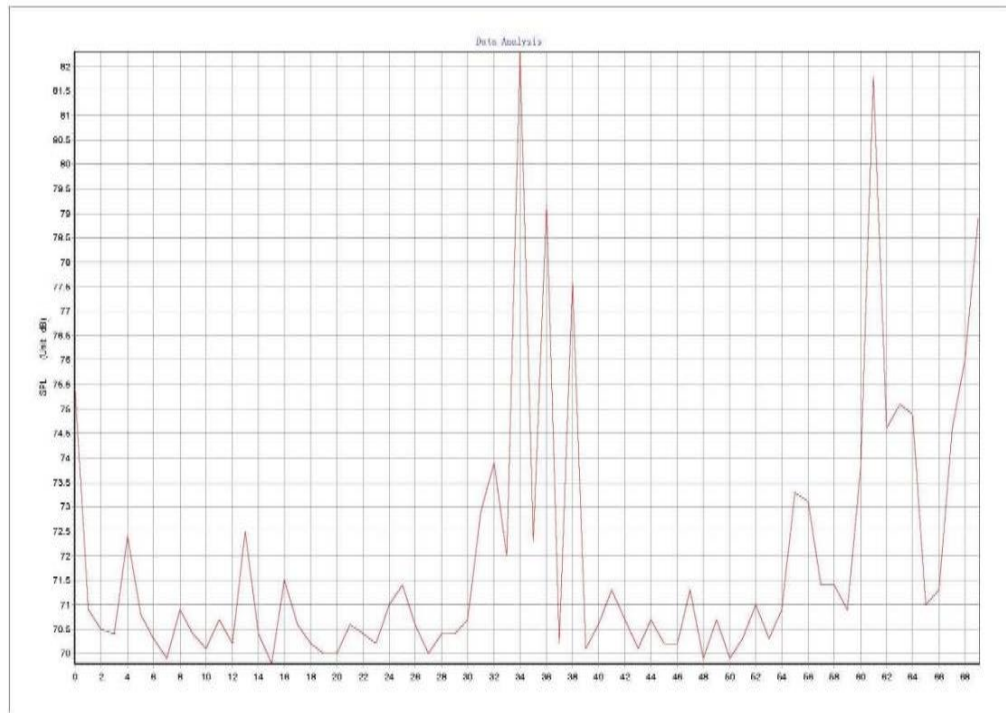
No	Place	Unit	Result	Standard	Remark
1	Operation Area	dBA	71.92	70 dBA	Slightly Above

National Environmental Quality (Emission) Guideline

Receptor	One Hour Laeq (dBA)	Guideline value
	Daytime	Nighttime
	7:00 – 22:00 (10:00 – 22:00 for Public holidays)	22:00 – 07:00 (22:00 – 10:00 for Public holidays)
Residential, Institutional, Educational	55	45
Industrial, Commercial	70	70


Lin Htet Sein
Environmental Consultant
Myanwei Consulting Co., Ltd.

Monitoring Grap



Air result (Indoor Air Quality)



Plot No. (36, 38), Room No. 9A, 9th floor, Grand Myay Nu Condominium, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanmarconsulting.com

Project Name:	Green Nature Manufacturing Company Limited
Project Location:	Plot No (29+30), Myay Taing Block No Ya La Pa (25), Shwe Lin Ban Industrial Zone, Hlaing Thar Yar Township, Yangon Region
Sampling Date:	25 September 2019
Sampling Time:	1:00 am to 4:00 pm
Sampling Condition:	Good
Sampling By:	Environmental Team Represented By Myanwei Consulting Group Company Limited

Instrument	Type	Sampling Rate	Location
Haz-Scannar	Environmental Perimeter Air Station	1 second to 21 weeks	Operation Area (Indoor)

No	Parameter	Unit	Result	Standard	Remark
1	PM 10	($\mu\text{g}/\text{M}^3$)	42.5	50	Normal
2	PM 2.5	($\mu\text{g}/\text{M}^3$)	33.4	25	Normal

National Environmental Quality (Emission) Guideline

Parameter	Averaging period	Guideline value	Unit
PM 10b	1-year 24-hour	20 50	($\mu\text{g}/\text{M}^3$)
PM 2.5b	1-year 24-hour	10 25	($\mu\text{g}/\text{M}^3$)
NH3	-	-	
CO	-	-	
NO2	1-year 1-hour	40 200	
SO2	24-hours 10 minute	20 500	
VOC	-	2/20/50/75/100/1 150 c,d	mg/Nm ³

a. Particulate matter 10 micrometer or less in diameter

b. Particulate matter 2.5 micrometer or less in diameter

c. Calculated as Total carbon

d. As the 30-minute mean for stack emissions: 2 mg/Nm³ for volatile organic compounds classified as carcinogenic or mutagenic with mass flow greater than or equal to 10 g/hour; 20 mg/Nm³ for discharges of halogenated volatile organic compounds with a mass flow equal or greater than 100 g/hour; 50 mg/Nm³ for waste gases from drying of large installations (solvent consumption > 15 tons/year); 75 mg/Nm³ for coating application processes for large installations (solvent consumption > 15 tons/year); 100 mg/Nm³ for small installations (solvent consumption < 15 tons/year); if solvent is recovered from emissions and reused, the guideline value is 150 mg/Nm³


Lin Htet Sein
Environmental Consultant
Myanwei Consulting Co., Ltd.

Outdoor Air Quality Result



Plot No. (36, 38), Room No. 9A, 9th floor, Grand Myay Nu Condominium, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Project Name: Green Nature Manufacturing Co., Ltd.
Project Location: Plot No. (29+30), Myay Taing Block No. YaLaPa (25), Shwe Lin Ban Industrial Zone, Hlaing Thar Yar Township, Yangon Region.
Sampling Date: December 3, 2021
Sampling Time: 9:00 AM to 5:00 PM
Sampling Condition:
Sampling By: Environmental Team Represented By Myanwei Environmental Solutions Company Limited

Instrument	Type	Sampling Rate	Location
OCEANUS-AQM-09	PM, O ₃ , NO ₂ , SO ₂ , CO, CO ₂ Detector	0-999.9 (µg/m ³)	Operation Area (Outdoor)

National Environmental Quality (Emission) Guideline

Parameter	Averaging Period	Guideline Value	Unit
PM ₁₀ ^a	1-year	20	(µg/m ³)
	24-hour	50	
PM _{2.5} ^a	1-year	10	(µg/m ³)
	24-hour	25	
O ₃ ^a	8-hour	100	(µg/m ³)
NO ₂ ^a	1-year	40	(µg/m ³)
	1-hour	200	
SO ₂ ^a	24-hour	20	(µg/m ³)
	10-min	500	

a. Values from air quality guidelines-global update 2005: particulate matter, ozone, nitrogen dioxide and sulfur dioxide.



Plot No. (36, 38), Room No. 9A, 9th floor, Grand Myay Nu Condominium, Myay Nu Street, Sanchaung Township, Yangon Region, The Republic of the Union of Myanmar.
Office: (+95) 1 526574, Mobile: (+95) 9775405118, 9792528677, 9449251888; Website: www.myanweiconsulting.com

Monitoring Result

Parameters	Observed Value	Guideline Value	Unit	Organization	Period
PM ₁₀	18.56	50	µg/m ³	NEQG	8 hours
PM _{2.5}	15.43	25	µg/m ³	NEQG	8 hours
TSP	24.44	-	µg/m ³	-	8 hours
SO ₂	7.9	20	µg/m ³	NEQG	8 hours
NO ₂	52.9	200	µg/m ³	NEQG	8 hours
O ₃	7.7	100	µg/m ³	NEQG	8 hours
VOC	18.25	-	ppm	-	8 hours
Air Pressure	1006.28	-	hPa	-	8 hours
CO	0.3	NG	ppm	NEQG	8 hours
CO ₂	1	NG	ppm	NEQG	8 hours

LIN HTET SEIN
DIRECTOR
MYANWEI ENVIRONMENTAL SOLUTIONS
COMPANY LIMITED.

Date	VOC(Unit:PPm)	Temperature(Unit:°C)	Humidity(Unit:%RH)	Air pressure(Unit:hpa)	NO2(Unit:PPb)	CO(Unit:PPm)
6/16/2021 12:25	0.11	27.2	86	1007	46	0.3
6/16/2021 12:26	0.11	27.2	86	1007	46	0.3
6/16/2021 12:27	0.11	27.3	85	1007	38	0.3
6/16/2021 12:28	0.11	27.4	85	1007	35	0.3
6/16/2021 12:29	0.11	27.4	84	1006	34	0.3
6/16/2021 12:30	0.11	27.4	84	1006	34	0.3
6/16/2021 12:31	0.11	27.4	84	1006	32	0.3
6/16/2021 12:32	0.11	27.5	84	1006	31	0.3
6/16/2021 12:33	0.11	27.5	84	1006	31	0.3
6/16/2021 12:34	0.11	27.5	84	1006	31	0.3
6/16/2021 12:35	0.11	27.6	84	1006	33	0.3
6/16/2021 12:36	0.11	27.6	84	1006	34	0.3
6/16/2021 12:37	0.11	27.7	84	1006	36	0.3
6/16/2021 12:38	0.11	27.7	83	1006	34	0.3
6/16/2021 12:39	0.11	27.8	83	1006	35	0.3
6/16/2021 12:40	0.11	27.9	84	1006	32	0.3
6/16/2021 12:41	0.11	28	84	1006	29	0.3
6/16/2021 12:42	0.11	28	83	1006	32	0.3
6/16/2021 12:43	0.11	28	82	1006	30	0.3
6/16/2021 12:44	0.11	27.9	82	1006	28	0.3
6/16/2021 12:45	0.11	27.9	84	1006	35	0.3
6/16/2021 12:46	0.11	27.9	83	1006	28	0.3
6/16/2021 12:47	0.11	27.9	83	1006	31	0.3
6/16/2021 12:48	0.11	28	83	1006	29	0.3
6/16/2021 12:49	0.11	28	83	1006	30	0.3
6/16/2021 12:50	0.11	28	83	1006	28	0.3
6/16/2021 12:51	0.11	28	83	1006	30	0.3
6/16/2021 12:52	0.11	28	82	1006	24	0.3
6/16/2021 12:53	0.11	28.1	83	1006	28	0.3
6/16/2021 12:54	0.11	28.1	83	1006	30	0.3
6/16/2021 12:55	0.11	28.1	83	1006	23	0.3
6/16/2021 12:56	0.11	28.1	83	1006	28	0.3
6/16/2021 12:57	0.11	28.1	83	1006	26	0.3

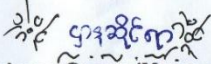
6/16/2021 12:58	0.11	28.1	83	1006	27	0.3
6/16/2021 12:59	0.11	28	83	1006	23	0.3
6/16/2021 13:00	0.11	28.1	83	1006	25	0.3
6/16/2021 13:01	42.74	28.1	83	1006	26	0.3
6/16/2021 13:02	50.01	28.2	83	1006	24	0.3
6/16/2021 13:03	1.51	28.1	83	1006	24	0.3
6/16/2021 13:04	0.12	28.2	83	1006	22	0.3
6/16/2021 13:05	14.82	28.2	83	1006	26	0.3
6/16/2021 13:06	50.01	28.1	83	1006	26	0.3
6/16/2021 13:07	50.01	28.1	83	1006	20	0.3
6/16/2021 13:08	50.01	28	83	1006	22	0.3
6/16/2021 13:09	50.01	27.9	83	1006	23	0.3
6/16/2021 13:10	50.01	27.9	84	1006	22	0.3
6/16/2021 13:11	50.01	27.9	84	1006	19	0.3
6/16/2021 13:12	50.01	27.9	84	1006	23	0.3
6/16/2021 13:13	50.01	27.9	84	1007	25	0.3
6/16/2021 13:14	50.01	27.9	85	1007	25	0.3
6/16/2021 13:15	50.01	27.9	85	1007	25	0.3
6/16/2021 13:16	50.01	27.9	85	1007	23	0.3
6/16/2021 13:17	50.01	27.9	85	1007	24	0.3
6/16/2021 13:18	50.01	27.8	85	1007	27	0.3
6/16/2021 13:19	50.01	27.8	86	1007	24	0.3
6/16/2021 13:20	50.01	27.7	86	1007	25	0.3
6/16/2021 13:21	50.01	27.6	86	1007	23	0.3
6/16/2021 13:22	50.01	27.5	86	1007	21	0.3
6/16/2021 13:23	50.01	27.5	86	1007	22	0.3
6/16/2021 13:24	50.01	27.5	87	1007	23	0.3
6/16/2021 13:25	50.01	27.5	88	1007	25	0.3


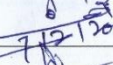

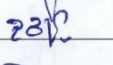
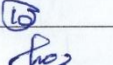
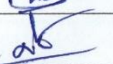

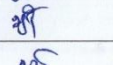
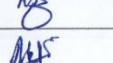
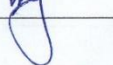
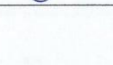
TSP(Unit:ug/m³)	PM10(Unit:ug/m³)	PM2.5(Unit:ug/m³)	SO2(Unit:PPb)	O3(Unit:PPb)	CO2(Unit:PPm)
22	18	15	3	3	1
21	17	14	3	3	1
28	22	19	3	3	1
25	20	17	3	3	1
31	26	21	3	3	1
31	25	20	3	3	1
22	19	14	3	3	1
20	16	12	3	3	1
20	17	14	3	3	1
25	21	17	3	3	1
25	20	16	3	3	1
26	21	19	3	3	1
26	22	18	3	3	1
25	20	17	3	3	1
16	14	13	3	3	1
21	14	13	3	8	1
20	17	16	3	11	1
23	15	11	3	3	1
16	14	11	3	6	1
18	15	13	3	3	1
21	17	14	3	3	1
18	15	13	3	3	1
25	19	12	3	3	1
19	16	10	3	3	1
20	13	11	3	3	1
19	16	13	3	7	1
25	17	16	3	3	1
14	12	11	3	6	1
15	13	12	3	3	1
25	17	15	3	3	1
19	16	15	3	10	1
23	15	14	3	3	1
20	14	11	3	3	1

25	17	15	3	3	1
42	32	29	3	3	1
27	19	17	3	3	1
26	18	17	3	3	1
23	16	15	3	3	1
20	13	12	3	3	1
20	14	12	3	3	1
21	14	12	3	3	1
26	19	18	3	3	1
23	17	15	3	3	1
23	17	11	3	3	1
24	17	11	3	3	1
21	14	13	3	3	1
25	18	12	3	3	1
20	13	12	3	3	1
19	13	12	3	3	1
28	21	15	3	5	1
26	19	18	3	9	1
28	20	14	3	10	1
22	16	15	3	3	1
28	20	19	3	5	1
34	26	23	3	6	1
54	42	29	3	4	1
47	37	25	3	3	1
30	24	19	3	3	1
30	22	18	3	5	1
25	19	17	3	3	1
30	22	19	3	5	1

APPENDIX D

Public Consultation Meeting


Dishang Group (Myanmar) Company Limited
 အလုပ်ရုံဆွေးနွေးပွဲတက်ရောက်သူများ စာရင်း

Date - 7.2.2020			နေရာ - ဒီစန်ဂရုပ္ပာယ်လုပ်ငန်းခွင်		
No စဉ်	Name အမည်	Designation ရာထူး	Department / Address ဌာန/ လိပ်စာ	Signature လက်မှတ်	Ph no/ Email ဖုန်းနံပါတ် / အီးမေးလိပ်စာ
1.	ဦး နုပေ	DAEO	မြို့နယ်မဏ္ဍိုင်		09420153792
2.	ဦး နေဇွန်	Dishang Group	(HR)		09420742615
3.	ဦး မိုးလှိုင်	ဦးမိုးလှိုင်	ဦးမိုးလှိုင်		095062446
4.	ဦး မိုးလှိုင်	ဦးမိုးလှိုင်	ဦးမိုးလှိုင်		09764492323
5.	ဦး မိုးလှိုင်	ဦးမိုးလှိုင်	ဦးမိုးလှိုင်		09783577245
6.	ဦး မိုးလှိုင်	ဦးမိုးလှိုင်	ဦးမိုးလှိုင်		09401037135
7.	ဦး မိုးလှိုင်	ဦးမိုးလှိုင်	ဦးမိုးလှိုင်		09.507485
8.	ဦး မိုးလှိုင်	ဦးမိုးလှိုင်	ဦးမိုးလှိုင်		09788846998
9.	ဦး မိုးလှိုင်	ဦးမိုးလှိုင်	ဦးမိုးလှိုင်		09404320448
10.	ဦး မိုးလှိုင်	ဦးမိုးလှိုင်	ဦးမိုးလှိုင်		09-798487947
11.	ဦး မိုးလှိုင်	ဦးမိုးလှိုင်	ဦးမိုးလှိုင်		09.25343231
12.					

APPENDIX E

Fire Safety Training, First Aid Facilities

GREEN NATURE MANUFACTURING COMPANY LIMITED.

(၄.၆.၂၀၁၉)ရက်နေ့ မီးသတ်သရုပ်ပြသင်တန်းနှင့် မီးသတ်ဆေးဘူးအသုံးပြုတတ်ရန် လေ့ကျင့်သင်ကြားခြင်းမှတ်တမ်း



GREEN NATURE MANUFACTURING COMPANY LIMITED.

(၄.၆.၂၀၁၉)ရက်နေ့ မီးသတ်သရုပ်ပြသင်တန်းနှင့် မီးသတ်ဆေးဘူးအသုံးပြုတတ်ရန် လေ့ကျင့်သင်ကြားခြင်းမှတ်တမ်း



GREEN NATURE MANUFACTURING COMPANY LIMITED.

(၁၂.၁၂.၂၀၁၉)ရက်နေ့ မီးသတ်သရုပ်ပြသင်တန်းနှင့် မီးသတ်ဆေးဘူးအသုံးပြုတတ်ရန် လေ့ကျင့်သင်ကြားခြင်းမှတ်တမ်း




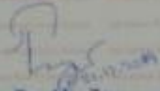


GREEN NATURE MANUFACTURING COMPANY LIMITED.

(၁၂.၁၂.၂၀၁၉)ရက်နေ့ မီးသတ်သရုပ်ပြသင်တန်းနှင့် မီးသတ်ဆေးဘူးအသုံးပြုတတ်ရန် လေ့ကျင့်သင်ကြားခြင်းမှတ်တမ်း



First Aid Certificate

	<p>This is certify that</p> <p>GREEN NATURE MANUFACTURING Co.,Ltd . was</p> <p>successfully conducted Basic First Aid Training For their staffs.</p> <p>No.(29/30) Min Theik Di Kyaw Swar Street, Shwe Lin Ban Industrial Zone ,</p> <p>Hlaing Thar Yar Township ,Yangon Region, Myanmar from (19.12.2019 to 21.12.2019)</p> <p>The training course included the following topic: First Aid Concepts, First Aider's Role, Rights and Duties; First Aid Kits & First Aid Post; Triage & Victim Assessment; Basic Life Support & Chocking; Wounds & Bleeding; Burns & Scalds; Heat & Spinal injuries; Unconsciousness; Chest, Abdominal and Pelvis Injuries; Bone, Joint and Muscle Injuries; Splinting Extremities; First Aid in Miscellaneous conditions; Poisoning; Animals Bites & Stings; Handling & Transportation; Psychosocial Support; Advocacy , Social Mobilization and Communication Skills; and Facilitation Skills.</p> <p></p>	
	<p> Tun Min Zaw Deputy Township Red Cross Singale Officer Myanmar Red Cross Society</p>	
<p>Remark : Expire Date (21 December 2020)</p>		

GREEN NATURE MANUFACTURING COMPANY LIMITED.

ဝန်ထမ်းများ၏ကျန်းမာရေးအတွက် ဆေးဝါးကုသခန်းထားရှိမှုနှင့် ဆေးဝါးများထုတ်ဝေနေခြင်းမှတ်တမ်း



APPENDIX F Boiler Certificate



ဘွိုင်းလာယာယီအသုံးပြုခွင့်လက်မှတ်

{ လုပ်ထုံးလုပ်နည်း အပိုဒ် ၆ အပိုဒ်ခွဲ (ဆ) }

စာအမှတ်... ၇၈ / ၂၀၂၀ / ၂၀၁-၁၁
၂၀၁၉-၂၀

ပြီးတင်ထိုး အောင်၊ Green Nature Mfg. Co., Ltd အထူးပြုပြင်
အခြေပြု (၂၀၁၁)၊ ဆေးသိမ်းခြင်းကုသမှု၊ ၄၂၈၀၀၀၊ ရန်ကုန်
မြို့၊ အောက်ခြံ၊ ရန်ကုန်မြို့၊ အောက်ခြံ၊ ရန်ကုန်မြို့
အား.....
.....ကုမ္ပဏီ၊..... နိုင်ငံမှ
ထုတ်လုပ်သည့်ဘွိုင်းလာအမှတ်.....ပါသော
သို့မဟုတ်ဘွိုင်းလာမှတ်ပုံတင်အမှတ် မ.စ.၂၇၂၀.....ဖြစ်သော အောက်ခြံ၊ ရန်ကုန်မြို့၊ အောက်ခြံ၊ ရန်ကုန်မြို့
ခွင့်ပြုအား.....၀.၇၂၂၆.....ဖြင့်လက်မှတ်ထုတ်ပေးသည့်နေ့မှ (၆)လအသုံးပြုခွင့်ရှိသည်။
ယင်းကာလအပိုင်းအခြား ကျော်လွန်သည့်အခါ ထုတ်ပေးထားသည့် ဤယာယီအသုံးပြုခွင့်
လက်မှတ်ပျက်ပြယ်စေရမည်။

ရက်စွဲ။ ၁၁.၁၁.၂၀၂၀
စုတိယညွှန်ကြားရေးမှူး
(ဘွိုင်းလာစစ်ဆေးရေး)
ရန်ကုန်တိုင်းဒေသကြီး

(ဦး ဦး ဦး)
ဘွိုင်းလာစစ်ဆေးရေးမှူး
ဌာနခွဲမှူး
(ဘွိုင်းလာစစ်ဆေးရေး)
ရန်ကုန်တိုင်းဒေသကြီး

မှတ်ချက်။ ။ ဘွိုင်းလာဥပဒေပုဒ်မ ၁၅ ပါပြဋ္ဌာန်းထားသည့် သက်ဆိုင်ရာအစိုးရဌာန အဖွဲ့
အစည်းက လိုအပ်၍တောင်းဆိုသည့်အခါ ဤလက်မှတ်ကို တင်ပြရမည်။

APPENDIX F

Commitment List

Green Nature Manufacturing Company Limited ၏ CMP စနစ် အထည်ချုပ်လုပ်ငန်းအတွက် တင်ပြလာသော ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်
(Environmental Management Plan – EMP) တွင် ပါဝင်ရမည့် အချက်များကို အကောင်အထည်ဖော် စီမံဆောင်ရွက်သွားမည် ဖြစ်ကြောင်း၊ အောက်ဖော်ပြပါ
ဇယားဖြင့် အကျဉ်းချုပ် စာရင်းပြုစု ဖော်ပြထားပါသည်။

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာ ပါ ရည်ညွှန်းချက် (အခန်း)
မူဝါဒ၊ဥပဒေနှင့် အဖွဲ့အစည်းဆိုင်ရာမူဘောင်များ	၁	ပတ်ဝန်းကျင် ထိန်းသိမ်းရေး ဥပဒေ (၂၀၁၂) ပတ်ဝန်းကျင် ထိန်းသိမ်းရေး နည်းဥပဒေ (၂၀၁၄) ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း (၂၀၁၅) မြန်မာနိုင်ငံမှ ချမှတ်ထားသော စက်ရုံနှင့် သက်ဆိုင်သည့် တခြား လိုက်နာဆောင်ရွက်ရမည့် လုပ်ထုံးလုပ်နည်း၊ ဥပဒေ၊ နည်းဥပဒေ နှင့် မူဝါဒများ အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅) နှင့် နိုင်ငံတကာ ပတ်ဝန်းကျင်ဆိုင်ရာ စံသက်မှတ်ချက်များနှင့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုဆိုင်ရာ လမ်းညွှန်ချက်များ	အခန်း (၂)
ပတ်ဝန်းကျင်အရည်အသွေး တိုင်းတာမှု	၂	အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅) နှင့် နိုင်ငံတကာ ပတ်ဝန်းကျင်ဆိုင်ရာ စံသက်မှတ်ချက်များနှင့် ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှုဆိုင်ရာ လမ်းညွှန်ချက်များကို အခြေခံလေ့လာ တိုင်းတာထားပါသည်	အခန်း (၄)
လေအရည်အသွေး	၂.၁	အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅) ၏ ထုတ်လွှတ်အစိုးအငွေ့ (Air emissions) လမ်းညွှန်သက်မှတ်ချက် (PM ₁₀ , PM _{2.5}) တို့ဖြင့် နှိုင်းယှဉ် ဖော်ပြထားပါသည်။	အပိုဒ်ခွဲ (၄.၂.၃)
ဆူညံသံ	၂.၂	အမျိုးသား ပတ်ဝန်းကျင်ဆိုင်ရာ အရည်အသွေး (ထုတ်လွှတ်မှု) လမ်းညွှန်ချက် (၂၀၁၅)	အပိုဒ်ခွဲ

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာ ပါ ရည်ညွှန်းချက် (အခန်း)
		၏ အမြင့်ဆုံးလက်ခံနိုင်သည့် ဆူညံသံအဆင့် (Noise level) လမ်းညွှန်သက်မှတ်ချက် စက်မှုဇုန် ဧရိယာတွင် (70 One-hour LAeq (dBA)) ဖြင့် နှိုင်းယှဉ် ဖော်ပြထားပါသည်	(၄.၂.၈)
စက်ရုံတွင်း အလင်းရောင် ရရှိမှု	၂.၃	Illumination and Limiting Glare Index based on IES Code, 1968 ဖြင့် နှိုင်းယှဉ် ဖော်ပြထားပါသည်	အပိုဒ်ခွဲ (၄.၂.၉)
ပတ်ဝန်းကျင် စီမံခန့်ခွဲမှု	၃	Green Nature Manufacturing Company Limited သည် စက်ရုံအခြေအနေ၊ အလုပ်သမား၊ ဒေသခံလူထုအမြင်၊ အစုရှယ်ယာဝင်များနှင့် ညှိနှိုင်းဆွေးနွေးခြင်းအပါအဝင် စောင့်ကြပ်ကြည့်ရှုခြင်းများကို ဆောင်ရွက်မည်။ ပတ်ဝန်းကျင်စီမံခန့်ခွဲမှုအစီအစဉ်သည် စက်ရုံ၏ ဘေးအန္တရာယ်ကင်းရှင်းရေးအတွက်ပါ ဖြည့်စွက်ဆောင်ရွက်ထားပါသည်။	အခန်း (၇)
လေထုညစ်ညမ်းမှုနှင့် ဖုန်မှုန့်	၃.၁	<ul style="list-style-type: none"> • လေထုညစ်ညမ်းခြင်းကို ကာကွယ်ရန်နှင့် ကာဗွန်ထုတ်လုပ်မှုကို လျော့ချပေးနိုင်ရန်အတွက် စက်ရုံပင်းအတွင်း အပင်များစိုက်ပျိုးခြင်း • မီးစက်များကို ပြုပြင်ထိန်းသိမ်းခြင်း • အမှိုက်များ မီးရှို့ခြင်းကို တားမြစ်ခြင်း • ဖုန်ထူထပ်သော နေရာများတွင် တာဝန်ထမ်းဆောင်သော ဝန်ထမ်းများအတွက် နှာခေါင်းစီးများ ဝတ်ဆင်စေခြင်း 	အပိုဒ်ခွဲ (၆.၁)
ဆူညံသံထွက်ရှိမှု	၃.၂	<ul style="list-style-type: none"> • အသံလုံအခန်းများတည်ဆောက်ပြီး စက်ပစ္စည်းများကို သေချာစွာ ပြုပြင်ထိန်းသိမ်းစေခြင်း • သယ်ယူပို့ဆောင်ရေးလမ်းကြောင်းတွင် ယာဉ်များ၏ အမြန်နှုန်းကို ကန့်သတ်ခြင်း • လုံလောက်သော တစ်ကိုယ်ရည်သုံး အကာအကွယ်ပစ္စည်းများ ထားရှိပေးခြင်း 	အပိုဒ်ခွဲ (၆.၄)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာ ပါ ရည်ညွှန်းချက် (အခန်း)
		<ul style="list-style-type: none"> သက်ဆိုင်ရာ ဝန်ထမ်းများအားလုံးကို သင့်လျော်သော သင်တန်းများပို့ချခြင်းနှင့် ဆူညံသော နေရာတွင် အလုပ်လုပ်စဉ် တစ်ကိုယ်ရည်သုံး အကာအကွယ်များ တပ်ဆင်စေခြင်း 	
မီးဘေးအန္တရာယ်	၃.၃	<ul style="list-style-type: none"> အရေးပေါ်အခြေအနေများအတွက် စက်ရုံနံရံများတွင် မီးသတ်ဆေးဘူးများ၊ မီးသတ်ပိုက်ဘီးများနှင့် မီးသတ်ရေပိုက်များ ထားရှိခြင်း အရေးပေါ်ထွက်ပေါက်ပြ မြေပုံများနှင့် စုဝေးရပ်ညွှန်ပြရာ သင်္ကေတများ ထားရှိခြင်း မီးသတ်ပစ္စည်းများကို ပုံမှန်စစ်ဆေးခြင်းနှင့် မီးသတ်ရေကန်ကို အရေးပေါ်အခြေအနေအတွက် ပြင်ဆင်ခြင်း အလုပ်သမားများအား သတိပေးရန် မီးဘေးအချက်ပြခေါင်းလောင်းများ တပ်ဆင်ထားခြင်း အဓိက ဝင်ပေါက်ထွက်ပေါက်များကို ပိတ်ဆို့ထားခြင်း မပြုလုပ်စေခြင်း 	အပိုဒ်ခွဲ (၆.၈)
လုပ်ငန်းခွင်ထိခိုက်မှုနှင့် ကျန်းမာရေး	၃.၄	<ul style="list-style-type: none"> ရှေးဦးသူနာပြုသင်တန်း၊ ဘေးအန္တရာယ်ကင်းရှင်းရေးသင်တန်း၊ မီးဘေးအန္တရာယ်ကာကွယ်ရေး သင်တန်း၊ စက်ယန္တယားများ ကိုင်တွယ်ခြင်းသင်တန်းများ ပို့ချခြင်း လေ့လာတွေ့ရှိထားသော အလင်းတိုင်းတာချက်များအရ၊ အလုပ်သမားများ ဘေးကင်းလုံခြုံစွာ လုပ်ကိုင်နိုင်စေရန် လုံလောက်သောအလင်းရောင် ရရှိစေရန် ဆောင်ရွက်ခြင်း တစ်ကိုယ်ရည်သုံး ကာကွယ်ရေးကိရိယာများ (ဥပမာ- နားကြပ်၊ လက်အိတ်၊ ခေါင်ဆောင်း၊ မျက်မှန်) များကို ဌာနအလိုက် ပေးအပ်ခြင်း 	အပိုဒ်ခွဲ (၆.၉)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာပါ ရည်ညွှန်းချက် (အခန်း)
		<ul style="list-style-type: none"> • ဓာတ်လိုက်ခြင်း အန္တရာယ်မှ ကာကွယ်ရန်အတွက် လျှပ်စစ်ထိန်းသိမ်းစောင့်ရှောက်ရေးဝန်ထမ်းအား ပုံမှန်စစ်ဆေးခြင်းနှင့် ကြိုတင်ကာကွယ်မှုပြုလုပ်ရန် တာဝန်ပေးခန့်အပ်ခြင်း • ရေနုတ်မြောင်းများ ရေစီးရေလာကောင်းအောင် ဆောင်ရွက်ခြင်းဖြင့် အလုပ်သမားများ၏ ကျန်းမာရေး ဘေးအန္တရာယ် ကာကွယ်ခြင်း • အလုပ်သမားများအတွက် အများဆုံးခွင့်ပြုနိုင်သော ဆူညံသံအဆင့်မှာ 90dB(A)သည် တစ်ရက်လျှင် ၈နာရီသာ ဖြစ်သည်။ ထို့ကြောင့် ဆူညံသောနေရာများတွင် လုပ်ကိုင်ပါက နားကြပ်ကိရိယာ တပ်ဆင်ခြင်းရမည်။ 	
အမှိုက်စွန့်ပစ်မှု	၃.၅	<ul style="list-style-type: none"> • စီမံကိန်းမှ ထွက်ရှိသော စွန့်ပစ်အမှိုက်များကို စက်ရုံဝင်းအတွင်း (သို့မဟုတ်) ဒေသရှိ အင်းအိုင်၊ ချောင်း၊ မြောင်း၊ မြစ် စသည်တို့ထဲသို့ စွန့်ပစ်ခြင်း မပြုလုပ်ပါ။ • စွန့်ပစ်အမှိုက်များကို တစ်နေရာတည်းတွင် စနစ်တကျ ခွဲ၍ စုဆောင်းရန် လိုအပ်ပြီး အထည်အလိပ် စွန့်ပစ်အမှိုက်များကို သီးခြားသိုလှောင်သိမ်းဆည်းခြင်း၊ အန္တရာယ်ရှိသော စွန့်ပစ်ပစ္စည်းများနှင့် တခြားသော သတ္တုပစ္စည်းများကို သီးခြား သိုလှောင်သိမ်းဆည်းခြင်း • ပြန်လည်အသုံးပြုနိုင်သော အဝတ်စ၊ ပိတ်စ၊ ကတ်ထူပြား၊ ပလတ်စတစ်ပြား စသည်တို့ကို တစ်ဆင့် ပြန်လည်ရောင်းချခြင်းဖြင့် ပြန်လည်အသုံးပြုခြင်း • သတ္တုပစ္စည်း (သို့မဟုတ်) ဖန်စများကို ပြန်လည် အသုံးပြုခြင်း • နေ့စဉ်ထွက်ရှိသော အမှိုက်များကို ရန်ကုန်မြို့တော်စည်ပင်သာယာရေးကော်မတီနှင့် ချိတ်ဆက်စွန့်ပစ်ခြင်း 	အပိုဒ်ခွဲ (၆.၆)
စွန့်ပစ်အရည်	၃.၆	<ul style="list-style-type: none"> • ရေနုတ်မြောင်းလိုင်းကို သင့်တော်သော အကျယ်၊ အနက်ရှိစေပြီး မိလ္လာစနစ်သည် 	အပိုဒ်ခွဲ (၆.၇)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာ ပါ ရည်ညွှန်းချက် (အခန်း)
		<p>ရေလုံပြီး စနစ်တကျ သိုလှောင်နိုင်ခြင်း</p> <ul style="list-style-type: none"> • မိလ္လာပိုက်လိုင်းကို အမြဲစစ်ဆေးခြင်းနှင့် ထိန်းသိမ်းခြင်း • ရေနုတ်မြောင်းကို အနံ့အသက်များ ကင်းစေရန် အမှိုက်များ ပိတ်ဆို့စေခြင်းမရှိအောင် ဆောင်ရွက်ခြင်း • ဘွိုင်လာရေ၏ အပူချိန်ကို မြောင်းအတွင်း မစွန့်ပစ်ခင် တိုင်းတာခြင်း 	
အရေးပေါ် အခြေအနေ	၃.၃	<ul style="list-style-type: none"> • စက်ရုံအနေဖြင့် အရေးပေါ်ဖြစ်ပေါ်လာနိုင်သော မီးဘေးအန္တရာယ်၊ ငလျင်၊ ရေကြီးခြင်းနှင့် မုန်တိုင်းများအတွက် စီမံထားရှိခြင်း • မီးသတ်ပစ္စည်းကိရိယာများနှင့် မီးသတ်ဆေးဘူးများကို နေရာတိုင်းတွင် တပ်ဆင်ထားခြင်းနှင့် စစ်ဆေးခြင်း • အသေးစိတ်အခြေအနေပြ ရုပ်ပုံ(အရေးပေါ်ထွက်ပေါက်တံခါး စသည်) ကို အလုပ်သမားများ သိရှိစေရန် ဆောင်ရွက်ထားခြင်း • ရေပိုက်ခေါင်း၊ မီးသတ်ဘူး စသည်တို့ကို ထားရှိခြင်း၊ စစ်ဆေးခြင်းနှင့် ဓာတ်လိုက်ခြင်းမှ ကာကွယ်ရန် လျှပ်စစ်အန္တရာယ် အသိပေး သင်တန်းများ ပို့ချခြင်း • အလုပ်သမားများအား ငလျင်လှုပ်သောအခါ စားပွဲအောက်ကဲ့သို့သော ဘေးကင်းသောနေရာများတွင် နေထိုင်ရန်၊ အပြင်သို့ မရွှေ့ရန်၊ အပြင်တွင်ရှိနေသော အလုပ်သမားများအနေဖြင့် အဆောက်အဦအောက်၊ သစ်ပင်အောက်၊ တိုင်များအောက်တွင် နေထိုင်ခြင်းမပြုဘဲ ကွင်းပြင်တွင်သာ နေထိုင်ရန်၊ တခြားသော သက်ဆိုင်ရာ ဘေးကင်းလုံခြုံရေး လမ်းညွှန်ချက်များကို အသိပညာပေးခြင်း • ရေလွှမ်းမိုးမှု (မုန်တိုင်းအပျက်အစီးများ၊ ရေမြောင်းများ ပွင့်နေခြင်း၊ မြေတိုက်စားမှု) 	အပိုဒ်ခွဲ (၆.၁၂)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာ ပါ ရည်ညွှန်းချက် (အခန်း)
		<p>နှင့် ရွှေ့ပြောင်း တွားသွားသတ္တဝါများ (မြေ သို့မဟုတ် တခြားတိရိစ္ဆာန်များ) ၏ အန္တရာယ်များကို သတိပြုစေခြင်း</p> <ul style="list-style-type: none"> • အရေးပေါ်ဆေးအဖွဲ့များနှင့် ဆေးပစ္စည်းများ ထားရှိခြင်း • အရေးပေါ်ဆက်သွယ်နိုင်သည့် မီးသတ်ဌာန၊ ရဲတပ်ဖွဲ့၊ ဆေးရုံ စသည့် တယ်လီဖုန်းနံပါတ်များကို မြင်သာနိုင်သည့်နေရာတွင် ကပ်ထားခြင်း • မီးငြိမ်းသတ်ရေးအဖွဲ့၊ ကယ်ဆယ်ရေးအဖွဲ့တို့ဖြင့် ဘေးကင်းရေးကော်မတီတစ်ရပ် တည်ဆောက်ခြင်းနှင့် ကော်မတီအနေဖြင့် ဘေးအန္တရာယ်ကင်းရှင်းရေးဆိုင်ရာ စီမံခန့်ခွဲမှုနှင့် ပတ်သတ်၍ လစဉ်အစည်းအဝေး ကျင်းပခြင်း • သဘာဝဘေးအန္တရာယ်စီမံခန့်ခွဲရေး၊ မီးဘေးအန္တရာယ်နှင့် လုပ်ငန်းခွင်ထိခိုက်မှုနှင့် ကျန်းမာရေး ကာကွယ်ရေးအတွက် သင့်လျော်သော သင်တန်းများပို့ချခြင်း 	
စောင့်ကြပ်ကြည့်ရှုမှု	၄	အဆိုပြုစီမံကိန်းသည် စောင့်ကြပ်ကြည့်ရှုမှု အစီရင်ခံစာကို ဝန်ကြီးဌာနသို့ (၆)လ တစ်ကြိမ် တင်ပြဆောင်ရွက်မည်။	အပိုဒ်ခွဲ (၆.၁၃)
လေအရည်အသွေး စစ်ဆေးမှု	၄.၁	<ul style="list-style-type: none"> • ဆာလဖာဒိုက်အောက်ဆိုဒ်ဓာတ်ငွေ့များ၊ နိုက်ထရိုဂျင်ဒိုင်အောက်ဆိုဒ်ဓာတ်ငွေ့များ၊ ကာဗွန်ဒိုင် အောက်ဆိုဒ်ဓာတ်ငွေ့များ၊ ကာဗွန်မိုနောက်ဆိုဒ်ဓာတ်ငွေ့များနှင့် အမှုန်အမွှားများ တိုင်းတာခြင်း • တစ်နှစ် (၂) ကြိမ်တိုင်းတာပြီး ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဦးစီးဌာနသို့ တင်ပြခြင်း • ထုတ်လုပ်မှုဧရိယာအတွင်း တိုင်းတာခြင်း 	ဇယား (၆.၁၃)
စွန့်ပစ်ပစ္စည်းထွက်ရှိမှုအခြေအနေ	၄.၂	<ul style="list-style-type: none"> • စွန့်ပစ်အပိုင်အခဲ၊ စွန့်ပစ်အရည်နှင့် အန္တရာယ်ရှိသော စွန့်ပစ်ပစ္စည်းများ • အပတ်စဉ် စွန့်ပစ်ခြင်း 	ဇယား (၆.၁၃)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာ ပါ ရည်ညွှန်းချက် (အခန်း)
		<ul style="list-style-type: none"> စက်ရုံအတွင်း ပြန်လည်အသုံးပြု သိုလှောင်ခြင်း၊ စွန့်ပစ်နေရာသတ်မှတ်ခြင်း 	
မီးဘေးအန္တရာယ် စစ်ဆေးမှု	၄.၃	<ul style="list-style-type: none"> ထွက်ပေါက်လမ်းပြပုံများ ကပ်ထားခြင်း၊ မီးသတ်ပစ္စည်း ကိရိယာများ တပ်ဆင်ခြင်း လစဉ် စက်ရုံဧရိယာအတွင်း တိုင်းတာခြင်း 	ဇယား (၆.၁၃)
စက်ရုံတွင်း အလင်းရောင်အခြေအနေ	၄.၄	<ul style="list-style-type: none"> အလင်းရောင်တိုင်းတာခြင်း လစဉ် ထုတ်လုပ်မှုဧရိယာအတွင်း တိုင်းတာခြင်း (အထူးသဖြင့် အပတ်ဖြတ်ခြင်းနေရာနှင့် အရည်အသွေးစစ်ဆေးခြင်းနေရာ) 	ဇယား (၆.၁၃)
စွမ်းရည်မြှင့်တင်ခြင်းနှင့် သင်တန်းများပေးခြင်း	၅	လုပ်ငန်းခွင်အတွင်း ဖြစ်ပေါ်လာနိုင်သော အရေးပေါ်အခြေအနေများအားလုံးကို ကိုင်တွယ်ရန်အတွက် အရေးပေါ်တုံ့ပြန်ရေးအစီအစဉ်များကို ချမှတ်မည်။ ဓာတုပစ္စည်းလောင်ကျွမ်းခြင်းနှင့် မတော်တဆဖြစ်ရပ်များ (ဥပမာ- လျှပ်စစ်အန္တရာယ်၊ မီးဘေးအန္တရာယ်) ကို ကာကွယ်ရန် လုပ်ဆောင်နေစဉ်အတွင်း ဂရုစိုက်ဆောင်ရွက်မည်။	အပိုဒ်ခွဲ (၆.၁၄)
လူထုအကျိုးပြုလုပ်ငန်းများဆောင်ရွက်ခြင်း	၆	လူထုအကျိုးပြုဆောင်ရွက်ချက်များကို လူနေမှုအဆင့်အတန်း မြင့်မားစေရန်နှင့် စီမံကိန်းဧရိယာရှိ လူနေမှုအသိုင်းအဝိုင်းများအားလုံးနှင့် အဆင်ပြေစေရန် ရည်ရွယ်ပါသည်။ Green Nature Manufacturing Company Limited ၏ လူထုအကျိုးပြု ဆောင်ရွက်ချက်များအနေဖြင့် ဒေသအတွင်း ပညာရေးအထောက်အပံ့များ ဆောင်ရွက်ခြင်း၊ အကျိုးအမြတ်မယူသော သင်တန်းများ ဖော်ဆောင်ပေးခြင်း၊ လုပ်သားများ၏ကျန်းမာရေးစောင့်ရှောက်မှုများ ဆောင်ရွက်ခြင်းဟူ၍ကဏ္ဍသုံးခုအလိုက် က် ဆောင်ရွက်ပါမည်။	အပိုဒ်ခွဲ (၆.၁၆)

ကတိကဝတ်၏ အတိုချုပ် အမည်	အမှတ်စဉ်	ကတိကဝတ်အား ရှင်းလင်းဖော်ပြချက်	အစီရင်ခံစာ ပါ ရည်ညွှန်းချက် (အခန်း)
သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း	၇	သက်ဆိုင်သူများနှင့် တွေ့ဆုံဆွေးနွေးခြင်း အစီအစဉ်တွင် Green Nature Manufacturing စက်ရုံ၏ EMP အစီရင်ခံစာ အကြောင်းကို ရှင်းလင်းတင်ပြခြင်းဖြစ်သည်။ တွေ့ဆုံပွဲကို ၇ ရက်၊ ဖေဖော်ဝါရီလ၊ ၂၀၂၀ ခုနှစ်တွင် အနော်ရထာရုံးတွင် ပြုလုပ်ခဲ့ပါသည်။ တွေ့ဆုံပွဲတွင် စက်ရုံ၏သက်ဆိုင်ရာပုဂ္ဂိုလ်များ၊ အစိုးရအဖွဲ့ရုံးများဖြစ်သော ပတ်ဝန်းကျင်ထိန်းသိမ်းရေး ဦးစီးဌာန၊ စက်မှုကြီးကြပ်နှင့်စစ်ဆေးရေးဦးစီးဌာန၊ ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးနှင့် သန့်ရှင်းရေးဌာန အစရှိသော သက်ဆိုင်ရာဌာနများ၏ တာဝန်ရှိပုဂ္ဂိုလ်များ၊ စက်မှုဇုန်စီမံခန့်ခွဲမှုကော်မတီ၏ တာဝန်ရှိပုဂ္ဂိုလ်များမှ လိုအပ်သည်များကို အကြံပေးခြင်း၊ စီမံကိန်း၏ အစီရင်ခံစာတွင် လိုအပ်သည်များကို ဖြည့်စွက်ပေးရန် အကြံပြုချက်များပေးခဲ့ပါသည်။	အခန်း (၇)
အများပြည်သူနှင့် ပူးပေါင်းပါဝင်မှုနှင့် ပြဿနာများ ဖြေရှင်းခြင်း	၈	စီမံကိန်းဧရိယာအတွင်း နေထိုင်သူများနှင့် ဒေသရှိ အစိုးရအဖွဲ့အစည်းများအနေဖြင့် စီမံကိန်းကြောင့် ဖြစ်ပေါ်လာသော ပြဿနာများနှင့် ထိခိုက်နစ်နာမှုများဖြေရှင်းရေးအဖွဲ့ ဖွဲ့စည်းသွားမည်ဖြစ်ပြီး ယင်းအဖွဲ့တွင် Green Nature Manufacturing မှ တာဝန်ရှိလူကြီးများနှင့် ရွှေလင်ဗန်းစက်မှုဇုန်မှ တာဝန်ရှိလူကြီးများဖြင့် ဖွဲ့စည်းဆောင်ရွက်သွားမည် ဖြစ်သည်။ အသေးစားကိစ္စရပ်များကို ထိခိုက်နစ်နာမှုများ ဖြေရှင်းရေးအဖွဲ့မှ ဖြေရှင်းမည်ဖြစ်ပြီး တခြားသော ကိစ္စရပ်များကို သက်ဆိုင်ရာ အာဏာပိုင်များနှင့် တရားရုံးတော်တွင် ဖြေရှင်းဆောင်ရွက်မည်ဖြစ်သည်။	အပိုဒ်ခွဲ (၇.၂)