

Understanding EIA and Safeguarding the Environment

By -

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Venue: MES Building, Hybrid Zoom Webinar, Date: 24 August 2024

Introducing E Guard





E Guard ... We Guard the Environment

- Full Name E Guard Environmental Services Company Limited
- Short Name E Guard or eGuard
- Established 31st July, 2013
 - Address အမှတ် (၁၄၅ က၂ ၃) ၊ သီရိမင်္ဂလာလမ်း၊ (၄) ရပ်ကွက်၊ (၈) မိုင်၊ မရမ်းကုန်းမြို့နယ်၊ ရန်ကုန် (၁၁၀၆၂) – closed to 8 mile overbridge
 - Web Site https://www.eguardservices.com
- Social Media <u>https://facebook.com/eGuardmm</u>
 - Email info@eguardservices.com, usoemin@eguardservices.com

Tel - +951 9667757, +951 8658422, +959 797005160

E Guard's corporate video – <u>click here</u>

Licensed Third Party **Consultant** Services Company



ပြည့်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ The Government of the Republic of the Union of Myanmar သယံစာတနှင့် သဘာဝပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန Ministry of Natural Resources and Environmental Conservation ယတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးမီးဌာန Environmental Conservation Department ပတ်ဝနီးကျင်ထိနိုက်မှုအန်းစစ်ခြင်းဆိုင်ရာလုပ်ငန်းလိုင်စင် (အဖွဲ့ အစည်း) Environmental Impact Assessment License (Organization)

E Guard Environmental Services Co.,Ltd ၊ ကုမ္မထိမှတ်ပုံတင်အမှတ်-၁၁၀၄၇ေ၂၂၃ အား အကြံပေးအဖွဲ့ အမျိုးအစား(က) အဖြစ် လုပ်ကိုင်ဆောင်ရွက်ရန်ပတ်ဝန်းကျင်ထိနိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ငန်းလိုင်စင်ကို ကနဦးပတ်ဝန်းကျင်ဆန်းစေခြင်းနှင့် ပတ်ဝန်းကျင်ထိနိုက်ခွဲဆန်းစစ်ခြင်းဖြုံလုပ်သည့် တတ်ပယုဂ္ဂိုလ် သို့မဟုတ် အဖွဲ့အစည်းလုပ်ငန်းလိုင်စင်ဆိုင်ရာ လုပ်ဆုံးလုပ်နည်းနှင့်အညီ ဤစန်ကြီးဌာန၏ အတည်ပြုံရွာဂီဖြင့် ထုတ်ပေး လုပ်သည်။

It is hereby issued that E Guard Environmental Services Co.,Ltd / Registration No.110487223 has fulfilled the requirements for obtaining an Environmental Impact Assessment License to conduct as an Consulting Organization Type (A) under the Licensing Procedure for the Third Persons or Organizations Undertaking Initial Environmental Examination and Environmental Impact Assessment, approved by the Ministry of Natural Resources and Environmental Conservation. acqccossoန်ဖစ်နှစ်နှစ်လျှင်စိုးဆုစ်ရမှုအမှစ်များမှာမှ ပျားတိုင်အတွစ်ခြီးတွစ်တွေပြီး ဖြစ်သည်။ the categories of projects, eligible to be conducted, are as attached.

လိုင်နိုင်နိုင်နိုင်သည့် ရက်ရှိ Date of Expiry အုန်ဆုံးသည့် ရက်ရှိ Date of Expiry ကုန်ဆုံးသည့် ရက်ရှိ Date of Expiry ပြန်ဆုံးသည့် ရက်ရှိ Date of Expiry ပြန်ဆုံးသည် ပြန်ဆုံးသည် According to MONREC's 2023 Third Party License Certification System -

E Guard is an **'A' Type Consultant Firm** officially approved by ECD ...

With 57 Areas of Expertise

<u>E Guard Expertises</u>

| စဉ် | အဖွဲ့အစည်းအမည် | လုပ်ငန်းလိုင်စင် အမျိုးအစား | လိုင်စင်အမှတ် |
|-----|--|--------------------------------|-------------------|
| э | E-Guard Environmental Services Co.,Ltd. | အကြံပေးအဖွဲ့အမျိုးအစား (က) | EIA-CO(A)001/2023 |

Licensed Third Party Consultant Services Company



ပြည်ထောင်စုသမ္မတမြန်မာနိုင်ငံတော်အစိုးရ ဘနှင့် သဘာဝပတိဝန်းကျင်ထိန်းသိမ်းရေးဝန်ကြီးဌာန ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဦးစီးဌာန ညွှန်ကြားရေးမှူးချုပ်ရုံး စာအမှတ်EIA-->/IP(ဖြန့်ဝေ)(စာအမှတ်EIA-->/IP(ဖြန့်ဝေ)(E Guard Environmental Services

ကြောင်းအရာ၊ အကြံပေးအဖွဲ့အစည်းလုပ်ငန်းလိုင်စင်ရရှိထားသည့် အဖွဲ့အညေ်းများ ထပ်တိုး စိမ်ကိန်းလုပ်ငန်းအုပ်စု ရရှိခြင်းနှင့်စပ်လွှင်၍ သိရှိနိုင်ပါရန် အကြောင်ကြားခြင်း

၁။ အကြောင်းအရာပါကိစ္စနှင့်ပတ်သက်၍ ပတ်ဝန်းကွင်လိန်းသိမ်းရောဦးစီးဌာနအနေဖြင့် စွဲဖြိုးရေး စီမံကိန်းလုပ်ငန်းများကို ပတ်ဝန်းကွင်ထိနိုက်မှုဆန်းစစ်ခြင်း (EIA) ၊ ကနဦးပတ်ဝန်းကွင်ဆန်းစစ်ခြင်း (IEE) နှင့် ပတ်ဝန်းကွင်စီမံခန့်ခွဲမှုအစီအစဉ် (EMP) အစီရင်ခံစာများ ရေးသားပြုစုဆောင်ရွက်နိုင်ရေး အတွက် ကနဦးပတ်ဝန်းကွင်ဆန်းစစ်ခြင်းနှင့် ပတ်ဝန်းကွင်ထိခိုက်မှုဆန်းစစ်ခြင်းပြုလုပ်သည့် တတီယ ပုဂ္ဂိုလ် သို့မဟုတ် အဖွဲ့အစည်းများ လုပ်ငန်းလိုင်စင်ဆိုင်ရာ လုပ်ထုံးလုပ်နည်းနှင့်အညီ လုပ်ငန်း လိုင်စင်များ ထုတ်ပေးလျက်ရှိပါသည်။

၂။ လုပ်ငန်းလိုင်စင်ရှိထားသော အကြပေးအဖွဲ့ အည်းများအနေဖြင့် လိုင်စင်ရတတိယ ပုဂ္ဂိုလ်များ ဖြည့်သွင်၍ လျှောက်ထားရာတွင် ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းနှင့် ပတ်ဝန်းကျင် ထိခိုက်မှုဆန်းစစ်ခြင်းပြုလုပ်သည့် တတိယပုဂ္ဂိုလ် သို့မဟုတ် အဖွဲ့ အည်ေမွား လုပ်ငန်းလိုင်စင်ဆိုင်ရာ လုပ်ထုံးလုပ်နည်းပါ စည်းကမ်းခွက်များနှင့်ကိုက်ညီပါကြောင်း စိစစ်တွေ ရှိရပါသဖြင့် လုပ်ငန်းလိုင်စင် ဆိုင်ရာစိစစ်သုံးသပ်ရေးတုတ်အဖွဲ့၏ (၁၁–၅–၂၀၂၄) နေ့ အည်းအဝေးဆုံးဖြတ်ချက်အရ ထပ်တိုး စိမံကိန်းလုပ်ငန်းအုပ်စု (၁) မျိုး ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း နောက်ဆက်တွဲ (က) ယေးအမှတ်စဉ် (၁၅၁ မှ ၁၅၅ ထိ) ထပ်တိုးရရှိပါသည်။

၃။ သို့ဖြစ်ပါ၍ E-Guard Environmental Services အနေဖြင့် (၁၂-၇-၂၀၂၄) နေ့အထိ လုပ်ငန်း ရရှိမှုမှာ အမှတ်စဉ် (၃) နှူကလီးယားစွမ်းအင်သုံး လျှပ်စစ်ဓာတ်အား ထုတ်လုပ်ခြင်းလုပ်ငန်းနှင့် အမှတ်စဉ် (၁၀၂) လက်နက်ခဲယမ်းများ ထုတ်လုပ်ခြင်းလုပ်ငန်းမှအပ ကျန်လုပ်ငန်း (၁၅၅) မျိုးကို ဆောင်ရွက်ခွင့်ရွိပါကြောင်း အကြောင်းကြားပါသည်။

Licensed Third Party **Consultant** Services Company





According to MONREC's 2023 Third Party License Certification System, **E Guardians** are now holding and applying new License.

- 9 Consultants
- > 15 Associate Consultants to date



Third Party Service Provider

E Guard provides the following services as a third party environmental Service Provider

- Environmental Impact Assessment (EIA)
- > Initial Environmental Examination (IEE)
- Environmental Management Plan (EMP)



Environmental Service Provider

- Feasibility Study , Proposal Preparation
- Environmental Baseline Survey
 - Physio-chemical Aspect
 - Biodiversity and Ecosystems Aspect
 - Socio-Economic Aspect
- Social Impact Assessment (SIA)
- Resettlement Action Plan (RAP)
- Developing Environmental Management Plans (EMP)
- EMP Implementation, Monitoring and Reporting
- Environmental Due Diligence
- Capacity Building

Environmental Monitoring



E Guard provides -

Environmental baseline data collection and Environmental monitoring services to fulfill the regulatory requirements.

> E Guard's environmental quality survey teams is well trained and equipped with industrial grade instruments to measure onsite -

- Air Quality
- Water Quality
- Noise and Vibration
- Flows
- Meteorology
- Traffic

Related Services



- Feasibility Study
- Remote Sensing & GIS Consulting
- > Data Conversions, Mapping Solutions
- Mapping & Documentation
- > Land Cover Inventory
- Strategic Environmental Assessment (SEA)

Organization Chart





Human Resources Diversity



- Agriculturist
- > Anthropologist
- > Archaeologist
- Biodiversity Expert
- Chemical Expert
- Civil Engineer
- Climate Change Expert
- Energy Expert
- Electrical Engineer
- Environmental Engineer
- EHS Specialist
- Environmental Specialist

- > Forester
- Geologist
- > HIA Expert
- Hydrologist
- Industrial Chemist
- > Lawyer
- Mining Engineer
- Natural resources management Expert
- Remote sensing and GIS Specialist
- Social Expert
- Water Resources Engineer

Achievements





E GUARD ENVIRONMENTAL SERVICES COMPANY LIMITED

ADDRESS: NO. (145, A-2, 3), THIRI MINGALAR STREET, WARD NO. (4), 8TH MILE, MAYANGONE TOWNSHIP, YANGON 11082, MYANMAR

QACS certily that the quality management system of the above organization has been audited and found to be in accordance with the requirements of standard detailed below

ISO 9001:2015

For The Following Scope

PROVISION OF ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT (ESIA) SERVICES

Certificate No. : QAIS-Q-MYA-EG-05.24.038

Ea Code: 35

"This certificate is issued in accordance with the QACS international Pvt.Ltd. auditing and Certification procedures and it is remain valid subject to annual surveillance audit.

Certificate Issue Date : 20.07.2024 1st Date of Initial Registration: 20.07.2024 2nd Certificate Validity : 03 Years *Ce

1st Surveillance Date : 1907.2025 2nd Surveillance Date : 1907.2026 "Certificate Expiry Date : 1907.2027

Note: Certificate shall be valid after surveillance, only if continuation letter by QACS is present.



Distaints -- This or ifficute is issued on the basics frantions and impacton set 2 System/Product Carlification of organization as per the standard mentioned. This Carlification do not involve any francais suiting. This contribute commission used as juttification for survice year by given biographicsharms, GACS all motion responsible in zonasce yine disputation on based on this System/Product carlification maintening at as international francaismut. Quality Management System (QMS) ISO 9001:2015 since 2016 Accredited by – International Accreditation Services (IAS)

Achievements





E GUARD ENVIRONMENTAL SERVICES COMPANY LIMITED

ADDRESS: NO. (145, A-2, 3), THIRI MINGALAR STREET, WARD NO. (4), 8TH MILE, MAYANGONE TOWNSHIP, VANGON 11082, MYANMAR

QACS certify that the environmental management system of the above organization has been audited and found to be in accordance with the requirements of standard detailed below

ISO 14001:2015

For The Following Scope

PROVISION OF ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT (ESIA) SERVICES

Certificate No. : QAIS-E-MYA-EG-05.24.020

Ea Code: 35

"This certificate is issued in accordance with the QACS international Pvt. Ltd. auditing and Certification procedures and it is remain valid subject to annual surveillance audit.

Certificate issue Date : 20.07.2024 1st Surveillance Date : 1907.2025 Date of Initial Registration : 20.07.2024 Certificate Validity : 03 Years

2nd Surveillance Date : 19.07.2026 *Certificate Expiry Date : 19.07.2027

Note: Certificate shall be valid after surveillance, only if continuation letter by QACS is present.



Disclaimer- This or Bhate is issued on the basis of neutranovale inspector w.r.t. System Product Certification of cognitis for any per the standard mentioned. This Certification do not involve any francisis a sufficient to certificate cannot be used as jutification for unning any physication do not involve any francisis and any off accessory give departiculariance is used on this System/Product certification maintening at an International Rescalation.

Environmental Management System (EMS)

ISO 14001:2015 since 2022

Accredited by – International Accreditation

Services (IAS)

Achievements





E GUARD ENVIRONMENTAL SERVICES COMPANY LIMITED

ADDRESS, NO. (145, A-2, 3), THIRI MINGALAR STREET, WARD NO. (4), 8TH MILE, MAYANGONE TOWINSHIP, VANGON 11082, MYANMAR

QACS certify that the occupational health & safety management system of the above organization has been audited and found to be in accordance with the requirements of standard detailed below

ISO 45001:2018

For The Following Scope

PROVISION OF ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT (ESIA) SERVICES

Certificate No. : QAIS-CH-MYA-EG-05.24.022

Ea Code: 35

"This certificate is issued in accordance with the QACS international Pvt.Ltd. auditing and Certification procedures and it is remain valid subject to annual surveillance audit.

Certificate Issue Date : 20.07.2024 10 Date of Initial Registration : 20.07.2024 2n Certificate Validity : 03 Years *0

1st Surveillance Date : 19.07.2025 2nd Surveillance Date : 19.07.2026 *Certificate Expiry Date : 19.07.2027

Note: Certificate shall be valid after surveillance, only if continuation letter by QACS is present.



Declaims - This as illuste is issued on the basis franctions main impactions or 2 SystemsProduct Certification of organization as per the standard mentional. This Certification do not involve any franceis sudfary. This contrains cannot be used as judication for sumplay any type of dispositionserves. GACS all not is responsible assument give dispositivity and beamst on this System/Product certification motivating at as international franceis insult. Occupational Health and Safety Management System (OHSMS) ISO 45001:2018 since 2022 Accredited by – International Accreditation Services (IAS)

Diversity of Project





About 300 projects had been carried out within 10 years













Understanding EIA and



Safeguarding the Environment





Understanding EIA & Safeguarding the Environment







01

Overview of EIA

Evolution of EIA



- Early 1960s earliest awareness (1962s), first country to assign mandatory status to EIA, 1969 National Environmental Policy Act (NEPA), introduced the requirement for Environmental Impact Statement (EIS)
- 1970s-1970: Establishment of the Environmental Protection Agency (EPA) Development of NEPA guidelines and procedures, 1972: United Nations Conference on the Human Environment in Stockholm,.
- Mid to late 1980s cumulative effects and policy integration, 1985: European Economic Community (EEC) Directive on EIA, Widespread adoption of EIA legislation and procedures in developed countries
- Mid 1990s Adoption of Strategic Environmental Assessment (SEA), 1992: Earth Summit (Rio de Janeiro), Agenda 21 emphasized the importance of integrating environmental concerns into development planning.
- 2000s Mainstreaming of EIA and SEA in development projects funded by international organizations like the World Bank and regional development banks.
- 2010s-Present: Advances in technology and methodology such as GIS and remote sensing, Emphasis on public participation, transparency, and sustainability in environmental decisionmaking

Environmental Legislation Timeline in Myanmar 2019 2015 National Environmental Policy 2014 -To be a clean Environmental environment Impact with a healthy and functional Assessment (Ecl-7) 2012 -To regulate all ecosystem inclusive and Environmental business **Conservation Rules** activities from well being for all Climate Change -To provide Env; the environ: 2008 Policy policy implemenpoint of views tation framework -To be a climate-NCEA, Myanmar including social, for EC law health resilient and low Agenda-21 EQEG carbon society -To clarify Environmental 1994 MoNREC's -To control and Ongoing **Conservation Law** -National Env: regulate air, **State Constitution** mandate releate -To integrate **Quality Std;** -Both Gov; and environmental with noise, water EIA/IEE/EMP quality, industrial -Sector EIA Public have conservation in effluent and including Guidelines responsibility to Sustainable Dev: Environmental Approval/ natural and -EIA Public conserve the -To conserve Reject/ Participation emission Policy natural and natural Penalties discharge Guideline -Balanced Env:& cultural heritage environment -To prevent air -To prevent loss of Dev; natural resources and water

Definition of EIA



Environmental Impact Assessment (EIA)

- is **a formal process** for identifying -
- likely <u>effects of activities</u> or projects on the ENVIRONMENT, and on human health and welfare.
- means and measures <u>to mitigate</u> and <u>monitor</u> these impacts

ENVIRONMENT

is broadly interpreted as -

- > Physical: Water, Air, Soil
- Biological: flora, fauna, ecosystem
- Social: human health and welfare, culture, religion, and local values

In EIA, the term "**impacts**" is used instead of "**effects of activities**".

What is an impact?

Effect - အကျိုးသက်ရောက်စေမှု

lmpact - အကျိုးသက်ရောက်မှု

What is an impact? (အကျိုးသက်ရောက်မှု)



The impact of an activity is a deviation (a change) from the baseline condition that is caused by the activity.

The **baseline condition** is

the existing environmental situation or condition in the absence of the activity. The **baseline condition** is key concept in EIA.

To measure an impact, you must know what the **baseline situation** is.



The baseline condition





VECs – Valued Environmental Components



Description of the project

- Introduction to the Project
 - project name, location, maps & layout, project proponent
- Project Objectives
 - purpose, goals
- Project Components
 - construction of infrastructure, operation of
 - facilities/process, resource extraction
- Project Phases
 - planning, construction, operation, decommissioning
- Project Alternatives
 - alternative sites, alternative technologies, no-Project scenario

EIA studies (Third Party)



Identification – Impact Identification •

Identification of environmental components and effects; presence or absence

Prediction – Impact Analysis •

Forecasting change in the environment; estimation of probability of occurrence

Impact Assessment

Evaluation – Significant Impacts

Evaluation of importance, consequence and significant; also comparison of trade-offs among various alternatives

Formulation – Impact Mitigation

Formulation of environmental management plan (mitigation, implementation, monitoring plan)



Application of EIA



First Party

Environmental Impact Assessment (EIA) may be defined as **a formal process** used <u>to predict the environmental consequences</u> of any development project. EIA thus ensures that <u>the potential problems are foreseen</u> and addressed at an early stage in the projects planning and design.

Second Party

Environmental impact assessment is **a planning tool** that is now generally regarded as an integral component of sound decision making...... As a planning tool it has both an information gathering and decision making component which provides the decision maker with an objective basis for <u>granting or denying approval</u> for a proposed development.

Who are involved in EIA activities



- EIA is generally the responsibility of the project proponent
- It is often prepared with the help of external consultants or institutions, i.e., the EIA practitioners.
 - The EIA study should be carried out by a multidisciplinary team comprising civil engineers, planners, chemists, scientists, biologists, zoologists and socio-economists.
- The agency responsible for receiving the impact assessment report and taking any subsequent action.
 - Will usually indicate how the study is to be carried out and how the results should be used in the decision-making process.
- Ideally public opinion should be solicited through public hearings arranged for the purpose of discussing the impacts of the project.
- Public participation is a required component of EIA process.

Public Consultation/Participation

EIA requires that, as much as possible, both technical / scientific and value issues be dealt with.

duard

- The involvement of the Public is an integral part of EIA.
- Adequate public input is important;
 - To identify issues relevant to the project
 - For evaluating their significance
 - For deciding what measures should be implemented to avoid or mitigate these impacts.

When should EIA start in a project Quard



EIA – three core values







02 EIA Process





ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ ဥပဒေ၊ နည်းဥပဒေနှင့် လုပ်ထုံးလုပ်နည်းများ

- ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဥပဒေ (၂၀၁၂ ခုနှစ်) နှင့် ပတ်ဝန်းကျင် ထိန်းသိမ်း ရေး နည်းဥပဒေများ (၂၀၁၄ ခုနှစ်) အရ စီမံကိန်းများကို စိစစ်ရာတွင် စီမံကိန်းကြောင့် ဖြစ်ပေါ်လာနိုင်မည့် ပတ်ဝန်းကျင်နှင့် လူမှုရေးဆိုင်ရာ မလိုလားအပ်သည့် ထိခိုက်မှုများရှိ/မရှိနှင့် ထိခိုက်မှုများ ရှိခဲ့ပါကလည်း သိသာထင်ရှားမှုရှိ/မရှိ (သို့) ပြင်းထန်သော ထိခိုက်မှု ရှိ/မရှိ စသည်ဖြင့် စနစ်တကျ ဆန်းစစ်နိုင်ရန် ရည်ရွယ်၍ ပြုလုပ်ရခြင်းဖြစ်ပါသည်။
- ၂၀၁၅ ခုနှစ် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လုပ်ထုံးလုပ်နည်း၏ အပိုဒ် (၁၂၆) အရ အဆိုပြုစီမံကိန်းသည် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း (EIA) ဆောင်ရွက်ရန်ဖြစ်ပြီး ပတ်ဝန်းကျင်နှင့်လူမှုရေးရာ ထိခိုက်မှု ဆန်းစစ် ခြင်းကို ဆောင်ရွက်သွားမည် ဖြစ်ပါသည်။



Guard

Environmental Conservation Department (ECD)





EIA ဌာန၏ လုပ်ငန်းတာဝန်များ

- (က) စီမံကိန်းအဆိုပြုသူများမှ တင်ပြလာသည့် စီမံကိန်းအဆိုပြုလွှာများအား EMP, IEE သို့မဟုတ် EIA ဆောင်ရွက်ရန် လိုအပ်မှု ရှိ/ မရှိ ပဏာမ စိစစ်ခြင်း၊
- (ခ) ပတ်ဂန်းကျင်ဆိုင်ရာဆန်းစစ်ခြင်း ဆောင်ရွက်ရန် တင်ပြမှုအပေါ် သင့်လျော်သော ပုဂ္ဂိုလ် သို့မဟုတ်
- အဖွဲ့အစည်း ဟုတ်/ မဟုတ် စိစစ်ပြန်ကြားခြင်း၊ (ဂ) စီမံကိန်းအဆိုပြုသူများမှ တင်ပြလာသည့် Scoping Report, EMP, IEE နှင့် EIA များအား စိစစ် သုံးသပ်တင်ပြခြင်း၊

(ဃ) စီမံကိန်းအဆိုပြုသူများမှ တင်ပြလာသည့် EMP, IEE နှင့် EIA များအား သင့်လျော်သော နည်းလမ်းဖြင့်

(င) စီမံကိန်းအဆိုပြုသူများမှ တင်ပြလာသည့် EIA များအား EIA စိစစ်သုံးသပ်ရေးအဖွဲ့သို့ ကနဦးစိစစ်

(စ) ပတ်ဝန်းကျင်ထိန်းသိမ်းရေးဆိုင်ရာ လိုက်နာဆောင်ရွက်မှုသက်သေခံလက်မှတ် ထုတ်ပေးနိုင်ရေး

အများပြည်သူသိရှိအောင် ထုတ်ဖော်ခြင်း၊ သဘောထား မုတ်ချက် များတောင်းခံခြင်း၊

သုံးသပ်တင်ပြခြင်း၊

ဆောင်ရွက်ခြင်း၊

ရေးဆွဲပြုစုလျက်ရှိရာတွင် လုပ်ငန်းရှင်များအပါအဝင် ပါဝင်ပတ်သက်သူများအားချပြဆွေးနွေး (ဇ) ကဏ္ဍအလိုက် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်းဆိုင်ရာ လမ်းညွှန်ချက်များ ရေးဆွဲပြုစုလျက်ရှိရာတွင် လုပ်ငန်းရှင်များအပါအဝင် ပါဝင်ပတ်သက်သူများအားချပြဆွေးနွေး ပွဲများပြုလုပ်လျက်ရှိပြီး အပြီးသတ်ထုတ်ပြန်နိုင်ရန် ဆောင်ရွက်ခြင်း၊ (ဈ) ဝန်ကြီးဌာနများမှ တောင်းခံလာသော ပတ်ဝန်းကျင်ထိခိုက်မှု နှင့်ဆက်စပ်သည့် အကြောင်းအရာများအပေါ် သဘောထားမှတ်ချက်များပေးခြင်း၊ (ည) အခါအားလျော်စွာ ဖြစ်ပေါ်လာသည့် ပတ်ဝန်းကျင်ဆိုင်ရာကိစ္စရပ်များအပေါ် သင့်တော်သောနည်းလမ်း ဖြင့်စီမံဆောင်ရွက်နိုင်ရေး

(ဆ) အပြည်ပြည်ဆိုင်ရာအဖွဲ့ အစည်းများ၏ နည်းပညာအကူအညီဖြင့် စွမ်းဆောင်ရည်မြှင့်တင်ခြင်း ဆောင်ရွက်မှုအစီအစဉ်များနှင့် ပတ်ဝန်းကျင်ဆန်းစစ်ခြင်းအစီရင်ခံစာများကို လက်တွေ့ စိစစ်ခြင်း ဆိုင်ရာသင်တန်းများစီစဉ်ပို့ချဆောင်ရွက်ခြင်း၊

EIA ဌာန၏ လုပ်ငန်းတာဝန်များ



Sectorial Guidelines in EIA Department



| No. | Guideline | Organization | Status |
|-----|---|--------------|--------------------------|
| 1. | EIA Guideline for the Oil and Gas Sector(Upstream) | NEA | Approve and Apply (2020) |
| 2. | EIA Guideline for Hydropower Projects | IFC | Approve and Apply (2020) |
| 3. | EIA Guidance for Mining Sector | ADB | Approve and Apply (2020) |
| | Exploration: Guidelines for Preparation of an Environmental | | |
| | Management Plan | | |
| | New Mines: Guidelines for Environmental Impact Assessment | | |
| | • Existing Mines: Guidelines for Environmental Assessment of | | |
| | Existing Mines | | |
| | • Technical Guidance for Environmental Impact Assessment of | | |
| | Mining | | |
| | • Guide for Review of Environmental Assessment Documentation | | |
| | Guidelines for Inspection and Compliance Monitoring | | |
| | Guide for Preparing and Environmental Compliance Certificate | | |
| | for Mining Projects | | |

Sectorial Guidelines in EIA Department



| No. | Guideline | Organization | Status |
|-----|---------------------------------------|-----------------------|-------------------|
| 4. | General EIA Guideline (2017) | | Department Manual |
| 5. | Licensing Procedure for third party | JICA | Issued (2023) |
| 6. | EIA Guideline for Ports | NCEA | Freeze (2021) |
| 7. | Public Participation GL | Vermont Law School | Under Processing |
| 8. | SEA of Hydropower Sector in Myanmar | IFC | Issued (2020) |
| 9. | SEA of Oil and Gas Sector in Myanmar | NEA | Freeze (2021) |
| 10. | Stand Alone EMP for Mining | ECD | Issued (2018) |
| 11. | Stand Alone EMP for Industrial Sector | ECD | Issued (2018) |
| 12. | Ambient Quality Standards | - | Under Process |



ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း(IEE) သို့မဟုတ် ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း(EIA) ဆောင်ရွက်ရန်လိုအပ်သည့် စီမံကိန်းအမျိုးအစားနှင့် အရွယ်အစားသတ်မှတ်ချက်များ

| ●న్ | ရင် <mark>းနှီးမြ</mark> ှုပ်နှံမှုစီမံကိန်းအမျိုးအစား | ကနဦးပတ်ဝန်းကျင်ဆန်းစစ်ခြင်း ပြုလုပ်ရန်လိုအပ်သည့် အရွယ်အစား | ပတ်ဝန်းကျင်ထိခိုက်မှုဆန်းစစ်ခြင်း ပြုလုပ်ရန်လိုအပ်သည့်အရွယ်အစား |
|-----|---|---|--|
| .34 | ထူးရင်းနှီးမြှုပ်နှံမှုစီမံကိန်းလုပ်ငန်း | | |
| 0 | ပြည်ထောင်စုလွှတ်တော် သို့မဟုတ် ပြည်ထောင်စု အစိုးရအဖွဲ့ သို့မဟုတ် နိုင်ငံတော်သမ္မတ၏ အတည်ပြု ဆုံးဖြတ်ချက်ဖြင့် ဆောင်ရွက်သော ရင်းနှီးမြှုပ်နှံမှု စီမံကိန်းကြီးများ | - | အရွယ်အစားအားလုံး |
| 86 | ားအင်ကဏ္ဍဖွံဖြိုးရေးစီမံကိန်းလုပ်ငန်း | | |
| J | ရေအားလျှပ်စစ်စီမံကိန်း | ထုတ်လုပ်မှု ပမာဏ ၁ မီဂါဝပ်နှင့် အထက်၊ ၁၅ မီဂါဝပ် အောက် နှင့် ကန်ရေပြည့် သိုလှောင်ပမာဏ ကုဗမီတာ ၂၀,၀၀၀,၀၀၀ အောက် နှင့် ရေလှောင်တမံဧရိယာ ၄၀၀ ဟက်တာအောက် | ထုတ်လုပ်မှု ပမာဏ ၁၅ မီဂါဝပ်နှင့်အထက် သို့မဟုတ် ရေသိုလှောင်ပမာဏ ကုဗမီတာ ၂၀,၀၀၀,၀၀၀ နှင့် အထက် သို့မဟုတ် ရေလှောင်တမံဧရိယာ ၄၀၀ ဟက်တာနှင့်အထက် |
| 2 | နျူကလီးယား စွမ်းအင်သုံး လျှပ်စစ်ဓာတ်အား ထုတ်လုပ် ခြင်း | - | အရွယ်အစားအားလုံး |
| 9 | သဘာဝဓာတ်ငွေ့သုံး သို့မဟုတ် ၆ဝ ဓာတ်ငွေ့သုံး လျှပ်စစ် ဓာတ်အားထုတ်လုပ်ခြင်း | ထုတ်လုပ်မှု ပမာဏ ၅ မီဂါဝပ်နှင့်အထက် ၅၀ မီဂါဝပ်အောက် | ထုတ်လုပ်မှု ပမာဏ၅၀ မီဂါဝပ်နှင့်အထက် |
| ງ | ကျောက်မီးသွေးသုံးလျှပ်စစ်ဓာတ်အားထုတ်လုပ်ခြင်း | ထုတ်လုပ်မှု ပမာဏ ၁ မီဂါဝပ် နှင့်အထက် ၁၀ မီဂါဝပ်အောက် | ထုတ်လုပ်မှု ပမာဏ ၁၀ မီဂါဝပ်နှင့်အထက် |
| G | စွန့်ပစ်ပစ္စည်းမှ လျှပ်စစ်ဓာတ်အားထုတ်လုပ်ခြင်း | ထုတ်လုပ်မှု ပမာဏ ၅၀ ဓီဂါဝပ်နှင့်အထက် | ဝန်ကြီးဌာနက ပတ်ဝန်းကျင် ထိခိုက်မှု ဆန်းစစ်ခြင်း ပြုလုပ်ရန် လိုအပ်သည်ဟု သတ်မှတ်သည့် စီမံကိန်း လုပ်ငန်းအားလုံး |

44







Myanmar EIA System

| EIA Process | Duration |
|---------------------------------------|----------|
| Screening Proposal (IEE/EIA) | 15 days |
| | |
| EMP Process | |
| | |
| IEE Process | |
| IEE expert approval | 7 days |
| Preparing IEE Report | |
| IEE Report approval | 60 days |
| | |
| EIA Process | |
| EIA expert approval | 7 days |
| • Developing Scoping Report and TOR | |
| Scoping report & TOR approval | 15 days |
| Investigation & Developing EIA Report | 9 Months |
| EIA report approval | 90 days |





03

Safeguarding the Environment

Disclaimer -



This presentation will focus on <u>Safeguarding the Environment</u> at *Pre-Construction phase* and *Construction Phase* of the projects

Project Examples

- I. Hydropower, Reservoirs, Highway Road [preconstruction][construction]
- II. Mining [exploration][preconstruction][construction][closure]
- *III. Industrial Estate, Housing Development [preconstruction][construction] [operation]*
- IV. Mill & Industry, etc., [operation][decommissioning]

Notes: looking at significant phases by project types

Environmental Management in the Project Cycle



Safeguarding the Environment

- Understand the baseline conditions of the environment
- ELA Consultant 2. Understand the activities of the project which induce impacts to the environment
 - 3. Analyze the impacts quantitatively and qualitatively
 - 4. Mitigate the significant impacts

The objectives of mitigation are to:

- find and adopt alternate ways of designing and implementing a project;
- avoid, minimize, mitigate, or offset impacts, remedy or compensate for adverse impacts; and Enhance Positive Impacts
- ensure that residual adverse impacts are not significant

Safeguard Specialist Environmental Officer **Basic** principle of environmental management planning:

- impact mitigation
- prepare an environmental management plan
- implement the environmental management plan and monitor its effectiveness

Engineers/ Supervisors



Plan to minimize potential impacts:

- Identification of hazard*
- Assessment of risk*
- Selection of mitigation measures
- Allocation of responsibility
- Monitoring and reporting

Notes:

- *From the EIA study stage to ECC approval the environment has not yet protected on the ground.*
- <u>Only when EMP is implemented</u> and mitigation results are monitored the environment reach at the stage of being under protection.



Project EMP Scope

- EMP encompasses mainly **three phases** of a project:
 - 1. Preconstruction Phase,
 - 2. Construction Phase
 - 3. Operation Phase and Decommissioning Phase

Geographic Scope

- Everywhere but only where there are impacts caused by construction work:
 - site, access road, waste receivers, IR etc.



Responsibilities of Owner & Contractors -

- EMP requirements:
 - "Project owner is committed to undertaking the construction of the project *in a manner* that results in the <u>least impact</u> on the natural and social environment"
 - "The contractor will *pursue <u>a policy</u>* of incorporating and <u>integrating environmental considerations</u> into his or her operations for the project as described in the Environmental Management and Monitoring Plan"



Pre-construction Phase -

- Incorporating EMP into <u>Tenders & Contracts</u>, ensures that:
 - EMP is addressed as a CONDITION of CONTRACT
 - EMP is properly COST
 - EMP is supported by <u>management systems</u> (EMS) to enable compliance



Pre-construction Phase -

- Tender documents <u>ensure</u> that the contractor:
 knows their environmental <u>responsibilities</u>
 - can include the related costs in their bid
- So where in tender documents should environmental responsibilities be placed?



Tenders & Contracts -

- There are three key components:
 - Detailed EMP requirements
 - Inspection and control of contractor
 - Site-specific planning



Tenders & Contracts -

- Site-Specific Environmental Management Plan :
 - Prepare site-specific environmental management
 - Site-specific planning plans (SEMPs)
 - Ensure that SEMPs prepared before construction starts.



Read 1 minute
Comment 2 minute
Answers 2 minute

Following the award of the contract and prior to construction commencing, the Contractor will review the EMP and develop this into a detailed Site-Specific Environmental Management Plan (SEMP) that amplifies the conditions established in the EMP that are specific for the site and the tasks involved......The SEMP will be submitted to the Employer for approval at least 10 days before taking possession of any work site. No access to the site will be allowed until the SEMP is approved by the Project Management Unit (PMU). No comments to continued next slide !

Tenders & Contracts -

- Inspection & Control by Project Owner > No comments to
 - "The project owner will regularly inspect works undertaken by the contractor to check on the implementation of environmental management and monitoring requirements. A non-compliance notice will be issued to the contractor if the employer requires action to be taken. The contractor is required to prepare a corrective action plan which is to be implemented by a date agreed with the project owner."



- Read 1 minute
- Comment 2 minute
- Answers 2 minute
- continued next slide !

Environmental Management Requirement for a Single Project Loan Funded by ADB

| Environmental Management Action | Project Implementation Activities | Conditions Required to Complete Actions |
|---|---|---|
| Pre-construction commences | Project becomes effective | Budget, facilities, and staff |
| Environmental recording | | for EU have been provided according to the loan |
| Environmental recording system is established in environment unit (EU). Baseline monitoring for environmental conditions is designed and implemented, unless this was done during the environmental assessment. | EU is established within the project implementation unit (PIU). Environment staff are appointed to EU Baseline environmental matrix for project is prepared | agreement. |

| Environmental Management Action | Project Implementation Activities | Conditions Required to Complete Actions |
|--|--|--|
| (i)EU prepares design brief for design & supervision (D& S) consultant that incorporates the environmental management plan (EMP) design requirements (ii)EU checks if design brief meets EMP requirements | Design, incorporation of EMP requirements. | D &S consultant with necessary technical capacity to address EMP requirements has been appointed. |
| (i)EU extracts construction requirements from EMP, and passes them to D&S consultant for inclusion in tender documents. (ii)EU reviews tender documents and confirms that environmental management provisions are sufficient. | Tender documents are prepared Tenders are evaluated and a contractor appointed. | Standard environmental conditions have been prepared, and were integrated into the tender documents. EU inputs have been given to the bid evaluation panel. |
| EU reviews environmental conditions of bids, and ranks contractors accordingly. | Ļ | |

| Environmental Management Action | Project Implementation Activities | Conditions Required to Complete Actions |
|---|---|---|
| EU reviews site-specific environmental management plan (SEMP) and environmental management system (EMS). | Contractors prepares SEMP and EMS, if required. | (i)Contractor has appointed environmental manager. (ii)After award of contract, contractor has 30 days to prepare SEMP/EMS. |
| EU verifies compliance of contractor with SEMP at site meeting. | Contractor is inducted to site by EU. | possession of construction site until (i) SEMP/EMS has been approved, and (ii) induction is completed satisfactorily. |
| EU informs PIU that contractor is now cleared to start work. | Contractor is approved to start work. | |

| Environmental Management Action | Project Implementation Activities | Conditions Required to Complete Actions |
|---|--|--|
| Pre-construction completed | | |
| (i) PIU, with assistance of EU, monitors contractor's SEMP compliance activities (ii) EU audits construction activities (iii) EU evaluates monitoring program | Contractors being work Environmental monitoring is undertaken and reports prepared. i. By contractor: monthly environmental reports are sent to PIU ii. By EU: quarterly environmental reports are sent to ADB and country environmental agency | (i)Contractor has appointed environmental manager. (ii)After award of contract, contractor has 30 days to prepare SEMP/EMS. Contractor cannot take possession of construction site until (i) SEMP/EMS has been approved, and (ii) induction is completed satisfactorily. |
| Operation commences | | |

Responsibilities in construction phase

- Monitoring and reporting / DOCUMENTATED
- Based on the requirements specified in the approved IEEs/EIA to determine what kinds and frequency of monitoring and reporting are required
- Internal environmental safeguard monitoring
- Both internal and external environmental safeguard monitoring
- Monitoring is the mile stones of verifying the mitigations

Conclusion – messages to fellow engineers

- EIA to involve as early as possible in the project life cycle
- Seek the advice of an environmental consultant at the project concept stage (Project Engineers and Engineering consultants who are involved in the project concept stage to consider the role of environmental consultant to be included in the team)
- Be ethical and volunteer to do environmental protection even if the construction works had to begin before getting ECC. (EIA approval is usually received sometimes after the project approval - current situation)
- Then he/she, the environmental consultant, will schedule the timing of environmental compliance tasks in the project.





Thank you for your time

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