Item 19b

Co-funded by the Erasmus+ Programme of the European Union

# BIOCEP-612: ENVIRONMENTAL LAW AND ENVIRONMENTAL IMPACT ASSESSMENTS (EIA) (3 ECTS, 4 MC)

Course Description and Syllabus

## Basic Information

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| **Type of Course** | Lecture with practical tutorials |
| **Term** | 1st semester |
| **Expected no. of participants** | < 20 |
| **Language** | English |
| **Hours per week in term** | 4 hr/week for lecture<br>2 hr/week for practical |

## Instructors

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| Khin Swe Oo (Coordinator) | |
| Aung Myo Hsan | |
| Nay Myo Hlaing | |
| Zin Lin Khine | |

## COURSE OBJECTIVE

The course teaches environmental laws of Myanmar and the relevant Environmental Impact Assessment procedures.

The specific aims of the course are to:

- apply scientific research for environmental planning and developmental projects
- familiarize with Myanmar environmental (EIA) legislation and to introduce students to law, regulation, economic, social, administrative and technical process of preparing and evaluating environmental impact documents.
- provide a basic understanding of the EIA process as it is used for research, planning, project or program evaluation, monitoring, and regulatory enforcement.
- identify and describe any potential losses to biodiversity and cultural heritage and natural habitats or damage to flora, fauna and natural habitats but also social, culture and health
- identify key impacts (negative impacts) and measures for mitigating (minimize pollution and environmental disturbance)
- identify outstanding students on the assessment of EIA to be sustainable development
- relate the uses of scientific research to practical situations in project planning and decision making
- study environmental and social impact of anthropogenic activities.

## LEARNING OUTCOMES

After successful completion of the course, the students will have learned:

- To assess and interpret the relevant Myanmar laws, acts and regulations on environmental protection with relevance for EIAs (The Environmental Conservation Law 2012, Environmental Rule 2014, Forest Law 1992, Protection of Biodiversity and Protected Area Law 2018, Freshwater Fisheries Law 1991, Pesticide Law 2016);
- The theory of EIAs and theoretical framework of an EIA;

- The relevant processes, procedures and activities to perform an EIA, including all relevant stages of an EIA (data baseline, assessment of environmental condition, assessment of impact, search alternatives and provide recommendations, pre-/post-assessments, statistical analysis, report writing);
- Communicate the outcome to decision makers;
- Develop an EIA with a real example and/or with an own example;
- Write a/the EIA report and present the teamwork to the class.

**TEACHING METHOD**

Seminar with teamwork and presentation of teamwork to the class.

**CLASS ATTENDANCE**

Students are expected to attend regularly to the class. Students need 75% of total attendance for being able to take the final exam.

**GRADING**

(1) EIA report (15%)

(2) Presentation of the EIA report to the class (10%)

(3) Attendance of at least 10 out of 12 units is compulsory (5%)

(4) Final exam (70%)

**COURSE TOPICS**

The course is divided into 12 units (1 unit resembles 3 hours class presence per week). Each unit covers 1 topic:

1. The theory and background of EA, EIA, SEIA and other forms. The frameworks and general idea as well as history and background of the EIAs will be presented. Procedures

from international organizations, EU partner countries, and other countries, will be presented.

2. Understanding the environmental laws of Myanmar and international regulations with relevance for EIAs. Students will read and assess the laws in teamwork. Students will extract all information (laws, acts, regulations, …), which might be of relevance for EIAs.
3. Students prepare a protocol on relevant laws, acts and regulations for EIA.
4. Students present a summary (as presentation) of their results of the teamwork on laws, acts, and regulations to the class.
5. Example EIA: Silver mining in Naung Mung. Students will develop an EIA situation, with instructions by the teacher, with a real background. In small teams, students will proceed with all stages of the EIAs to assess the potential impact of silver mining on the Hkakabo Razi Landscape and the Irrawaddy tributary. The teacher provides baseline information and the students search for any environmental data or publications of relevance. The datasets are used as baseline to (a) describe the environmental conditions, and (b) assess the impact of silver mining on the environment. (Provide Google Earth shapes on protected areas and the mining concession, maps, and relevant literature, provide EIA report outline as a word document).
6. How and where to collect information on the environmental condition. Students will be guided to search high quality data for EIA for the example EIA. With online database and open access resources, a list of all information is prepared and the key indicators are summarized in a short text.
7. How and why to assess the potential impact of the activity on the environment. The environmental condition as before is assessed as of the current status (natural, degraded) the biodiversity is described (tropical rainforest, mangrove, …) and the protected areas mapped.
8. Presentation of how to assess "significant" impacts and to distinguish significant from non-significant impacts. The evaluation process of the impacts as significant or non-significant are explained and practiced with the defined impact.
9. Continue Example EIA: Students write the EIA report. The sections and detailed instructions are provided in a report. Sections: Project description, Description of

environmental condition and Description of the significant effects on the environment including Environmental Assessment.

10. Continue Example EIA: Students write the EIA report. The sections and detailed instructions are provided in a report. Sections: Alternatives that have been considered, Description of the environment, Mitigation, Lack of know-how/technical difficulties, Non-technical summary (EIS).
11. Example EIA: Students present a summary to the class.
12. Practice presentation of the results to decision makers (e.g., presentation to a committee of university teachers).

**RECOMMENDED READINGS**

Spitz, K. and Trudinger, J. 2019. Mining and the Environment. CRC Press. 900 pp

Fortlage, C.A. 2017. Environmental assessment: a practical guide. Routledge. 168 pp