



CURRICULUM AND LESSON PLAN FOR ENVIRONMENTAL IMPACT ASSESSMENT (EIA) TEACHERS FOCUSING ON CENTRAL AMERICA

Overview

This document presents a basic Environmental Impact Assessment (EIA) curriculum accompanied by 40 test questions and a lesson plan to teach the material over the period of a four-day workshop.¹ The curriculum is based on globally relevant case studies and examples of EIA definitions, legislation and procedures applied by major development banks and selected Central American countries. Because environmental licensing is largely a national process, many of the learning activities are centred on national procedures. Honduras has been selected to provide a more detailed national example throughout; however, teachers from other countries can substitute Honduran-specific activities for ones relevant to their own country.

Learning Objectives

After taking this workshop, learners will:

- Understand the concept, historical context and wider importance of EIA (beyond being an environmental licensing process).
- Be familiar with EIA legislation.
- Know the key steps in the EIA process.
- Understand the importance of Social Impact Assessments and public participation in the EIA process.
- Gain an overview of methods and instruments that are commonly used to develop an EIA.
- Improve collaborative skills and thus gain skills relevant for collaborative EIA development.

The learning objectives will be achieved by drawing upon best practices from global initiatives, including those led by development banks such as the World Bank, the Inter-American Development Bank and others, and using specific case studies and examples from selected Central American countries.

Curriculum Access and Organization

All learning materials and tests are available on the EIA online learning platform (<http://www.iisd.org/learning/eia>). An offline version is also available for download (available here: [Environmental Impact Assessment Training Manual](#))

The curriculum is organized into three main sections:

1. Broad introduction to EIA. This includes a global timeline of EIA and one specific to Honduras.
2. Learners are guided through the seven steps to conducting an EIA: Screening, Scoping, Impact Assessment and Mitigation, Impact Management, The EIA Report, Review of the EIA report and licensing, and Monitoring. Each step is presented within the framework of four guiding questions: What is it? Why is it needed? What are the different approaches? How is it carried out? Throughout, generalized examples are provided from international development

¹ While the lesson plan is designed to be covered during a 4-day workshop, the curriculum can be adapted to different purposes, such as a 13-week semester course bolstered by individual and group work, or as an online self-paced course.



banks and selected Central American countries. More detailed information is provided on Honduras.

3. Examples – This is a compilation of downloadable, detailed information that is important for deepening learning, including: real-world cases to serve as practical examples; explanations of Social Impact Assessment (SIA) and how to carry out public consultation; examples of Terms of Reference (TORs); key aspects of EIA legislation, among others.

The agenda below is designed to be implemented over a series of four days with topics ranging from one quarter of a day to whole-day sessions. All assignments and activities can be completed in groups and/or individually. It is up to the teachers to decide what will work best for the specific group of students. The fourth column in the table below identifies how each lesson addresses the criteria for Honduran EIA accreditation.

Preparation

Before the workshop, teacher should scan local and international media to select current development projects that are receiving attention in the area of EIA (examples are provided but teachers should be familiar with the most recent high-profile nationally relevant EIA).

Lesson title	General focus of the lesson	Specific focus of the lesson and relevant sections of the platform	Corresponding EIA Accreditation criteria – Honduras ²
Learning about EIA Approx. ½ day	<i>Most common definitions and objectives of EIAs</i> <i>Brief history and examples to illustrate why EIAs are important. This will help students gain a basic understanding of the purpose of EIAs to guide the next steps.</i> <i>Key steps and components of EIA globally and in Honduras.</i>	<u>EIA WHAT? WHY? HOW?</u> <ul style="list-style-type: none"> - Definitions, essentials and basic legislation of EIA globally, in Central America and Honduras. - Assessments related to EIAs. - Timeline of EIA globally and in Honduras. Activities and Assignments <ul style="list-style-type: none"> - Discuss why EIA is needed and how it is more than an environmental licensing process. - Discuss differences between SEA, IEA and EIA. - Review local and international media publications to identify what aspects of EIA and projects/developments are most commonly discussed. - Compare the development of the EIA legislation globally and in Honduras. - Complete the five test questions for Section 1 EIA What? Why? How?. 	1,2,4,7,14
EIA Steps: 1. Screening	<i>Methods of conducting a quick assessment of the planned projects and developments</i>	<u>Step 1: Screening</u> <ul style="list-style-type: none"> - Key definitions and examples of Screening. - Key types of projects and the categories that require screening. - Approaches to screening in selected countries in Central America. 	2,7,8,14

² The prerequisite criteria for Honduran accreditation is a degree in Environmental studies – therefore it is assumed that learners already have a solid base in understanding environmental concepts (required to successfully achieve Honduran criteria #2 and 3).



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Approx. 1/4 of day	<i>to decide if their impacts on the environment and well-being are significant enough to develop a full EIA.</i>	<ul style="list-style-type: none"> - Review of the forms used for screening in Honduras. - Summary of the categories of projects, works or activities in Honduras. <p><u>Activities and Assignments</u></p> <ul style="list-style-type: none"> - Identify five project/development examples that would require an EIA, five that would only require an Environmental Management Plan (EMP), and five that wouldn't require EIA nor EMP and discuss the reasons. - Compare categories for projects that require EIA from selected Central American countries and from the analyzed development banks. - Complete the five test questions for Step 1: Screening 	
EIA Steps: 2. Scoping Approx. ½ day	<ul style="list-style-type: none"> - <i>How to specify and narrow down the focus of the EIA, define the project area, alternatives and baseline data.</i> 	<p><u>Step 2. Scoping</u></p> <ul style="list-style-type: none"> - Overview of the types of methods used during Scoping. - Check how scoping is done in the EIA case study examples: Energy (Nicaragua) and Mining (Colombia). - Overview of the general scoping process in selected Central American countries, and the specific scoping process in Honduras. - Review of the examples of TORs for EIAs - Review materials on public consultation and participation - <p><u>Activities and Assignments</u></p> <ul style="list-style-type: none"> - List key elements of the TOR based on the provided examples. - List and define key decisions/methods used during scoping step in the case studies. - Complete the five test questions for Step 2. Scoping. 	2,3,8,13
EIA Steps: 3. Impact Assessment and Mitigation Approx. 1 day	<p><i>How to assess the impacts of the planned project and its alternatives on the environment and socioeconomic conditions and livelihoods</i></p> <p><i>How to identify mitigation measures to reduce impacts and/or provide positive contributions.</i></p>	<p><u>Step 3. Impact Assessment and Mitigation</u></p> <ul style="list-style-type: none"> - Review the list of categories and subcategories included in the impact assessment. - Review the examples of different types of impact assessment and mitigation actions by major development banks and Central American countries. - Review impact assessment methods and discuss their potential advantages and challenges. - Review the material on Social Impact Assessment. - Review the material on Climate change and EIA. - Review the Leopold matrix for a chosen project example. - Review the China Hai Basin indicators case study and the case on Vietnam (Monitoring and Pollution Mitigation). 	3,4,5,6, 9, 11, 14



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		<p><u>Activities and Assignments</u></p> <ul style="list-style-type: none"> - Identify and discuss key methods and their implementation during impact assessment in the EIA case studies. - Identify major impacts and mitigation measures identified in the provided case studies. - Discuss the importance and implementation of Social Impact Assessment and discuss its relevance for your country/region/project example. - Discuss the relevance of climate change and EIA your country/region/project example. - Create your own Leopold matrix for a selected potential development (individual or group activity). - Complete the five test questions in Step 3. Impact Assessment and Mitigation. 	
<p>EIA Steps:</p> <p>4. Impact Management</p> <p>Approx. ½ day</p>	<p><i>Plans that need to be developed to specify, implement and monitor the identified mitigation measures and address other risks that the project could present, such as technological failures and other emergencies.</i></p>	<p><u>Step 4. Impact Management</u></p> <ul style="list-style-type: none"> - Review approaches to developing EMPs and other plans in selected Latin American countries - Review the key aspects of EMP legislation in Honduras. - Review the EMP and other means of the impact management in the case studies Energy (Nicaragua) and Mining (Colombia): <p><u>Activities and Assignments:</u></p> <ul style="list-style-type: none"> - List the key elements of the EMP and provide examples based on the listed case studies. - Compare the purpose and content of the different types of plans that project proponents need to develop during the EIA. - Complete the five test questions for Step 4. Impact Management. 	<p>1,4,5,6,8,9,10,11</p>
<p>EIA Steps:</p> <p>5. The EIA report</p> <p>Approx. ¼ day</p>	<p><i>Key components of an EIA report and how to put together all the research and work done during the previous steps in a comprehensive report.</i></p>	<p><u>Step 5. The EIA report</u></p> <ul style="list-style-type: none"> - Review key features and common shortcomings/deficiencies of EIA reports - Review overview of TORs for the major development banks and selected Central American countries, and consult detailed TOR examples. <p><u>Activities and Assignments:</u></p> <ul style="list-style-type: none"> - List key components of the EIA report, specifying what project proponents should be aware of. - Compare the content and quality of each EIA component in the provided case studies: Energy (Nicaragua) and Mining (Colombia), listing things that were included and those that require improvements, specifying what type of improvements are needed. - Complete the five test questions for Step 5. The EIA Report. 	<p>8,2,13</p>



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<p>EIA Steps:</p> <p>6. Review and Licensing</p> <p>Approx. ¼ day</p>	<p><i>Criteria for EIA assessment</i></p> <p><i>How the licence to operate is issued to the proponent/developer.</i></p>	<p><u>Step 6. Review and Licensing</u></p> <ul style="list-style-type: none"> - Explore the types of review used. - Go over the review and licensing process used in Honduras. - Examine the detailed list of criteria and questions for reviewers. <p><u>Activities and Assignments:</u></p> <ul style="list-style-type: none"> - Use the reviewer questions listed in the examples section to review the EIAs listed in the case studies. - Prepare a reviewer report based on the reviewed EIAs following the format of the reviewer questions. - Complete the five test questions for Step 6. Review and Licensing 	<p>8,10,12,13</p>
<p>EIA Steps:</p> <p>7. Monitoring</p> <p>Approx. ¼ day</p>	<p><i>How to identify key indicators and develop a monitoring protocol.</i></p>	<p><u>Step 7. Monitoring</u></p> <ul style="list-style-type: none"> - Review how Environmental Assessment follow-up, monitoring and enforcement is done by the major development banks. - Review the approaches to monitoring in the selected countries in Central America. - Review the approach to monitoring in Honduras and how monitoring program is organized. - Review the list of monitoring indicators. - Review the China Hai Basin indicators case study and the case on Vietnam (Monitoring and Pollution Mitigation). <p><u>Activities and Assignments:</u></p> <ul style="list-style-type: none"> - Identify a set of indicators that can be used to monitor the planned projects listed in the EIA case studies. - Compare the list of indicators for diverse case studies and discuss similarities and differences. - Create a monitoring protocol for a sub-set of indicators. - Complete the five test questions for Step 7. Monitoring. 	<p>1,5,7,8,9,12, 14</p>
<p>Review and testing</p> <p>Approx. 1/2 day</p>	<p><i>Review key EIA steps, legislation in Honduras</i></p> <p><i>Test the students' knowledge.</i></p>	<ul style="list-style-type: none"> - Review the definition and implementation of each key EIA step. - Review in detail the each steps of the EIA based on the provided case studies: Energy (Nicaragua) and Mining (Colombia). - Select a development project and develop each step of the EIA; literature can be used to illustrate impacts and mitigation options. - Complete again all 40 of the test questions previously taken as a knowledge review exercise. - Discuss in a whole group activity any outstanding questions/points of confusion. 	<p>12,13,14</p>



Annex 1: Screen shots of the MiAmbiente online licensing system (Honduras)

(<http://miambiente.prohonduras.hn/MiAmbiente/login.html>).

In order to obtain an environmental licence in Honduras, project proponents must register on the online system, enter contact and legal information about their business (Figure 1 below), as well as provide a description of the proposed project and its geographic coordinates. An Environmental Service provider must be selected to verify the project information (Figure 2). The system will automatically generate certain reports according to the information provided by the project proponent (Figure 3, top of following page), but several other documents must be uploaded into the system as well (Figure 4, bottom of following page).

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Figure 1. MiAmbiente Environmental Licensing System – screen to provide preliminary business and project information

No. Registro	Nombre	Clasificacion	Vigencia
RI-001-2002	Norman Gilberto Ochoa Henriquez	Analisis y Control Ambiental en Tems Generales	Acta No 11-2013 vence en Diciembre de 2015
RI-004-2002	Mario Javier Martinez Zavala	Analisis y Control Ambiental en Tems Generales	Acta No 11-2014 vence en Diciembre de 2016
RI-006-2002	Lilian Rosmery Espinoza Cruz	Analisis y Control Ambiental en Tems Generales	Acta No 11-2014 vence en Diciembre de 2016
RI-007-2004	Carol Yisel Perdomo Cardona	Analisis y Control Ambiental en Tems Generales	Acta 10-2014 Valido hasta Diciembre de 2016
RI-008-2002	Carlos Alberto Cerrato Blanco	Analisis y Control Ambiental en Tems Generales	Acta 01-2015 vence en Diciembre de 2016
RI-009-2002	Carlos Gabriel Talavera Williams	Analisis y Control Ambiental en Tems Generales	Acta 01-2015 Valido hasta Diciembre de 2016

Figure 2. MiAmbiente Environmental Licensing System – pop-up screen within the system that allows the project proponent to search for and select an Environmental Service Provider (PSA) to accompany their licensing process



Annex 2: Honduran Accreditation requisites

Competencies to be evaluated. Source: OHN 55:2011, Work competency Environmental Evaluator and Environmental Regent— Prerequisites, Edition 01, 2011.	
Competency	Weight/100
1. Establish work programs	5
2. Characterization of the biophysical and social environments	12
3. Identify on a technical basis, the impacts and potential impacts on the environment	11
4. Purpose, prevention, mitigation and/or compensation	11
5. Identify, describe and weigh indicators	11
6. Design a contingency plan	6
7. Apply international/national environmental legislation, as well as conventions and treaties	6
8. Apply the administrative and technical procedure of environmental licensing	5
9. Work in multidisciplinary teams	4
10. Interpret and analyze information generated by the equipment and instruments for measuring environmental variables	9
11. Apply knowledge of metrological confirmation in the field of competency	5
12. Analyze and synthesize	7
13. Write technical reports	6
14. Effective oral communication	3
TOTAL	100

References

Honduran Standards Organization (OHN)

<http://ohn.hondurascalidad.org/>

Criteria for competency in environmental risk

<http://www.oitcinterfor.org/sites/default/files/riesgoambiental.pdf>

The Honduran Accreditation Organization

<http://oha.hondurascalidad.org/>

Las 117 Normas, Guías, Especificaciones Técnicas e Informes Técnicos vigentes publicados por el

OHN http://ohn.hondurascalidad.org/119_normas_publicadas_2015-08-19.pdf

Source: EIA Online Learning Platform - <http://www.iisd.org/learning/eia>