ENVIRONMENTAL IMPACT ASSESSMENT Module - held in TERM II

MSc / Diploma Postgraduate Course Module Term II

Overview:
Environmental Impact Assessment can be described as a decision-making tool, a legislative instrument and a formalised environmental management process. It exists to enable precautionary measures to be incorporated into project and policy planning for the protection of environmental and human systems. This unit looks at the legislative framework, reviews EIA case studies, discusses the holism of the approach, and explains and appraises techniques.

The objective of this module is to provide a working knowledge of current environmental, social and economic impact requirements and methods. The module examines the potential impact of development on environmental quality, social well-being and regional economies, and considers in detail how these impacts can be quantified and analysed.

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Assessments:
There is no exam for this module. Assessment will by coursework comprising a written report (80%) and a short poster presentation (20%). The deadline for submission of the written report will be 19 March, with poster presentations also taking place that day.

Reading list:
There are no set texts for this module. The EIA process is found in a number of standard texts which can be found in the University or SAC libraries. Relevant updates to EIA legislation and guidance can be found on the appropriate government websites, for example:

http://www.scotland.gov.uk/Topics/Built-Environment/planning
http://www.communities.gov.uk/planningandbuilding/planning/sustainabilityenvironmental/
http://ec.europa.eu/environment/eia/home.htm

There is a small selection of EIA reports in a resource box in the SAC library, however, many EIAs are also now available online at developers' websites.

Outline:

	Session title	Content	Delivered by
1.	Introduction to EIA 14.1.11 Lecture Theatre E	Principles of EIA, origins of EIA legislation, the role of EIA in sustainable development and the overall EIA process.	Clare Wharmby (Enviros)
2.	Screening and scoping 21.1.11 Lecture Theatre E	Legislation covering screening. Screening tools. Practice and examples. Legislation covering scoping. Scoping tools. Practice and examples. Outputs.	Clare Wharmby (Enviros)
3.	Consultation, review and decision-making 28.1.11 Lecture Theatre E	The legal requirements for consultation, normal practice, consultation methods, benefits and pitfalls. How does the planning process work with respect to EIA, how is the ES reviewed and how decisions are made and communicated.	Andrew Walters (Enviros)
4.	EIA project management 4.2.11 Lecture Theatre E	The role of an EIA project manager and team, how EIAs are costed and managed. Issues and pitfalls of EIA.	Rebecca McLean and Caroline Coletto (Enviros)
5.	Baseline data, environmental studies and impact prediction – air quality and noise 11.2.11 Lecture Theatre G	Using specific project examples and case studies, this session would review what secondary baseline data is available, how to collect primary data, how to predict future baselines and assess impacts and decide if those impacts are significant.	Rabecca McLean and Emma Keon (Enviros)
6.	Baseline data, environmental studies and impact prediction – Landscape and visual and carbon stores 18.2.11 Lecture Theatre G	Using specific project examples and case studies, this session would review what secondary baseline data is available, how to collect primary data, how to predict future baselines and assess impacts and decide if those impacts are significant.	Peter Dunmow and Clare Wharmby (Enviros)
7.	Strategic Environmental Assessment 25.2.11 Lecture Theatre E	How SEA is used by agencies in decision-making.	Gareth Fenney SEA Technical Officer, Scottish Government
8.	Social and Economic Impact Assessment 4.3.11 Lecture Theatre G	Overview of the methods used to assess the social and economic impacts of projects, such as employment and income. Case study based on Lewis wind farm proposal	Fiona Borthwick (SAC)
9.	The role of planning authorities 11.3.11 Lecture Theatre G	The process of application assessment at Council level and links to strategic environmental assessment.	Janice Kay, (Dumfries and Galloway Council)
10.	Student presentations 18.3.11 Lecture Theatre G		SAC & Enviros
11.	Student presentations 25.3.11 Lecture Theatre G		SAC & Enviros

Introduction

This assignment accounts for 100% of the final assessment of the course. The complete assignment should be submitted electronically via WebCT by 16:00 on 25 March 2011.

The aim of this assessment is for you to apply some of the knowledge that you have been developing throughout this course. It also allows you to look in more depth at the kinds of project that really interest you. In order to start this assessment; you need to choose a project type to focus on. The types of projects that have been used in the past for this assessment include a renewable energy, roads, airport expansion, nuclear power, gas and oil pipelines, pig farms, local authority composting schemes, etc. You can choose any type or scale of project that might require an EIA. It can also be sited in any country allowing you to gain more familiarity about the EIA legislation and procedures in different countries.

World limit: 2,500 (including text in diagrams and tables).

Instructions

You will need to start of by thinking about what type of project you are interested in looking at in more depth. Once you have found a project type that you are interested in, you will need to decide on a site for the project. This may be a site that you are familiar with or one for there is existing environmental information. It might be a good idea to do some research looking for projects that have been proposed at the site and what makes it sensitive to development.

You must not present information from an existing EIA. Therefore you should either:

• Apply an new project to an existing site; or

• Use a completely new project and a new site.

You will need to think about scale, location and surroundings. It might be helpful to sketch maps and think about what infrastructure will be needed and what is available.

Written Report (80%)

1)   A description of the project – what is it for, what will be the project actions?

2)   Describe the relevant EIA legislation in terms of its sources and implementation for the country in which your project is based.

3)   Outline the stages of the EIA process; and indicate who the main actors are and how, and at what stages, they would be involved. This may be done either in writing or as a diagram.

4)   Maps and explanations of the location of the project. These should include 'sensitive' surrounding environments.

5)   Undertake a brief scoping exercise to determine the most significant impacts – you can use any of the methods described in class, other sources or devise your own.

6)   Choose one environmental area where there is likely to be a significant impact – e.g. for a waste incinerator, this could be air quality or for a windfarm, this could be landscape.

7)   Explain what legislation covers this particular area (for example water or air quality legislation).

8)   Discuss the baseline data that is available and what gaps there are. Also describe the techniques that could be used to collect baseline data.

9)   Discuss possible mitigation, monitoring and management measures for the significant impact.

This is a demanding task to complete in terms of both the word allocation and the time limit. Try to be succinct and make use of tables and diagrams where possible. The assignment should be in a report style, with well defined sections, rather than an essay. A resource box with examples of EIA reports is located in the SAC library for reference, many recent EIA's can also be accessed online. All literature cited and any other materials used (maps, diagrams, pictures etc.) must be fully referenced.

Poster/presentation– (worth 20%)

Produce a poster illustrating the main results of your written report (Project Details, Scoping Exercise, Baseline Data, and Mitigation Measures). Your poster should be aimed at informing a public consultation exercise over the EIA for your chosen project. The poster need only be submitted in electronic form (by email or on disc), detailed instructions will be given for submission in due course. You do not need to print the poster.

Your completed posters will be assessed during a brief (max. 5 minutes) presentation of the poster to rest of the class. The poster will be projected onto a lecture room screen, so all text and diagrams should be clear and large enough to read from a distance. The poster and presentation will be assessed using the following, equally weighted, criteria:

- Description of the project and project site

- Scoping exercise and baseline information for the significant impacts

- Prediction methods and mitigation methods for significant impacts

- Clarity and structure of the poster

The poster can be created by using PowerPoint. To ensure that you have enough space to provide a summary of your findings the paper size should be set to A1 (Width: 84.1cm; Height: 59.4cm). The drawing tools in PowerPoint can be used to insert boxes or other shapes that display text, maps, diagrams and tables. Different boxes (shapes) can define the different