Masters Programmes in Sustainable Development Planning & Management & in Environmental Management

Module: Development Planning & Environmental Analysis

19 – 24 July 2010

Location: Sustainability Institute, Lynedoch hamlet

Contact details of Module Leaders for academic queries

Ms Anneke Muller
School of Public Management and Planning
University of Stellenbosch
Office/ Kantoor tel : 021 - 808-2149
Office/ Kantoor fax : 021- 808-2085
Home/ Huis tel & fax : 021 - 887-1944
Cell phone/ Selfoon : 083-520 4094
E-mail /e-pos: jimuller@sun.ac.za
A I Perold gebou / building, Room/ Kantoor 1022,
Between Neelsie Student Centre and JSG Library

Mr Henri Fortuin
CSIR, Stellenbosch
South Africa
Office/ Kantoor tel : 021 - 888 2412
hfortuin@csir.co.za

Internal Moderator/ External moderator:
Prof Mark Swilling, SOPMP / Mr Kenneth Newman, CPUT

Address for assignments:	Individual Assignments to be submitted through WebCT and Turnitin (http://webct.sun.ac.za)
Administrative queries:	Ms Thembisa Dodo tdodo@sun.ac.za School of Public Management and Planning Private Bag X1 Matieland Stellenbosch 7602 South Africa
Websites:	www.sopmp.sun.ac.za www.sustainabilityinstitute.net

Introduction

The aim of the module is to provide participants with an overview of basic concepts and insights into various types of analyses undertaken by planners and environmental managers, and the application of analysis to development planning and environmental management problems generally, with an emphasis on a sustainability perspective.

The background reading for this module include readings on Integrated Environmental Management (IEM), screening, scoping, specialist studies as part of Environmental Impact Assessments (EIAs), Impact significance, Environmental Management Plans (EMPs) and Frameworks (EMFs) and Strategic Environmental Assessments (SEAs); as well as readings on poverty assessments; demographics, social and economic analysis, as well as on sustainability indicators.

The following broad themes will be dealt with in the module:

2.1 Introduction to Analysis and relevant concepts
2.2 Social, demographic, poverty & economic analyses
2.3 Sustainability Appraisals and indicators
2.4 Integrated Environmental Management, Strategic Environmental Assessment (SEA), Environmental Management Frameworks (EMFs), Environmental Management Plans (EMPs) & Environmental Impact Analysis (EIA)
2.5 Introduction to the Logical Framework Approach (LFA)
2.6 Overview of technical skills, such as the extraction and processing of South African census data, population forecasting and socio-economic analysis, relevant in developing a socio-economic profile of a town or region

Although this is not a statistics module, nor is it a requirement to have knowledge of statistics, in order to attend the module; some basic statistic analyses will be referred to during the module. In order to write research reports and for future work as development planners or environmental managers, it is highly recommended that you are computer literate and proficient in the use of Microsoft Word and Microsoft Excel. In addition, knowledge of a statistical programme such as Statistica or SPSS will also be very useful for future research and report writing endeavours.

Syllabus

The above material will be presented during lectures and discussions over the period 19 to 24 July 2009. The module is divided into **three** parts that all relate to and depend on each other.

Part 1 consists of **pre-reading and self-managed work time** (approximately 40h in total is required) for reading before, after and during and writing up of a written assignment and journal after the module. All teaching will be conducted on the assumption that the required pre-readings have been done. **There is not much point wasting everyone's time by doing the module without having done the pre-readings**.

Part 2 consists of approximately 50h of **classroom work**, which will include attending lectures, class discussions and various **short class assignments** and a **group assignment.**

Part 3 is the **individual, written assignment (parts 1 & 2)** and **journal (parts 3 & 4),** which have to be submitted by the deadline of **4 October 2010**.

Readings

The readings for the module can be categorized as follows:

- Required **pre-readings in Core Reader**– these daily readings are required of all students before they attend the module in order to prepare them for participation and to form the basis of whatever themes are chosen for individual assignments
- **Prescribed readings** per theme – these are compulsory readings per theme in order to write assignments
- **Recommended supplementary readings** – these readings are not required, but highly recommended for students that want to do additional readings in order to write assignments and theses
- **Background Readings** – these readings are there as background and for future reference

All of the pre-reading and prescribed readings are contained in the module reader/ course pack. Additional readings that can be used for the class, group and individual written assignments will be provided on CD's.

☺ - Indicates that Readings are available electronically (on CD)

There are no books recommended for buying.

In addition to the Reader and CD's, the following additional supplementary readings are suggested:

- Readers of other modules, such as Sustainable Development; Sustainable Cities, Ecological Design; Development Planning Theory & Practice ; Development Planning Systems, Law & Policy; Research Workshop, Environmental ethics, Environmental Economics, Environmental Management, etc.
- Internet
- JS Gericke library & electronic journals (e-journals)

Learning outcomes

By the end of the module, course participants should:

- have a greater understanding of various concepts relevant to development planning and environmental analysis and the role of analysis in knowledge-building, science and research, policy-making and implementation for sustainability (the science – policy- implementation interface)
- have a greater understanding of the context of science, research and analyses, namely complexity, uncertainty, diversity, the political nature of knowledge
- have been introduced to various poverty, social, economic and environmental analyses
- have some knowledge of the interface between the natural and the human environment (social-ecological systems)
- be able to do certain analyses of the natural environment, and be aware when to call in specialists for other more advanced studies

- be familiar with methods for determining environmental impacts
- have been introduced to the field of Monitoring and Evaluation and a variety of sustainability indicators, for example theories about the ecological footprint of a city
- have been introduced to available census data, and be aware how census data can be extracted with SuperCROSS and how this data can be processed into useful information (socio-economic indicators), using Microsoft Excel and Word
- know how to interpret and represent the socio- economic characteristics of communities in the form of a town or regional profile

Assessment

The different evaluation opportunities of this module will count towards the final mark as follows:

1. Class attendance & Class assignments 10%
   The class attendance mark will be determined by evidence of preparation, prior reading, daily attendance, participation in discussions, class assignments and grasp & content of material.
2. Group assignment on Saturday 25%
   Marks to be given according to evaluation schedule in Info Manual handed out at beginning of the year & on CD handed out in class under Writing Skills/ Group Work).
3. Part 1of the Individual written assignment: Literature review 25%
4. Part 2 of the Individual written assignment: Application/case study 25%
   Marks to be given according to evaluation schedule in Info Manual handed out at beginning of the year & on CD handed out in class under Writing Skills/Dept Policy)
5. Journal (Part 3 & 4) 15%
   Marks to be given according to evaluation schedule handed out in Info Manual at beginning of the year & on CD handed out in class under Writing Skills/Journal)

For more information regarding these assignments, see below.

Group & Class Assignments

The group and class assignments will be handed out in class. The themes around which these assignments will be based, are as follows:

- Environmental Impact Assessments
- Strategic Environmental Assessments
- Sustainability (integrated) appraisals and indicators

Individual Written Assignment

SUBMISSION DATE: 4 October 2010

The **individual written assignment** (parts 1 and 2 together) should be approximately 7,000 to 8,000 words in total (15-25 A4 size pages, 1.5 line spacing, 12 pt lettertype).

The topic of this assignment is as follows:

What role can or should one (or more) of the following concept(s)/tool(s) play in promoting sustainability in South Africa (or another developing country)?

- **IEM, EIAs, EMFs, EMPs and/or SEAs**
- **Sustainability Appraisals and/ or Sustainability Indicators**
- **Poverty and Social Impact assessments**

In addition, the following tools/ concepts may also be chosen after discussion with the course coordinator, if you already have some knowledge of these themes, or they are related to your thesis (additional readings not in the reader might be required):

- **Participatory analysis – Participatory Rural Appraisal (PRA); Participatory monitoring and appraisal, Participatory Action Research (PAR)**
- **Cost- benefit analysis and multi-criteria analyses**
- **Life cycle analysis**
- **Logical Framework (Logframe) Analysis (LFA) and/or Outcome mapping**
- **Another relevant issue with readings included or listed in the Reader**

The topic of this paper requires that in Part 1 (the literature review) you firstly shortly define and critically discuss the concept of sustainability. Then you need to define and discuss each of the chosen tools/concepts (or combination of tools) and develop a theoretical base for the assessment thereof in Part 2.

Subthemes in this section of the paper could include any of the following:

- **the role of science and objectivity/subjectivity and power in analysis and planning,**
- **dealing with uncertainty (precautionary principle) and complexity;**
- **formality versus informality;**
- **technical rationality versus communicative rationality;**
- **scientific forecasting versus forecasting by scientists;**
- **environmental policy integration;**
- **strategic versus project-based planning & analyses;**
- **specialist studies;**
- **determination of significance; cumulative impacts; the consideration of alternatives;**
- **adaptation, mitigation and monitoring, etc.**

In part 2 (the application) you will then use the theoretical base you developed to critically assess the role the chosen concept(s)/ tool(s) are presently playing or could possibly play in the future in promoting sustainability in South Africa or in your own country. In this part you may also refer to case studies, examples or even assess the present legislation to illustrate your views. In the South African context you could also look at the role these assessments and indicators could play in helping Integrated Development Plans (IDP) and Spatial Development Frameworks (or another similar planning tool in your country) to lead to the development of more sustainable cities, towns and rural areas.

According to the guidelines, the individual written assignment must consist of 2 parts, namely:

> Part 1 – A literature review
>
> Part 2 – An application/case study of the literature to a problem (or tool, such as in the above assignment)

Please note that although Part 1 of the Assignment and Part 2 of the Assignment will be evaluated as discreet pieces and allocated separate marks in accordance with University policy, we will regard Part 1 and Part 2 of the Assignment as two Parts of a unified whole, i.e. the core argument or 'golden thread' that holds the whole thing together (which is so important at honours or masters level) must, in a logical way, permeate and follow through both Parts 1 and 2. It will not be acceptable to simply submit an Assignment which is not clearly separable into a Part 1 and a Part 2. You must make it clear where Part 1 begins and ends, and where Part 2 begins.

Part 1 of the Assignment (the literature review) should cover a core set of themes in accordance with a central argument ('golden thread'). This section, however, must be much more than a set of summaries of different readings. For those you who are confused about what a literature review means as opposed to a set of summaries, you are referred to one of the following papers available on the CD:

> Fainstein, Susan S (2001) Competitiveness, Cohesion and Governance: A Review of the Literature; Rutgers University, New Brunswick, NJ, USA, September 2001 (On CD)
>
> Pezzoli, Keith (1996) Sustainable Development: A Transdisciplinary Overview of the Literature; Paper presented at the Joint International Congress of the Association of Collegiate Schools of Planning (ACSP) and the Association of the European Schools of Planning, July 25-28, 1996 in Toronto, Canada (Note: A revised final version of this paper was published in the Journal of Environmental Planning and Management, Vol. 40, No. 5, September 1997) (On CD)
>
> Swilling, Mark (2004) Rethinking the Sustainability of the South African City; Development Update Vol 5 no 1, 215 – 242 (On CD)

The paper by Mark Swilling (on CD) starts with what is called a 'literature review'. In other words, Mark selected a body of readings and then formulated an opinion which is essentially that the South African urban studies literature has ignored sustainability. He stated this opinion and then proceeded to give evidence from the literature to substantiate his opinion – this is what constitutes his argument, i.e. the 'golden thread'. An argument is essentially an opinion that is fully substantiated either by reference to the literature or empirical evidence or a mixture of both, and usually qualified at the end by a statement that either admits that future research is required to strengthen the argument, and/or that evidence might exist that you don't know about that could fundamentally challenge your argument. One way of developing an argument is to read the literature on your relevant chosen subject and if you find a statement you strongly agree or disagree with, use that to build your argument on. This argument must then be woven throughout your paper, from the introduction to the conclusion.

Part 2 of the Assignment: the application of the argument to the particular chosen concept or tool. Here you will take the core argument you have developed in Part 1 (around what sustainability is and how it can be promoted through your chosen concept) and apply it to the concept /tool/ context (country) you have selected.

The purpose of the individual written assignment is for the participant to synthesise in written form new knowledge and experience derived from readings, lectures, classroom work and the group project. This assignment must display a sound grasp of the course material and its applicability to South African circumstances (or that of your own country). It is essential that the written assignment be more than just the summary of the readings. It must demonstrate that you have something specific to say (an argument), and that you

have said it clearly and logically. The following criteria will be used to assess each assignment:

- Has a significant body of literature been read and understood?
- Is there a coherent and logical argument ('the golden thread')?
- Is there an introduction and conclusion that introduces at the start and ties up at the end what the essay is about?
- Has the writer brought herself/ himself into the story?
- Is the mode of expression acceptable, with special reference to grammar, spelling, punctuation and syntax?
- Has the work been presented in accordance with the requirements, i.e.
  Submitted in an electronic format via Turnitin on WebCT (please note the size limit of approximately 1 MB and do not include large Annexures, photos, figures, etc)
  Properly referenced (see Plagiarism Policy and Guidelines on how to write assignments on the CD)
  Cover page with title, name, student number and number of words (use word count under Tools in Ms Word to count the words)

Journal

Please note that the Journal counts for 15% of the marks, so please do not neglect this section!

The **journal** should be submitted together with the individual written assignment and must also include two parts, namely:

Part 3, which must contain at least 6 to 8 (about 4 pages) of short summaries (at least 8 - 10 lines per reading), capturing the essence of the readings you have done, together with an indication of your reflections on how the article/ book has added to your knowledge and the links you can make between the relevant article and other readings or knowledge you have. You can also add mind-maps and diagrams (which you scan draw and then scan in) for extra marks.

Part 4, which are for any personal reflections on your learning experiences that you would like to write about, in particular experiences in practical group situations and during the week's formal teaching sessions. See the guidelines to help with the writing of a Journal on the CD (the file named '3ARdiary' on How to keep a research diary, or the paper named "Writing a Journal" on "Keeping a learning or research journal", under Writing Skills/ Journal).

General

The following general comments may be relevant:

- The dress style at the Institute is strictly informal at all times, and no formal dress will be required for any functions, meals or outings.
- Community work will be done in the mornings before class.
- All teaching and discussion will be conducted in English, but assignments can be written either in English or Afrikaans.
- There is a small library at the Institute that contains a limited collection of books for overnight use. Copies of most of the supplementary readings are available from the course convenor to be copied

yourself. However, all registered University students also have access to all the libraries at the University of Stellenbosch (which includes e-journals, which are accessible anywhere on the university network).

- Everyone is encouraged to bring laptop computers with them if they have them. Telephone access and fast and efficient online access to the web will be available at the Institute (in some places wireless access is possible)
- Meals and accommodation are available on site at the Sustainability Institute, Lynedoch (in the Guest House). Lunch-time meals and teas during the course are also provided for an additional charge (not included in the course fee).

12 April 2010