

**Terms of reference for “geographic modelling support”
(Support person to the Independent multi-stakeholder forest sector review)**

Background

The **Joint Coordinating Committee** of the Royal Government of Cambodia (RGC) and the Working Group on Natural Resource Management (WGNRM) are carrying out an Independent Forest Sector Review as part of (a) the National Forest Programme (NFP) Process and (b) as input into the next CG meeting schedule for February 2004.

Following two scoping visits by the Team leader, a review team consisting of independent consultants has been recruited to undertake this review. As well as the activities of the review team, there are other on-going activities which will feed into the review. Additional activities may be identified which may continue beyond the period of the initial immediate stage.

The immediate part of the review consists of two phases:

- the fact-finding phase will start in October 2003 and aim to complete by end of November 2003;
- the analysis and scenario-building phase will follow on from the fact-finding phase with an aim of producing a report by end of January 2004.

The review team will engage with all the stakeholders in Cambodia, in order to both (a) listen and understand different perspectives and (b) develop ideas and frameworks on which to base the review outputs. However, the output of the team will remain independent of all stakeholders and the final assessments, judgements and recommendations will be the professional judgment of the team.

In order to fulfil this undertaking, the team requires the services of a GIS expert/technician to develop a geographic model of the forest resources in Cambodia, which can support, analyse and present the outputs of the review team.

Outputs and activities

The purpose of the geographic map is to support the analytical and scenario-building phase, by allowing the team to describe the effects of different scenarios; to simulate the outcome of different assumptions, to analyse their likely impacts and to present the results, geographically. The scenarios under consideration will be based on natural, social, economic and institutional assumptions. The focus and, therefore, the output of the review will be strategic rather than managerial in nature.

During the fact-finding phase, the GIS expert will construct a conceptual/model map of the forest resources in Cambodia for use during the subsequent analytical phase. The map will relate to issues arising during the review, including geographically presenting:

- a) the location, extent and quality of the main eco-systems, forest types and land uses within, and near to, the forest area;
- b) the location, extent and quality of existing or expected priority ecological and environmentally sensitive areas;
- c) the location, extent and 'reach' of different forest dependent activities according to livelihood impacts;
- d) the reach of different trends and pressures (both biological and socio-economic) on the forest and land resources;
- e) the location, extent and 'reach' of different forest management systems and practices currently affecting the forest resources;

Given the strategic nature of the review, the data required to create the model/map can be constructed from data of varying precision. Therefore, there is no need to link the model to any particular datasets, many of which are contested. The team will determine the model parameters, at a strategic level of accuracy, based on their own observations and field work as well as an assessment of other studies.

The model will need to be constructed so as to meet the requirements of the analytical phase. Since the scenarios will be based on social, economic and institutional as well as biological factors, the GIS expert will work closely with all other members of the team.

During the analytical phase, the team will develop scenarios. Each scenario will describe the current situation, describe the assumptions underlying the scenario and set out the likelihood impact of the scenario on different stakeholders, and identify gainers and losers.

The GIS specialist will use the model to support the work of the review team in describing, simulating, analysing and presenting the results of each scenario. As a result, an ability to think conceptually, to work as part of a team, as well as skills in the manipulation of the model/map and use of the software are essential.

The GIS specialist will be required:

- (a) to overlap with the Natural Resource Specialist (14 days);
- (b) to develop the model (10 days);
- (c) to work with the team during the analytical phase (14 days),
and
- (d) to assist with the presentation and preparation of the final report (10 days).

