

**Terms of Reference**  
**for**  
**A Consultant to realise a Socio-economic analysis of climate variability and change impacts in Tunisian coastal zones**

**Project: Integration of Climatic Variability and Change into Coastal Plans and National ICZM Strategies**

**Component 2: Strengthening the knowledge base on regional climate variability and change**

**BACKGROUND**

As part of the project "Integration of climate variability and change (CV&C) into national strategies to implement the ICZM Protocol in the Mediterranean" (the ClimVar & ICZM project) implemented by the United Nations Environment Programme (UNEP), the Priority Actions Programme Regional Activity Centre (PAP/RAC) co-ordinates the implementation of the DIVA model in Tunisia. Within the ClimVar & ICZM project, this model is being implemented by the Global Climate Forum and the University of Kiel. In Tunisia, this activity is conducted in close collaboration with the Focal Point to the project, Mr. Adel Abdouli, Director of the Coastal Observatory of the Coastal Planning and Protection Agency (APAL).

To date, the preliminary results of DIVA-Tunisia were presented. These results have been constructed only from data available online. Currently, the DIVA team works on the basis of new information provided by the Tunisian counterpart to refine these initial results. To capitalize on the results of DIVA-Tunisia and to prepare a study of the socio-economic impacts of change and more detailed climate variability, we want to push this co-operation further by hiring an external expert.

**OBJECTIVES**

The purpose of this new co-operation is to evaluate the socio-economic impacts of CV&C on coastal zones more precisely, deepening the study to the evaluation of impacts on specific economic sectors (tourism, agriculture, etc.). The study will be undertaken on the Tunisian coastal areas. The expert will seek to adapt to Tunisia the evaluation method of the socio-economic impacts of climate change implemented within the ClimVar and ICZM project in the Buna-Bojana area.

The goal of this study is to get to analyze the provided data and especially to value these data by presenting the results of this analysis in a form appropriate to stimulate discussion and debate. The target audience for this work will be composed of representatives of institutions and agencies in charge of planning the development of the Tunisian coast. In addition, the results of this exercise should be presented during one single event, parallel to the DIVA Tunisia modelling results.

**EXPECTED DATA**

The socio-economic evaluation to be prepared by the expert will be done in close co-operation with a Tunisian expert. The Tunisian expert will provide scientific, technical and communication support to facilitate the expert to run the analysis. The data research and collection will be presented by the expert in a report which can be written in French; nevertheless, the Tunisian expert should have good understanding of both written and spoken English to facilitate communication.

The Tunisian expert will be selected by the Focal Point of the ClimVar & ICZM project in Tunisia, Mr. Abdouli, under the approval of PAP/RAC. The ClimVar Focal Point will provide assistance to the expert to contact the relevant institutions to access data and information. The Tunisian expert's mission will be primarily to collect, edit and transfer the following data:

***The data wish list is presented in French as it will be provided to the Tunisian expert:***

Données demandées pour l'étude des impacts socio-économiques de la variation et des changements climatiques sur les côtes de Tunisie :

#### ***DONNEES CLIMATIQUES GENERALES***

- 1. La température actuelle et précipitations par région.*
- 2. La fréquence actuelle des événements extrêmes (sécheresses, les inondations, les tempêtes) par région.*
- 3. Les projections des changements de la température et des précipitations par région selon différents scénarios climatiques.*
- 4. Les changements prévus dans la fréquence des événements extrêmes (sécheresses, inondations, les tempêtes) par région selon différents scénarios climatiques.*

#### ***AGRICULTURE***

- 1. Les cultures (hectares et la production par culture et par région au cours des dernières années).*
- 2. Terres consacrées aux pâturages (hectares) et le nombre d'animaux.*
- 3. Prix des principales cultures et des animaux dans le pays.*
- 4. Marges des agriculteurs (revenus moins les coûts) pour les cultures et les animaux dans le pays.*
- 5. Exportations de cultures principales et produits de l'élevage au cours des dernières années.*
- 6. Toutes les données disponibles sur les marges brutes (c.a.d. les revenus reçus moins les coûts des intrants, y compris la main-d'œuvre) présentant des différences entre les activités et les régions agricoles.*
- 7. Les études sur l'impact sur la production agricole de la sécheresse et des inondations événements passés.*
- 8. Les cultures et les projections de l'élevage pour les zones relevant de l'utilisation des terres agricoles différente.*

#### ***SANTE HUMAINE***

- 1. Les taux de mortalité de base pour les municipalités côtières dans le pays.*
- 2. Décès dus à la salmonelle pour les municipalités côtières dans le pays (si disponible).*
- 3. Toutes les données sur la mortalité liée aux vagues de froid et de chaleur seraient des plus utiles.*

#### ***EVENEMENTS EXTREMES***

- 1. Les estimations des pertes économiques dues aux récents événements extrêmes par type d'événement et la nature de l'évaluation.*

#### ***TOURISME***

- 1. Nombre de visiteurs et nuitées par région côtière ou localité au cours des dernières années, idéalement par mois.*
- 2. Montant des dépenses par touristes dans les différentes localités au cours des dernières années. Toute estimation des dépenses quotidiennes moyennes des touristes seraient très utiles.*
- 3. Les données sur le nombre de touristes et leurs dépenses selon les activités touristiques clés (par exemple le tourisme nautique, la visite de sites historiques, parcs nationaux, etc.).*

#### ***PECHES***

- 1. Les poissons capturés en tonnes par espèce débarquée en Tunisie au cours des dernières années.*
- 2. Valeur des captures par espèce débarquée en Tunisie au cours des dernières années.*

## FORETS

1. *Superficie des forêts par région.*
2. *Fréquence des incendies forestiers et des pertes de couverture forestière.*
3. *Les estimations de coûts / pertes économiques dues aux incendies.*

## FUTURS DES SECTEURS

- *documents clés de la politique sur la stratégie future pour les secteurs mentionnés ci-dessus (agriculture, tourisme, forêt, etc.) en Tunisie. En particulier, notez les objectifs quantitatifs ou des projections de la croissance dans les secteurs.*
- *Identifier les tendances démographiques et de développement pertinents pour l'avenir du secteur (par exemple, changement des usages des terres « land use change »).*

## IMPACTS DES CHANGEMENTS CLIMATIQUES ET L'ADAPTATION

- *Etudes existantes clés sur les impacts du changement climatique sur les secteurs ci-dessus en Tunisie.*
- *Tous les documents de politique et d'études sur les options d'adaptation à l'étude pour les secteurs en Tunisie.*

## OUTPUTS AND INTERMEDIARY ACTIVITIES

On the basis of the report provided by the Tunisian expert, the PAP/RAC expert will provide a detailed feedback, commenting the progress done in terms of data collection, the quality of the data, and the need for further researches, explanations or clarifications.

Following this first input from the Tunisian expert, the PAP/RAC expert will closely follow the delivery of further needed data and information, being if needed in direct contact with the Tunisian expert.

During the duration of the activity, PAP/RAC will be provided assistance to facilitate exchange and guarantee the partners meet the contracting expectations and respect the deadlines.

The primary results of the socio-economic analysis will be forwarded to the project partners directly involved for comments and then the final results will be produced and presented at a Regional Conference.

The PAP/RAC expert will provide the following reports:

- A detailed written feedback on the Tunisian expert's report with expected data and information (Direct communication with the Tunisian expert is expected, if needed);
- A draft report with first results and a detailed report on the methodology applied for the socio-economic evaluation of CV&C impacts on key economic sectors;
- A final report and presentation at a regional Conference.

## TIME PERIOD

1. Feedback on data and information provided by the Tunisian expert: *April 2015*;
2. A draft report with first results: *end of May 2015*;
3. A final report and presentation at a regional Conference: *mid-June 2015*.

## BREACH OF CONTRACT

In the case of early termination of the contract at the consultant's initiative, the PAP/RAC reserves the right to review the justification of fees paid in the light of the work actually handed over. The same shall apply if the work handed over after the deadline is deemed to be unusable and/or unacceptable by PAP/RAC (particularly if not conform to the Terms of Reference). In this particular case, PAP/RAC reserves the right to terminate the contract, taking into account the consultant's comments, if the information and data provided by the Tunisian partner does not allow the continuation of the activity. This deadline can be postponed with written common agreement between the parties. Without any agreement to defer the delivery of the final report, the mentioned date being passed, the PAP/RAC will have the right to break the present contract with the following conditions:

- The PAP/RAC will give notice of its decision by registered letter with acknowledgment of receipt;
- The amounts paid to the Consultant as down payments and intermediate payments will remain his vested interests;
- The payment of any other due sum regarding the present contract will be cancelled;
- The intermediate results of the Consultant works will remain the property of the PAP/RAC that can freely make use of them.

## QUALIFICATIONS

The Consultant should have the following educational and professional qualifications:

- Senior professional level with a minimum of five years experience in Coastal Science and Technology;
- Recognised degree (MSc or PhD) in Coastal Planning and Management with particular reference to Climate change and adaptation;
- Ability to analyse issues and information and prepare documents on key ideas;
- Strong research skills, combined with superior communication and interpersonal skills;
- Strong English skills, both in written and oral format;
- Good understanding of French, both in written and oral format, would be an advantage.

## FINANCIAL TERMS

The remuneration of the Consultant for this work is set at 15,000 USD that shall be paid in accordance with the following terms:

- A payment of 3,000 USD to the expert on receipt of the detailed comments on the data and information provided by the Tunisian expert;
- A payment of 8,000 USD to the expert on receipt of the draft results of the analysis;
- The balance, 4,000 USD to the expert on receipt of the final results of the analysis and the delivery of the results at a Regional Conference.

<b>Partner</b>	<b>Output</b>	<b>Deadline</b>	<b>Payment</b>
PAP/RAC expert	A detailed written feedback on data and information provided by the Tunisian expert	April 2015	3,000 USD
PAP/RAC expert	Draft results Report (socio-economic analysis)	End of May 2015	8,000 USD
PAP/RAC expert	Final results Report	Mid-June	4,000 USD

	(socio-economic analysis) & and final Regional conference on socio-economic analysis within ClimVar & ICZM project to be held		
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