



ToR for Senior NKE

Title of ToR: IT infrastructures, database design and software development expert

1. Background

A Particip GmbH led Consortium has been contracted to implement the project “Supporting the reforms in Forestry in North Macedonia”, NEAR/SKP/2022/EA-RP/0036.

The overall objective of this action is to facilitate the implementation of EU related strategies, policies and acquis in order to boost sustainable development of the Forestry sector in the country. Furthermore, the project is to support the efficient and effective use of available assistance under IPA II 2019 Action programme - EU supports Rural Development and Competitive Sustainable Agriculture.

The specific objectives of the contract are to provide assistance to Ministry of Agriculture, Forestry and Water Economy (MAFWE) to progress in the reforms in the forestry sector including strategic, legal, institutional and entrepreneurial frameworks, as well as development of informational and other tools for sustainable forest management.

Altogether, Key and Non-Key Experts (NKEs) serve the purposes of this project set as follows:

- Component 1: Drafts of the two specific forestry legislation (Forest Agency Law and Forest Company Law), drafts of a number of the secondary forest legislation (rulebooks), drafts of two Governmental regulations, draft of the forest-related IPARD III programme component with the guidelines for applicants, concept and results of monitoring the implementation of the adopted strategic and legal framework documents; recommendations for improvement of the adopted strategic and legal framework.
- Component 2: Developed technical and economic backgrounds and strategic plans for establishing the Forest Agency and restructuring and transformation of Public Enterprise “Nacionalni Shumi” (PENF) (into state-owned company of limited liability) and build technical capacities of the forestry professionals of the existent and new forestry institutions / organisations.
- Component 3: Upgraded existent forest information systems and databases, introduced and adapted certain new databases and established a (web-based) Integrated Forest Information system (IFIS), and built technical capacities for its use - as a precondition for efficient management with forests and prevention of illegal harvesting.
- Component 4: Developed inventory (National Forest Inventory at pilot level) and planning instruments (Plan for Sustainable Development of Forests), developed methodologies for forest management planning and for mapping of forest functions, developed guidelines for sustainable and close-to-nature forest management, improved tools for prevention of forest damages, developed concept and criteria for forest biodiversity conservation; sustainability of forest management assessed through forest certification and a multi-site certificate for the selected (best) state forest management units under Public Enterprise National Forests issued.

2. Objective and purpose of the short-term mission

The overall objective of this assignment is to contribute to achievement of project planned results. The specific purpose of the SNKE – IT infrastructures, database design and software development expert is to assist KE1 and the Project Team, by contributing to the implementation of Activities III.1, III.2, III.3, III.4, III.5 under Component III.



3. Table of Activities/allocated WDs

Project Activity No.	NKE Activity Description	No. of WDs allocated
III.1	Assessment of current architecture and infrastructure of existing systems. Identification of needs and requirements of Integrated Forest Information system (IFIS).	8
III.2	Reviewing and commenting to the functional modules of IFIS based on international and European ISO standards and the IFIS architecture.	4
III.3	Reviewing the design and development of an overall Forest Management Information System.	4
III.4	Overseeing of the interconnection of current infrastructure with the newly developed and the training activities.	2
III.5	Provision of inputs to the contracted IT company for the development of the maintenance plan.	2
Total WDs allocated:		20

If relevant, the SNKE expert shall also perform other ad hoc tasks and activities relevant to his/her background, identified in the process of project implementation.

The expert will ensure that meetings are appropriately documented. He/she is expected to work closely with other project experts. All documentation/correspondence/presentations shall respect the EU visibility guidelines, as provided to the expert by Project Office.

4. Expected Outputs

1. a. Assessment report on the current architecture, infrastructure, operations and technologies of existing information systems;
b. Report on the needs and requirements for the proposed Integrated Forest Information system (IFIS);
2. Contribution to the development of IFIS¹;
3. Contribution to the development of maintenance plan¹.

5. Duration, sequence and location:

Indicated period of implementation: May 2023 – until the end of project implementation (included in the project contract and its addenda). The actual starting date will be after written approval issued by the Contracting Authority.

Duration: maximum 20 working days.

Location: Skopje (operational base of the Contract), and other parts (possible missions) of the Republic of North Macedonia.

6. Reporting

- a. Provide Time sheets related to her/his actual work performed;
- b. Provide inputs into the project reporting as requested by the Team Leader.

7. Expert profile

¹ The IFIS and the maintenance plan will be developed by the contracted IT company



The SNKE - expert is required for the job with the following qualifications and skills.

A. Qualifications and skills:

- Master degree in Computer Science, IT Engineering or any other relevant technical field or in its absence 4 years above the required general professional experience;
- Excellent command of English;
- Excellent communication skills;
- Good knowledge of programming languages.

B. General professional experience:

- At least 7 years of relevant professional experience in the field of Computer Science in EU member states and / or EU candidate countries.

C. Specific professional experience:

- At least 5 years of relevant professional experience in the IT area (software development, programming, audit of IT systems, IT security, etc.) in EU countries and in other countries in line with the relevant best practices;
- Experience in the development of Web GIS;
- Experience in IT systems setup for organisations and/or enterprises;
- Knowledge of the following Relational Database Management Systems is considered an asset: MS SQL, MySQL, Oracle DB and PostgreSQL;
- Knowledge of the national legislation, government and public administration will be an asset.

Civil servants and other staff of the public administration, of the partner country or of international/regional organisations based in the country, shall only be approved to work as experts if well justified. The justification shall include information on the added value the expert will bring as well as proof that the expert is seconded or on personal leave.

Experts must be independent and free from conflicts of interest in the responsibilities defined by the Terms of Reference.

8. Performance indicators

The indicators reflecting the STEs performance are: timely presentation of results and outputs, quality of documents and reports to be provided to the Team Leader, the Beneficiary and the Contracting Authority.

9. Evaluation of work

Performance of the task will be assessed by the KE1: Team Leader.