To

Mr. Jozhe Jovanovski

Str. Marshal Tito Str. No. 13/30

2304 Makeodnska Kamenica R. Macedonia

Date: 23.10.2017

**Subject: Letter of Invitation for Expert for Life Cycle Analysis, Project No. 2432: “Towards farms with zero carbon-, waste-, and water footprint. Roads for sustainable management strategies for Balkan agricultural sector – Balkan ROAD”**

Dear Mr. Jovanovski

Macedonian Organic Producers Federation, with its headquarters in Strumica is implementing the project “Towards farms with zero carbon-, waste-, and water footprint. Roads for sustainable management strategies for Balkan agricultural sector – Balkan ROAD ” co-financed by the Cooperation Programme “Interreg V-B Balkan-Mediterranean 2014-2020”.

To fulfill project goals, the project has a need for Expert of Life Cycle Analysis of the environmental performance of conventional and organic methods of open field pepper cultivation. The expert will apply the methodological approach to all stages of the products’ life (from cradle to grave) at the pilot area selected by MOPF in order to assess environmental impacts and alternative practices/processes that can improve them according to project’s priorities.

We would like to invite you to apply for Expert for LCA and provide brief description of the methodological approach. As Annex to this invitation, we are submitting you the Terms of Reference.

The sum foreseen for implementation of the activities is maximum 2.000EUR.

If you accept this invitation we would like to ask you to submit a letter of Acceptance with the proper documentation no later than 03.11.2017.

For any further question fell free to contact us at [BalkanROad@fpopm.com](mailto:BalkanROad@fpopm.com) .

Best regards,

Goran Angelovski

Project Coordinator

**TERMS OF REFERENCE (ToR)**

**FOR EXPERT FOR LIFE CYCLE ANALYSIS OF THE ENVIRONMENTAL PERFORMANCE OF CONVENTIONAL AND ORGANIC METHODS OF OPEN FIELD PEPPER CULTIVATION**

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| **Application Type** | Expert/ External Vacancy |
| **Job Title** | National Individual Consultancy |
| **Category** | Agro-environment |
| **Duty Station** | Not Applicable/ Home based with local travels |
| **Languages Required** | Fluent in writing and working in Macedonian and English |
| **Application deadline** | 04.11.2017 |
| **Type of contract** | Individual contract |
| **Expected starting date** | 15.11.2017 |
| **Duration of assignment / Overall duration** | At least 3 months |
| **Maximum budget** | 2.000 EUR |

1. **Project overview**

The project BalkanROARD targets to the sustainable management of soil, water, waste, air, energy and to the reduction of GHGs emissions from the Blakan agricultural sector though transnational cooperation and development and implementation of local, national and regional policies. The overall project objective is to promote technology in order to enhance the wide implementation of sustainable management strategies at farm level in terms of resources management and reduction of carbon, waste, and water footprint of Balkan agricultural products through dialogue between stakeholders and cooperation between all Balkan Med countries. He is also contributing to the development and implementation of strategies and tools to reduce the unreasonable use of resources at farm level that will be delivered as Common Balkan Protocol as well as Integration of the “Reduction, Reuse, Recycle” hierarchy at all levels of farming production lines, leading agriculture towards products with the lowest possible environmental impact and footprint.

The project BalkanROAD is developed and implemented by partners from five different countries (Greece, Macedonia, Albania, Bulgaria and Cuprys) which aim to react to the emergent needs of the

Balkan agricultural sector, improve the continuously degraded agricultural environment in terms of resources and waste management and boosting Balkan economy by producing low footprint agricultural products that will further be oriented to the European and international markets as environment friendly ones. The purpose of the project is to significantly contribute in changing farmers’ behavior as regards resources and waste management in Balkan agricultural sector.

1. **Objective and scope of the work** 
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Life Cycle Analysis (LCA) is a tool that can be used to evaluate the environmental load of a product throughout its life cycle and can assist to identify more sustainable options. It also provides much more reliable and comprehensive information to environmentally conscious policy makers, producers, and consumers in selecting sustainable products and production processes.

The purpose of the Life-Cycle Analysis for this project will be to evaluate and quantify the effect on the environment of the traditional and improved pepper cultivation methods over its entire life-cycle on a selected plot. This includes production of kapija red peppers in open field and plastic tunnels, with chickpeas and kidney beans in crop rotation. The location of the farming plots is in the vicinity of Village: Palikura, Municipality of Rosoman, coordinates Coordinates: 41°32'18.8"N 21°58'11.5"E. Total size: of the plot is 5,3 ha.

The production methods that need to be included in the LCA will include pepper production on open fields and in plastic tunnel, practiced in two systems. The first system includes conventional (traditional) production, practiced by most of the pepper producers. The second model includes change of production practices with an emphasis on improving the environmental sustainability of the production and is to be certified organic, thus following the criteria for organic certification.

 This means that to provide necessary data during the LCA, the expert must take into consideration all the steps that lead from raw material to manufactured product, including extraction of the materials, energy consumption, manufacture, transportation, use, recycling, and final disposal or end of life. It is a holistic methodology that quantifies how a product or process affects climate change, non-renewable resources, and the environment as a whole.

* 1. **Description of responsibilities**

The overall purpose of the consultancy services/ expertise is to gain information from the pilot farm selected by MOPF and provide proper inputs to evaluate environmental performance of conventional and organic methods of open field pepper cultivation.

**The aim of the analysis is to quantify and compare the environmental sustainability of typical conventional and organic pepper cultivation systems.**

The Life-Cycle Analysis will take into account what happens before and after the final product is used by customers, and can effectively measures effects over a long time of period.

The LCA study as part of this project will be developed for three states, FYROM, Greece and Bulgaria. Each country will provide its own input regarding the results gained from the pilot farms selected by the appropriate partner. The LCA Expert in Macedonia should provide input for alternative practices/processes that can be improved according to project’s priorities.

The Expert is responsible to collect data from all production stages (from cradle to grave) at the pilot area to assess environmental impacts and alternative practices/processes that can be improved according to project’s priorities. A common template/working sheet will be provided by one of the project partners.

For that purpose, the Expert is expected to:

* Review relevant documents (reports, measurements, strategic documents, studies. Assessments etc.) related with the selected product and the pilot area environment;
* Collect data and their assessment ( identify key factors from the product life-cycle and their impact over the environment);
* Conduct life-cycle analysis in the defined system boundaries;
* Apply impact assessment methodology;
* Cooperate with project partners and contribute to the development of the study template
* Provide all necessary information to the project partners in order to develop high quality and valued LCA analysis.

1. **Outputs / Expected deliverables**

* **Deliverable 1:** Deliver draft version of the LCA report based on the template provided by the project partner;
* **Deliverable 2**: Deliver final Life Cycle Analysis after discussion /validation of the LCA with the project partners.

1. **Expertise and qualifications**

The Expert for LCA analysis must comply with the following qualifications**:**

**Education**

* University degree in agriculture, environmental sciences or other university degree with adequate certification;

**Specific Experience**

* Minimum 5 years of professional experience in the field of agriculture, environmental engineering and economic sustainability of agricultural products;
* Knowledge in the process of production of conventional and organic pepper and its processing and distribution;
* Experience with implementation of agricultural products assessments at local, national and/or international levels;
* Experience with analysis in the area of agriculture;
* Knowledge of tools and methodologies required during the process of LCA.

**General Experience**

* Experience working with international organizations is preferred but not required;
* Experience with environmental and economic impact of agricultural products;
* Knowledge in different assessment methodologies.

**Language Requirements**

* Fluent knowledge of writing and speaking English is required.

**Other competencies**

* Ability to establish and maintain good working relations with colleagues in multicultural environments;
* Ability to learn and to adopt practices based on the partner requirements ( applying common LCA approach for all three countries);
* Good communication skills;
* Skills for report writing and reporting;
* Capability to appropriately handle issues designated during the review process;
* Capability to make an expert judgment.

1. **Duration of the contract**

The contract applies to the production and vegetation season of the peppers planted on the test plot.

1. **Payment modalities**

The consultant shall be paid the consultancy fee upon completion of the following payment schedule:

* 40% after completion, of the draft report (Deliverable 1);
* 60% after completion, submission and acceptance of the life-cycle comparative analysis, final report (Deliverable 2).

1. **Application procedure**

Interested candidates should send their application by e-mail or by post/ hand delivery to the following address:

**Contracting authority:** Macedonian Organic Producers Federation

**Address:** Mladinska Str. 46, 2400 Strumica, R.Makedonija

**E-mail**: [BalkanROAD@fpopm.com](mailto:BalkanROAD@fpopm.com)

**Contact person:** Goran Angelkovski, Project Coordinator

The application should contain the following:

* Personal CV, indicating education background/professional qualifications, all past experience, as well as the contact details (email and telephone number) of the candidate and at least three (3) professional references;
* Brief description of why the individual considers him/herself as the most suitable for the assignment, and a methodology, on how he/she will approach and complete the assignment;
* Financial Proposal that indicates the all-inclusive fixed total contract price, supported by a breakdown of costs.

The deadline for application is 04.11.2017, midnight. Only shortlisted applicants will be contacted. Note: Civil servants and other staff currently employed by public administrations of the beneficiary country (Macedonia) are not eligible to apply for this position.

1. **Evaluation and selection criteria**

The expert will be evaluated against a combination of technical and financial criteria (combined scoring method). The maximum score is 100%, of which technical criteria equals 70% and financial criteria equals 30%.

The **technical evaluation** will be based on the following criteria scored on 100 points and include the following:

* Educational Background: 10 points;
* Extensive expertise, knowledge, and international experience in field of agriculture, particularly of processing conventional and organic pepper: 25 points;
* Overall Methodology applied: 20 points;
* Demonstrated experience and practical knowledge in life-cycle analysis,: 40 points;
* Fluency in English: 5 points.

Only candidates with a score of at least 70 points out of the total of 100 will be considered for financial analysis. The financial evaluation will include the following:

* A financial proposal on the basis of a lump sum including (fees, travel expenses, daily allowances / per diems and the number of working days for the duration of the consultation);
* For a better appreciation of the proposed lump sum, the consultant should expend its lump sum indicating clearly the costs provided for fees, travel expenses and those assigned to daily / per diem allowances.

Offers, including technical documentation and financial offer, must be send in a sild envelope marked with **“Offer for Expert for Life Cycle Analysis”** and in the upper right corner **“** **Not to be opened before the offer opening session”.**

1. **Other Information**

For any additional information please write to [BalkanROAD@fpopm.com](mailto:BalkanROAD@fpopm.com) .