



**SERBIA ACCELERATING INNOVATION AND GROWTH
ENTREPRENEURSHIP (SAIGE) PROJECT**

Program PRISMA

**ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN
(ESMP)**

**Advancing sustainable solutions by developing insect-based
protein as new feed options (PRO-SUSTAIN)**

FINAL VERSION

Belgrade,
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ABBREVIATIONS AND ACRONYMS

AC - Agro Campus

ESMF - Environmental and Social Management Framework

ESMP - Environmental and Social Management Plan

ESS – World Bank's Environmental and Social Standard

H&S - Health and Safety

LE - Laboratory for quality control for feed and animal products

LF - Laboratory for entomology

SAIGE - Serbia Accelerating Innovation and Growth Entrepreneurship

SF- Science Fund

SRO – Scientific and Research Organization

PI – Principal Investigator

PIU - Project Implementation Unit

UNSFa - University of Novi Sad, Faculty of Agriculture

WP - work package

SUMMARY

This draft Environmental and Social Management Plan (ESMP) has been prepared for the PRISMA Program, funded by the Science Fund of the Republic of Serbia. The goal of the PRISMA Program is to support research projects based on excellent ideas that in the future may have a significant impact on the development of science and research, as well as society at large, and clearly stated motivation for research within the framework of modern trends in the development of science in the relevant scientific fields. The draft ESMP document for the project entitled Project "Advancing sustainable solutions by developing insect-based protein as new feed options" (hereinafter: PRO-SUSTAIN) was prepared in accordance with the Environmental and Social Management Framework (ESMF) for the SERBIA ACCELERATING INNOVATION AND GROWTH ENTREPRENEURSHIP (SAIGE) PROJECT.

The ESMP identifies measures and actions in accordance with the mitigation hierarchy that reduce potentially adverse environmental and social impacts to acceptable levels. Specifically, the ESMP: (i). identifies and summarizes all anticipated adverse environmental and social impacts (including those involving local communities); (ii). describes—with technical details—each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate.

PRO-SUSTAIN project places a strong emphasis on both mitigation and monitoring to effectively address potential environmental and social impacts. To mitigate these concerns, the project will implement a mitigation plan. It includes stringent waste management procedures for hazardous and non-hazardous solid waste, outlined in UNSFA documents, reducing the risk of environmental pollution. Similarly, chemical management adheres to ISO17025 standard, ensuring safe handling and disposal of chemicals, ultimately minimizing potential contamination. Safety is a priority, with established protocols for laboratory staff, encompassing personal protective equipment, fire protection measures, and risk assessments, all aimed at safeguarding the well-being of project personnel. Environmentally conscious practices, from the selection of energy-efficient and eco-friendly air conditioning devices to the sourcing of materials, such as trays and boxes, from renewable plastic sources will be employed. Rust-resistant shelves will be chosen to enhance safety in insect farming facilities. Additionally, pest control will be conducted using methods with minimal environmental impact, like insecticides and rodenticides with low toxicity to mammals or through heat treatment. Along with these mitigation activities, a comprehensive monitoring plan will be implemented. Parameters related to waste management, chemicals, and safety will be regularly monitored, ensuring compliance with established standards. Safety protocols and the use of protective equipment will be consistently assessed to maintain a secure working environment. Further monitoring encompasses the safety of staff in the insect farm, collection and proper deposition of deceased animals, collection of feces during metabolic trials, poultry manure management, and the continuous measurement of gas emissions in the poultry facility. Together, these mitigation and monitoring strategies are pivotal in ensuring the responsible and sustainable execution of the PRO-SUSTAIN project while minimizing environmental and safety risks.

The key components of the Environmental and Social Management Plan are the Environmental Impact Mitigation Plan and the Environmental Impact Monitoring Plan. Specifically, the ESMP identifies and summarizes all anticipated adverse environmental and social impacts (including those involving local communities).

LEGAL AND INSTITUTIONAL FRAMEWORK

Advancing sustainable solutions by developing insect-based protein as new feed options - PRO-SUSTAIN project is implemented by the University of Novi Sad, Faculty of Agriculture (UNSFA). Project activities will take place at the UNSFA facilities in Novi Sad and legal entities that are in the UNSFA ownership, mainly at the National research and educational center for innovative technologies in agriculture Agro Campus, in Temerin.

Existing Serbian legislation

All field work, sampling procedures, laboratory work, and waste management will be in concordance with the relevant laws and/or management strategies of the Republic of Serbia), including specific rulebooks:

- Law on Science and Research ("Official Gazette of RS" No. 49/19)
- Law on environmental protection ("Official Gazette of RS" No. 135/04, 36/09, 72/09, 43/11, 14/16, 76/18 and 95/18)
- Law on Fire Protection ("Official Gazette of RS", Nos. 111/2009, 20/2015, 87/2018 and 87/2018)
- Law on waste management ("Official Gazette of RS", 36/09, 88/10, 14/16 and 95/2018)
- Law on noise protection ("Official Gazette of RS", 36/09, 88/10 and 96/2021)
- Law on Occupational Health and Safety ("Official Gazette of RS", 101/05, 91/15 and 113/2017)
- Rulebook on the manner of storage, packaging and marking of hazardous waste ("Official Gazette of RS", Nos. 92/2010 and 77/2021),
- Rulebook on categories, testing and classification of waste ("Official Gazette of RS", No. 56/2010, 93/2019 and 39/2021),
- Law on Chemicals ("Official Gazette of RS", Nos. 36/2009, 88/2010, 92/2011, 93/2012 and 25/2015),
- Rulebook on how to keep records on chemicals ("Official Gazette of RS", No. 31/2011),
- Rulebook on the content of the safety data sheet ("Official Gazette of RS", No. 81/10),
- Rulebook on amendments to the Rulebook on classification, packaging, labeling and advertising of chemicals and specific products in accordance with the Globally Harmonized System for Classification and Labeling ("Official Gazette of RS", Nos. 105/2013, 52/2017, 21/2019 and 40/2023),
- Law on the Prohibition of Discrimination, ("Official Gazette of RS", No. 22/2009 and 52/2021),
- Law on the Prevention of Harassment at the Workplace, ("Official Gazette of RS", No. 36/2010),
- Rulebook on Conduct of Employers and Employees in Relation to Prevention and Protection from Harassment at Work, ("Official Gazette of RS", No. 62/2010),
- Law on Protection of Whistle Blowers, ("Official Gazette of RS", No. 128/2014),
- The National Strategy for Sustainable Development ("Official Gazette of RS" No. 72/09, 81/09)
- Rulebook on personal protective equipment ("Official Gazette of RS", No. 23/2020),
- Rulebook on preventive measures for safe and healthy work at the workplace ("Official Gazette of RS", Nos. 21/2009 and 1/2019)
- Rulebook on preventive measures for safe and healthy work when exposed to chemical substances ("Official Gazette of RS", Nos. 106/2009, 117/2017, 107/2021).
- Law on Confirmation of the Convention on Availability of Information, Public Participation in Decision-Making and the Right to Legal Protection in Environmental Matters (Aarhus Convention) ("Official Gazette of RS" No. 38/2009).
- SRPS ISO/IEC 17025:2017 - General requirements for the competence of testing and calibration laboratories

PROJECT DESCRIPTION

INSTITUTIONAL AND ADMINISTRATIVE PART	
Country	Serbia
Project	Serbia accelerating innovation and growth entrepreneurship (SAIGE) project
Sub-component	Science Fund of the Republic of Serbia
Program	Program PRISMA
Subprogram	Biotechnical Sciences
Project title	Advancing sustainable solutions by developing insect-based protein as new feed options
Acronym	PRO-SUSTAIN
Principal Investigator (PI)	Prof. dr Igor Jajić
Contact email address	igor.jajic@stocarstvo.edu.rs
Participating Scientific and Research Organization (SRO):	University of Novi Sad, Faculty of Agriculture (UNSFA)
Partner Research Organization on the project:	/
The duration of the project:	36 months
Number of researchers:	8 /eight/ (PI + 7 researchers)

One of the key aspects of the PRO-SUSTAIN project includes the optimization of larvae processing procedures. The applicability of such procedures is still undeveloped and there are still many challenges in optimizing drying, milling and lipid extraction procedures regarding larvae from different insect species. The research would be carried out at both laboratory-scale in LF located at UNSFA and the mass farming (large-scale) stages situated at AC, for the rearing of two insect species. *Tenebrio molitor* and *Zophobas morio* rearing. Both species belong to the family of darkling beetles

(Tenebrionidae). Until the beginning of the 21st century these two species were considered only to be stored product pests - *T. molitor* mostly in Mediterranean and subtropical climates, and *Z. morio* in subtropical and tropical climates. The optimal conditions for *T. molitor* are from 26 to 30°C and for *Z. morio* from 28 to 32°C inside the feeding substrate and the average air humidity of 65%. After in-depth analysis, authors started referring that the benefit of their rearing is much greater than the damaging effect. Larvae of both species are rich in both macro and micronutrients and the fact that they use low-value agricultural side streams as food sources made them promising agents in alternative protein production. Compared to other species these two are convenient as their second wing pair is rudimentary and they can not fly. The unavailability of flight and their anatomy of the legs which additionally enables them to climb upwards make them perfect candidates for vertical farming in trays.

To obtain the appropriate insect meal that can be included in complete feed for animals' diets, it is of critical importance for insects to be properly milled (for complete feed homogeneity) and properly dried (impacting nutritional quality, safety, spoilage and technological properties of insect meal). Another aspect is the high lipid content in insect larvae, which impacts their technological properties and may impair shelf-life (lipid oxidation) and needs to be reduced in order to use the larvae in complete feed formulations. Moreover, the technological procedures of including dried insect larvae in animal diets would be optimized to achieve the best possible quality of feed regarding the physical properties of the complete feed mixture (homogeneity and particle size). The cost-effectiveness of any substitute feedstuff (including insects) depends on the ability of animals to use it as an adequate source of nutrients and energy. Production trials including digestibility data collection are required to gather information about the cost-effectiveness. The evaluation of the cost-effectiveness of insect-based meal in diets will be tested on poultry (broilers) nutrition through feeding trials. Trials will have two phases: in the first phase the digestibility trial followed by the production trial. The importance of production trials is the possibility to observe the effects of incorporating insect meal as a substitute for protein source on body growth, feed conversion rate, and daily intake in the real production environment with all real challenges of live production. The end goal is to produce the protein source that can be successfully incorporated in a complete feed mixture which will have the same or better effects on the basic production parameters in broiler production. The list of project work packages (WPs) is listed below.

Both insect and poultry production farms are located in AC in the industrial area of village Temerin, located 21 km from the center of Novi Sad, Serbia, and 3 km from the magistral road which is connecting Novi Sad to the North cities of the Vojvodina Province. The exact location of both facilities is 350 m from the main building of the AC. In close proximity to the farm (1 km in diameter) only agricultural land is present, where the farmers often rear field crops (wheat, soybean, maize and sunflower). In the wider environment (from 1 to 3 km) to the north, there is only one company that is producing the equipment for electric and green power plants and also a newly formed solar panel power plant. Only on this, north side, the housing are located, and the distance from the AC to this part of the Temerin village is more than 3,5 km. On the other side of the AC in the wider environment (1 to 15 km) only agricultural land is located without housing and permanent residence of people. Worth mentioning is that the food and feed industry in Temerin is scarce. There is only one mill located 10 km from AC and there are no silos or any other facilities registered for commodities storage. Taking into consideration that the two species that are going to be reared, require additional heating and air humidity, their life cycle outside of the farm is impossible as they can not thrive under the Serbian climate, and that the nearest houses are at least 3,5 km away from farm, the possibility of insects reared being a risk for citizens of Temerin is unfeasible.

WP No	WP title
1	Laboratory-scale optimization of farming conditions for two edible insects
2	Mass farming of insects under optimal conditions
3	Technological preparation and production of larval meal as animal feed
4	Growth performance and feed conversion efficiency study in broiler chickens fed insect-based diets
5	Communication, dissemination, and exploitation
6	Coordination and management

It is expected to fully optimize mass rearing of insects, their biotechnological processing into insect larvae meal and further into animal feed and diets. Additionally, the project would provide results on growth performance and digestibility in poultry-fed insect-based diets.

Social impact is expected to be sizable, since the population in Europe, especially in this area, where the people are not accustomed to using insects as feed. The primary beneficiaries of this project would be the feed manufacturers, receiving the technology transfer needed to introduce insect-based protein into animal feed, including optimized insect farming. Farmers would gain an insight into the practical use of insect-based feed formulation and its benefits. The further beneficiaries who will have access to and use the results of the joint scientific activities through dissemination and technology transfer belong to non-governmental, governmental, and private sectors.

ENVIRONMENTAL AND SOCIAL ACCEPTABILITY ISSUES RELATED TO THE EXISTING PROJECT OR ACTIVITIES

PRO-SUSTAIN project will organize activities on 3 main places:

1. Agro Campus (AC) - The activities of testing new feeding options will be performed by running in vivo feeding trials on poultry (broiler chickens). Those activities will be carried out at the Poultry Research Facility (Agro Campus, Industrijska zona bb, Temerin). In detail explanations of the farm with the emphasis on its surroundings is given in the project description.

Agro Campus has a state-of-the-art Poultry Research Facility dedicated to basic and applied research in broilers. The facility includes two floor-pen rooms. In each room there are 60 floor pens for twenty broilers/pen. The overall capacity of the farm is 2400 broilers (120 pens). The pen rooms have heating, ventilation and evaporative cooling to provide a high degree of environmental control throughout the year. Feed and water supply are *ad libitum* with manual feeding in each pen. Water is supplied using nipple drinkers. Air flow in the facility per animal is 17.04 m³/h. Roof ventilators are used to expel air, one single-phase containing a 1100 mm diameter rainwater collection vessel, as well as a three-phase also with a rainwater collection vessel. For fresh air entry, 12 flaps per floor-pen room are used, each flap has the ability to direct air and protect against uncontrolled light and wind entry. The electronic control unit works using signals received from the climate computer or the temperature-humidity sensor. It contains a computer for climate control with a fan speed regulator and an alarm unit with two temperature sensors. The facility also has four air temperature sensors, two humidity sensors, an ammonia sensor, a negative pressure sensor, a carbon dioxide sensor and a differential pressure indicator. It is possible to monitor and manage all parameters in the facility, as well as 24/7 video surveillance, via mobile devices.

2. Laboratory for entomology (LE) at UNSFA (Department for Plant and Environmental Protection) deals with basic and applied research in insects. The laboratory is equipped with two modern climate chambers (Witeg WIR 420 Smart Lab and Binder BD 260) with controlled microclimate (temperature

and relative humidity), stereo microscopes (Motic SMZ-171), refrigerators for keeping substrates which is used for insects and contains other necessary equipment for insects research.

3. Laboratory for quality control for feed and animal products (LF) at UNSFA (Department of Animal Science) is ISO/IEC 17025 accredited laboratory. It is equipped with HPLC, GC/MS, ET-AAS, spectrometers, and other laboratory equipment needed for routine chemical analysis. All laboratory tests are carried out by experienced and competent professional laboratory staff.

Regarding proposed feeding trials, PRO-SUSTAIN received a positive opinion from the Ethical commission for the protection of animal welfare at the University of Novi Sad (No. II-2022-05).

POTENTIAL IMPACTS OF THE PROPOSED PROJECT ON THE ENVIRONMENT AND SOCIAL SURROUNDING

Potential impacts on air quality

Poultry and insect farms can negatively impact air quality through emissions of dust, ammonia, odors, and greenhouse gasses, as well as the attraction of pests and potential disease spread.

Lab activities can generate volatile organic compounds and hazardous fumes, as well as airborne contaminants that pose health risks to laboratory workers and the surrounding environment.

Potential impacts on water (water protection) and soil

Poultry and insect farms can impact water and soil quality through manure runoff and nutrient emissions, disease outbreaks, and excessive water usage.

Chemical laboratories can potentially impact water and soil quality through the improper handling, disposal, and accidental release of chemicals, leading to contamination.

Potential impact of generated waste streams

Waste streams from insect and poultry farms, including manure, uneaten feed, and carcasses, can lead to environmental pollution, odor issues, pest attraction, health risks, and impacts on air and water quality if not managed properly.

Potential impacts on the health and safety of researchers and the community

Workers' health and safety

Engaging in research in chemical laboratories, experimental poultry farms, and insect farms presents potential health and safety impacts for researchers and the neighboring community. In laboratories, risks include chemical exposure, fires, spills, and air quality issues. Poultry farms pose concerns related to zoonotic diseases, manure-related health problems, noise, and dust pollution, while insect farms introduce risks of allergies, and disease transmission.

Community health and safety

Poultry and insect farms can impact community health and safety through compromised air quality from emissions, unpleasant odors, and noise. Water contamination risks arise from runoff, potentially affecting local water sources.

Potential socio-economic impacts

Research in chemical laboratories, experimental poultry and insect farms can have significant socio-economic impacts, including technological innovation, job creation, industry growth, sustainability in agriculture, health and environmental benefits, and knowledge transfer.

Poultry and insect farms may impose potential negative socio-economic impacts through irregular waste management and health risks can strain local economies dependent on agriculture, while negative perceptions may affect property values and tourism. However, we do not anticipate any negative impacts.

SUMMARY OF ENVIRONMENTAL AND SOCIAL IMPACT

During the preparation and implementation phase of the scientific research project PRO-SUSTAIN potential environmental impacts are listed below.

Table 1 - Review of the impact on the environment for the duration of the project.

INFLUENCE	SIGNIFICANCE	COMMENT
Impacts on land use and settlements	Does not exist	During the realization of the project, there will be no expropriation of land
Ground and surface water	Low	With the application of appropriate measures of waste management and manure management
Air quality	Low	With the application of measures on cleaning and disinfection as well as procedures on H&S, since project activities are carried out indoors.
Flora and fauna (protected areas and species)	Low	Project activities do not use protected species nor are carried out on protected areas.
Noise	Low	Temporary impact. In accordance with existing procedures on H&S.
Soil management	Low	With the application of appropriate measures of waste management and manure management
Community health and safety	Low	In accordance with existing procedures on the management of waste, poultry manure, insect frass, as well as collection and deposition of dead trial animals.
Management of Waste	Low	In accordance with existing waste management procedures.
Working in the the farming stage at Agro Campus	Low	In accordance with existing procedures on farming and good agricultural practice.

Table 1 - Review of the impact on the environment for the duration of the project.

INFLUENCE	SIGNIFICANCE	COMMENT
Management of hazardous materials, including hazardous waste	Low	In accordance with existing waste management procedures.
Working in the laboratory including Life and Fire Safety	Low	In accordance with existing procedures on H&S. With the application of appropriate protective equipment and training of personnel, the impact is low. Adequate control measures are aligned with safety procedures related to working with chemicals.
Use of chemicals in laboratory	Low	All researchers in the research laboratory are familiar with safety procedures related to working with chemicals and all Safety Data Sheets for Chemicals. In accordance with ISO Standard 17025
Safe management of chemicals, biohazards and hazardous materials	moderate	In accordance with existing procedures for chemicals management, poultry manure management, insect frass management, as well as collection and deposition of dead trial animals
Handling of gasses under pressure (H&S at work and prevention of accidents)	Low	In accordance with existing procedures on H&S
Cumulative impacts	Moderate	Project impact does not deviate from conventional animal production. Moreover, it reduces the environmental footprint by using sidestreams and sustainable agricultural practices (i.e., edible insects).

ESMP Prepared by:
PRO-SUSTAIN team

October 20, 2023



ANNEXES
I MITIGATION PLAN

Phase	Issue	Mitigation Measure	Cost of Mitigation (If Substantial)	Institutional Responsibility*	Supervision
Project preparation	Waste - hazardous waste - non-hazardous solid waste	Waste management procedures are defined in institutional (UNSFA) document: Act on risk assessment in workplaces and working environment, part Rulebook on waste management. This document defines procedures for chemical, microbial, medicinal, packaging, special waste and waste of animal origin. UNSFA has contracts with companies that specialize in all types of waste management.	-	PIU/SF/UNSFA Head of Technical Office	
Project preparation	Safety and health at work and fire protection in AC and UNFSA	All participants are aware of safety regulations and trained to work in accordance with OHS measures of Life and Fire Safety. Documentation in accordance with the law and ISO Standards.	-	Responsible person at the level UNSFA	
Project preparation	Chemicals management	Chemical management is defined in laboratory procedures that are part of ISO 17025 standard accreditation documentation, as well as in the Act on risk assessment in workplaces and working environment	-	PI	PIU/SF/UNSFA

Phase	Issue	Mitigation Measure	Cost of Mitigation (If Substantial)	Institutional Responsibility*	Supervision
		<p>adopted by UNSFA.</p> <p>Chemicals management Laboratory keeps the records for all the chemicals used, including chemicals inventory, purchase plans, as well as Safety Data Sheets and other documentation. We have the understanding for being concerned about the chemicals used but their origin and specification is common for the laboratory with ISO 17025 standard. Used chemicals are standardized quality and quantity and they are commonly used in these types of biological and chemical experimentation and research.</p>			
Project preparation	Safety of laboratory staff	<p>Safety procedures are defined in institutional (UNSFA) documents:</p> <ul style="list-style-type: none"> - Rulebook on safety and health on work that specifies the type of personal protection equipment for employees, outlines their rights and responsibilities regarding safety and health at work, and addresses worker insurance and first aid - Fire protection rules and evacuation plan that is aimed to enhance fire safety, cover fire protection measures, employee rights and responsibilities, and provide guidelines for fire prevention and response - Act on risk assessment in workplaces and working environment <p>Periodical testing of environmental conditions at the workplace (temperature, humidity, noise, etc). Ensuring adherence to Fire protection rules and evacuation plans</p>	-	Head of technical services	PIU/SF/UNSFA

Phase	Issue	Mitigation Measure	Cost of Mitigation (If Substantial)	Institutional Responsibility*	Supervision
		by organizing training for all employees.			
Project preparation	Certain air condition devices can use harmful gasses for cooling or warming rooms, and use more electric energy during everyday usage.	Obtain sufficient information from the sellers of the devices. Look for the certificates of the energy efficacy and the types of gasses used in the radiator unit of the air condition unit. Selecting the more eco friendly options as: R32 gas which has a proven efficacy in both heating and cooling and minor effect on the ozone layer.	-	WP2 Coordinator	PIU/SF/UNSFA
Project preparation	Certain trays and boxes used for insect farming coming from the sources which do not use the recycled plastic	Obtain sufficient information about the sources of the material used for production and ensuring that only trays made from renewable sources of plastic	-	WP2 Coordinator	PIU/SF/UNSFA
Project preparation	Shelves used as a main construction for trays can	Choosing the shelves made from good quality metal which underwent either the galvanization process or other iron sheeting which ensures that metal is protected from the oxidation process.	-	WP2 Coordinator	PIU/SF/UNSFA

Phase	Issue	Mitigation Measure	Cost of Mitigation (If Substantial)	Institutional Responsibility*	Supervision
	be made from metal prone to rusting, being hazardous for the humans working inside the farm				
Project preparation	Dust, noise, emissions and vibrations generated during construction activities (assembly of experimental structures for insects), may be a nuisance to nearby human or animal populations	<p>Ensure regulatory requirements to limit noise are followed and noise is kept to allow working hours and intervals as per the relevant regulation.</p> <p>Dust emission control will be used by applying the technique “plastic wall”. Thin layer of a recycled plastic foil will be outspread in the rooms where construction will be done. By spreading foil it will be ensured that all particles which are falling on the ground will be easily vacuumed with industrial grade vacuum cleaner which is planned in the budget of the project. The vacuum cleaner will be equipped with a pre and main filter which will ensure that the content larger than 25 micrometers will not go back in air. Finer particles will be collected with air purifiers equipped with HEPA filters which ensure the 99.8% removal of the particles smaller than 25 micrometers. Noise and vibration emission will be lowered by using following means:</p> <p>i) drilling rigs with low vibration/noise certification.</p> <p>ii) ensuring that drills have additional settings where the option for lowering the rpm (rotations per minute) is available. Drills equipped with it have much lower noise and vibrations emission, yet however successfully do the</p>	-	Director of AC	PIU/SF/UNSFA

Phase	Issue	Mitigation Measure	Cost of Mitigation (If Substantial)	Institutional Responsibility*	Supervision
		<p>predefined job</p> <p>ii) adding additional soft rubber insulation both on handrail and the drilling head of the equipment ensuring that primary vibration (the vibration emitted by hand tools) is lowered</p> <p>iii) using rubber elastomer it will be ensured that the both noise and vibration level are below 95db (thick carpet, 2.5cm height made from recycled rubber) which is used as a coaster in construction. Elastomers will be placed in spots where two vibration surfaces are colliding in order to ensure that the energy from drilling is not transferred further, but that it remains in the rubber coaster.</p>			
Project implementation	Disinfection and pest control inside the insect farming facility at AC to treat and clean	Ensuring that the options used for these measures are in correlation with good agricultural practices when it comes to choosing the insecticides and rodenticides with low environmental properties: such as low toxicity to mammals and beneficial insects. Optionally, pesticide usage is omitted in favor of other options such as heat treatment.	-	Director of AC	PIU/SF/UNSFA
Project implementation	Proper frass (feces) of the insects farms management	Ensuring that all collected waste from insect farming is temperature treated as the IPIFF requires (treated for 1 h at 70 °C) and then pelletized in the machine and made suitable for deposition at the fields as an alternative organic fertilizer Insects frass	-	WP2 Coordinator	PIU/SF/UNSFA

Phase	Issue	Mitigation Measure	Cost of Mitigation (If Substantial)	Institutional Responsibility*	Supervision
Project implementation	Proper collection and deposition of dead trial animals.	<p>The harmless removal of animal carcasses and waste of animal origin to authorized facility with which AC has a cooperation agreement. Company: ENERGO-ZELENA d.o.o. Indija, Zeleni Zaselak 1, 22320 Indija, Srbija.</p> <p>Throughout the disposal process, strict biosecurity measures will be maintained to prevent cross-contamination and the spread of diseases.</p> <p>A well-managed flock might see overall mortality rates of around 3% to 10% (from 40 to 140 animals) Dead animals and remains will be removed from the flock, collected, and stored in a sealed, vermin-proof freezer specifically for this purpose at -18°C. This freezer is located away from live birds. The company responsible for their safe disposal, with which AC has a cooperation agreement, handles the carcasses of animals and their remains after that.</p>	-	Director of AC	PIU/SF/UNSFA
Project implementation	Proper poultry manure collection and storage	<p>There is already a manure mitigation system on the experimental farm on which the experiment is planned. The manure is stored in a designated area with a concrete floor and walls, away from the broiler houses. The storage site should prevent leaching into soil and water sources and be secure from pests. The goal of this kind of manure disposal is composting, which is an effective way to manage poultry manure. The composting area is operational. It reduces pathogens, volume, and odor, and converts the waste into a valuable</p>	-	Director of AC	PIU/SF/UNSFA

Phase	Issue	Mitigation Measure	Cost of Mitigation (If Substantial)	Institutional Responsibility*	Supervision
		organic fertilizer used for crop fertilization. During the process of removing manure from the facility, workers will use protective equipment (boots, air respiration masks, protection masks, protection clothes) and all in accordance with existing procedures of good agricultural practice. Breeding of broilers is not the subject of the project, but they will be fed insects in one cycle of 42 days. The broiler farm has all the necessary permits in accordance with local law and is controlled by the competent inspection service.			
Project implementation	Collection of feces during metabolic trial	Personal safety equipment is required. Storage of collected feces in the dedicated freezer at -20 °C until the moment of analysis , and then proper removal of the exceeded amount of samples.	-	WP4 Coordinator	PIU/SF/UNSFA
Project implementation	Safety of staff in poultry facility	Work safety protocol which is in use in every poultry production. The personal safety equipment is required (boots, air respiration masks, protection masks , protection clothes)	Minor, safety equipment costs are included in the project budget.	Director of AC	PIU/SF/UNSFA
Project implementation	Emission of the gasses in the poultry production facility at AC	Continuous monitoring of NH3 and CO2 emissions with sensors that are already installed. Alerts will be activated if the limits are exceeded inside the facility, and appropriate measures will be carried out consisting of activating or increasing the intensity of ventilation, and if necessary, the automatic opening of several smaller windows distributed along the longer walls of the facility, evenly arranged throughout its entire length. We	Non, part of the equipment in a state-of-the-art Poultry Research Facility in AC	WP4 Coordinator	PIU/SF/UNSFA

Phase	Issue	Mitigation Measure	Cost of Mitigation (If Substantial)	Institutional Responsibility*	Supervision
		consider this to be a measure of impact mitigation, given that the equipment is already installed, and the system automatically measures and takes necessary actions. The amount of the gasses produced in these types of feed trials on animals are common for this kind of production.			

* Items indicated to be the responsibility of the contractor shall be specified in the bid documents

II MONITORING PLAN

Phase	What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored/ type of monitoring equipment?	When is the parameter to be monitored frequency of measurement or continuous?	Monitoring Cost	Responsibility	Supervision
Project preparation	Hazardous waste (chemical waste from LF)	LF	Detailed procedure is defined in institutional (UNSFA) document: Act on risk assessment in workplaces and working environment (Rulebook on waste management, section 5.2.1).	Regularly, during the project duration	Minor – should be included in contract for work	Head of technical services	PIU/SF/UNSFA
Project preparation	Non-hazardous solid waste (communal waste)	LF LE	Detailed procedure is defined in institutional (UNSFA)	Regularly, during the project duration	Minor – should be included in contract for work	Head of technical services	PIU/SF/UNSFA

Phase	What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored/ type of monitoring equipment?	When is the parameter to be monitored frequency of measurement or continuous?	Monitoring Cost	Responsibility	Supervision
			document: Act on risk assessment in workplaces and working environment (Rulebook on waste management, section 5.2.4).				
Project preparation	Chemicals management	LF	Chemicals management is defined in laboratory procedures that are part of ISO 17025 standard accreditation documentation. Act on risk assessment in workplaces and working	Regularly, during the project duration	Minor – should be included in contract for work	Head of technical services	PIU/SF/UNSFA

Phase	What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored/ type of monitoring equipment?	When is the parameter to be monitored frequency of measurement or continuous?	Monitoring Cost	Responsibility	Supervision
			environment adopted by UNSFA.				
Project preparation	Safety of laboratory staff	LF LE	Work safety protocol is required. The personal safety equipment is required (eye protection goggles, air respiration masks with suitable filters), as well as the protection clothes (laboratory coats).	Regularly, during the project duration	Minor – should be included in contract for work	Head of technical services	PIU/SF/UNSFA
Project implementation	Disinfection and pest control inside the insect farming facility	Insect farm at AC	Records on disinfection and pest control activities	Regularly, during the project duration	Minor – should be included in contract for work	Director of AC	

Phase	What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored/ type of monitoring equipment?	When is the parameter to be monitored frequency of measurement or continuous?	Monitoring Cost	Responsibility	Supervision
	to treat and clean						
Project implementation	Treatment and proper storage of insect frass (feces)	Insect farm at AC	Records on frass treatments and storage	Regularly, during the project duration	Minor – should be included in contract for work	Director of AC	PIU/SF/UNSFA
Project implementation	Safety of staff on insect farm	Insect farm at AC	List and signing the use of adequate equipment	Regularly, during the project duration	Minor – should be included in contract for work	Director of AC	PIU/SF/UNSFA
Project implementation	Proper collection and deposition of dead trial animals	Poultry Research Facility at AC	List of dead trial animals	daily	Minor – should be included in contract for work	Director of AC	PIU/SF/UNSFA
Project implementation	Collection of feces during metabolic trail	Poultry Research Facility at AC	Date record	daily	Minor – should be included in contract for work	Director of AC	PIU/SF/UNSFA
Project implementation	Safety of staff in poultry research facility	Poultry Research Facility at AC	List and signing the use of adequate equipment	daily	Minor – should be included in contract for work	Director of AC	PIU/SF/UNSFA

Phase	What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored/ type of monitoring equipment?	When is the parameter to be monitored frequency of measurement or continuous?	Monitoring Cost	Responsibility	Supervision
Project implementation	Proper poultry manure collection and storage	Poultry Research Facility at AC	Records on manure collection and storage	At the end of the production trail	Minor – should be included in contract for work	Director of AC	PIU/SF/UNSFA
Project implementation	Continuous monitoring of NH3 and CO2 emissions	Poultry Research Facility at AC	Automatic determination of levels of gasses in the facility with sensors that are already installed	hourly	Existing equipment Minor – should be included in contract for work	Director of AC	PIU/SF/UNSFA
Project implementation	Life and fire safety (LFS) procedures in laboratory	Laboratory of the institution implementing the project.	Visual inspections and checks of the documentation	Periodically during the implementation of the project	Minor – should be included in contract for work	Responsible person for LFS in SRO	

III PUBLIC CONSULTATION DETAILS AND MINUTES OF MEETING FOR THE ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN

PROJECT

Advancing sustainable solutions by developing insect-based protein as new feed options (PRO-SUSTAIN)

Introduction

This document is an annex to the Environmental and Social Management Plan, providing details on the Public Consultation. The Public Consultation schedule and the plan were to present the key identified environmental management issues related to the project to the relevant expert public and gain further insights on the topic by the participants, to incorporate further specific suggestions and aspects into the plan, should any be identified during the discussion.

The Public Consultation was held on-site at the Faculty of Agriculture - University of Novi Sad, and the key technical and content-related aspects of the Public Consultation are presented below.

1. The manner in which notification of the consultation was announced:

The consultation was announced to the selected professional audience via the Faculty of Agriculture's official [website](#), the official [LinkedIn page](#), and via e-mail invitations. The announcement was published 7 days before the public consultation. Moreover, the event was announced at the Faculty of Science Novi Sad and Institute of Food Technology of Novi Sad as posters.

2. Date consultation was held

The consultation was held on December 14, 2023, starting at 9:30

3. Location consultation was held

The consultation was held on-site at the Faculty of Agriculture in Novi Sad, Trg Dositeja Obradovića 8 (Room P-1), Novi Sad

The meeting was photographed. The presentation of the session is provided as the annex to this document.



On-Line пријава
испита



WEB MAIL

Информације за студенте

- » Обрасци за упис
- » Пријавни лист - ОАС и ИАС
- » Конкурс (ОАС, МАС, ИАС..)
- » Трошковник студија
- » Академски календар
- » Уџбеници
- » Реферати и докторске дисертације
- » Правилници
- » Наградни конкурс
- » Календар испита
- » Распоред наставе и предаваоница
- » Основне академске студије
- » Интегрисане академске студије
- » Мастер академске студије 2021

Претрага

Обавештење о Јавним консултацијама

POZIV NA JAVNE KONSULTACIJE

Saglasno Ekološkom i socijalnom standardu Svetske banke: Environmental and Social Standard on the Stakeholder Engagement and Information Disclosure – ESS10

POLJOPRIVREDNI FAKULTET UNIVERZITETA U NOVOM SADU

obaveštava javnost i poziva relevantne subjekte, fizička i pravna lica, uključujući i relevantna udruženja, stručnu javnost kao i druge zainteresovane strane da se uključe u

JAVNE KONSULTACIJE

koje se odnose na Plan upravljanja životnom sredinom i socijalnim pitanjima za projekat pod nazivom „Unapređenje održivih rešenja razvojem proteina na bazi insekata kao novih opcija za ishranu životinja - PRO-SUSTAIN“.

Projekat je konkurisao i prihvaćen za finansiranje od strane Fonda za nauku u okviru poziva PRIZMA.

Uvid u predmetni dokument može se izvršiti na web stranici Fakulteta <http://polj.uns.ac.rs>

JAVNE KONSULTACIJE i prezentacija predmetnog plana biće održane u četvrtak, 14.12.2023. godine, sa početkom u 9.30 h u prostorijama Poljoprivrednog fakulteta u Novom Sadu, Trg Dositeja Obradovića 8 (Sala P-1), 21000 Novi Sad.

Primebde, sugestije i mišljenja relevantna za izradu ovog dokumenta mogu se podneti i putem elektronske pošte rukovodioca projekta na prosustain@stocarstvo.edu.rs.

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) možete pogledati: <https://drive.google.com/file/d/1-v3B1bT65bMdMrCxsshPL0JDyqnRDZz1/view>

Категорија: Обавештења

Language

Serbian

PRO SUSTAIN



PRISMA

**JAN 2024
DEC 2026**

PUBLIC CONSULTATION

PROGRAM PRISMA

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

**ADVANCING SUSTAINABLE SOLUTIONS BY DEVELOPING
INSECT-BASED PROTEIN AS NEW FEED OPTIONS (PRO-SUSTAIN)**



VENUE: Trg Dositeja Obradovića 8,
Faculty of Agriculture Novi Sad,
P1 - room

DATE: 14.12.2023. / 9.30

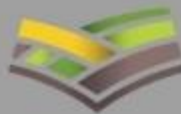


TENEBRIO MOLITOR

WORMCRAFT RESEARCH GROUP created PRO-SUSTAIN project for facilitating Serbian and West Balkan industrial insect production over the coming 3 years and to enable new market opportunities for insects as animal feed.



Founded by
Science Fund
of the Republic of Serbia



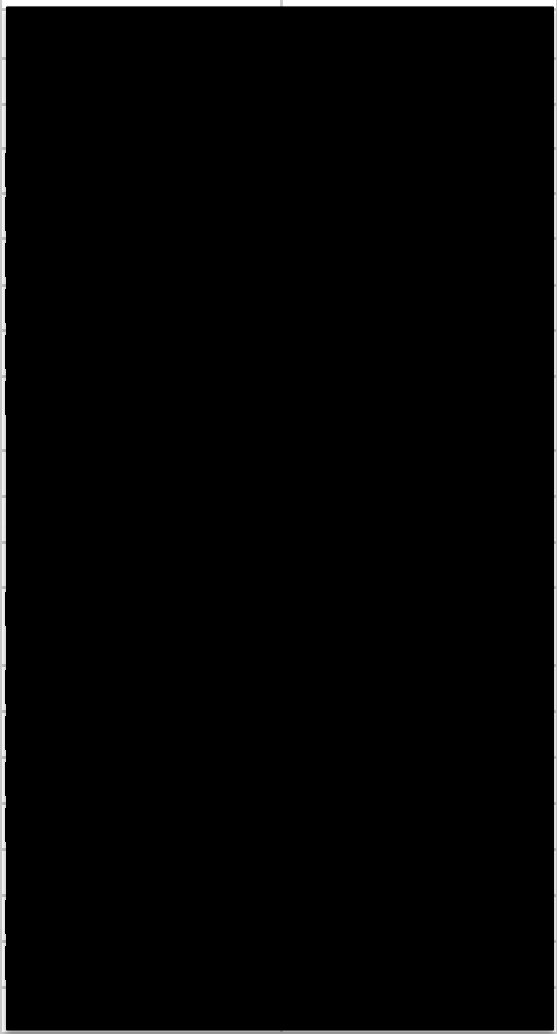
Project coordinator
UNIVERSITY OF NOVI SAD
**FACULTY OF
AGRICULTURE**

PROSUSTAIN.STOCARSTVO.EDU.RS

4. Who was specifically invited

The call of the invitees was created to respond to the main goal of the consultation – to gain additional insights for the ESMP from the specialists and experts in the field of microbial and food safety and environmental protection. Therefore, it includes the experts from Faculty of Science - University of Novi Sad, the Institute for Food Technology - University of Novi Sad, BioSens Institute - University of Novi Sad, the National Research and Education Centre in Agriculture - Agro Campus, Scientific Veterinary Institute Novi Sad, the Institute for Biological Research "Siniša Stanković, Provincial Institute for Nature Protection, Educons University, Institute of Lowland Forestry and Environment, etc. We invited the representatives of governmental institutions - Provincial Secretariat for Urban Planning and Environmental Protection, Embassy of the Kingdom of the Netherlands, Municipality of Temerin, Provincial Secretariat for agriculture, Water Management and Forestry, as well as from the NGO sector - Balkan Eco-Innovation, Foodscale hub, Institute for Development and Innovation, Vojvodina Organic Cluster, National Alliance for Local Economic Development (NALED), United Nations Development Programme (UNDP), Centre for the Promotion of Science. Also, the list of invitees includes the professional public, i.e. companies (De Heus doo, Patent Co, Ravago Chemicals, Belinda Animals, Effecta feed, Barry Callebaut, Green Cell Innovations) from the agricultural and biotechnological sectors and individuals such as Environmental protection engineers.

The entire list of the invitees is as follows:

Institution type	Organization	Contact person	Remarks
Industry	De Heus Srbija, Šabac		
Industry	Patent Co, Mišičevo		
Industry	Ravago Chemicals, Belgrade		
Industry			
NGO	Balkan Eco-Innovation		
NGO	Foodscale hub, Novi Sad		
NGO			
NGO	Institute for Development and Innovation, Belgrade		
NGO	Vojvodina Organic Cluster		
Industry	Belinda Animals		
Academia	Scientific Veterinary Institute 'Novi Sad'		
Academia	Faculty of Science, Novi Sad		
Academia	Biosens Institute, Novi Sad		
Academia			
Academia			
Government	Municipality of Temerin		
Academia	Agro Campus, Temerin		
Academia			
Academia			

Academia	Institute for Biological Research "Siniša Stanković"
Academia	
Academia	Provincial Institute for Nature Protection
Government	Provincial Secretariat for Urban Planning and Environmental Protection
Industry	Effecta feed
Academia	Institute for Food Technology - University of Novi Sad
Industry	Barry Callebaut
Academia	
Academia	Educons University
Academia	
NGO	Environmental protection engineers
Academia	Institute of Lowland Forestry and Environment
NGO	
NGO	National Alliance for Local Economic Development (NALED)
NGO	United Nations Development Programme (UNDP)
Government	Dutch Embassy
Government	Provincial secretariat for agriculture, water management and forestry
NGO	Center for the Promotion of Science
Industry	
Industry	Green Cell Innovations
Industry	

5. List of Attendees

Please see the List of Attendees (Participant list) below.

* Lista učesnika / Participant list

Predmet javnih konsultacija / Subject of public consultations		Mesto održavanja javnih konsultacija / Venue of public consultations	
Plan za upravljanje životnom sredinom i socijalnim uticajima Konsultacije sa ključnim zainteresovanim stranama Environmental and Social Management Plan (ESMP) Public consultation with key stakeholders Projekat / Project: PRO-SUSTAIN „Unapređenje održivih rešenja razvojem proteina na bazi insekata kao novih opcija za ishranu životinja“ „Advancing sustainable solutions by developing insect-based protein as new feed options“		Poljoprivredni fakultet, Univerzitet u Novom Sadu, Trg Dositeja Obradovića 8, sala P-1 Faculty of Agriculture, University of Novi Sad, Trg Dositeja Obradovića 8, hall P-1	
		Datum održavanja javnih konsultacija: 14.12.2023.	Date: December 14, 2023
r.b	Ime i prezime / Name and surname	Telefon / Telephone	e-mail
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* Događaj će biti proračen fotografisanjem i snimanjem video zapisa. Potpisivanjem ovog registracionog formulara, dajem saglasnost Poljoprivrednom fakultetu u Novom Sadu, da fotografije i/ili snimke može proslediti partnerima i ostalim trećim stranama sa kojima Poljoprivredni fakultet saraduje.

* The event will be accompanied by photography and video recording. By signing this registration form, I give consent to the Faculty of Agriculture to forward photos and/or recordings to partners and other third parties with whom the Faculty of Agriculture.

* Lista učesnika / Participant list

Predmet javnih konsultacija / Subject of public consultations		Mesto održavanja javnih konsultacija / Venue of public consultations		
Plan za upravljanje životnom sredinom i socijalnim uticajima Konsultacije sa ključnim zainteresovanim stranama Environmental and Social Management Plan (ESMP) Public consultation with key stakeholders		Poljoprivredni fakultet, Univerzitet u Novom Sadu, Trg Dositeja Obradovića 8, sala P-1 Faculty of Agriculture, University of Novi Sad, Trg Dositeja Obradovića 8, hall P-1		
Projekat / Project: PRO-SUSTAIN „Unapređenje održivih rešenja razvojem proteina na bazi insekata kao novih opcija za ishranu životinja“ „Advancing sustainable solutions by developing insect-based protein as new feed options“		Datum održavanja javnih konsultacija: 14.12.2023.		Date: December 14, 2023
r.b	Ime i prezime / Name and surname	Organizacija / Organisation	Telefon / Telephone	e-mail
19.		Ravapo Chemicals		
20.		POK. FAKULTET		
21.		INST. ZA BIOLOŠKI ISTRAŽ. IŠMISA I KORISNIH INSEKATA		
22.		INST. ZA BIOLOŠKA IŠTR. IŠS		
23.		POLJ. FAKULTET		
24.		COLOSECT		
25.		INCLITIS-FOOD		
26.		POG. FAKULTET		
27.		Novi fakultet Novog Sada		
28.		POK. FAKULTET		
29.		Novi fakultet		
30.		ФУИНС		
31.		ФУИНС		
32.		ПМФ		
33.		ПМФ АИХ		
34.		POG. FAX		
35.		Gray Cell		
36.		POK. FAKULTET		
				U / / / U /

* Događaj će biti praćen fotografisanjem i snimanjem video zapisa. Potpisivanjem ovog registracionog formulara, dajem saglasnost Poljoprivrednom fakultetu u Novom Sadu, da fotografije i/ili snimke može proslediti partnerima i ostalim trećim stranama sa kojima Poljoprivredni fakultet saraduje.
* The event will be accompanied by photography and video recording. By signing this registration form, I give consent to the Faculty of Agriculture to forward photos and/or recordings to partners and other third parties with whom the Faculty of Agriculture.

* Lista učesnika / Participant list

Predmet javnih konsultacija / Subject of public consultations		Mesto održavanja javnih konsultacija / Venue of public consultations		
Plan za upravljanje životnom sredinom i socijalnim uticajima Konsultacije sa ključnim zainteresovanim stranama Environmental and Social Management Plan (ESMP) Public consultation with key stakeholders		Poljoprivredni fakultet, Univerzitet u Novom Sadu, Trg Dositeja Obradovića 8, sala P-1 Faculty of Agriculture, University of Novi Sad, Trg Dositeja Obradovića 8, hall P-1		
Projekat / Project: PRO-SUSTAIN „Unapređenje održivih rešenja razvojem proteina na bazi insekata kao novih opcija za ishranu životinja“ „Advancing sustainable solutions by developing insect-based protein as new feed options“		Datum održavanja javnih konsultacija: 14.12.2023.		Date: December 14, 2023
r.b	Ime i prezime / Name and surname	Organizacija / Organisation	Telefon / Telephone	e-mail
		Organizacija / Organisation	Telefon / Telephone	Potpis / Signature
37.		POJ. FAKS		
38.		Poljoprivredni fakultet		
39.		Republički fakultet		
40.		me@g.mechubg.edu.rs		
41.		NOVOSADSKA TEHNIKA		
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* Događaj će biti praćen fotografisanjem i snimanjem video zapisa. Potpisivanjem ovog registracionog formulara, dajem saglasnost Poljoprivrednom fakultetu u Novom Sadu, da fotografije i/ili snimke može proslediti partnerima i ostalim trećim stranama sa kojima Poljoprivredni fakultet saraduje.

* The event will be accompanied by photography and video recording. By signing this registration form, I give consent to the Faculty of Agriculture to forward photos and/or recordings to partners and other third parties with whom the Faculty of Agriculture.

6. Meeting Agenda

The agenda of the meeting was available at the public consultation event together with the elements of the ESMP of the PRO-SUSTAIN project to provide participants with detailed information on the identified risks and the planned mitigation measures in advance. The content of the agenda is as follows:

AGENDA	
Public consultation on Environmental and Social Management Plan (ESMP)	
Project: Advancing sustainable solutions by developing insect-based protein as new feed options (PRO-SUSTAIN)	
Date: 14.12.2023	Time: 9:30
Location: Faculty of agriculture, University of Novi Sad, Trg Dositeja Obradovića 8, hall P-1	

Agenda Item	Schedule	Duration	Action
Welcome	9:30 h	5	Informational
Short introduction to project	9:35 h	15	Informational
Presentation of Environmental and Social Management Plan (ESMP)	9:50 h	30	Informational
Discussion	10:20 h	30	Discussion
Final words	10:50 h	10	Informational

In line with the proposed Agenda, the meeting included:

- The project presentation aims to provide detailed info on the planned activities and expected outcomes, with the key environmental impact points identified stressed, and elaborated.
- The ESMP, aims to present the level of identified concerns and methods and activities for mitigation and monitoring.
- The discussion and Q&A segment.
- Identification and formulation of the conclusions.

The public discussion and presentation of this ESMP was conducted by the project PI, supported by the other team members who presented mitigation and monitoring plans using a PowerPoint presentation. The discussion on the content of the ESMP draft focused on the possible negative impacts on the environment and the social environment as well as on the positive impacts in terms of the expected overall development objectives of the project. The public consultation was attended by a total of 41 participants. The discussion took the form of a participatory discussion, and all interested participants were familiar with the project, which led to a useful discussion. They confirmed that meaningful communication and involvement of all interested parties was achieved during the planning phases of the project.

7. Summary Meeting Minutes (Comments, Questions and Response by Presenters)

Concerning the Environmental and Social Management Plan (ESMP) for the project entitled Advancing Sustainable Solutions by Developing Insect-based Protein as New Feed Options (PRO-SUSTAIN).

Public consultations and presentations of ESMP were held on Thursday, December 14, 2023, from 9:30 AM (CET) at the Faculty of Agriculture in Novi Sad, Trg Dositeja Obradovića 8 (Room P-1), Novi Sad.

The project coordinator, Professor Igor Jajić briefly presented the PROSUSTAIN project. Furthermore, he indicated the places where the project activities will be carried out and then went through the potential impacts of the proposed project on the environment and social surroundings. Finally, the coordinator presented the mitigation and monitoring plans and opened the discussion by inviting the participants to ask questions and make comments.

Dane Marović from the Gray Cell company asked what the insect frass is and how it will be mitigated. Professor Jajić explained that the frass is excreta of insects with certain other related matter as feed residues and dead insect parts. Concerning the mitigation of insect frass, professor Jajić explained that it will be collected, thermally processed, and pelleted. This way, insect frass can be safely used as a high-quality fertilizer.

Miljan Samardžić from the Institute of Lowland Forestry and Environment asked about the effects of insect production on the environment in terms of greenhouse gasses emissions and whether the amounts will be measured. Professor Jajić explained that the project already envisages measuring the impact of insect production on the environment through experiments in chambers specially designed for this purpose, but that it is expected that the emission of greenhouse gasses in the production of insects will be lower than the production of other protein feedstuffs, such as is soybean production.

Maja Budimir from the Association of Balkan Eco-Innovation commented on the importance of addressing the socio-economic impacts of project activities and that these issues are usually poorly assessed. She agreed with the explanations given by Professor Jajić about the impact of PROSUSTAIN on the community.

During the event, there were several questions not related to ESMP but to specific project activities and potential scientific and technological challenges during its implementation. The questions were mostly asked by people from academia and industry, and the answers were given by all project team members.

At the end of the event, Professor Jajić concluded that this Public Consultation confirmed the ESMP, and no additional actions were needed.

Novi Sad

14/12/2023

PRO-SUSTAIN team

8. List of decisions reached, and any actions agreed upon with schedules deadlines and responsibilities

In line with the main conclusion that the ESMP adequately identifies risks and challenges, as well as the methods and activities to mitigate, monitor, and manage them, the decision reached is that our project team members will conduct the planned activities and inform the interested participants on the project dynamics and further activities, particularly related to any other identified risks or potential improvements and additional activities possible. During the public consultations, there were comments and remarks related to issues presented in the ESMP, but no new environmentally or socially related issues were raised.

The public discussion ended at 11:00 (CET).

Photos from the event:





Public consultation report reviewed by Environmental and Social Expert:

Date: 16.12.2023.

Title: ESE/PIU SAIGE