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SERBIA ACCELERATING INNOVATION AND GROWTH ENTREPRENEURSHIP (SAIGE) PROJECT

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK



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Abbreviations

CFU	Central Fiduciary Unit
EIA	Environmental Impact Assessment
ES	Environmental and Social
ESCP	Environmental and Social Commitment Plan
ESMP	Environmental and Social Management Plan
ESMF	Environmental and Social Management Framework
ESS	Environmental and Social Standard
EU	European Union
FEA	Final Environmental Approval
GoS	Government of Serbia
HR	Human Resources
ICT	Information and Communication Technology
IF	Innovation Fund
INP	Institute for Nature Protection
IPA	Instrument for Pre-Accession Assistance
IPCM	Institute for protection of Cultural Monuments
IT	Information Technology
LEP	Law on Environmental Protection
LL	Labor Law
LMP	Labor Management Procedures
ESE	Environmental and Social Expert
M&E	Monitoring and Evaluation
MAFWM	Ministry of Agriculture, Forestry and Water Management
MoESTD	Ministry of Education, Science and Technological Development
MoEP	Ministry of Environmental Protection
OHS	Occupational Health and Safety
PIU	Project Implementation Unit
POM	Project Operations Manual
R&D	Research and Development
RDIs	Research and Development Institutes
RoS	Republic of Serbia
SAIGE	Serbia Accelerating Innovation and Growth Entrepreneurship
SDF	Serbian Diaspora Facility
SEP	Stakeholder Engagement Plan
SF	Science Fund
SIP	Serbia Innovation Project
SMEs	Small and Medium Enterprises
SROs	Science and Research Organizations
TA	Technical Assistance
US\$	
σσφ	US Dollar currency

EXECUTIVE SUMMARY

Serbia positions itself for EU membership with increasing competitiveness in the European market remaining a priority. A structural shift in Serbia's growth model, driven by increased productivity and higher-value added production, is needed to boost competitiveness and spur economic growth. This can be achieved, in part, through enterprise innovation facilitated by increased and more efficient investments in applied research and development (R&D), and, support for research commercialization, enterprise formation, and growth of innovative small and medium enterprises (SMEs). Innovation indicators related to these objectives show that Serbia has low level of R&D expenditures, a science financing model that results in inefficiencies, due to its largely non-competitive structure, and low levels of public-private research collaboration, which results in low levels of commercialization of research results that could support economic growth.

With a track record of decade-long and successful cooperation with Serbia on innovation and entrepreneurship, the World Bank (WB) is again ready to embark with the Government of Serbia (GoS) on this subject through the SAIGE Project building up on the success of the World Bank administered first EU Instrument for Pre-Accession (IPA) financed Serbia Innovation Project (SIP). Continuity in financial support for enterprise innovation and facilitates technology transfer and commercialization piloted by the Innovation Fund, and supporting design of public research sector reforms had been achieved the World Bank financed Competitiveness and Jobs Project (US\$100 million loan approved in September 2015). The vision is to address these challenges up to a certain level, with a development objective of enhancing Serbia's growth and competitiveness by improving (i) relevance and quality of scientific research, and (ii) entrepreneurship innovation and growth finance accessibility.

The Project will consist of three components and subcomponents:

- **I.** Component 1: Research sector reforms: Subcomponent 1.1: Serbia Science Fund; Subcomponent 1.2: RDI Reforms; Subcomponent 1.3: Serbian Diaspora Facility;
- II. Component 2: Enterprise Acceleration
- III. Component 3: Project Implementation, Monitoring, Capacity Building

Project implementation will be led and coordinated by the Ministry of Education, Science and Technological Development (MoESTD) namely its PIU and through the Science Fund and the Innovation Fund as associated Project Implementation Agencies. The Science Fund will be responsible for the implementation of Component 1.1 Science Fund and Component 1.3 Diaspora Facility and will hire/assign appropriate staff/consultant as required. MoESTD will be responsible for the implementation of Component 1.2 RDI Reforms while the Innovation Fund will be responsible for the implementation of Component 2 - Enterprise Acceleration.

The project is designed as an Investment Project Financing (IPF) and as such needs to comply with the World Bank's Environmental and Social Standards (ESS). In response to the commitment of the GOS to comply with the ESF, the Ministry of Science and Technological Development has developed this Environmental and Social Management Framework to define the steps, processes, and procedures for subproject screening, assessment, management and monitoring of environmental and social risks and impacts of the sub-projects. The document provides general framework for the Project to ensure compliance with the national laws, regulations, the WB requirements in the area of environmental and social performance including Labor and Working conditions. The ESMF includes screening processes in order to exclude any sub-project which could potentially have significant adverse environmental and social impacts ("High risk" and "Substantial risk" projects) and has included an exclusion list of ineligible project activities. In order to ensure ethical conduct in relation to eligible research activities under the National law, the document builds upon the procedure currently applied by the Science Fund (R of the EC for European Research Centre and Horizon 2020 projects with the commitment to develop a separate Ethics Act (in the form of a by-law, which is to be adopted by the Science Fund's Managing Board) by January 2020 and before the first Call for proposals. Compliance of procedures for research activities, advisory and policy support provided to SF and RDIs with WB ESS4 on Community Health and Safety will be evaluated with the Bank's ESH guidelines by mainstreaming into the Environmental and Social Screening tool. Innovative Fund will adopt same type of Internal Act which will be adopted before the first Public call for the Component 2

The direct project beneficiary is the MoESTD and its associated project implementation agencies: the Innovation Fund and the newly established Science Fund.

End beneficiaries include: Public Science and Research Organizations (SROs), Researchers, Private sector enterprises and investors

The project is classified as Moderate Risk taking in account impacts and nature of the interventions, the experience of the implementing agencies in managing similar activities and the application of new and energy efficient technologies. The Project will not directly fund civil works although limited upgrading of laboratory

infrastructure and facilities, within the existing footprint, is eligible for financing under the project, and no adverse impacts such as involuntary land acquisition, impacts or biodiversity, on cultural heritage, are expected. The environmental risks will be small in magnitude, of temporary nature and directly associated with the listed investments and TA activities under the Project. In few cases, the mitigation activities will need to be designed to deal with disposal of wastewater, communal, industrial or hazardous waste. Any activities that may have high or substantial environmental and social impacts, including involuntary impacts on land or assets, and unpredictable risks for the environment, community health and safety will be deemed ineligible through the Project's Environmental and Social Screening Procedure developed to defining grant eligibility.

The following tentative list of specialized focus areas are being considered: Information and Communication Technology - ICT (including software and hardware Food production technology, Agriculture technology (e.g. innovative seeds or planting methods), Clean and efficient technologies in energy and transport, Bio-based industries (renewable natural resources), Transportation technology (e.g. trains and railway infrastructure that reduce costs and improve capacity, reliability and punctuality, Medical equipment, Innovative medicine (including, e.g. vaccines, medicines and treatments), animal and human tissue research. Each research area has been attributed with the risk assessment and rating yet constitute the preliminary assessment to be further elaborated sub-project specific.

Finally, the Labor and Working Conditions risks have been assessed and commensurately Labor Management Procedure developed as part of this ESMF to be followed by the Borrower and any third party employing or engaging workers in relation to implementation of the Project.

1. INTRODUCTION

1.1. Context

Innovation and entrepreneurship are important drivers of growth, due to their role in shifting growth patterns to be more productivity based and trade-oriented and increasing economic dynamism. Innovation in Serbian firms is currently limited by constraints to achieving research excellence (high quality of outputs) and research relevance (economic and societal applicability), both of which are needed for innovation to contribute to growth. Innovation-related indicators show that Serbia, compare to the EU countries, has (i) low levels of Research and Development (R&D) expenditures, (ii) a science financing model that results in inefficiencies, due to its largely non-competitive structure, and (iii) low levels of public-private research collaboration, which results in low levels of commercialization of research results that could support economic growth. The Republic of Serbia is making efforts to improve the existing system in order to better integrate it into the European research and Innovation area.

To address above mentioned challenges, the Government, supported by the World Bank and the European Union Delegation to the Republic of Serbia, has committed and initiated significant reforms of the country's research and innovation, and entrepreneurship system. Government efforts include a comprehensive set of reforms that includes both supply (R&D) and demand side (private sector innovation) interventions, as well as creating links between the two.

A key element of the supply side reforms is changing the model of public financing of R&D activities in the country, including a transition to competitive financing through the introduction of a new funding instrument, the **Science Fund (SF)** of Serbia. To this end, a new Law on the Science Fund (Official Gazette of RoS No. 95/18) was adopted by Parliament in December 2018, and a new Law on Science and Research was adopted in July 2019 (Official Gazette of RoS No. 49/19). To create a more effective R&D financing model, a new institutional framework is being developed. Based on good international practice and in accordance with the provisions of the Science Fund Law, Serbia has established an autonomous and professional government institution – the Science Fund to implement competitive research funding.

On the demand side, current financing for innovative businesses in Serbia is low. Majority of small and medium enterprises (SMEs) are financed solely from their own sources. Lack of affordable financing, coupled with limited training and mentoring, is preventing Serbian companies to modernize their production and invest in innovation and commercialization, with young firms and SMEs particularly affected by this.

From 2011 to 2016, the World Bank administered the first EU IPA financed Serbia Innovation Project (SIP) aiming to assist the Government of Serbia (GoS) in building the institutional capacity to stimulate innovative activities in the enterprise sector by supporting the operationalization and institutional capacity building of the Serbia **Innovation Fund** (IF), piloting financial instruments for technological development and innovation by enterprises. Subsequently, the Innovation Fund continued to expand its capacities and developed new instruments through EU IPA projects, as well as further strengthening of operationalization through the World Bank Competitiveness and Jobs project.

The proposed **Serbia Accelerating Innovation and Growth Entrepreneurship** (**SAIGE**) **Project** is a continuation of decade-long and successful cooperation between Serbia, the EU and the World Bank on research, innovation and entrepreneurship.

Project implementation will be led and coordinated by the Ministry of Education, Science and Technological Development (MoESTD) namely its PIU and through the Science Fund and the Innovation Fund as associated Project Implementation Agencies (Hereinafter referred collectively to as: The Funds).

1.2. Objectives of the Environmental and Social Management Framework

This Environmental Management Framework Document (ESMF) provides general policies, guidelines, codes of practice and procedures that will be in place during the implementation of the SAIGE Project (Hereinafter: The Project) to meet requirements of the World Bank (WB) Environmental and Social Standards (ESS). ESMF is an instrument used to assess risks and impacts of projects consisting of programs and/or number of sub-projects, and such risks and impact cannot be identified before the details of such program or sub-projects are defined.

It defines the steps, processes, and procedures for sub-project screening, assessment, management and monitoring of environmental and social risks and impacts of the sub-projects. The document provide general framework for the Project and includes screening processes in order to exclude any sub-project which could potentially have substantial and high adverse environmental and social impacts ("High risk" and "Substantial risk" projects).

ESMF includes measures and plans for reduction, mitigation and/or compensation of unavoidable adverse risks and impacts, rules for estimating and budgeting costs of such measures, as well as information on the agency or agencies responsible to address project risks and impacts. It further includes adequate information

on the area where the sub-projects are expected to be implemented, including any potential environmental or social vulnerability of such area; as well as information on potential impacts and mitigation measures commensurate to the scale of the impacts.

All sub-projects to be financed under the Project are subject to the project specific environmental and social screening which shall be conducted by the Project Implementation Unit and The Funds, following the procedures laid out in this Framework. The screening aims at identifying potential impacts at the sub-projects levels so adequate avoidance, minimization or offset measures as the case may be are applied.

This ESMF is intended to be used as a practical tool during program formulation, design, implementation, and monitoring in Project. The purpose of this framework is to specify the procedures that the Project will have in place during implementation, with the objective that all activities supported under the Project will be environmentally and socially sound and sustainable, consistent with WB ESS and Serbian national legislation.

ESMF shall guide the Project stakeholders to address, avoid, minimize or mitigate adverse environmental and social risks and impacts and enhance the environmental and social outcomes of the Project. ESMF document provides the responsibilities of different parties involved in the project implementation and presents sufficient guidance for the selection, preparation and implementation of sub-projects.

Finally, the ESMF provide guidance for preparation of sub-projects site-specific Environmental and Social Management Plans (ESMPs).

This ESMF is prepared with the aim to ensure the following:

- Project compliance with all relevant local polices and legislation, as well as the World Bank requirements.
- Adequate mitigation of all potentially adverse environmental and social impacts of the Project.

2. PROJECT DESCRIPTION

2.1. Project Development Objective

The project's development objective is enhancing Serbia's growth and competitiveness by improving relevance and quality of scientific research, and entrepreneurship innovation and growth finance accessibility.

2.2. Project Components

The Project will consist of the following three components and subcomponents:

Component 1: Research sector reforms (US\$38 million)

<u>Subcomponent 1.1</u>: Serbia Science Fund (US\$25 million) – This subcomponent will finance certain competitive programs of the Science Fund that is likely to include basic science grants, applied research grants with incentives for promoting linkages between the private sector and R&D community, incentives for enhancing collaboration with EU (e.g., Horizon 2020, Horizon Europe) and other international programs. This component will also include provision of technical assistance (TA) for the operationalization of the Science Fund, including corporate governance, organizational structure, monitoring and evaluation (M&E) and other key institutional elements.

<u>Subcomponent 1.2</u>: RDI Reforms (US\$9 million) – This subcomponent will support reforms of the public Research and Development Institutes (RDIs) system by providing appropriate incentives for undertaking institutional reforms by RDIs on a voluntary (opt-in) basis. This will include providing financing to a select group of RDIs (5-6) who are willing and able to transform.

<u>Subcomponent 1.3</u>: Serbian Diaspora Facility (US\$4 million) - The project will support a Serbian Diaspora Facility (SDF) within Science Fund to leverage the strengths and desire of Serbian diaspora community and benefit from this immense potential in the development of research, innovation and entrepreneurship ecosystem in Serbia. This technical assistance and matching grants program will aim to attract promising scientists, researchers and entrepreneurs from the Serbian diaspora community to transfer knowledge and skills back to Serbia.

Component 2: Enterprise Acceleration (US\$8 million with additional \$US10 million EU IPA funding being considered to total US\$18 million)

This component is designed to build on existing programs of the IF, and will be complemented by a project proposed under the EU IPA 2019, with the decision on financing by the EU expected by October 2019.

The enterprise acceleration program will consist of two streams: one for early (idea) stage, and the other for growth (scale-up) stage companies. Each stream will serve some 20 companies (teams of two founders) per year, selected competitively by participating investors. The goal of the program will be to double the valuation of the company, i.e. to rapidly advance its development, within a year of program completion. If, throughout

the program, market feedback on a company's product, service, or strategy, does not indicate high growth potential, mentors will work with company founders to "pivot," or adjust strategy to market demand, if that is possible.

The focus will be on businesses based on digital technologies, and specialized sub-groups could be considered (e.g. ICT, food and agriculture, health, biotech, education and gaming, etc.). Companies will receive non-dilutive investment (through a co-financing facility) and extensive technical assistance in negotiating with individual investors or early stage funds, which may be equity-based.

Component 3: Project Implementation, Monitoring, Capacity Building (US\$2 million with additional EU IPA funding being considered to total US\$4 million)

This component will finance activities related to project implementation and monitoring including operations of a Project Implementation Unit (PIU). This will include operational and fiduciary (procurement, environmental and social safeguards), M&E, project audits, studies, policy/program design and capacity building support to the MoESTD and related agencies.

2.3. Project Beneficiaries

The direct project beneficiary is the MoESTD and its associated project implementation agencies: the Innovation Fund and the newly established Science Fund.

End beneficiaries include: Public Science and Research Organizations (SROs), Researchers, Private sector enterprises and investors.

2.4. Results Chain

The project aims to strengthen the excellence and relevance of scientific research by introducing a new funding mechanism that supports excellence and relevance of scientific research (Component 1.1), reforming public RDIs to be able to enhance their R&D excellence and relevance including better commercialize the results of scientific research (Component 1.2), building the capacity and culture around the importance and demand for scientific research and introducing mechanisms to accelerate innovative ideas for startup/growth stage businesses (Component 2). This should lead to a more relevant and excellence scientific research outcome, qualified and adequate human resources conducting research and accessible growth financing which supports entrepreneurship innovation. At the end, the project outcomes contribute to enhanced growth and competitiveness.

The project will provide support to the SF in developing key elements in several steps:

Step 1: Preparation and Design

- Action 1: Preparation of Science Fund's operating policy and procedures manual (rule book)
- · Action 2: Training, study tours and mentoring of management, staff and selection boards
- · Action 3: Design of support programs including preparation of grant manuals
- Action 4: Establishment of selection boards(s) and peer-reviewer system
- Action 5: Design of communication and promotional activities

Step 2: Ongoing Technical Assistance

- Action 1: Operation of selection boards(s) and peer-reviewer system
- · Action 2: Execution of communication and promotional activities
- Action 3: Design of monitoring and evaluation and impact assessment framework
- Action 4: Conducting relevant feasibility and foresight studies and assessments
- Action 5: Support to ministry, R&D organizations, researchers and SMEs for enhancing regional and EU collaboration (e.g., Horizon 2020, Horizon Europe++) and other international programs
- Action 6: Identification of opportunities, roster of skilled persons for educating and assistance in writing and following up of proposals.
- Action 7: Promotion of regional cooperation activities (e.g. joint evaluation of projects, joint regional proof of concept, etc.).
- Action 8: Enhancing skills of researchers to access international financing for scientific research, through a dedicated program of the Science Fund (related to Actions 6 and 7).

Step 3: Direct research grants – the project will provide financing for direct grants for public research financing under certain programs (to be agreed between the Bank and SF, during implementation based on POM criteria) designed and developed in phases 1 and 2 as described above. This component will be an addition to Government budget (and possibly from EU IPA 2019 Program) resources allocated for this purpose.

2.5. EXCLUSIONS

The Project will not finance:

- Any activities which would have an irreversible and substantial environmental and social impact, and correspond to a World Bank Categories "High Risk" or "Substantial Risk" Projects¹. Consequently, only Moderate Risk and low Risk projects are eligible for financing under the Project. This means that the Project will not finance activities for which a Full Environmental Impact Assessment is required as per the Law on Environmental Impact Assessment (Official Gazette of RoS No. 135/2004 and amended in 2009 36/2009) or as per WB ESS 1.
- The Project will not finance activities that would e.g. affect natural habitats, forests, finance experiments or production of pesticides, or cause economic and social displacement.
- Any activities which involve land acquisition or any form of resettlement.
- o Any of the activities listed in the World Bank Group -IFC Exclusion List given in Annex 01A.
- Any construction and reconstruction activities. However, limited upgrading of laboratory infrastructure and facilities, <u>within the existing footprint</u>, is eligible for financing under the project.
- Research on human beings/tissue/embryos and animals that are not in line with EC regulations² for this type of research. Ethical issues stated within the Horizon 2020³ "Ethic Issue Table" (enclosed as Annex 01C to this ESMF) will not be eligible for financing under this Project unless they comply with EC regulations.
- Research on human beings/tissue/embryos that is not in line with Serbian regulations⁴

Relevant provisions of Serbian Law on Health Care are enclosed as Annex 11B of this ESMF document. Most important requirements are:

The Ethics Boards (Serbian: "Eticki Odbor") of the Institutions where the research on human beings/tissue/embryos are conducted <u>shall give their consent</u> to the conduct of scientific research and the taking of human beings, cells and tissues.

The work of Ethics Boards in health institutions is coordinated and monitored by the Ethics Board of Serbia (Serbian: Eticki Odbor Srbije) in accordance with the Law on Health Care. The Ethics Board of Serbia is an expert body that takes care of the provision and implementation of health care in accordance with the principles of professional ethics, the principles of respect for human and values and the rights of the child, at the level of the Republic of Serbia.

Research on animals that is not in line with Serbian regulations⁵

Relevant provisions of Serbian Animal Welfare law are enclosed as Annex 11A of this ESMF document. Most important requirements are:

Animal testing must be conducted on the basis of a decision on the approval of animal testing issued by the Minister, based on the expert opinion of the Ethical Commission (Serbian: "Eticka komisija") for the Protection of the Welfare of Experimental Animals.

For conducting specific and invasive animal experiments, the Ministry decision shall be issued on the basis of the opinion of the Ethical Council (Serbian: "Eticki Savet") for the welfare of experimental animals.

Scientific Research Organizations (SROs) and other legal entities conducting animal experiments are obliged, within their organization or together with other scientific research organizations, or legal entities conducting animal experiments, to establish an Ethical Commission for the protection of the welfare of experimental animals.

3. ENVIRONMENTAL AND SOCIAL BASELINE ON NATIONAL/STATE LEVEL

3.1. Baseline country and environmental information

 $^{^{1}\} Environmental\ and\ social\ risk\ classification\ in\ line\ with\ WB\ Environmental\ and\ Social\ Framework\ (\underline{http://pubdocs.worldbank.org/en/837721522762050108/Environmental-and-Social-Framework.pdf}\)$

² https://ec.europa.eu/environment/chemicals/lab_animals/legislation_en.htm

³ Horizon 2020 Programme - Ethic Self-assessment, EUROPEAN COMMISSION - Directorate-General for Research & Innovation (https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf)

⁴ Law on Heath Care ("Official Gazette of RS", No. 25/2019)

⁵ Animal wellfare Law ("Official Gazette of RS", No. 41/09)

Serbia has a land area of 88,499 square kilometers, constituting only 0.05% of the world's land area, or about 1.5 % of Europe. Despite its small size, however, the environment of Serbia is highly diverse compared to other countries in Europe. The reasons for this comparative richness include: the variety of climate, topography, and geology and the long- term ecological and evolutionary history of the region as a biological crossroads.

The Republic of Serbia (RoS) has a population of about 7,5 million, of which some 50% live in rural areas, and 17% derive their living from agriculture and associated industries. The RoS has three major land forms – the plain areas in Vojvodina and the flood plains of the Danube, Sava and Drina rivers; the Morava valley in its main stream and two southern arms; and the mountainous areas which cover most of the country south of the Sava and Danube. The water resources of RoS in addition to rainfall are dominated by the river inflows from upstream riparian sources estimated at 85% of available water. The balance is derived from the River Morava from within the country. Due to seasonal variations there are some 160 storage dams, some of which have hydro-electric generation facilities.

3.2. Water

Republic of Serbia abounds in waters that are its great natural wealth and has a dense river network, numerous lakes and numerous sources of hot and mineral water. Water quality in Serbia differs significantly from one region to next. Some data, obtained through monitoring, has shown the presence of: ammonia, nitrates, sulfides, iron and mineral oils in the Tisa River Basin; evaporable phenols and manganese in wells in the area of Backa; and, in some cases, suspended solids – for example, in the South Morava Basin. Throughout Serbia, the most problematic physicochemical water quality parameters are turbidity, iron, manganese, nitrates. In Central Serbia the main problem is bacteriological contamination.

Untreated municipal and industrial waste waters are still the greatest source of pollution. The response of pollutants is still unsatisfactory for fulfilment of their legal obligations and reporting about emissions in waters.

There is a need for the modernization of livestock farms, transformation of machinery stock and fuel storage facilities, adequate management of liquid manure and agricultural wastes, outer and inner integrated establishment and maintenance of drainage. The interventions providing the achievement of good ecological state of waters by adequately selected agro technological operations should be preferentially supported.

3.3. Waste

The general state of waste management in Serbia is still inadequate, posing public health and environmental hazards. The most acute problem is hazardous waste, which is not separately collected and disposed of – currently it is processed in regular waste disposal sites. In general, over 50% of disposal sites do not meet the technical requirements of sanitary landfills, and are actually just fenced and mapped dump areas. There are also hundreds of illegal dump sites of various sizes in rural areas. Moreover, leakage from these dump sites poses a threat to groundwater, surface water and soil, due to the high content of organic matter and heavy metals. It is, however, important to mention adoption of the new Law on Waste Management, which is fully harmonized with the EU acquis communautaire, and the numerous sub-laws that are currently being developed.

3.4. Climate changes

According to the World Meteorological Organization, the estimated effects of climate change on Serbia will be the medium range. Serbia, as well as south-east Europe, is likely to have hotter summers, decreased precipitation and, therefore, an increased risk of summer drought. According to data trend over the last 35 years an increase of yearly air temperature by 1°C is noted on Serbian territory in the last 100 years. Shorter periods have greater positive values which mean that the increase of temperature at yearly level has intensified over the last couple of decades. Although there are periods with positive and negative trends, since 1982 negative trends ceased and only an increase in temperatures was noted and it lasts still today.

3.5. Biodiversity, flora, fauna

In general, Serbia has rich and diverse biodiversity, flora and fauna, a number of different types of ecosystems of particular environmental importance, but it is important to mention that specific diversity in Serbia is under-researched or documented. According to available data, experts estimate that around 60000 taxa (species and subspecies). These includes: forest ecosystems representing different types of forests; high mountain regions with characteristic mountain ecosystems well-represented or preserved, some of which are found on borders and would require trans-boundary management efforts; mountain regions in which traditional human activities have maintained and even increased biodiversity through centuries of maintaining the open pastures of mountain meadows; gorges and canyons that have been identified as important centers for relict and endemic species; steppe and sands of Vojvodina, as well as lakes, wetlands

swamps, marshes, ponds which provide key habitat for migratory birds from elsewhere in Europe and have been identified as wetlands of the Ramsar Convention; karst regions in parts of Serbia, with their numerous caves and pits, supporting a rich fauna; and mountain bogs around mountain and glacial lakes.

It is estimated that in Serbian territory over 1000 species of flora are endangered, according to the Red list of Serbian flora (2002). Most of the endangered plants in Serbia is in the IUCN category of "rare plants". The most endangered part in Serbia's biodiversity considers the forest ecosystems and especially sensitive ecosystems (e.g. wetland habitats, prairie habitats, continental salt marshes, sandy terrains, mountain habitats) some of which are refugee habitats for relict and endemic species.

3.6. Reaching environmental standards in Serbia

Republic of Serbia is taking a huge effort to reach good environmental standards. A set of environmental laws adopted during the last two decades contributed to Serbia coming closer to desired environmental standards. The standards of good environmental practice are applied throughout the country, and progress is particularly visible within the energy and transport sector, also due to the fact that several large projects were financed by different International Financing Institutions (IFI), which implemented a strict environmental systems. However, there is still a lot of work to be done regarding environmental protection in Serbia and this chapter is focused on issues most commonly present in these fields, which lead to environmental degradation.

3.7. Population

The estimated number of populations in the Republic of Serbia in 2018 was 6 982 604⁶. Observed by sex, 51.3% were women (3 580 898) and 48.7% were men (3 401 706). The depopulation trend continued, meaning that population growth rate, compared with the previous year, was negative and amounted to -5.5‰. At the same time, the process of demographic ageing of the population is manifested by the low and steadily declining participation of young people and the high and continuously increasing share of the elderly in the total population. According to the data for the Republic of Serbia in 2018 the share of persons aged 65 and over was 20.2% and 14.3% for those under the age of 15. Observed at the level of areas, Zajecarska oblast saw the largest share of persons aged 65 and over (28%) and at the same time the smallest share of population aged under 15 (11.3%). On the other hand, the lowest share of persons aged 65 and over was noted in Pcinjska oblast (15.3%); however, the largest share of population aged below 15 was found for Raska oblast (18.2%), and then for Pcinjska oblast (15.,7%).

Serbia has achieved high level of gender equality in science and research participation. As of 2016, women represent at 48.4 percent of researchers 2016 (UNESCO, Women in Science, 2018). However, the percentage of women applicants from companies (owners and employees) is expected to be low due to the underrepresentation of women in early-stage innovative entrepreneurship. The portion of innovation companies with at least one-woman founder is estimated to be 17 percent (Digital Serbia Initiative, 2018). The share of women working in technology startups in the area of software development is approaching 15 percent, which, while above international standards, is still significantly below 50 percent.

Project beneficiaries are new and established scientists and owners of innovation firms. These individuals typically have high level of education and social capital and tend not to belong to disadvantaged/vulnerable groups in the society. Non-discrimination principles will be reflected in the TA provided to selected RDIs, embedded in the design of grant support programs and the proposed stakeholder engagement activities.

3.8. State of Innovation and entrepreneurship

Innovation in Serbian firms is currently limited by constraints to achieving research excellence (high quality of outputs) and research relevance (economic and societal applicability), both of which are needed for innovation to contribute to growth. According to USAID's Serbia Business Survey 2017, 84 percent of small and medium enterprises (SMEs) are financed solely from their own sources. Micro-financing and venture capital investment are impeded by an unclear legal framework, high costs of deal discovery for investors, and persisting information asymmetries between entrepreneurs and investors about opportunities for investment. Meanwhile, commercial bank loans are accompanied by high requirements for collateral or long history of operations, neither of which young, innovative firms typically possess. Lack of affordable financing, coupled with limited training and mentoring, is preventing Serbian companies to modernize their production and invest in innovation and commercialization, with young firms and SMEs particularly affected by this challenge. Innovation-related indicators show that Serbia, compare to the EU countries, has (i) low levels of R&D expenditures, (ii) a science financing model that results in inefficiencies, due to its largely non-competitive structure, and (iii) low levels of public-private research collaboration, which results in low levels of commercialization of research results that could support economic growth. Around 0.9 percent GDP is

⁶ Source: http://www.stat.gov.rs/en-us/vesti/20190628-procenjen-broj-stanovnika-2018/?s=1801

invested in R&D, well below EU average of 2.03 percent, with most of the funding coming from the Government. To address these challenges, the Government has committed and initiated significant reforms of the country's research and innovation, and entrepreneurship system. The reforms aim to reduce challenges recognized in the Research for Innovation Strategy, 2016-2020.

A 2016 Word Bank analysis identified promising potential of the Serbian entrepreneurship ecosystem, but identified the following limitations, which continue to persist:

- Supply of IT, managerial, and creative skills,
- Lack of "smart money," i.e., training and mentoring coupled with financing for innovative early-stage and growth-stage enterprises, with a gap especially prominent in the US\$500,000-US\$1,500,000 range- the total venture capital investment in 2017 was only 1,5 million EUR
- Low rates of commercialization of inventions and innovations, and
- Challenging business environment for entrepreneurs.

Despite the economic crisis, the overall public R&D expenditure in Serbia has been increasing over the past years. The biggest jump was seen in 2011 when the budgetary allocations increased by 22% in comparison with 2010, following the government obligations which are result of the additional financing for research infrastructure through financial agreements with the EIB and the Council of Europe Development Bank with a total value of €305m which was implemented in 2010-2015. After that MoESTD continued to support innovation activities through IPA funds and other sources. In that respect 18.6 million EUR was allocated in total through Innovation Fund supporting programs so far. Addition to this, beside other initiatives, through different programs ministry supports science technology parks in order to improve innovation ecosystem.

3.9. State of Research and Development (R&D)

Currently, research activities in Serbia are funded directly by the Ministry of Education, Science and Technological Development (MoESTD) mostly through project-based funding. With success rates of up to 95 percent, practically all applicants receive funding and the limited resources are split evenly across the research community. Such a system does not systematically promote research excellence, nor does it consider its relevance for economic partners. This is evident in the low and declining output of the Serbian research community, witnessed by the decreasing number of publications since 2012. The current system incentivizes individual researchers to publish. This has given limited success in generating high quality of scientific output; however, reforms are necessary to establish institutional incentives for increasing the quantity of expertise, and increasing the relevance and quality of research. All these improvements are necessary to increase the absorption capacity of the country's R&D sector, including accessing European research funding source.

The innovation process is fragmented, the public R&D and business sector is separate from each other, and there is no significant industry-academia cooperation or networking. It would be crucial to integrate business sector into the R&I system, however, there are no measures to change this situation at present. 3) There are no demand-side R&D and innovation policy tools – there are no national studies, guidelines in this field. 4) Regarding human resources in R&I, brain drain is still a serious problem in Serbia and the research population is aging. Salaries are not attractive enough to encourage young talents to choose a scientific career. Although there are some efforts (e.g. funding programme) to encourage Serbian researchers to return home, the present system does not seem to be open enough for this initiative. 5) The evaluation culture and monitoring system are still relatively weak in Serbia: there is no transparent and permanent evaluation and monitoring system in practice. 39 See Correa et al., 2013b 40 See Kutlaca, 2011 41 See Smart Specialization Platform, European Commission, 2014a 42 See Smart Specialization Platform, European Commission, 2014a 44 See EBRD, 2014. Baseline study and concept for policy mix peer review (D4.19).

Serbia has made important progress in international cooperation as it is more and more active in the EU Framework Programmes, signed new bilateral S&T agreements, member of EUREKA and COST. However, there is no strategy for international cooperation and still many of the international cooperation/networking opportunities cannot be realized due to lack of institutional support or funds.

MoESTD continued to support RDIs activities in the country during the years, made the decision to reform the R&D framework and continued to support innovation activities through IPA funds and other sources. In that respect, MoESTD has taken significant steps to improve the legislative and institutional framework in order to create an effective national research and innovation system, and provide support to infrastructure projects of governmental interest. Addition to this, Serbian Government fully supports the creation of the Smart Specialization Strategy Serbia (4S) and the MoESTD coordinates this process with the active engagement of all relevant institutions from the country which jointly implement this process. The process of creation was launched in early 2017 and for these purposes have been developed several documents and conducted Entrepreneurial discovery process in order to identify priority fields of smart specialization.

4. POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

4.1. Foreword

The legal, legislative and institutional framework for environment and society i.e. social considerations in Serbia is founded on the Constitution of Serbia, which stipulates the right to a healthy environment and the duty of all, in line with the law, to protect and enhance the environment. Health and environment is also supported by many governmental strategies, international agreements and the Millennium Development Goals.

Environmental legislation in Serbia has over 100 laws and regulations. Currently, the majority of these are harmonized with EU directives and other legislation.

4.2. Relevant Institutions

The key relevant institutions for environmental and social management for SAIGE related projects are:

- The Ministry of Environmental Protection (MoEP)
- Provincial Secretariat for Environmental Protection PSEP
- The local self-government authority responsible for environmental protection matters
- Serbian Environmental Pollution Agency
- Ministry of Labor, Employment and Social Policy
- Labor inspectorate
- Occupational Safety and Health Administration
- Ethical Commission for the Protection of the Welfare of Experimental Animals
- Ethical Council for the Welfare of Experimental Animals
- Ethical Boards of Health Care Institutions
- Ethical Board of Serbia

Additionally, a PIU unit established by the MoESTD will be responsible for conducting early environmental and social screening of SAIGE sub-projects to be used for defining grant eligibility criteria.

4.3. EIA procedure in the Republic of Serbia

In the juridical system of the Republic of Serbia, the Environmental Impact Assessment procedure is regulated by the Law on Environmental Impact Assessment, which is completely in line with European EIA Directive (85/337/EEC, 97/11/EC, 2003/35/EC and COM 2009/378). Detailed step by step explanation of Serbian EIA procedure is presented within the Chapter 7.2 of this ESMF document.

4.4. Relevant Government Policies, Acts, Rules, Strategies and Guidelines

Environmental protection in Republic of Serbia is regulated by several national and municipal laws and by-laws. Main environmental legislation in force in Serbia is summarized in Annex 04. Full List of regulations in the field of environmental protection in the Republic of Serbia is placed on following website: https://www.ekologija.gov.rs/wp-content/uploads/inspekcija/List of regulations.pdf

4.4.1. The Constitution of Serbia

Serbia's Constitution, adopted in September 2006, states that "Everyone shall have the right to a healthy environment and the right to timely and full information about the state of the environment. Everyone, especially the Republic of Serbia and autonomous provinces, shall be accountable for the protection of the environment. Everyone shall be obliged to preserve and improve the environment."

4.4.2. The National Strategy for Sustainable Development

The National Strategy for Sustainable Development contains chapters that cover public health and environmental risk factors, including climate change, waste, chemicals, accidents, radiation, noise and natural disasters, such as floods, landslides, fires and earthquakes

4.4.3. Law on Environmental Protection

Law on Environmental Protection (LEP) is adopted in 2004. The LEP is currently the main legislation relating to environment protection in Serbia. The Law on Environmental Protection is fully harmonized with Council Directive 2003/105/EC, which amends Council Directive 96/82/EC on the control of major-accident hazards involving dangerous substances (Seveso II Directive).

The main objectives of LEP are:

- Conservation and improvement of the environment; and
- Control and mitigation of pollution of the environment.

The main focuses of LEP are:

- Declaration of ecologically critical areas and restriction on the operations and processes, which can or cannot be carried out/ initiated in the ecologically critical areas;
- Environmental Approval;
- Promulgation of standards for quality of air, water, noise and soil for different areas for different purposes;
- Promulgation of a standard limit for discharging and emitting waste; and
- Formulation and declaration of environmental guidelines.

To implement the Law on Environmental Impact Assessment, a government decree determines the list of projects for which an impact assessment is mandatory or may be required in accordance with the relevant EU directives 97/11/EC and 337/85/EEC. Public participation is also envisaged in all environmental impact assessment stages. All subsidiary regulations were adopted in 2005.

4.4.4. Law on Environmental Impact Assessment

The Law on EIA (LOEIA) provides categorization of industries and projects and identifies types of environmental assessment required against respective categories of industries or projects.

The Law covers, among others:

- Declaration of ecologically critical areas;
- Classification of industries and projects into 2 categories;
- Procedures for issuing the Final Environmental Approval (FEA); and
- Determination of environmental standards.

LOEIA also contains the procedures for obtaining FEA from the Department of EIA for different types of proposed industries or projects.

4.4.5. The Law on Waste Management

The Law on Waste Management⁷, which is harmonized with all relevant EU directives, has been adopted in 2009. The Law regulate: types and classification of waste; waste management planning; waste management entities; responsibilities and obligations in waste management; organization of waste management; managing special waste streams; conditions and procedure for permit issuance; transboundary movement of waste; reporting on waste and database; financing of waste management; supervision, and other issues relevant for waste management.

Serbian Rulebook on Waste Categories⁸ defines list of waste categories by activities in which it is generated.

4.4.6. The Law on Protection against Environmental Noise

The Law on Protection against Environmental Noise, adopted in May 2009, transposed EU Directive 2002/49/EC. The Law has the following main goals: establishment, maintenance and improvement of the system of noise protection on Serbian territory; and determination and realization of measures in the field of noise protection that avoid, prevent or decrease the harmful effects of noise on human health and the environment. The limit levels of noise are covered by the Regulation on permitted level of noise in the environment.

4.4.7. The Law on Water

The Law on Water ("Official Gazette of RoS" No. 30/10, 93/12), which incorporates the EU Water Framework Directive, covers water regimes, water management areas, responsibilities for water management (including sub-law water management legislation), water management activities, limitation of owners' and beneficiaries' rights, water cooperatives, financing of water management activities, and administrative inspection to enforce the Law. The legislation provides for various water management sub-laws on water resource conditions, water resource compliance and water resource permits.

4.4.8. Animal Welfare Law9

This Law provides for: rules and measures for general animal welfare and protection; rights, duties and responsibilities of private and legal subjects; animal welfare during the process of growth; general life conditions and slaughtering; trading and transportation; tests and scientific experiments; other relevant and significant facts and security measures; and offences and penalties.

This law, inter alia, defines role and responsibilities of Ethic Council for the welfare of experimental animals (Serbian: "Eticki Savet") and Ethical Commissions for the Protection of the Welfare of Experimental Animals (Serbian: "Eticka Komisija), as well as procedure for obtaining of Ministry Decision for conducting animals testing.

⁷ http://www.pregovarackagrupa27.gov.rs/?wpfb_dl=109

⁸ http://www.subotica.rs/documents/zivotna_sredina/Propisi/Pokate.pdf

⁹ https://www.paragraf.rs/propisi_download/zakon_o_dobrobiti_zivotinja.pdf

Animal welfare law is additionally supported by the Regulation on welfare of animal intended for experimental purposes ("Official Journal of. RS", No 39/10) and Rulebook on conditions for entry in the register of animal testing ("Official Journal of. RS", No 39/10).

Most important articles from this Law related to Ethical Issues are given in Annex 11A of this ESMF document.

4.4.9. Law on Health Care ("Official Gazette of RS", No. 25/2019)¹⁰

This Law regulates the health care system in the Republic of Serbia, its organization, social concern for the health of the population, the general interest in health care, supervision over the implementation of this law, as well as other issues of importance for the organization and implementation of health care.

This law, inter alia, defines role and responsibilities of Ethic Boards (Serbian: "Eticki Odbor") within the health institutions. It also defines procedures related to approval of the implementation of scientific research in the field of health, medical research, research in the field of public health, as well as monitoring of their implementation. This law defines responsibilities for issuing approvals for taking of human organs, cells and <a href="https://example.com/human organs, cells and <a href="https:

4.4.10. Law on Protection of Personal Data ("Official Gazette of RS", No. 87/2018)11

This law regulates the right to the protection of individuals with regard to the processing of personal data and the free flow of such data, processing principles, rights of data subjects, obligations of data controllers and processors, code actions, transfer of personal data to other countries and international organizations, supervision over the implementation of this law, remedies, liability and penalties in case of violation of the rights of natural persons in connection with the processing of personal data.

4.4.11. Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine: Convention on Human Rights and Biomedicine *

This Convention¹² protects the dignity and identity of all human beings and guarantee everyone, without discrimination, respect for their integrity and other rights and fundamental freedoms with regard to the application of biology and medicine.

4.4.12. The Law on Occupational Safety and Health

The Law on Occupational Safety and Health regulates the occupational safety and health system in Serbia. By harmonizing this law with the ratified International Labor Organization conventions and EU Framework Directive 89/391/EEC, as well as special directives derived from the Framework Directive, all guidelines originating from them have been accepted in a form adjusted to national conditions. Apart from this Law, the regulatory framework of the occupational safety and health system is integrated by several sub-acts.

4.4.13. Regulation on Labor, Working Conditions and Gender equality

The below represent the core laws relevant to Labor in general and the Project workers..

Labor Law (2005 as amended in 2018)

Law on Civil Servants (2005 as amended in 2018)

The Law on Peaceful Settlement of Labor Disputes (2018)

Law on Employment and Unemployment Insurance (2009)

Law on Employment of Foreign Citizens 2014 (as amended in 2019)

Law on Retirement and Disability Insurance (2019)

Law on Health Insurance (2019)

Law on the Prohibition of Discrimination (2009)

Law on the Prevention of Harassment at the Workplace (2010)

Rulebook on Conduct of Employers and Employees in Relation to Prevention and Protection from Harassment at Work (2009)

Law on Protection of Whistle Blowers (2019)

Law on Gender Equality (2009)

10 https://www.paragraf.rs/propisi_download/zakon_o_zdravstvenoj_zastiti.pdf

http://ravnopravnost.gov.rs/wp-content/uploads/2012/11/images_files_Konvencija%20o%20ljudskim%20pravima%20i%20biomedicini.pdf https://rm.coe.int/168007cf98

¹¹ https://www.paragraf.rs/propisi_download/zakon-o-zastiti-podataka-o-licnosti.pdf

¹² https://rm.coe.int/168007cf98

The Republic of Serbia is a signatory of a number of important and binding international documents, which guarantee the equality of women and men and prohibit gender-based discrimination. Among these documents, the most important are documents of the United Nations (Universal Declaration of Human Rights, the Convention on the Elimination of All Forms of Discrimination against Women — CEDAW), the Council of Europe (European Conventions for the Protection of Human Rights and Fundamental Freedoms, the European Social Charter and the Council of Europe Convention on preventing and combating violence against women and domestic violence) and the European Union (EU Charter of Fundamental Rights).

The IA follows the EU Directive on the protection of animals is applied for scientific purposes ¹³ (2010/63/EU) designed to limiting the use of animal testing for scientific purposes as transposed partially by the Animal welfare law (Official Gazette No 41/09) and Horizon 2020 Programme - Ethic Self-assessment, EUROPEAN COMMISSION - Directorate-General for Research & Innovation

(https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf

NOTE> Full List of regulations in the field of environmental protection in the Republic of Serbia is placed on following website: https://www.ekologija.gov.rs/wp-content/uploads/inspekcija/List of regulations.pdf

5. RELEVANT WB ENVIRONMENTAL AND SOCIAL STANDARDS

5.1. Environmental and Social Management Framework

This Section describes key requirements of the World Bank relevant for the Project. Applicability of these requirements to specific sub-project should be assessed after detailed information on such sub-projects are made available.

The World Bank (Bank) adopted Environmental and Social Framework (2016) which became effective in October 2018. The Framework specifies the Bank's commitment to sustainable development through Bank's policies and number of Environmental and Social Standards designed to support the Borrower's projects, aimed to alleviate extreme poverty and promote shared prosperity. The Bank's Environmental and Social Framework consists of three parts:

- A Vision for Sustainable Development
- The Environmental and Social Standards (ESS 1-10)
- The WB Environmental and Social Policy for Investment Project Financing

5.2. Risk Classification

The Bank classifies all projects into four major categories, depending on the type, location, sensitivity, scale of the project and the nature and magnitude of its potential environmental impacts:

- High risk
- Substantial risk
- Moderate risk
- Low risk.

To determine appropriate risk classification, the Bank takes into account relevant issues such as: Type, location, sensitivity and scope of the project, Nature and magnitude of potential environmental and social risks and impacts, as well as Borrower's (including any other agency responsible of project implementation) capacity and commitment to manage environmental and social risks and impacts in the manner consistent with ESSs.

Other areas of risk can be also relevant for implementation of measures, as well as for results of environmental and social impacts mitigation measures, depending on specific project and context. These can include legal and institutional framework, nature of mitigation and the proposed technology, managerial structures and legislation, as well as considerations related to stability, conflict or security. The Bank discloses project classification and basis for such classification at its website and in the project documentation.

5.3. Project Consisting of Multiple Smaller Sub-projects

¹³ https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32010L0063&from=EN

For projects comprising several smaller sub-projects under the auspices of a Bank supported Project, the World Bank requirements involve mandatory review of adequacy of local environmental and social requirements relevant for the sub-projects, as well as assessment of the Borrower's capacity to manage the environmental and social risks and impacts of such sub-projects, particularly, Borrower's capacity to (a) perform sub-projects screening; (b) ensure necessary expertise for conducting environmental and social assessment; (c) review findings of environmental and social assessment for individual sub-projects; (d) implement mitigation measures; and (e) monitor environmental and social impact during project implementation. If necessary, the project may envisage measures to strengthen Borrower's capacities.

The Borrower is obliged to carry out appropriate environmental and social assessment of sub-projects and prepare and implement such sub-projects as following:

- (a) High-risk sub-projects in compliance with ESSs;
- (b) Substantial, moderate and low-risk sub-projects, in compliance with local legislation and requirements of ESSs which the Bank finds relevant for such sub-projects.

In case that risk ranking of certain project is increased, the Borrower is obliged to apply relevant ESSs requirements as agreed with the Bank.

5.4. Overview of relevance Environmental and Social Standards for SAIGE Project

The Bank is committed to support Borrowers to design and implement environmentally and socially sustainable projects, as well as to strengthen Borrower's capacity to assess and manage projects' environmental and social risks and impacts. The below applicable Environmental and Social Standards establish the standards that the Borrower and the project will meet through the project life cycle, as follows:

	E & S Standards	Relevance
ESS1	Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS2	Labor and Working Conditions	Relevant
ESS3	Resource Efficiency and Pollution Prevention and Management	Relevant
ESS4	ESS4 Community Health and Safety Relevant	
ESS5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement Not Relevant	
ESS6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	
ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities Not Relev		Not Relevant
ESS8	Cultural Heritage	Not Relevant
ESS9 Financial Intermediaries Not Releva		Not Relevant
ESS10	Stakeholder Engagement and Information Disclosure	Relevant

These ESSs are accompanied by unbinding Guidelines, Best Practice Notes, Templates and Checklists'"-Standards applicable to this Project are described in more details below.

5.4.1. ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Assessment and impacts is applied to all projects supported by the Bank through Investment Project Financing. The objective is to identify, evaluate and manage environmental and social risks and impacts associated with each stage of project, in order to achieve environmental and social outcomes consistent with Bank requirements. ESS 1 is also applied to all Associated Facilities/ Activities which must meet ESSs requirements to the extent that the Borrower has control or influence over such Associated Facilities/ Activities. Within ESS 1, the Borrower is obliged to:

- Conduct environmental and social assessment of the propose project, including stakeholder engagement,
- Undertake stakeholder engagement and disclose appropriate information in accordance with ESS10,
- Develop an Environmental and Social Commitment Plan (ESCP) and implement all measures and actions set out in the legal agreement including the ESCP,

- Conduct monitoring and reporting on the environmental and social performance of the project against the ESSs.

The environmental and social assessment will be proportionate to the risks and impacts of the project and will assess in an integrated way all relevant direct, indirect and cumulative environmental and social risks and impacts throughout project life cycle, including those specifically identified in the ESS2-10. Environmental and social assessment process shall apply mitigation hierarchy according to which: (a) risks and adverse impacts needs to be anticipated and to the extent possible avoided, while positive impacts and benefits for the community and physical environment need to be maximized, (b) where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels; (c) residual adverse impacts and risks need to be removed or mitigated to the acceptable level; (d) where moderate residual impacts remain, compensate where technically and financially feasible.

5.4.2. ESS2 Labor and Working Conditions

ESS2 recognizes the importance of employment creation and income generation in the pursuit of poverty reduction and inclusive economic growth. Borrowers can promote sound worker-management relationships and enhance the development benefits of a project by treating workers in the project fairly and providing safe and healthy working conditions. ESS2 applies to project workers including fulltime, part-time, temporary, seasonal and migrant workers.

The term "project worker" is related to:

- a) people employed or engaged directly by the Borrower (including the project proponent and the project implementing entities) to work specifically in relation to the project (direct workers);
- b) people employed or engaged through third parties to perform work related to core functions of the project, regardless of location (contracted workers); (c)people employed or engaged by the Borrower's primary suppliers (primary supply workers); and (d) people employed or engaged in providing community labor (community workers).

Labor Management Procedures (LMP) were prepared to assess and manage labor and working conditions risks for project workers as defined under ESS2. The LMP is incorporated into this ESMF (chapter 6).

5.4.3. ESS3 Resource Efficiency and Pollution Prevention and Management

Sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life cycle consistent with Good International Industrial Practice. Applicability of this EES is established during environmental and social assessment.

The Borrower shall be obliged to apply technically and financially feasible measures to improve efficient consumption of energy, water and raw material, as well as other resources. Such measures shall integrate cleaner production principles into the product design and production processes in order to conserve raw material, energy, water and other resources.

Besides, the Borrower will avoid the release of pollutants or, when avoidance is not feasible, minimize and control the concentration and mass flow of their release using the performance levels and measures specified in national law or the World Bank Group Environmental, Health and Safety Guidelines whichever is most stringent. This applies to the release of pollutants to air, water and land due to routine, non-routine, and accidental circumstances, and with the potential for local, regional, and transboundary impacts.

Pollution prevention and management includes management of:

- Air pollution
- Hazardous and non-hazardous waste
- Chemicals and hazardous material
- Pesticides

5.4.4. ESS10 Stakeholder Engagement and Information Disclosure

Recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.

ESS10 objectives are:

- To establish a systematic approach for stakeholder engagement that will help Borrowers identify stakeholders and build and maintain a constructive relationship with them, in particular projectaffected parties
- To assess the level of stakeholder interest and support for the project and to enable stake-holders' views to be taken into account in project design and environmental and social performance.

- To promote and provide means for effective and inclusive engagement with project-affected par-ties throughout the project life cycle on issues that could potentially affect them.
- To ensure that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner and format
- To provide project-affected parties with accessible and inclusive means to raise issues and grievances, and allow Borrowers to respond to and manage such grievances

5.4.5. ESS4 Community Health and Safety

This standard is likely to be applicable to this Project in rather limited interventions. ESS4 addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable.

Objectives of ESS 4 are the following:

- To anticipate and avoid adverse impacts on the health and safety of project-affected communities during the project life cycle from both routine and non-routine circumstances.
- To promote quality and safety, and considerations relating to climate change, in the design and construction of infrastructure, including dams.
- To avoid or minimize community exposure to project-related traffic and road safety risks, dis-eases and hazardous materials.
- To have in place effective measures to address emergency events.
- To ensure that the safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities.

At early stage of implementation, the Project will ensure that the MoESTD reviews/adopts a set of Environmental, Health and Safety Guidelines materially consistent with ESS4. These guidelines will be used to define the evaluation procedures for research activities, and policy and advisory support provided by the project to establish the Serbia Science Fund and Serbia Diaspora Fund. Such guidelines will also be mainstreamed into the institutional reform programs provided to selected RDIs. Additionally, under component 2, co-investment grant applications will be screened for ineligible activities which will reduce the scope for actions that may pose risk to environment, community health and safety. The Project targets small and medium companies that typically do not use security personnel.

5.5. Environmental and Social Standards currently not relevant for SAIGE Project

5.5.1. ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

This standard is not applicable to this Project, even though it may finance upgrading selected laboratory infrastructure and facilities of RDIs such upgrade shall take place within the existing footprint of the RDIs and will not result in land acquisition Restrictions on Land Use and Involuntary Resettlement.

5.5.2. ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

This standard is not applicable to this Project. ESS6 is applicable to all projects that potentially affect biodiversity or habitats, either positively or negatively, directly or indirectly, or that depend upon biodiversity for their success. It is also applied to projects that involve primary production and/or harvesting of living natural resources.

The Borrower is obliged to avoid adverse impacts on bio-diversity and habitats .When avoidance of adverse impacts is not possible, the Borrower will implement measures to minimize adverse impacts and restore biodiversity in accordance with the mitigation hierarchy provided in ESS1 and with the requirements of this ESS.

5.5.3. ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities This standard is not applicable to this Project given the fact that in Serbia, there are no any social or cultural groups of specific characteristics defined in ESS 7.

5.5.4. ESS8 Cultural Heritage

This standard sets out general provisions on risks and impacts to cultural heritage from project activities. Objective of ESS 8 are the following:

- To promote the equitable sharing of benefits from the use of cultural heritage.
- To address cultural heritage as an integral aspect of sustainable development.
- To promote meaningful consultation with stake-holders regarding cultural heritage.
- To protect cultural heritage from the adverse impacts of project activities and support its preservation.

The requirements of this ESS8 will apply to all projects that are likely to have risks or impacts on cultural heritage. This will include a project which:

- a) Involves excavations, demolition, movement of earth, flooding or other changes in the physical environment:
- b) Is located within a legally protected area or a legally defined buffer zone
- c) Is located in, or in the vicinity of, a recognized cultural heritage site
- d) Is specifically designed to support the conservation, management and use of cultural heritage.

5.5.5. ESS9 Financial Intermediaries

This standard is not applicable as the project does not envision involvement of financial intermediaries

5.6. Other Criteria and Guidelines

The World Bank developed Environmental, Health, and Safety Guidelines¹⁴ which present technical reference documents with general and industry-specific examples of Good International Industrial Practice.

The Borrower is obliged to apply appropriate level of performance or measures referred to in the Environmental, Health and Safety Guidelines. In case of double compliance standards (when country legislation is different from the requirements and measures specified in the Guidelines), the more stringent one shall be applied. Therefore, subproject's Applicants shall follow provisions of the WB EHS during preparation of subproject specific ESMP document and during subproject implementation as well. MOESTD will monitor implementation of EHS requirements through its PIU unit through a two tier monitoring system and relevance of the requirements shall be acknowledged by the Applicants using the Confirmation Statement as presented in Annex 13. The EHS Guidelines are referenced to in this ESMF and become mandatory to each successful Applicant by signing the Confirmation of compliance.

6. LABOR MANAGEMENT PROCEDURES

These Labor Management Procedures (LMP) lay out the Project's approach to meeting the objectives of World Bank Environment and Social Standard 2: Working and Labor Conditions (ESS2). They set out the terms and conditions for employment or engagement of workers on the project, specifying the requirements and standards to be met and the policies and procedures to be followed, assesses risks and proposes the implementation of compliance measures. The LMP is developed to help avoid, mitigate and manage risks and impacts in relation to project workers and ensure protection of their fundamental rights, fair treatment and provision of safe and healthy working conditions. The LMP applies to all project workers, as categorized by the ESS2, whatever basis of their employment or engagement on the project may be.

The Serbian national framework guiding Labor and Working Conditions including Occupational Health and Safety (OHS) meet, with a few minor exceptions, the ESS 2. Therefore the application of the said framework to contracted and direct workers (including civil servants) as the two categories of workers expected under the Project are subject to the mandatory National legal requirements as supplemented by this LMP. Relevant provisions of this LMP will be incorporated into relevant tender documents as will the Monitoring & Evaluation measures as provided in these procedures.

6.1. Overview of labor use on the project

These LMP apply to project workers as defined by ESS2¹⁵, and in the context of the Project include:

Direct workers - persons employed or engaged (or to be employed/engaged) directly by the MoESTD, MoF, Innovation Fund (IF) and Science Fund (SF) (the associated project implementation agencies (PIAs) in relation to the project, including Government civil servants currently employed by the MoESTD.

Additional direct workers are expected to be engaged within the Project Implementation Unit (PIU) established by MoESTD, CFU hosted by the MF and the Science and Innovation Funds respectively. Under this category only persons currently employed with MOESTD qualify as civil servants. The Innovation Fund and Science Fund staff are not employed as civil servants. i.e. the Law on Civil Servants is not applicable to them. The Innovation and Science Fund staff is employed in accordance with the Labor Law which is also applicable to private companies.

Direct workers according to different implementation entities:

¹⁴ https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines

¹⁵ Full text of ESS 2 accesibleis accessible at http://pubdocs.worldbank.org/en/837721522762050108/Environmental-and-Social-Framework.pdf#page=45&zoom=80, last accessed on October 9, 2019

- The Project Implementation Unit (PIU) together with the associated project implementation agencies (PIAs) the Innovation Fund and the Science Fund will be responsible to manage and implement the project. Commensurate to the Project needs, the PIU is expected to be staffed with experts i.e. a project manager, an assistant, three project officers, M&E officer, Environmental and Social Expert (ESE), international institutional advisor for the Science Fund which will both help preparation of SF related components of SAIGE but will provide invaluable advice to the SF on all institutional matters and program designs even before technical assistance is provided through SAIGE/IPA,) international advisor to the MoESTD to help with the design and implementation of the public R&D sector reforms, including reforms of public RDIs and other experts as required by the project to primarily provide support to the two PIAs (Science Fund and Innovation Fund) and the MoESTD. Until the Project achieves effectiveness each role within the PIU will be performed by civil servants employed within the MoESTD. They will be on board until the selection of external consultants to fill these positions is completed and the transitional period of handover of duties and responsibilities is successfully achieved. Engagement or employment, and labor and working conditions of the PIU staff are subject to the terms and conditions consistent with both national law and ESS2 as supplemented by this LMP, while civil servants supporting the PIU during the transition period fall under the national legislation regulating the status, rights and duties of the employees in the public sector. Persons currently employed with the IF and SF do not qualify as civil servants.
- The Central Fiduciary Unit (CFU) of the MF will perform fiduciary responsibilities i.e. procurement and financial management. The CFU is adequately staffed with knowledgeable and experienced consultants but will subsequently express their needs as to the number and profile of the potential personnel who will be assigned to the project work if needed. Their employment/engagement contract will incorporate the terms and conditions consistent with LMP and the LL as they are not civil servants (CFU staff is working as external consultants).
- The Science Fund and Innovation Fund employees¹⁶ by the PIAs are working under the applicable national Labor Law which regulates status, rights and duties. External consultants under the Project will be engaged directly by PIAs and the selection process of external consultants will be supported by CFU. It is planned that 3 staff from the IF will be allocated directly to SAIGE implementation

Contracted worker —people employed or engaged through third parties to provide services essential for specific project activities without which the project cannot be implemented. Contracted workers are expected to be engaged by providers of Technical Assistance, project audits, capacity building supports etc services needed for the project implementation. These service providers (third parties) include firms providing Technical Assistance (TA) for the operationalization of the Science Fund, and educational institutions. The providers will be awarded contracts for specific project activities under each of the Components. The personnel involved in these activities are expected to be accomplished professionals and highly educated and well-established experts, and do not fall into the category of vulnerable persons. The recruitment of these workers is the responsibility of the service providers and the number, structure and schedule for their engagement will be defined in the contracts/agreements that will be signed by the Borrower and the service providers. The number of contracted workers will depend on the activities being implemented and the phase and progress of the project.

Migrant Workers: Foreign citizens employed in accordance with the law regulating employment of foreign citizens in Serbia enjoy the same rights in terms of work, employment and self-employment as Serbian citizens provided that the conditions set in the law are fulfilled. In other words, if any foreign citizen obeys the law and obtains a temporary or permanent residence and a work permit or personal work permit, he/she is entitled to receive the same treatment as any other employee in Serbia. As potential contracted workers are to be selected on the basis of their competences and professional achievement whether they are migrant or non-migrant workers is deemed irrelevant. For that reason, the LMP will not specifically address migrant workers.

The table below provides data on the basis of preliminary assessment at the time of preparing this Framework. <u>Data in the table below shall be entered by the PIU subsequently, after more precise data on engaged direct workers and contracted workers become known.</u>

Timeframe for	Number of	Type of tasks	Necessary skills	Institution

¹⁶ The Science Fund currently engages 13 full time employees and 4 temporary staff out of 20 planned persons. The Innovation Fund currently engages 28 persons.

workers	engaged workers			
Direct Workers (in total beneficiary institutions' employees)	20	Managing Administrative	Essential managerial skills	PIU MoESTD Science Fund Innovation Fund
Direct Workers PIU	6	Project management	Knowledge in the area of environmental and social issues relevant for the Project Communication skills	MoESTD
Direct Workers CFU	2	Fiduciary management	Procurement and financial management experience	MF
Direct Workers on the Project / individual External consultants for PIU	100	Project management Selection Commission Advisors/Experts Peer Reviewers	Knowledge in the area of environmental and social issues relevant for the Project Expertise in RD Technical expertise Communication skills	PIU MoESTD, IF, SF
			Strategic management skills	
Contracted workers (engaged by third parties/ service providers/ consultancy firms/ grant beneficiaries)	130	Trainings Program promotional events and materials	Expertise in R&D Various skills required	TBD

6.2. Assessment of potential labor risks

Project activities. Project workers will mainly be involved in project management, administrative support, capacity building work and IT systems development.

It is expected that significant number of contracts will be consulting services that will involve both individuals and firms. The majority of the individual consultants will be international experts and Serbian diaspora experts and these consultancies will be advertised internationally (UNDB) and locally in newspaper of wide circulation. In order to attract more candidates, consultants previously engaged on similar projects (ISP, SRITTP, C&J, etc) may be also contacted. Selection of consulting firms will be advertised internationally or locally, depending on the scope of assignment and the prescribed thresholds for substantial risk projects.

Key Labor Risks.

Project workers (external consultants and civil servants, and employees of service providers) are anticipated to be office staff with most of their work done indoors. These educated knowledge workers will have desktop jobs, although minor off-site travel may be needed to supervise beneficiaries (direct workers) and to install equipment and to conduct training/TA (contracted workers). Service providers engaged to install IT equipment and provide TA are anticipated to be reputable firms with regulated employment conditions for workers. Thus, labor risks both in terms of working conditions and occupational health and safety are minor and negligible for all project workers including those responsible for installation and testing of IT equipment. Off-site travel (i.e. visit to beneficiaries, training events) might expose them to travel and site related risks and requires some caution, but in terms of occupational health and safety all these risks are minimal. Due preparations have to be made for each visit or event focusing on traffic safety and provision of adequate gear or equipment. Given the nature of the project work and the expected profile of project workers, the risk of child or forced labor tends to be nil. None of the identified project workers are considered vulnerable. No other labor risks are considered to be significant.

6.3. Brief overview of Labor framework, terms and conditions

Various laws, policies and code of practices are applicable to the implementation of this LMP. These laws and policies are aligned with the international standards, namely ILO Conventions¹⁷ and EU Directives, as the terms, conditions and instruments proposed in the international conventions and directives are incorporated into the national labor legislation.

The Constitution of the Republic of Serbia (2006) guarantees the right to work, free choice of occupation, availability of work positions under equal conditions, respect of person's dignity at work, safe and healthy working conditions, necessary protection at work, limited working hours, daily and weekly interval for rest, paid annual holiday, fair remuneration for work done and legal protection in case of termination of working relations.

The Labor Law (LL) (2005, 2009, 2013, 2014, 2017, 2018) is the main legislation that guides labor practices in Serbia. The terms and conditions provided by this Law includes ban to direct or indirect discrimination regarding employment conditions and choice of candidates for performing a specific job, conditions of labor and all the rights deriving from the employment relationship, education, vocational training and specialization, job promotion and cancelling an employment contract for reasons of sex, birth, language, race, color of the skin, age, pregnancy, health condition, and/or disablement, ethnic origin, religion, marital status, family obligations, sexual orientation, political or other belief, social background, financial status, membership in political organizations, trade unions, or any other personal characteristic. The Law guarantees the employee's right to corresponding earnings, compensations and refund of expanses, entitlement to training and professional development, provision of safety and health at work, health-care protection, personal integrity protection, personal dignity, and other rights in the event of illness, reduction or loss of work ability and old age, including financial benefits in course of temporary unemployment, as well as the right to other forms of protection. Women in course of pregnancy and childbirth, parents with a child under three years of age or in need of special care and minors (younger than 18) are given special protection. Harassment and sexual harassment are prohibited. The Law sets out the conditions for employment (including the minimum age for employment), specifies what information an employment contract must contain, and defines fixed term (definite period of time) employment, part time employment, remote work (outside the Employer's premises) and work without established employment relationship (service supply contract, temporary and seasonal work, supplementary work). It stipulates maximum hours of work, overtime, break during working day, daily and weekly rest and leave entitlements (annual leave, sick leave, and maternity leave). The Law lays out the framework for retrenchment and termination of the employment relationship, provides for freedom of association and collective bargaining and guarantees the right to judicial protection.

The LL also envisages engagement via Service Contracts (*Ugovor o Delu*). Direct workers engaged on the Project as individual consultants will be contracted under consultancy contracts, which are treated as Service Contracts under the LL.

Although the LL applies to all employees who work in the territory of Serbia, civil servants are also subject to terms and conditions of a set of laws¹⁸ and bylaws specifying different categories of civil servants, their duties, restrains imposed, selection process, performance management, promotion, professional development, apprenticeship, disciplinary measures, grievances and complaints, HR planning and administration.

Employment relationship is also regulated by the Law on Employment and Unemployment Insurance (2019, 2010, 2015, 2017) and the Law on Employment of Foreign Citizens (2014, 2017, 2018, 2019).

The rights stemming from the employment relationship are further elaborated by the Law on Mandatory Social Security Insurance Contribution (2004, 2005, 2006, 2009, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 20019), the Law on Retirement and Disability Insurance (2003, 2004,2005, 2006, 2009, 2010, 2012, 2013, 2014, 2018, 2019) and the Law on Health Insurance (2019). These laws specify contributions, benefits and entitlements covering all employees and extending the entitlement to social security, retirement, disability, injury and health insurance to those who work without the established working relationship.

The following laws specifically address the issues of discrimination, harassment and equal opportunities at work: Law on the Prohibition of Discrimination (2009), Law on the Prevention of Harassment at the Workplace (2010), Rulebook on Conduct of Employers and Employees in Relation to Prevention and Protection from Harassment at Work (2010), Law on Protection of Whistle Blowers (2014), Law on Gender Equality (2009). They lay out the grievance mechanisms and legal procedures in relation to perceived maltreatment and infringement of the employee's right.

¹⁷ Serbia has ratified all ILO Conventions stated in ESS2 (ILO Conventions 29, 87,98, 100, 105,111, 138 and 182).

¹⁸ Law on civil servants, 2005, with amendments in 2007,2008, 2009, 2014, 2017 and 2018.

The Law on Peaceful Settlement of Labor Disputes (2014, 2009, 2018) regulates the method and procedures of settlement of collective and individual labor disputes. A dispute can be initiated on a voluntary basis in relation to the collective agreement, strike, termination of employment contract, working hours, annual leave, disbursement of salary, compensation of costs, discrimination and abuse at work, etc.

The above legislation applies to all who work or provide services in Serbia and is in line with ESS 2 requirements.

6.4. Gap analysis

Various laws, policies and code of practices are applicable to the implementation of this LMP. These laws and policies are aligned with the international standards, namely ILO Conventions¹⁹ and EU Directives, as the terms, conditions and instruments proposed in the international conventions and directives are incorporated into the national labor legislation.

The one gap relates to the grievance mechanisms as mandatory practice. This is not envisaged in the LL, however the law provides for judicial protection of employees in case of unfair or unlawful employment relationship practices instead.

For employees qualified as civil servants the law guiding their employment addresses the grievance mechanism in such a way to provide for employment relations and workplace dispute resolution through the Appeals Commission housed within the institution providing employment.

The LMP effectively addresses the gap for GM.

6.5. Policies and procedures

The MoESTD HR policies are defined by the LL, Law on Civil Servants, Law on OHS and the Collective Agreement for civil servants (negotiated at 3 years terms, current agreement validity is until 2021 when terms will be re-negotiated). There is HR Management Service at the Government level, for civil servants, performing specialist tasks related to HR management in ministries, special organisations, services of the Government and support services of administrative districts (planning, recruitment and selection, administration of central HR registry, planning and provision of training and development. The labor, working conditions and OHS requirements as defined in the MoESTD HR policies are in line with standards as set forth in ESS2 and this LMP.

The policies adopted for the project will contribute to the achievement of ESS2 objectives and are in line with the MoESTD HR Policies.

All Employers of direct or contracted workers, in the project must ensure safety and health at work. Strict adherence to the legal provisions, notably the LHSW, is required. It is the responsibility of the MoESTD, MF and third parties as Employers (both civil servants and consultants regardless of their employment status) to fulfil all the obligations stipulated by the law. This includes assessment of the OHS risks and hazards, informing and training of project workers on the occupational health and safety issues, and taking preventive measures prior and during the work process in order to mitigate or diminish risks for project workers' health and safety. The third party should adapt work processes, work stations and work environment in such a manner to make them safe and hazard free. If any protective equipment is needed, MoESTD, MF and the third party will provide project workers with it at the third party's expense. The third party must keep records prescribed by the national legislation regarding health and safety at work, and duly report work-related injuries, near misses, fatalities and diseases, in compliance with the law. As for the risks relating to transportation and traffic and residual risks of the workplace, the third party will take reasonable precautionary measures as part of normal work routine.

The project promotes fair treatment, non-discrimination and equal opportunity of project workers. Any and every Employer to direct or contracted workers, will ensure that the selection process for project workers is bias-free, and that the requirements set are not directly or indirectly discriminatory. The project workers will be recruited and assessed on the basis of their competence and professional achievements. Gender, birth, language, race, colour of the skin, age, pregnancy, health condition, and/or disablement, ethnic origin, religion, marital status, family obligations, sexual orientation, political or other belief, social background, financial status, membership in political organisations, trade unions, or any other personal characteristic unrelated to inherent job requirements cannot be ground for making any decision regarding employment and the employment relationship. However, third parties are encouraged to take a gender sensitive approach and make reasonable accommodation to make it possible for persons with disabilities to take part in the project. Provided that project workers are expected to be established experts, no person under the age of 18 years will be employed or engaged for work on the project.

¹⁹ Serbia has ratified all ILO Conventions stated in ESS2 (ILO Conventions 29, 87,98, 100, 105,111, 138 and 182).

All project workers will perform work or provide services under conditions set in their engagement/employment contract or agreement in return for remuneration. Their status must be clearly defined in line with the national law. Any form of disguised employment will not be acceptable. For short term and part time workers, the agreement on work should foresee the possibility of providing some rights typical of the employment relationship (refund of travel expenses, leaves, etc.).

All project workers are entitled to fair treatment and protection from harassment and sexual harassment and abuse at work. The contracted party must install mechanisms that will protect the project worker from incidence of mistreatment. If it happens anyway, the grievance mechanism should be in place to enable the project worker to file grievances to a competent person within the company/institution and be informed on the actions taken subsequently in relation to his grievances, without prejudice to his/her right to seek judicial protection. If a third party does not have an affective grievance mechanism in place, they must follow the guidelines in section 9 to design and install such mechanism. Whether adequate GM is in place shall be confirmed by signing the Statement of compliance with provisions of labor legislation (Annexed to this EMSF in A 6Annex 06 to be appended to the Contract).

In no way any project worker will be prevented from joining a trade union or any other worker **organization**. The principle of free association and collective bargaining will be strictly respected. The third party must not condition the participation of a project worker in the project, his/her status, remuneration or entitlements on the project worker's membership or activity in any **organization**. Adherence to law and good practice and a high level of integrity is expected from all participants in the project.

The Borrower will include in tender documentation that non-compliance with the national legislation, particularly the legislation regarding terms and conditions of employment, labor rights and occupational health and safety, may constitute the ground for termination of the contract with a contracted party and exclusion of that party from the project.

Age of employment

Serbia has adopted the ILO Conventions on child labor and incorporated them in the legal system. The minimum age of employment is 15, but the employment relationship with persons under the age of 18 can be established with a consent in writing of a parent provided that work to be performed does not put at risk their health, integrity or education. A person under 18 years of age must present a medical certificate attesting that he/she is capable of performing the activities related to the specific job, and that such activities do not harm his/her health.

As service providers are expected to employ or engage highly qualified, experienced and competent project workers, it is understood that no one under the age of 18 will be employed or engaged. If any contracted party employs or engages a person under the age of 18 years, that party will not only be terminated and excluded from the project but will also be reported to the authorities (Labor Inspectorate).

No other restrictions regarding the age of employment will be imposed. The age of workers will not be used as a criterion in deciding on hiring and promoting project workers or terminating their contracts.

6.6. Responsibilities for management of labor

For direct workers hired or to be hired by the MoESTD, MF, the Innovation Fund and Science Fund labor management responsibilities lies within these entities. The provisions of the LMP will be communicated to the institutions by the MoESTD and copies both on English and Serbian made available. The Head of the PIU will be responsible for selection, engagement and management of the PIU staff while the employee relations/HR issues of civil servants employed by the MoESTD being temporarily seconded to the PIU will be dealt with in line with the Ministry's HR policies and by their Personnel / HR Department, while these relation for staff engaged in the CFU is subject to the LL (as they are not civil servants but consultants engaged through consultancy contracts) with labor management responsibilities distributed among the Head of CFU and HR Department of the MF.

The management of OHS is within the remit of the OHS Officer within MoESTD, CFU and the Innovation and Science Fund (person appointed in compliance with the LHSW).

Any third party hiring contracted workers shall be responsible for the employee relation/HR issues. This will be embedded into the bidding documents contractually enforcing this LMP, through adaptive wording in the bidding documents and a monitoring template to be used for monitoring of labor management performance by the PIU. As for the implementation of these Labor Management Procedures, unless a Labor and Employee Relations/HR Manager or OHS Specialist is assigned to the project by the third party, the team leader will be responsible for compliance with the LMP provisions.

6.7. Terms and conditions - Key aspect governing the Project labor and working conditions

The terms and conditions of employment will be governed by the provisions of the LL, while occupational health and safety is guided by the LHSW. In case of the direct workers who are civil servants the Law on Civil Servants is additionally applicable. The national laws governing labor and workplace concerns are in line with ESS2 with the exception of workers GM.

A project worker may be employed or engaged for work on the project only after negotiating, signing, and receiving a copy of an employment contract or engagement agreement which contains information required by the provisions of the LL

The project worker can be employed on a permanent (open-ended contract) or temporary (fixed-term contract) basis, or can be engaged without establishing the employment relationship on the basis of an agreement.²⁰ In either case, the project worker will be registered in the Central Registry of Compulsory Social Insurance, in accordance with the national legislation of the Republic of Serbia. If the project worker is employed / engaged in his/her domicile country other than Serbia, he/she will be registered in accordance with the national legislation of that country. In case of self-employed project workers, the evidence of registration in the Central Registry of Compulsory Social Insurance or a corresponding foreign body has to be presented.

The terms and conditions of employment or engagement of the project worker must meet at minimum the standards of the LL

6.8. Grievance Mechanism

The LL does not foresee grievance mechanisms as mandatory practice, but provides for judicial protection of employees in case of unfair or unlawful employment relationship practices instead. Any employee may refer to trade union or other representative labor organization for help in handling any disciplinary or grievance action. The Employer should not prevent any project worker from seeking assistance or advice in such situations. The Law on Peaceful Settlement of Labor Disputes allows for settlement of both individual and collective grievances and claims arising from the employment relationship and work situations without referring to judiciary through mediation of mediators and arbiters and agreement of the parties involved. On the contrary, the Serbian legislation relating to prevention of discrimination, sexual harassment and abuse at work and combating corruption is much more specific and is aligned with the above stated requests laying out clear procedures to be followed in any case of discriminatory actions, unjust treatment or concerns over non-compliance with the law.

The law on civil servants addresses the grievance mechanism in such a way to provide for employment relations and workplace dispute resolution through the Appeals Commission housed within the institution providing employment.

The above stated mechanisms provided by the Serbian legislation are considered as minimum standard to be achieved in addressing labor dissatisfaction and perceived maltreatment. Any third party employing and engaging contracted workers are expected to design and implement grievance mechanisms that will be aligned or surpass this standard ensuring an easy access to protective measures and effective remedial actions in work situations that may give rise to grievances and disputes.

For direct workers employed or engaged by MoESTD, MF (PIU, CFU), SF and IF not subjected to the Law on Civil Servants, a special GM will be conceived and housed by the PIU within MoESTD by December 15,2019. This GM shall both serve as workplace and dispute resolution instrument for direct workers and contracted workers in case that no GM exists with the third parties employing or engaging them. Any project worker to be employed or engaged will receive a written information on the GM its function, role, authority and mechanism and such receipt shall be confirmed in writing on an execution copy of the information which shall be kept with the employment/engagement file with the respective HR department or Head of Institution as the case may be.

Grievance mechanisms should address workplace concerns specifying procedures as to whom a project worker should lodge the grievance, the time frame for receiving a response or feedback and steps to refer to a more senior level, while allowing for transparency, confidentiality and non-retribution practices.

The mechanism should foresee the procedure that at least:

- Specifies to whom the employee should lodge the grievance;
- Refers to the time frame allowed for the grievance to be dealt with;
- Allows the employee to refer to a more senior level within the organization if the grievance is not resolved at the lower level;
- Includes right to representation;

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²⁰ The Serbian Labor Law recognises two categories of workers: Employees with established employment relations (fixed term and open-ended employment contract) and persons engaged outside employment relations (seasonal works, service contracts, additional work engagement).

- Guarantees non-retribution practice;
- Does not impede access to other judicial or administrative remedies that might be available under the law or through existing arbitration/dispute resolution procedures, if the grievance is not resolved within the organization;
- Provides for anonymous complaints to be raised and addressed.

The project worker is entitled to give suggestions, remarks and information regarding health and safety at work. He/She may refuse to work if his/her life or safety is endangered or if appropriate measures for provision of health and safety at work are not in place. The project worker may express his/her concern or raise grievances to the appointed OHS officer or through the workers' representative in the Health and Safety Council if such exists in the company.

The project workers should be informed on available grievance mechanisms upon their employment or engagement. The information should be made available together with the notification on prohibition of harassment and protection of whistle blowers²¹.

Contracted parties should demonstrate their willingness to implement these mechanisms, even if such requirement is not prescribed by any law of the domicile country. The direct workers, as civil servants, are subject to the terms and conditions of the national legislation regulating their status. The grievance mechanism provided for by this legislation will be applicable to them.

Third parties management

The implementation of the LMP begins with the tender procedure.

The Borrower will incorporate standardized environmental and social clauses in the tender documentation and contract documents, in order for potential bidders to be aware of the requirements to be met. The Borrower will also state that adherence to the national legislation regarding labor and employment relations and occupational health and safety is a prerequisite for participation in the project.

Tender documents shall be clear that forced labor, child work or disguised employment are unacceptable and may be the ground for exclusion from the project. The requirements should also include ban to discrimination, harassment and gender-based violence.

The bidders will be required to submit a statement confirming their awareness of WB ESF standards, their firm compliance with the national labor and employment and occupational health and safety laws and labor management procedures in accordance with WB ESS2, their willingness WB ESS2, their willingness to establish a GM if not established or to use the project GM, to refrain to refrain from any practice that can be interpreted or perceived as discriminatory or unfair to their employees and in breach of ESS2 requirements. The statement template is presented in Annex 05. The statement should be signed by the bidder's legal representative. The failure to submit such statement will exclude a bidder from taking part in bidding.

The Borrower will make reasonable efforts to ensure that the third parties awarded with the contract are reliable law-abiding entities who do not have history of disrespect for labor law, unresolved labor disputes or frequent work-related accidents. During the evaluation the reliability of the third parties Due diligence shall be exercised.

The contract to be made with the selected third party will incorporate terms and conditions of this LMP as the minimum standard provided for the project workers employed or engaged by the third party.

During the implementation of the contract, the third parties engaging/employing project workers will have to submit quarterly reports presenting their compliance with the LMP during the contract period. The report should include the number and status of project workers, the number of hired and terminated employees in the given period, the number of hours worked, overtime, regularity of payment, OHS issues (injuries and fatalities, if any), safety measures, grievances raised and resolved, training provided/attended, incidents of non-compliance with the law or the LMP.

In case of any inconsistencies or departure from the required standards and practice, the contracted parties will be asked to present a detailed report. Depending on the gravity of a situation or malpractice, the Borrower may decide to inform the Labor Inspectorate on suspected transgressions.

The PIU will monitor the performance of third parties to ensure their compliance with the LMP.

6.10. Community workers

²¹ Such notification is the employer's obligation stipulated by Law on the Prevention of Harassment at the Workplace (2010), Rulebook on Conduct of Employers and Employees in Relation to Prevention and Protection from Harassment at Work (2010) and Law on Protection of Whistle Blowers (2014),

No community workers will be engaged for this project.

6.11. Primary supply workers

Primary suppliers are those suppliers who, on an ongoing basis, provide directly to the project goods or materials essential for the core functions of the project. Core functions of a project constitute those production and/or service processes essential for a specific project activity without which the project cannot continue. Such workers have not been identified during the labor assessment for purposes of this ESMF.

7. POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS AND RISKS

The project is classified as **Moderate Risk** taking in account the impact and nature of the interventions, the experience of the implementing agency in managing similar activities and the application of new and energy efficient technologies. No construction or reconstruction works will be financed under this project and no adverse impacts such as involuntary land acquisition, impacts on biodiversity, on cultural heritage, are expected. However, limited upgrading, refurbishment or renovation activities within the existing footprint are eligible for financing under the project. Having in mind activities which will be performed under SAIGE Components 1, 2 and 3, it can be assumed that no activities with major environmental and social impact ("High risk" or "Substantial risk" projects) would be implemented under the Projects.

The Project will not finance any of the activities listed in the World Bank Group -IFC Exclusion List given in Annex 01A. The environmental risks will be small in magnitude, of temporary nature and directly associated with the listed investments and TA activities under the Project.

Also, the Project will not finance any research on human embryos/beings/tissue and animals that is not in line with EC regulations on this type of research. Research with ethical issues stated within the Horizon 2020²² "Ethic Issue Table" (enclosed as Annex 01C to this ESMF) will not be eligible for financing under this Project unless they comply with EC regulations.

For any subproject which includes animal testing, an approval shall be issued by Ministry based on the opinion of the Ethical Commission for the Protection of the Welfare of Experimental Animals.

For specific and invasive animal experiments, an approval shall be issued by Ministry based on the opinion of the Ethical Council for the Welfare of Experimental Animals.

For any subproject which include research activities on human tissue an Consent issued by an <u>Ethical Board</u> of relevant health/research institution is mandatory for the implementation of the project.

There is an inherent reputational risk to supporting research activities in areas perceived as sensitive by the public.

In very few cases, mitigation activities may need to be designed to deal with disposal of wastewater, communal, industrial or hazardous waste. All waste generated within the Project will be collected, categorized and properly disposed in accordance with the adequate provisions of the Law on waste management (Official Gazzette of RoS, nr. 36/09,88/10, 14/16 and 95/08)²³. Potential human /animal remains are categorized as medical waste and will be managed in accordance with Article 56 of subject Law (Medical waste management). Any activities that may have high or substantial environmental and social impacts, including involuntary impacts on land or assets, and unpredictable risks for the environment, community health and safety, health and safety of research subjects will be deemed ineligible through the Project's Environmental and Social Screening Procedure (Annex 03) to be used for defining (matching) grant eligibility. Any minor and moderate impacts will be identified by the ESMF and addressed in activity-specific ESMPs. The ESMF and Project Operations Manual (POM) will ensure that the grant selection procedures are fair, transparent and merit based.

7.1. Environmental and Social Impacts during Project implementation

Overall sub-projects implementation is expected to have positive environmental and social impacts. Innovation and entrepreneurship are important drivers of growth, due to their role in shifting growth patterns to be more productivity based and trade-oriented and increasing economic dynamism. The importance of young, innovative firms for employment and growth has been noted in countries around the world. New firms are more likely to create new employment opportunities than older ones. Young companies also introduce competition into markets and create new markets by developing and commercializing new services and

²² Horizon 2020 Programme - Ethic Self-assessment, EUROPEAN COMMISSION - Directorate-General for Research & Innovation (https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf)

²³ Waste Category is indexed as Number 18 – waste generated by human / animal health care and/or research activities

products. competitive grants offered by the SF will support the researchers by providing them with grants that match their project needs. Grants will be designed to encourage participation of women researchers. Preparing project proposals for the SF will improve their capacity to bid for EU and other international research grants.

Nevertheless, certain adverse impact may occur to smaller extent. Specific sub-projects and programs have not yet been defined, namely scope and specific sectors of potential activities are not known. Thus, the ESMF provides environmental and social protection general guidelines, which would help identify minor (low) and moderate risk activities based on environmental and social risks associated to such activities. The focus will be on businesses based on digital technologies. The following tentative list of specialized focus areas are being considered:

	Focus area		Risk
0	Information and Communication Technology - ICT (including software and hardware)	0	Low
0	Food production technology		
0	Agriculture technology (e.g. innovative seeds or planting methods)	0	Moderate
0	Clean and efficient technologies in energy and transport	0	Moderate
0	Bio-based industries (renewable natural resources)	0	Low
0	Transportation technology (e.g. trains and railway infrastructure that reduce costs	0	Low
	and improve capacity, reliability and punctuality	0	Low
0	Medical equipment		
0	Innovative medicine (including, e.g. vaccines, medicines and treatments)	0	Moderate
0	Animal and human embryos/beings/tissue research	0	Moderate
		0	Moderate

The environmental impacts identified at this stage are preliminary in nature and will need to be further elaborated specifically (subproject wise) and potential for occurrence has to be ascertained during further stages of subproject design and implementation.

Due to the nature and magnitude of potential environmental and social risks, during project implementation no negative project impacts on natural environment are expected. Impacts are likely to be easily mitigated with mitigation measures. The impacts are not adverse, limited, site-specific, likely reversible, implemented on non-sensitive sites. Therefore the Project is recognized as moderate Risk project in terms of environmental and social sensitivity. It triggers ESS1, ESS2, ESS3, ESS4 and ESS10 standards and provides effective and rigorous screening criteria to exclude any sub project potentially affecting adversely the social and natural environment.

7.1.1. Information and Communication Technology - ICT

Information and communications technology (ICT) has environmental impacts through the manufacturing, operation and disposal of devices and network equipment, but it also provides ways to mitigate energy use, for example through smart buildings and teleworking. At a broader system level, ICTs influence economic growth and bring about technological and societal change. Managing the direct impacts of ICTs is more complex than just producing efficient devices, owing to the energetically expensive manufacturing process, and the increasing proliferation of devices needs to be taken into account.

7.1.2. The focus will be on businesses based on digital technologies, and specialized sub-groups could be considered (e.g. ICT, food and agriculture, health, biotech, education and gaming, etc.). Food production technology

Agriculture, no matter how sustainable or unsustainable, impacts the environment through air and water quality, energy consumption, natural resources, solid and toxic waste, and land use. Current food production, processing practices, and distribution systems are putting ongoing pressure on the environment and natural resources. Industrial agriculture practices, such as monoculture crops (large-scale, single crops grown intensively) or concentrated animal feeding operations (CAFOs) (large number of animals in a confined space also known as factory farms) are known for using large concentrations of water, pesticides, fertilizers, and for CAFOs specifically, water and air pollution from massive amounts of manure.

7.1.3. Agriculture technology (e.g. innovative seeds or planting methods)

Twenty-first century innovations develop varieties in response to the environmental, agricultural and social challenges of our time. Innovations in plant breeding cannot and will not replace traditional practices, they

simply increase the range of tools available to plant breeders. Through innovation people can produce improved varieties that sustain and potentially increase yields and are better adapted to withstand disease and the effects of climate change, such as drought or floods, supporting sustainable agriculture and food security.

Seed that is resistant to pests and disease and can withstand the effects of climate change results in more abundant and reliable harvests for farmers. Thanks to innovations in plant breeding farmers can grow high protein crop varieties – insufficient protein in the diet is a significant contributing factor to under-nutrition. Innovations in plant breeding have given us food that stays fresher longer. Many types of fruit and vegetables can be transported and stored more easily, thus extending their shelf life and reducing food waste

7.1.4. Clean and efficient technologies in energy and transport

The environmental impacts associated with clean and efficient technologies in energy and transport can include land use and habitat loss, water use, and the use of hazardous materials in manufacturing, though the types of impacts vary greatly depending on the scale of the system and the technology used (photovoltaic solar cells or concentrating solar thermal plants).

At this Project phase specific subprojects which include research of clean technologies in energy and transport are not known. However, subprojects which deems land acquisition or any "High Risk" or "Substantial Risk" subprojects will not be eligible for financing under this Project. If waste or hazardous waste is generated during subproject implementation, provisions of the Law on Waste Management will apply. Waste will be collected, separated and disposed in proper manner, avoiding any environmental risk.

7.1.5. Bio-based industries (renewable natural resources)

A coherent strategy for a bio-based economy could play a significant role in formulating effective responses to pressing global challenges such as climate change, CO2 emissions, resource efficiency, sustainable economic growth, global food security and health.

Key benefits are: A lower carbon economy and sustainable primary production, competitive bio-based industries, a resilient sustainable and productive food chain and developing national science base and stimulating high skilled jobs

Key risks: Since agriculture is expected to remain the largest water-consuming sector, natural resources such as water and fertile soil tend to be exposed to over-exploitation. Combined with an already decreasing availability due to the effects of climate change and intensive management practices, groundwater and soil pollution resulting from, for example, badly managed bio-waste and pharmaceuticals, entering the water supply through, for example, faeces, urine, washing, etc., as well as an existing and rising demand for food, could undermine world food security.

7.1.6. Medical equipment

Healthcare practices have a significant impact on the environment. Hospitals operate 7/24 every day and have large environmental footprints. They impact the environment by: generating large quantities of waste (including infectious, hazardous, and solid wastes); using material that may have toxic effects: including but not limited to: polyvinyl chloride (PVC), diethylhexyl-phthalate (DEHP), cleaning materials, heavy metals in electronics, pesticides, batteries, mercury in medical devices, equipment and light bulbs; consuming large amounts of energy, thereby generating significant greenhouse gas emissions and consuming copious amounts of water.

7.1.7. Innovative medicine (including, e.g. vaccines, medicines and treatments)

Pollution of waters and soils with pharmaceutical residues is an emerging environmental issue.

For humans, the possible impacts are less clear than for the environment, but there are concerns notably regarding certain type of molecules, even if to date there is no clear evidence of short-term health effects on humans. Antibiotics, anti-parasiticides, anti-mycotics and anti-cancer medicinal products are pharmaceutical groups that are especially intended to kill their target organism or target cells and might prove to be the most important pharmaceutical compounds affecting human health.

7.1.8. Animal and human research

- Research on humans covers a wide scope, from medical testing or drug trials to the collection of data and biological samples (blood, urine, tissue, cells). Research on animals which attract ethical attention include in particular research on primates, transgenic or cloned animals and any research that inhibits animal mobility or implies prolonged periods of suffering or constriction.
- Applicants will be required to conduct the ethics self-assessment and provide response to the question on ethical issues within the HORIZON 2020 "Ethics issues table" (Annex 01C) as well as conduct a broader

Environmental and Social Screening (Annex 02) Projects requiring research on animals which attract ethical attention include in particular research on primates, transgenic or cloned animals and any research that inhibits animal mobility or implies prolonged periods of suffering or constriction.

Ethical aspects of animal and human research are more elaborated within the Section 7.1.12. of this ESMF.

7.1.9. Climate changes

The Project shall contribute to climate change mitigation and adaption. The project will primarily finance SROs, grants to companies and researchers, and through these the project will include activities targeted at (i) raising awareness of opportunities and risks related to climate change and (ii) building mitigation and adaptation capacity in public and private sector through supporting projects in sectors that could potentially contribute to mitigation and adaptation. More specifically Component 2 Enterprise Acceleration Program will likely support enterprises from the sectors that contribute to climate change mitigation and adaption.

By addressing climate change issues, the project will contribute to the efforts of Government of Serbia to fulfill their international commitments established by the Paris Agreement and Serbia's Nationally Determined Contribution to the United Nations Framework Convention on Climate Change.

7.1.10. Waste

The Project interventions will inevitably cause the waste and wastewater generation. However, once the subproject's activities are implemented in the proper way and under the procedures defined by the World Bank and in line with the national legislation, the impact of these interventions to overall environmental status can be considered as minor to none.

7.1.11. Social impacts

Positive impacts

The anticipated positive impacts on target population are seen through better linkages between research community and innovation firms, beneficial for both in terms of researchers being closer to having their research put in practice, promoting linkages between the private sector and R&D community, and enhancing collaboration with EU research institutions. Additionally, the project will leverage the strengths and commitments of Serbian diaspora community and benefit from this immense potential in the development of research, innovation and entrepreneurship ecosystem in Serbia.

Through the enterprise acceleration component, entrepreneurs, early stage companies, individual investors, and investment funds, will have increased access to investment, knowledge, and deal flow, respectively. Women entrepreneurs will be additionally stimulated to take part in these programs through targeted programming which will include women-to-women mentoring, workshops on topics of interest to women founders/managers, peer networking and introduction to female angel investors.

Negative impacts

At this moment, there are no specific adverse impacts anticipated. Due to its sensitive nature, research involving human beings/tissue/embryos and animals has a potential of public resistance. To mitigate the risk of public misconception regarding this type of research, the Project will conduct public awareness raising on acceptable research ethics and procedures.

Adverse social impacts that are not anticipated: involuntary land acquisition (ineligible activity; no new construction financed by the project); , impacts on vulnerable groups as the target groups are scientists and owners/managers of innovation firm which typically do not belong to disadvantaged /vulnerable groups; discrimination during selection process due to application of transparent, merit-based and competitive evaluation process with equal opportunities for all; risks to labor and working conditions- as persons involved in any of the project activities are expected to be accomplished professionals and highly educated and well established experts; health and safety risks- as the activities are not anticipated to expose the communities to risks and impacts stemming from infrastructure, equipment, traffic, civil works etc.

7.1.12. Ethical issues

In order to ensure ethical conduct in relation to eligible research activities under the National law, applicants are required to consult and engage with this section of the document at application stage. As part of the application process, applicants will be required to conduct the ethics self-assessment and provide response to the question on ethical issues within the HORIZON 2020 "Ethics issues table" (Annex 01C) as well as conduct a broader Environmental and Social Screening (Annex 02). The objective of the above Ethics assessment is to ensure that EU Directive on the protection of animals is applied for scientific purposes²⁴ (2010/63/EU) designed to limiting the use of animal testing for scientific purposes as partially transposed by

²⁴ https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32010L0063&from=EN

the Animal welfare law (Official Gazette No 41/09) is complied with and is it being complemented through the fact that the MoESTD is following European Research Centre guidelines and procedure (Horizon 2020).

7.1.12.1. Ethical issues assessment procedures

For assessment of ethical issues, SF currently applies the procedures and regulation of the EC (for European Research Centre and Horizon 2020 projects), in anticipation of having to comply with these in the future. SF procedures are also in line with relevant national laws/regulations (Animal welfare Law, Regulation on welfare of animal intended for experimental purposes ("Official Journal of. RS", No 39/10) and Convention for the Protection of Human Rights and Dignity of the Human Being with regard to the Application of Biology and Medicine).

The ethical appraisal starts with an ethics self-assessment (filled out by applicant).

If research involves animal/human tissue, applicant must submit methodology and research procedure and Consent obtained from Ethics Board (Serbian: "Eticki Odbor") appointed within the Institution where such research will be conducted²⁵.

The tasks of the Ethics Board are to:

- approve the implementation of scientific research in the field of health, medical research, research in the field of public health, as well as to monitor their implementation;
- o approve the taking of human cells and tissues in accordance with the law and give an opinion on ethical and other issues in the process of transplantation, ie the application of cells and tissues;
- consider ethical issues and make decisions regarding the taking of parts of the human body for scientific-teaching purposes, in accordance with the law;

Animal investigations can be performed by legal entity and individual researches registered in the Register for Animal Experiments, kept by the Ministry of Agriculture, forestry and water management. Animal testing may be conducted on the basis of a Decision on the approval of animal testing issued by the Ministry, based on the expert opinion of the Ethical Commission for the Protection of the Welfare of Experimental Animals. Scientific research organizations and other legal entities conducting animal experiments are obliged, within their organization or together with other scientific research organizations, or legal entities conducting animal experiments, to establish an Ethical Commission (Serbian: "Eticka komisija") for the protection of the welfare of experimental animals.

Ethical Commission (i) determine the manner of conducting the experiment on animals, in accordance with this Law; (ii) exercise professional control over the conduct of the experiment on animals; (iii) organize training of persons conducting animal experiments; (iv) give expert opinions to the Minister on the ethical and scientific justification of conducting the experiment and (v) submit regular annual reports to the Minister.

Interventions on animals for scientific and biomedical purposes will be carried out by a certified scientists.

For specific and invasive animal experiments, a decision approving an animal experiment is issued based on the opinion of the Ethical Council (Serbian: "Eticki Savet") for the Welfare of Experimental Animals.

Other Key articles of the Animal welfare law are enclosed as Annex 11 to this document. Additionally, full application proposals should include HORIZON 2020 "Ethics issues table" that must be filled in with yes/no. Applicants should describe any relevant ethical aspects in their research plans. When a research permit or a statement by an ethics Commission is required for the implementation of the project, applicants shall provide information on the permits or permit proposals. Research on human tissue and animals that is not in line with EU regulations on this type of research will not be financed by this project (see Annex 01C for exclusions).

7.1.12.2. Monitoring and remedies

In terms of monitoring of ethical issues during project implementation, the SF is planning to develop an Ethics Act which will outline the procedures applicable to all RDIs in the country. The Ethics Act (in the form of a bylaw) will be developed prior to first Call for Proposals by the Science Fund under the Project (tentatively January 2020), adopted by the Managing Board of the Science Fund and made public. The Ethics Act, will be harmonized with the national and EU legal framework. SF's administration will monitor the formal compliance of the ethical procedures (existence of approvals, etc.), and an ethics expert will be hired for annual and final ethics assessment (in line with Horizon 2020 procedures). The Ethics Check is conducted on the basis of the information provided by the concerned beneficiaries, who may be invited to further elaborate ethical issues and prove alignment of research procedures with national ethical legislation and Ethics - H2020 Online Manual provided by SF. On site visits will also be organized for projects with ethical issues.

In case of substantial breach of ethical principles, research integrity or relevant legislation, the SF can carry out an Ethics Audit following the provisions and procedures laid down in the grant agreement.

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 $^{^{25}}$ See Law on health Care, article 130 and 131

The Checks and Audits can result in an amendment of the grant agreement. In severe cases, it can lead, upon the decision of the SF to a reduction of the grant, its termination or any other appropriate measures, in accordance with the provisions of the grant agreement.

7.2. Potential Negative Impacts and Recommended Mitigation Measures

MoESTD has many years of experience in realization of public calls through supporting and monitoring of research projects, inter alia, in the field of environmental protection, where the application of research results can improve the environmental impact. The potential impacts and recommended mitigation measures are described below as well as a subproject characteristic impacts and mitigation measures. During the course of implementation of the Project, once more details on the specific sectors are known the risk assessment will be updated and refined to adequately reflect the actual impacts.

Table 7.22: Summary of key environmental and social impacts and risks

Impact	Risk	Comment
Impacts on land use/ settlements,	Not relevant	There will be no land acquisition as defined by ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
Ground and surface water,	Low	Potential impacts of some subprojects on ground and surface water can be offset or mitigated by following site specific ESMP mitigation measures
Air quality,	Low	Potential impacts of some subprojects on ground and surface water can be offset or mitigated by following site specific ESMP mitigation measures
Flora and fauna (protected areas and species),	Not relevant	No adverse impacts on biodiversity are expected
Noise and vibration,	Low	No civil works will be financed under the Project. However, limited upgrading of laboratory infrastructure and facilities, within the existing footprint, is eligible for financing under the project.
Soil quality,	Low	Soil contamination can occur from: Drainage of dredged materials, spillage of hazardous and toxic chemicals. Impact can be mitigated by following site specific ESMP mitigation measures
Waste	Moderat e	Health hazards and environmental impacts can happen due to improper waste management practices. Impact can be mitigated by strictly following procedures prescribed in Serbian Law on Waste Management and by respecting site specific ESMP mitigation measures
Cultural and religious issues,	Not relevant	No adverse impacts on cultural heritage are expected
Labor management	Low	Labor risks to project workers and staff of innovative enterprises (beneficiaries) are negligible given that most will be office workers. Labor management is defined by the projects LMP which provides adequate procedures and measures to allow management of labor in line with national law and ESS2
Health and Safety for affected communities including research subjects	Low	Community health and Safety risk shall be mitigated by adhering to the relevant laws guiding research including but not limited to radiological and nuclear safety, use of chemicals, the animal protection law and The Law on Occupational Safety and Health

7.2.1. Potential environmental impacts of limited upgrading of laboratory infrastructure and facilities

It is expected that some of SAIGE subproject can be related to limited upgrading of existing laboratory infrastructure and facilities, within the existing footprint. Since the existing infrastructure, facilities and equipment will be rehabilitated, repaired or replaced during the realization of the project, impacts on environment will be a consequence of human presence and machines, and the nature of construction works at a location, which are limited to the location of works or its surrounding vicinity. However, all work should be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment.

7.2.1.1. Workers health and safety

Impacts - Construction workers may be affected adversely due to hazardous working environments where high noise, dust, working on height, unsafe movement of machinery etc. may be present.

Mitigation Measures - The Contractor shall instruct his workers in health and safety matters, and require from the workers to use the provided personal safety equipment. Workers' PPE should comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots). Contractor has to ensure that all operators of heavy or dangerous machinery are properly trained/certified, and also insured. He/she will have to provide first aid facilities, rapid availability of trained paramedical personnel, and emergency transport to nearest hospital with accident and emergency facilities.

7.2.1.2. Air pollution and dust

Impact - Possible sources of air pollution will be dust due to project activities, machinery movement and other sources. Works can involve breaking up, digging, crushing, transporting, and dumping small quantities of dry materials. Locally, the air quality may experience some moderate and temporary deterioration due to dust from construction equipment exhausts. The dust may settle on vegetation, crops, structures and buildings.

Mitigation Measures - Spraying of water is the main way of controlling dust.

7.2.1.3. Noise

Impact - Noise caused by the upgrading works will have only a temporary impact. Although temporary and mostly moderate, noise impacts in the vicinity of residential areas may cause negative health impact, if not mitigated.

Mitigation Measures - In sensitive areas special care regarding noise emission will be taken by the Contractor, strictly respecting the ESMP requirements. In case of noise disturbance with noise emissions which are above permitted level, temporary movable noise barriers should be considered as appropriate mitigation measure.

7.2.1.4. Waste disposal and potential contamination of soils and watercourses

Impact - Potential contamination of soils and watercourses as a result of improper disposal of liquid and solid wastes from rehabilitation activities.

Mitigation Measures - The mitigation measure to avoid contamination of soils and watercourses is waste collection of separate types (mineral waste, wood, metals, plastic, hazardous waste, e.g. asbestos, paint residues, spent engine oil), waste quantities, proper organization of disposal pathways and facilities, or reuse and recycling wherever possible.

8. ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT

8.1. Risk classification according to the WB ESMF

The World Bank classifies all projects (including the projects which involve financial mediators) in one of four groups, namely projects with:

- High risk
- Substantial risk
- Moderate risk
- Low risk.

To determine appropriate risk classification, the Bank takes into account relevant issues such as:

- Type, location, sensitivity and scope of the project,
- Nature and magnitude of potential environmental and social risks and impacts, as well as
- Borrower's (including any other agency responsible of project implementation) capacity and commitment to manage environmental and social risks and impacts in the manner consistent with ESSs.

Other areas of risk can be also relevant for implementation of measures, as well as for results of environmental and social impacts mitigation measures, depending on specific project and context. These can include legal and institutional framework, nature of mitigation and the proposed technology, managerial structures and legislation, as well as considerations related to stability, conflict or security.

For the projects involving several smaller sub-projects identified, prepared and implemented during the projects, the World Bank requirements involve mandatory review of adequacy of local environmental and social requirements relevant for the sub-projects, as well as assessment of the Borrower's capacity to manage the environmental and social risks and impacts of such sub-projects, particularly, Borrower's capacity to

- (a) perform sub-projects screening;
- (b) ensure necessary expertise for conducting environmental and social assessment;
- (c) review findings of environmental and social assessment for individual sub-projects;
- (d) implement mitigation measures; and
- (e) monitor environmental and social impact during project implementation. If necessary, the project may envisage measures to strengthen Borrower's capacities.

The Borrower is obliged to carry out appropriate environmental and social assessment of subprojects as previously elaborated within the Chapter 5.3.

8.2. Environmental assessment procedure in Serbia

Serbian Law on EIA regulates the impact assessment procedure for projects that may have significant effects on the environment, the contents of the Environmental Impact Assessment (EIA) Study, the participation of authorities and organizations concerned, the public participation, transboundary exchange of information for projects that may have significant impact on the environment of another state, supervision and other issues of relevance to impact assessment.

The subjects of the impact assessment are planned projects and projects being implemented, changes in technology, reconstruction, the extension of capacity, the termination of operations, and the removal of projects that may have significant impact on the environment. Impact assessments shall be elaborated for projects in the fields of industry, mining, energy production, transport, tourism, agriculture, forestry, water management, waste management and utility services, as well as for all the projects that are planned in areas with protected natural resources of special value and within the protected zones of immobile cultural resources.

The Government of the Republic of Serbia (GoS) prescribed:

- 1) **LIST I** A list of projects for which an impact assessment is mandatory (Annex 01B). Those are the projects with] substantial and high environmental and social impacts and **will not be eligible for financing** under the Project.
- 2) **LIST II** A list of projects for which an impact assessment may be required. Such sub-projects could be eligible for financing under the Project after obtaining a Decision from relevant institution confirming there is no need for Environmental Impact Assessment for proposed sub-project. As a first step, Project Developer (Applicant) is obliged to submit Request for Decision about Need for Environmental Impact Assessment" to the relevant institution. Interested Public will be informed by relevant institution about subject Request and will be invited to provide its remarks and suggestions. Finally, a Decision will be issued to project developer by relevant Institution. If the Decision confirm the need for EIA such sub-projects will not be eligible for financing under the Project, as shown in diagram in Annex 03.

Both list on Serbian are placed on following website:

https://www.paragraf.rs/propisi/uredba_o_utvrdjivanju_liste_projekata_za_koje_je_obavezna_procena_uticaja_i_liste_projekata_za_koje_se_moze_zahtevati_procena_uticaja_na_zivotnu_sredinu.html

Both list on English are placed on following website: http://www.pregovarackagrupa27.gov.rs/?wpfb dl=119

Other project proposed by SAIGE applicants, classified as Moderate Risk Projects are not subject of EIA, but will be subject of rigid environmental and social screening which will be conducted by PIU unit. It is important to note that any activities that may have significant environmental and social impacts (classified as "High Risk" or "Substantial Risk" Projects), including involuntary impacts on land or assets, and unpredictable risks for the environment, community health and safety will be deemed ineligible through the Project's Environmental and Social Screening Procedure to be used for defining grant eligibility (see Annex 03).

Finally, if any project is found to be adjacent or within the nature/cultural protected area the EIA could be required for this project in accordance with the Serbian legislation, depending strictly on the opinions obtained from the relevant institutions (INP), Provincial Institute for the Nature Protection (PINP), Institute for Protection of Cultural Monuments (IPCM), In such case Project Developer should submit request to the INP/PINP and/or IPCM in order to obtain preconditions under which proposed project should be implemented.

8.3. Environmental and Social Screening and Project Approval

All the sub-projects to be financed under the Project must undergo environmental and social screening in the manner described in this ESMF. PIU would perform this process when reviewing and evaluating sub-projects, and inform potential applicants on environmental and social requirements for sub-projects evaluation, in order to be able to implement them in environmentally and socially acceptable manner.

Screening is the first step in the process of thorough analysis of sub-projects, and its purpose is to identify potential impacts of the proposed sub-projects and define measures aimed to prevent or minimize negative impacts. Specifically, the screening would identify environmental and social risks related to the proposed sub-project and determine type of impact assessment documentation needed for sub-project implementation. Sub-projects unacceptable due to the nature of the proposed activities would be rejected.

8.3.1. Environmental and Social Screening Process (Step-by-Step)

Step 1. Applicant prepares necessary documentation

Applicant shall be responsible to prepare the required documentation and confirmation that all permits necessary for the proposed sub-projects have been obtained from responsible authorities as prescribed by appropriate local legislation and in line with the World Bank procedures, as described in this paper.

Within the application process, the following data and documents need to be collected and submitted to PIU for review:

- Completed Environmental and Social Checklists (Annex 02) and Ethics issues]table (Annex 01C)
- License to conduct medical research, as relevant for entities doing this kind of work, in line with adequate provisions of Animal Welfare Law issued by the MAFWM, Veterinarian Directorate²⁶
- Written statement made under material and criminal responsibility that the Applicant will comply with all the provisions of Law on labor and protection at work (Annex 06 to this document)

PIU would work closely with the potential Applicant on environmental and social documentation and provide proposals/advices.

The Applicant shall be obliged to contact relevant Ministry in order to fulfil all the requirements of local legislation. The relevant Ministry would determine if full EIA is needed or not.

Step 2 PIU performs screening

PIU evaluates the sub-project based on the Environmental and Social Checklist (Annex 02) and Ethic Self-Assessment provided by Applicant (Annex 01C). The Checklist presents simple tool for identification of Project-related potential environmental and social impacts. This would also help simplify decision-making process whether the project can be financed or it is on Exclusion Lists (Annex 01), as well as whether ESMP is needed.

PIU first determines sub-project category depending on its type, location, sensitivity and scope, nature and intensity of environmental and social risks and impacts.

According to the World Bank procedures, the sub-projects shall be categorized as follows:

- Category 1- Low risk projects (sub-projects expected to have negligible environmental and social impacts with no need of environmental impact assessment);
- Category 2- Moderate risk project (sub-projects with impacts which can be identified easily and for which standard preventive and/or corrective measures can be prescribes without environmental impact assessment. Mitigation measures are standard and usually involve only good maintenance measures or good engineering practices);
- Category 3 Substantial risk projects (sub-projects which may have potential and very significant or
 irreversible environmental and social impacts, scope of which is very difficult to determine in project
 identification phase);
- Category 4- High risk projects (sub-projects or enterprise engaged in manufacturing or use of hazardous or illegal material).

Category 3 and 4 sub-projects shall not eligible for financing.

For categorization purpose, PIU shall identify if the potential Applicant is engaged in manufacturing or certain forbidden products/material or in forbidden activities as specified in the Project/ Activities Exclusion List (Annex 01). Each existing enterprise or proposed sub-project which would involve such activities or products shall be considered Category 4 and ineligible for financing under the Project.

²⁶ Article 34 Of Animal Welfare Law, accesible at https://www.paragraf.rs/propisi/zakon_o_dobrobiti_zivotinja.html

If it is established that the sub-projects meets one or more criteria assessed as "Substantial risk" or "High risk", PIU would assign Category 3 and 4respectively.

Sub-projects with "moderate" (limited, temporary or easy to avoid or mitigate) risk, shall be assigned Category 2 ("Moderate risk"). Sub-project with minor or negligible risk, so that special environmental/social mitigation measures are not needed, shall be assigned Category 1 ("Low risk").

If the sub-project is categorized as Category 1 ("Low risk"), further environmental and social assessment shall not be required after initial screening, nor further monitoring shall be done.

For the activities with limited and site-specific impacts (Category 2- "Moderate risk"), PIU would require the Applicant to develop ESMP.

For sub-projects with many aspects assessed as "moderate impact", or PIU assesses that they present potential environmental and social risk, development of full and comprehensive ESMP is recommended. However, in case of simpler sub-projects with only one or two items assessed as "moderate impact", PIU may assess that concise or simplified ESMP would be sufficient.

Mandatory contents of Full ESMP and Simplified ESMP are given within the Chapter 7.4 of this ESMF document.

Step 3 Applicant prepares ESMP

Applicant shall be responsible to prepare an ESMP. PIU may help the Applicant to prepare ESMP. Unless the Applicant prepares ESMP, the sub-project would not be eligible for Project financing.

ESMP should contain detailed information on:

- a. Measures to be taken during implementation of certain sub-project in order to eliminate or compensate adverse environmental and social impact or reduce it to an acceptable level,
- b. Actions necessary to implement the said measures.

Applicants shall be responsible for site-specific ESMPs implementation of which shall be supervised and monitored by PIU.

Step 4 Sub-Project approval and Monitoring

PIU shall be responsible of review and approval of environmental documentation. For sub-projects subject to ESMP as a result of limited and site-specific impacts, ESMP shall be approved by PIU. Sub-project shall be eligible for financing only after ESMP approval. ESMP approval shall follow public disclosure and completion of public consultations, as described in details in the Chapter 9 of this document.

PIU would include in each sub-project financing agreement, the Applicant's obligation to comply with the requirements specified in the ESMP. The Applicant would be required to invest all efforts to ensure sub-project implementation in environmentally and socially acceptable manner.

NOTE: If Applicant's research includes ethical concerns or involves significant or complex ethical issues, if needed, PIU will engage an ethics adviser/advisory entity such as the Ethical Commission for the Protection of the Welfare of Experimental Animals and the Ethical Council for the Welfare of Experimental Animals²⁷. An ethics adviser can help PIU deal with ethical issues and put in place the procedures to handle them appropriately.

In terms of monitoring of ethical issues during project implementation, the SF is planning to develop an Ethics Act (by-law) which will outline the procedures applicable to all RDIs in the country. The Act, in the form of a by-law will be developed prior to their next Call for Proposals (January 2020) and adopted by the SF Managing Board. According to the plan, the SF's administration would monitor the formal compliance of the ethical procedures (existence of approvals, etc.), and an ethics expert will be hired for annual and final ethics assessment (in line with Horizon 2020 procedures). Innovative Fund will adopt same type of Internal Act which will be adopted before the first Public call for the Component 2

The results of the screening may constitute the following:

- 1. Approved without additional requirements. Environmental Screening Checklist is sufficient in this case.
- 2. Approved with use of simplified ESMP.
- 3. Approved with requirements to produce full ESMP for this grant.
- 4. Not approved.

²⁷ See Animal Welfare Law, ("Official Gazette of RS" No. 41/09)

8.3.2. Environmental and Social Screening Checklists

Environmental and Social Checklist shall, within their application, be filled out by the Applicant (all parts excluding Part V- Decision), while the PIU will perform the checking of answers provided and make a decision on the category of the proposed subproject.

The Environmental and Social Checklist comprises six parts:

PART I -Administrative and institutional data: includes a descriptive part that characterizes the project, including administrative and institutional data, and a brief description of technical contents of the project, as well as the location of the subproject. This part can contain up to two pages of text. Annexes for all additional information can be supplemented if necessary.

PART II- Project elimination criteria: includes two questions that should assist the ESE in determining whether the project in question is suitable for funding. The ESE should check whether the project is included in the Elimination List. It is necessary to check the corresponding Yes/No field attached to each question. If the answer is "Yes", the subproject cannot be approved for financing. In such a case the ESE should move to the final part of the List and record that the project is "not eligible for financing".

PART III - Basic information on proposed project and the Applicant includes several questions that will assist the ESE in acquiring an insight into the Applicant's usual manner of doing business and assessing risks in continued operations of the Applicant.

PART IV- Project impacts and risks: includes a series of questions on potential adverse environmental and social impacts and risks of the project, to which two answers are possible: "yes" or "no". The level of risk, i.e. the project category shall be determined on the basis of the number of responses (see table below):

- a) If answers to all questions are "no", the subproject shall be classified as category 1 subproject (Low risk).
- b) If "yes" is the answer to one or two questions, the subproject shall be classified as category 2 subproject ("Moderate risk").
- c) If "yes" is the answer to three of more than three questions, the subproject shall be classified as category 3 subproject ("Substantial risk").
- d) Projects involving manufacturing or use of hazardous or illegal substances shall be classified as "High risk" projects category 4.

NOTE: The PIU reserve the right to assign a different (higher) category based on the information received beyond the yes/no evaluation, and also reserves the right to increase the project risk category following further assessment and consultations with the World Bank team.

PART V- Summary of main project characteristic includes a descriptive part that summarizes the key information on the proposed subproject (for example, capacity, location) and conclusions concerning environmental and social impacts identified, conclusions concerning the possibility of mitigating the impact with available measures and points to the Decision about Need for Environmental Impact Assessment for the subproject under consideration.

PART VI- Recording the decision: includes several options relating to the final decision on the subproject under consideration.

After reviewing the Checklist, the screening will result in the project being classified in one of the following categories:

Category	Risk Level	Decision
1	Low risk project (with negligible environmental and social impacts for which an environmental impact assessment is not necessary)	Eligible for financing. No additional environmental and social assessment necessary
2	Moderate risk project (with impacts that can be easily identified and for which standard preventive and/or corrective measures can be prescribed without an environmental impact assessment	Eligible for financing. It is necessary for Applicant to develop ESMP
3	Substantial risk project (with potential and very significant or irrevocable environmental and social impacts, whose size is difficult to determine in the project identification phase)	Not eligible for financing
4	High risk project (or enterprises involved in manufacturing or use of hazardous or illegal substances).	Not eligible for financing

Environmental and Social Checklist is enclosed as Annex 02 to this ESMF document.

8.4. Environmental and Social Management Plans

As elaborated in Chapter 7.3, all the sub-projects to be financed under the Project would be subject to environmental and social screening by Project Implementation Unit, following the procedures described in this Framework. The screening would identify potential impact of the sub-projects and identify preventive measures or measures to minimize such adverse impacts.

If the line Ministry establishes that EIA is not needed (as previously elaborated within the Chapter 7.2), but the screening determines that the sub-project has limited and site-specific impacts, for a sub-project with limited and site-specific impacts ("Moderate risk") the Applicant would be obliged to develop site-specific **Environmental and Social Management Plan (ESMP)** in line with the World Bank requirements. According to the World Bank Environmental and Social Framework of 2016. Environmental and Social Management Plan is an instrument which contains detailed information on: (a) measures to be taken during implementation of a certain project in order to eliminate or compensate adverse environmental and social impacts or reduce them to an acceptable level; (b) actions necessary to implement the specified measures. Compliance would be monitored in line with this ESMF and ESSs.

Template of an ESMP document - part I & II (Table Mitigation Plan and Table Monitoring Plan) is enclosed as Annex 07 to this ESMF document.

Sample of a filled-out ESMP document - part I & II is enclosed as Annex 08 to this ESMF document.

Depending on screening results and assigned environmental category, recommended contents of ESMP documents are as follows:

For Full ESMP document:

- Executive Summary
- Project description
- Policy, legal and administrative framework
- Baseline conditions
- Summary of predicted adverse environmental and social impacts related to project;
- Part I Mitigation plan (Table)
- Part II Monitoring plan (Table)
- Institutional arrangements and reporting procedures
- Stakeholder engagement information disclosure, public consultations and participation

For Simplified ESMP document:

- Project description
- Part I Mitigation plan (Table)
- Part II Monitoring plan (Table)
 - Stakeholder engagement information disclosure, public consultations and participation.

8.4.1. Institutional arrangements

An Environmental and Social Expert (ESE) will be engaged through the Project to assess and oversee the ES screening and proposed project specific ESMP for those sub projects that require it.

8.4.2. Waste management as part of ESMP document

Respecting the expected nature of projects that will be proposed for financing under the Project, it can be concluded that, among other project specific impacts, a waste production will be unavoidable for majority of sub-projects categorised as "Moderate Risk" projects. Therefore, waste management will be mandatory elaborated within the ESMP documents and Waste Management Plans (WMP) should be developed by applicants as part of ESMP documents. WMP shall contain the following:

- Documentation on the waste generated by the company (origin, type of waste pursuant to waste classification list, composition, volume),
- Measures to be taken to limit waste generation, particularly in case of hazardous waste,
- Segregation of waste, particularly segregation of hazardous waste from other types of waste and from recyclables,
- Waste disposal practices,
- Waste treatment and/or disposal methods.

Serbian Rulebook on Waste Categories²⁸ defines list of waste categories by activities in which it is generated. Some waste categories which may be generated as a result of activities potentially included in this Project

²⁸ http://www.subotica.rs/documents/zivotna_sredina/Propisi/Pokate.pdf

and mitigation measures according the Law and regulations, as well as related ESMP requirements must apply during sub-project implementation.

8.4.3. Disclosure and Public Consultations on ESMP document

For all projects that would require an ESMP should be organized local public consultations. For that purpose, it is necessary to disclose in advance the ESMP document (about two weeks) in on the Applicant's website. Placing notification in the local media is not necessary unless required by PIU, depending on sub-project Category. During the consultations, the subproject applicants will register all comments and suggestions on improving the ESMP documents and will prepare relevant reports to be included in the final version of the ESMP documents. Public consultations can be done virtually receiving relevant questions/proposals on-line and taking them into consideration while finalizing the ESMPs.

8.5. Monitoring and Reporting

PIU together with the IF and SF shall monitor implementation of this Framework, both at overall Project level and individual sub-projects level. Within its usual monitoring activities, PIU shall perform monitoring (including on-site monitoring, as needed) to ensure that Applicants comply with their grant agreement obligations.

Applicant's labor management compliance with local legislation on labor and safety at work shall be monitored based on brief Report on Compliance with Legal Obligations Related to Labor, which shall be submitted on annual basis by the Applicant to PIU.

Particularly, PIU shall monitor:

- Number of received and approved applications under Project component 1 and 2;
- Number of collaborative applied research projects (Number)
- Number of scientific publications in top 10 percent of internationally recognized journals (Number)
- External investment generated by participating companies (US\$) (Number)
- Number of new or improved innovative products or services introduced to the market (Number
- Number of Science Fund programs in operation (Number)
- Number of grant awards by SF (Number)
- Percent of which have women principal investigators (Number)
- Number of SF grants awards for climate change issues (Number)
- Amount of grant awards by SF (US\$ million) (Number)
- Amount of international funds attracted by SF supported projects (in millions of USD) (Number)
- Number of publications supported by SF programs (Number)
- Number of collaborative projects supported by SF (Number)
- Number of SF staff trained (Number)
- Subcomponent 1.2. RDI Reforms
- Establishment of Institutional Funding of SROs (Text)
- Number of internal assessment of RDIs (Number)
- Number of external assessments of RDIs (Number)
- Number of RDIs executing transformation plans (Number)
- Number of collaborations between participating RDIs and private sector/HEI/international entities (Number)
- Subcomponent 1.3. Serbian Diaspora Facility
- Number of Diaspora participating in the program (Number)
- Number of Serbia researchers participating in the program (Number)
- Percent of which are women (Number)
- Number of joint publications by local and Diaspora researchers (Number)
- Component 2. Enterprise Acceleration
- Number of enterprises completing acceleration program (Number)
- Percentage of which have at least one woman founder (Number)
- Number of accelerated enterprises achieving at least 10% annual growth one year after the program (Number)
- Number of received complaints (see Chapter 6.8 of the Project Grievance Mechanism);
- Regular submission of Annual Reports on Implementation of Activities and Spending.

PIU shall establish and maintain records on information and engagement of all stakeholders, which records would as a minimum contain the following information:

- List of disclosed relevant documentation,
- Summary of received comments and public opinion,
- Summary of how general public comments and opinion are addressed;
- Date and place of each public consultation with specified purpose of the consultation, minutes, number and list of participants,
- Issues to be addressed in the next period,
- Form of engagement and communication (e.g. written communication, public consultations, extraordinary communication as a result of occurred changes) specifying its purpose (e.g. to inform stakeholders on certain change in the Project),
- Number of stakeholders' complaints related to the communication (with gender breakdown) and number of complaints which resulted with positive outcome,
- Number of received and approved applications (broken down by SME and intermediary owner/manager gander),
- Number received and addressed complaints and grievance redressing timeframe,
 Number of projects requiring a pre-approval from ethical board and % of projects that required approval that are compliant with ethics requirements.

PIU would report on regular basis to the World Bank on sub-projects screening, approval and monitoring results

8.6. Labor risk not subject to ESS2

Labor engaged by grant beneficiaries, SMEs, growth scale-up stage companies and alike are not considered project workers and consequently are not subject to ESS2. Labor and working conditions risks related to beneficiary employees are risk related to ESS1. The informal and unpaid work although it does not dominate the innovation, acceleration etc sector dominates the sector, is a social risk to be addressed through mitigation measures compliant with ESS1. This risk will be mitigated through labor and working conditions commitments signed by grantees/ applicants to be included in the calls for proposal in the form as appended in Annex 09.

9. IMPLEMENTATION ARRANGEMENTS

9.1. Responsibility for Project implementation

The Ministry of Education, Science and Technological Development (MoESTD) will be responsible for the overall project coordination and implementation with specific agencies (Innovation and Science Fund) responsible for the implementation of their respective components. A Project Implementation Unit (PIU) will be established by the MoESTD, reporting to the MoESTD State Secretary (in charge for RDI) who as Project Coordinator will be responsible for coordination of the project with all project implementing entities. The PIU will be responsible for all project implementation related activities including technical, operational, environmental and social risk management, reporting, monitoring and evaluation, audits, studies, and capacity building, etc. The fiduciary activities related to the procurement and financial management aspects will be handled by the Central Fiduciary Unit (CFU) at the Ministry of Finance which is responsible to handle such activities for several Bank financed projects. The CFU will engage additional staff as necessary to handle this responsibility. Establishment of PIU including its policies/resources, responsibilities, as well as the Project Operations Manual (POM) outlining detailed project implementation arrangements including operating, fiduciary and M&E procedures, staffing, responsibilities, resources, etc. will need to be satisfactory to the Bank.

The Science Fund will be responsible for the implementation of Component 1.1 Science Fund and Component 1.3 Diaspora Facility and will hire/assign appropriate staff/consultant as required. The SF is a new entity and has no experience with the World Bank projects thus will require significant capacity building assistance under the project. The SF has set up a Governing Board and a Scientific Council. It will establish Program Commissions, as and when needed, made up of professional experts which will be responsible for the design and evaluation of R&D projects. The following will be subject to World Bank review and approval:

- Selection of the SF Governing Board and Programs Commission members.
- Procedures for the selection and operations of the peer reviewers and selection Commissions for all SF programs.
- Grant Manuals for all SF programs outlining detailed policies and procedures including evaluation, procurement, environmental, reporting and M&E procedures for grants.

The MoESTD will be responsible for the implementation of Component 1.2 RDI Reforms. This will include selection of RDIs to participate in the project based on assessments of RDIs. The MoESTD will also be responsible for the approval of RDI transformation plans and monitoring of their implementation; these will be subject to prior review by the World Bank. The Project will finance technical assistance to MoESTD to undertake these activities as well as for policy and capacity building for the design and implementation of

R&D sector reforms, preparation of future R&D and Innovation Strategy, laws, rules and regulations, etc.

The Innovation Fund will be responsible for the implementation of Component 2. Enterprise Acceleration. The Innovation Fund has years of successful experience in managing Bank and EU financed projects. Given that Enterprise Acceleration is a new activity for the Innovation Fund, the project will include relevant technical assistance for enhancing IF's capacity to manage this program. Grants Manuals outlining detailed procedures including application, evaluation, monitoring, procurement, environmental, reporting and M&E procedures will be subject to prior review and approval by the World Bank.

9.2. Implementation Support

9.2.1. Environmental and Social Expert

An Environmental and Social Expert will be engaged through the Project, and will be responsible for screening sub-projects/grants selected for financing to ensure:

- (1) compliance with the World Bank Group (IFC) exclusion list,
- (2) that no sub-projects with major impacts of a Category "High risk" or "Substantial risk" type are supported,
- (3) that sub-projects/grants will not necessitate involuntary land acquisition or any form of resettlement,
- (4) no World Bank Safeguard standards other than ESS1, ESS2, ESS3, ESS4 and ESS10 are relevant for proposed sub-project. Any activities corresponding to the World Bank Category 2 ("Moderate Risk") Projects will be required to have an Environmental and Social Management Plan (ESMP) in place prior to approval that would identify potential environmental impacts and provide adequate mitigation measures.

In addition the Environmental and Social Expert will be responsible to ensure that any Technical Assistance (TA) outputs supported under the Project are consistent with World Bank Safeguard policies.

9.3. Training

PIU will prepare an annual training plan which will be agreed with the Bank. It will include information on the title of training, institution that shall provide it, timeline, cost, number, position and names of relevant people to be trained. The training plan shall be updated in agreement with the Bank through the duration of the Project at least annually or as required to reflect the actual project implementation needs.

9.3.1. Modes of Training

A key concept in training programs is to provide training through a combination of formal classroom training and practical on-the job sessions. Technical assistance should be made available to provide training, guidance and advisory support in all aspects of works implementation in order that the key players (environmental as well as technical team) become fully conversant with, and capable of carrying out their respective duties. Training for the various categories of staff needs to be carried out with varying durations and through different approaches, such as on-site and classroom training, workshops, seminars and practical on-the-job training.

9.3.2. Workshops

Intensive refresher courses for periods of one to three days are useful for addressing specific problem areas. Such workshops are organized to supplement on-the-job training for some of the technical and administrative staff. Short workshop can either be arranged through the provision of technical assistance, an in-house training facility, or by contracting other training institutions within the country.

9.3.3. Seminars

Seminars are useful as a means for disseminating data and information, in particular for senior government officials at central and local level, as well as representatives of other government agencies. Seminars can be an effective platform for policy makers, planners and administrators to review the importance of an Environmental and Social Management System. Equally important, this type of seminar is important in terms of creating awareness of the potential of utilizing new organizational arrangements, work methods, and involvement of the private sector, beyond the boundaries of a particular program.

9.4. Capacity Building

Component 3 will cover the incremental costs (staff, equipment, operating costs etc.) of a PIU which will be established under the MoESTD. PIU staff will include at least a head of PIU, project manager, assistant, project officers, M&E officer, procurement and financial management officers, an ESE and other experts required by the Project.

Capacity building measures to PIU as, may be necessary in environmental and social safeguards and annual program planning and can be achieved by:

- Training program for the existing staff.

- Technical Assistance: knowledge sharing and on-the-job training and mentorship.

10. STAKEHOLDER ENGAGEMENT AND GRIEVANCE MANAGEMENT

10.1. Stakeholder Engagement

The Republic of Serbia citizen engagement commitments do not reside under a single self-standing law or regulation. However, the recognition of importance of citizen engagement is embedded in the legal system and clearly recognized by the mandatory procedures provided by individual laws.

Stakeholder engagement has been recognized by the Project as an inclusive process implemented throughout project life-cycle, and has been launched at early stage of project development. The early stakeholder engagement activities included survey of local partners and interviews with key identified stakeholders consulted prior to the preparation of the Environmental and Social Management Framework (ESMF).

Stakeholder engagement activities relevant to the project as well as those conducted during project preparation and planned throughout the life of the Project have been summarized in a standalone Stakeholder Engagement Plan (SEP).

10.1.1. World Bank Environmental and Social Standard on Stakeholder Engagement

The World Bank's Environmental and Social Standard (ESS) 10 is on "Stakeholder Engagement and Information Disclosure". The provisions of the Standards are to be read in conjunction with other applicable ESSs. The main principles are related to early stakeholder engagement enabling meaningful consultations with identified stakeholders and maintain a stakeholder engagement log as a documented record

10.1.2. Preliminary consultations on the ESMF

The MoESTD Environmental Consultant conduct interviews with the key stakeholders. MoESTD representatives were notified of the meetings and invited to attend.

First key stakeholder's consultations on the preparation of the ESMF were held in Belgrade, on September 23th, 2019 within the WB premises.

Second consultations were held on October 04th, 2019, in Belgrade in the MoESTD premises in Njegoseva 12, Belgrade.

Stakeholder meetings participants:

- · Administrative authorities,
- · World Bank,
- Organizations supporting entrepreneurship,
- R&D Institutions (the Innovation Fund, The Science Fund, Hygiene Institute, Institute for medical
 plants, Institute for nuclear research). Brief record on public consultations is enclosed as annex 12 to
 this ESMP document
- Private companies beneficiaries of on-going innovation programs (3 companies).

The purpose of these meetings was to agree on the project design and monitoring indicators with administrative authorities, as well as to investigate interest of the organizations which provide support to entrepreneurs and of private companies for financing mechanisms envisaged by the project and to analyze their capacities and needs. The purpose of the meetings was to gauge view of private companies already using different types of R&D and innovation funding and to incorporate lessons learned into the design.

List of participants is enclosed within the Annex 12 of this ESMF document.

10.1.3. Roles and Responsibilities

Stakeholder engagement will be coordinated and led by the MoESTD/ PIU. The PIU will closely coordinate with other key stakeholders – The Innovation Fund and the Science Fund. The roles and responsibilities of these actors/stakeholders are summarized in the Table below.

Figure 1. Responsibilities of key actors/stakeholders in Stakeholder engagement

Actor/Stakeholder	Responsibilities
MoESTD/PIU	 Plan, implement and monitor stakeholder engagement activities in line with SEP; Lead and coordinate stakeholder engagement activities; Collect stakeholder feedback through regional workshops, satisfaction surveys and bilateral meetings,

Actor/Stakeholder	Responsibilities			
	 Manage the grievance mechanism at Project level, communicate grievances regularly through monitoring reports, Manage national GM database and submit quarterly reports on the substance and quantity of grievances; and Supervise/monitor programs and engage with final beneficiaries Launch of RDI Reform component (to launch the Call for Expression of interest for RDIs to participate in this component) Training and information workshops (while the Call for Eol is open) Other promotional events Questionnaires for beneficiaries 			
Innovation Fund	 Facilitate information requests and grievances by transfer to the PIU Discloses all documents, distributes outreach material as needed Launch event Information sessions Networking sessions Matchmaking sessions Awardee ceremonies Other promotional events Annual applicant surveys Annual stakeholder workshop on the progress of acceleration program 			
Science Fund	 Facilitate information requests and grievances by transfer to the PIU Discloses all documents, distributes outreach material as needed Launch of call and promotional events Training workshops (weekly "open doors" for potential applicants, webinars on targeted topics and for targeted audiences outside of Belgrade) Responses to frequently asked questions published on SF website Award ceremony Other promotional events Annual questionnaires on research programs 			

Documents and Information to Be Disclosed

All relevant Project information will be disclosed in local and English language at the website of the MoESTD, the Innovation Fund and Science Fund respectively. The information posted at these web sites would ensure equal access for all stakeholder groups. Each disclosed information shall contain information on person responsible of information disclosure, as well as tentative date of the next information disclosure.

Particularly, the following information shall be disclosed:

- Environmental and Social Management Framework (ESMF),
- Public Calls for funding, with explanation of funds allocation criteria, application terms and conditions and application selection and approval process, including envisaged timeline.
- Public Calls for any action from the Projects Procurement Plan, namely for selection of consultants and providers of services, good and equipment including IT.
- Details on grievance mechanisms, with clear information on how complaints or comments can be submitted and how the mechanism functions (process and deadlines),
- · Contact details for responsible persons in PIU,
- Notification on planned disclosure of new information (planned disclosure time),
- Minutes from public consultations and meetings

PIU shall update the information disclosed on MoESTD website on regular basis.

10.1.4. Documentation and Records

- PIU shall establish and maintain records on information and engagement of all stakeholders, which records would contain as a minimum the following information:
- List of disclosed relevant documentation,
- Summary of received comments and public opinion,
- Summary of how general public comments and opinion are addressed;

- Date and place of each public consultation with specified purpose of the consultation, minutes, number and list of participants,
- Issues to be addressed in the next period,
- Number of stakeholders' complaints related to the communication (with gender breakdown) and number of complaints which resulted with positive outcome,
- Number of received and approved applications (broken down by SME and intermediary owner/manager gander).

10.2. IF existing Grievance Mechanism (GM):

The IF has an operating GM in place. All complaints are recorded and processed by the IF staff using the established procedures during the piloting phase of IPA 2011. Formal complaints about the outcome of the evaluation process (or other grievances) is are recorded and summarized in the IF's "Complaint Monitoring Tool". The Tool contains info regarding the complaint(s) such as: Project ID, Nature of Complaint, Receipt Date, Complain Date, Detailed Description of the Complaint, Action Taken, Outcome, Status: Pending / Closed. Complaints are submitted by way of a formal letter (via email), written in English, up to 500 words. All complaints are responded to within 8 days of receipt. All complaints are processed regularly, and where applicable, an independent Investment Commission is contacted for assistance. The Applicants' right to file a fact-based objection to the outcome of the Application status are described in Program manuals (under Project Evaluation and Financing Decision): http://www.inovacionifond.rs/cms/files//program-ranoghttp://www.inovacionifond.rs/cms/files//programrazvoja/MINI-Program-Manual-ENG-7-0.pdf and sufinansirana-inovacija/MATCHING-Program-Manual-ENG-6-0.pdf.

The IF GM is applied to Project Component 1 and can be used by any person who believes that any of his/her right is or might be violated by the sub-projects financed through the matching grant scheme (acceleration program), including Applicant's workers.

IF Program Managers are responsible for ensuring that each Application receives an objective and fair initial peer review, that the process is transparent, that all applications are treated with equal opportunity and that all applicable laws, regulations, and policies are followed.

10.3. SF Grievance Mechanism to be implemented:

A grievance mechanism will be set up for the Science Fund, following the example of the IF GM, described above by December 15, 2019. The SF will follow the example of the IF GM within 4 months after WB Board approval.

10.4. World Bank Grievance Redress System

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

10.5. Stakeholders' consultations on environmental and social risks

10.5.1. Initial Stakeholders Consultations

Two rounds of initial consultations on project E&S risks with key stakeholders were held in Belgrade in September and October 2019 in preparation of the Draft ESMF document (see annex 12).

On September 23, 2019, with the aim of preparing the Environmental and Social Management Framework (ESMF), the first round of consultation with key stakeholders was held at the World Bank premises in Belgrade, Boulevard Kralja Aleksandra 86. The meeting was attended by representatives of key institutions that will implement the Project (SF, IF, MoESTD, WB representatives). Engaged Environmental and Social Consultant informed the representatives of key institutions about the necessity of drafting an ESMF document in accordance with World Bank procedures related to project approval. Particular emphasis is placed on the potential environmental and social impacts of the project and the experiences of individual institutions that have previously used loan funds in similar projects.On 04 October 2019, as a continuation of the preparation

of the Environmental and Social Management Framework (ESMF), at the premises of the Ministry of Education, Science and Technological Development - Institute of Chemistry, Technology and Metallurgy, Njegoseva 12 Belgrade, a second round of consultation was held with key project stakeholders. The meeting was also attended by representatives of key institutions that will implement the project in question, together with representatives of SMEs that have previously been involved in similar WB funded projects and successfully implemented the projected activities. During the consultation, attendees informed Environmental Consultant of the implementation of previous World Bank-funded projects. Special focus was given to monitoring and evaluation of projects, screening forms, development of environmental and social management plans during project implementation, opportunities for involvement of diaspora experts and ways of public involvement during project implementation.

10.5.2. Public Consultations on Draft ESMF document

Starting from 22 October 2019, MoESTD disclosed Draft ESMF document on its web site and announced invitation for Public Consultations for the public, bodies and organizations interested in ESMF document for the Project. Same announcement is published in daily newspaper "Blic" on 25 October 2019. Public and other interested parties and organizations were invited to participate in process of public consultation on draft ESMF document.

Draft ESMF document and Call for Public Consultations were also placed on:

- o on the web site of the Science Fund: http://fondzanauku.gov.rs/
- on the web site of the Innovation Fund: http://www.inovacionifond.rs/

On 01 November 2019, at 11:00 AM (local time), public consultations and presentation of the Draft ESMF document were organized at the premises of the Ministry of Education, Science and Technological Development - Institute of Chemistry, Technology and Metallurgy, Njegoseva 12, 11000 Belgrade, conference hall at the second floor. During the public consultations, there were comments and remarks related to issues presented in the ESMF, but no new environmentally or socially related issues were raised.

Full report on public consultations is enclosed as Annex 12 to this ESMF document.

ANNEXES:

Annex 01: Exclusion List of Project / Activities

Annex 01A: IFI Exclusion List

Annex 01B: A list of projects for which an impact assessment is mandatory

Annex 01C: HORIZON 2020 Ethic Issue Table

Annex 02: Environmental and Social Checklist

Annex 03: Diagram - Project's Environmental and Social Screening Procedure

Annex 04: Relevant National Legislation as of October 2019

Annex 05: Format for Report on Compliance with Conditions of Work with ESS2

Annex 06: Statement of the Applicant on Compliance with Provisions of Labor Legislation

Annex 07: Sample Mitigation Plan and Monitoring Plan of ESMP

Annex 07A: Table Mitigation Plan

Annex 07B: Table Monitoring Plan

Annex 08: Sample Filled-Out ESMP – Mitigation Plan and Monitoring Plan

Annex 09: Compliance statement template for SMEs/grantees under component 2

Annex 10: Sample ES Questionnaire to be used for regular reporting to PIU and WB

Annex 11: Key articles of the Animal welfare law and Law on Health Care

Annex 12: Report on Public Consultations on ESMF document

Annex 13: WB OHS Compliance Statement template for SMEs/grantees and RDIs

ANNEX 01: EXCLUSION LIST OF PROJECT / ACTIVITIES

Each project which falls under list 01A or list 01B will not be eligible for financing under the Project

ANNEX 01A IFC EXCLUSION LIST

The IFC Exclusion List defines the types of projects that IFC does not finance.

IFC does not finance the following projects:

- Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under CITES
- Production or trade in weapons and munitions.²⁹
- Production or trade in alcoholic beverages (excluding beer and wine).¹
- Production or trade in tobacco.¹
- Gambling, casinos and equivalent enterprises.¹
- Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where IFC considers the radioactive source to be trivial and/or adequately shielded.
- Production or trade in unbonded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.
- Drift net fishing in the marine environment using nets in excess of 2.5 km. in length.

A reasonableness test will be applied when the activities of the project company would have a significant development impact but circumstances of the country require adjustment to the Exclusion List.

All financial intermediaries (FIs), except those engaged in activities specified below*, must apply the following exclusions, in addition to IFC's Exclusion List:

- Production or activities involving harmful or exploitative forms of forced labor³⁰/harmful child labor.³¹³
- o Commercial logging operations for use in primary tropical moist forest.
- o Production or trade in wood or other forestry products other than from sustainably managed forests.
- * When investing in **microfinance** activities, FIs will apply the following items in addition to the IFC Exclusion List:
 - Production or activities involving harmful or exploitative forms of forced labor²/harmful child labor.³
 - Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals. Hazardous chemicals include gasoline, kerosene, and other petroleum products.
 - o Production or activities that impinge on the lands owned, or claimed under adjudication, by Indigenous Peoples, without full documented consent of such peoples.
- * **Trade finance projects**, given the nature of the transactions, FIs will apply the following items in addition to the IFC Exclusion List:
 - Production or activities involving harmful or exploitative forms of forced labor²/harmful child labor.³

²⁹ This does not apply to project sponsors who are not substantially involved in these activities. "Not substantially involved" means that the activity concerned is ancillary to a project sponsor's primary operations.

³⁰ Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

31 Harmful child labor means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.

ANNEX 01B) LIST I – PROJECTS REQUIRING A MANDATORY ENVIRONMENTAL IMPACT ASSESSMENT

LIST I

Projects Requiring a Mandatory Environmental Impact Assessment

1. Plants for:

- 1) Refining oil, oil derivatives and natural gas;
- 2) Gasification and melting of coal or oil seal shale, heavy crude oil residues.

2. Plants:

- 1) For the production of electricity, water steam, hot water, technological steam or heated gases, by using all types of fuel, as well as plants for driving working machinery (thermal power plants, heating plants, gas turbines, internal combustion engine plants and other devices for combustion, including steam boilers) with 50 MW or more power;
- 2) Nuclear reactors, including the disassembly or removal from operation of such Reactors¹, other than scientific research plants for the production and conversion of fission and enriched materials with a total power not exceeding 1 kW of constant thermal load.

3. Plants:

- 1) For the treatment of spent nuclear fuel;
- 2) Envisaged:
- For the production or enrichment of nuclear fuel;
- For the treatment of spent nuclear fuel or highly radioactive nuclear waste;
- For the permanent disposal of spent nuclear fuel;
- For the permanent disposal of nuclear waste;
- For the treatment, storage and disposal of radioactive waste.

4. Plants:

- 1) For roasting or sintering metal ore (including sulphide ore);
- 2) For the production of raw iron or steel (primary or secondary melting) including continuous casting, with a capacity exceeding 2.5 t/h;
- 3) For processing in ferrous metallurgy:
- Hot rolling mills with a capacity of over 20 t/h of raw steel;
- Forges with automatic hammers with energy exceeding 50 kJ per single hammer, where the used heat power exceeds 20 MW;
- Plants for the application of metal protective layers to metallic surfaces using molten baths, with an input exceeding 2 t/h of raw material;
- 4) Foundry for ferrous metals with a production capacity of over 20 t per day; 5) Plants:
- For the production of non-ferrous raw metals from ore, concentrates or secondary raw materials through metallurgic and/or chemical processes, and/or electrolytic processes;
- For melting including the production of alloys from non-ferrous metals, as well as the production of by-products (refining, casting, etc.), with a melting capacity of over 4 t per day for lead and cadmium, or 20 t per day for all other
- metals; 6) For the surface processing of metals and plastic materials using electrolytic or chemical processes, where the volume of the treatment tubs exceeds 30 m3.

LISTA I

Projekti za koje je obavezna procena uticaja na zivotnu sredinu

1. Postrojenja za:

- 1) preradu nafte, naftnih derivata i prirodnog gasa;
- 2) gasifikaciju i topljenje uglja ili bitumenskih skriljaca, teskih ostataka sirove nafte.

2. Postrojenja:

- 1) za proizvodnju elektricne energije, vodene pare, tople vode, tehnoloske pare ili zagrejanih gasova, upotrebom svih vrsta goriva, kao i postrojenja za pogon radnih masina (termoelektrane, toplane, gasne turbine, postrojenja sa motorom sa unutrasnjim sagorevanjem i ostali uredjaji za sagorevanje ukljucujuci i parne kotlove) sa snagom od 50 MW ili vise;
- 2) nuklearni reaktori, ukljucujuci demontazu ili iskljucenje iz pogona takvih reaktora¹,izuzev naucnoistrazivackih postrojenja za proizvodnju i konverziju fisionih i obogacenih materijala, cija ukupna snaga ne prelazi 1 kW stalnog termalnog opterecenja.

3. Postrojenja:

- 1) za preradu istrosenog nuklearnog goriva;
- 2) predvidjena:
- za proizvodnju ili obogacenje nuklearnog goriva;
- za preradu istrosenog nuklearnog goriva ili visoko radioaktivnog nuklearnog otpada;
- za trajno odlaganje istrosenog nuklearnog goriva;
- za trajno odlaganje nuklearnog otpada;
- za preradu, skladistenje i odlaganje radioaktivnog otpada.

4. Postrojenja:

- 1) za pecenje ili sinterovanje metalne rude (ukljucujuci sulfidnu rudu);
- 2) za proizvodnju sirovog gvozdja ili celika (primarno ili sekundarno topljenje) ukljucujuci kontinualno livenje, sa kapacitetom koji prelazi 2,5 t/h;
- 3) za preradu u crnoj metalurgiji:
- tople valjaonice sa kapacitetom iznad 20 t/h sirovog celika;
- kovacnice sa automatskim cekicima cija energija prelazi 50 kJ po jednom cekicu, kod kojih upotrebljena toplotna snaga prelazi 20 MW;
- postrojenja za nanosenje metalnih zastitnih slojeva na metalne povrsine pomocu topljenih kupki, sa ulazom koji prelazi 2 t/h sirovog materijala;
- 4) Livnica crne metalurgije sa proizvodnim kapacitetom preko 20 t na dan:
- 5) Postrojenja:
- za proizvodnju obojenih sirovih metala iz rude, koncentrata ili sekundarnih sirovina putem metalurskih i/ili hemijskih procesa i/ili elektrolitickih procesa;
- za topljenje ukljucujuci i izradu legura od obojenih metala, kao i izradu korisnih nusproizvoda (rafinacija, livenje, itd.), sa kapacitetom topljenja od preko 4 t dnevno za olovo i kadmijum ili 20 t dnevno za sve ostale metale:
- 6) za povrsinsku obradu metala i plasticnih materijala koriscenjem elektrolitickih ili hemijskih procesa, gde zapremina kada za tretman prelazi 30 m3.

5. Plants for:

- 1) Extraction, production, refining and processing of asbestos and products containing asbestos;
- 2) Production of cement clinker, cement and lime in rotational or other furnaces with capacities over 500 t per day for the production of cement clinker or lime with a capacity of over 50 t per day in rotational furnaces.
- 6. Combined chemical plants, i.e. plants for the industrial production of substances where chemical change procedures are applied and where individual plants are located next to one another and are functionally connected, intended for the production of:
- Basic organic chemicals;
- Basic non-organic chemicals;
- Phosphorus, nitrogen or potassium-based artificial fertilizers (simple or complex fertilizers);
- Basic plant protection products, as well as biocides;
- Basic pharmaceutical products with the application of chemical or biological procedures;
- And/or refining and/or processing of explosives.
- 7. Construction of:
- 1) Main railway lines including ancillary facilities (bridges, tunnels and stations);
- 2) Main highways and roads with four or more lanes, or the reconstruction and/or expansion of an existing road with two lanes or fewer, with the aim of producing a road with four or more lanes, in case such a new road or a reconstructed and/or expanded section has a continuous length of over 10 km or more, including ancillary facilities, other than the supporting content of the main road;
- 3) Airports for engaging in public air transport² with a take-off runway longer than 2,100 m.
- 8. Interior waterways whereupon the international or interstate navigational regime is in force, as well as ports and docks located on an interior waterway whereupon the international or interstate navigational regime is in force, regulation works on interior waterways enabling the passage of vessels over 1350 t.
- 9. Plants for the treatment of hazardous waste by burning, thermal and/or physical, physical-chemical, chemical procedures, as well as central storage and/or landfills for depositing hazardous waste.³
- 10. Plants for the treatment of non-hazardous waste by burning or chemical procedures⁴ with a capacity exceeding 70 t per day; communal waste landfills for over 200,000 population equivalent.
- 11. Exploitation of ground water or enrichment of ground water where the annual volume of exploited or enriched water is equal to the amount of 10 million m3 or more.
- 12. Facilities:
- 1) Hydro-technical facilities for transferring waters between river basins intended to prevent potential water shortages where the amount of transferred water exceeds 100 million cubic metres annually;
- 2) In all other cases, facilities intended for transferring waters between river basins where the multi-annual average of the flow in the basin where the water is captured exceeds 2,000 million m3 per year and where the amount of transferred water exceeds 5% of this flow, except in case of transfer of potable water by pipelines.

5. Postrojenja za:

- 1) ekstrakciju, proizvodnju, preradu i obradu azbesta i proizvoda koji sadrze azbest; 2) proizvodnju cementnog klinkera, cementa i kreca u rotacionim ili drugim pecima
- 2) proizvodnju cementnog klinkera, cementa i kreca u rotacionim ili drugim pecima kapaciteta preko 500 t dnevno za proizvodnju cementnog klinkera ili kreca kapaciteta preko 50 t dnevno u rotacionim pecima.
- 6. Kombinovana hemijska postrojenja, tj. postrojenja za industrijsku proizvodnju supstanci kod kojih se primenjuju postupci hemijske promene i u kojima se pojedini pogoni nalaze jedan pored drugog i funkcionalno su povezani, a namenjeni su za proizvodnju:
- osnovnih (baznih) organskih hemikalija;
- osnovnih (baznih) neorganskih hemikalija;
- vestackih djubriva na bazi fosfora, azota ili kalijuma (prosta ili slozena djubriva);
- osnovnih (baznih) proizvoda za zastitu bilja, kao i biocida;
- osnovnih (baznih) farmaceutskih proizvoda uz primenu hemijskih ili bioloskih postupaka;
- i/ili preradu i/ili obradu eksploziva.
- 7. Izgradnja:
- 1) magistralnih zeleznickih pruga ukljucujuci pripadajuce objekte (mostove, tunele i stanice);
- 2) magistralnih autoputeva i puteva sa cetiri ili vise traka, ili rekonstrukcija i/ili prosirenje postojeceg puta sa dve trake ili manje, sa ciljem dobijanja puta sa cetiri ili vise traka, u slucaju da takav novi put ili rekonstruisana i/ili prosirena deonica imaju neprekidnu duzinu od preko 10 km ili vise, ukljucujuci pripadajuce objekte, osim pratecih sadrzaja magistralnog puta;
- 3) aerodromi za obavljanje javnog avio-transporta2 cija je poletna pista duza od 2.100 m.
- 8. Unutrasnji plovni putevi na kojima vazi medjunarodni ili medjudrzavni rezim plovidbe, kao i luke i pristanista koje se nalaze na unutrasnjem plovnom putu na kojem vazi medjunarodni ili medjudrzavni rezim plovidbe, regulacioni radovi na unutrasnjim plovnim putevima kojim se omogucava prolaz plovnim objektima od preko 1350 t.
- 9. Postrojenja za tretman opasnog otpada spaljivanjem, termickim i/ili fizickim, fizickohemijskim, hemijskim postupcima, kao i centralna skladista i /ili deponije za odlaganje opasnog otpada.³
- 10. Postrojenja za tretman otpada koji nije opasan spaljivanjem ili hemijskim postupcima⁴ kapaciteta vise od 70 t na dan; deponije komunalnog otpada za preko 200.000 ekvivalent stanovnika.
- 11. Eksploatacija podzemnih voda ili obogacivanje podzemnih voda kod kojih je godisnja zapremina eksploatisane ili obogacene vode jednaka kolicini od 10 miliona m³ ili vise.
- 12. Objekti:
- hidrotehnicki objekti za prebacivanje voda izmedju recnih slivova, namenjeni sprecavanju mogucih nestasica vode kod kojih kolicina prebacene vode prelazi 100 miliona kubnih metara godisnje;
- 2) u svim drugim slucajevima, objekti namenjeni za prebacivanje voda izmedju recnih slivova kod kojih visegodisnji prosek protoka u slivu iz kog se voda zahvata prelazi 2.000 miliona m³ godisnje i gde kolicina prebacene vode prelazi 5% od ovog protoka, osim u slucaju prenosa vode za pice cevovodima.
- 13. Postrojenia za preciscavanie otpadnih voda u naselijma preko 100.000 stanovnika.
- 14. Vadjenje nafte i prirodnog gasa.

- 13. Plants for cleaning waste water in settlements with populations over 100,000.
- 14. Extraction of oil and natural gas.
- 15. Dams and other facilities intended for holding and accumulating waters where the water arriving, or additionally retained, or accumulated exceeds the amount of 10 million m3.
- 16. Pipelines for the transport of gas, liquid gas, oil and oil derivatives or chemicals with a diameter exceeding 800 mm and a length exceeding 40 km.
- 17. Facilities for the intensive breeding of poultry or pigs with a capacity exceeding:
- 85,000 places for the production of broilers;
- 40,000 places for poultry in breeding and exploitation;
- 2,000 places for the production of pigs (over 30 kg of weight);
- 750 places for sows.
- 18. Industrial plants for the production of:
- 1) Cellulose from wood pulp, hay or similar fibrous materials;
- 2) Paper and cardboard with a production capacity exceeding 20 t/day.
- 19. Open pit mines for mineral resources with a surface exceeding 10 ha, or the extraction of peat when the surface area of the exploitation terrain exceeds 100 ha.20. Construction of overhead power lines with voltages amounting to 200 kV or more
- and lengths exceeding 15 km.
- 21. Facilities intended for the storage of oil, petrochemical or chemical products, natural gas, flammable liquids and fuels with a capacity of 100,000 t or more.

 22. Activities and plants that are issued integrated permits in accordance with the Regulation on the types of activities and plants that are issued an integrated permit ("Official Gazette of RS", no. 84/05).
- _____
- 1 Nuclear reactors cease to be such plants once the entirety of the nuclear fuel and other radioactively polluted elements are permanently removed from the place where the plants have been built.
- 2 An "airport" involves airports corresponding to the definition envisaged by the Chicago Convention of 1944 whereby the International Civil Aviation Organization was founded (Annex 14).
- 3 Plants defined in Annex IIA with Directive 75/442/EEC, under heading D9, as well as landfills for disposing of hazardous waste where Directive 91/689/EEC applies.
- 4 Plants defined in Annex IIA with Directive 75/442/EEC under heading D9.

- 15. Brane i drugi objekti namenjeni zadrzavanju i akumulaciji vode kod kojih voda koja dotice, ili dodatno zadrzana, ili akumulirana voda prelazi kolicinu od 10 miliona m³.
- 16. Cevovodi za transport gasa, tecnog gasa, nafte i naftnih derivata ili hemikalija precnika veceg od 800 mm i duzine koja prelazi 40 km.
- 17. Objekti za intenzivan uzgoj zivine ili svinja sa kapacitetom preko:
- 85.000 mesta za proizvodnju brojlera;
- 40.000 mesta za zivinu u uzgoju i eksploataciji;
- 2.000 mesta za proizvodnju svinja (preko 30 kg tezine);
- 750 mesta za krmace.
- 18. Industrijska postrojenja za proizvodnju:
 - 1) celuloze iz drvne mase, slame ili slicnih vlaknastih materijala;
 - 2) papira i kartona sa proizvodnim kapacitetom koji prelazi 20 t/dan.
- 19. Povrsinski kopovi mineralnih sirovina cija povrsina prelazi 10 ha, ili vadjenja treseta kad povrsina terena za eksploataciju prelazi 100 ha.
- 20. Izgradnja nadzemnih dalekovoda cija voltaza iznosi 220 kV ili vise i cija duzina prelazi 15 km.
- 21. Objekti namenjeni skladistenju nafte, petrohemijskih ili hemijskih proizvoda, zemnog gasa, zapaljivih tecnosti i goriva ciji kapacitet iznosi 100.000 t ili vise.
- 22. Aktivnosti i postrojenja za koje se izdaje integrisana dozvola u skladu sa Uredbom o vrstama aktivnosti i postrojenja za koje se izdaje integrisana dozvola ("Sluzbeni glasnik RS", broj 84/05).
- 1 Nuklearni reaktori prestaju da budu ovakva postrojenja kada se celokupno nuklearno gorivo i drugi radioaktivno zagadjeni elementi trajno uklone sa mesta na kome su postrojenja izgradjena.
- 2 Pod "aerodromom" se podrazumevaju aerodromi koji odgovaraju definiciji predvidjenoj Cikaskom konvencijom iz 1944. godine, kojom je osnovana Medjunarodna organizacija civilnog vazduhoplovstva (Aneks 14).
- 3 Postrojenja definisana u Aneksu IIA uz Direktivu 75/442/EEZ, pod zaglavljem D9, kao i deponije za odlaganje opasnog otpada na koje se primenjuje Direktiva 91/689/EEZ.
- 4 Postrojenja definisana u Aneksu IIA uz Direktivu 75/442/EEZ pod zaglavljem D9.

Annex 01C: HORIZON 2020 Ethic Issue Table

Full-Proposal includes H2020 "Ethics issues table" that must be filled in with yes/no.

Applicants should always describe any relevant ethical aspects in their research plans. If a research permit or a statement by an ethics Commission is required for the implementation of the project, applicants shall provide information on the permits or permit proposals.

ETHICS ISSUES	YES/No	Proposal section nº
1.HUMAN EMBRYOS/FOETUSES		
Does your research involve Human Embryonic Stem Cells (hESCs)?		
Does your research involve the use of human embryos?		
Does your research involve the use of human foetal tissues / cells?		
2.HUMANS		
Does your research involve human participants?		
Does your research involve physical interventions on the study participants?		
Does it involve invasive techniques?		
3.HUMAN CELLS / TISSUES		
Does your research involve human cells or tissues?		
If your research involves human embryos/foetuses, please also complete the section "Human Embryos/Foetuses" [Box 1].		
4.PROTECTION OF PERSONAL DATA		
Does your research involve personal data collection and/or processing?		
Does your research involve further processing of previously collected personal data (secondary use)?		
5.ANIMALS	1	l
Does your research involve animals?		
6. COUNTRIES OUTSIDE OF SERBIA		
Does your research involve countries outside of Serbia?		
Do you plan to use local resources (e.g. animal and/or human tissue samples, genetic material, live animals, human remains, materials of historical value, endangered fauna or flora samples, etc.)?		
Do you plan to import any material - including personal data - from countries outside of Serbia into Serbia? If you consider importing data, please also complete the section "Protection of Personal Data" [Box 4].		
Do you plan to export any material - including personal data -from Serbia to countries outside of Serbia? If you consider exporting data, please also complete the section "Protection of Personal Data" [Box 4].		
If your research involves low and/or lower middle income countries, are benefits-sharing measures foreseen?		
Could the situation in the country outside of Serbia put the individuals taking		

ETHICS ISSUES	YES/No	Proposal section nº
part in the research at risk?		
7.ENVIRONMENT PROTECTION	<u> </u>	<u> </u>
Does your research involve the use of elements that may cause harm to the environment, to animals or plants?		
Does your research deal with endangered fauna and/or flora and/or protected areas?		
Does your research involve the use of elements that may cause harm to humans, including research staff?		
8.DUAL USE		
Does your research have the potential for military applications?		
9.MISUSE	<u> </u>	<u> </u>
Does your research have the potential for malevolent/criminal/terrorist abuse?		
10.OTHER ETHICS ISSUES	l	
Are there any other ethics issues that should be taken into consideration? Please specify		
I CONFIRM THAT NONE OF THE ABOVE ISSUES APPLY TO MY PROPOSAL		

ANNEX 02: Environmental and Social Screening Check List

02A) ENVIRONMENTAL AND SOCIAL SCREENING CHECKLIST

NOTE: This checklist will be used to exclude project with high or substantial risks on environment and social community

ENV	ENVIRONMENTAL SCREENING CHECKLIST (to be filled in for every subproject separately)			
PAR	PART I Administrative and institutional data			
1.	Sub-project name	(Name of rehabilitation sub-project)		
2.	Sub-Project location	(Municipality / City, RS/RoS)		
3.	Proximity to nearest settlement (houses)			
4.	Proximity to nearest river/lake			
5.	Project description (Describe main project features and location of work execution)			

PAR	T II Project exclusion criteria		
	Issue	Yes/No	Comment
6.	Is the project found of the IFI exclusion list (see the Annex 01A)	Yes [] No []	[] If yes, the project is not eligible for financing. Identify another project.
7.	Does the proposed project require a FULL Environmental Impact Assessment as per the Serbian Law on Environmental Impact Assessment (list of Projects for which full EIA is mandatory)? (see the Annex 01B)	Yes [] No []	[] If yes, the project is not eligible for financing. Identify another project.
8.	Will the project implementation result in the involuntary land acquisition, resettlement of population or permanent land occupation, encroachment on private property, impacts on livelihood incomes?	Yes [] No []	[] If yes, the project is not eligible for financing. Identify another project.
9.	Will the project involve actions which will cause new physical changes in the locality (topography, land use, waterbodies, etc.) compared to the state before reconstruction?	Yes [] No []	[] Go back to original design and avoid any physical changes in the locality [] Develop a site specific ESMP [] Exclude the project and identify another site
10.	Will the project result in increased use of natural resources such as land, water, materials or energy compared to the state before reconstruction?	Yes [] No []	[] Go back to original design and avoid increase in natural resources use [] Develop a site specific ESMP [] Exclude the project and identify another site

PAR	PART III Basic information on the proposed project and the Applicant				
	Issue	Yes / No	Comment		
11.	Does the existing enterprise have valid operating permit, licenses, approvals etc.? Permits to screen for include: construction permit, operational/use permit, urban permit, water management permit		If not, please explain. If not, will the financing be used to correct this condition?		
12.	The current number of employees with the Applicant is:				
	Fewer than 10				
	Between 10 and 20				
	Between 20 and 50				
	More than 50				
13.	Has the Applicant submitted a signed statement that the conditions of work are in compliance with the current Serbian legislation on labor and protection at work?				
14.	Are all the existing employees of the Applicant regularly registered for pension and disability insurance (i.e. has a certificate been submitted on paid contributions, which was issued by the competent tax authority)?				
15.	Does the Applicant usually employ persons of age 15 to 18?				
16.	Would new workers be recruited for the requirements of the sub project (enter the number in the comment field)?				
17.	Can the proposed subproject be deemed relevant for adaptation to climate changes or increasing resilience to climate changes?				

	Issue	Yes/No	Comment
18.	Are there any indications that the Applicant could use informal labor for the needs of the subproject?		
19.	Are there any indications that the Applicant could employ persons of age 15 to 18 without complying with legislated provisions concerning employment and protection of such workers?		
20.	Does the subproject include any significant potential physical hazards for workers?		
21.	Would subproject implementation cause emissions of polluting substances in the air and/or would measures be required for environment protection in order to ensure compliance with Serbian standards?		
22.	Would project implementation include discharge of wastewater and/or require environment protection measures in order to ensure compliance with Serbian standards?		
23.	Would subproject implementation cause any emission of noise at a level that would require measures of control in order to ensure compliance with Serbian standards? Would the levels of noise affect especially sensitive receptors (natural habitats, hospitals, schools, local population,)		

cate	categorization				
	Issue	Yes/No	Comment		
24.	Would project implementation cause the onset of waste that would require special provisions for management, and which would need to be disposed of by companies authorized for waste management?				
25.	Will the activity generate solid waste that may be considered hazardous, difficult to manage, or may be beyond the scope of regular household waste? (This may include, but not be limited too, animal carcasses, toxic materials, pesticides, medical waste, cleaning materials, flammables etc.)				
26.	(In case of procurement of new equipment, would the old equipment be disposed of by an authorized company for waste management?)				
27.	Does the existing enterprise have a valid water management permit that calls for special investments or measures for the enterprise's wastewater releases (or is in the procedure of obtaining this permit as per the Serbian laws)?				
28.	Are there any significant outstanding environmental fees, fines or penalties or any other environmental liabilities (e.g. pending legal proceedings involving environmental issues etc.)		If so, will the financing be used to correct this condition and please explain?		
29.	Will the activity generate water effluents (wastewater) that may require special treatment, control or the water management permit?				
30.	Will the activity consume, use or store, produce hazardous materials that:				
	require special permits or licenses require licensed or trained personnel are outlawed or banned in EU or Western countries are difficult, expensive, or hard to manage are inconsistent with PPAH recommendations may cause soil and water pollution or health hazards if adequate control measures are not in place				
31.	Have there been any complaints raised by local affected people or groups or NGOs regarding conditions at the facility? If so, will the grant financing be used to remedy these complaints?				
32.	Will the activity be located within or close to natural habitats or areas under consideration by the Government for official protection status? Will the activity potentially impact areas of known significance to local, regional or national cultural heritage?				
33.	Will the activity involve import of living organisms, e.g. saplings, insects, animals, etc. or works that can impact sensitive environmental receptors?				
34.	Has the local population or any NGOs expressed concern about the proposed activity's environmental aspects or expressed opposition?				
35.	Is there any other aspect of the activity that would – through normal operations or under special conditions – cause a risk or have an impact on the environment, the population or could be considered as a nuisance (e.g. use of pesticides)?				

02B) Social Screening Form (Check List)

SOCIAL SCREENING FORM AND TRIGGERS FOR SUB PROJECTS		
Screening indicators related to Land acquisition, assets and access to resour	ces	
Type of activity – Will the sub project:		
Require that land (private) to be acquired (temporarily or permanently) for its development		
Use land that is currently occupied or regularly used for productive purposes (e.g. gardening, farming, pasture, fishing locations, forests		
Physically displace individuals, families or businesses		
Result in the temporary or permanent loss of crops, fruit trees or household infrastructure		
Result in the involuntary restriction of access by people to legally designated parks and protected areas		
Result in loss of livelihood		
Have negative impact to any vulnerable individuals or groups		
Have negative impact to informal side road shops, traders or any nomadic type of commercial activity		

If any of the boxes above are ticked YES, the Sub project will not be eligible for financing

CERTIFICATION

Applicant:

The Applicant, in signing this form proves that the project activity will not involve land acquisition, any form of construction, or will promote any activities on the World Bank Group IFC exclusion list. In addition, the Applicant is aware of the EIA requirements as per the Serbian Law and certifies that there are no Full Environmental Impact Assessment reports required.

Environmental and Social Expert engaged by the Project:

I hereby certify that I have thoroughly examined all the potential adverse effects of this sub project. To the best of our knowledge, the sub project does not avoid /avoids all adverse social impacts (in case the Sub project Does Not Avoid ad verse social impacts list at least two excluding the Sub projects eligibility

02C) Ethical Issues

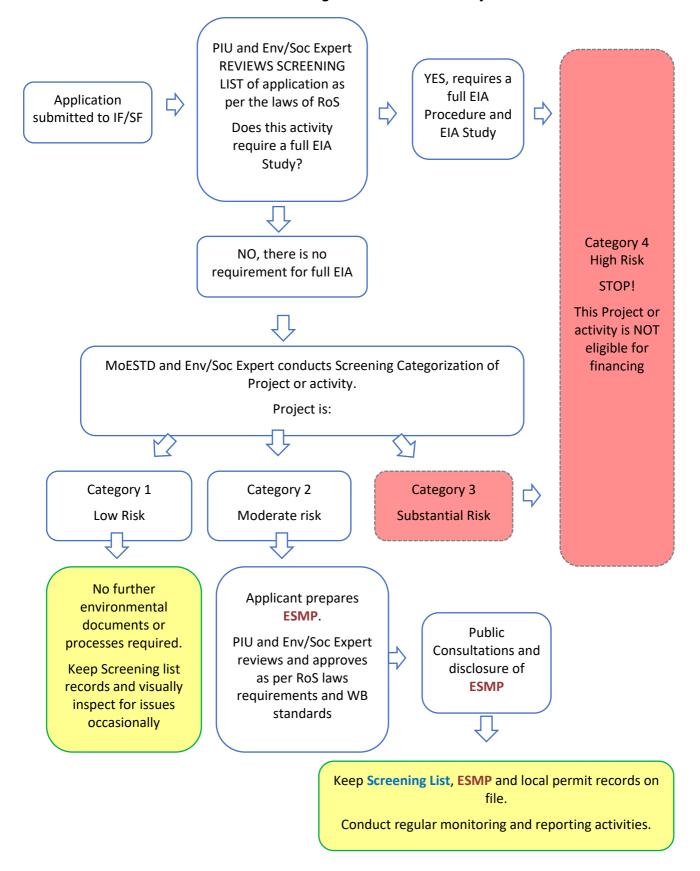
In case ethical issues apply the Applicants should mark respective issues in the following table

ETHICS ISSUES	YES/No	Proposal section no
1.ANIMALS		
Does your research involve animals? If Yes, following Information should be provided: 1) Details of the species and rationale for their use, numbers of animals to be used, nature of the experiments, procedures and techniques to be used. 2) Justification of animal use (including the kind of animals to be used) and why alternatives cannot be used.		
2.OTHER ETHICS ISSUES		
Are there any other ethics issues that should be taken into consideration? Please specify		
I CONFIRM THAT NONE OF THE ABOVE ISSUES APPLY TO MY PROPOSAL		

If the Applicant has entered any ethics issues in the ethical issue table in the administrative proposal forms, the Applicant if deemed necessary by the selection body will be required to provide the following:

- submit an ethics self-assessment, which describes how the proposal meets the national legal and ethical requirements;
- explains in detail how applicant intends to address the issues in the ethical issues table, in particular as regards research methodology (e.g. clinical trials, etc.)
- o the potential impact of the research (e.g. environmental damage, benefit-sharing, etc.).

ANNEX 03: Environmental and Social Screening Procedure under the Project



ANNEX 04: RELEVANT NATIONAL LEGISLATION AS OF OCTOBER 2019

The main laws and regulations currently in force in Republic of Serbia which are relevant to the environmental protection during planning, design, construction and operating of this Project are listed below:

The main legal documents are:

- The Constitution of Serbia ("Official Gazette of RS" No. 98/06).
- The National Strategy for Sustainable Development ("Official Gazette of RS" No. 72/09, 81/09)
- Law on Science and Research ("Official Gazette of RS" No. 49/19)
- The Law on Water ("Official Gazette of RS" No. 30/10, 93/12)
- Law on Planning and Construction ("Official Gazette of RS" No. 72/09, 81/09)
- Law on Strategic EIA ("Official Gazette of RS" No. 135/2004
- Law on nature protection ("Official Gazette of RS", 36/09, 88/10, 91/10, 14/16)
- Law on environmental protection ("Official Gazette of RS" No. 135/04, 36/09, 72/09, 43/11, 14/16)
- o Law on EIA ("Official Gazette of RS" No. 135/2004, 36/2009)
- Law on waste management ("Official Gazette of RS", 36/09, 88/10, 14/16)
- Law on noise protection ("Official Gazette of RS", 36/09, 88/10)
- Law on water ("Official Gazette of RS", 30/10, 93/12, 101/16)
- Law on forest ("Official Gazette of RS", 30/10, 93/12, 89/15)
- Law on air protection ("Official Gazette of RS", 36/09, 10/13)
- Law on Occupational Health and Safety ("Official Gazette of RS", 101/05, 91/15)
- o Agricultural Land Law, ("Official Gazette of RS" No. 62/06, 65/08, 41/09, 112/2015)
- o Animal Welfare Law, ("Official Gazette of RS" No. 41/09)
- Regulation on welfare of animal intended for experimental purposes ("Official Journal of. RS", No 39/10)
- Law on Health Care ("Official Gazette of RS", No. 25/2019)
- Law on protection of personal data ("Official Gazette of RS", No. 87/2018)
- Law on radiological and nuclear safety, ("Official Gazette of RS" No. 95/18, 10/19)
- Regulations established on the basis of the Law on EIA include the following:
- Law on confirmation of convention on information disclosure, public involvement in process of decision making and legal protection in the environmental area ("Official Gazette of RS", 38/09)
- Decree on establishing the List of Projects for which the Impact Assessment is mandatory and the List of projects for which the EIA can be requested ("Official Gazette of RS" No. 114/08)
- Rulebook on the contents of requests for the necessity of Impact Assessment and on the contents of requests for specification of scope and contents of the EIA Study ("Official Gazette of RS" No. 69/05)
- o Rulebook on the contents of the EIA Study ("Official Gazette of RS" No. 69/05)
- Rulebook on the procedure of public inspection, presentation and public consultation about the EIA Study ("Official Gazette of RS" No. 69/05)
- Rulebook on the work of the Technical Commission for the EIA Study ("Official Gazette of RS" No. 69/05)
- Regulations on permitted noise level in the environment ("Official Gazette of RS" No. 72/10)
- o Decree on establishing class of water bodies ("Official Gazette of SRS" No. 5/68)
- Regulations on dangers pollutants in waters ("Official Gazette of SRS" No. 31/82)
- Law on confirmation of convention on information disclosure, public involvement in process of decision making and legal protection in the environmental area ("Official Gazette of RS", 38/09)
- European Environment and Health Commission. Serbia. Copenhagen, WHO Regional Office for Europe, 2006 (http://www.euro.who.int/eehc/implementation/20061010_9 accessed 29 December 2009).
- National Assembly. Law on Protection against Environmental Noise. Official Gazette of the Republic of Serbia, No. 36/09, 88/10.
- National Assembly. Law on Waste Management. Official Gazette of the Republic of Serbia, 2009, No. 36/09, 88/10, 14/16.
- National Assembly. Constitution of the Republic of Serbia. Official Gazette of the Republic of Serbia, 2006, No. 98/06.
- National Assembly. Law on Environmental Protection. Official Gazette of the Republic of Serbia, 2004, No. 135/04, 36/09, 72/09, 43/11, 14/16.
- National Assembly. Law on Air Protection. Official Gazette of the Republic of Serbia, 2009, No. 36/09, 10/13.
- National Assembly. Law on Chemicals. Official Gazette of the Republic of Serbia, 2009, No. 36/09. 88/10, 92/11, 93/12, 25/15
- National Assembly. Law on Biocidal Products. Official Gazette of the Republic of Serbia, 2009, No. 36/09, 88/10, 92/11, 25/15

- National Assembly. Law on Occupational Safety and Health. Official Gazette of the Republic of Serbia, 2005. No. 101/05. 91/15
- National Assembly. Law on Environmental Impact Assessment. Official Gazette of the Republic of Serbia, 2004, No. 135/04, 36/09
- Federal Assembly. Regulation on permitted level of noise in the environment. Official Gazette of the Republic of Serbia, 2010, No. 72/10.
- National Assembly. Law on Integrated Pollution Prevention and Control. Official Gazette of the Republic of Serbia, No. 135/04 (http://www.basel.int/legalmatters/natleg/serbia-04e.pdf, accessed 11 January 2010).
- Directive 2010-63-EU on the protection of animals for scientific purposes CELEX
- The General Data Protection Regulation (EU) 2016/679 (GDPR).
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC. Official Journal of the European Union, 2006, L396:1–849.
- Directive 2003/35/EC of the European Parliament and of the Council of 26 May 2003 providing for public participation in respect of the drawing up of certain plans and programmes relating to the environment and amending with regard to public participation and access to justice Council Directives 85/337/EEC and 96/61/EC. Official Journal of the European Union, 2003, L156:17–24.
- Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment. Official Journal of the European Communities, 1991, L135:40–52 (http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31991L0271:EN:HTML, accessed 25 January 2010).
- Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption. Official Journal of the European Communities, 1998, L330:32–33 (http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:1998:330:0032::EN:PDF, accessed 25 January 2010).
- Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise Declaration by the Commission in the Conciliation Commission on the Directive relating to the assessment and management of environmental noise. Official Journal of the European Communities, 2002, L189:12–25 (http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2002:189:0012::EN:PDF, accessed 25 January 2010).
- Federal Assembly. Regulation on permitted level of noise in the environment. Official Gazette of the Republic of Serbia, 2010, No. 72/10.
- National Assembly. Law on Integrated Pollution Prevention and Control. Official Gazette of the Republic of Serbia, No. 135/04 (http://www.basel.int/legalmatters/natleg/serbia-04e.pdf, accessed 11 January 2010).
- Council Directive 1999/30/EC of 22 April 1999 relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air. Official Journal of the European Communities, L163:41–60.

ANNEX 05 FORMAT FOR REPORT ON COMPLIANCE WITH CONDITIONS OF WORK WITH ESS2 for third parties engaging contracted workers

Assignment name:
Contract ref. No:
Contract period: Start date (M/D/Y) End date (M/D/Y)
Contractor/Service Supplier:
Reported period:
Date of report:
Signature of authorized person:
LABOR AND WORKING CONDITIONS COMPLIANCE REPORT
Company employees* statistics:
Total number of employee's gender disaggregated1: MF
Number of employees with an employment contract out of total number of employees
Number of employees without an employment contract out of total number of employees Number of employees with access to social security, pension and health insurance out of total number of employees Number of employees who receives wages/salaries at least once a month out of total number of employees
Number of employees who left the company in the reported period out of total number of employees

Number of employees hired in the reported period

Number of hours worked per employee (monthly average)

Total overtime (monthly average per employee)

- o Number of injuries at work (in reporting period and cumulative since contract start) out of total nr. of employees
- Number of fatalities at work (in reporting period and cumulative) out of total nr. of employees
- Number of reported violence out of total nr. of employees
- Number of reported harassment/ abuses out of total nr. of employees

Availability of an accessible and functioning employee grievance mechanism (Y/N)

Number of grievances raised with the GM (in reporting period and cumulative since contract start)

Number of grievances resolved by GM (in reporting period and cumulative since contract start)

Number of suits filed with regard to labor, employment and OHS issues

Number of disputes brought to peaceful settlement/voluntary arbitration procedure

Number of visits by labor/ OHS inspection

- *The employee is any natural person employed or engaged to work or perform service for the employer
- 1 The number of employees refers to the actual number/headcount on the date of the report.
- 2 The numbers imply the total number of incidents in the reported period.

Project workers statistics:

- Total number of project workers**:
- Number of project workers with an employment contract:
- Number of project workers without an employment contract:
- Number of project workers with access to social security, pension and health insurance verified by confirmation from registry:

Working and Labor Conditions Screening Check List

	Terms and conditions	Yes / No	Notes
1	All project workers have an employment contract or engagement agreement in writing.	Yes □ No □	If "No" please specify and explain
2	All project workers are paid at least once a month	Yes □ No □	If "No" please specify and explain
3	All project workers worked 8 hours a day, 40 hours a week	Yes □ No □	If "No" please explain and specify the hours worked
4	All project workers had a regular daily and weekly rest	Yes □ No □	If "No" please specify and explain
5	Number of project workers were terminated from employment with termination in line with national labor law and ESS2	Yes □ No □	If "Yes" please specify number and explain conditions of termination
6	Number of project workers attended OHS related training programme	Yes □ No □	If "Yes" please specify number and explain
7	Project workers were granted leaves they are entitled to	Yes □ No □	If "Yes" Please specify the type and number of leaves
8	Project workers were involved in accidents at work resulting in injuries or fatalities	Yes □ No □	If "Yes" please specify and explain
9	Project workers reported on cases of discrimination, harassment, sexual harassment or non-compliance with law	Yes □ No □	If "Yes" please specify and explain
10	1Project workers raised grievances or started voluntary arbitration / legal proceedings to settle a dispute	Yes □ No □	If "Yes" please specify and explain
11	In the reported period there were some incidents on noncompliance with the LMP	Yes □ No □	If "Yes" please specify and explain

ANNEX 06 STATEMENT OF THE SERVICE PROVIDERS ON COMPLIANCE WITH PROVISIONS OF LABOR LEGISLATION

Date and place of issuance:	
Name and address of the issuer:	

STATEMENT OF LEGAL AND REGULATORY COMPLIANCE

Hereby we declare that32

- We are aware of, and comply with, the standards laid down in the Labor Management Procedures;
- We conform to all national laws* and applicable regulations concerning employment, labor and employee relations, and labor and working conditions;
- We are committed to providing a safe and healthy environment for our employees and to implementing all occupational health and safety requirements as stipulated by national legislation;
- We do not tolerate any form of child, forced or slavery work.
- We prohibit any form of harassment, abuse and violence at work and forbid direct or indirect discrimination against any employee or groups of employees on any ground and for whatever reason.
- We confirm that a worker GM is available
- We confirm that no worker GM is available but will be established by the time the contract is signed.

We hereby state that should we be awarded with the contract; we shall adopt the Labor Management Procedures applicable to the project and incorporate them in our practice.

We understand that the failure to respect any of the above stated commitments could lead to termination of the contract and exclusion from the project.

Signature:	
Name:	
Position:	

*National Laws refers both to the Laws of Republic of Serbia and the domicile Law of the country in case the Bidder is foreign

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³² The Applican should mark adequate commitment

ANNEX 07 SAMPLE MITIGATION PLAN AND MONITORING PLAN FOR ESMP

ANNEX 07A MITIGATION PLAN

Phase	Issue	Mitigating Measure	Cost of Mitigation (If Substantial)	Responsibility*	Supervision observation and comments (to be filled out during supervision)
Project Preparation					
Project Execution / operate					

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

ANNEX 07B MONITORING PLAN

Phase	What	Where	How	When	Monitoring Cost	Responsibility	Supervision observation and comments
	parameter is to be monitored?	is the parameter to be monitored ?	is the parameter to be monitored/ type of monitoring equipment?	is the parameter to be monitored-frequency of measurement or continuous?	What is the cost of equipment or contractor charges to perform monitoring?		(to be filled out during supervision with reference to adequate measuring reports)
Project preparation							
Project Execution / Operate							

ANNEX 08A: SAMPLE FILLED OUT ESMP - MITIGATION PLAN

EXAMPLE ONLY: USE OF SOLAR PANELS IN ELECTRICAL POWER PRODUCTION

Phase	Issue	Mitigating Measure	Cost of Mitigation If Substantial	Responsibility *	Supervision observation and comments
Design phase	Certain solar cells may require more energy and raw materials to produce, or may use hazardous and harmful materials in their production	Obtain sufficient information from producer Look for certificates or statements how the panels are produced Select the more "environmentally friendly option"	Variation in costs of panels may be incurred	The Grant recipient	
Design phase	Placement of solar panels on rooftops or buildings in populated areas may have an aesthetic impact or may impact a monument or protected building	Careful sitting of the panels Ensure that the building is not a historical site, that there are no special instructions as to the façade and appearance, and ensure approvals are received by all designated and responsible local authorities	N/A	The Grant recipient	
Design phase	Placement of solar panels in natural areas needs to be carefully designed in order to minimize the aesthetic impact and land disturbance, including impacts from high temperature or magnetic fields from the panels/wiring	Ensure the solar panels are placed in a remote area that is barren and not under use of any kind. In addition, ensure the site is not close to any protected areas, grazing lands or important habitats as well as sensitive recipients/groundwater, surface water	This may have an impact on the overall design of the Project and may therefore incur some additional costs	The Grant recipient	
Construction	Dust, noise, emissions and vibrations generated during construction activities may be a nuisance to nearby human or animal populations	Ensure regulatory requirements to limit noise are followed and noise is kept to allowed working hours and intervals as per the relevant regulation Do not allow machinery to idle Water down working areas to limit dust generation	Minor Cost of water tank to come on site: 150-250 €	Contractor /Grant recipient	
Construction	Leaks or spills from machinery may negatively impact the soil and groundwater	Spill control mechanism will be in place Machinery used will not be serviced or repaired on site	Minor	Contractor /Grant recipient	

Phase	Issue	Mitigating Measure	Cost of Mitigation If Substantial	Responsibility	Supervision observation and comments
Construction	Improper waste management may pollute the environment and pose a threat to the animals in the vicinity of the site	Ensure rapid collection of wastes to avoid scattering All wastes generated will be disposed of at an authorized landfill site There will be no open burning of wastes	Disposal at an authorized site for 1 ton (with 50 km transport): 150€	Contractor /Grant recipient	
Operation	Use of pesticides or other hazardous chemicals to treat or to clean the solar panels will impact the surrounding environment	Ensure compounds are evaluated for their environmental impact and potential for illness or injury due to single acute exposure; Avoid hazardous compounds or replace with less hazardous substance, Ensure no leaks on the surrounding areas, Ensure proper storage of chemicals on leak-proof surfaces and use only by trained professional staff	May impose additional costs for more expensive eco solutions	Contractor /Grant recipient	
Decommissi oning	Hazardous materials contained within the panels may be released into the nature and impact the environment (soil, ground and surface water) in case of breaks or decommissioning of the panels	Ensure workers are trained in adequate decommissioning procedures with spill control measures in place	Not significant	Contractor /Grant recipient	

ANNEX 08B: SAMPLE FILLED OUT ESMP - MONITORING PLAN

EXAMPLE ONLY: USE OF SOLAR PANELS IN ELECTRICAL POWER PRODUCTION

Phase	What parameter is to be monitored?	is the parameter to be monitored?	How is the parameter to be monitored/ type of monitoring equipment?	is the parameter to be monitored-frequency of measurement or continuous?	_	Responsi bility	Supervision observation and comments (to be filled out during supervision with reference to adequate measuring reports)
Design phase	Environmentally friendly production process of panels	Through tech. specifications of panels	Through receiving and keeping all specifications	Prior to procurement	May have an overall cost increase effect	Grant recipient	
Design phase	Placement of solar panels needs to be approved by the designated and responsible local authority	Through adequate supporting paperwork	Through receiving and keeping all of the necessary permits	Prior to construction works and preferably prior to application for grants	None	Grant recipient	
Construction	Dust, noise, emissions and vibrations	On Project site	Periodically check sound levels at the work site to ensure it is within legal limits and as per local permitting. Through complaints (if area is populated)	During construction works constantly	Minor – should be included in contract for works	Contractor /Supervisor	
Construction	Leaks or spills from machinery	On Project site	Visually on surrounding areas, log of all accidents on site to be filled	During construction works – constantly	Minor – should be included in contract for works	Contractor /Supervisor	

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?	is the parameter to be monitored-frequency of measurement or continuous?	_	Responsi bility	Supervision observation and comments (to be filled out during supervision with reference to adequate measuring reports)
Construction	Proper waste collection and management	On Project site	Daily supervision of waste collection Ensure no open burning is taking place Keep receipts from authorized landfill	Daily	Minor – should be included in contract for works	Contractor/ Supervisor	
Operation	Use of less hazardous pesticides or other chemicals to treat or to clean the solar panels	On Project site	Visual inspection of work site to ensure adequate protection from chemicals to be used is in place, safety data sheets reviewed and kept	site after maintenance Records kept		Contractor/ Supervisor (in addition to self- monitoring by Operator / grant Applicant)	
Decommissioning	Hazardous materials contained within the panels may be released during decommissioning	On Project site	Ensure no breaks or spills In case of spills ensure spill management procedure is followed			Contractor/ Supervisor	

ANNEX 09: COMPLIANCE STATEMENT TEMPLATE FOR SMEs/GRANTEES under Component 2

Date and place of issuance:	
Name and address of the issuer:	

STATEMENT OF LEGAL AND REGULATORY COMPLIANCE

Hereby we declare that

- We conform to all national laws and applicable regulations concerning employment, labor and employee relations, and labor and working conditions;
- We are committed to providing a safe and healthy environment for our employees and to implementing all occupational health and safety requirements as stipulated by national legislation;
- We do not tolerate any form of child, forced or slavery work.
- We prohibit any form of harassment, abuse and violence at work and forbid direct or indirect discrimination against any employee or groups of employees on any ground and for whatever reason.

We understand that the failure to respect any of the above stated commitments could lead to termination of the contract and exclusion from the project.

Signature:
Name:
Position:

c) Template for Grievance redress log

#	Priority	Date Feedback Received	Feedback Channel	Category of feedback	Summary Description	Anonymous (Yes/No)	Person assigned to address feedback	Status (resolved, pending, escalated)	Date of resolution of feedback	Communication about resolution
1										
2										
3										
4										
5										
6										

ANNEX 10: Sample ES Questionnaire to be used for regular reporting to PIU and WB

1. Applicant's Details		
Company Name:		
Company Address:		
Country:		
Town/Location:		
Company authorized representative		
Title: Date: , 201		
Contact Details		
Telephone:		
Mobile:		
E-mail:		
2. General		
Is the project materially compliant with all	Yes □	If No, please provide details of any material non-compliances:
relevant WB Safeguard policies (taking	No □	
account of agreed action plans,		
exemptions or derogations)?		
Is the project materially compliant with all	Yes □	If No, please provide details of any material non-compliances:
applicable environmental and social laws		in ito, ploade provide details of any material flori compliances.
and regulations?	100 🗖	
Have there been any accidents or	Vas 🗆	If yes, please describe, including details of actions to repair
incidents that have caused damage to the		and prevent reoccurrence:
environment, brought about injuries or		and prevent reoccurrence.
fatalities, affected project labor or local		
communities, affected cultural property, or		
created liabilities for the company?		
	Yes □	If you place describes
Have there been any changes to environment, social, labor or health and	No D	If yes, please describe:
safety laws or regulations that have		
materially affected the company?		
How many inspections did you receive	Number:	Please provide details of these visits, including number and
from the environmental authorities during		nature of any violations found
the reporting period?		Indicate of any violations found
How many inspections did you receive	Number:	Please provide details of these visits, including number and
from the health and safety authorities		nature of any violations found
during the reporting period?		
How many inspections did you receive	Number:	Please provide details of these visits, including number and
from the labor authorities during the		nature of any violations found:
reporting period?		
Have these visits resulted in any penalties,	Yes □	If yes, please describe, including status of implementing
fines and/or corrective action plans?	No □	corrective actions to address any violations found:
·		·
Has the Company engaged any Applicants	Yes □	If yes, please state for which types of work, and how the
for project-related work in the reporting		company has monitored the compliance of Applicants with
period?		WB Safeguard Policies and the Environmental and Social
·		Management Plan:
Were any of the violations stated above	Yes □	If yes, please provide details, including how the Company is
the responsibility of Applicants?	No □	ensuring that corrective actions are implemented by the
		Applicant?
Have any operations been reduced,	Yes □	If yes, please describe:
temporarily suspended or closed down		, ,,
due to environmental, health, safety or		
labor reasons?		

		ra	

Please describe any environment or social program	imes, initiatives or sub-projects undertaking during the reporting period
to improve the company's environmental or social po	performance and/or management systems:

Please indicate the level of associated expenditure (capital expenditure and operating expenditure), and whether this relates to the requirements of the Environmental and Social Management Plan, or to any other initiative:

3. Status of the Environmental and Social Management Plan

4. Environmental Monitoring Data Please provide the name and contact details for your environmental manager:

Please provide information on the status of each item in the Environmental and Social Management Plan (ESMP) agreed with WB. If the ESMP has been updated during the reporting period, please attach a copy of the new plan.

5. Resource Usage and Product Output						
Fuels used						
Oil (diesel)		l l				
Gas		m3				
Coal		t				
Lignite		t				
Grid Electricity		KW				
Heat Purchased						
Feedstocks and raw materials consumed						
Name 1						
Name 2						
Product output						
Product 1						
Product 2						

6. Human Resources Management							
Please provide the name and contact details for your Human Resources manager:							
	Total		Recruited in this reporting period	Dismissed in this reporting period			
Number of direct employees:							
Number of contracted workers:							
redundancies during the reporting No □ for red		please describe the redundancy pla undancies, number of workers invol d, consultation undertaken, and me	ved, how they were				

³³ In addition to any other relevant comments, please indicate whether the measurements reported apply to all or only some process operations at the facility Please include any relevant fuel quality parameters (e.g. calorific value)

6. Human Resources Management				
		the effects of redundancy:		
Are there any planned redundancies to the workforce in the next year?	Yes 🗆 No 🗅	If yes, please describe the redundancy plan, including reasons for redundancies, number of workers involved, and selection and consultation process:		
Were there any changes in trade union representation at Company facilities during the reporting period?		If yes, please provide details, and summarize engagement with trade unions during reporting period:		
Were there any other worker representatives (e.g. in the absence of a trade union)?		If yes, please provide details and summarize engagement with them during reporting period:		
Were there any changes in the status of Collective Agreements?	Yes □ No □	If yes, please provide details:		
Have employees raised any grievances with the project during the reporting period?	Yes □ No □	If yes, please state how many, split by gender, summarize the issues raised in grievances by male and female staff and explain how the Company has addressed them:		
, , ,	Yes □ No □	If yes, please state how many, split by gender, summarize the issues raised by male and female staff and explain how the Company has addressed them:		
Have there been any strikes or other collective disputes related to labor and working conditions at the Company in the reporting period?		If yes, please summarize nature of, and reasons for, disputes and explain how they were resolved		
Have there been any court cases related to labor issues during the reporting period?		If yes, please summarize the issues contested and outcome:		
Have there been any changes to the following policies or terms and conditions during the reporting period in any of the following areas: Union recognition	Yes □ No □	If yes, please give details, including of any new initiatives:		
Collective Agreement				
Non-discrimination and equal opportunity				
Equal pay for equal work				
Gender Equality				
Bullying and harassment, including sexual harassment				
Employment of young persons under age 18				
Wages (wage level, normal and overtime)				
Overtime				
Working hours				
Flexible working / work-life balance				
 Grievance mechanism for workers Health & safety				

7. Occupational Health and Safety Data			
Please provide the name and contact details for your Health and Safety manager:			

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7. Occupational Health and Safety Data					
	Direct employees	Contracted workers		Direct employees	Contracted workers
Number of man- hours worked this reporting period:			Number of Fatalities ³⁴ :		
Budget spent on OHS in this period (total amount and currency):	RSD		Number of disabling injuries:		
OHS training provided in this period in persondays:			Number of Lost Time Incidents (including vehicular) ³⁵ :		
Number of lost workdays ³⁶ resulting from incidents:			Number of cases of occupational disease:		
Number of sick days:					

Accident causes (falling, heavy loads, struck by object, contact with energy source etc.):

Please provide details of any fatalities or major accidents that have not previously been reported to WB, including total compensation paid due to occupational injury or illness (amount and currency):

Please summarize any emergency prevention and response training that has been provided for company personnel during the report period:

8. Stakeholder Engagement

Please provide the name and contact details for your external relations or community engagement manager:

Please provide information on the implementation of the stakeholder engagement plan agreed with WB and summarize interaction with stakeholders during the reporting period, including:

- Meeting or other initiatives to engage with members of the public or public organisations during the report period,
 - information provided to members of the public and other stakeholders during the report period relating to environmental, social or safety issues
 - coverage in media,
 - and interaction with any environmental or other community groups.

Please describe any changes to the Stakeholder Engagement Plan agreed with WB:

How many complaints or grievances did the project receive from members of the public or civil society organisations during the reporting period? Please split by stakeholder group. Summarize any issues raised in the complaints or grievances and explain how they were resolved:

³⁴ If you have not already done so, please provide a separate report detailing the circumstances of each fatality.

³⁵ Incapacity to work for at least one full workday beyond the day on which the accident or illness occurred.

³⁶ Lost workdays are the number of workdays (consecutive or not) beyond the date of injury or onset of illness that the employee was away from work or limited to restricted work activity because of an occupational injury or illness.

10. Community Interaction and Development

Please summarize any social or community development initiatives undertaken by the company during the reporting period, and any associated expenditure:

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ANNEX 11A: KEY ARTICLES OF THE ANIMAL WELFARE LAW (O.G. OF RS No 41/09)

Clan 7

Article 7

Zabranjeno je:

It is forbidden:

5) prisiljavati zivotinju na uzimanje hrane, osim u zdravstvene ili naucnoistrazivacke svrhe;

to compel the animal to take food, except for health or scientific research purposes;

29) upotrebljavati otrove i druga hemijska sredstava koja izazivaju bol, patnju i smrt zivotinja, osim u cilju kontrole populacije glodara, odnosno deratizacije i izvodjenja ogleda na zivotinjama u naucnoistrazivacke svrhe:

use poisons and other chemical agents that cause pain, suffering and death of animals, except for the purpose of the rodent population control, (pest control) and experimenting on animals for scientific research purposes:

35) drzati, reprodukovati i koristiti divlje zivotinje u cilju izlaganja u cirkusima, na takmicenjima i priredbama i, osim u naucne svrhe, na izlozbama;

holds, reproduce and use wild animals for the purpose of exhibiting at circuses, at competitions and events and except for scientific purposes, at exhibitions;

Clan / Article 14

Zabranjeno je obavljati intervencije na zivotinjama radi promene njihovog identiteta, prikrivanja telesnih mana i starosti, kao i delimicnu ili potpunu amputaciju pojedinih delova zivotinjskog tela.

It is forbidden to perform interventions on animals to change their identity, cover their body defects and age, as well as partially or completely amputate certain parts of the animal body.

Intervencije iz stava 1. ovog clana izuzetno se mogu obavljati:

The interventions referred to in paragraph 1 of this Article may exceptionally be performed:

- 2) u naucnoistrazivacke i biomedicinske svrhe, u skladu sa ovim zakonom;
- 2) for scientific research and biomedical purposes, in accordance with this Law;

Clan 15

Zivotinja se moze lisiti zivota na human nacin, ako:

The animal life could be deprived in a humane way if:

4) se koristi u naucnoistrazivacke i biomedicinske svrhe, u skladu sa ovim zakonom;

utilize for the scientific research and biomedical purposes, in accordance with this Law;

Clan / Article 34

Sprovodjenje ogleda na zivotinjama moze se obavljati na osnovu resenja o odobrenju sprovodjenja ogleda na zivotinjama koje donosi ministar, na osnovu strucnog misljenja Eticke komisije za zastitu dobrobiti oglednih zivotinja.

Animal testing could be performed upon receiving approval for implementing animal examination, from the Minister which is based on the expert opinion of the Ethical Commission for the Protection of the Welfare of Experimental Animals.

Izuzetno od stava 1. ovog clana, za izvodjenje specificnih i invazivnih ogleda na zivotinjama, resenje iz stava 1. ovog clana izdaje se na osnovu misljenja Etickog saveta za dobrobit oglednih zivotinja.

Exception from paragraph 1 of this Article, for carrying out specific and invasive animal experiments could be approved upon receiving opinion of the - Ethical Council for the Welfare of Experimental Animals

Clan / Article 38

Ogled na zivotinjama moze se sprovoditi samo radi:

Animal experiments could only be perform for:

- 6) naucnih istrazivanja;
- 6) scientific research;
- 7. Eticki savet za dobrobit oglednih zivotinja

Ethical Council for the Welfare of Experimental Animals

Clan / Article 48

Radi razmatranja strucnih pitanja, davanja strucnih misljenja i ucesca u realizaciji projektnih zadataka u oblasti dobrobiti zivotinja, ministar, u skladu sa propisima kojima se uredjuje drzavna uprava, resenjem osniva posebnu radnu grupu - Eticki savet za dobrobit oglednih zivotinja (u daljem tekstu: Eticki savet).

For the purpose of considering expert opinions, professional advisory and estimations and in the line with project tasks and implementation in the field of animal welfare, the Minister, in accordance with the governing regulations and the state administration, by his decision can establishes a special working group - Ethical Council for the welfare of experimental animals (hereinafter: Ethical Council).

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8. Eticka komisija za zastitu dobrobiti oglednih zivotinja

Ethical Commission for the Protection of the Welfare of Experimental Animals

Clan / Article 51

Naucnoistrazivacke organizacije i druga pravna lica koja sprovode oglede na zivotinjama duzne su da, u okviru svoje organizacije ili zajedno sa drugim naucnoistrazivackim organizacijama, odnosno pravnim licima koja sprovode oglede na zivotinjama, obrazuju eticku komisiju za zastitu dobrobiti oglednih zivotinja (u daljem tekstu: Eticka komisija).

Scientific research organizations and other legal entities conducting animal experiments are obliged, within their organization or together with other scientific research organizations, or legal entities conducting animal experiments, to establish an ethical Commission for the protection of the welfare of experimental animals (hereinafter: Ethics Commission).

Clan / Article 76

Inspekcijski nadzor nad sprovodjenjem ovog zakona i propisa donetih na osnovu njega vrsi Ministarstvo preko veterinarskih inspektora.

The Ministry through veterinary inspectors shall supervise the implementation of this law and the regulations adopted thereunder.

ANNEX 11B: KEY ARTICLES OF THE LAW ON HEALTH CARE ("O.G. of RS", No. 25/2019)

Etički odbor

Član 130

Etički odbor je stručni organ koji prati pružanje i sprovođenje zdravstvene zaštite na načelima profesionalne etike, načelima poštovanja ljudskih prava i vrednosti i prava deteta, kao i kodeksa ponašanja zaposlenih u zdravstvenoj ustanovi. Direktor zdravstvene ustanove imenuje etički odbor, na predlog stručnog saveta.

Član 131

Zadaci etičkog odbora zdravstvene ustanove su da:
1) prati i analizira primenu načela profesionalne

- prati i analizira primenu nacela profesionalne etike u obavljanju zdravstvene delatnosti i predlaže mere za njihovo unapređenje;
- 2) prati i analizira sprovođenje kodeksa ponašanja zaposlenih u zdravstvenoj ustanovi i predlaže mere za njihovo unapređenje;
- 3) daje saglasnost za sprovođenje naučnih istraživanja u oblasti zdravstva, medicinskih istraživanja, istraživanja u oblasti javnog zdravlja, kao i da prati njihovo sprovođenje;
- 4) daje saglasnost za uzimanje ljudskih organa, ćelija i tkiva od živog davaoca, odnosno umrlog lica, u skladu sa zakonom i daje mišljenje o etičkim i drugim pitanjima u postupku presađivanja, odnosno primene ćelija i tkiva;
- 5) razmatra etička pitanja i donosi odluke u vezi sa uzimanjem delova ljudskog tela u naučno-nastavne svrhe, u skladu sa zakonom;
- 6) razmatra etička pitanja u vezi sa primenom mera za lečenje neplodnosti

Član 131

Zadaci etičkog odbora zdravstvene ustanove su da:

- 1) prati i analizira primenu načela profesionalne etike u obavljanju zdravstvene delatnosti i predlaže mere za njihovo unapređenje;
- 2) prati i analizira sprovođenje kodeksa ponašanja zaposlenih u zdravstvenoj ustanovi i predlaže mere za njihovo unapređenje;
- 3) daje saglasnost za sprovođenje naučnih istraživanja u oblasti zdravstva, medicinskih istraživanja, istraživanja u oblasti javnog zdravlja, kao i da prati njihovo sprovođenje;
- 4) daje saglasnost za uzimanje ljudskih organa, ćelija i tkiva od živog davaoca, odnosno umrlog lica, u skladu sa zakonom i daje mišljenje o etičkim i drugim pitanjima u postupku presađivanja, odnosno primene ćelija i tkiva;
- 5) razmatra etička pitanja i donosi odluke u vezi sa uzimanjem delova ljudskog tela u naučno-nastavne svrhe, u skladu sa zakonom;
- 6) razmatra etička pitanja u vezi sa primenom mera za lečenje neplodnosti

Ethics Board

Article 130

The Ethics Board is an expert body that monitors the implementation and provision of health care based on the principles of professional ethics, the principles of respect for human rights and values and rights of the child, as well as the code of conduct for employees in the health institution.

Upon the proposal of the expert council the director of the health care institution is appointed by the Ethics Board,

Article 131

Tasks of the ethics board of the health institutions are to

- 1) monitor and analyze application of the principles of professional ethics in the performance of health services and propose measures for their improvement;
- 2) monitor and analyze the implementation of the code of conduct for employees in the health institution and propose measures for their improvement;
- 3) gives the approval to conduct scientific research in the field of health care, medical research, research in the field of public health, and to monitor their implementation;
- 4) to give consent for the taking of human organs, tissues and cells from a living donor or deceased person, in accordance with the law, and gives an opinion on ethical and other issues in the transplantation, or the application of the cells and tissues:
- 5) consider ethical issues and make decisions regarding taking parts of the human body for scientific and educational purposes, in accordance with the law;
- 6) Consider the ethical issues related to the implementation of measures for the treatment of infertility:

Article 131

Tasks of the Ethics Board of the health institutions are to

- 1) monitor and analyze application of the principles of professional ethics in the performance of health services and propose measures for their improvement;
- 2) monitor and analyze the implementation of the code of conduct for employees in the health institution and propose measures for their improvement;
- 3) gives the approval to conduct scientific research in the field of health care, medical research, research in the field of public health, and to monitor their implementation;
- 4) to give consent for the taking of human organs, tissues and cells from a living donor or deceased person, in accordance with the law, and gives an opinion on ethical and other issues in the transplantation, or the application of the cells and tissues;
- 5) consider ethical issues and make decisions regarding taking parts of the human body for scientific and educational purposes, in accordance with the law;
- 6) Consider the ethical issues related to the

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implementation of measures for the treatment of infertility;

Etički odbor Srbije

Član 141

Etički odbor Srbije je stručno telo koje se stara o pružanju i sprovođenju zdravstvene zaštite u skladu sa načelima profesionalne etike, načelima poštovanja ljudskih prava i vrednosti i prava deteta, na nivou Republike Srbije.

Vlada imenuje i razrešava predsednika i članove Etičkog odbora Srbije, na predlog ministra.

Član 142

Nadležnost Etičkog odbora Srbije je da:

- 1) predlaže osnovna načela profesionalne etike zdravstvenih radnika i zdravstvenih saradnika i prati njihovu primenu u obavljanju zdravstvene delatnosti na teritoriji Republike Srbije;
- 2) predlaže kodeks ponašanja zaposlenih u sistemu zdravstvene zaštite i prati njegovu primenu na teritoriji Republike Srbije;
- 3) koordinira rad etičkih odbora u zdravstvenim ustanovama;
- 4) prati sprovođenje naučnih, medicinskih i istraživanja u oblasti javnog zdravlja u zdravstvenim ustanovama na teritoriji Republike Srbije;
- 5) daje mišljenja o spornim etičkim pitanjima koja su od značaja za sprovođenje naučnih, medicinskih i istraživanja u oblasti javnog zdravlja u zdravstvenim ustanovama u Republici Srbiji;

Ethics Board of Serbia

Article 141

The Ethics Board of Serbia is a professional body that takes care of the delivery and implementation of health care in accordance with the principles of professional ethics, the principles of respect for human rights and values and rights of the child, in the Republic of Serbia. The Government shall appoint and dismiss the President and members of the Ethics Board of Serbia, at the proposal of the Minister.

Article 142

Jurisdiction of the Ethics Board of Serbia is to:

- 1) proposes the basic principles of professional ethics health workers and experts and monitor their use in the performance of health care services in the territory of Serbia;
- 2) proposes a code of conduct employed in the health care and monitoring its use in the Republic of Serbia;
- 3) coordinate the work of Ethics Boards in health institutions:
- 4) monitor the implementation of the scientific, medical and research in the field of public health in health institutions in the Republic of Serbia;
- 5) give opinions on controversial ethical issues that are of importance for scientific, medical and research in the field of public health in health institutions in the Republic of Serbia;

ANNEX 12: REPORT ON PUBLIC DISCLOSURE AND PUBLIC CONSULTATION ON ESMF

As required by WB Environmental and Social Standard 10 (ESS10) – Stakeholder Engagement and Information disclosure, during preparation of Draft ESMF document The Borrower carried out several round of consultations with all relevant stakeholders.

On September 23, 2019, the first round of consultation with key stakeholders was held at the World Bank premises in Belgrade, Boulevard Kralja Aleksandra 86. Representatives of key institutions that will implement the Project attended the meeting. Particular emphasis is placed on the potential environmental and social impacts of the Project and the experiences of individual institutions that have previously used loan funds in similar projects.

On 04 October 2019, as a continuation of the preparation of the Environmental and Social Management Framework (ESMF), at the premises of the Ministry of Education, Science and Technological Development - Institute of Chemistry, Technology and Metallurgy, Njegoseva 12 Belgrade, a second round of consultation was held with key Project stakeholders. The meeting was attended by representatives of key stakeholders. Special focus was given to monitoring and evaluation of projects, screening forms, development of environmental and social management plans during Project implementation, opportunities for involvement of diaspora experts and ways of public involvement during Project implementation.

Starting from 22 October 2019, MoESTD disclosed Draft ESMF document on its web site and announced invitation for Public Consultations for the public, bodies and organizations interested in ESMF document for Project. Same announcement is published in daily newspaper "Blic" on 25 October 2019. Public and other interested parties and organizations were invited to participate in process of public consultation on draft ESMF document.

Draft ESMF document and Call for Public Consultations were also placed on:

- o on the web site of the Science Fund: http://fondzanauku.gov.rs/
- o on the web site of the Innovation Fund: http://www.inovacionifond.rs/

On 01 November 2019, at 11:00 AM (local time), public consultations and presentation of the Draft ESMF document were organized at the premises of the Ministry of Education, Science and Technological Development - Institute of Chemistry, Technology and Metallurgy, Njegoseva 12, 11000 Belgrade, conference hall at the second floor. During the public consultations, there were comments and remarks related to issues presented in the ESMF, but no new environmentally or socially related issues were raised.

PRELIMINARY CONSULTATIONS WITH KEY STAKEHOLDERS, 23 SEP 2019

On September 23, 2019, with the aim of preparing the Environmental and Social Management Framework (ESMF), the first round of consultation with key stakeholders was held at the World Bank premises in Belgrade, Boulevard Kralja Aleksandra 86.

The meeting was attended by representatives of key institutions that will implement the Project. A list of participants is attached.

Engaged Environmental and Social Consultant informed the representatives of key institutions about the necessity of drafting an ESMF document in accordance with World Bank procedures related to Project approval. Particular emphasis is placed on the potential environmental and social impacts of the Project and the experiences of individual institutions that have previously used loan funds in similar projects

The meeting started at 1pm and ended at 2:30 pm, with the announcement of the next round of consultations with a broader list of stakeholders.

PRELIMINARY CONSULTATIONS WITH KEY STAKEHOLDERS, 04 OCT 2019

On 04 October 2019, as a continuation of the preparation of the Environmental and Social Management Framework (ESMF), at the premises of the Ministry of Education, Science and Technological Development - Institute of Chemistry, Technology and Metallurgy, Njegoseva 12 Belgrade, a second round of consultation was held with key Project stakeholders.

The meeting was attended by representatives of key institutions that will implement the Project in question. A list of participants is attached.

During the consultation, attendees informed Environmental Consultant of the implementation of previous World Bank-funded projects. Special focus was given to monitoring and evaluation of projects, screening forms, development of environmental and social management plans during Project implementation,

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opportunities for involvement of diaspora experts and ways of public involvement during Project implementation.

The meeting began at 10 a.m. and ended at 12 p.m., with the announcement of a public presentation on Draft ESMF document, expected in the second half of October 2019.

PUBLIC CONSULTATIONS ONM ESMF WITH RELEVANT STAKEHOLDERS, 01 NOV 2019

On 01 November 2019, at the premises of the Ministry of Education, Science and Technological Development - Institute of Chemistry, Technology and Metallurgy, Njegoseva 12 Belgrade, a final round of stakeholder's consultations was held.

There were 14 attendees on public consultation meeting in Belgrade. Most of them were key Project stakeholders – Ministry of Education, Science and Development, Innovation Fund, Science Fund and representatives of Research and Development Institutions.

The meeting was attended by:

1. Mr. Sasa Lazovic Ministry of Education, Science and Development Ms. Tijana Knezevic Ministry of Education, Science and Development 2. Ms. Jasmina Grubor Ministry of Education, Science and Development Ms. Marina Sokovic Ministry of Education, Science and Development 4. The World Bank Ms. Katarina Urosevic Ms. Milena Kostadinovic Innovation Fund Mr. Stefan Popovic Innovation Fund Ms. Mara Zivkov Science Fund Ms. Milana Mitrovic Institute of Plant Protection and the Environment 10. Mr. Zeljko Dzeletovic Institute for Application of Nuclear Energy INEP 11. Mr. Branko Brkliac Faculty of Technical Sciences - University of Novi Sad 12. Mr. Boris Antic³⁷ Faculty of Technical Sciences - University of Novi Sad 13. Mr. Zoran Mitovic38 Faculty of Technical Sciences - University of Novi Sad 14. Mr. Igor Radovic Environmental Specialist, engaged by Ministry of Science



Picture 1: Public consultation in Belgrade, 01 November 2019

³⁷ Mr. Antic delivered comments to Draft ESMF document via E-mail

³⁸ Mr. Mitrovic delivered comments to Draft ESMF document via E-mail



Picture 1: Public consultation in Belgrade, 01 November 2019



Picture 1: Public consultation in Belgrade, 01 November 2019

The meeting started according to schedule at 11:00 AM. The Environmental Specialist Mr. Igor Radovic presented ESMF document in detail to the interested attendees.

Participants are informed that purpose of ESMF document is to specify the procedures that the Project will have in place during implementation. In addition, it was emphasized that all activities supported under the Project shall be environmentally and socially sound, sustainable, and consistent with WB ESS and Serbian national legislation.

Project screening procedure and risk classification are explained, as well as legal and administrative framework for Project.

Special attention during public consultations was given to Ethical Issues. Screening procedure for possible subprojects that include research activities on animals or human tissues are carefully explained to all participants, having in mind sensitivity of such activities, legal framework and huge number of comments received from WB representatives during preparation of Draft ESMF document. It is confirmed that subject research activities can be performed strictly in accordance with Animal Welfare Law (for subprojects that include research activities on human tissues), Healthcare Law and role of Ethical Board (for subprojects that include research activities on human tissues). Finally, participants are informed that ethical issues stated within the Horizon 2020 "Ethic Issue Table" will not be eligible for financing under this Project unless they comply with EC regulations.

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The importance of Labor management and most important provisions of WB Environmental and Social Standard ESS2 (Labor and Working Conditions) are also explained to the public during presentation of ESMF document.

Before starting with questions of participants, institutional responsibilities and monitoring and reporting procedure on Project are presented and explained.

Consultation started at 11:00 AM and ended at 1:00 PM, local time.

Questions and Answers:

Q1 Sasa Lazovic, MoESTD: Why the Environmental Risk of the Project is increased from starting category "Low Risk" to current category "Moderate Risk"?

A1 Katarina Urosevic, WB: Because major part of Project is allocated to Science Fund which is new institution and there is a question of their own capacity to oversee with Project and its Environmental and Social Requirements.

Q2 Sasa Lazovic, MoESTD: Can current category "Moderate Risk" be decreased to "Low Risk" during negotiations with the WB?

A2 Igor Radovic, ES: Bank keeps their right to re-assess the Project Category during the whole Project cycle.

Q3 Milena Kostadinovic, IF: If no ethical issues are related to proposed subproject, and applicant have only "No" as answers within the Ethic Issue Table, is there any need for Applicant to obtain opinion of Ethical Commission or Ethical Council (fir animal testing) or Ethical Board (for human tissue testing)?

A3 Igor Radovic, ES: No. In such cases there is no need for obtaining opinions of subject ethical bodies and no further etical screening will be conducted.

Q4 Milena Kostadinovic, IF: There will be no need for Externally Engaged Consultants engaged for Screening of Subprojects with Ethic Issues since valid regulative exists and all applicants which plan to conduct subprojects connected with ethic issues must obtain Ministry Permit and Opinion of the relevant Ethic body (Ethical Council, Ethical Commission or Ethical Board).

A4 Igor Radovic, ES: OK. Suggestion accepted. ESMF will be updated accordingly.

Q5 Igor Radovic, ES: WB specialist suggested excluding Table 6 form Screening list - HORIZON 2020 Ethic Issue Table. What is your opinion regarding this issue?

A5 Katarina Urosevic, WB: Instead od deletion, Table 6 can be modified and harmonized to local circumstances.

Q6 Igor Radovic, ES: Which type of regulation and when will be adopted by Science Fund in order to prescribe detailed procedures for human tissue testing?

A6 Mara Zivkov, SF: It will be a Rulebook with detailed instructions for such activities. It will be Internal Act of the Science Fund, harmonized with Serbian legislative. It should be adopted during January 2020.

Q7 Igor Radovic, ES: What type of regulation and when will be adopted by Science Fund in order to prescribe detailed procedures for human tissue testing?

A7 Mara Zivkov, SF: It will be a Rulebook with detailed instructions for such activities. It will be Internal Act of the Science Fund, harmonized with Serbian legislative. It should be adopted during January 2020.

Q8 Igor Radovic: Will Innovation Fund adopt any Internal Act in regards with Project, similar to Science Fund?

A8 Milena Kostadinovic, IF: Yes. Innovative Fund will adopt same type of Internal Act which will be adopted before the first Public call for the Component 2.

Q9 Stefan Popovic, IF: Can we agree that no ESMP document (regardless "regular" or "simplified" type) will be required for subprojects which fall in Category 1 (low Risk)? If so, it should be clearly confirmed within the ESMF text.

A9 Igor Radovic: Comment accepted. No further environmental documents or processes are required for Category 1 (low Risk) subprojects. Screening list records will be kept by PIU and visually inspect for issues occasionally.

Q10 Brank Brkljac, FTN: We prepared two suggestions to PIU. First is related to collection of feedback informations from applicants in order to conclude how successful Request For proposal was. Suggestion is to divide total number of applications with number of approved subprojects.

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Second suggestion was in relation with Project priority determination. Instead of currently present "bottom-up" approach we suggest another – "top-down" approach where Project Carrier collect information from different state institutions and define real needs for the project. Once the priorities are determined – Request for proposal should take into account subject priorities.

A10 Katarina Urosevic, WB: Great. WB has recognized this approach as extremely important and supports every effort that enables science and technology to have a positive impact on the principles of sustainable development.

Public Consultation Summary

During the 10 days aimed for insight into the ESMF document WB representatives submitted additional comments, questions and remarks on ESMF document, mostly related to investigations on animal and human tissues. Representatives of MoSTD responded with adequate explanations, answers and comments so all questions are addressed and ESMF document is updated accordingly.

During Public Consultation process suggestions regarding the ESMF document and preparation of Project activities are received from group of researches employed in Faculty of Technical Sciences - University of Novi Sad.

Finally, Institute for molecular genetics and genetic engineering, University of Belgrade, submitted their Comments on ESMF document. All questions were addressed and suggestions were taken into consideration and incorporated into the final version of the ESMF document. Terms used in ESMF for different bodies (Ethical Council, Ethical Committee and Ethics Board) are uniformed. Procedures related to animal research are now separated from procedures that are related to research on human tissues. List of applicable laws is updated and Law on protection of personal data is included.

DOCUMENTATION



In accordance with the provisions of Art. 76 and 77 of the Law on State Administration ("Official Gazette of RS", Nos. 79/05, 101/07, 95/10, 99/14, 47/18 and 30/18 - other law) and Article 14 paragraph 2 of the Law on Ministries (Official Gazette of the RS, Nos. 44/14, 14/25, 54/15, 96/15 - other law and 62/17), in accordance with the World Bank's Environmental and Social Standards: Environmental and Social Standard on the Stakeholder Engagement and Information Disclosure - ESS10,

Republic of Serbia

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGICAL DEVELOPMENT

informs the public and calls

relevant entities, persons and legal entities, including other government bodies, relevant associations, the professional public, and other interested parties, to participate

PUBLIC CONSULTATIONS

related to

ENVIRONMENTAL AND SOCIAL FRAMEWORK (ESF) ENVIRONMENTAL AND SOCIAL COMMITMENT PLAN (ÉSCP) STAKEHOLDER ENGAGEMENT PLAN (SEP)

for

Serbia Accelerating Innovation and Growth Entrepreneurship Project (SAIGE Project)

Interested parties can get an insight into the subject documents on following addresses:

- on the well-ite of the Ministry of Education, Science and Technological Development: http://www.mpn.gov.rs
- on the web site of the Science Fund: http://fondzanauku.gov.rs
- on the web site of the Innovation Fund: http://www.inovacionifond.rs

Comments and suggestions on to the subject documents shall be submitted in written form to the Ministry of Education, Science and Technological Development, Nemanjina 22-26, 11000 Belgrade or via following E-mail: nauka@mpn.gov.rs with note / subject:

"For public consultation of SAIGE", as of 1 November 2019.

Registration for participation in direct public consultations and presentation of subject documents to be held on Friday, November 1, 2019, beginning at 11:00 at the premises of the Ministry of Education, Science and Technological Development - Institute of Chemistry, Technology and Metallurgy, Njegoseva 12, 11000 Belgrade, conference hall at the second floor, should be sent to following address tijana.knezevic@mpn.gov.rs. If you need any additional information, please contact: +381 (0)11 36 16 526 or E-mail

address tijana.knezevic@mpn.gov.rs.

Picture 4: Announcement of public consultation in daily newspaper, English, ("Blic", 25 Nov 2019)

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PETAK 25. OKTOBAR 2019. Kultura / 39



У складу са одредбама чл. 76. и 77. Закона о државној управи ("Сл. гласник РС", бр. 79/05, 101/07, 95/10, 99/14, 47/18 и 30/18 - др. закон) и члана 14. став 2. Закона о министарствима ("Сл. гласник РС", бр. 44/14, 14/25, 54/15, 96/15 - др. закон и 62/17), а сагласно Еколошком и социјалном стандарду Светске baнке: Environmental and Social Standard on The Stakeholder Engagement and Information Disclosure - ESS10,

Република Србија

МИНИСТАРСТВО ПРОСВЕТЕ, НАУКЕ И ТЕХНОЛОШКОГ РАЗВОЈА

обавештава јавност и позива

релевантне субјекте, физичка лица и правна лица, укључујући друге државне органе, релевантна удружења, стручну јавност, као и друге заинтересоване стране; да се укључе у

ЈАВНЕ КОНСУЛТАЦИЈЕ

које се односе на

ОКВИР ЗА УПРАВЉАЊЕ ЗАШТИТОМ ЖИВОТНЕ СРЕДИНЕ И СОЦИЈАЛНИМ УТИЦАЈИМА ПРОЈЕКТА (ESF)
- ПЛАН ЕКОЛОШКИХ И СОЦИЈАЛНИХ ОБАВЕЗА (ESCP)
- ПЛАН УКЉУЧИВАЊА ЗАИНТЕРЕСОВАНИХ СТРАНА (SEP)

и учешће у припреми активности које се односе на

Пројекат акцелерације иновација и подстицања раста предузетништва у Србији (SAIGE пројекат)

Увид у предметна документа може се извршити:

о На веб страници Министарства просвете, науке и технолошког развоја: http://www.mpn.gov.rs

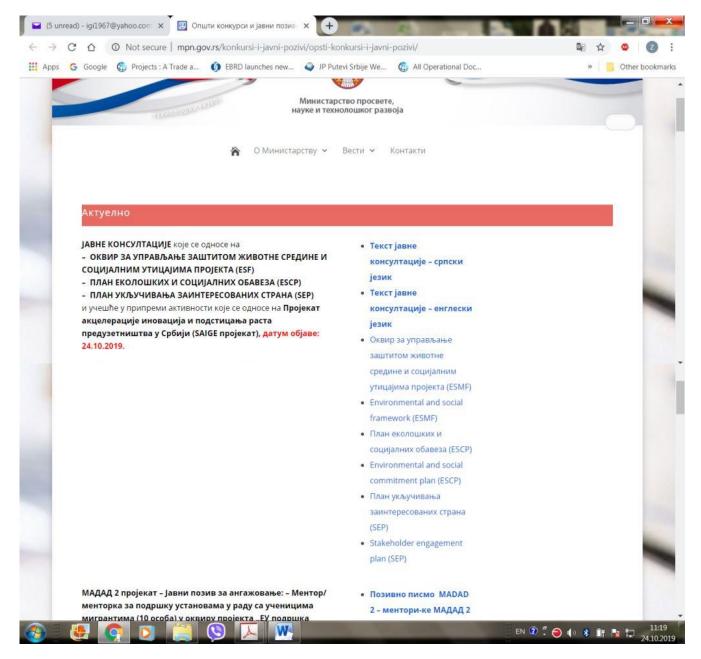
о На веб страници Фонда за науку: http://fondzanauku.gov.rs

о На веб страници Фонда за иновациону делатност: http://www.inovacionifond.rs Примедбе, мишљења и сутестије у вези са предметном документацијом се подносе Министарству просвете, науке и технолошког развоја у писаном облику на адресу Немањина 22-26, 11000 Београд или електронском поштом на адресу: nauka@mpn.gov.rs са напоменом/предметом: "За јавне консултације SAIGE", закључно са 01. новембром 2019. године.

Пријава учешћа у непосредним јавним консултацијама и презентацији предметних докумената која ће се одржати у петак 1. новембра 2019. године, са почетком у 11:00 часова у просторијама Министарства просвете, науке и технолошког развоја – у Институту за хемију, технологију и металургију, Београд, улица Његошева број 12/ поткровље, врши се на адресу tijana.knezevic@mpn.gov.rs.

Додатне информације о овом обавештењу са позивом јавности могу се добити на тел: +381 (0)11 36 16 526 или електронској адреси <u>tijana.knezevic@mpn.gov.rs.</u>

Picture 4: Announcement of public consultation in daily newspaper, Serbian, ("Blic", 25 Nov 2019)

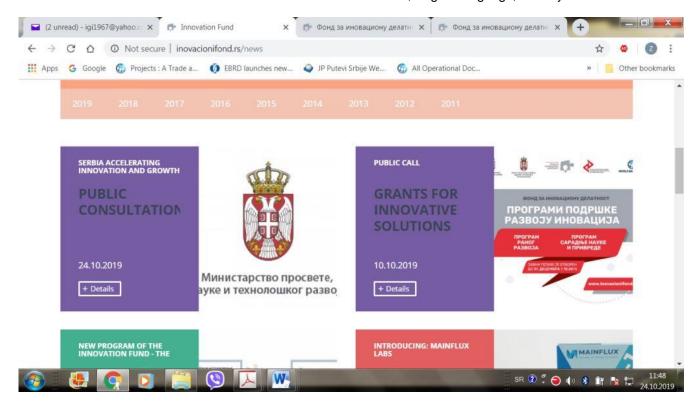


Picture 5: Announcement of public consultation on DRAFT ESMF document on Ministry web site

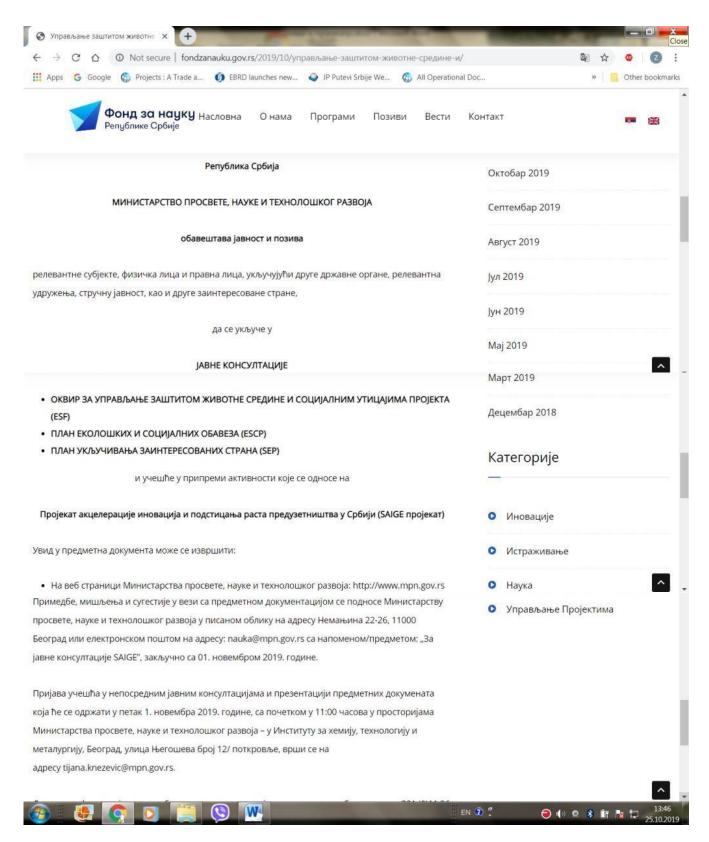
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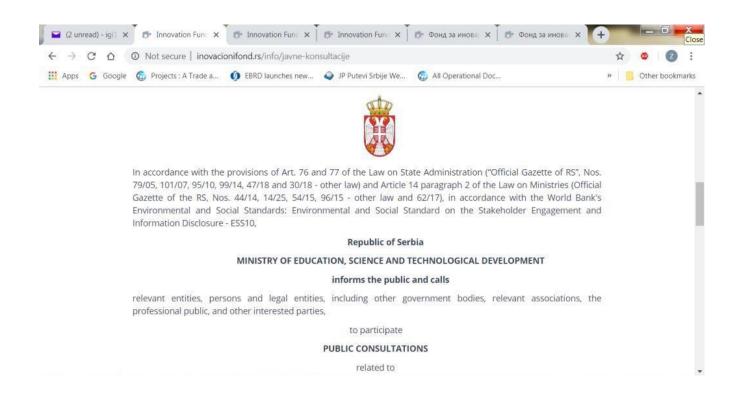
Picture 6: Public disclosure of DRAFT ESMF document, English language, Ministry web site



Picture 5: Announcement of public consultation on DRAFT ESMF document, English language, SF web site

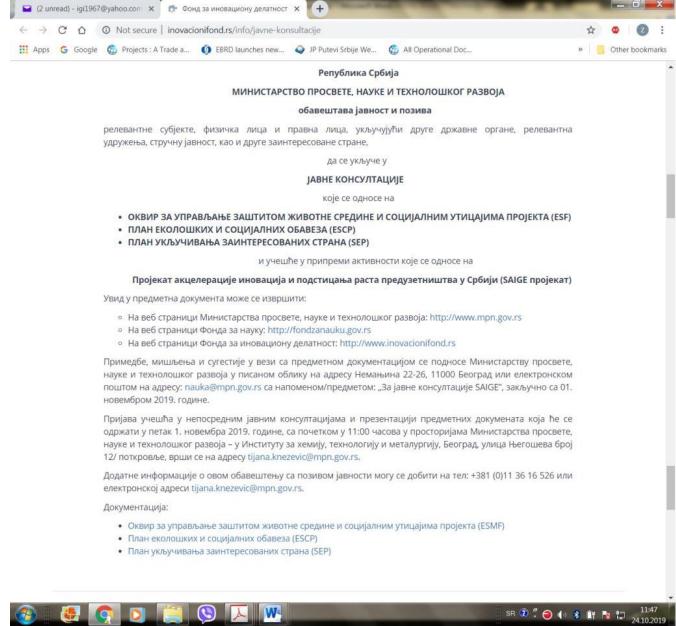


Picture 5: Announcement of public consultation on DRAFT ESMF document, Serbian language, SF web site





Picture 5: Announcement of public consultation on DRAFT ESMF document, English language, SF web site



Picture 7: Call for Public Consultations on DRAFT ESMF document, Serbian language, IF web site

ANNEX 13 STATEMENT OF THE COMPLIANCE OF SMES/GRANTEES AND RDI WITH WB EHS GUIDELINES 39

Date and place of issuance:	
Name and address of the issuer:	

STATEMENT OF LEGAL AND REGULATORY COMPLIANCE

Hereby we declare that in case of successful award:

- We are aware of, and comply with, the standards laid down in World Bank EHS Guideline;
- We conform to all national laws* and applicable regulations concerning Environment, Health and Safety;
- We are committed to providing a safe and healthy environment for our employees and the community
 and to implementing as stipulated by national legislation and the WB EHS Guidelines, whereas we
 are aware in case of discrepancies the more stringent standards of the two shall be achieved;
- We confirm to have received a copy of the WB EJHS Guidelines, that we fully understand the requirements and confirm this by signing this Statement.
- We confirm our understanding that adherence to these standards might me subject to announced and unannounced audits by the PIU or any other third party authorized by the PIU

We understand that the failure to respect any of the above stated commitments could lead to termination of the contract and exclusion from the project.

Signature:	
Name:	
Position:	

*National Laws refers both to the Laws of Republic of Serbia and the domicile Law of the country in case the Bidder is foreign

³⁹ Copy of the WB ESH Guidelines shall be appended to each Call for Proposal but for purposes of this ESMF are available at https://www.ifc.org/wps/wcm/connect/29f5137d-6e17-4660-b1f9-02bf561935e5/Final%2B-%2BGeneral%2BEHS%2BGuidelines.pdf?MOD=AJPERES&CVID=jOWim3p