



Food and Agriculture
Organization of the
United Nations

*Enhancing the resilience of Serbian forests to ensure energy security of
the most vulnerable while contributing to their livelihoods and carbon
sequestration (FOREST Invest)*

GCP/SRB/008/GCF

ESMF

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January 2025

Annex 6

Environmental and Social Management Framework

For the GCF-FAO Project “Enhancing the resilience of Serbian forests to ensure energy security of the most vulnerable while contributing to their livelihoods and carbon sequestration (FOREST Invest)”

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Abbreviations

AF	Adaptation Fund
AFOLU	Agriculture, Forestry and Other Land Use
AMA	Accreditation Master Agreement
ANAPCD	Aligned National Action Plan to Combat Desertification
AP	Autonomous Province
AWPB	Annual working plan and budget
AWPBR	Annual working plan budget and report
BAU	Business as usual
BFF	Budget Fund for Forests
BH	Budget Holder
CBM	Cubic meter
CAS	Climate adaptive silviculture
CCM	Climate change mitigation
CSO	Civil Society Organization(s)
DF	Directorate of Forests (of MoAFWM)
EBRD	European Bank for Reconstruction and Development
EE	Energy efficiency
EIB	European Investment Center
ECMWF	European Center for Medium-Range Weather Forecasts
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Safeguards
EU	European Union
FAO	Food and Agriculture Organization
FAO-HQ	Food and Agriculture Organization Head Quarters
FAO – REU	Food and Agriculture Organization Regional Office for Europe and Central Asia
FDS	Forestry Development Strategy of Serbia
FIS	Forest Information System
FLR	Forest landscape restoration
FRA	Global Forest Resources Assessment
FNC	First National Communication
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse gasses
GoS	Government of Serbia
HH	Household
IEA	International Energy Agency
IFAD	International Fund for Agriculture Development
IFI	International Finance Institution
IPCC	Intergovernmental Panel on Climate Change
IPPU	Industrial Processes and Product Use
LoA	Law on Agricultural Land
LoF	Law on Forests

LULUCF	Land Use, Land-Use Change and Forestry
MoAFWM	Ministry of Agriculture, Forestry and Water Management
MoESTD	Ministry of Education, Science and Technology Development
MoEP	Ministry of Environmental Protection
MoME	Ministry of Mining and Energy
MoE	Ministry of Economy
MRV	Monitoring, Reporting and Verification
MNFI	National Forest Inventory
NFM	National Forest monitoring
NDA	National Designated Authority
NDC	Nationally Determined Contribution
NWPF	Non-wood forest product
OECD	Economic Cooperation and Development
OHS	Operational Health and Safety
PSC	Project steering committee
PE	Public enterprise
PES	PE Srbija Shume
PEV	PE Vojvodina Shume
PFOs	Private forest owners
PFOAs	Private forest owners' associations
PMU	Project management unit
RES	Renewable energy sources
SDG	Sustainable Development Goal
SNC	Second National Communication
SRP	Short rotation plantations
TNC	Third National Communication
UN	United Nations
CBD	Convention on Biological Diversity
UNDP	United Nations Development Program
UNFCCC	United Nation Framework Convention on Climate Change
UNEP	United Nation Environmental Program
USD	United State Dollar
VET	Vocational education and training
VCM	Voluntary carbon markets
WB	The World Bank

Executive summary

Serbia is a landlocked country located on the Balkan Peninsula (Central Serbia region) with hilly terrain and mountains dominating the southern third of Serbia. Serbia's total surface area is 88,361 km² and a total population of 6,844,078 people¹ (2021). The GDP of the country was around USD 62 billion in 2021, with an annual growth that varied from 4.3 percent (2019) to 7.4 percent (in 2021)². Serbia is an upper middle-income country, and its GDP per capita annual growth was 8.3 percent in 2021³. Agriculture is the largest employer and represents 20 percent of the total employment in Serbia. The agriculture, forestry and fisheries sectors represent a share of 6.3 percent of total GDP (2018) (compared to 19.7 percent in 1995).

Climate change has impacted Serbia during the 1980-2019 period. Average temperatures increased (+0.6°C/decade), while annually accumulated frost days and ice days decreased (-8 days/decade and -3 days/decade respectively). Tropical nights and summer days increased (+1 day/decade and +8 days/decade respectively). Snowfall, snow depth, wind directions and speed for their part did not present any significant changes during the last 20 years. Forest ecosystems in the country are vulnerable to the impacts of climate change, due to their exposure to episodes of precipitation deficit, droughts, increased temperatures, extreme weather events (e.g. storms), fires, pest outbreaks and diseases. Root causes of forest degradation include illegal extraction of timber, the **overexploitation of wood biomass at local level due to the high forest dependency for energy**, abandonment of rural areas, lack of financial and knowledge capital of landowners, and more frequent forest fires and pest outbreaks.

The **objective of the *Enhancing the resilience of Serbian forests and the carbon storage potential of the country to support and boost the decarbonization process through adaptation and mitigation investments* Project** is to support the Serbia in enabling the forest sector to contribute to the country's low carbon strategy by stabilizing and increasing carbon removals, upgrading management capacities of key institutions and communities and incentivizing private sector companies to engage in the decarbonization process. The Project, which will operate in Central Serbia and the Autonomous Province (AP) of Vojvodina, will address the needs and priorities reported by Serbia in its NDC(s) (2015 and 2020), National Communications, National Adaptation Plan, Low Carbon Development Strategy, EU-related commitments and other national policy frameworks. The proposed Project is developed in accordance with GCF investment criteria and in adherence with the principle of national ownership.

This Project is **classified as a moderate risk (Category B)** and identifies the ESS triggers for the project, the potential environmental and social impacts of project activities, and measures to mitigate the identified risks. The Project's risk assessment was conducted using FAO's Environmental and Social Screening Form (Annex 3), which identifies areas of risk and based on the risk screening responses, resulted in the moderate-risk categorization. This ESMF, which constitutes the environmental impact assessment (EIA) as per the requirements of national EIA legislation, will be adopted by MOAFWM (Executing Entity), governmental (Ministries and Municipalities) and non-governmental partners (Chambers of Commerce and Industry; Forestry, Agriculture and other category organizations) and any sub-contractors. Project partners who undertake activities will include reference to this ESMF and the need to abide by the protocols and actions listed herein. Lastly, this ESMF serves as a practical tool to guide the identification and mitigation of potential negative environmental and social impacts of the proposed Project and serves as a platform for consultations with stakeholders and potential Project beneficiaries.

¹ World Bank data <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=RS>

² World Bank data <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=RS>

³ World Bank data <https://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG?locations=RS>

The Project will establish a Project Management Unit (PMU) which will work under the guidance of a steering committee representing the line ministries and other stakeholders including representatives of the private sector. The PMU will be supported by technical experts assigned to each technical intervention for support and oversight; an **Environmental and Social Safeguards (ESS) Specialist** will be hired, within the PMU, for the duration of the project. A total budget of USD 115,000 is allocated for the salary of this person. The ESS Specialist will be responsible for ensuring overall compliance with this ESMF, presenting and explaining the ESMF (including the Grievance Redress Mechanism) to all stakeholders during consultations, oversight for environmental and social assessments of sub-projects, and the overall oversight of mitigation for any medium-risk activities using ESMPs developed during implementation. The ESS Specialist will also work closely with the Monitoring and Evaluation (M&E) unit and Gender Specialist, on matters related to reporting for the ESS and stakeholder engagement aspects of the project.

Major elements of the workplan for the implementation of this ESMF include capacity building of project staff and implementation partners, ESS screening and assessment, ESS oversight, stakeholder engagement, Gender Action Plan, and monitoring and reporting. **Project costs of relevant staff** are below.

Costs description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	USD total costs
ESS safeguard specialist	30,000	40,000	15,000	7,500	7,500	7,500	7,500	115,000
International consultant (afforestation/reforestation/enrichment expert)	0	2,250	3,600	3,600	1,800	450	450	12,150
Gender Specialist	30,000	40,000	15,000	7,500	7,500	7,500	7,500	115,000
TOTAL	60,000	82,250	33,600	18,600	16,800	15,450	15,450	242,150

Positive impacts of the project are environmental, social and economic. The project envisages that at least 30 percent of beneficiaries are women. Thanks to the climate adaptive silviculture (CAS) practices and technologies the project envisages contributing to creating new job opportunities and new markets (e.g. CO₂ management, green biomass, climate adaptive nurseries). Relevant co-benefits of reducing the adverse impacts of fuelwood include distinctive social benefits as project's activities will help reduce poverty in Serbia. Economic benefits will originate from: (i) the offsetting mechanism that will increase the budget of the forestry sector; (ii) the improved efficiency of wood biomass used for fuel; and (iii) the potential benefits that will originate from the degraded private lands converted to bioenergy plantations and from the lands protected by shelterbelts. Furthermore, the project will have a positive impact on households that will be expected to face a lower unit cost for energy produced by fuelwood. This lower unit cost of energy will enhance affordability of energy for the poorest segments of the population. In addition to the positive impacts in terms of climate change mitigation and adaptation (CCM and CCA), the project will have positive impacts on biodiversity⁴, on soil quality⁵ and water availability, decrease evapotranspiration and slow down soil erosion, increase agricultural yields, and protect rural communities and infrastructures from flash floods, floods and landslides. Furthermore, via afforestation activities and shelterbelts/windbreakers, the project will support the active protection and conservation of biodiversity.

⁴ Activities will follow specific protocols that will guarantee the use of local and species that will be selected based on the characteristics of existing forests. The project will not negatively impact ecosystems.

⁵ Converting degraded agricultural lands that are no longer suitable for farming into biomass forests, will allow the lands to maintain value and produce income and for the soil to recover and gradually recover sufficient quality to sustain again agriculture. Furthermore, the activity will protect soils from erosion and will contribute to mitigation of the adverse impacts of winds.

These will create corridors and shelter for wild animal species and flora. The project will also support the country in expanding/enhancing/establishing the needed policy and legal reforms to remove the bottlenecks that are at the root of the identified climate change adaptation deficit of the sector. Lastly, the project will support the country in addressing the reported forest's overexploitation risk existing at local level due to fuelwood needs as well as the overall vulnerability of the population to natural hazards.

Potential negative impacts are mitigatable and are mainly related to on-ground activities in the forestry sector. On-ground activities will include afforestation; restoring damaged forests; shifting private coppice stands to high forest; and establishing shelterbelts. Potential impacts are limited to the project footprint and could occur as a result of forest-related activities, but these are localized and are mitigated by selecting local species with wide ecological range and higher drought resistance, considering the bioclimatic type of each site and projected shifts in potential tree species range limits due to climate change. There are potential risks in relation to community health and safety, however these will be addressed by providing training and protective measures and gear as needed. The project does not have planned any activities that will trigger fires in areas where it will work. No downstream nor cumulative effects are envisaged. The presence of Indigenous Peoples is not envisaged, however, this accounted for in the ESS mitigation plan of this ESMF. **FAO Safeguards that are applicable for this project** are presented below.

FAO Safeguard (FESM, 2022)	Applies	Justification
ESS 1. Biodiversity conservation, and sustainable management of natural resources	Yes	<p>The project will support Serbia in enhancing the resilience of its forest ecosystems introducing climate adaptive silviculture and sustainable forest management practices. The project will not engage in poor natural resources management practices nor have negative impacts on natural resources.</p> <p>All project's investments aim at restoring forests, increasing biodiversity as means to resilience. Forestry investments are designed to enhance biodiversity with specific priority to those areas that will act as corridors among existing forests. Therefore, activities will not impact protected areas of natural habitat or sensitive ecosystems. However, this safeguard is triggered because of afforestation/forest rehabilitation activities, and environmental and social assessments undertaken at the sub-project level, once identified, will consider biodiversity.</p> <p>While the Project will establish and/or manage planted forests, it will only plant with native or locally adapted species and involving local communities. Activities will be executed according to the responsible management of planted forests.</p> <p>Project activities will only include forestry investments in existing forest areas or in areas previously covered with forests. Therefore, livestock and aquatic genetic resources will not be impacted.</p>
ESS 2. Resource efficiency and pollution prevention and management.	Yes	<p>The project will promote climate adaptive silviculture. It will not lead to increased use of pesticides through intensification or expansion of production. In upgrading nurseries, no significant increase in water consumption is envisaged. No seeds will be procured and no new planting material (tree, shrub, crop varieties) will be introduced into the country. With regards to the establishment or management of planted forests/climate adaptive silviculture – the Project will select local species with wide ecological range and higher drought resistance, considering the</p>

		<p>bioclimatic type of each site and projected shifts in potential tree species range limits due to climate change (e.g. avoiding planting seedlings from species in the lower limit of their ecological range; planting seedlings from species somewhat above the upper limit of their ecological range). No GMO or seeds with insecticidal seed coatings will be used in the project. No significant waste will be generated – with regards to road clearing, this will involve clearing of biological debris (vegetation) which will be composted or integrated into the environment. With regards to fencing, these will be of different forms including biological depending on specific context of the forestry investments. Each will be defined during the inception phase when precise sites will be formalized at which time appropriate screening for types of fencing and their handling and disposal will be conducted. This safeguard is triggered to account for potential waste disposal.</p>
ESS 3. Climate change and disaster risk reduction	No	<p>Through a nexus approach and addressing bottlenecks to CC adaptation and mitigation, the project will reduce the exposure and vulnerability of the forestry sector and enhance resilience and increase total CO₂ removals from forestry and biodiversity. The project aims to increase carbon removals from the forestry sector (7.6 MtCO_{2e} [27Y]). The participation of agrifood sector operators, local communities and private forest owners' participation will help ensure the project's envisaged paradigm shift, the sustainability of the activities and the integration of the forest-energy security-decarbonization nexus.</p>
ESS 4. Decent work	Yes	<p>The project will promote, respect and realize fundamental principles and rights at work. The employment of project workers will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship. Hiring of workers will be made following the laws and regulations of the Serbia (Labour Law 24/05, 61/05 and 54/09) and workers will need to abide with the FAO code of conduct and FAO policies. All workers will be above 18 years old.</p> <p>Worksites must be accessible by road and transport from collection points in accessible areas to worksites will be guaranteed by the project through its partners and service providers.</p>
ESS 5. Community health, safety and security	Yes	<p>This safeguard is triggered to ensure that adverse impacts on health, safety and livelihoods of involved and affected communities are anticipated and avoided. Community exposure to health risks is not envisaged, however occupational health and safety (OHS) risks need to be considered with regards to afforestation/reforestation activities; these will be dealt with by providing training and protective measures and gear as needed. The project does not have planned any activities that will trigger fires in areas where it will work.</p> <p>Project activities will be in remote forested areas generally far from houses and communities. All workers in project areas will be selected among men and women from local communities, within a 25 km radius; the establishment of camps or other temporary accommodation structures will not be required. As works will occur in remote forested areas of the country, the project does not expect to have migrant workers.</p>

ESS 6. Gender equality and prevention of gender-based violence	No	<p>In all training and investments, when possible, the Project will give higher priority to women^[1] owning degraded coppice stands or non-longer suitable for farming/copping/degraded lands cultivation of wooden species for bioenergy or other purposes and will ensure that at least 30 percent of beneficiaries are women. With regards to the prevention of sexual exploitation and abuse (PSEA)^[2] through its Grievance Redress Mechanism the Project will ensure that all concerns and/or incidents will be reported to the ESS specialist and the FAO Office of the Inspector General, as appropriate. The Project will include sexual exploitation and abuse awareness raising, and stakeholder-differentiated understanding, during stakeholder engagement.</p> <p>^[1] A preliminary list of beneficiaries disaggregated by gender will originate from the digital cadastre of the Serbia to ensure that gender accounting is well reflected in both the baselines and targets. Depending on the results of the analysis of the cadastre targets will be increased at design.</p> <p>^[2] FAO PSEA policy</p>
ESS 7. Land tenure, displacement, and resettlement	No	<p>The project will neither acquire land nor displace people. Project activities will only include forestry investments in existing forest areas or in areas previously covered with forests and will only be executed in land owned by the state or by farmers with clear ownership that are free from any dispute. The project or the government will not expropriate lands nor plant on land of dubious ownership. The project will work on land that is no longer suitable for agriculture and therefore abandoned or not in use from a productive perspective. Therefore, there will be no involuntary resettlement or displacement resulting from project activities.</p> <p>Exercise of eminent domain and any other permanent or temporary, and economic and physical displacement due to involuntary resettlement will not be supported under the project.</p>
ESS 8. Indigenous Peoples	No	<p>The Project is national in scope; it is designed to operate at the national level on public and private lands, ensuring benefits to <i>all</i> target groups and peoples that will be impacted by Project activities. Target areas where on-ground activities will occur are in the AP of Vojvodina and Central Serbia. The presence of Indigenous Peoples is not foreseen, however, before implementing field level activities, stakeholder consultation and second-level screening will be held once specific project sites are identified by government.</p>
ESS 9. Cultural heritage	No	<p>Finding of artefacts of cultural importance is not envisaged but should this occur, chance find procedures will be followed.</p>

During the course of project elaboration, key government agencies and other stakeholders dealing with the forestry, energy and agriculture sectors in Serbia were consulted (in hybrid/virtual formats, due to COVID-19 precautions and travel restrictions) in national-level workshops and detailed bilateral meetings. **During project implementation, consultations will be held with the involved stakeholders.** Formal consultations with stakeholders during project implementation will take place yearly, at the time of the

preparation of Annual Work Plan and Budget (AWPB) – i.e. at the beginning of each of the seven project Fiscal Years (FY). The AWPB will be presented by the PMU and reviewed by all stakeholders, including at the national, Regional, Municipality, and community levels as well as during the planning, implementation and monitoring of forestry investments. During these stakeholder engagement consultations, the ESMF – including the Grievance Redress Mechanism (GRM), but also the Gender Action Plan (GAP) - will be shared with stakeholders and explained. In addition, as needed, consultations will be held with relevant stakeholders during the preparation and implementation of sub-activities. Stakeholder engagement will also take place at the community level when developing Forestry Management Plans (FMPs).

1. Introduction

1. Serbia is a landlocked country located on the Balkan Peninsula (Central Serbia region) with hilly terrain and mountains dominating the southern third of Serbia. Serbia's total surface area is 88,361 km² and a total population of 6,844,078 people⁶ (2021). The low-land northern part of the country is separated from the central part by Sava and Danube rivers and belongs to the Pannonian basin (Vojvodina region). In the modern age, before the 18th and 19th centuries, around 75 percent of the actual territory of Serbia was covered by forests. Mainly due to demographic reasons and related land conversions into agricultural areas, especially grasslands, the forest area decreased to almost 15 percent before the Second World War. The main geographical areas are: (I) the northern regions plains (Pannonian plain); (II) the central regions with hills; and (III) the south-central regions that combine lowlands and mountainous areas. Serbia has three major rivers: the Danube, the Sava and the Tisa that flow to the basins of the Black, Adriatic and Aegean Seas. Lowland (200 meters above the sea level) represents 32 percent of the total territory and mountain areas (1000 meters above the sea level) 11 percent of the total territory ([FAO, 2019](#)).

2. The GDP of the country was around USD 62 billion in 2021, with an annual growth that varied from 4.3 percent (2019) to 7.4 percent (in 2021)⁷. Serbia is an upper middle-income country, and its GDP per capita annual growth was 8.3 percent in 2021⁸. Agriculture is the largest employer and represents 20 percent of the total employment in Serbia. The agriculture, forestry and fisheries sectors represent a share of 6.3 percent of total GDP (2018) (compared to 19.7 percent in 1995). The forestry and timber industry accounts for 5.7 percent of total exports⁹. Forestry enterprises employ around 4,957 people¹⁰ (average annual in 2017). The GDP's share of forestry, excluding timber processing, is 0.3 percent. Tourism is also a relevant activity in Serbian forests and contributes to about 1.4 percent.

3. Climate change has impacted Serbia during the 1980-2019 period. Average temperatures increased (+0.6°C/decade), while annually accumulated frost days and ice days decreased (-8 days/decade and -3 days/decade respectively). Tropical nights and summer days increased (+1 day/decade and +8 days/decade respectively). Snowfall, snow depth, wind directions and speed for their part did not present any significant changes during the last 20 years.

4. Serbia is one of the global centres of plant diversity and forest cover¹¹ accounts for about 30% of the territory ([BUR, 2016](#); TNC, 2020). Forest ecosystems in the country are vulnerable to the impacts of climate change, due to their exposure to episodes of precipitation deficit, droughts, increased temperatures, extreme weather events (e.g. storms), fires, pest outbreaks and diseases ([NAP, 2015](#); [SNC, 2017](#); TNC, 2020). Forestry¹² is, after agriculture, the most important activity in rural areas of the country. Yet its potentials are far from being fully utilized and do not factor in the value of important marketable forest ecosystem services (e.g. carbon removals, biodiversity and protection) (Šijačić-Nikolić et al., 2020).

⁶ World Bank data <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=RS>

⁷ World Bank data <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=RS>

⁸ World Bank data <https://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG?locations=RS>

⁹ See <http://www.china-ceecforestry.org/country/serbia/>

¹⁰ Source: Bulletin Forestry 2017, - Statistical Office of the Republic of Serbia

¹¹ Forests in Serbia are mainly composed of European beech (*Fagus sylvatica*), English oak (*Quercus robur*), Turkey oak (*Quercus cerris*), Sessile oak (*Quercus petraea*), Hungarian oak (*Quercus frainetto*), Norway spruce (*Picea abies*), silver fir (*Abies alba Mill.*), black pine (*Pinus Nigra*) and Scots pine (*Pinus Silvestris L.*).

¹² Agriculture, forestry and fisheries sector represent a share of 6.3% in total GDP (2018) (19.7% in 1995). Forestry and timber industry account for 5.7% of the total exports. Forestry enterprises employ around 4,957 people (average annual in 2017). The GDP's share of forestry, without the participation of the processing timber is 0.3%. Tourism is also a relevant activity in Serbian forests and contributes to about 1.4%.

Root causes of forest degradation include illegal extraction of timber, the overexploitation of wood biomass at local level due to the high forest dependency for energy, abandonment of rural areas, lack of financial and knowledge capital of landowners, more frequent forest fires and pest outbreaks.

5. While adaptation challenges still exist, Serbia is well positioned to adapt. Serbia is the 91st most vulnerable country and the 79th most ready country, with an ND-Gain Index of 75.

6. **Key constraints were identified as main barriers to adaptation and mitigation.** The main root causes and bottlenecks (Table 1) to a sustainable, efficient, effective and transparent management of the forest – decarbonization nexus are: (i) the adaptation deficit of forestry’s stakeholders (public and private) and the incomplete mechanisms for forest assessment, monitoring and management; (ii) an incomplete strategic, policy and legal framework to ensure the optimal contribution of the AFOLU sector to the decarbonization process of the Serbian economy; and (iii) limited incentives for private sector engagement in sustainable forest management and in decarbonization¹³.

Table 1 Main identified barriers

Main Barrier	Rationale
(i) The adaptation deficit of forestry’s stakeholders (public and private) and the incomplete mechanisms for forest assessment, monitoring and management.	Forestry stakeholders are not prepared to address the adverse impacts of climate change. Although 57 percent of forests is private, property is highly fragmented and often not managed (average forest smallholding is 0.3 ha). Furthermore, existing investments in forest's restoration and reforestation are still based on a BAU scenario that does not include climate change. Therefore, carbon removals from the forestry sector decreased by 19.4 percent in 2015 compared to 2010 levels and energy security of rural communities in some regions of Serbia is no longer guaranteed by locally over exploited forests for fuel wood production. Furthermore, the lack of updated forest assessment and monitoring tools does not allow for efficiency in the sector.
(ii) Incomplete strategic, policy and legal framework to ensure the optimal contribution of the AFOLU sector to the decarbonisation process of the Serbian economy.	Forests are at the core of national strategic framework such as the National Adaptation Plan, the Low Carbon Development Strategy and the Renewable Energy Strategy. Nonetheless, the role of forests is hampered by the lack of standards, policies, legislation and an updated MRV system. This does not allow the AFOLU sector to contribute efficiently to the decarbonisation of Serbia.
(iii) Limited incentives for private sector engagement in sustainable forest management and in decarbonisation.	The absence of perspective and evidence-based reporting on the status of national forests fails to attract private sector investors interested in the sustainable use of forest resources (i.e. green biomass fuels), or in paying for key ecosystem services such as carbon removals.

Source: Authors’ own elaboration.

7. In order to address these constraints and following consultations with the Ministry of Agriculture Forestry and Water Management, other national institutions, UN agencies, civil society and private sector stakeholders, the Government of Serbia and FAO agreed to implement FAO’s Country Programme Framework (CPF) focusing on three priority areas during the period 2019-2022. Building on FAO’s past experience in the country and its comparative advantages - and in line with key national strategies, the Project will contribute to each priority area. Additionally, the Project will strengthen the EU accession

¹³ The limited private sector engagement in sustainable forest management and in decarbonization is also linked to a structural lack of incentives and mechanisms.

process focusing on alignment to the EU Common Agricultural Policy (CAP), environmental protection and standards.

8. The Project will address the needs and priorities reported by Serbia in its NDC(s) (2015 and draft 2020), National Communications, National Adaptation Plan, Low Carbon Development Strategy, EU-related commitments and other national policy frameworks. The proposed Project is developed in accordance with GCF investment criteria and in adherence with the principle of national ownership. The Project will contribute to implement the GCF Country Programme of Serbia, by supporting the priority areas: cluster 1 Energy efficiency and use of renewable energy sources and cluster 3 NEXUS Water Resources – Agriculture – Forestry. While the Project is national in scope, on-ground activities will operate in Central Serbia and the Autonomous Province (AP) of Vojvodina.

9. The objective of the Project is to support Serbia in enabling the forest sector to contribute to the country's low carbon strategy by stabilizing and increasing carbon removals, upgrading management capacities of key institutions and communities and incentivizing private sector companies to engage in the decarbonisation process. This Project has three components and related activities that will address bottlenecks to climate change adaptation and mitigation.

Component 1 - National level upscaling of sustainable and climate adaptive silviculture and carbon finance framework

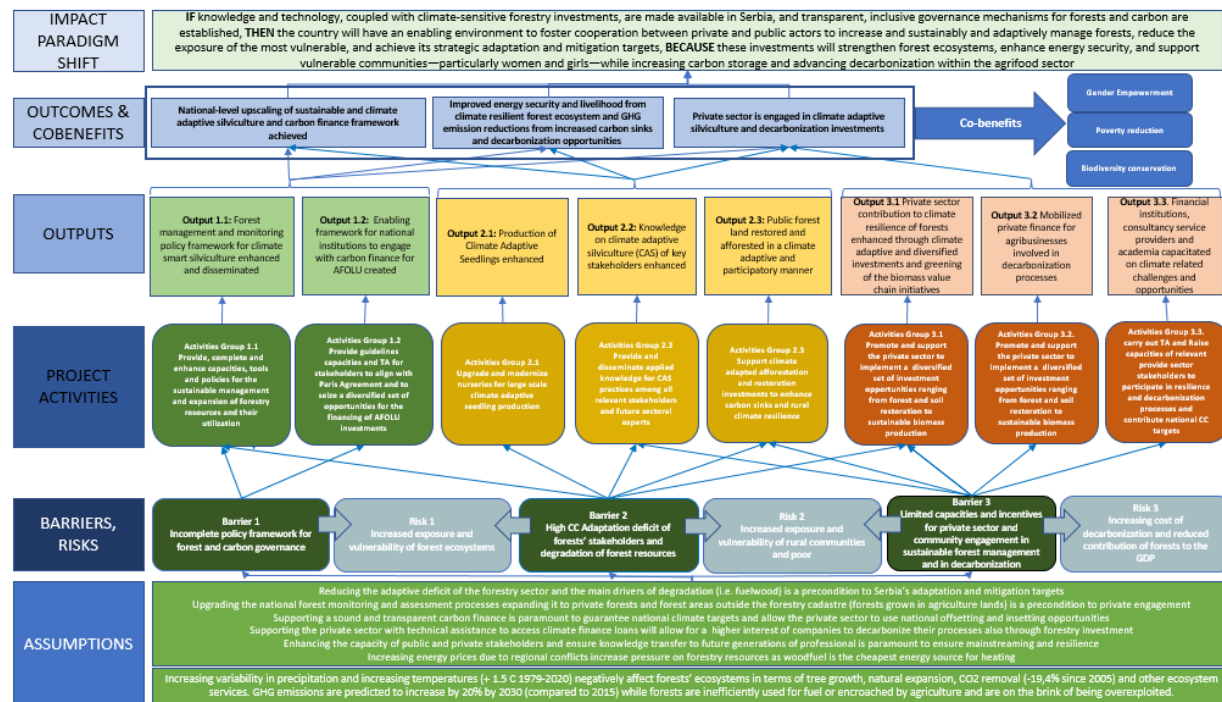
Component 2 - Improving energy security and livelihood from climate resilient forest ecosystem and GHG emissions reductions from increased carbon sinks and decarbonization opportunities

Component 3 - Engaging private sector in climate adaptive silviculture and decarbonization investments.

10. **The Project Theory of Change.** The paradigm shift of the Project lays on three pillars. First, the low carbon development strategy of Serbia is strictly connected to the health of forests¹⁴ and their capacity to remove CO₂ emissions, to provide energy and offsetting opportunities. Therefore, the adaptation of the sector and reduction/removal of the negative impacts of drivers of forest's degradation (i.e. unsustainable fuelwood harvest) are preconditions for decarbonization in Serbia. Second, the governance of forests as well as provision of ecosystem services (i.e. carbon removals and fuel biomass) can no longer be mandated to public and central institutions only. It requires new paradigms where communities, local authorities and the private sector could participate and invest. Therefore, the proposed offsetting and insetting mechanism (national level) will provide the forestry sector with additional financial resources making the sector less depended on national budget or external donors. Third, transparency and evidence-based forest monitoring and reporting are paramount to secure the trust of national and international stakeholders and to assure that reported data about forests and emissions are verified.

¹⁴ Shelterbelts/Windbreakers/Energy Plantations.

Figure 1 Theory of Change



Source: Authors' own elaboration.

11. **This Project is part of a larger, global picture** – Project results feed into global processes including the UN Framework Convention on Climate Change (UNFCCC) and its related agreements/processes and achieving the Sustainable Development Goals (the UN 2030 Agenda for Sustainable Development (2030 Agenda) and its 17 Sustainable Development Goals [SDGs]). The Project objectives are closely aligned with national policy objectives and international climate change commitments of Serbia, including its NDC(s) (2015 and draft 2020), National Communications, National Adaptation Plan, Low Carbon Development Strategy, EU-related commitments and other national policy frameworks. National stakeholders were engaged in the process of developing the concept note. The concept note is accompanied by a Letter of No-Objection from the NDA¹⁵ showing country ownership.

12. The Project has been classified as a **moderate risk (Category B)** by the **Food and Agriculture Organization of the United Nations (FAO)** in compliance with **FAO's Environmental and Social Management Guidelines** and considering the **GCF's Environmental and Social Safeguards**. The Project's risk assessment was conducted using FAO's Environmental and Social Screening Form (Annex 3), which identifies areas of risk and based on the risk screening responses, resulted in the moderate-risk categorization. Due diligence for addressing identified risks is carried out through the Environmental and Social Management Framework (ESMF, this document) which guides Project implementing agencies and stakeholders on environmental and social assessment, mitigation of impacts, and monitoring and reporting procedures during Project implementation. This ESMF, which constitutes the Environmental Impact Assessment (EIA) as per the requirements of national EIA legislation, will be adopted by the NDA (Executing Entity), governmental (Ministries and Municipalities) and non-governmental partners (Chambers of Commerce and Industry; Forestry, Agriculture and other category organizations) and any

15 Until 21 November 2024, the National Designated Authority was held by the Ministry of Agriculture, Forestry and Water Management, at which point the Ministry of Environmental Protection was appointed as NDA.

sub-contractors. Following Environmental and Social Impact Assessments, Environmental and Social Management Plans (ESMPs) will be prepared for specific sub-projects once identified. Project partners who undertake activities will include reference to this ESMF and the need to abide by the protocols and actions listed herein. Relevant Project partners will be provided with required Environmental and Social Safeguards (ESS) training prior to undertaking Project-related activities.

13. **The preparation process of this ESMF contributed to Project formulation** by identifying, *a priori*, “do-able” – or not – activities and provided suggestions for improvements in Project activity design. This ESMF ensures that environmental and social management is integrated into the development cycle of individual sub-projects, including consideration of the recent FAO guidance on ESS and COVID-19. Since exact sub-projects and target areas are not determined at the onset of Project but will be refined during Project implementation, the ESMF is the appropriate instrument under FAO’s Environmental and Social Safeguards Policy. The ESMF serves as a practical tool to guide the identification and mitigation of potential negative environmental and social impacts of the proposed Project and serves as a platform for consultations with stakeholders and potential Project beneficiaries.

14. Specifically, the **objectives of this ESMF** are to:

- Assess the potential environmental and social impacts of the proposed Project, whether positive or negative, and propose mitigation measures which will effectively address these impacts;
- Establish clear procedures for the environmental and social planning, review, approval, and implementation of sub-activities to be financed under the Project;
- Specify appropriate roles and responsibilities, and outline the necessary reporting procedures, for managing and monitoring environmental and social concerns related to sub-activities;
- Consider different alternatives, options and relevant mitigation measures during Project preparation and implementation;
- Determine the training, capacity building and technical assistance needed to successfully implement the provisions of the ESMF;
- Address mechanisms for public consultation and disclosure of Project documents as well as redress of possible grievances; and
- Establish the Project funding required to implement the ESMF requirements and to provide practical resources for implementing the ESMF.

2. Project description

2.1 Project objectives

15. The Project ‘**Enhancing the resilience of Serbian forests and the carbon storage potential of the country to support and boost the decarbonisation process through adaptation and mitigation investments**’ will support Serbia in stabilizing and increasing its carbon removals as stated in the Low Carbon Development Strategy. The Project will enable investments in forests via climate adaptive silviculture approaches and will involve State institutions, academia, civil society organizations, communities and private sector companies including those active in the biomass sector and/or interested in decarbonizing their processes (e.g. agribusiness, industry, energy, others).

16. The objective of the Project is to support Serbia in enabling the forest sector to contribute to the country’s low carbon strategy by stabilizing and increasing carbon removals, upgrading management capacities of key institutions and communities and incentivizing private sector companies to engage in the decarbonisation process. The Project aims at reducing national net emissions by **increasing carbon removals from the forestry sector (7.6 MtCO₂ [27Y]) and reducing net emissions by the private sector by 0.8 MtCO₂eⁱ (27y)**. The target will be reached by (a) ensuring climate adaptive forest managementⁱⁱ on **500,000 ha** of forests; (b) enhancing the resilience of rural communities and supporting the energy security of over **280,000 vulnerable households**, (c) increasing forest cover by **7,000 ha**; (d) supporting the conversion of about **33,000 ha** of public and private degraded coppice stands into high forestⁱⁱⁱ; and (e) assisting private companies (i.e. agrifood companies) in addressing climate change issues.

17. Direct beneficiaries (729,064 individuals of which 371,823 women) include fuelwood users, communities, private sector companies, the technical staff of the national and local institutions (MoAFWM, Municipalities, Universities and Vocational Schools) that will receive technical assistance, training and support to strengthen forest management, poor communities that will secure energy access from forests, modernize the biomass value chain and decarbonize the agri-food sector. Indirect beneficiaries (2.8 million) include non-poor households consuming fuelwood^{iv} as a direct energy source, households depending on forests’ non-wood products for their livelihoods, and individuals employed in the sector.

2.2 Project components

18. There are several areas in which the Project is expected to facilitate a paradigm shift in the country. *First*, the low carbon development strategy of Serbia is strictly connected to the health of forests and their capacity to: (a) remove CO₂ emissions; (b) provide energy; and (c) guarantee offsetting opportunities. Therefore, the adaptation of the forestry sector, the expansion of forest areas and the reduction/removal of the negative impacts of drivers of forest’s degradation (Components 1 and 2) are preconditions for decarbonisation in Serbia (Component 3). *Second*, the governance of forests as well as provision of ecosystem services (i.e. carbon removals, biodiversity, non-wooded forest products, protection and fuel biomass) can no longer be delegated to central institutions only (Component 1). It requires new paradigms where communities, local authorities and the private sector could participate and invest. Therefore, the proposed offsetting and insetting mechanism (national level) will provide the forestry sector with additional financial resources making the sector less dependent on national budget or external donors. *Third*, transparency and evidence-based forest monitoring and reporting are paramount to secure the trust of national and international stakeholders and to assure that reported data about forests and emissions are verified (Component 1).

19. This Project has three components and related activities that will address bottlenecks to climate change adaptation and mitigation.

Component 1 - National level upscaling of sustainable and climate adaptive silviculture and carbon finance framework

Component 2 - Improving energy security and livelihood from climate resilient forest ecosystem and GHG emissions reductions from increased carbon sinks and decarbonization opportunities

Component 3 - Engaging Private sector in climate adaptive silviculture and decarbonization investments

20. The combined impact of these actions will enable Serbia to reduce the vulnerability of its forestry sector and increase the total CO₂ removals while enhancing biodiversity and capitalizing on the role of forests to protect and sustain the most vulnerable communities. The combined impact will: (1) ensure immediate response to climate change impacts and forest degradation drivers; (2) increase the engagement of sector stakeholders; and (3) transform the private sector into change agent in the climate change mitigation and decarbonisation processes. Therefore, forests and their ecosystem services become an opportunity to enhance climate change mitigation by improving the productivity of forest stands via climate adaptive and regenerative approaches. Additionally, the proposed approach will secure a wider participation of stakeholders in forest governance, with clear and measurable co-benefits in terms of adaptation and low emission development.

Table 2 Project components

COMPONENT 1 – National level upscaling of sustainable and climate adaptive silviculture and carbon finance framework	
Output 1.1. Forest management and monitoring policy framework for climate adaptive silviculture enhanced and disseminated	
Activity	Description
Activity 1.1.1: Establish the National Forest Monitoring System (NFM).	Provide technical assistance and capacity development to design, start up and implement a methodologically and statistically sound NFM to objectively assess the conditions and dynamics of forests at the country and regional (Oblast) levels.
Activity 1.1.2: Develop guidelines for decision makers on LULUCF to prevent soil degradation.	Downscale International policies to the Serbian context and develop and disseminate guidelines for national and local decision makers regarding Land Use, Land-Use change and Forestry (LULUCF) and prevention of soil degradation.
Activity 1.1.3: Create national standard for biomass production / handling for energy purposes.	Establish appropriate rules, inspection mechanisms, and complaints procedures that sellers and distributors of firewood must follow.
Activity 1.1.4: Develop the national strategy, action plan and execution guidelines for Short Rotation Plantations (SRP) are delivered.	Develop a strategy and guidelines for SRPs. This strategy will define the required steps and policy framework to support the establishment of SRPs. Dissemination of the guidelines and strategies through local trainings and awareness raising events.
Output 1.2: Enabling framework for national institutions to engage with carbon finance for AFOLU created	
Activity 1.2.1: Support the design of an offset mechanism [for AFOLU] as part of the domestic carbon pricing framework and	Based on Serbia’s decision on the carbon pricing framework (e.g. ETS/Carbon Tax), help design an offset mechanism for forestry, capacity of private sector and academia to engage with the framework including MRV.

institutionalize knowledge in the national curricula.	
Activity 1.2.2: Support the development of Serbia's Article 6 strategy related to "AFOLU" opportunities	Facilitate opportunities for Serbia's forest sector to access carbon finance through Article 6 under different scenarios of rules and regulations, including through capacity development for national negotiators and formulation of technical inputs for Serbia's next NDC update.
Activity 1.2.3: Promote and support knowledge sharing at the regional level	Create a platform for regional knowledge exchange on offsetting and insetting that will further support the enhancement of the Serbian experience and is expected to create spill-over effects to other Balkan countries.
Activity 1.2.4: Support access to voluntary carbon finance for forestry in Serbia to enable sequestration beyond NDC targets and to ensure long-term sustainability	Facilitate access for Serbia's forest sector to carbon finance from evolving high-integrity Voluntary Carbon Markets (VCM)
Activity 1.2.5: Enable insetting as part of company decarbonization strategy support	Facilitate insetting for major value chains through removing information barriers and capacity constraints to policy options and opportunities.
COMPONENT 2 - Improving energy security and livelihood from climate resilient forest ecosystem and GHG emissions reductions from increased carbon sinks and decarbonization opportunities	
Output 2.1: Production of climate-adaptive seedlings enhanced	
Activity	Description
Activity 2.1.1: Upgrade public nurseries (Vojvodina/C. Serbia).	Support investments and increase the capacity of the Public Enterprises (PE) to ensure production of the necessary quantity and quality of seedlings for the project's forest restoration interventions and beyond.
Activity 2.1.2: Train and support operators of public and private nurseries in the production of diverse and climate adaptive forestry seedlings.	Organize four hands-on trainings on the production of high-quality plant material (seeds, seedlings and cuttings) to be delivered by the Chamber of Forestry Engineers to refresh the knowledge of all staff of PE Serbia Shume and ILFE in charge of the nursery works, as well as to train staff and workforce from private nurseries to spread the knowledge on up-to-date seedling production methods and technologies.
Output 2.2: Knowledge on climate adaptive silviculture (CAS) of key stakeholders enhanced	
Activity 2.3.1: Train stakeholders, both public and private in climate adaptive silviculture (CAS).	Contribute, in collaboration with line agencies and institutions, to the capacity strengthening of stakeholders by establishing a consistent process for professional training and education on climate change-related issues.
Activity 2.3.2: Produce four guidelines on climate adaptive silviculture.	Develop four guidelines to support the smooth and swift transition to climate-adaptive silvicultural approaches. The four guidelines will cover the following 1) climate smart nursery production including seed selection; 2) soil preparation for planting on extreme sites; 3) effective and efficient planting methods; and 4) maintenance after planting and first thinning operations.

Activity 2.3.3: Upgrade national curricula (faculty of forestry and vocational schools working on forestry, agriculture and accounting) with introduced practices and technologies.	Involve national institutions to ensure that capacity development needs are addressed, and up-to-date knowledge and skills are transferred not only to staff of PEs, other forestry professionals and workforce already working in the sector but included in national technical curricula related to forestry and forest plant production.
Activity 2.3.4: Facilitate regional knowledge-sharing through a CAS platform.	Establish a regional knowledge-sharing platform on CAS approaches used both within this and other relevant projects in Serbia and neighbouring countries.
Output 2.3: Public forest land restored and public land afforested in a climate adaptive and participatory manner.	
Activity 2.3.1: Carry out afforestation activities on public land.	Support the efforts of the Serbian Government to increase national forest cover with the afforestation of 7,000 ha with climate adaptive seedlings of tree and shrub species.
Activity 2.3.2: Convert degraded coppice stands on public forest land into high forest.	Work with the Ministry of Agriculture, Forests and Water Management (MAFWM) and the respective PEs to restore at least 33,000 ha of forest stands, the majority of which will be degraded coppice stands for conversion into high forest, but also forest stands damaged by abiotic or biotic factors with urgent need of restoring their ecological functioning.
COMPONENT 3 - Engaging Private sector in climate adaptive silviculture and decarbonization investments	
Output 3.1. Private sector contribution to climate resilience of forests enhanced through climate adaptive and diversified investments and through greening of the biomass value chain initiatives	
Activity	Description
Activity 3.1.1: Convert degraded private coppice stands into high forest.	Involve on a voluntary basis the private sector to promote the conversion of degraded private coppice stands to high forests.
Activity 3.1.2: Rehabilitate unfarmed private lands through forestry investments such as short rotation plantations, agro-forestry or soil rehabilitation purposes (Vojvodina)	Identify at least 500 ha of unfarmed private lands to be cultivated with wooden species for short rotation forestry, agro-forestry, or soil protection or rehabilitation, or a combination of the mentioned purposes.
Activity 3.1.3: Establish shelterbelts in agricultural landscapes.	Identify at least 500 ha of agricultural lands for the establishment of shelterbelts, mainly in almost tree-less agricultural landscapes of Vojvodina region with the main aim of soil protection (aeolian erosion control) but also to increase biodiversity, enhance pollination services as well as (re)establish more suitable habitats and migration routes for wildlife.
Activity 3.1.4: Engage private actors in sustainable biomass value chains.	Provide training for agro-industrial associations on possibilities for valorization of biomass residues for energy purposes among their members.
Activity 3.1.5: Support a platform involving stakeholders of the forestry and agricultural sector for a modern and transparent forestry and biomass value chain.	Support the creation of a platform, involving stakeholders in the sector that will produce and market solid biofuels at standardized high quality for the local population. The platform will have a production line for biomass and also dispose of storage and logistic facilities.
Output 3.2. Mobilized private finance for agribusinesses involved in decarbonization processes.	
Activity 3.2.1: Involve agribusiness and other companies in the decarbonization process of the private sector.	Startup involvement of the private sector through assessment of climate risks and feasibility of decarbonization investments and dissemination of knowledge through conferences and workshops.

Activity 3.2.2: De-constrain access to credit for agribusiness and other companies.	Provide technical assistance to agribusiness to detail strategies for decarbonization, with the elaboration and implementation of their respective decarbonization strategies, budgets, and action plans.
Output 3.3. Financial institutions, consultancy service providers, and academia capacitated on climate-related challenges and opportunities	
Activity 3.3.1: Support to the chamber of commerce and the association of financial institutions to assess climate-related risk of banks and ensure client engagement.	Support financial institution to overcome key challenges related to lack of information and technical know-how around assessing climate risks and decarbonization strategies, low awareness around compliance with new and evolving international climate standards and supporting clients in engaging in forestry-related activities.
Activity 3.3.2: Support to chamber of commerce and the association of financial institutions to train decarbonization service providers (e.g. accountants/auditors).	Ensure the creation of a local market of decarbonization technical service providers through the tailored capacity development of local technical experts/firms.

Source: Authors' own elaboration.

2.3 Target areas and eligibility criteria

21. The target areas of the Project are Central Serbia and the Autonomous Province of Vojvodina. The selection criteria for the plan of afforestation was made on the basis of available data of forest management plans, cadastral plans, analysis of satellite images and other sources of information. The relations between individual categories of afforestation or planned works can be changed in the process of detailed operational planning. The total scope of afforestation, in relation to the required amount of planting material, must be balanced so that all produced quantities of reproductive material (seedlings) are consumed. In order to ensure the continuity of seedlings production and afforestation, all plans should be harmonized. Any change in the scope of planting material production will require a rebalancing of operational plans for afforestation. Selection criteria for forest investments (i.e. afforestation) also includes clear land ownership; absence of land tenure conflict; and the absence of cultivation/pastures.

22. The Table below shows an overview of the areas for afforestation by regions (districts).

Table 3. Areas for afforestation by regions (districts)

No	Region	Area for afforestation (ha)	Area percent
1	18, Raski district	4,892.19	24.4
2	16, Zlatiborski district	3,490.26	17.4
3	24, Pcinjski district	1,709.03	8.5
4	15, Zajecarski district	1,297.96	6.5
5	14, Borski district	1,177.52	5.9
6	23, Jablanicki district	1,160.40	5.8
7	13, Pomoravski district	1,091.23	5.5
8	19, Rasinski district	937.91	4.7
9	22, Pirotski district	877.97	4.4
10	11, Branicevski district	786.14	3.9
11	21, Toplicki district	657.06	3.3
12	2, Middle Banat district	479.37	2.4
13	4, Juzno-Banat district	477.72	2.4
14	6, Juzno-backi district	213.67	1.1

15	17, Moravicki district	173.7	0.9
16	9, Kolubarski district	168.5	0.8
17	3, Severno-Banat district	158.81	0.8
18	12, Sumadijski district	124.36	0.6
19	1, Severno-backi district	71.22	0.4
20	30, City Belgrade	64	0.3
	Total	20,009.02	100.00

Source: Authors' own elaboration.

The largest areas are located in economically underdeveloped districts which are mainly located in hilly and mountainous areas.

23. Table 4 shows the ten municipalities with the largest areas. According to the official economic categorisation, of these ten municipalities, seven belong to category of "devastated and most undeveloped municipalities" (marked bold). Different categories of afforestation are established by the MoAFWM; the project will follow them in the planning and execution of forestry investments.

Table 4. Municipalities with largest afforestation area

No	Municipality	Area for afforestation (ha)	Area (percent)
1	71072, Sjenica	2,053.86	10.3
2	70874, Novi Pazar	1,717.50	8.6
3	71021, Raska	1,293.16	6.5
4	71188, Tutin	1,145.06	5.7
5	71226, Crna Trava	1,097.41	5.5
6	70491, Despotovac	973.42	4.9
7	70343, Brus	837.01	4.2
8	70351, Bujanovac	754.77	3.8
9	70653, Kraljevo	736.46	3.7
10	70866, Nova Varos	679.51	3.4

Source: Authors' own elaboration.

24. **Category "For afforestation according to silviculture plan"**. Plans for afforestation are an integral part of FMPs. These afforestation plans represent the most reliable basis for planning, made after observation of the terrain, considering the real needs and possibilities in the next 10 years. The Serbian Forestry Law imposes the procedure of adoption and approval of the FMPs. The development of afforestation plans is preceded by an assessment of the optimal degree of forest cover for each forest management units, determining the period for which it is possible to reach the planned degree of forest cover. FMPs include a defined scope, type of planting material, method of planting and other elements. However, in practice, it often happens that the scope of work on planting trees is not carried out in accordance with the provisions of FMP, due to the lack of financial resources, planting material or workforce for afforestation.

25. For this plan, planned areas for afforestation in the FMPs were taken as the main source for determining the total area for afforestation. The total scope of planned works in FPMs is 38,323 ha. It should be noted that on the area of 17,186 ha, poplar and willow plantations are planned, which basically do not represent classical afforestation work. For detailed analysis, plots with areas less than 10 ha (5 ha in Vojvodina) are excluded. Smaller areas are taken into account when creating larger complexes with

other plots. Also, areas that would represent reforestation or that are significantly overgrown with woody vegetation are excluded. This way, by using information from existing FMP plans 4,080 ha were identified as areas for afforestation, in accordance with the requirements of this Project.

Table 5. Overview for “afforestation according to silviculture plan” by regions

Region	Area for afforestation (ha)	Area (percent)
1, Severno-backi district	50.96	1.2
2, Middle Banat district	391.63	9.6
3, Severno-Banat district	123.02	3
4, Južno-Banat district	295.14	7.2
6, Južno-backi district	203.49	5
11, Branicevski district	173.86	4.3
12, Šumadijski district	13.48	0.3
14, Borski district	322.33	7.9
15, Zajecarski district	170.44	4.2
16, Zlatiborski district	495.1	12.1
17, Moravicki district	25.3	0.6
18, Raški district	1,126.02	27.6
21, Toplicki district	119.87	2.9
22, Pirotski district	156.66	3.8
23, Jablanicki district	57.04	1.4
24, Pcinjski district	340.85	8.4
30, City Belgrade	15.73	0.4
Total	4,080.92	100.00

Source: Authors' own elaboration.

26. **Category for afforestation “afforestation is potentially possible”.** Forest management plans for afforestation are defined for a period of 10 years. A significant part of bare lands is not covered by those plans, because of organizational, technical and financial reasons. The category “afforestation is potentially possible” is identified, in addition to Forest Management Plans (FMPs), as areas where afforestation is feasible. This selection is made on the basis of existing data and areal images. In this category 7,463 ha are identified.

Table 6. Overview for “Afforestation is potentially possible” by regions

Region	Area for afforestation (ha)	Area percent
1. Severno-backi district	20.26	0.3
2. Middle Banat district	87.74	1.2
3. Severno-Banat district	35.79	0.5
4. Južno-Banat district	182.58	2.4
6. Južno-backi district	10.18	0.1
9. Kolubarski district	168.5	2.3
11. Branicevski district	228.63	3.1
13. Pomoravski district	165.21	2.2

14. Borski district	459.99	6.2
15. Zajecarski district	612.53	8.2
16. Zlatiborski district	895.66	12
17. Moravicki district	148.40	2
18. Raški district	2038.62	27.3
19. Rasinski district	429.75	5.8
21. Toplicki district	426.61	5.7
22. Pirotski district	77.05	1
23. Jablanicki district	644.64	8.6
24. Pcinjski district	782.62	10.5
30. City Belgrade	48.28	0.6
Total	7,463.04	100.00

Source: Authors' own elaboration.

27. **Category for afforestation “afforestation is limited due to terrain conditions”.** In relation to the method of selection of areas for afforestation, this category is identical to the previous one. However, afforestation in these areas can be difficult due to terrain conditions. In this case, the terrain is rocky, dry, steep, overgrown with vegetation or otherwise difficult. Afforestation on these areas is possible but requires more complex works and higher costs.

Table 7. Overview for “Afforestation is limited due to terrain conditions” by regions

Region	Area for afforestation (ha)	Area (percent)
11, Branicevski district	383.65	4.5
12, Šumadijski district	110.89	1.3
13, Pomoravski district	926.02	10.9
14, Borski district	395.2	4.7
15, Zajecarski district	514.99	6.1
16, Zlatiborski district	2099.49	24.8
18, Raški district	1727.55	20.4
19, Rasinski district	508.16	6
21, Toplicki district	110.58	1.3
22, Pirotski district	644.26	7.6
23, Jablanicki district	458.73	5.4
24, Pcinjski district	585.56	6.9
Total	8,465.08	100.00

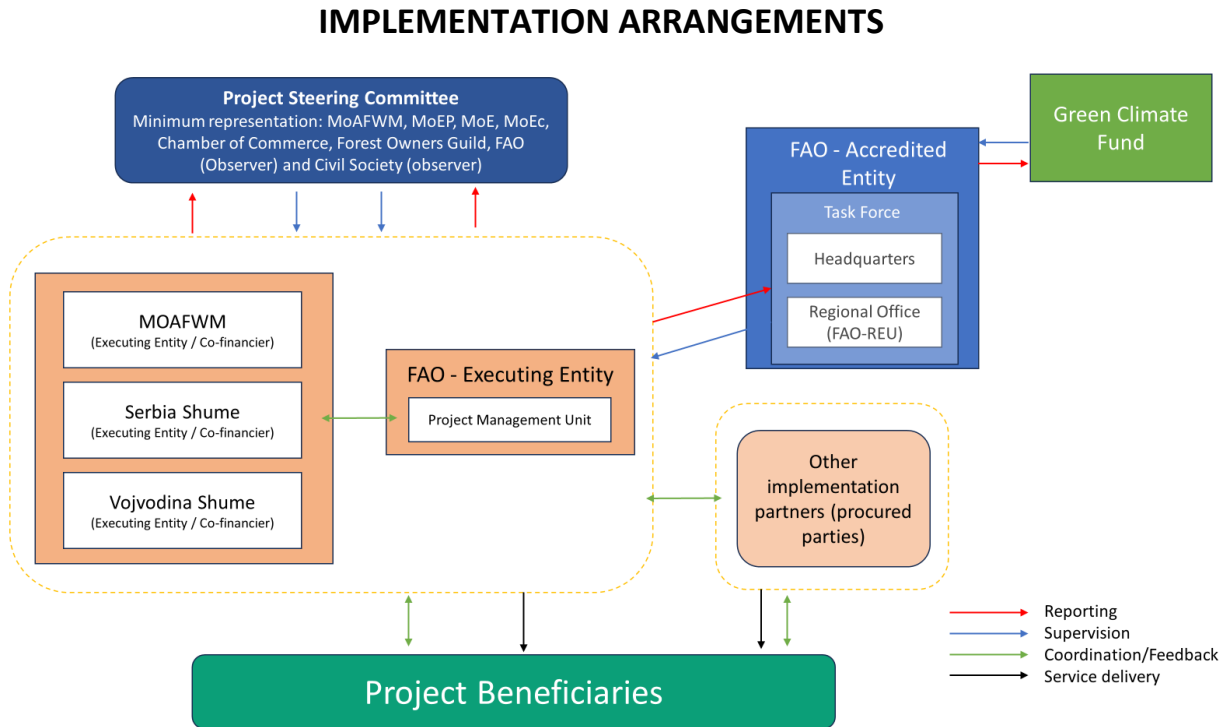
Source: Authors' own elaboration.

2.4 Project governance and management

28. FAO will be the accredited entity of the Project and will co-execute activities with the Ministry of Agriculture, Forestry and Water Management (MoAFWM). The Project will be executed through a project management unit to support all the technical activities. The Project Management Unit will work under the

guidance of a steering committee representing the line ministries and other stakeholders including representatives of the private sector.

Figure 2. Project implementation arrangements



Source: Authors' own elaboration.

29. To ensure national engagement and strategic positioning, the Project will also partner with both governmental (Ministries and Municipalities) and non-governmental partners (Chambers of Commerce and Industry; Forestry, Agriculture and other category organizations). CSOs and academia will be represented in the Project Steering Committee as observers as specified in section B.4 of the funding proposal as well as in Annex 7 of the proposal.

3. Environmental and social baseline

3.1 Geographical context

1. Serbia is located in the central part of the Balkan Peninsula, with a total surface area of 88,361 km². The main geographical areas are: (I) the northern regions plains (Pannonian plain); (II) the central regions with hills; and (III) the south-central regions that combine lowlands and mountainous areas. Serbia has three major rivers: the Danube, the Sava and the Tisa that flow to the basins of the Black, Adriatic and Aegean Seas. Lowland (200 meters above the sea level) represents 32 percent of the total territory and mountain areas (1000 meters above the sea level) 11 percent of the total territory ([FAO, 2019](#)) (see Figure 3).

Figure 3. Map of Serbia



Source: United Nations Geospatial, 2023. Serbia. United Nations. Cited 9 January 2025. [Serbia | Geospatial, location data for a better world](#).¹⁶

2. The climate of Serbia is moderate-continental, with more or less pronounced local characteristics and a gradual transition between seasons. Continental climate prevails in the mountainous regions of above 1,000 m altitude. The southwestern part of the country borders Mediterranean, subtropical and continental climates. The climate of Serbia can be defined, using the Köppen-Geiger climate classification

¹⁶ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

(Beck et al., 2018), as a warm-summer, humid continental climate (Dfb). Temperatures reach their minimum in January (average temperature around 0°C) and their maximum in July (average temperature around 21°C). Rain is relatively constant (40 to 55 mm of monthly accumulated precipitation), with a short rainy season from May to June, with about 70 mm of monthly accumulated precipitation. Snowfall starts in October, and gradually *increases until January when it reaches on slightly more than 30 mm of water equivalent per month average*. Serbia expects that the sectors that will be most impacted by climate change, and in particular rising temperatures, include agriculture, hydrology, forestry, human health and biodiversity (First Nationally Determined Contribution, 2017).

3.1.1 Characteristics of target areas

3. **Central Serbia:** Central Serbia covers the central part of the country with its hilly terrain traversed by rivers, and the southern third of Serbia dominated by mountains. It is comprised of four regions: Belgrade region, Region of Šumadija and Western Serbia, Region of Eastern Serbia and Region of South and Eastern Serbia. Central Serbia has a total surface area of 55,975 km² that represents 63.25 percent of the of the country's territory. Central Serbia covers three mountainous systems: the Carpathian-Balkan Mountains in the eastern part, the Dinarides mountains in the western part and the Rodopy mountains in the southern-eastern part of the country. Only few mountain peaks in Central Serbia are higher than 2000 m. a.s.l., and the highest one is Midžor at Stara Planina Mountain with an altitude of 2168 m a.s.l. There are more than 20 mountains with altitudes ranging from 1500 to 2000 m a.s.l. Forest cover of the Central Serbia region is 37.6 percent according to the results of the 1st National Forest Inventory (NFI), while other wooded land covers 6 percent. The most extensive forest complexes are found in the mountainous parts of Central Serbia, with broadleaves prevailing in the eastern part, and conifers in western part of the country.¹⁷

4. The climate of Central Serbia can be described as temperate continental with more or less pronounced local characteristics. The spatial distribution of climate parameters is conditioned by geographical position, relief and local influence, terrain exposure, presence of river systems, vegetation, urbanization, etc. Annual precipitation amounts increase on average with altitude. In the lower regions the annual precipitation ranges from 540 to 820 mm, areas with altitude over 1000 m have 700 to 1000 mm, and some mountain peaks in southwestern Serbia receive up to 1500 mm. Most of Serbia has a continental precipitation regime, with more quantities in the warmer half of the year, except in the southwestern parts where the highest precipitation is measured in autumn.¹⁸

5. A continental climate prevails in the mountainous areas of over 1,000 metres. The climate in the Serbian southwest borders on the Mediterranean subtropical and continental. Central Serbia is rich in diversity of forest tree species and forest types. Along the riverbanks of Danube and Sava, forests are characterized by *Salix*, *Ulmus* and *Betula* forest types, followed by *Fraxinus-Alnus* and *Quercus robur* forests in low plains. In hilly and mountainous regions, 38 beech and oak forest types are found (*Fagus sylvatica* and *Q. pubescens*, *Q. frainetto*, *Q. petraea*, *Q. cerris*) together with conifer forest species on high altitudes (*Abies alba*, *Pinus silvestris*, *P. nigra*, *Picea abies*) in pure or mixed forest types.

6. **AP of Vojvodina:** Vojvodina is an autonomous province (AP) that occupies the northern part of Serbia, bordered to the south by the national capital Belgrade and the Sava and Danube Rivers, with Novi Sad being the second-largest city in Serbia and administrative center of the region. AP Vojvodina has a total surface area of 21,500 km² (about 28 percent of the country's territory). It is part of the Danube-

¹⁷ A significant amount of information for this chapter has been extracted from four Working Papers that form part of the Full Funding Proposal.

¹⁸ https://www.hidmet.gov.rs/latin/meteorologija/klimatologija_srbije.php

Kris-Mures-Tisa Euroregion. Vojvodina occupies the southeast part of the Pannonian Plain which remained when the Pliocene Pannonian Sea dried out, and is rich in fertile loamy loess soil, covered with a layer of chernozem type of soil. The most distinctive landscape features are two mountains, namely Fruška Gora Mountain in the west and Vršac Mountain (with the highest peak in Vojvodina, 641 m above sea level) in the south-eastern part of the region.

7. Forests in AP Vojvodina are very unevenly distributed and mostly located along rivers where they form smaller or larger forest complexes. In addition, there are significant forest areas in the hilly and mountainous parts (Fruška gora, Vršački breg) and the undulating hills of the Deliblato Sands.

8. The climate of the area is moderate continental, including cold winters and hot, humid summers. The Vojvodina climate is characterized by a vast range of extreme temperatures and irregular rainfall distribution per month.¹⁹ As a region with highly productive agricultural soil, it is subject to, and endangered by, different destructive processes, primarily wind erosion. Wind erosion causes the detachment and transport of the most fertile particles of the arable topsoil, permanently changing its fertility properties.

9. Summer temperatures in Vojvodina can reach up to 40°C, although the average temperature is around 22 °C, while in winter it may go down to -29°C. In Vojvodina, forest areas are concentrated in the river valleys and on the mountainous areas of Fruška gora and Vrsacki breg. Forest types in river valleys are characterized by pedunculate oak forests (*Quercus robur*) as well as poplar (*Populus x euramericana*) and willow (*Salix alba*) plantations with *Fraxinus angustifolia*, *Ulmus minor*, *Ulmus laevis*, *Carpinus betulus*, *Populus alba*, and *Populus nigra*. Mixed sessile oak forests (*Quercus petraea*) are prevalent on Fruška gora and Vrsacki breg with mostly *Tilia tomentosa*, *Fagus sylvatica* and *Prunus avium*. In floodplain forests, the occurrence of invasive species is on the rise, mainly of *Amorpha fruticosa*, *Ailanthus altissima*, *Acer negundo* and *Fraxinus pennsylvanica*.

10. In addition to the changing climate conditions, salt affected soils, thereby further hampering the planning of future afforestation. It is estimated that about 106,622 ha of salt-affected areas, or about 4.2 percent of the territory, occur in the AP of Vojvodina. Different types of salinized soils are found mainly in Southern-Bačka, Banat and Srem sub-regions²⁰. Salt dissolved in water disturbs the life functions of the vegetation and is toxic in higher concentrations. In certain parts of AP Vojvodina, the salinization and/or alkalization of soils have been caused by fluctuating saline groundwaters which exert their harmful influence on the upper soil layers.

3.2 Environmental context

11. Some of the major environmental issues identified in Serbia include air pollution around Belgrade and other industrial cities; water pollution from industrial wastes dumped into the Sava which flows into the Danube; inadequate management of domestic, industrial, and hazardous waste; and deteriorating soil quality – but also deforestation and climate change. A large part of the territory is endangered by floods, the risk of potential flooding also exists where protective systems have been built. Erosion processes threaten about 90 percent of the state territory, and 80 percent of agricultural soils.

12. Forest degradation, along with resulting habitat loss and fragmentation, is one of the key

¹⁹ <https://www.degruyter.com/document/doi/10.1515/geo-2019-0029/html>

²⁰ <http://www.agroekologija.com/agri-conto-cleen/wp-content/uploads/2014/10/Popravka-halomorfnih-zemljista.pdf>

environmental problems at present, resulting in loss of forest carbon, biodiversity and other key ecosystem goods and services, including the potential to act as carbon sinks. Root causes of forest degradation include illegal extraction of timber, the overexploitation of wood biomass at local level due to the high forest dependency for energy, abandonment of rural areas, lack of financial and knowledge capital of landowners, more frequent forest fires, as well as pressures from the agriculture, energy and construction sectors. It is estimated that about 6.47 percent of the total territory of Serbia is degraded (UNCCD default data 2001-2015). The annual cost of land degradation in Serbia is estimated at USD 254 million. This is equal to 7.6 percent of the country's agricultural GDP.

13. In a 2015 study carried out by FAO, it was found that woody biomass is mainly derived from forests or a combination of wood and other solid fuels for heating is used in 37.1 percent - or 934.237 - of Serbian households, as alternatives like electricity and natural gas are not financially accessible for the most and especially for the poor (10.5 percent of the total population in rural areas). Therefore, fuelwood extraction remains the main anthropogenic driver of forest degradation. In addition, based on climatic trends and projections, the adverse impacts from pests, diseases, fires and climatic hazard on forests due to climate change are projected to increase both in frequency and area. This will further reduce forest's capacity to provide for carbon removals as well as for ecosystem services (e.g. fuelwood, non-wood forest products, protection/disaster risk reduction) for the people living in rural settlements and beyond.

14. It is estimated that about 6.47 percent of the total territory of Serbia is degraded (UNCCD default data 2001-2015). The annual cost of land degradation in Serbia is estimated at USD 254 million. This is equal to 7.6 percent of the country's agricultural GDP.

3.2.1 Forestry

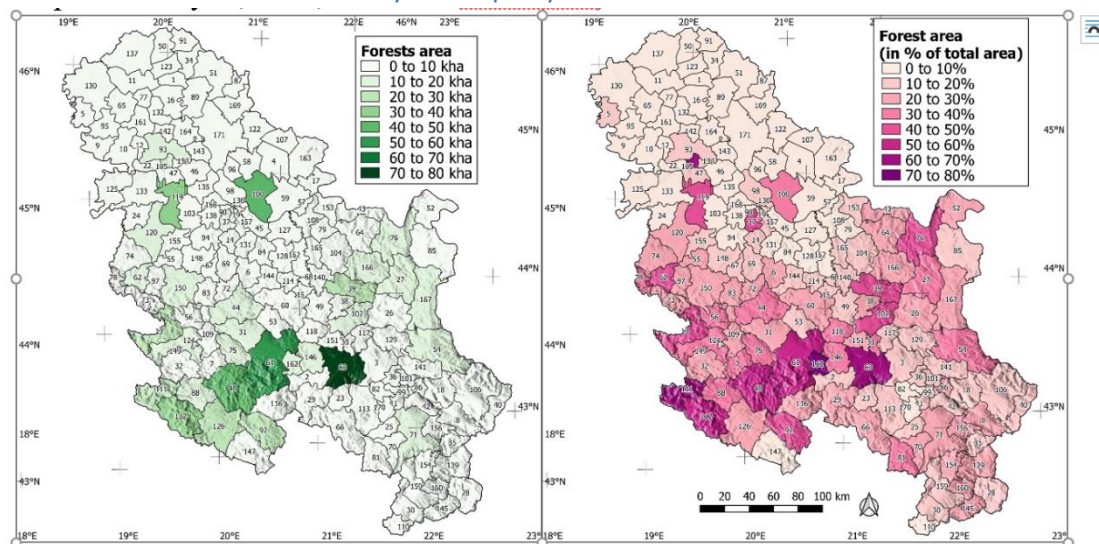
15. An in-depth analysis of Serbia's forestry sector can be found in the "Working Paper of the Full Project Funding Proposal and Feasibility Study", from which parts have been extracted for this section. The Working Paper provides the detailed technical information on status and projections.

16. Before the 18th and 19th centuries, around 75 percent of Serbia was covered by forests. Mainly due to demographic pressures and related land conversions into agricultural areas, especially grasslands, forest area decreased to almost 15 percent before the Second World War. Today, Serbian forests cover 2,252,400 ha of the land area, of which 1,498,000 ha (66.5 percent) are classified as forests with mainly productive functions. In 2008, forest contributed to approximately 2.3 of the national GDP, decreasing to about 1.4 percent in 2021 (2021 Forest Development Agency)²¹. Despite this, forestry is, after agriculture, the most important activity in rural areas of the country. Yet its potential is far from being fully utilized and does not factor in the value of important marketable forest ecosystem services (e.g. carbon removals, biodiversity and protection) (Šijačić-Nikolić et al., 2020).

17. Forest cover is quite different between the regions, with 37 percent in Central Serbia compared with 6 percent in Vojvodina region, as well as within the regions and municipalities (see Figure 4).

²¹ <https://ras.gov.rs/uploads/2021/12/ras-forest-based-industries-small-1.pdf>

Figure 4. Distribution of forest cover by municipality in Serbia in 2012



Source: Census of Agriculture, 2012 (Statistical Office of the Republic of Serbia, 2020).²²

18. According to the official results (published in 2009) of the 1st National Forest Inventory (NFI) carried out from 2004-2006, the forest cover of Serbia amounted to 2 252 400 ha in 2008 or 29.1 percent of the total land area of Serbia. This is however considerably less than the 41 percent projected for 2050 by the Land Degradation Neutrality (LDN) goals for Serbia defined under the Target Setting Programme²³ and the 2021 Law on Spatial Planning of the Republic of Serbia. The category “Other wooded land” (e.g. thickets), which by international definition also includes shrubs and bushes, covers 4.9 percent of the territory. Out of the total forest area, 1,498,000 ha (66.5 percent) are classified as forests with mainly productive functions, contributing to about 2.3 percent of the national GDP in 2008.

19. According to data provided by the Statistical Office of the Republic of Serbia, annual felling has steadily been increasing during the last decade except for 2020 when COVID-19 pandemic restrictions and sufferers affected production. The largest share of production is fuel wood (more than 50 percent), followed by industrial and technical wood with around 40 percent of the total wood harvest; the rest of the production is classified as wood residue.

Table 8. Forests of Serbia by region and the 30 administrative districts

District	District area (ha)	Forest cover 2000 (percent)	Forest area (ha)	Decrease (2000-2013) (percent)	Summary of changes (2000-2013) (percent)	Absolute change in forest cover (2000-2013) (ha)
Borski	351733	38,618	0,002	0,004	-0,002	-789
Braničevski	386780	38,410	0,003	0,002	0,001	481
The City of Belgrade	323713	16,612	0,004	0,006	-0,002	-796
Zaječarski	363255	39,293	0,002	0,003	0,000	-88
Zapadno Bački	248456	6,555	0,002	0,006	-0,004	-1031
Zlatiborski	616114	43,389	0,011	0,002	0,008	5165

²² The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

²³ https://knowledge.unccd.int/sites/default/files/ldn_targets/2020-03/Serbia_LDN_TSP_Country_report_percent28English_percent29.pdf

Jablanički	276826	42,601	0,006	0,004	0,002	656
Južno Banatski	424254	8,009	0,003	0,003	-0,001	-293
Severno Bački	402448	6,957	0,003	0,006	-0,003	-1273
Kolubarski	247463	29,777	0,002	0,002	0,000	-14
Kosovski	312447	29,033	0,004	0,007	-0,003	-797
Kosovskomitrovački	205430	35,979	0,006	0,005	0,001	192
Kosovskopomoravski	142930	26,562	0,009	0,012	-0,003	-484
Mačvanski	326808	26,600	0,002	0,002	0,000	-22
Moravički	302495	46,162	0,008	0,002	0,006	1798
Nišavski	273459	32,558	0,003	0,003	0,000	70
Pečki	255971	22,962	0,006	0,010	-0,004	-1140
Pirotski	276296	41,139	0,005	0,003	0,001	334
Podunavski	124187	9,569	0,001	0,000	0,001	89
Pomoravski	259805	37,019	0,002	0,002	0,001	152
Prizrenski	174889	21,568	0,002	0,004	-0,003	-442
Pčinjski	351215	41,404	0,013	0,007	0,006	2246
Rasinski	266537	40,048	0,007	0,001	0,005	1431
Raški	392680	48,732	0,011	0,003	0,008	3094
Severnobanatski	233036	1,710	0,001	0,002	-0,001	-205
Severnobački	178148	1,790	0,001	0,001	0,000	-11
Srednjobanatski	326286	2,430	0,001	0,002	-0,001	-290
Sremski	347827	15,011	0,003	0,009	-0,006	-2030
Toplički	220999	45,583	0,004	0,003	0,001	274
Šumadijski	237925	28,843	0,001	0,001	0,000	-10
Republic Of Serbia	8850414	28,454	0,005	0,004	0,001	6047
Ap Vojvodina	2160456	6,718	0,002	0,005	-0,002	-5123
Central Serbia	5598291	37,277	0,005	0,003	0,002	13959
Autonomous Province of Kosovo and Metohija	1091667	27,411	0,005	0,008	-0,002	-2668

Source: Stojanović, Dejan B., Bratislav Matović, and Saša Orlović. "Trendovi promene stepena šumovitosti u republici Srbiji/Forest cover change trends in the Republic of Serbia." Šumarstvo/Forestry (2015).

20. According to data submitted within the framework of the FRA 2020 reporting, the Serbian forestry sector employed in 2015 in total 9,090 persons, thereby providing livelihoods mainly for rural people and their families. 7,270 persons were engaged in silviculture and other forestry activities²⁴, 910 in logging operations, 450 in gathering of non-wood forest products (NWFP) and 460 in support services to forestry²⁵. The share of women employees was around 16 percent (1,450 women)²⁶.

21. Reportedly ([NDP, 2020](#); [NAP 2021](#)), drought in Serbia has become more frequent since 1990 (+0.7 events per decade). Temperature and precipitation variabilities could lead to increased periods of drought and a faster expansion of forest fires (SNC, 2017), as well as decreased forest vitality and decreased soil water content as a result of these climatic factors (TNC, 2020). This adds to the fact that the state of the total growing stock of forests in Serbia is unsatisfactory due to low standing volume of about 161 m³·ha⁻¹; a low annual increment of about 4.0 m³·ha⁻¹; and an unfavourable structure (high stands 27.5 percent,

²⁴ This class includes: - growing of standing timber: planting, replanting, transplanting, thinning and conserving of forests and timber tracts - growing of coppice, pulpwood and firewood - operation of forest tree nurseries These activities can be carried out in natural or planted forests. Source: <https://unstats.un.org/unsd/classifications/Econ/Detail/EN/27/0210>.

²⁵ This class includes carrying out part of the forestry operation on a fee or contract basis. This class includes: (i) forestry service activities: forestry inventories, forest management consulting services, timber evaluation, forest fire fighting and protection, forest pest control; and (ii) logging service activities: transport of logs within the forest. Source: <https://unstats.un.org/unsd/classifications/Econ/Detail/EN/27/0240>

²⁶ Global Forest Resources Assessment 2020 - Country Report Serbia.

coppice regenerated stands 64.7 percent, artificially established stands 6.1 percent and plantations: poplar and willow clones 1.7 percent of the total forest area) ([Böhling, 2021](#)).

22. In general, the status of both State and private forests is considered unsatisfactory due to the total growing stock of forests as revealed by the results of the National Forest Inventory in 2008, which is below the forests' potential capacities. The results indicated a low standing volume of about 161 m³/ha; a low annual increment of about 4.0 m³/ha; and an unfavourable structure. However, State-owned forests with an active management of forest resources are characterized by a higher average volume of 185 m³/ha and annual increment of 4.5 m³/ha. Private forests are poorer in the quantitative sense, with average volume 133 m³/ha and a current volume increment 3.5 m³/ha. Regarding the differences in productivity, it can be concluded that the loss in coppice forests is about 3,500,000 m³ per year compared to high forests.

23. Forest ecosystems in Serbia are systems highly sensitive to climate change, and species that are already threatened are particularly vulnerable to the impacts of climate change ([CCA, 2022](#)). In addition to their immediate life supporting function, forest biodiversity is also a source of livelihoods for rural communities providing mushrooms, herbs, honey and berries, among others. These sustain traditional markets and fully depend on health and diversity of forest ecosystems. Forestry is one of the most vulnerable sectors to climate change due to its exposure to episodes of precipitation deficit, droughts, increased temperatures, extreme weather events (e.g. storms), fires, pest outbreaks and diseases ([NAP, 2015](#); [SNC, 2017](#); TNC, 2020). The reported projections predict a worsening of the current state; temperature and precipitation variabilities could lead to increased periods of drought and a faster expansion of forest fires (SNC, 2017), as well as increased pest outbreaks and decreased forest vitality and decreased soil water content (TNC, 2020). This adds to the fact that the state of the total growing stock of forests in Serbia is unsatisfactory due to a low standing volume of about 161 m³·ha⁻¹ and a low annual increment of about 4.0 m³·ha⁻¹.

24. Climate change is already impacting forests in Serbia and the reported projections predict a worsening of the current state. Temperature and precipitations variabilities could lead to increased periods of drought and a faster expansion of forest fires (SNC, 2017), as well as increased pest outbreaks and decreased forest vitality and decreased soil water content as a result of these climatic factors (TNC, 2020). In particular, increasing temperatures are increasing the number of outbreaks of herbivores insects like *Corythucha arcuate* and *Pytiogenes chalcographus* that led to extensive mortality of *P. abies* causing severe ecological and economic losses ([Stojanovich, 2021](#)). This adds to the fact that the state of the total growing stock of forests in Serbia is unsatisfactory due to low standing volume of about 161 m³·ha⁻¹; a low annual increment of about 4.0 m³·ha⁻¹; and an unfavourable structure (high stands 27.5 percent, coppice regenerated stands 64.7 percent, artificially established stands 6.1 percent and plantations: poplar and willow clones 1.7 percent of the total forest area) ([Böhling, 2021](#)).

25. Current forest degradation is also leading to a less diverse species composition and less structured forests that is impacting the habitats of wildlife and wildlife migration, with negative effects on biodiversity. In that sense, small changes may lead to large disturbances including forest decline, outbreaks of insect pests and diseases and eventually mortality. Forestry²⁷ is, after agriculture, the most important activity in rural areas of the country. In a business as usual (BAU) scenario, forest degradation will have a direct impact on Serbia's biodiversity as fires, pests and die out of trees will compromise the

²⁷ Agriculture, forestry and fisheries sector represent a share of 6.3 percent in total GDP (2018) (19.7 percent in 1995). Forestry and timber industry account for 5.7 percent of the total exports. Forestry enterprises employ around 4,957 people (average annual in 2017). The GDP's share of forestry, without the participation of the processing timber is 0.3 percent. Tourism is also a relevant activity in Serbian forests and contributes to about 1.4 percent.

health of ecosystems and accelerate the disappearance of important species of flora and fauna. Forest stands will be less diverse and even more exposed to climate changes with immediate adverse impacts on biodiversity and therefore on ecosystem resilience and ultimately on the livelihoods of the most vulnerable segments of the population.

26. The rural population is heavily dependent on fuel wood as the cheapest and often only accessible source of energy in rural areas to meet their minimum energy needs for cooking and heating. This situation, combined with the increasing export of wood fuels to satisfy the demand in particular from Western European countries over the last decades, leads to the degradation of easily accessible forest stands (64.7 percent of the degraded coppice) as a consequence of the continued extensive often illegal fuelwood cutting at levels which cannot be sustained without further depleting the country's forest resources. The situation is further exacerbated by the utilization of inefficient wood stoves for heating and cooking and lack of or poor thermal insulation of houses in rural areas.

3.2.2 Energy

27. Biomass use (almost exclusively fuelwood for heating) has a long tradition in the country and is utilized in rural (67 percent of total consumption) and urban areas (33 percent of total consumption). Nonetheless, consumption per capita is lower than in neighbouring countries and considerably lower than in countries like Austria and Finland.

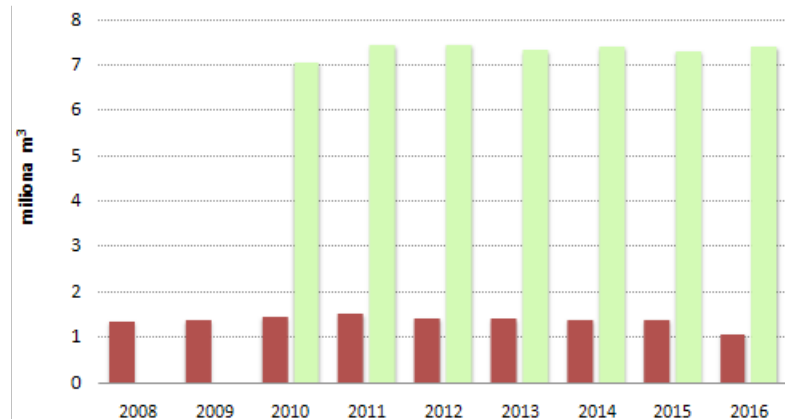
28. Average fuelwood consumption is estimated to be 9 m³ of stacked wood, and ranging from 0,12 m³/m² in urban areas to 0,18 m³/m² in rural areas. Biomass is used to 81 percent in autonomous heating systems like stoves and to a significant share also in central heating systems (18 percent). While 65 percent use the energy source next to heating also for cooking, only 2 percent use it for water heating (37).

29. Energy from fuelwood has a share of 3.4 percent of the gross final energy consumption and 25 percent among RES. According to the WISDOM study commissioned by FAO, the contribution might however be significantly underestimated and could correspond to 11.6 percent of the total energy consumption. In 2010, for example, official statistics showed only a consumption of 1.45 mln m³, while research estimations concluded that consumption was 7.05 mln m³ (from forest resources and outside forest resources). The difference in the numbers is mainly attributable to the fact the private forest owners often informally outsource wood cutting to contractors, with little or no State control over results. Most of the remaining RES in the final energy consumption come from hydroelectricity (4) and to a lesser extend from wind, solar energy and geothermal energy.

30. The different types of woody biomass fuels are fuelwood, briquettes, wood chips and pellets. In Serbia, pellet production has seen the fastest growth in last decade the fastest growth, corresponding to approximately 5 percent of all fuelwood, in 2016. Briquette production is continuously declining as consumers switch to pellets, and wood chips are mainly utilized by facilities with big boilers. Fuelwood is still the dominant energy source (85 percent) and utilized by 934,237 or 37.1 percent of all households.

Figure 5. Production of firewood in Serbia

Red colour: Official statistics; green: actual production

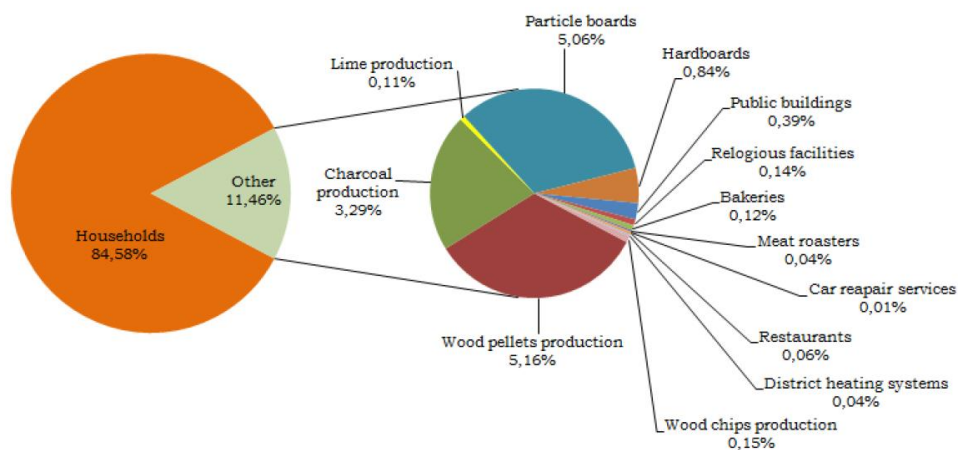


Source: UNDP, 2017. Status of Using Wood Biomass for Energy Purposes in Serbia

31. While the total amount of wood fuel consumed is relatively stable, the amount of wood used for pellets production has been continuously and significantly increasing over the last ten years. The surplus of the carriers is exported. Different types of fuels are used for different consumers; briquettes are used for commercial users and wood chips for large boilers (e.g. industries).

32. The sources for fuelwood are mainly forests (58 percent), followed by trees and bushes from non-forested areas (32.2 percent). The remaining is sourced from pruning from urban trees, post-consumer wood and municipal wood waste. As can be seen in Figure 6, most of the wood fuel is consumed by households (84.6 percent in 2016). Average consumption of firewood was 7.3 m³ in 2010, which is much higher than in neighbouring countries and shows a low efficiency in utilization.

Figure 6. Consumption of firewood in Serbia (2016)



Source: Sustainable utilization of biomass for low emission energy purposes in Serbia (2020).

33. It is worthwhile to note that the remarkable increase in pellet production, but with the export of pellets, Serbia is exporting also cheap energy, while at the same time being dependent from much costlier

energy imports. The average price (from 2006–2015) of heat produced e.g. by natural gas was in fact 2.1 times higher than the one from wood pellets. Serbia is hence exporting low carbon and cost effective resource to other countries that benefit from it, while importing fossil fuels at higher price ([11](#)).

34. In preparation of this project, part of the previously mentioned WISDOM study that was conducted was updated for the regions Vojvodina and Eastern Serbia²⁸. The outcome shows a further increase in wood consumption. In the last decade, the consumption of firewood grew in both regions: in Vojvodina by 14.7 percent, in Eastern Serbia by 6.3 percent.

35. Total consumption of fuels from wood for energy purposes in the two regions during the heating season 2020/2021 was the following:

- firewood 1.6 million m³ in Vojvodina and 1.07 million m³ in Eastern Serbia;
- wood pellets 52,786 tonnes in Vojvodina and 34,419 tonnes in Eastern Serbia;
- wood chips 2,205 tonnes in Eastern Serbia;
- wood briquettes 5,004 tonnes in Vojvodina and 127 tonnes in Eastern Serbia; and
- sawdust 37,972 tonnes in Vojvodina and 13,203 tonnes in Eastern Serbia.

In addition to the use of fuelwood, the consumers from Vojvodina often combine agro-biomass with fuelwood.

36. From a climate change mitigation perspective, fuelwood requires attention and precise strategies to reduce demand and increase quality. As demonstrated in other similar contexts (i.e. Austria, Finland) such reduction can be achieved through increasing fuel wood quality, using the best conversion technology and increase combustion efficiency, thermal insulation in buildings, and optimizing consumer behaviour.

37. The expansion of renewable energy plays an important role in the country's challenge to obtain energy independency. Biomass represents 63 percent of total potential renewable energy sources (RES), and 44 percent of the biomass sources are from forest sources. Since Serbia is currently already using 66 percent of the total technical potential it is important to increase energy efficiency and to exploit the potential of other sources like agricultural biomass (which represents 48 percent of biomass resources and is so far used to a very small degree) and short rotation energy crops in order for the country to be able to meet its RES targets in a sustainable way.

²⁸ Glavonjić, 2021. Inventory of wood energy consumption and GHG emissions from wood fuels in Vojvodina and East Serbia.

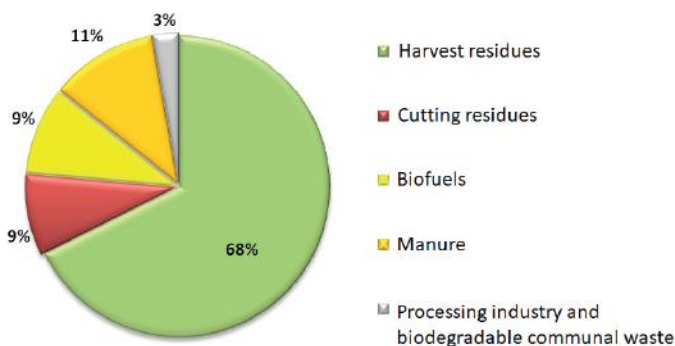
Figure 7. Overview of technical potential of biomass energy use

RES type	Available technical potential in use (million toe/per year)	Unused available technical potential (million toe/per year)	Total available technical potential (million toe/ year)
BIOMASS	1,054	2,394	3,448
Agricultural biomass	0,033	1,637	1,67
Parts of agricultural species	0,033	0,99	1,023
Parts in fruit growing, wine growing and fruit processing	-	0,605	0,605
Liquid Manure	-	0,042	0,042
Wood (forest) biomass	1,021	0,509	1,53
Energy crops	-	-	not available
Biodegradable waste	0	0,248	0,248
Biodegradable municipal waste	0	0,205	0,205
Biodegradable waste (except municipal waste)	0	0,043	0,043

Source: RoS, 2016. Energy Sector Development Strategy of the Republic of Serbia for the Period Until 2025 with Projections by 2030

38. Although its utilization for energy purposes is not as common as with fuelwood, agricultural residues have a significant and so far, largely unutilized potential in Serbia. According to UNDP, biomass from agriculture's real technical potential from agriculture corresponds to 1.532.636,32 tonnes per year, 68 percent of these come from harvesting residues (see Figure 8). While also the other sectors indicated in the figure have limited exploitation potential, the utilization of manure for energy purposes is less feasible on a larger scale, due to the small size of livestock entities in the country.

Figure 8. Potential agricultural biomass for energy purposes



Source: Sustainable utilization of biomass for low emission energy purposes in Serbia (2020).

39. Although harvesting residues are generally considered as potential sources of agricultural biomass, the utilization of rapeseed, corn and sunflower sources is less recommendable and should be considered mainly in case of necessity of additional supply.

40. A study conducted by GIZ presented the agro-biomass potential of agricultural harvesting residues, and for this purpose, analysed ten cities and their surrounding regions distributed throughout the whole country (19). study concluded that most of the potentials for biomass energy are in the AP Vojvodina region, as it has the most favourable land and crop structure (Table 9).

Table 9. Estimated energy potential from agricultural residues in the AP Vojvodina

Total Mass of straw per year (t/year)	7,295,060
Realistic agro-biomass potential 30 percent-50 percent of total production (t/year)	2,200,000 – 3,600,000
Realistic agro – biomass potential (Gwh)	8,800 – 14,400
Potential share of contribution to heat and electricity production for total energy consumption	12 percent-19 percent
Sustainable potential for replacement of heating oil in toe/year	756,666-1,238,117

Source: BioEnergy Serbia. bioenergy-serbia.rs

41. The use of residues for energy purposes is often in conflict with other purposes, like compost and animal bedding production. Furthermore, agricultural experts concur that it is more favourable for the residues to be retained in the field to maintain soil components and quality. There are some other limitations when comparing the value chain to wood biomass, in particular: harvesting usually has to be carried out in short period of time, meaning there is the need to store the resources throughout the whole year. Furthermore, combustion technologies are more expensive. Pellets from agricultural sources are still relatively expensive and therefore not yet competitive yet.

42. As of 2016, short-rotation energy crops plantations (SRPs) were developed for research purposes only, with no commercial plantations of SRPs in Serbia. The 2015 Agricultural Land Law sets the necessary conditions for State land to be leased out for SRP cultivation. State owned agricultural land is approximately 910,000 ha; after subtracting of all the land that is already leased or unsuitable because e.g., they are marginalized, neglected or have unresolved property issues, the land still available corresponds to 170,000 ha, albeit with some yearly variation.

3.2.3 Climate change

43. An in-depth analysis of Serbia’s climate can be found in Annex 24 of the Full Project Funding Proposal. The Working Paper provides the detailed technical information on status and projections.

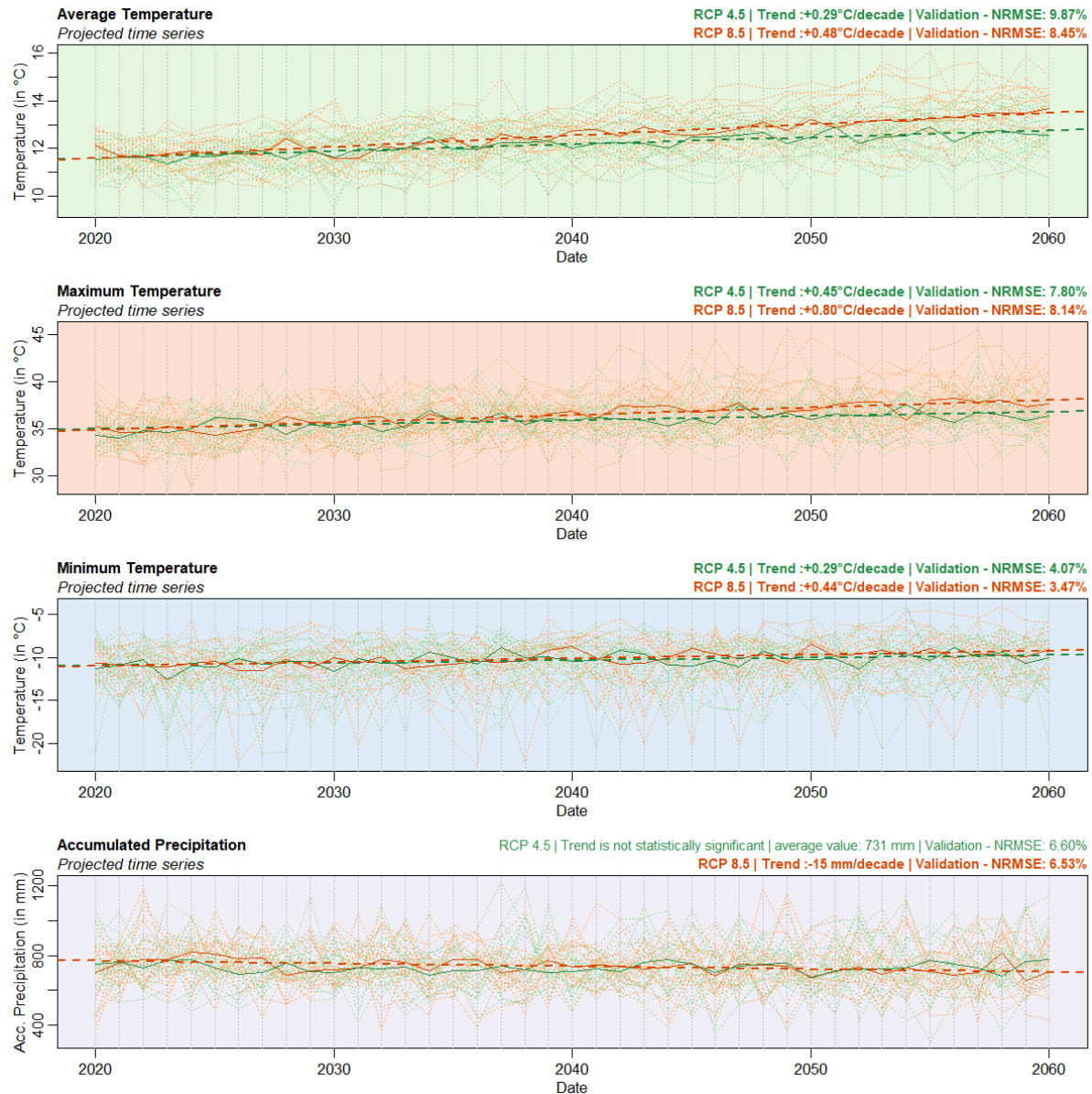
44. **Overview.** Using the Köppen-Geiger climate classification, the climate of Serbia can be defined as a warm-summer humid continental climate. Temperatures reach their minimum in January (average temperature around 0°C) and their maximum in July (average temperature around 21°C). Rain is relatively constant (40 to 55 mm of monthly accumulated precipitation), *with a short* rainy season from May to June, with about 70 mm of accumulated precipitation monthly. Snowfall starts in October, and gradually increases until January when it reaches on average slightly more than 30 mm of water equivalent per month. In terms of precipitation, a wide year to year variation (from 413 mm to 986 mm) prevented the observation of any clear trends for annually and monthly accumulated precipitation (669 mm/year on

average), accumulated wet days (102 days/year on average), precipitation intensity (7 mm/wet days on average) and the duration of the longest dry spell (annually, 27 days on average). The annually accumulated water deficit, Ellenberg's Quotient and Forest Aridity Index presented large year to year variations but not overall statistically significant trends. The absence of trends is confirmed at district levels, too. Finally, although the NDVI did not present any statistically significant variation during the last 20 years, LAI presented a slight increase of 1 unit/decade during the same period.

45. Climate change is expected to intensify its impact in Serbia over the next forty years. To assess the variation and describe the changes of the climate in Serbia for the future (2020-2060), for the purpose of this Project design, an analysis was conducted using 20 downscaled General Circulation Models under two Radiative Pathways Scenarios (4.5 and 8.5). Monthly and annual time series were produced for each model under each scenario, and a median model over all models was calculated for each scenario. Using only statistically significant regressions of annual and monthly time series of each median model, this analysis then established the projected variation trends of 13 climatic indices, over a 40-year period (2020-2060) under both RCP 4.5 and RCP 8.5 scenario, in order to assess their trends of variation and describe the projected changes that the climate of Serbia will undergo.

Figure 9. Projected time series of annual average, minimum and maximum temperature, and precipitation

*Time series over the 2020-2060 period. **Green chart:** annual average temperature. **Orange chart:** annual maximum temperature. **Blue chart:** annual minimum temperature. **Purple chart:** annually accumulated precipitation. **Green dotted line:** single model under the RCP 4.5 scenario. **Green full line:** median model under the RCP 4.5 scenario. **Orange dotted line:** single model under the RCP 8.5 scenario. **Orange full line:** median model under the RCP 8.5 scenario.*



Source: NASA Earth Exchange - Global Daily Downscaled Climate Projections (NEX – GDDP) (Thrasher et al., 2012).

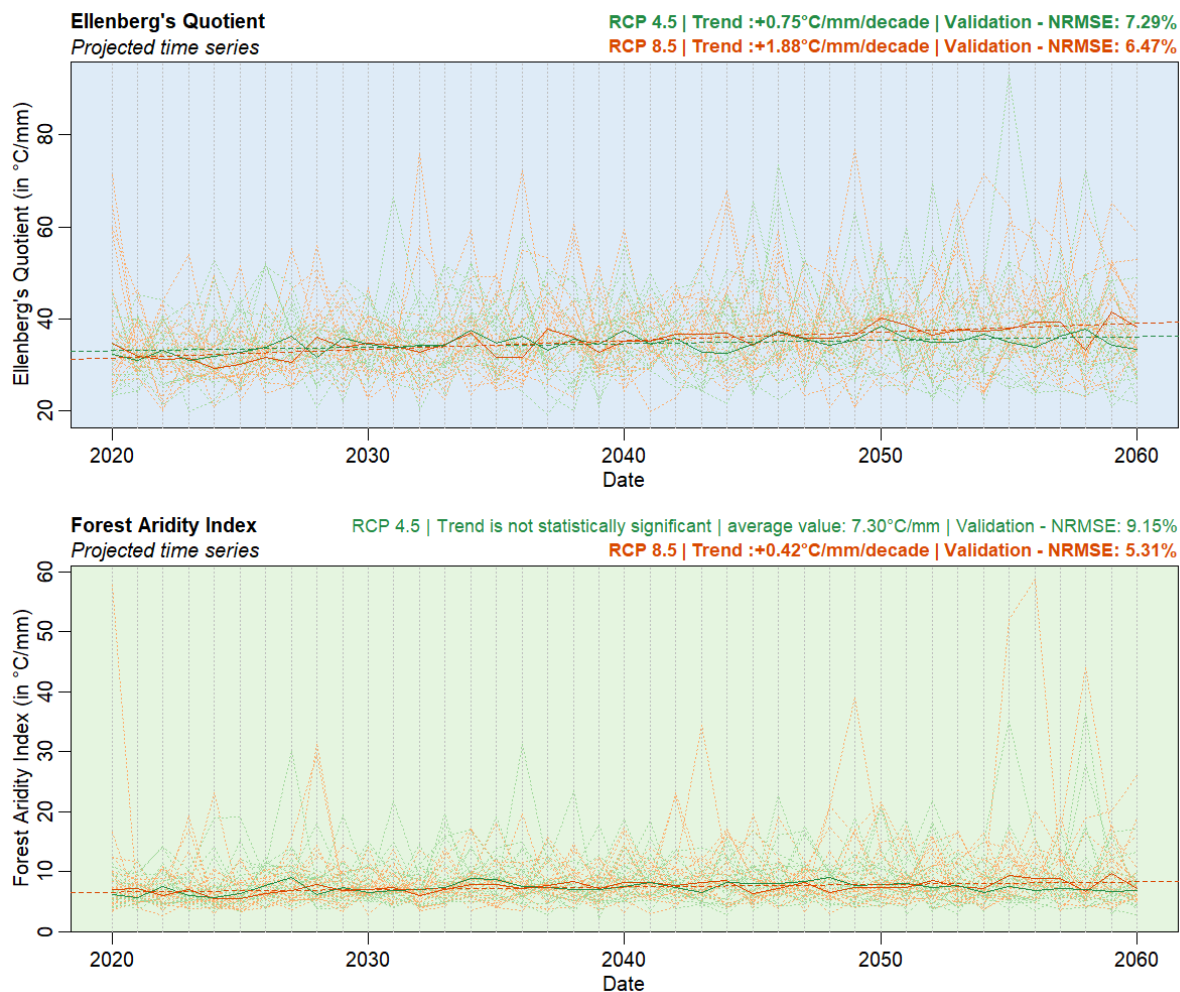
46. Depending on the projected scenarios used, average temperatures are expected to continue its increase (+0.3 or +0.5°C/decade), together with minimum and maximum temperatures. Annually accumulated frost days and ice days are expected to continue their decrease (frost days: -3 or -6 days/decade, and ice days by -0.9 or -1.3 days/decade); tropical nights and summer days are expected to increase (tropical nights +3 or +7 day/decade, and summer days +5 or +7 days/decade). In terms of precipitation, the large year to year variation is projected to continue, while annually accumulated precipitation is expected to decrease (-15 mm/decade) but only under the RCP 8.5 scenario. Annually accumulated wet days are expected to decrease (-2.7 days/year/decade) and the duration of the longest dry spell of the year is expected to increase (+0.6 days/decade) under the same RCP 8.5 scenario.

47. Ellenberg’s Quotient and Forest Aridity Index are expected to increase under both scenario (Ellenberg’s Quotient: +0.5 or +1.2°C/mm/decade depending on the scenario, and Forest Aridity Index:

+0.2 or +0.3°C/mm/decade depending on the scenario). These trends (Figure 10) are confirmed at the district level.

Figure 10. Projected annual time series of Ellenberg’s Quotient and Forest Aridity Index

Time series over 1980-2019 period. **Blue plot:** Ellenberg’s Quotient. **Green plot:** Forest Aridity Index. **Green full line:** data under RCP 4.5 scenario, median model. **Orange dotted line:** data under RCP 8.5 scenario, individual model. **Green full line:** data under RCP 4.5 scenario, median model. **Orange dotted line:** data under RCP 8.5 scenario, individual model.



Source: NASA Earth Exchange - Global Daily Downscaled Climate Projections (NEX – GDDP) (Thrasher et al., 2012).

48. **GHG emissions.** Without removals, total GHG emissions in Serbia amounted to 62,683 kt CO₂ in 2018 (TNC, 2020). The energy sector²⁹ is the main emitter and represents 78 percent of total GHG emissions (2018 data, TNC, 2020) with 49,204 kt CO₂. The second largest GHG emitting sector is Agriculture, Forestry and Land Use (AFOLU)³⁰ at around 7 percent, followed by Industrial Processes and Product Use (IPPU) and the waste management sectors. Total GHG emissions have increased by 9 percent over the 2000-2018 period due to an increase of diesel and gasoline consumption in road transport (TNC, 2020). The forestry sector contributed to CO₂ removals for an amount of 7.4 percent of Serbian’s

²⁹ The highest share of share of GHG emissions comes from energy industries. Energy is largely relied on Coal, Natural Gas and Oil, (87 percent aggregated (IEA,2018).

³⁰ GHG emissions in the AFOLU sector are mainly due to enteric fermentation and manure management: about 45 percent of those GHG come from direct and indirect emissions of CH₄ and N₂O.

emissions equivalent (GFA, 2019), but at the same time CO₂ removals from the atmosphere in the whole LULUCF sector decreased by 19.4 percent between 2010 and 2015, due to rising consumption of solid biomass (fuel wood) and use of technical wood. In the business-as-usual scenario, total GHG emissions are expected to increase by 3.2 percent by 2030 and by 10.7 percent by 2050 (compared to 2010 levels). The biggest relative sectoral increase by 2050 is expected in the IPPU (+41.8 percent) and transport sectors (+41.2 percent), followed by energy industries (+13.4 percent) and agriculture (+7.8 percent) (TNC, 2020).

49. The Serbian industry is responsible for 69 percent of the country's GHG emissions, with the energy **industry** alone contributing to 52.6 percent followed by IPPU with 9.5 percent³¹ and the manufacturing and construction industries with 7.5 percent of GHG emissions. In the BAU scenario, industrial emissions are estimated to further increase by 9.8 percent until 2050 (TNC, 2020). Consequently, the different sectoral policies established emission reduction targets to be reached in the next decades, in particular through investments in energy efficiency and renewable energy. Such decarbonization practices are also part of the EU Climate Action 2050 and the EU Green Deal. Nonetheless, the governance of the decarbonization process is still in its initial phase and requires support to enable the country to reach its targets and to align its actions to the EU strategy.

50. In response to the above challenges and adverse impacts on forests, and considering the national targets and international commitments of Serbia (climate change mitigation and adaptation, and decarbonization), there is a pressing need to adapt the forestry sector, increase forest cover, enhance the sustainability of forest management and forest's ecosystem services, and to boost the decarbonization governance of the country to mitigate climate change impacts and increase carbon removals from forests, to support the decarbonization path of the country. These measures will also bring a broad range of co-benefits for the entire society³², including the possibility for private sector operators to offset³³ part of their emissions, and for the agricultural sector to benefit from forestry investments in the form of shelterbelts and windbreaks. Therefore, reducing the degradation of forests, introducing climate adaptive silviculture³⁴ practices and increasing the forest cover, including by establishing shelterbelts/windbreaks³⁵ in agricultural areas, are national priorities as they will contribute to both climate change adaptation and mitigation without compromising the livelihood of people and supporting the disaster risk reduction (DRR) actions of Serbia - including reductions in grey infrastructure needs and costs.

51. Finally, forests are not only of environmental but also socio-economic importance as they are the main – and often only – source of heating and cooking energy for the rural population and for the poorest. The average expenditure for energy accounts for about 16.7 percent of the total household income and is hence higher than the threshold for energy poverty (= 10 percent of HH income to cover energy demand). Therefore, the need to satisfy the future fuel wood demand through the sustainable use of forest resources and to address at the same time forestry-decarbonisation nexus³⁶ is evident. Without a

³¹ The metal industry is responsible for 63 percent, the mineral industry and the chemical industry for 9.6 percent of emissions and 4.5 percent of emissions are attributable to "product uses as substitutes for ozone depleting substances".

³² Reduced net emissions will benefit the whole Serbian society. Beneficiaries from trainings and incentives are local technicians, professionals, and representatives of the private sector. These will be specified later at design stage.

³³ The price of offsets is currently being studied. A detailed market analysis and pricing strategy for the country will be provided with the full funding proposal.

³⁴ Tailored to the Serbian context from the experience of the US Forest Department, of the Spanish, Italian and French forestry sector as well as from concrete experiences in Lebanon and Armenia where adaptation of forests is considered a series of practices and actions (from seedling to maintenance) needed to enhance the ability of forest ecosystems to adapt and survive in the projected climate scenario. These include: the preparation of drought resistant seedlings; the use of clear handling and planting procedures and specific maintenance protocols.

³⁵ Establishing shelterbelts/windbreaks will not only raise the share of forest cover where most needed (e.g.: Vojvodina and Southern and Eastern Serbia (GFA, 2019; NAP report, 2020)), but also reduce the negative impact of wind erosion on agricultural production and prevents burying of drainage and irrigation canals.

³⁶ The forest-decarbonisation nexus is the connection or series of connections linking forests and their state to the decarbonisation process of Serbia.

strong and climate adaptive forestry sector the low carbon development and the renewable energy strategies of the country will remain incomplete and targets unmet.

52. The importance of healthy forests for mitigation actions has also been considered in the Low Carbon Development Strategy that states, as its general objective, to reduce total GHG emissions by 33% by 2030 and by at least 65% by 2050 (compared to 2010 levels). In order to achieve this, one of the most crucial goals is to increase the carbon sink of the forests by 17% by 2030 and by 22% by 2050 (compared to 2010). This means that the Net GHG Emissions in LULUCF Sector are expected to increase from -4.533 kt CO₂-e in 2015 to -6.576 kt CO₂-e in 2030, i.e. by an additional -2.034 kt CO₂-e, or 136.3 ktCO₂-e per year.

3.2.4 Biodiversity

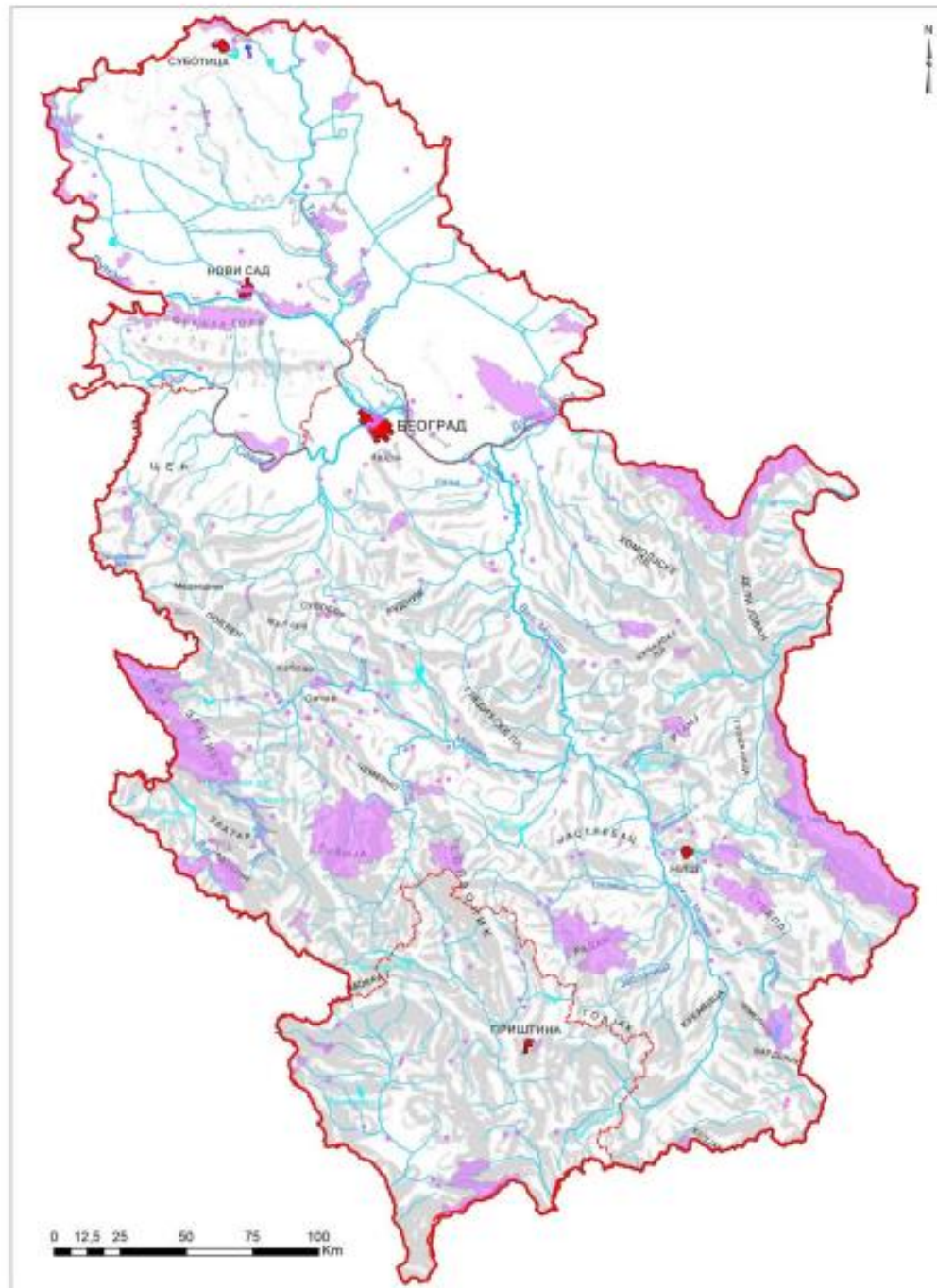
53. Serbia is one of important centres of biological and geological diversity in Europe. According to the criteria of the International Union for Conservation of Nature, Serbia is one of the six European and 153 world centers of biological diversity. It is one of the most important regions of biological diversity in Europe because it is characterized by great genetic, species and ecosystem diversity. The species diversity of this area is shaped by the geographical position and the diversity of ecologically different habitats. Serbia's Second National Biodiversity Strategy and Action Plan (2021) reports that the most important centres of ecosystem diversity with a large number of endemic, relic and endemic-relic communities are: highland areas (Kopaonik, Tara, Šar-planina, Prokletije, Stara Planina and Suva Planina), sandstone and steppe habitats (Deliblatska Peščara and Subotičko-Horgoška Peščara and mosaic salt marshes in Banat and Bačka, in Vojvodina) and refugial areas (Đerdap Gorge, Drina Canyon, Sićevac Gorge, Pčinja River Valley).

54. As of the end of 2020, Serbia's protected areas, designated under the Law on Nature Protection, encompassed a total of 678,237 hectares, representing 7.66% of the country's territory. These areas include five national parks, 18 nature parks, 21 landscapes of outstanding value, 70 nature reserves, six protected habitats, 315 natural monuments, and 36 sites of cultural and historical significance.

55. Serbia has designated 11 Ramsar sites, covering a combined area of 130,411 hectares. These include Peštersko Polje, Gornje Podunavlje, Koviljsko-Petrovaradinski Rit, Labudovo Okno, Ludaško Jezero, Obedska Bara, Slano Kopovo, Stari Begej-Carska Bara, Zasavica, Vlasina, and Đerdap. Đerdap has also been recognized as Serbia's first UNESCO Global Geopark in 2020. Additionally, Serbia hosts two biosphere reserves: *Golija-Studenica* (53,804 ha.), and *Bačko Podunavlje* (176,635 ha.)³⁷

³⁷ Nature Protection Programme of the Republic of Serbia for the period 2021-2023. ([CBD Strategy and Action Plan - Serbia \(English version\)](#))

Figure 11. Map of protected areas in Serbia



Source: CBD Strategy and Action Plan - Serbia (English version). Nature Protection Programme of the Republic of Serbia for the Period 2021-2023. <https://www.cbd.int/doc/world/rs/rs-nbsap-v2-en.pdf> ³⁸

56. In Serbia, there are:

- 3662 species and subspecies of vascular flora (39 % of Europe's vascular flora).

³⁸ The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

- 98 species of lampreys and fish (51 % fish fauna of Europe).
- 45 species of amphibians and reptiles (49 % of fauna of amphibians and reptiles of Europe).
- 360 species of birds (74 % of bird fauna in Europe).
- 94 species of mammals (67 % of European mammals).

The highest level of endemism in Serbia was found among insects and vascular plants.

Under the Law on Nature Protection, wild species that are either endangered or at risk of becoming endangered, or those with significant genetic, ecological, scientific, health, or economic value, are classified as either strictly protected or protected species. The Rulebook on the Declaration and Protection of Strictly Protected and Protected Wild Species of Plants, Animals, and Fungi³⁹ identifies a total of 2,633 wild species for protection.

- **Strictly Protected Species:**
 - Total: 1,784 species
 - Animals: 1,042 species, with invertebrates comprising the majority.
 - Key groups include 50 mammal species, 307 bird species, 18 reptile species, 18 amphibian species, 38 fish species, and 610 invertebrates.
 - Plants and Fungi: Includes 75 species of fungi and lichen, 641 plant species (such as mosses, ferns, and seed plants), and 25 algae species.
- **Protected Species:**
 - Total: 860 species
 - Animals: 253 species, including 30 mammals, 35 birds, 29 fish, two reptiles, three amphibians, and 154 invertebrates.
 - Plants and Fungi: Includes 37 fungi and lichen species and 570 plant species.

57. Serbia is one of the global centres of plant diversity and forest cover; six hundred plant species and 270 animal species are under various categories of threat in Serbia. Of particular importance is the high percentage of endemism and relics that are particularly widespread in mountains and highlands, in cliffs and canyons (NRCDB, 2021). About 60 percent of the endemic plant species in Serbia are endangered.

58. According to Serbia's Sixth National Report on the Implementation of the Convention on Biological Diversity, pressures on biodiversity include habitat fragmentation and destruction, followed by various direct threats from invasive species⁴⁰ and over-exploitation, deliberate killing, harming, disturbing and fatal incidents caused by traffic, infrastructure, pollution etc. Most prominent aspect of the trend of vulnerability and loss of biodiversity is extinction of species; many species in Serbia are very rare and endangered (e.g. Balkan Lynx *Lynx lynx martinoi*, European Souslik *Spermophilus citellus*, Great Bustard *Otis tarda*, Lanner Falcon *Falco biarmicus*, Meadow Viper *Vipera ursinii*, Black Salamander *Salamandra atra*, Beluga Sturgeon *Huso huso*, Tench *Tinca tinca*, Goldfish *Carassius auratus*, Pančić's Grasshopper *Pyrgomorphella serbica*, Edelweiss *Leontopodium alpinum*, Banat Peony *Paeonia officinalis* subsp. *banatica*, Yarrow of King Alexander [*Achilleaalexandri-regis*]).

59. Forests in Serbia include deciduous forest (beech and oak, about 60.7 percent), conifer forests (around 4.7 percent, and mixed deciduous-conifer forests, which cover 33 percent of the area. With regard to autochthonic forest genetic resources, greatest value is seen in endemic and endemo-relict species (*Pinus peuce*, *P. heldreichii*, *Pinus nigra ssp. gocensis*, *Picea omorika*, *Taxus baccata*, *Prunus*

³⁹ [Rulebook on proclamation and protection of strictly protected and protected wild species of plants, animals and fungi \("Official Gazette of RS", No. 5/10, 47/11, 32/16 and 98/16\)](#)

⁴⁰ A total of 346 invasive species (2016 ESENIAS inventory of the invasive species of plants and animals for Serbia; Sixth National Report on the Implementation of the Convention on Biological Diversity).

laurocerasus, *Acer heldreichii*, *Fraxinus pallisae*, *Forsythia europaea*, *Corylus colurna*, *Daphne blagayana*, *D. mesereum* and others). Within forest genetic resources, wild fruit species are important: 88 species of wild fruit have been identified within the natural forest associations of Serbia, 12 of which are endangered (Sixth National Report on the Implementation of the Convention on Biological Diversity, 2019).

60. Vojvodina's landscape is comprised of diverse habitats including agricultural lands, wetlands, forests, and grasslands. A variety of plant species are supported, including both native and introduced species. Vojvodina accounts for about 74% of Europe's bird species and 68% of Europe's mammal species. Key areas include: Gornje Podunavlje Special Nature Reserve, a key biological area; Ludaš Lake and Slano Kopovo, both classified as Ramsar sites; Deliblatska Peščara; Subotičko-Horgoška Peščara; and the Salt Marshes in Banat and Bačka

61. Central Serbia hosts a diverse range of pedological and vegetation ecosystems, forming a mosaic where nearly all European climatic zones, soil types, and biomes coexist and alternate within a relatively small area. The region encompasses various ecosystems, including forests (dominated by coppice forests at 64.7% and high natural stands at 27.5%), grasslands, and aquatic ecosystems. Approximately 1,200 distinct plant communities have been identified in the region. The ecosystems can be categorized as follows:

- Thermophilic sub-Mediterranean deciduous forests, including *Carpinus betulus* and *Ostyio-Carpinion orientalis* forest ecosystems.
- Mesophilic deciduous forests, comprising *Quercus petraea*, *Carpinus betulus*, and *Fagus* species (*Carpinion betuli* and *Fagion moesiacum*).
- Thermophilic deciduous oak forests, primarily *Quercion frainetto*.
- Xerophilic steppe ecosystems, represented by *Festucion rupicolae*.
- Hydrophilic depression pedunculate oak forests, including *Alno-Quercion roboris*.
- Frigophilous coniferous forests of the boreal type, such as *Vaccinio-Piceion*.
- Frigophilous coniferous forests of Balkan relict endemic pines, including *Pinion peucis* and *Pinion heldreichii*.
- Subalpine bush vegetation, encompassing *Pinion mugo* and *Vaccinion uliginosi*.
- Alpine meadows, pastures, and rocky grounds, represented by the vegetation classes *Festuco-Seslerietea* and *Juncetea trifidii*.

62. Protected areas in Central Serbia include: Đerdap National Park (Đerdap Gorge); Kopaonik National Park; Stara Planina Nature Park; Šar-planina (Sharr Mountains); Vlasina Lake, a Ramsar site; Drina Canyon; Sićevac Gorge; and Pčinja River Valley.

63. It is expected that climate change will have an impact on biodiversity through changes in phenological cycles, morphological changes, physiology and behaviour of species, loss of existing habitats and emergence of new species, changes in the number and distribution of species, increased number of pests and diseases, genetic changes, and extinction of species unable to adapt (First Nationally Determined Contribution, 2017). Lastly, current forest degradation is causing a less diverse species composition and less structured forests that impacts the habitats of wildlife and wildlife migration, with subsequent negative effects on biodiversity. In that sense, small changes may lead to large disturbances including forest decline, outbreaks of insect pests and diseases and eventually mortality.

3.3 Socioeconomic context

3.3.1 National context

64. Serbia is a landlocked country located on the Balkan Peninsula (Central Serbia region) with hilly terrain and mountains dominating the southern third of Serbia. Serbia's total surface area is 88,361 km² and a total population of 6,844,078 people⁴¹ (2021). The GDP of the country was around USD 62 billion in 2021, with an annual growth that varied from 4.3 percent (2019) to 7.4 percent (in 2021)⁴². Serbia is an upper middle-income country and its GDP per capita was USD 8.3 in 2021⁴³. The dominant sectors of economy are banking and insurance; lumber industry; energy; construction industry; creative industry; chemistry, pharmacy, rubber and non-metals; Informatics; communal activities; metal and electrical industry; agriculture; metal mines and metallurgy; traffic; textiles and leather; trade; tourism and catering and private security.

65. Agriculture is the largest employer and represents 20 percent of the total employment in Serbia. Agriculture, forestry and fisheries sectors represent a share of 6.3 percent in total GDP (2018) (compared to 19.7 percent in 1995). The forestry and timber industry account for 5.7 percent of the total exports⁴⁴. Forestry enterprises employ around 4,957 people⁴⁵ (average annual in 2017). The GDP's share of forestry, excluding timber processing, is 0.3 percent. Tourism is also a relevant activity in Serbian forests and contributes to about 1.4 percent of the total GDP.

3.3.2 Demographics

66. Serbia is confronting several demographic challenges such as emigration, rural depopulation, and demographic aging. More specifically, the current demographic trend in rural areas is estimated as unfavourable, characterized by continuing population decline, a rise in the average age of the population, falling fertility and birth rates contributing to negative population growth, and high levels of migration from rural to urban areas and beyond to other countries.⁴⁶

67. Life expectancy at birth is 77.1 years for women and 72.0 years for men. The average age of the population in 2018 was 41.4 years, and it is worth noting that the average age of women was higher than the average age of men (42.7 and 40.0 years, respectively). In the same year, the share of the working age population in the total population was 65.5 percent. The population in rural areas is at a higher risk of poverty and social exclusion.⁴⁷ The risk of poverty rate for women aged 65 and over is 23.2 percent, and for men in the same group 18.3 percent.⁴⁸

Table 10. Population in Serbia by regions

District name	Total population			Population in towns			Population in other places		
	Total number	Average age	Over 65 years old (percent)	Total number	Average age	over 65 years old percent	Total number	Average age	Over 65 years old (percent)

⁴¹ World Bank data <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=RS>

⁴² World Bank data <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=RS>

⁴³ World Bank data <https://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG?locations=RS>

⁴⁴ See <http://www.china-ceecforestry.org/country/serbia/>

⁴⁵ Source: Bulletin Forestry 2017, - Statistical Office of the Republic of Serbia

⁴⁶ *Ibid.*

⁴⁷ FAO. 2021. National gender profile of agriculture and rural livelihoods – Serbia. Budapest. <https://doi.org/10.4060/cb7068en>

⁴⁸ Strategy for Gender Equality for the period 2021-2030 year

grad Beograd	1,694,056	42	30	1,386,727	42	29	307,329	44	32
Severnobacki	178,294	43	29	116,728	42	29	61,566	43	30
Srednjobanatski	173,873	43	31	90,034	43	31	83,839	43	31
Severnobanatski	135,453	43	31	86,463	43	31	48,990	43	30
Juznobanatski	277,393	43	31	161,555	43	30	115,838	43	32
Zapadnobacki	171,054	44	33	93,166	44	32	77,888	45	35
Juznobacki	618,829	41	27	444,268	41	26	174,561	42	28
Sremski	297,197	43	30	131,163	42	29	166,034	43	31
Macvanski	277,560	43	31	83,869	42	28	193,691	44	32
Kolubarski	162,165	44	33	71,996	42	27	90,169	46	39
Podunavski	184,994	43	32	98,206	42	29	86,788	44	36
Branicevski okrug	165,635	45	39	69,180	42	29	96,455	47	46
Šumadijski	281,277	43	33	187,130	42	29	94,147	46	39
Pomoravski	197,361	45	37	94,226	43	31	103,135	47	43
Borski	111,152	45	39	65,273	42	27	45,879	50	58
Zajecarski	106,100	47	47	63,751	44	35	42,349	52	68
Zlatiborski	265,638	44	33	139,927	42	28	125,711	46	40
Moravicki	198,490	44	35	111,379	43	31	87,111	46	42
Raski	304,478	39	26	169,177	38	22	135,301	41	29
Rasinski	221,672	45	37	87,524	43	33	134,148	46	40
Nišavski	360,494	44	34	209,234	42	30	151,260	46	41
Toplicki	83,200	44	36	43,552	41	26	39,648	47	48
Pirotski	83,699	46	41	54,641	43	30	29,058	52	64
Jablanicki	198,740	43	32	89,620	42	27	109,120	45	37
Pčinjski	196,431	40	22	91,223	41	25	105,208	39	20
	6,945,235	43	33	4,240,012	42	29	2,705,223	45	39

Source: Statistical Office of the Republic of Serbia, 2017, ISSN 0084_43

68. The population of the **Central Serbia** Region is 5,058,274 inhabitants, where the majority lives in urban areas. Belgrade region is outstanding for its highest population density – 524 inhabitants per km² and its population density is more than five times higher when related to the other regions. Population density in the Region of Šumadija and Western Serbia is 71 inhabitants per km², while the lowest population density was noted for Region of South and Eastern Serbia – 56 inhabitants per km².⁴⁹ Central Serbia is divided into 17 districts with 19 cities and 103 municipalities, and City of Belgrade as separate administrative unit with 17 municipalities.⁵⁰

69. As of 2020, **AP Vojvodina** had a population of 1,840,852 inhabitants (911 thousand live in towns, 929 thousand in villages).⁵¹ The population density in the region is 85 persons per square km. AP Vojvodina is administratively divided into seven districts with 45 municipalities and cities of which eight are considered urban, and 37 are considered rural.⁵²

3.3.3 Gender

70. In recent years, Serbia has demonstrated progress in the public sphere. Over 30 percent of women are in the national parliament and a woman holds the position of Prime Minister. Serbia has recently

⁴⁹ <https://publikacije.stat.gov.rs/G2021/Pdf/G202113048.pdf>

⁵⁰ http://mduls.gov.rs/wp-content/uploads/zakon_o_teritorijalnoj_organizaciji_republike_srbije.pdf

⁵¹ <https://publikacije.stat.gov.rs/G2021/Pdf/G202113048.pdf>

⁵² <https://www.vojvodina.gov.rs/en/vojvodina/o-vojvodini>

scored high results in the EU Gender Equality Index⁵³ (in the domain of power). The value of the Gender Equality Index for Serbia is 48.7 out of 100 (European Union average 65.7)⁵⁴.

71. Despite considerable progress, inequalities are still visible in many aspects, including the private sphere, family, parenthood, or unpaid work, which spills over into the field of paid work; and segregation in the education system and the labour market. Women are in general less active in the labour market and less employed, regardless of education. There is a prevalence of gender stereotypes visible in the private and public sphere, at the discursive and practical level, and violence against women is increasing.

72. The Country Gender Assessment conducted by FAO during 2020-21 highlights significant gender gaps in rural areas of Serbia across diverse dimensions, including access to assets, economic participation, roles in and gains from agricultural production, the exercise of a range of welfare rights, political participation, access to social services, lifestyles and resilience to climate change and emergencies. It was also noted that the COVID-19 pandemic has had a profound impact on the rural population and the position of women in rural areas. The creation of opportunities for innovative approaches and new practices that can improve the economic activity of rural women in the future, and consequently their overall wellbeing, was affected.⁵⁵

73. Education is one of the key emancipation strategies for women in Serbia. Girls enroll and graduate colleges and universities more often than boys (57% of students and 59% of graduates). The share of the female population participating in postgraduate education – formal and non-formal is extremely low, except in cases when women are employed in a state institution, education, or administration when additional education and on-job training are obligatory⁵⁶. This is usually justified by obligations within households and lower mobility. Among those who had a doctorate, there were 57 percent of girls compared to 43 percent of boys.⁵⁷

74. Finally, outward migration from rural areas is more prevalent among women than men, and the reasons for this can be found in women's lower ownership of assets, their weaker ties to land and estates, and their unequal participation in the rural economy. Rural women's living conditions are less adequate in comparison with urban women, especially in terms of access to employment in the non-agricultural sector, and access to education, social services and amenities which are important for the quality of life, such as cultural and recreational amenities, all of which then act as pull factors towards urban areas⁵⁸.

3.3.4 Economy

75. The economy of Central Serbia is diverse. As a part of Serbia is rich with natural resources, a primary sector that includes agriculture and forestry is the basis of development in rural areas. Favourable natural conditions offer the space for the development of diverse agricultural production: cereals, industrial plants, grapes, fruits and vegetables, seeds and planting material, medicinal plants, and large and small livestock. The development of primary agricultural production has enabled and development of the food industry: confectionery, oil industry, sugar, beer, juices, vegetable processing industry, flour, meat, etc.

53 According to the latest Gender Equality Index 2018, Serbia was still a country of pronounced gender inequalities in all domains. These inequalities were significantly more pronounced than the EU average (55.8 vs. 66.2), and progress that has been made (compared to 2016), was very small (3.4).⁵³ One of the main axes of inequality noted by the Index refers to gender segregation, which is established during education and continues later in the labour market.

54 A full description of activities and budget related to gender issues is available in Annex 8 Gender Action Plan. Note added to the text.

55 *Ibid.*

56 FAO. 2021. National gender profile of agriculture and rural livelihoods – Serbia. Budapest. <https://doi.org/10.4060/cb7068en>

57 Strategy for Gender Equality for the period 2021-2030 year

58 FAO. 2021. National gender profile of agriculture and rural livelihoods – Serbia. Budapest. <https://doi.org/10.4060/cb7068en>

The mining industry is also very well developed, bearing in mind that the largest share of electricity in Serbia is still produced from lignite. In addition, the mines in Bor and Majdanpek in the Eastern part of Serbia are producing gold and copper. In the last decade, Central Serbia offered a space for the development of the automotive industry. Serbia is an attractive tourist destination. Natural resources enable the development of spas, mountain, sports and recreational, river and hunting tourism.

76. The economy of AP Vojvodina is based on a developed food industry and fertile agricultural soil, and is the principal area of commercial agriculture, including in the adjacent lowlands south of the Sava and Danube rivers and the valley of the Morava River. Agriculture and has always been a significant part of the local economy and remains a priority sector in AP Vojvodina. The share of agribusiness in the total exports of AP Vojvodina is 10.3 percent (or 22.4 percent with food and drink) (Vojvodina Development Agency, 2019-2020). The metal industry has also a long tradition, but other branches of industry such as the chemical, electrical, oil industry and construction industry, and more recently the ICT sector, are also quite developed. AP Vojvodina pays particular attention to interregional and cross-border economic cooperation, as well as to implementation of priorities defined within the EU Strategy for the Danube Region.⁵⁹

77. Following a mild recession in 2020 due to the impacts of COVID-19, the Serbian economy has since recovered well; the economy grew by 7.4 percent in 2021, mainly driven by private consumption. This was because of a strong increase in salary levels and consumer loans. For the agriculture sector, however, output declined by 5.4 percent in real terms.

78. The Serbian economy was projected to grow at around 4–4.5 percent annually, however this growth is expected to decelerate in 2022 as a consequence of the war in Ukraine and resulting sanctions imposed on Russia. These are expected to have an impact on Serbia’s exports, foreign direct investment (FDI), remittances, and tourism revenues. Subsequently, economic growth projections for 2022 were revised to 3.2 percent. Over the medium term, however, the economy is expected to grow steadily at around 3 percent annually, but poverty reduction is expected to stagnate in 2022 as higher inflation is eroding income gains⁶⁰.

3.3.5 Forest ownership

79. Currently in Serbia, there are no community forests, as these are owned either by the State or by private entities (e.g. individuals, organizations, companies, churches). The main source of legal information for land tenure is the [national digital cadastre](#).

80. In Central Serbia, most forests are privately owned, while the State owns a smaller portion. Around 90 percent of State-owned forests in Central Serbia are managed by the Public Enterprise (PE) Serbia Shume (all FSC certified), while the remaining State-owned forests are managed by PE “National Park Tara”, PE “National Park Kopaonik”, PE “National Park Djerdap”, the Faculty of Forestry “Belgrade” and several other PEs established by local self-governments. Following the Law on Forests, privately owned forests are managed by their owners, while professional activities in these forests are provided by PE Serbia Shume and the PEs of the National Parks. Private forests owned by the Serbian Orthodox Church are either managed by enterprises established by the church, or by private companies contracted by the church.

⁵⁹ <https://www.vojvodina.gov.rs/en/vojvodina/o-vojvodini>

⁶⁰ <https://www.worldbank.org/en/country/serbia/overview>

Table 11. Key figures for forest lands (State and private) in Central Serbia

	State (ha)	Private (ha)
PE Serbia Shume	893,203.50	1,224,751.00
PE "National Park Tara"	20,000.00	27,000.00
PE "National Park Kopaonik"	7,077.02	350.22
PE "National Park Djerdap"	37,000.00	12,150.00
Faculty of Forestry Belgrade	5,809.00	-
PE Shume Goč	8,189.85	3,980.00
Serbian Orthodox Church	-	23,195.73
TOTAL	971,279.37	1,291,426.95

Source: GCF Project Design Team/Official reports

Most of the forests in **AP Vojvodina** are State-owned and managed by the Public Enterprise (PE) Vojvodina Shume, and a smaller part is managed by PE National Park "Fruska gora".

81. There is a certain discrepancy between the geographical and forestry district boundaries of AP Vojvodina and the administrative borders of AP Vojvodina owing to the organization of the State administration. Parts of Srem and Banat in the vicinity of Belgrade administratively belong to the City of Belgrade, and the forests located in that area do not fall under the responsibility of the Provincial Secretariat for Agriculture, Forestry and Water Management. There are also parts that do not belong to AP Vojvodina in the geographical sense, but for the same reasons (due to the organization of the State administration), they administratively belong to AP Vojvodina. These are the areas south of the Sava in the vicinity of Sremska Mitrovica.

Table 12. Key figures for forest lands (state and private) in AP Vojvodina

Ownership	area (ha)	Forest and Forest land				Other land		
		In total	Natural forest	Forest culture	Forest land	In total	Barren land	Other purposes
State - PC "Vojvodinašume"	128,704.16	113,614.25	62,076.23	36,534.79	15,003.22	15,089.91	8,351.85	6,738.06
State - other	17,694.04	12,264.71	6,088.97	3,321.32	2,854.42	5,429.33	3,300.96	2,128.37
State - NP Fruška gora	23,369.53	22,347.08	21,435.70	401.99	509.39	1,022.45	90.94	931.51
State in total	169,767.73	148,226.04	89,600.90	40,258.10	18,367.03	21,541.69	11,743.75	9,797.94
Serbian Orthodox Church	3,718.39	3,249.50	1,062.52	1,784.87	402.11	468.89	355.57	113.32
Private forests	3,484.55	2,896.69	2,628.78	119.90	148.01	587.86	1.38	586.48
State	169,767.73	148,226.04	89,600.90	40,258.10	18,367.03	21,541.69	11,743.75	9,797.94
Private	7,202.94	6,146.19	3,691.30	1,904.77	550.12	1,056.75	356.95	699.80
IN TOTAL	176,970.67	154,372.23	93,292.20	42,162.87	18,917.15	22,598.44	12,100.70	10,497.74

Source: PE "Vojvodina Shume"/Internal records

82. **Overview of areas by ownership category.** The project will not acquire land nor displace people. Forestry investments will only be executed in land owned by the state or by farmers with clear ownership that are free from any dispute as stated in each of the land selection criteria. This will also be guaranteed by the presence of an updated cadaster. Furthermore, all actions related to forestry investments will be discussed with municipalities and communities to ensure that lands are free. Neither the project or the government will expropriate lands or plant on land of dubious ownership. The project will work on land that is no longer suitable for agriculture and therefore

not in use from a productive perspective. Landowners in Serbia are clearly identified via the digital cadaster and no such investment will be made without the consent of landowners. In Table 13, the first and second rows are state-owned land. There are no legal or property right restrictions for afforestation in this category. The third category is private property land. In this case, the consent of the owner is required for performing afforestation works. In addition, if the owner wants to convert agricultural land into forest land, the consent of the Ministry of Agriculture is required. This bureaucratic procedure is not simple and bares costs. The fourth category is state-owned land but is used by a private person (illegally, under the process of restitution; or in court).

Table 13. Overview by ownership category

Ownership	Area for afforestation (ha)	Area (percent)
1. State - organization for forest management	17,404.79	87.0
2. State - other organizations	9.73	
3. Private	2,580.00	12.9
4. Occupied land ⁶¹	14.51	0.1
Total	20,009.02	100

Source: Authors' own elaboration.

83. Forests are owned by the State and by private owners. Therefore, where people without deeds use land, this is done under lease agreements as prescribed by the Forest Law # 30/2010 Article 62, with either the State or private entities. Furthermore, the Law on Nature Protection #36/2009 prescribes that non-timber forest products (NTFP) commercial collection is authorized - within a certain quota - but permitting is necessary (Art. 72-74). Non-commercial collection is free (depending on volumes). If use of NTFP is outside these agreements it is considered illegal harvesting and it is prohibited. Within this Project, persons accessing NTFP will not be impacted as there are no structural changes to forests in forest restoration areas; in afforestation sites these are set aside areas with no specific use. Other uses such as pig grazing in forests and similar activities require official permission from the Department of Forests or the owner of the land. Permission can be granted only if grazing is included in Forest Management Plans and if forest areas are not areas under restoration/regeneration. In all cases animals cannot be left unattended in the forests.

⁶¹ The project will not work in areas where land is illegally occupied.

4. Policy and legal frameworks

84. The following chapter provides an overview of Serbia's existing national policy and legal framework, and nationally signed and ratified international treaties, as applicable to this Project.

4.1 Serbia's regulatory framework

85. The Project will address the needs and priorities reported by Serbia in its NDC(s) (2015 and draft 2020), National Communications, National Adaptation Plan, Low Carbon Development Strategy, EU-related commitments⁶² and other national policy frameworks, in particular for the forestry sector.

Climate Change

86. The **Law on Climate Change 2021** (26/21) is the first stand-alone law on this topic, paving the way to more efficient climate change adaptation, while at the same time reducing GHG emissions. This will also give the necessary push to reach the newly established goals of cutting GHG emission by 33 percent by 2030, significantly increased when compared to the 9.8 percent emission cut by 1990 communicated within the first NDCs. The Law on Climate Change also harmonizes the legal framework with the regulations of the EU that foresee a special green agenda for the decarbonization and sustainable development of the western Balkans in the frame of the Green Deal. This Law foresees the establishment of the national decarbonization facility.

87. **Low Carbon Development Strategy (2023)** outlines five Specific Objectives (SOs) to be reached for a climate resilient Serbian society. Two objectives deal with decreasing GHG emissions in EU-ETS sectors⁶³ (SO1: 15,0% GHG emissions decrease by 2030 and between 66,4% and 76,8% by 2050 compared to 2010) and non-EU-ETS sectors (SO2: 9,7% GHG emissions decrease by 2030 and between 33,5% and 54,5% by 2050 compared to 2010). SO3 addresses the need to increase the forest sink by 17% by 2030 and by at least 22% by 2050. SO4 aims at enhancing the climate resilience of the priority sectors of agriculture, water and forestry. Specific Objective 5 is the promotion of a climate neutral and climate resilient economy and society. The importance of healthy forests for mitigation actions has also been considered in the Low Carbon Development Strategy that declares as its general objective to reduce total GHG emissions by 33% by 2030 and by at least 65% by 2050 (compared to 2010 levels). The Low Carbon Development Strategy gives particular importance to the forestry sector as it offers clear and significant mitigation potentials and important socio-economic benefits but also because it is vulnerable and in need for adaptation measures as reported in each of the three National Communications⁶⁴.

88. Serbia's **Climate Change National Adaptation Plan** (2015) analyses future risks and vulnerabilities in selected sectors (water resources, agriculture, forestry and biodiversity), compared to scenarios of future climate; reviews proposed adaptation measures in sectors that have been identified as the most vulnerable, and analyses progress in the implementation of these proposed measures; assesses loss and damage as a result of long-term changes in climate conditions in Serbia, and as a result of weather and climate extremes; proposes priority adaptation measures and corresponding analysis of their successful implementation in the future; and identifies opportunities and constraints for the integration of

⁶² As an EU candidate country, Serbia aligns its actions to EU-directives and policies and generally to the EU acquis.

⁶³ E.g. Electricity and heat generation, energy-intensive industry sectors including oil refineries, steel works, and production of iron, aluminium, metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids and bulk organic chemicals.

⁶⁴ Hydrology and water resources, forestry, agriculture and health care are considered as the most vulnerable sectors (SNC, 2017) and adaptation measures were developed for each sector accordingly.

adaptation measures in the applicable sectorial strategies, but also in other relevant national plans.

Forestry

89. The **Forest Development Strategy of the Republic of Serbia** (2006) (OGRS, 59/06) is the main strategic document for the forest sector whose main objective is to address “conservation and improvement of the state of forests and the development of forestry from an economy perspective”. One of the guiding principles of the Strategy is the multifunctional role of forests, in particular underlining the irreplaceable role of forests in climate change mitigation and enhancing the capacity of forests to this end. More specifically, the Strategy emphasizes:

- a) The aim to increase of the forest cover in Serbia and, thus, to increase the contribution of forest sector to the State economy. For this purpose, the State committed itself to provide financial and legal assistance for afforestation on lands where it is economically and ecologically beneficial to have forests.
- b) The aim to improve forest resources by conversion of coppice forest into productive high forests. For this measure the State defined commitment for support of its implementation in legal and financial instruments of forest policy.
- c) The aim to ensure the sustainable management of forests as well as the forests’ vitality, health and protection in relation to abiotic and biotic factors which have negative impacts on forests.

90. Serbia’s **Law on Forests** (2010) (OGRS, 30/10) regulates the conservation, protection, planning, cultivation and use of forests, the disposal of forests and forest land, supervision of the law’s implementation, as well as other important forest and forest land related issues.

91. Art. 3 provides for the conditions for sustainable forest management and forest land as good of general interest, in the manner and in the extent that it permanently maintains and improves their production capacity, biodiversity, renewability and vitality, and improves their potential to mitigate climate change, as well as their economic, ecological and social function, without causing damage to the surrounding ecosystems.

92. Art. 4 defines the protection, conservation and improvement of forests as an activity of general interest, which shall, among other thing, lead to: 1) the prohibition of permanent reduction of areas under forests; 2) increase the national forest resources in terms of area and growing stock, as well as to increase the share of State-owned forests (by purchasing private forests), especially in forests with a special purpose; 3) establishing, maintaining and using a national information system in forestry; 4) providing material, expert and advisory support to forest owners; 5) prohibition of alienation of State-owned forests, except in the cases provided for by this Law; and 6) conservation and protection of forests as environmental factors.

93. Art. 6 on the economic functions of forests notably recognizes that forests also mitigate the harmful effects of greenhouse gases emissions by carbon sequestration, oxygen and biomass production, contribute to water purification, supply and protection of underground streams and sources of drinking water, as well as protection of land, settlements and infrastructure from erosion and landslides.

94. Art. 9 prohibits any form of forest devastation and clearing, as well as clear-cutting which is not authorized as the regular form of forest regeneration.

Renewable energy and energy efficiency

95. Serbia is a candidate for membership in the European Union and joined the Energy Community

(EnC) through the adoption of the law ratifying the corresponding treaty in the year 2006 (OGRS, No. 62/06). With this passage the country committed to the implementation of the European directives in the energy sector.

96. Serbia's **Strategy for Energy Sector Development of the RS till 2025 with projections till 2030** (2015) (OGRS, 101/2015) is based on the EU Energy Road Map, and focuses on the modernization of energy facilities and energy efficiency, as well as on the promotion of renewable energy; it proposes a roadmap. The role of the biomass sector in this regard is increasingly important not only for heating but also for the production of electricity.

97. Serbia's **National Action Plan for Use of Renewable Energy Sources** (2013) (OGRS, No. 53/2013) is part of the efforts in place to harmonize legislation with the European Union and applies, among others, Directive 2009/28/EC on renewable energy sources (RES). In this regard it set its aim to increase renewable energy share in the gross final energy consumption (GFEC) from 21.2 percent in 2009 to 27 percent in 2020. This ambitious goal became binding through the Ministerial Council of the Energy Community Decision of 18 October 2012 (D/2012/04/MC-EnC). In line with the provisions of the different EU-Directives and of the Energy Community, Serbia is elaborating and continuously updating its **National Energy Efficiency Action Plans (NEEAP)**, for a time frame of 3 years. Currently the country is elaborating the 4th NEEAP that will be the first one in line with the requirements of Directive 2012/27/EU. The increase in efficiency of household appliances, and hence also biomass combustion technology, is a priority for efficiency strategies. Other important aspects and opportunities have and will be among others the modernization of district heating in the country.

98. Serbia's **Law on Energy** (2014) (OGRS, 145/14) provides an overall outline on safe, secure, and high-quality supply of energy and promotes renewable energy and energy efficiency. The Law introduced several improvements with respect to the use of RES and opened new potentials for investing in the free market. To be highlighted is the system for the mandatory repurchase of electric energy from privileged producers. The Law transposes Directive 2009/28/EC on the promotion of the use of RES and provides updates of Feed-in Tariffs (FiT, first introduced in 2009) to promote the sector. Currently there are consultations in place for the **Law on Amendments to the Energy Law**. Renewable energy is excluded from this framework and separately regulated through the new Law on Renewable Energy Resources.

99. **The Law on the Use of Renewable Energy Sources** (2021) regulates the use of energy from renewable sources, as well as that the use of energy from renewable sources is in the public interest of Serbia. This Law defines, among other things, that both forest and agricultural biomass are renewable energy sources, as well as that agricultural biomass represents biomass produced in agriculture, and that forest biomass represents biomass produced in forestry. This Law also defines the sustainability criteria and their verification for biofuels, bioliquids and fuels from biomass obtained from forest and agricultural biomass. It encourages investment in facilitating the de-carbonisation of the energy sector and increase the share of renewables in energy consumption⁶⁵.

100. **Law on Energy Efficiency and Rational Use of Energy** (2021)⁶⁶. This Law regulates the conditions and manner of efficient use of energy and energy sources; energy efficiency policy; energy management system; energy efficiency policy measures: use of energy in buildings, in energy activities and end-customers, for energy facilities and energy services; energy labelling and eco-design requirements;

⁶⁵ <http://country.eiu.com/article.aspx?articleid=620986645>

⁶⁶ Extracted from: <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC208441>

financing, incentives and other measures in this area; establishment and activities of the Directorate for financing and encouragement of energy efficiency, as well as other issues of importance for the rights and obligations of individuals and legal entities related to energy efficiency. The aim of this Law is to create conditions for efficient use of energy and improvement of energy efficiency, which contributes to: 1) achieving energy savings; 2) security of energy supply; 3) reducing the impact of energy sector on the environment and climate change; 4) sustainable use natural and other resources; 5) increasing the competitiveness of the economy; 6) improving the conditions for economic development; and 7) the reduction of energy poverty.

101. Serbia is currently preparing an **Integrated National Energy and Climate Plan of the Republic of Serbia until 2030.**

102. Serbia's **Biomass Action Plan** (2010) aims at enhancing biomass utilization as a renewable energy source, among other things, through: (i) efficient use of local resources for energy production, (ii) mitigation of climate change; (iii) decreased dependence on energy imports; and (iv) job creation. The document estimates that 63 percent of the total potential for RE are from the biomass sector. It is worthwhile to mention in this regard that forests cover approximately 30 percent and agricultural land 55 percent of the country.⁶⁷

Agriculture

103. Serbia's **Law on Agricultural Land** (OGRS no. 62/2006-22) regulates the planning, protection and spatial planning of agricultural land and use of agricultural land; supervision of the Law's implementation; and other issues of importance for the protection, arrangement and use of agricultural land as a property of general interest. This law relates to afforestation in that it concerns the approval of using agricultural land for non-agricultural activities. The Law also defines counter-measures that are taken in order to protect agricultural land from the harmful effects of erosion and torrents in the erosion area. One of these measures affects forest management on forest parcels as the Law prohibits the felling of forests and forest plantations above endangered agricultural parcels.

104. The **Regulation on the Conditions and Procedure of Leasing and the Use of State-Owned Agricultural Land** (2017) **and its amendment** (2021) determines the conditions, manner and procedure for exercising the right of leasing and use of State-owned agricultural land, including several related documentation and administrative issues⁶⁸.

Waste Management

105. **Law 36/2009 i 88/2010** provides for: rules and standards for waste classification and waste management; duties and responsibilities of the population and of the public and private sectors; planning of waste disposal; licences and permits; financial support; surveillance; and offences and penalties.

106. The purpose of the Law is to ensure conditions for: a) waste management in order to avoid negative effects on the population and environment; b) prevention of waste with new technologies and the rational use of natural resources; c) use of waste in the recycling process, pulling out secondary resources from waste and waste as energy source; d) development of waste disposal methods; e) recovery of non-authorized waste disposals; f) monitoring of old and new waste locations; g) forming a common conscience about waste management.

⁶⁷ http://biomasa.undp.org.rs/wp-content/uploads/2019/01/Agricultural-Biomass_12_01_2019_1_engleski.pdf

⁶⁸ Extracted from: <https://www.ecolex.org/details/legislation/regulation-on-the-conditions-and-procedure-of-leasing-and-the-use-of-state-owned-agricultural-land-lex-faoc172807/>

Occupational health and safety

107. Law no. 35/2023 on Occupational Safety and Health of the Republic of Serbia introduces, among other things, mandatory training in the field of OSH. This includes the obligation of employers to conduct and train employees for the proper use of equipment for safe work. Furthermore, during the training for safe and healthy work, the employer is obliged to inform the employee about the risks in the workplace to which s/he is allocated, and about the specific measures for OSH in accordance with the risk assessment act.

4.2 Serbia's institutional framework

108. The **Ministry of Agriculture, Forestry and Water Management (MoAFWM)** is the Project Executing Agency. It is responsible for developing and implementing policies in the field of agriculture, forestry and water management. It also performs State administration tasks related to the management of agricultural land in State ownership; establishment and management of the information system on agricultural land in Serbia; allocation of funds for carrying out works and monitoring of the realization of the annual program of protection, arrangement and use of agricultural land in Serbia; keeping a register of agricultural bases of local self-government units; and monitoring the development of the Agricultural Fund of the Republic of Serbia and its realization.

109. The **Ministry of Environmental Protection (MoEP)** Responsible for development and maintenance of the system for protection and improvement of environment. It performs State administration tasks related to basics of environmental protection; system of protection and improvement of the environment; national parks, inspection in the field of environmental protection; nature protection; climate changes; protection of waters from pollution to prevent deterioration of surface and groundwater quality; and determining the conditions of environmental protection in spatial planning and construction of facilities. It is responsible for environmental impact assessment procedures.

110. The **Ministry of Mining and Energy (MoME)** is responsible for increasing energy efficiency, energy security and renewable energy sources. There are seven Sectors within this Ministry, including the electricity sector, green energy sector, and the sector for energy efficiency and heating plants. The two administrative organizations under the Ministry of Energy and Mining are the Institute for Geological Research of the Republic of Srpska and the Institute for Standardization and Metrology of the Republic of Srpska.

111. The **Ministry of Economy (MoE)** is responsible for elaborating the national economic, trade and industrial development policies and the strategies of economic security and sustainable development, and the **Ministry of Education, Science and Technological Development (MoESTD)** is responsible for the national education system.

112. **Public Enterprise Serbia Shume** manages State forests and forest lands and carries out professional-advisory service activities in private forests (forests owned by natural/legal persons). It aims at managing forests, protected natural assets, nurseries, hunting grounds and fishery areas according to the principles of sustainable forestry and profitability, along with increasing forest cover and improving the existing Forestry Fund of the Republic of Serbia. More specifically, the work of PE Serbia Shume's sustainable forest management includes silviculture, production of wood assortments and provision of services.

113. The work of the **Public Enterprise Vojvodina Shume** involves forest management planning; forest management; hunting; tourism; catering; fisheries; growing of forests; protection of natural goods; forest utilisation; production of forest seeds and planting material (nurseries); forest protection; private forests; and the management of protected areas.

4.3 Regulatory framework for Environmental Impact Assessment (eia) in Serbia

114. Three main pieces of legislation govern Serbia's environmental impact assessment procedures. These are the Law on Environmental Protection (ORGS Nos 135/2004 and 36/2009), the Law on Environmental Impact Assessment (ORGS Nos 135/04 and 36/09), and the Law on Strategic Environmental Impact Assessment (OGRS Nos 135/04 and 88/10).

115. The **Law on Environmental Protection** (2004) regulates the integrated system of environmental protection which is essential for humankind, progress and sustainable society evolution that will preserve the ecosystem and environment. The system of environmental protection uses measures, conditions and instruments for: a) sustainable management, preservation of the natural balance and its integrity, biodiversity and quality of natural wealth in order to assure the survival of all living beings; b) prevention, control, reduction and recovery of all types of environmental pollution. Ten basic principles are outlined: (i) integrity; (ii) prevention and precaution; (iii) preservation of natural values; (iv) sustainable development; (v) responsibility of the polluter and their legal successor; (vi) "polluter pays"; (vii) "user pays"; (viii) subsidiary responsibility; (ix) application of incentive measures; and (x) informing and public participation.⁶⁹

116. This Law also describes measures and conditions of environment protection (e.g. EIA, SEIA). It stipulates that a public authority that is planning the construction of a major work or project shall, first of all, conduct an Environmental Impact Assessment (EIA) and to file with the Ministry of Environmental Protection a report summarizing the findings of that EIA Report, if such a project or work has a significant potential for causing Environmental Damage. None of this Project's activities are envisaged to cause environmental damage; this ESMF will be used for ensuring environmental and social safeguards are in place.

117. **Law on Environmental Impact Assessment** (2004; last amended date 2009)⁷⁰. This Law defines and regulates the impact assessment procedure for projects that may have significant impacts on the environment, the contents of the impact assessment study on the environment, participation of authorities, public and organizations, provisions regarding the cross-border projects that can have significant impacts on the environment of another state, supervision and other issues of importance to environmental impact assessment on the territory of Serbia.

118. **Law on Strategic Environmental Impact Assessment** (2004; last amended date 2010)⁷¹. This Law prescribes all necessary conditions, standards and related manner and procedure for assessing the environmental impact, on the territory of the Serbian Republic, of certain plans and programs on the environment, in order to ensure the protection of the environment and promotion of sustainable development by integrating the basic principles of environmental protection in the process of preparing

⁶⁹ Adapted from: <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC104942>

⁷⁰ Extracted from: <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC153667/>

⁷¹ Extracted from: <https://www.fao.org/faolex/results/details/en/c/LEX-FAOC129982>

and adoption of future plans and programs.

4.4 Relevant international conventions and treaties

119. Serbia is signatory to the three Rio Conventions, which impose requirements and restrictions of varying degrees upon the member countries to meet the objectives of these agreements.

A. United Nations Framework Convention on Climate Change

- Paris Agreement (Ratified: 24 August 2017)
- Kyoto Protocol (Ratified: 28 July 2009)

120. Under the United Nations Framework Convention on Climate Change (UNFCCC), Serbia submitted its First Nationally Determined Contribution (NDC) in July 2017, and its Second National Communication in August 2017. Serbia's First Biennial Update Report to the UNFCCC was prepared in February 2016. Its National Adaptation Plan (NAP) process is available in draft. Lastly, Serbia's and its Second Biennial Update and Third National Communication are in the process of being finalized for submission to the UNFCCC.

B. UN Convention on Biological Diversity (Ratified: 30 May 2002)

121. Serbia submitted its National Biodiversity Strategy and Action Plan for the period 2011-2018 on 16 March 2011. It prepared its Sixth National Report to the CBD in 2019.

C. United Nations Convention to Combat Desertification (Ratified: 18 December 2007)

122. Documents prepared in the context of the UNCCD include their Country Report (2018) and the Land Degradation Neutrality Target Setting Programme Country Report 2020.

5. FAO and GCF safeguards

123. In accordance with FAO and GCF ESS policy, the Project underwent an environmental and social assessment against FAO's environmental and social safeguards⁷². FAO will not undertake activities in the non-eligible activities listed in Annex 1. In addition, the Project will not use GMO seeds or introduce invasive alien species. There will be no significant or irreversible negative environmental impacts associated with the Project – on the contrary, the Project will increase the capacity of public and private forests to remove CO₂, reduce the negative impact of drivers of forest degradation and support Serbian companies to decarbonize their processes and increase their resilience. The Project will transfer to Serbia the knowledge, technology and climate adaptive silviculture (CAS) practices needed to reduce the climate change and adaptation deficit of public and private forest stakeholders, as well as to enable the forest sector to become more resilient to climate change and contribute effectively and efficiently to the national decarbonization process. Intervention areas are not possible to harvest in the 20 years following project completion. Building upon the results of the GEF6 project, new forest management planning and practice ensures sustainability even before this project starts. That is because one of the results of that project is the legal obligation for forest users to implement, in all stages of forest management, what is called "Close to Nature Forest Management", of which CAS is considered the equivalent. Harvesting will not commence before an average of 80 years, with the exception of some thinning operations in regular intervals so that young forest can grow in optimal conditions and produce max biomass (which means max C sequestration). Available good international industry practices and guidelines will be adopted, including those of the World Bank Group⁷³. Finally, by addressing carbon removals with climate adaptive silviculture approaches vs. business as usual, the Project will amplify the investment, as investing on forestry will also have tangible and quantifiable benefits such as: (i) increased biodiversity in forest and agriculture land; (ii) expansion of bio-corridors; (iii) socio-economic of rural households; (iv) protection from disasters; and (v) and soil erosion control.

124. With regards to activities in the forestry sector by introducing CAS technologies, processes and practices, the introduction of these will increase the effectiveness and efficiency of investments in forests. Furthermore, the Project will support the private sector and national institutions in greening the fuel biomass value chain and in supporting national actions to prevent land degradation through forestry and agroforestry. The Project will also support the country in expanding/enhancing/establishing the needed policy and legal reforms to remove the bottlenecks that are at the root of the identified climate change adaptation deficit of the sector. Lastly, the Project will support the country in addressing the reported forest's overexploitation risk existing at local level due to fuelwood needs as well as the overall vulnerability of the population to natural hazards.

125. In addition to the positive impacts in terms of CCM and CCA, the Project will have positive impacts on biodiversity⁷⁴, on soil quality⁷⁵ and water availability, decrease of evapotranspiration and slow down soil erosion, increase agricultural yields, and protection of rural communities and infrastructures from flash floods, floods and landslides. Furthermore, via afforestation activities and

⁷² FAO's Environmental and Social Management Guidelines to which the Annex 3 ESS Checklist pertains is available at: <http://www.fao.org/3/a-i4413e.pdf>. FAO's updated Framework for Environmental and Social Management can be found here: <https://intranet.fao.org/uploads/media/FESM-PDF-compressed.pdf>.

⁷³ Environmental, Health, and Safety Guidelines for Perennial Crop Production, World Bank, 2016; Environmental, Health, and Safety Guidelines for Forest Harvesting Operations, IFC, 2007

⁷⁴ Activities will follow specific protocols that will guarantee the use of local and species that will be selected based on the characteristics of existing forests. The project will not negatively impact ecosystems.

⁷⁵ Converting degraded agricultural lands that have been non-longer suitable for farming / into biomass forests, will allow the lands to maintain value and produce income and for the soil to recover and gradually recover sufficient quality to sustain again agriculture. Furthermore, the activity will protect soils from erosion and will contribute to mitigation of the adverse impacts of winds.

shelterbelts/windbreakers, the Project will support the active protection and conservation of biodiversity. These will create corridors and shelter for wild animal species and flora.

126. The main social co-benefit generated by the Project is the support to the decarbonization path of the country. Thanks to the introduced practices and technologies, the Project may contribute to creating new job opportunities and new markets (e.g. CO₂ management, green biomass, climate adaptive nurseries). Furthermore, relevant co-benefits of reducing the adverse impacts of fuelwood include distinctive social benefits as Project activities will help reduce poverty in Serbia in three ways: (i) increased access to fuelwood with improved quality; (ii) greater transparency of the solid biofuel value chain, and (iii) enhanced economic opportunities through the sector's modernization. The Project will benefit the entire population of Serbia with some specific focus on sectorial stakeholders and private companies. In all training and investments, when possible, the Project will give higher priority to women⁷⁶ owning degraded coppice stands or non-longer suitable for farming/copping/degraded lands cultivation of wooden species for bioenergy or other purposes and will ensure that at least 30 percent of beneficiaries are women.

127. Project components were identified through a consultative process, and address the needs and priorities reported by Serbia in its NDC(s) (2015 and draft 2020), National Communications, National Adaptation Plan, Low Carbon Development Strategy, EU-related commitments and other national policy framework. In addition, the Project will contribute to implement the GCF Country Programme of Serbia, by supporting the priority areas: cluster 1 Energy efficiency and use of renewable energy sources and cluster 3 NEXUS Water Resources – Agriculture – Forestry.

5.1 Risk classification of the proposal

128. According to FAO's environmental and social risk classification, the Project is moderate risk (Category B). Moderate risk projects are defined as:

- a) Projects with environmental and/or social impacts potentially identified.
 - Project activities will enhance forest management and governance while ensuring climate change adaptation and reducing drivers of degradation; enhance AFOLU's contribution to climate change mitigation while greening the wood biomass value chain with the private sector; and support private sector engagement in decarbonisation. On-ground activities will include newly establishing forest; restoring damaged forests; shifting private coppice stands to high forest; and establishing shelterbelts.
- b) Potential impacts are limited to the project footprint.
 - Potential identified impacts could occur as a result of forest-related activities, but these are localized and can be mitigated.
- c) Potential impacts are neither irreversible nor cumulative.
 - Potential impacts are reversible and not cumulative and have wide-ranging mitigation and adaptation benefits.
- d) Potential negative impacts can be resolved by means of best practice.

⁷⁶ A preliminary list of beneficiaries disaggregated by gender will originate from the digital cadastre of Serbia to ensure that gender accounting is well reflected in both the baselines and targets. Depending on the results of the analysis of the cadastre targets will be increased at design.

- These will be addressed through mitigation measures (e.g. using only appropriate, native species, ensuring stakeholder engagement, following best practice, obtaining necessary technical clearances, where and as needed).

129. The ESMF identifies policy triggers for the Project, screening criteria for activities, environmental and social impacts of the activities, and measures to mitigate identified risks. Mitigation actions will avoid, minimize and mitigate negative impacts during Project implementation and operation. Mitigation actions will be in line with FAO and GCF ESS policy, and national legislation, and adhere to whichever is most stringent. The ESMF also sets out the modalities for stakeholder engagement, and the procedure and process for dealing with complaints, through the Grievance Redress Mechanism.

130. The ESMF will be disclosed on relevant portals, and shared with stakeholders during stakeholder engagement consultations, so they will be aware of potential consequences of Project activities. Formal consultations with stakeholders during Project implementation will take place yearly, at the time of the preparation of Annual Work Plan and Budgets (AWPB). The AWPB will be presented by the PMU and reviewed by all stakeholders, including at the national, target Governorate and community levels. During these stakeholder consultations, the Grievance Redress Mechanism will also be presented and explained.

131. In order to ensure a smooth and effective ESMF process, one person in the PMU will be responsible for the environmental and social safeguards process (including GRM and stakeholder engagement).

132. Proposed Project investments are designed to have positive social and environmental benefits; the Project has however been classified as moderate risk (Category B) largely due to works associated with forest establishment or management (CAS). FAO ESS triggered are:

- ESS 1 (Biodiversity conservation, and sustainable management of natural resources). The project will support Serbia in enhancing the resilience of its forest ecosystems introducing climate adaptive silviculture and sustainable forest management practices. All project investments aim at restoring forests, increasing biodiversity as means to resilience. Forestry investments are designed to enhance biodiversity with specific priority to those areas that will act as corridors among existing forests. Activities will not impact protected areas of natural habitat or sensitive ecosystems. However, this safeguard is triggered because of afforestation/forest rehabilitation activities, and environmental and social assessments undertaken at the sub-project level, once identified, will consider biodiversity. While the Project will establish and/or manage planted forests, it will only plant with native or locally adapted species and involving local communities. Activities will be executed according to the responsible management of planted forests. Project activities will only include forestry investments in existing forest areas or in areas previously covered with forests. Therefore, livestock and aquatic genetic resources will not be impacted.
- ESS 2 (Resource efficiency and pollution prevention and management). The project will promote climate adaptive silviculture. It will not lead to increased use of pesticides through intensification or expansion of production. In upgrading nurseries, no significant increase in water consumption is envisaged. No seeds will be procured and no new planting material (tree, shrub, crop varieties) will be introduced into the country. With regards to the establishment or management of planted forests/climate adaptive silviculture – the Project will select local species with wide ecological range and higher drought resistance, considering the bioclimatic type of each site and projected shifts in potential tree species range limits due to climate change (e.g. avoiding planting seedlings from species in the lower limit of their ecological range; planting seedlings from species somewhat

above the upper limit of their ecological range). No GMO or nor seeds with insecticidal seed coatings will be used in the project. No significant waste will be generated – with regards to road clearing, this will involve clearing of biological debris (vegetation) which will be composted or integrated into the environment. With regards to fencing, these will be of different forms including biological depending on specific context of the forestry investments. Each will be defined during the inception phase when precise sites will be formalized at which time appropriate screening for types of fencing and their handling and disposal will be conducted. This safeguard is triggered to account for potential waste disposal.

- **ESS 4 (Decent work).** This safeguard is triggered to ensure that the project will promote, respect and realize fundamental principles and rights at work. The employment of project workers will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship. Hiring of workers will be made following the laws and regulations of Serbia (Labour Law 24/05, 61/05 and 54/09) and workers will need to abide with the FAO code of conduct and FAO policies. All workers will be above 18 years old. Worksites must be accessible by road and transport from collection points in accessible areas to worksites will be guaranteed by the project through its partners and service providers.
- **ESS 5 (Community health, safety and security).** This safeguard is triggered to ensure that adverse impacts on health, safety and livelihoods of involved and affected communities are anticipated and avoided. Community exposure to health risks is not envisaged, however occupational health and safety (OHS) risks need to be considered with regards to afforestation/reforestation activities; these will be dealt with by providing training and protective measures and gear as needed. Project activities will be in remote forested areas generally far from houses and communities. All workers in project areas will be selected among men and women from local communities, within a 25 km radius; the establishment of camps or other temporary accommodation structures will not be required. As works will occur in remote forested areas of the country, the project does not expect to have migrant workers. Fires are not expected to be a direct result of the Project, however in light of potential fire risks, during project implementation, support will be given to increase Serbia’s capacity to both respond and prevent fires by ensuring access of firefighters to reach fires through the rehabilitated roads; and planning reforestation areas by strategic planting (e.g. tree spacing, fire breaks).

5.2 FAO Environmental and Social Safeguards (ESS)

133. Table 14 (below) lists the FAO Safeguards that are applicable to this Project and gives a description of why (“justification” of applicability).

Table 14. FAO applicable safeguards

FAO Safeguard (FESM, 2022)	Applies	Justification
ESS 1. Biodiversity conservation, and sustainable management of natural resources	Yes	The project will support Serbia in enhancing the resilience of its forest ecosystems introducing climate adaptive silviculture and sustainable forest management practices. The project will not engage in poor natural resources management practices nor have negative impacts on natural resources.

		<p>All project investments aim at restoring forests, increasing biodiversity as means to resilience. Forestry investments are designed to enhance biodiversity with specific priority to those areas that will act as corridors among existing forests. Therefore, activities will not impact protected areas of natural habitat or sensitive ecosystems. However, this safeguard is triggered because of afforestation/forest rehabilitation activities, and environmental and social assessments undertaken at the sub-project level, once identified, will consider biodiversity. Detailed biodiversity characterization will be included in the assessments.</p> <p>While the Project will establish and/or manage planted forests, it will only plant with native or locally adapted species and involving local communities. Activities will be executed according to the responsible management of planted forests.</p> <p>Project activities will only include forestry investments in existing forest areas or in areas previously covered with forests. Therefore, livestock and aquatic genetic resources will not be impacted.</p>
ESS 2. Resource efficiency and pollution prevention and management	Yes	<p>The project will promote climate adaptive silviculture. It will not lead to increased use of pesticides through intensification or expansion of production. In upgrading nurseries, no significant increase in water consumption is envisaged. No seeds will be procured and no new planting material (tree, shrub, crop varieties) will be introduced into the country. With regards to the establishment or management of planted forests/climate adaptive silviculture – the Project will select local species with wide ecological range and higher drought resistance, considering the bioclimatic type of each site and projected shifts in potential tree species range limits due to climate change (e.g. avoiding planting seedlings from species in the lower limit of their ecological range; planting seedlings from species somewhat above the upper limit of their ecological range). No GMO or nor seeds with insecticidal seed coatings will be used in the project. No significant waste will be generated – with regards to road clearing, this will involve clearing of biological debris (vegetation) which will be composted or integrated into the environment. With regards to fencing, these will be of different forms including biological depending on specific context of the forestry investments. Each will be defined during the inception phase when precise sites will be formalized at which time appropriate screening for types of fencing and their handling and disposal will be conducted. This safeguard is triggered to account for potential waste disposal.</p>
ESS 3. Climate change and disaster risk reduction	No	<p>Through a nexus approach and addressing bottlenecks to CC adaptation and mitigation, the project will reduce the exposure and vulnerability of the forestry sector and enhance resilience and increase total CO₂ removals from forestry and biodiversity. The project aims to increase carbon removals from the forestry sector (7.6 MtCO_{2e} [27Y]) and reduce net emissions by the private sector by 0.8 MtCO_{2e} [27y]). the participation of agrifood sector operators, local communities and private forest owners’ participation will help ensure the project’s envisaged paradigm shift, the sustainability of the activities and the integration of the forest-energy security-decarbonization nexus.</p>

ESS 4. Decent work	Yes	<p>The project will promote, respect and realize fundamental principles and rights at work. The employment of project workers will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship. Hiring of workers will be made following the laws and regulations of Serbia (Labour Law 24/05, 61/05 and 54/09) and workers will need to abide with the FAO code of conduct and FAO policies. All workers will be above 18 years old.</p> <p>Worksites must be accessible by road and transport from collection points in accessible areas to worksites will be guaranteed by the project through its partners and service providers.</p>
ESS 5. Community health, safety and security	Yes	<p>This safeguard is triggered to ensure that adverse impacts on health, safety and livelihoods of involved and affected communities are anticipated and avoided. Community exposure to health risks is not envisaged, however occupational health and safety (OHS) risks need to be considered with regards to afforestation/reforestation activities; these will be dealt with by providing training and protective measures and gear as needed. The project does not have planned any activities that will trigger fires in areas where it will work.</p> <p>Project activities will be in remote forested areas generally far from houses and communities. All workers in project areas will be selected among men and women from local communities, within a 25 km radius; the establishment of camps or other temporary accommodation structures will not be required. As works will occur in remote forested areas of the country, the project does not expect to have migrant workers.</p>
ESS 6. Gender equality and prevention of gender-based violence	No	<p>In all training and investments, when possible, the Project will give higher priority to women^[1] owning degraded coppice stands or non-longer suitable for farming/copping/degraded lands cultivation of wooden species for bioenergy or other purposes and will ensure that at least 30 percent of beneficiaries are women. With regards to the prevention of sexual exploitation and abuse (PSEA)^[2] through its Grievance Redress Mechanism the Project will ensure that all concerns and/or incidents will be reported to the ESS Specialist and the FAO Office of the Inspector General, as appropriate. The Project will include sexual exploitation and abuse awareness raising, and stakeholder-differentiated understanding, during stakeholder engagement.</p> <p>^[1] A preliminary list of beneficiaries disaggregated by gender will originate from the digital cadastre of Serbia to ensure that gender accounting is well reflected in both the baselines and targets. Depending on the results of the analysis of the cadastre targets will be increased at design.</p> <p>^[2] FAO PSEA policy</p>
ESS 7. Land tenure, displacement, and resettlement	No	<p>The project will neither acquire land nor displace people. Project activities will only include forestry investments in existing forest areas or in areas previously covered with forests and will only be executed in land owned by the state or by farmers with clear ownership that are free from any dispute. The project or the government will not expropriate lands nor plant on land of dubious ownership. The project will work on land that is no longer suitable for agriculture and therefore abandoned or not in use from a productive</p>

		<p>perspective. Therefore, there will be no involuntary resettlement or displacement resulting from project activities.</p> <p>Exercise of eminent domain and any other permanent or temporary, and economic and physical displacement due to involuntary resettlement will not be supported under the project.</p>
ESS 8. Indigenous Peoples	No	<p>The Project is national in scope; it is designed to operate at the national level on public and private lands, ensuring benefits to <i>all</i> target groups and peoples that will be impacted by Project activities. Target areas where on-ground activities will occur are in the AP of Vojvodina and Central Serbia. The presence of Indigenous Peoples is not foreseen, however, before implementing field level activities, stakeholder consultation and second-level screening will be held once specific project sites are identified by the government.</p>
ESS 9. Cultural heritage	No	<p>Finding of artefacts of cultural importance is not envisaged but should this occur, chance find procedures will be followed.</p>

Source: Authors' own elaboration.

5.3 Green Climate Fund safeguards

134. GCF has provisionally adopted the Performance Standards (PS) and directives of implementation of the International Financial Corporation, for the purposes of safeguarding GCF projects. There are eight IFC Performance Standards that include the main environmental and social questions that must be considered when starting a project, using the best international practices. This Project has been screened against FAO environmental and social standards, ensuring that the Project is consistent with the objectives of GCF Performance Standards and the GCF Indigenous Peoples Policy. Table 15 lists, and aligns, them against the (nine) FAO Standards.

Table 15. Green Climate Fund safeguards

IFC - Performance Standards	FAO Standards (FESM, 2022)
PS 1: Assessment and Management of environmental and social risks and impacts	ESOP 1: Screening, assessment and management of environmental and social risks ESOP 2: Stakeholder Engagement ESS 3: Climate change and disaster risk reduction ESS 6. Gender equality and prevention of gender-based violence
PS 2: Labor and Working conditions	ESS 4: Decent Work
PS 3: Resource efficiency and pollution prevention	ESS 2: Resource efficiency and pollution prevention and management
PS 4: Community health, safety and security	ESS 5. Community health, safety and security
PS 5: Land acquisition and involuntary resettlement	ESS 7. Land tenure, displacement, and resettlement
PS 6: Biodiversity conservation and sustainable management of living natural resources	ESS 1: Biodiversity conservation, and sustainable management of natural resources
PS 7: Indigenous Peoples	ESS 8. Indigenous Peoples

IFC - Performance Standards	FAO Standards (FESM, 2022)
PS 8: Cultural Heritage	ESS 9. Cultural heritage

Source: Authors' own elaboration.

135. The most stringent policy and/or law will be followed in any instances of discrepancy between national legislation and GCF/FAO requirements. In practice, this means that the Project will follow national policy and/or law to the extent that it is applicable/relevant, while ensuring that supplementary actions and/or measures are taken in the event that the application of the relevant national policy and/or law is not sufficient to adhere to GCF/FAO requirements. In so doing, the Project will ensure that the most stringent standards are consistently adhered to, while still applying (and building directly on) the relevant national policies and/or laws.

6. Stakeholder engagement

136. The Project was designed in close consultation with and involvement of relevant government agencies, technical line departments, other national institutions, UN agencies, civil society and private sector stakeholders. This has ensured that the components and activities proposed are in line with national policies and strategies with strong country ownership and relevance for local communities. More information on the project stakeholder engagement process is provided in a separate Annex (Annex 7), to the FFP.

137. Stakeholders were initially identified through discussions between the NDA (MoAFWM) and FAO during the design of the preliminary project concept. These discussions led to the identification of the ministries, departments, municipalities, line agencies and non-governmental partners (Chambers of Commerce and Industry; Forestry, Agriculture and other category organizations) that would be involved. Through the consultation process, entities and other stakeholders were mapped for project implementation, including on management and technical leadership. Stakeholders were then identified for the implementation of project components. Based on consultations, Table 16 lists key project stakeholders and their roles, and responsibilities within the project.

Table 16. Key stakeholders and roles/responsibilities

Institution	Description
Ministry of Agriculture, Forestry and Water Management (MoAFWM)	Together with FAO is the project Executing Entity. The MoAFWM is the NDA and is responsible for developing and implementing policies in the field of agriculture, forestry and water management. The project will mainly work with the Directorate of Forests on all forestry-related issues, but in particular on FLR matters, with support and involvement of Agricultural Land Directorate, Rural Development Directorate, and other Directorates as appropriate.
Ministry of Environmental Protection (MoEP)	Responsible for development and maintenance of the system for protection and improvement of environment. The project will work with the MEP as the main partner for the establishment of the offsetting / inseting mechanism and in the activities related to the decarbonization process.
Ministry of Mining and Energy (MoME)	Responsible for increasing energy efficiency and energy security. The project will work with the MoE in greening the fuel biomass value chains and other activities related to the decarbonization process.
Ministry of Education, Science and Technological Development (MoESTD)	Responsible for the national education system. The project will work with the MESTD as the main partner for the upgrade of the national universities and vocational schools' curricula that are relevant for the practices, technologies and methodologies introduced by the project.
Ministry of Economy (MoE)	Responsible for elaborating the national economic, trade and industrial development policies and the strategies of economic security and sustainable development. The project will work with the MoE to engage the private sector in both forestry and decarbonization activities.

PE Serbia Shume and PE Vojvodina Shume	Responsible for managing State-owned forests. The project will work with the PEs in the planning and implementation of afforestation and restoration activities of the project and the roll-out of the newly introduced CAS to become integral part of SFM.
Municipalities	Municipalities are in charge of municipal lands (including insignificant forest area in a very limited number of municipalities) within the borders of their territory. The project will work with municipalities to explore opportunities for FLR investments on degraded lands applying the newly introduced CAS approaches.
Chamber of Forestry	The project will work with the Chamber of Forestry on further training of forest professionals to ensure that the newly introduced CAS approaches are applied in their day-to-day work
Chamber of Commerce and Industry/Serbia Grain Producers Association	The project will work with the Chamber of Commerce and Industry, and Serbia Grain Producers Association, to identify private sector actors and to engage them in the forestry/decarbonization activities.
The National Biomass Association SerBio	SerBio is an association of NGOs, companies and individuals in the field of biomass utilization and can facilitate interactions with various stakeholders in relation to biomass mobilization and utilization.
National and local NGOs	Environmental NGOs at national level, like the Forestry Youth Movement (Pokret gorana) and WWF-Serbia are active at the local level in educating young people and undertaking field activities such as tree planting on a smaller scale. The project will try to involve them in FLR activities, thus sharing knowledge about the newly introduced CAS approaches with a wider audience and contributing to achieve sustainability of the results of the project.

Source: Authors' own elaboration.

6.2 Stakeholder engagement process

6.2.1 Stakeholder engagement during project formulation

138. The project was developed and prepared following a request to FAO, by the Government of Serbia. The process began in 2019, and through consultations with stakeholders, was refined to what is now the Full Funding Proposal (FFP).

139. Stakeholder engagement is viewed as crucial in order to develop a strong project and high level of country ownership. The project proposal was developed in consultation with stakeholders to ensure that the project design is appropriate and meets national priorities (energy and climate change adaptation and mitigation), and to identify activity priority areas, gaps and potentials, main stakeholders, and implementation arrangements/responsibilities. Furthermore, consultations were held to verify the technical feasibility of the activities included in the project components, and to obtain feedback from stakeholders on all aspects of the project.

140. During the course of project elaboration, key government agencies and other stakeholders dealing with the forestry, energy and agriculture sectors in Serbia were consulted (in hybrid/virtual formats, due to COVID-19 precautions and travel restrictions) at both national and local levels, including through national-level workshops and detailed bilateral meetings. These included consultations with the Ministry of Agriculture, Forestry and Water Management, the Ministry of Environmental Protection, the Ministry

of Mining and Energy, the Ministry of Education, Science and Technological Development, and the Ministry of Economy as well as local institutions such as municipalities and provinces, on behalf of community members. Other governance authorities including the Public Enterprises PE Serbia Shume and PE Vojvodina Shume were also consulted with the support of the Ministries. Bilateral meetings were also held with companies, national finance institutions, international finance institutions, and UN agencies, as well as local civil society organizations (e.g. Bird Life) and academia (e.g. Institute for Lowland Forestry and Environment). Workshops were held to elaborate and validate project priorities, ensure their alignment with GCF priorities, define project activities and areas, and technical and project management/implementation issues. Grassroot level consultations were held via the main CSOs. Detailed grassroot consultations will be secured during the process to confirm and secure investment sites. The FFP design reflects the feedback received from both national and bilateral consultations.

6.2.2 Stakeholder engagement during project implementation

141. Consultation at all levels during implementation is a good practice to assume in order to ensure that potential negative impacts and concerns are adequately addressed, by all potentially impacted stakeholders, during the operation of the project. Stakeholders will be engaged in project implementation throughout the duration of the entire project using engagement methods appropriate to the context and needs. An extensive consultation with the involved populations is required when the sub-activities could include impacts that would affect the natural resources that sustain the livelihoods of the local population. Engagement with women and women focused organizations in the geographic area and focal sectors of the Project is crucial to understand the challenges and barriers that they face. At project inception, women and women-focused organizations will be included in consultations to ensure that perspectives, needs and challenges are considered by the Project and in adaptive management. Additionally, the intersectionality of gender with ethnicity, economic status, women headed households, will be discussed during these consultations. When sub-projects are selected, where relevant, those communities that are directly and indirectly affected will be engaged to the extent possible, in order to ensure that their needs are considered during implementation. Stakeholder consultations prior and during project implementation will also include awareness raising and stakeholder-differentiated understanding of sexual exploitation and abuse-related risks and mitigation measures. Formal consultations with stakeholders during project implementation will therefore take place yearly, at the time of the preparation of Annual Work Plan and Budget (AWPB) – i.e. at the beginning of each of the seven project Fiscal Years (FY), as well as during all the planning and execution of forestry investments. The AWPB constitutes the main formal instrument to ensure ownership and participation of stakeholders and beneficiaries. It represents the results of the national engagement process and the main planning tool of the project. To this end the PMU, via its M&E unit and partners, will secure constant dialogue with target stakeholders and administrations and will ensure their participation in the AWPB formulation process. The AWPB will be presented by the PMU and reviewed by all stakeholders, at all levels. During these stakeholder engagement consultations, the ESFM – including the Grievance Redress Mechanism (GRM), but also the Gender Action Plan (GAP) - will be shared with stakeholders and explained. Details of stakeholder engagement are available in Annex 7 to the FFP. Stakeholder engagement will also take place at the community level throughout the process of developing Forestry Management Plans (FMPs).

142. The project's gender-specific consultations and activities – including through trainings and focus-group activities and other appropriate methods of engagement as needed- are detailed in the Gender Action Plan (GAP). Stakeholder consultations prior and during project implementation will also include awareness raising and stakeholder-differentiated understanding of sexual exploitation and abuse-

related risks and mitigation measures. The Project will not tolerate manipulation, interference, coercion, or intimidation against stakeholders who share their views about the project; the Project Grievance Redress Mechanism is established to address such occurrences, should they happen. Furthermore, the inclusion of civil society and private sector organizations in the Project Steering Committee will also contribute to ensuring that consultations remain free, open, inclusive and well documented.

143. The ESFM – including the Grievance Redress Mechanism (GRM) and the Gender Action Plan (GAP) - will be shared with and explained to stakeholders, for their feedback and validation. This will take place as part of the stakeholder engagement process, throughout project implementation.

6.3 Disclosure

144. According to GCF and FAO policies on access to information, all safeguard instruments under this project, including the ESMF and Gender Action Plan must be disclosed online in the English and local language (Serbian, in the case of Serbia) at least 30 days prior to GCF Board meeting and approval of the project. Access to the documents must be possible for any locals (i.e. it must be disclosed locally in an accessible place) in a form and language understandable to key stakeholders. Such disclosure of relevant project information helps stakeholders effectively participate. FAO is committed to disclosing information in a timely manner and in a way that is accessible and culturally appropriate, placing due attention to the specific needs of community groups which may be affected by project implementation (e.g. literacy, gender, differences in language or accessibility of technical information or connectivity).

145. For moderate risk projects like this one, FAO releases the applicable information as early as possible, and no later than 30 days prior to project approval. The 30-day period commences only when all relevant information requested from the project has been provided and is available to the public. FAO undertakes disclosure for all moderate risk projects, using a disclosure portal to publicly disclose all of the projects' documentation related to environmental and social safeguards (e.g. Environmental and Social Management Frameworks, Gender Action Plans, Indigenous Peoples Plans, and other relevant documents, as applicable). The website is: <http://www.fao.org/environmental-social-standards/disclosure-portal/en/>.

146. In order to ensure the widest dissemination and disclosure of project information, including any details related to applicable environmental and social safeguards, local and accessible disclosure tools including audiovisual materials (e.g. flyers, brochures, community radio broadcasts) will be utilized in addition to the standard portal disclosure tool. Furthermore, as relevant, particular attention will be paid to farmers, Indigenous Peoples, illiterate or technological illiterate people, people with hearing or visual disabilities, those with limited or no access to internet and other groups with special needs. The dissemination of information among these groups will be carried out with the project counterparts and relevant local actors.

147. In relation to each Category B sub-activity to be funded under the project, FAO shall disclose fit-for-purpose environmental and social impact assessment, the Environmental and Social Management Plan (ESMP), and as appropriate any other associated information required to be disclosed in accordance with the GCF Information Disclosure Policy (Project Disclosure Package). FAO shall disclose the sub-activity safeguards information at least 30 calendar days prior to commencing execution of any sub-activities that have been categorized as Category B, in English and in the local language (if not English), on its website and in locations convenient to affected peoples, and provide the Project Disclosure Package to the GCF

Secretariat for further distribution to the Board and Active Observers and for posting on the GCF website. Within 180 days of the GCF Board approval of the Project, FAO and the GCF Secretariat shall agree on a process to enable communication of any comments to FAO, including from the GCF Board members and Active Observers, on Category B sub-activities relating to the Project Disclosure Package, and to take account of such comments in the finalization of such documents.

148. This ESMF and the accompanying Gender Action Plan will be disclosed in English and Serbian (national language of Serbia) on appropriate websites. Both documents will also be disclosed at the municipal level in Serbian, prior to project implementation.

6.4 Grievance Redress Mechanism

149. FAO is committed to ensuring that its programs are implemented in accordance with its environmental and social obligations. In order to better achieve these goals, and to ensure that beneficiaries of FAO programs have access to an effective and timely mechanism to address their concerns about non-compliance with these obligations, the Organization, in order to supplement measures for receiving, reviewing and acting as appropriate on these concerns at the program management level, has entrusted the Office of the Inspector-General with the mandate to independently review the complaints that cannot be resolved at that level.

150. FAO will facilitate the resolution of concerns of beneficiaries of FAO programs regarding alleged or potential violations of FAO's social and environmental commitments. For this purpose, concerns may be communicated in accordance with the eligibility criteria of the Guidelines for Compliance Reviews Following Complaints Related to the Organization's Environmental and Social Standards⁷⁷, which applies to all FAO programs and projects (Guidelines for Compliance Reviews Following Complaints Related to the Organization's Environmental and Social Standards).

151. Concerns must be addressed at the closest appropriate level, i.e. at the programme management/technical level, and if necessary, at the Regional Office level. If a concern or grievance cannot be resolved through consultations and measures at the project management level, a complaint requesting a Compliance Review may be filed with the Office of the Inspector-General (OIG) in accordance with the Guidelines. Program and project managers will have the responsibility to address concerns brought to the attention of the focal point. With regards to the prevention of sexual exploitation and abuse (PSEA), through its Grievance Redress Mechanism the Project will ensure that all concerns and/or incidents will be reported to the ESS specialist and the FAO Office of the Inspector General, as appropriate.

Project-level grievance mechanism

152. The project will establish a grievance mechanism at field level to file complaints, including worker complaints. Contact information and information on the process to file a complaint will be disclosed in all meetings, workshops and other related events throughout the life of the project. In addition, it is expected that awareness raising material be distributed to include the necessary information regarding the contacts and the process for filing grievances. The Project will include sexual exploitation and abuse awareness raising, and stakeholder-differentiated understanding, during stakeholder engagement.

153. The Project Management Unit (PMU) will be responsible for addressing incoming grievances

⁷⁷ Available online at: <http://www.fao.org/3/a-i4439e.pdf>

regarding environmental and social standards; as part of the safeguards performance monitoring, the Project Coordinator of the PMU will be responsible for documenting and reporting on any grievances received and how they were addressed.

Grievance Redress Mechanism Structure:

1. The complainant files a complaint through one of the channels of the grievance mechanism, which will be set up (email address, telephone number(s), contact person or physical address) before Project implementation.
2. This will be sent to the PMU, where the Safeguards Specialist, who also acts as the GRM Focal Person, will assess whether or not the complaint is eligible. *The confidentiality of the complaint must be ensured throughout the process.*
3. Eligible complaints will be addressed by the PMU Safeguards Specialist together with the Project Coordinator of the PMU. The Project Coordinator will be responsible for recording the grievance and how it has been addressed if a resolution was agreed upon.
4. If the situation is exceptionally complex, or the complainer does not accept the resolution, the complaint must be escalated to a higher level (FAO Serbia Representation), until a solution or acceptance is reached.
5. If the situation is still not resolved, the grievance will be escalated to the FAO Regional Office for Europe and Central Asia.
6. If the situation is still not resolved, the grievance will be escalated to the FAO Office of the Inspector-General.
7. For every complaint received, written proof of receipt will be sent within seven (7) working days; afterwards, a resolution proposal will be made within ten (10) working days.
8. In compliance with the resolution, the person in charge of dealing with the complaint may interact with the complainant, or may call for interviews and meetings, to better understand the situation.
9. All complaints received, their response and resolutions, must be duly registered.

Internal process

1. Project Management Unit. The complaint can directly contact the PMU either in writing, or orally. At this level, received complaints will be registered, investigated and solved by the PMU.
2. FAO Representative. The assistance of the FAO Representative is requested if a resolution was not reached and agreed upon in level 1.
3. FAO Regional Office for Europe and Central Asia. If necessary, the FAO Representative will request the advice of the Regional Office to resolve a grievance or will transfer the resolution of the grievance entirely to the regional office, if the problem is highly complex.
4. Only on very specific situations or complex problems, the FAO Regional Representative will request the assistance on the FAO Inspector General who pursues its own procedures to resolve the problem.

The project GRM, which by its nature is survivor centered and gender responsive, sets out lines of reporting and action. Confidentiality is detailed in the FAO Office of the Inspector-General investigation guidelines which state that all investigations are carried out in a confidential manner. The identity of a

complainant who submits a complaint to OIG in good faith is not made public, nor is the identity of any witness who provides information to OIG.

Resolution

5. Upon acceptance a solution by the complainer, a document with the agreement should be signed, clearly indicating the terms of the resolution.

Level of Redress Mechanism	Details
PMU	Must respond within 7 working days. Contact details to be established before project implementation.
FAO Serbia	In consultation with PMU, must respond within 10 working days. Mr Aleksandar Mentov E-mail: aleksandar.mentov@fao.org ; FAO-RS@fao.org
Regional FAO Office for Europe and Central Asia	Must respond within 12 working days in consultation with FAO's Serbia National Correspondent Office. Mr Nabil Gangi 20 Kalman Imre utca H-1054 Budapest Hungary Tel: +36 1 4612000 Fax: +36 1 3517029 E-mail: nabil.gangi@fao.org ; FAO-RO-Europe@fao.org
Office of the Inspector General (OIG)	To report possible fraud and bad behavior by fax, confidential: (+39) 06 570 55550 By e-mail: Investigations-hotline@fao.org By confidential hotline: (+ 39) 06 570 52333

Source: Authors' own elaboration.

GCF Independent Redress Mechanism

154. GCF established an [Independent Redress Mechanism \(IRM\)](#) that reports directly to the Board². The IRM's mission is to address complaints from affected people and provide recourse in a way that is fair, effective and transparent, and enhance the performance of GCF's climate funding. The IRM also accepts requests from Developing Countries seeking reconsideration of funding proposals that were denied by the GCF Board. To deliver its mandate, the IRM is guided by a number of GCF policies pertinent to GCF's general operations and its projects and programmes: Revised E&S Policy, Interim E&S Safeguards, Indigenous People Policy, Updated Gender Policy and Information Disclosure Policy of the GCF.

155. As per the Procedures and Guidelines of the IRM, the main function of the IRM include among others: address grievances or complaints by a person, group of persons or community who/which have been or may be adversely impacted by a GCF funded project or programme through problem solving and/or compliance review, as appropriate; initiate proceedings on its own to investigate grievances of a person, group of persons or community who/which have been or may be adversely impacted by a GCF funded project or programme; monitor whether decisions taken by the Board based on recommendations made by the IRM, or agreements reached in connection with grievances or complaints through problem solving, have been implemented, and report on that monitoring to the Board.
156. Regardless of the different E&S mitigation measures and procedures in place, climate adaptation and mitigation projects can inadvertently people can be adversely impact communities. Taking this into consideration GCF provides a platform where communities, indigenous people and civil society can present complaints regarding a specific GCF financed project and seek remedy (redress harm) and improve project performance in the long run. There are no formal requirements for filing a complaint. A complaint should generally include: i) the complainant's name, address and contact information; ii) If the complaint is being filed by a representative of the complainant, the name and contact information of the representative, as well as evidence that the representative is authorized to act on the behalf of the complainant; iii) A description of the project or programme that has caused or may cause adverse impacts to the complainant; iv) A description of how the complainants have been or may be adversely impacted by the project or programme; v) Whether confidentiality is being requested and the reasons for it.
157. Some exclusions apply, as indicate in the IRM guidelines. The complaint can raise issues related to any of GCF's policies and procedures, including those relating to social and environmental issues, Indigenous Peoples, gender, information disclosure, among others. However, the IRM cannot accept a complaint if it is: i) About a project or programme where the GCF is not directly and/or indirectly involved; ii) About GCF's non-operational housekeeping, such as human resources and finance; iii) Allegations of corruption or procurement issues (these complaints are handled by the Independent Integrity Unit (IIU) and other Units at the GCF); iv) Only about whether the GCF's policies and procedures are adequate; v) About a matter already dealt with by the IRM, unless there is new relevant information that was not available before; or vi) Malicious, frivolous and/or fraudulent or filed to gain a competitive advantage.
158. Who and how can grievances or complaints be submitted.
- Any person or a group of persons, or a community that has been or may be affected negatively by a GCF project or programme (including those being actively considered for funding by the GCF) may file a complaint. The affected person(s) can authorize their government or representative to file and pursue the complaint on their behalf.
 - The IRM shall provide confidentiality to a complainant or to a representative, if so, requested by the complainant. A grievance or complaint may be submitted in English or in any language the complainant uses.
 - The IRM will provide confidentiality upon receiving a complaint if requested to do so by the complainant. Complaints or grievances can be submitted to the IRM through any means such as

submission through an online complaints form, mail, email, voice or video recording, or by calling a toll-free hotline where one has been designated for that purpose by the IRM or directly through a web form:

- <https://gcf.i-sight.com/external/case/new/group=Complaint>
- Complaints can also be submitted to the Grievance redress mechanism of Accredited Entities (AE) ³.

159. The IRM will cooperate and collaborate with the accountability and/or grievance mechanisms of AEs. The IRM on the one hand, and the accountability and/or grievance redress mechanisms of the respective AE on the other, will each perform their duties and exercise their powers and functions, in accordance with the policies and procedures applicable to them.

Independent Redress Mechanism - Green Climate Fund

By email: irm@gcfund.org

Office telephone: +82 32-458-6186; Fax: +82 32-458-6096; Cell phone: +82 10-4296-1337.

7. Mitigation measures and approach to enhance positive impacts

7.1 Expected project impacts

160. **Positive impacts** of the Project are environmental, social and economic. The Project envisages that at least 30 percent of beneficiaries are women, giving higher priority to women⁷⁸ owning degraded coppice stands or non-longer suitable for farming/coppicing//degraded lands cultivation of wooden species for bioenergy or other purposes. Thanks to the climate adaptive silviculture (CAS) practices and technologies the Project envisages contributing to creating new job opportunities and new markets (e.g. CO₂ management, green biomass, climate adaptive nurseries). Relevant co-benefits of reducing the adverse impacts of fuelwood include distinctive social benefits as Project activities will help reduce poverty in Serbia. Economic benefits will originate from: (i) the offsetting mechanism that will increase the budget of the forestry sector; (ii) the improved efficiency of wood biomass used for fuel; and (iii) the potential benefits that will originate from the degraded private lands converted to bioenergy plantations and from the lands protected by shelterbelts. Furthermore, the Project will have a positive impact on households that will be expected to face a lower unit cost for energy produced by fuelwood. This lower unit cost of energy will enhance affordability of energy for the poorest segments of the population. In addition to the positive impacts in terms of climate change mitigation and adaptation (CCM and CCA), the Project will have positive impacts on biodiversity⁷⁹, on soil quality⁸⁰ and water availability, decrease evapotranspiration and slow down soil erosion, increase agricultural yields, and protect rural communities and infrastructures from flash floods, floods and landslides. Furthermore, via afforestation activities and shelterbelts/windbreakers, the Project will support the active protection and conservation of biodiversity. These will create corridors and shelter for wild animal species and flora. The Project will also support the country in expanding/enhancing/establishing the needed policy and legal reforms to remove the bottlenecks that are at the root of the identified climate change adaptation deficit of the sector. Lastly, the Project will support the country in addressing the reported forest's overexploitation risk existing at local level due to fuelwood needs as well as the overall vulnerability of the population to natural hazards. No cumulative impacts are envisaged.

161. **Potential negative impacts** are mitigatable and are mainly related to on-ground activities in the forestry sector. On-ground activities will include newly establishing forest; restoring damaged forests; shifting private **coppice** stands to high forest; and establishing shelterbelts. The project will not cover forest harvesting operations. Potential impacts are limited to the Project footprint and could occur as a result of forest-related activities, but these are localized and are mitigated by selecting local species with wide ecological range and higher drought resistance, considering the bioclimatic type of each site and projected shifts in potential tree species range limits due to climate change. The presence of Indigenous Peoples is not envisaged, however, this is considered in the ESS mitigation plan of this ESMF. Should Indigenous Peoples be identified, subsequent activities will be in full compliance with FAO Environmental and Social Management Framework as well as GCF Indigenous Peoples Policy. **FAO Safeguards that are applicable for this Project** are presented in Table 17, below.

⁷⁸ A preliminary list of beneficiaries disaggregated by gender will originate from the digital cadastre of Serbia to ensure that gender accounting is well reflected in both the baselines and targets. Depending on the results of the analysis of the cadastre targets will be increased at design.

⁷⁹ Activities will follow specific protocols that will guarantee the use of local and species that will be selected based on the characteristics of existing forests. The project will not negatively impact ecosystems.

⁸⁰ Converting degraded agricultural lands that have been non-longer suitable for farming into biomass forests, will allow the lands to maintain value and produce income and for the soil to recover and gradually recover sufficient quality to sustain again agriculture. Furthermore, the activity will protect soils from erosion and will contribute to mitigation of the adverse impacts of winds.

7.2 Mitigation of environmental and social impacts

162. The project is **designed** to have positive environmental and social outcomes. Major Project interventions will contribute to national climate change adaptation and mitigation priorities. Project priority criteria were developed and agreed upon with stakeholders for each Project component. The Gender Action Plan is a tool prepared to ensure gender objectives and targets are met.

163. Some Project activities could, however, create localized and unintended impacts. Table 17 (below) identifies the main activities and potential issues that may emerge depending on the Project activities – and then identifies actions that need to be ensured to happen, or mitigation measures to take - in order to *not* have negative consequences. All on-ground activities will undergo an environmental and social impact assessment prior to activity commencement, and ESMPs will be prepared. ESMPs will take into account the mitigation actions described in the table below.

Table 17. ESS mitigation plan: potential environmental and social impacts, and actions

Activity	Potential risk	Actions (ensure avoidance of/mitigation of) to address potential impacts
Upgrading of two public nurseries ⁸¹ - Production of climate adaptive seedlings	Poor planning for seedling quality and/or availability Lack of long-term vision for viability of nurseries and seedling production Lack of suitable seeds, leading to a disruption of production continuity or requires the use of seeds of inappropriate origin	Ensure adequate technical and professional capacity at the nurseries for the continuous production and secured placement of seedling, and appropriate quantities of high-quality seeds. Ensure that the assortment of constantly available seeds for the needs of nursery production correspond to the perennial dynamics of the planned planting works (i.e. the production of planting material). The quality of the planned seedlings for afforestation must be produced from seeds of verified origin and meet the requirements intended for the highest quality classes; they must be sourced through officially recognized channels. No GMO or seeds with insecticidal seed coatings will be used in the project. No new construction will take place. The four climate adaptive silviculture guidelines prepared under the project will be used to mitigate any potential risks: 1) climate smart nursery production including seed selection; 2) soil preparation for planting on extreme sites; 3) effective and efficient planting methods; as well as 4) maintenance after planting and first thinning operations.
Forest restoration and expansion (<i>refer to Annex 16 - Maps indicating location of proposed interventions for proposed project sites</i>)	Forest Management Plans (FMPs) not thoroughly developed Endangerment of indigenous ecosystems	Ensure that Forest Management Plans (FMPs) are thoroughly developed, to include all considerations for afforestation, including land preparation. In the planning process, it is also necessary to assess the risk of fire in the area intended for afforestation and have into account the relevant national and sub-national fire protection plans. The planning process shall

⁸¹ The full description of nurseries is available in Appendix 2.i

Activity	Potential risk	Actions (ensure avoidance of/mitigation of) to address potential impacts
<ul style="list-style-type: none"> - Forest establishment - Forest restoration - Shifting of private coppice stands to high forest - Establishment of shelterbelts - Cultivation of non-longer suitable for farming private lands with woody species, for energy use 	<p>Inappropriate planting techniques used</p> <p>Forest/land ownership not considered</p> <p>Communities not engaged/consulted</p> <p>Harvesting not considered</p>	<p>also assess any threats of spread of invasive species, in order to adopt any necessary mitigation measures.</p> <p>An account of threats, including regional level threats that are relevant to the project site and its area of influence will be discussed in detail during the ESIA/ESMP preparation. International expertise will be brought in for site selection for coppice activities. The expert will be selected to ensure they have appropriate experience and capacity in conducting biodiversity assessments ensuring that the areas selected are not considered as critical habitats.</p> <p>The expert will provide advice on afforestation/reforestation which will include advice on specific planting sites to ensure that habitats are not fragmented and do not affect the movement of established species.</p> <p>All plant material should be sourced from legally approved points. Autochthonous species of local provenances will be used for afforestation, or their ecotypes which are well adapted to the habitat conditions. Selected tree and shrub species will have a wide ecological range (they grow under large temperature and precipitation gradients), and the capacity to withstand drought, re-sprout after fire, attract seed-dispersal fauna and thus favour seedling recruitment of different species, among other features.</p> <p>Species, provenances, varieties or ecotypes should only be used outside their natural range if their introduction would not endanger indigenous ecosystems. For example, the following species are considered invasive and are not considered, in FMPs: ash maple (<i>Acer negundo</i>), sour wood (<i>Ailanthus glandulosa</i>), indigo bush (<i>Amorpha fruticosa</i>), western nettle (<i>Celtis occidentalis</i>), pennsylvania hairy ash (<i>Fraxinus penns</i>), thorn (<i>Gledichia triachantos</i>), hedge (<i>Lycium halimifolium</i>), five-leaf ivy (<i>Parthenocissus inserta</i>), black cherry (<i>Prunus serotina</i>), acacia (<i>Robinia pseudoacacia</i>).</p> <p>The use of chemicals or other substances that adversely affect soil, water resources and biological diversity are not envisaged, however, if necessary, preference is given to natural, biological and mechanical interventions as an alternative to chemicals.</p> <p>Prior to undertaking planned afforestation activities, forest experts should visit each of the identified parcels, re-evaluate the conditions and possibilities for afforestation and make additional habitat descriptions. More detailed descriptions are needed for possible correction of selected type of</p>

Activity	Potential risk	Actions (ensure avoidance of/mitigation of) to address potential impacts
		<p>seedlings for planting, as well for developing of operational silviculture plans.</p> <p>Planting techniques will be undertaken according to up-to-date knowledge and verified practices of afforestation. When planting trees, the rule is to choose the type of trees, depending on habitat and other conditions, as well as the number of seedlings, age, method of production, etc. This also includes planting techniques related to fire prevention (e.g. tree spacing, fire breaks).</p> <p>On weedy bare lands, where there is a risk for plants to die out, it is necessary to plan more developed perennial school seedlings. On the other hand, younger seedlings with strong, densely branched or protected roots should be used on shallow, rocky and dry soils. In such habitat conditions, the maximum number of seedlings per hectare is to be planned. Planting by mixing different types of trees is to be done with the application of a group mixture and entails small-area grouping of tree types in accordance with habitat conditions.</p> <p>As applicable, fencing for tree plantings protection should be maintained, and kept for at least five years before being removed to an appropriate disposal site. Afforestation will take place in State Forest Fund and therefore on public land; there are no property issues. Forests will remain under the property and management of the State and its institutions and will not be subject to cut. On private non-forest land, the forestry investments are only related to afforestation measures for which there are research-based selection criteria (land degradation classes) which will contribute preventing bribery and mismanagement of project funds. In all cases the PMU of the project and its M&E team will constantly monitor activities and report all potential risks or suspicions.</p> <p>Fencing will be of different form including biological depending on specific context of the forestry investments. Each will be defined during the inception phase when precise sites will be formalized at which time appropriate screening for types of fencing and their handling and disposal will be conducted.</p> <p>Consultation will be held with local communities. Forest rehabilitation will be demand-driven and a precondition to access is ownership of deeds based on available public digital cadastre. As part of the procedures established by the project, communities will be informed and engaged in all forestry investments and areas selected for forestry investments will need to be clear from claims or conflict, certified by Forest and municipal authorities.</p>

Activity	Potential risk	Actions (ensure avoidance of/mitigation of) to address potential impacts
		<p>Monitor vegetation regeneration.</p> <p>Intervention areas are not possible to harvest in the 20 years following project completion. Harvesting will not take place before an average of 80 years, with the exception of some thinning operations in regular intervals so that young forest can grow in optimal conditions and produce max biomass (which means max C sequestration). New forest management planning and practice (building upon the results of the GEF6 project) ensures the legal obligation for forest users to implement, in all stages of forest management, what is called “Close to Nature Forest Management”, of which CAS is considered the equivalent. This will be applied in this Project. Available good international industry practices and guidelines will be adopted, including those of the World Bank Group⁸².</p> <p>The project will not acquire land nor displace people. Forestry investments will only be executed in land owned by the state or by farmers with clear ownership that are free from any dispute as stated in each of the land selection criteria. This will also be guaranteed by the presence of an updated cadaster. Furthermore, all actions related to forestry investments will also be discussed with municipalities and communities to ensure that lands are free. The project or the government will not expropriate lands nor plant on land of dubious ownership. The project will work on land that is no longer suitable for agriculture and therefore abandoned or not in use from a productive perspective. Landowners in Serbia are clearly identified via the digital cadaster and no such investment will be made without the consent of landowners.</p>
Rehabilitation and climate proofing of forestry roads	<p>Safety hazards</p> <p>Introduction of invasive species</p>	<p>Forest road construction and maintenance must be compliant to the regulations and conditions provided by Nature Protection Agency of Serbia. Road rehabilitation will be undertaken for existing access roads only, to guarantee access for afforestation, management and fire protection of newly established forests. This will primarily involve clearing of roads and rehabilitation of damage caused by rains. Equipment may include shovels, hoes and rakes, hand tampers and portable pumps. All tools will be thoroughly cleaned before and after works to avoid the risk of introducing invasive species. No asphaltting will be done nor modification of the structure, and debris will be disposed of in assigned areas. Climate proofing will be guaranteed by efficient levelling of the roads and the cleaning of existing drainages that will avoid erosion as well as water logging. Roads are public roads owned by the MoAFW and are not used for transiting or movement of goods and</p>

⁸² Environmental, Health, and Safety Guidelines for Perennial Crop Production, World Bank, 2016; Environmental, Health, and Safety Guidelines for Forest Harvesting Operations, IFC, 2007.

Activity	Potential risk	Actions (ensure avoidance of/mitigation of) to address potential impacts
		people other than those needed to the maintenance of forests.
	Disruptions to users/communities	Users of, and communities near, the roads to be rehabilitated will have been consulted, and informed of works and time-schedule.
	Unfair employment	<p>The workforce will be recruited from local rural communities.</p> <p>Employment will be in line with national legislation and/or UN/FAO regulation, whichever is most stringent.</p> <p>No workers under the age of 18 will be employed.</p> <p>Workers will be hired through entities responsible for the specific activity - the condition of hiring workers from within a 25km radius will apply to companies to be selected by the project for the purposes of each activity.</p>
Entire project	Occupational Health and Safety Risks (OHSR)	<p>Compliance with general rules and regulations on OHSR.</p> <p>As applicable, ensure workers are equipped with protective gear.</p> <p>As applicable, ensure the availability of first aid kit at work sites and necessary information on rescue during emergency.</p> <p>Ensure workers are trained on OHSR risk prevention and management on site.</p> <p>COVID-19: (i) WHO guidance on prevention of the spread of the COVID-19 virus; (ii) relevant Government of Serbia COVID-19 guidelines; and (iii) FAO guidance on undertaking fieldwork under the COVID-19 pandemic – if and as applicable - will be followed.</p> <p>Potential land mines (unexploded ordnances or weapons) in the target areas are not anticipated.</p>
	Exclusion of Indigenous Peoples or Internally Displaced Persons	Prior to implementing field level activities, stakeholder consultation and second-level screening will be held once specific project sites are identified by the government to confirm presence of Indigenous Peoples or IDP in site-specific areas.
	Exclusion of females	Issues related to gender equity are addressed in Project design/activities and the Gender Assessment and Gender Action Plan. The GRM is established as the platform whereby grievances related to the Project ESMF can be addressed.

Activity	Potential risk	Actions (ensure avoidance of/mitigation of) to address potential impacts
	Sexual exploitation and abuse	<p>Stakeholder consultations prior and during project implementation will include awareness raising and stakeholder-differentiated understanding of SEAH related risks and mitigation measures. The Grievance Redress Mechanism provides an accessible and inclusive survivor-centred and gender-responsive grievance redress mechanisms with specific procedures for SEAH including confidential reporting with safe and ethical documenting of such cases, that indicate when and where to report incidents, and what follow-up actions will be undertaken.</p> <p>The Project will ensure that all concerns and/or incidents will be reported to the ESS Specialist point and the FAO Office of the Inspector General, as appropriate. The Project PMU will also have a gender specialist with PSEA expertise.</p> <p>There will be constant coordination between the project gender and ESS specialist, the National Gender Coordinator, and the Regional Gender Coordinator in FAO. The project will work with relevant gender/social welfare Government ministries and departments, other anti-gender-based violence organizations or networks. The project will liaise with institutional stakeholders that are providers of SEAH training (e.g. UNFPA, UNWOMEN, UNIVEF, OCHA among others) to project stakeholders and communities.</p> <p>Preventing SEAH is envisaged by engaging with women through the duration of the project – more specifically, stakeholder consultations prior and during project implementation will include awareness raising and stakeholder-differentiated understanding of SEAH related risks and mitigation measures. The project will ensure regular visits to communities and local institutions. The Gender ESS experts will work with local government or authorities and to sensitize community members on SEAH safeguards. The Gender and Social expert of the project will support local officials in campaigns on prevention of SEAH. Champions will be identified to, where applicable, act as allies on SEAH safeguarding. SEAH training on SEAH risks, how to report them and the services available including SEAH GRM established by the project will be provided to project stakeholders and communities.</p>
Monitoring	Any potential negative impact not captured	While this is not an environmental and social impact per se, it has implications for tracking Project success or shortcomings so these can be mitigated, but also to contribute to larger, national-scale data collection. Therefore, training on monitoring (e.g. forest restoration) is crucial. Each inventory and assessment as well as investment should be georeferenced and uploaded in earth map.

Activity	Potential risk	Actions (ensure avoidance of/mitigation of) to address potential impacts
		<p>Capacity building activities (including training and awareness raising) to be held at different management levels and at national level.</p> <p>Monitoring of the ESMF will be undertaken by a specifically hired person at the PMU.</p>

Source: Authors' own elaboration.

8. Principles and procedures to mitigate impacts for implementation

164. This chapter describes the process for ensuring that environmental and social concerns are addressed through the institutional arrangements and procedures used by the Project for managing the identification, preparation, approval, and implementation of sub-project activities.

165. This ESMF identifies the ESS policy triggers for the Project, the potential environmental and social impacts of Project activities, and measures to mitigate the identified risks. In the early stages of the Project, once specific target activity areas have been identified, and activities fully defined, an environmental and social screening exercise will be carried out at the sub-project level (refer to Annex 3 for FAO's Environmental and Social Safeguards [ESS] checklist). Category A projects will be excluded. This tool will help identify those sub-projects that may require mitigation measures.

166. In order to ensure that environmental and social issues are addressed properly in accordance and in compliance with the FAO and GCF Policies, all Project activities shall undergo screening, assessment, review, and clearance process before execution of the Project activities. Biodiversity assessments will be conducted to ensure that project areas are not considered as critical habitats and that if and as necessary, appropriate mitigating measures are adopted. In line with Serbia's ESIA procedures, this ESMF constitutes the initial environmental impact assessment; the MoAFWM is the Project NDA and project Executing Entity, and responsible for forestry, agriculture and water management activities (therefore, the technical responsible Ministry for strategic environmental impact assessment). Serbian strategic environmental impact assessment falls under the overall responsibility of the Ministry of Environmental Protection (MoEP); this ESMF will be used for ensuring environmental and social safeguards are in place. Furthermore, project sub-activities will undertake, as applicable, further environmental and social impact assessments, where FAO and/or national environmental impact assessment standards/regulation will be followed, whichever is most stringent. No sub-activity will commence until applicable assessments take place and are cleared.

Table 18. Project compliance with Serbian ESIA procedures and steps

Stage Activity	Serbian ESIA Procedures and Steps
Initial Screening	<ul style="list-style-type: none"> • The ESS Specialist of the Project PMU completes FAO's ESS Screening Checklist (provided in Annex 3) for the intended sub-project activity and submits it to FAO's Environmental and Social Management Unit (ESMU), for screening and endorsement. • The ESS Checklist determines the sub-project activity classification: <ul style="list-style-type: none"> ○ Category I (A) project; for which a full EIA/EMP report is required. ○ Category II (B) project, for which an initial EIA/EMP is required. ○ Category III (C) for which no environment analysis is required. <p>(Ref. Section 8.2, below)</p>
Environmental and Social Plans	<ul style="list-style-type: none"> • The ESS Specialist of the Project PMU prepares the Terms of Reference for the ESMP, based on Sections 8.2 and 8.3, below. • The ESS Specialist of the Project PMU, together with technical specialists, prepares and Environmental and Social Management Plan (ESMP). • FAO's ESMU and Serbia's MoEP review and approve the ESMP. • The ESMPs are publicly disclosed and presented and discussed during stakeholder consultations. <p>(Ref. Sections 8.2 and 8.3, below)</p>

Source: Authors' own elaboration.

8.1 Defining sub-project activities

167. By design, the Project is expected to have far greater environmental benefits than adverse environmental impacts. The potential adverse environmental impacts from the Project are likely to be small and localized. However, it is recognized that such impacts can accrue into larger impacts if they are not identified early during the planning cycle and their mitigation measures integrated into the Project planning and implementation.

168. Considering the activities to be implemented in each implementing site will be very similar in nature and scale across the implementation area, it is proposed that screening for potential risks is undertaken at sub-project activity level. Sub-project activities constitute a valid tool to identify expected impacts and mitigation and monitoring measures.

169. In this context, sub-project activities will be identified during the inception phase. For each sub-project activity, implementing sites will be identified along with activities, including capacity building/training and stakeholder engagement information specific to each site.

170. In order to ensure a smooth and effective ESMF process, there will be one person in the PMU responsible for the environmental and social safeguards (ESS) process (including GRM and stakeholder engagement).

8.2 Environmental and social risk screening of sub-project activities

171. FAO's Environmental and Social Screening (ESS) checklist (Annex 3) will determine if an Environmental and Social Management Plan (ESMP) is needed for each sub-project activity. The nature, magnitude, reversibility, and location of impacts are main elements in the screening of sub-projects; expert judgment is a main factor in deciding whether an ESMP is required for a sub-project or not, and national SEIA legislation must also be consulted.

172. For a sub-project activity that requires an ESMP, the proposal must include a set of mitigation measures with monitoring and institutional arrangements to be taken during the implementation phase to correctly manage any potential adverse environmental and social impacts that may have been identified.

173. FAO will undertake environmental and social screening following FAO's ESS Checklist. Once the implementation sites and beneficiaries are determined, a screening checklist will be completed per sub-project activity and signed off by the ESS specialist at the Project Management Unit (PMU). The results of the screening checklists will be aggregated by the ESS specialist. This document will be sent to the ESM Unit in FAO for endorsement. FAO will exclude high risk sub-projects.

174. Screening of sub-project activities involves:

- a) checking the activity is permissible (as per the legal and regulatory requirements of the Project); and
- b) determining the level of environmental assessment required based on the level of expected impacts.

The ESS screening checklist will result in the following screening outcomes:

- a) determine the category for further assessment; and

b) determine which environmental assessment instrument to be applied.

175. Pre-implementation safeguards documents (one per sub-activity) will be under the responsibility of the project Safeguards Specialist prior to the implementation of activities and sent to the ESM Unit for endorsement.

176. The documents will outline the following information relative to each sub-project activity:

a) Description of the activities to be carried out in all sites

b) Description of each implementing site:

i. Geography and specificities in terms of activities

ii. Beneficiaries and stakeholders

iii. Map of the site

c) Description of the stakeholder engagement process that was carried out in the inception phase and the stakeholder engagement plan to be carried out during implementation.

d) Break down of information by site about the grievance mechanism and disclosure.

e) Aggregated results of the environmental and social screening checklists per sub-activity signed off by the Safeguards Specialist in the Project Management Unit.

f) Where applicable, Environmental and Social Management Plans identifying mitigation measures, indicators, responsibilities and timeframe. The ESMP will be added to the monitoring plan to ensure safeguards performance is regularly reported upon along with stakeholder engagement monitoring per site.

8.3 Environmental and social risk management

177. For a sub-project activity that requires an ESMP, the sub-project activity proposal must contain an ESMP consisting of a set of mitigation measures with monitoring and institutional arrangements to be taken during its implementation. Funds have been budgeted for the ESS Specialist, who is responsible for the overall preparation of this (see Annex 2).

178. The ESMP should include:

Mitigation Measures: Based on the environmental and social impacts identified from the checklist, the ESMP should describe with technical details each mitigation measure, together with designs, equipment descriptions and operating procedures as appropriate.

Monitoring: Environmental and social monitoring during the implementation of the sub-projects should be described, in order to measure the success of the mitigation measures. Specifically, the monitoring section of the ESMP provides:

- A specific description and technical details of monitoring measures that include the parameters to be measured, the methods to be used, sampling locations, frequency of

measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions.

- Monitoring and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures and to furnish information on the progress and results of mitigation, e.g. by annual audits and surveys to monitor overall effectiveness of this ESMF.

179. **Institutional Arrangements:** The ESMP should also provide a specific description of institutional arrangements, i.e. who is responsible for carrying out the mitigating and monitoring measures (for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting and staff training). Additionally, the ESMP should include an estimate of the costs of the measures and activities recommended so that the necessary funds can be budgeted and included in the proposal. The mitigation and monitoring measures recommended in the ESMP should be developed in consultation with all affected groups to incorporate their concerns and views in the design of the ESMP.

180. Once the pre-implementation documents with ESMPs are endorsed by the ESM Unit in FAO and Serbia's MoEP, the Environmental and Social Safeguards Specialist from the PMU will ensure ESMPs are included and reported upon, along with stakeholder engagement in the context of the monitoring plan.

181. In this context, field staff will be responsible for monitoring the progress as relevant in the monitoring plan, as well as to identify any potential risks that may emerge through the implementation phase. This information will be compiled in progress reports and templates will include a section on Environmental and Social Risk Management, where the above information will be reported upon.

182. Information from progress reports will be received by the ESS specialist in the PMU, who will compile the information received in the progress reports, as well as that related to grievances to feed in a semi-annual report on Environmental and Social Safeguards Performance to be endorsed by the ESM Unit in FAO. This report will also include aspects of the Grievance Redress Mechanism to ensure its efficacy and will be used in the preparation of the M&E Unit's Annual Performance Reports (APR): based on the previous years' experience, at AWPB meetings, the GRM will be evaluated and refined, if and as needed.

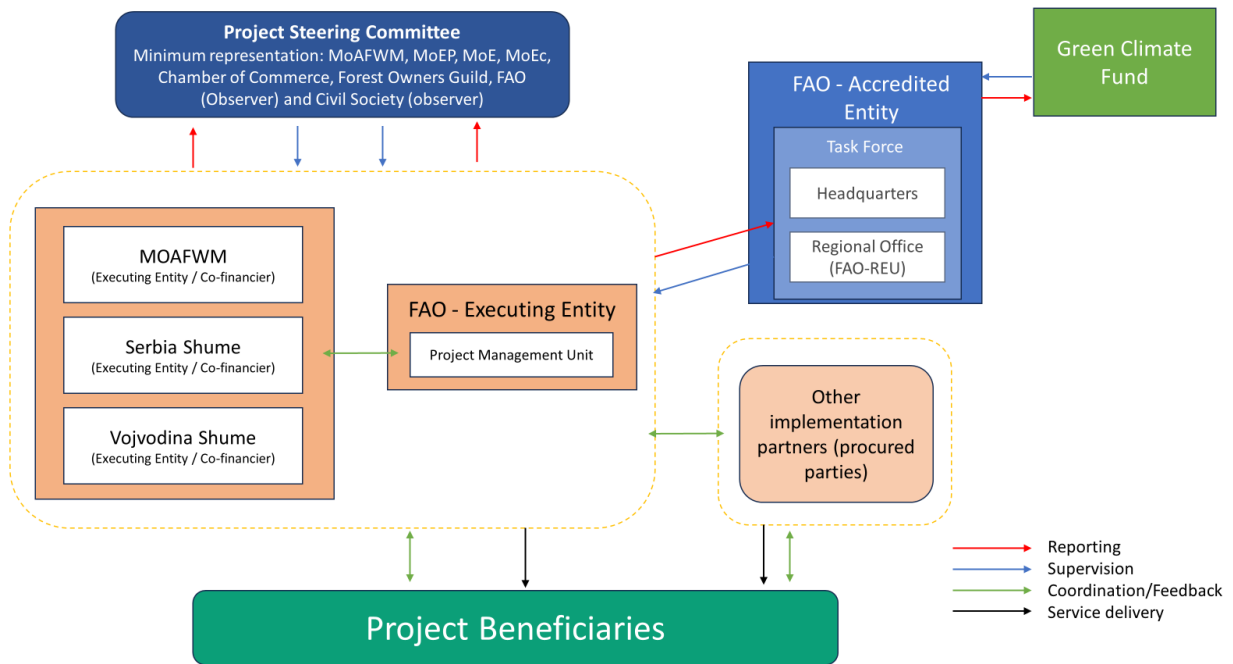
9. Implementation arrangements

183. Within the Project governance structure described in Section 2.4, above, there will be a Project management structure (Project Management Unit, or PMU), within which the Environmental and Social Safeguards Specialist will work.

9.1 Project management and implementation

184. FAO will be the accredited entity of the Project and will co-execute activities with the Ministry of Agriculture, Forestry and Water Management (MoAFWM). The Project will be executed through a Project Management Unit (PMU) to support all the technical activities. The PMU will work under the guidance of a steering committee representing the line ministries and other stakeholders including representatives of the private sector.

Figure 12. Project implementation arrangements



Source: Authors' own elaboration.

185. To ensure national engagement and strategic positioning, the Project will also partner with both governmental (Ministries and Municipalities) and non-governmental partners (Chambers of Commerce and Industry; Forestry, Agriculture and other category organizations). Partnering institutions and organizations reflect the various dimensions of the Project. Each will have a specific role in ensuring the success and sustainability of planned activities.

Table 19. Role of the main institutional stakeholders

Institution	Description
Ministry of Agriculture, Forestry and Water Management (MoAFWM) (EXECUTING ENTITY)	Responsible for developing and implementing policies in the fields of agriculture, forestry and water management. The Project will mainly work with the Directorate of Forests on all forestry-related issues, but in particular on FLR matters, with support and involvement of Agricultural Land Directorate, Rural Development Directorate, and other Directorates as appropriate.
Ministry of Environmental Protection (MoEP)	Responsible for development and maintenance of the system for protection and improvement of environment; overall responsibility for strategic environmental impact assessment. The Project will work with the MoEP as the main partner for the establishment of the offsetting / insetting mechanism and in the activities related to the decarbonization process.
Ministry of Mining and Energy (MoME)	Responsible for increasing energy efficiency and energy security. The Project will work with the MoE in greening the fuel biomass value chains and other activities related to the decarbonization process.
Ministry of Education, Science and Technological Development (MoESTD)	Responsible for the national education system. The Project will work with the MoESTD as its main partner for the upgrade of the national universities and vocational schools' curricula that are relevant for the practices, technologies and methodologies introduced by the Project.
Ministry of Economy (MoE)	Responsible for elaborating the national economic, trade and industrial development policies and the strategies of economic security and sustainable development. The Project will work with the MoE to engage the private sector in both forestry and decarbonization activities.
PE Serbia Shume and PE Vojvodina Shume (EXECUTING ENTITIES)	Responsible for managing State-owned forests, and for professional affairs and supervision in private forests. The Project will work with the PEs in the planning and implementation of afforestation and restoration activities of the Project and the roll-out of the newly introduced CAS to become integral part of SFM.
Municipalities	Municipalities are in charge of municipal lands (including insignificant forest area in a very limited number of municipalities) within the borders of their territory. The Project will work with municipalities to explore opportunities for FLR investments on degraded lands applying the newly introduced CAS approaches.
Chamber of Forestry	The Project will work with the Chamber of Forestry on further training of forest professionals to ensure that the newly introduced CAS approaches are applied in their daily work.
Chamber of Commerce and Industry/Serbia Grain Producers Association	The Project will work with the Chamber of Commerce and Industry and the Serbia Grain Producers Association to identify private sector actors and to engage them in the forestry/decarbonization activities.
The National Biomass Association SerBio	SerBio is an association of NGOs, companies and individuals in the field of biomass utilization and can facilitate interactions with various stakeholders in relation to biomass mobilization and utilization.

National and local NGOs	Environmental NGOs at national level and also active at local levels, like the Forestry Youth Movement (Pokret gorana), are active in educating young people and undertake field activities such as tree planting on a smaller scale. The Project will try to involve them in FLR activities, thus sharing knowledge about the newly introduced CAS approaches with a wider audience and contributing to achieve sustainability of the results of the Project.
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Source: Authors' own elaboration.

186. A review of the activity/role assigned to the relevant stakeholder for each of the components and sub-components is given in Table 20, below. The ESS Specialist will work with these partners to ensure the implementation of this ESMF. As identified during the course of Project implementation, this includes ESMP preparation and training on aspects of ESMP execution (e.g. stakeholder engagement, GRM, monitoring).

Table 20. Activity roles and responsibility

Activity	Role	Responsibility
Activities 1.1: Technical assistance to strengthen the existing forest management and monitoring policy framework.	Establish the national Forest Monitoring System (NFM).	MoAFWM
	Deliver the national strategy, action plan and execution guidelines for wood energy plantations.	MoAFWM
	Deliver the guidelines for decision makers on LULCF to prevent soil degradation.	MoAFWM
	Deliver the standard for biomass production/handling and use.	MoAFWM
Activities 1.2: Technical assistance to upgrade the existing Monitoring, Reporting and Verification system and to establish a national offsetting and insetting options.	Upgrade and operationalize the national MRV system (in relation to forestry).	MoAFWM
	Develop and activate a national carbon offsetting/insetting mechanism.	MoEP
	Put in place a regional knowledge-sharing platform for national offsetting/insetting mechanisms.	MoEP
Activities 1.3: Technical assistance to include climate adaptive silviculture (CAS) in the national procedures for forest management.	Engage and train public and private stakeholders in climate adaptive silviculture.	MoESTD/Chamber of Forestry/PE Serbia Shume and PE Vojvodina Shume/MoAFWM
	Produce guidelines on climate adaptive silviculture (nursery production, soil preparation, planting operations and management).	MoAFWM/MoEP/PE Serbia Shume and PE Vojvodina Shume
	Upgrade national curricula (faculty of forestry and vocational schools	MoESTD

	working on forestry, agriculture and accounting) with introduced practices and technologies.	
	Put in place a regional knowledge-sharing platform for CAS.	MoAFWM
Activities 2.1: Upgrade of the public nurseries and production of climate adaptive seedlings.	Upgrade and operationalize public nurseries (Vojvodina/C. Serbia).	MoEP/PE Serbia Shume and PE Vojvodina Shume
	Support and train operators of public and private nurseries in the production of diverse and climate adaptive forestry seedlings.	MoEP/Chamber of Forestry
	Produce climate adaptive seedlings (local species/varieties) by State nurseries.	MoEP/PE Serbia Shume and PE Vojvodina Shume
Activities 2.2: Investing in forest restoration and expansion (community participation, land preparation, planting, and maintenance).	Establish new forest.	PE Serbia Shume and PE Vojvodina Shume/MoAFWM
	Restore degraded forests.	PE Serbia Shume and PE Vojvodina Shume/MoAFWM
	Shift private coppice stands to high forest.	PE Serbia Shume and PE Vojvodina Shume/MoAFWM
	Establish shelterbelts.	PE Serbia Shume and PE Vojvodina Shume/MoAFWM
Activities 2.3: Supporting and enhancing private sector involvement in reaching national forestry targets and greening of the wood biomass value chain.	Cultivate private lands non-longer suitable for farming with wooden species for energy use.	PE Serbia Shume and PE Vojvodina Shume/MoAFWM/Municipalities
	Engage private actors in sustainable biomass value chains.	MoME/MoE
	Establish a platform involving stakeholders of the forestry and agricultural sectors to support a modern and transparent forestry and biomass value chain.	MoME/MoE
Activities 3.1: Establishment/promotion /start-up/operationalization of the national decarbonization facility.	Establish and operationalize the national decarbonization facility.	MoEP
Activities 3.2: Technical assistance and capacity development to companies to design decarbonization strategies, account GHG	Ensure the involvement of agribusiness and other companies in the process.	MoME/MoE/Chamber of Commerce and Industry/Serbia Grain Producers Association
	Ensure agribusinesses and other companies produce and start implementation of their respective	MoME/MoE

emission, and generate carbon reduction and offsetting investment plans.	decarbonization strategies, budgets and action plans.	
	Train, capacitate and make operational decarbonization service providers (e.g. accountants/auditors).	MoME/MoE
Activities 3.3: Disbursement of loans and technical assistance to execute the carbon reduction plans including insetting projects.	Disburse funds from national and international finance institutions to private sector companies, to execute their respective carbon reduction plans (including insetting).	MoME/MoE
	Ensure funds are invested by companies in national offsets.	MoME/MoE

Source: Authors’ own elaboration.

9.2 Environmental and social safeguards management

187. The Project will ensure that this Environmental and Social Management Framework is adhered to, and its sections used as guidance for the preparation of Environmental and Social Management Plans (ESMPs), including monitoring and capacity building aspects. For this purpose, an Environmental and Social Safeguards (ESS) Specialist will be hired, within the PMU, for the duration of the Project. A total budget of USD 115,000 has been allocated for the salary of this person. The ESS Specialist will be responsible for ensuring overall compliance with this ESMF, including ensuring the implementation of the various mitigation measures proposed; presenting and explaining the ESMF and Grievance Redress Mechanism to all stakeholders during consultations, and incorporate feedback into the Project’s implementation; and monitoring the safeguards process. This includes ensuring that stakeholders have the capacity to implement ESMPs, and if not, provide training. The ESS Specialist will also support safeguard performance monitoring during the life of the Project. This includes all aspects of environmental and social safeguards, grievance redress, stakeholder engagement, reporting, coordinating and supervising sub-activity screening and related ESMP preparation and execution. The ESS Specialist will be responsible for ensuring ESS screening for sub-activities prior to implementation and will ensure that all ESMPs are cleared by FAO’s ESMU and Serbia’s MoEP. The ESS Specialist will also be responsible for preparing the Terms of Reference of the ESMPs (using the guidance provided in Section 8, above), and the overall oversight of mitigation for any medium-risk activities using ESMPs developed during implementation, in collaboration with the entities involved in the implementation of those components (as outlined in Tables 19 and 20, above).

188. The ESS Specialist will receive support from the Project’s Gender Specialist and other technical specialists. The ESS Specialist will also work closely with the M&E unit, and the Gender Specialist, on matters related to reporting for the environmental and social safeguards and stakeholder engagement aspects of the Project.

189. A workplan describing the implementation of the commitments, and budget, are outlined in this Environmental and Social Management Framework and included in Annex 2.

190. **Monitoring**⁸³. A monitoring and evaluation system will be established for the Project in keeping with GCF guidelines to report on its Integrated Results Management Framework (IRMF), designed to measure the Project's core indicators. The PMU will be responsible for monitoring the Project activities. An M&E system will be developed with an M&E Officer and a Monitoring Information System to keep track of performance and core indicators at the national and AP Vojvodina and Central Serbia levels. All service contracts, Letters of Agreements and Memoranda of Understanding with implementing partners will specify their responsibility with respect to sex-disaggregated data collection and reporting. The implementing partners will submit reports to the PMU which will prepare a consolidated report on an annual basis. Regular meetings for monitoring and follow-up will be organized where problems will be discussed and, when needed, corrective measures will be recommended. FAO, as the main implementing agency, will be responsible for maintaining records on all Project activities on standard reporting formats. All implementing partners will be required to provide information on the core indicators, impact, outcome and output level indicators specified in the IRMF. FAO-HQ will support the PMU in reviewing and analyzing progress reports and to assess performances against baseline and targets. FAO will manage and coordinate reporting to the GCF according to its standards procedures. Functions of the M&E include verification and respect of the social and environmental safeguards. The ESS Specialist will work in close collaboration with the M&E Officer to provide information for timely reporting on ESMF implementation, in the appropriate (M&E) format. Furthermore, in order to measure the success of the mitigation measures of ESMPs, environmental and social monitoring during the implementation of any sub-projects will be described in the ESMPs (this will be included in the Terms of Reference of the ESMP preparation). The information gathered through this will feed back into Project M&E reporting (Section 8.3, above).

⁸³ Additional details on SRVALI project monitoring and evaluation are available in Section 6 of Annex 2 (Feasibility Study), and Annex 11 (Monitoring and Evaluation Plans) of the FPP.

Annex 1. Non-eligibility list

In order to avoid adverse irreversible impacts on the environment and people, the following activities are explicitly excluded from funding:

1. Harmful or exploitative forms of child labour.
2. Harmful or exploitative forms of forced labour.
3. Forced evictions without the provision of and access to appropriate forms of legal and other protection.
4. Activities that result in the exploitation of and access to outsiders to the lands and territories of Indigenous Peoples in voluntary isolation and in initial contact.
5. Destruction of protected areas or other high biodiversity and High Conservation Value areas
6. Construction or financing of dams over 15 m in height.
7. Activities that are illegal under host country laws, regulations or ratified international conventions and agreements relating to biodiversity protection or cultural heritage.
8. Activities or materials deemed illegal under host country laws or regulations or international conventions and agreements, such as:
 - products that contain any substances that are banned for use or trade under applicable international treaties and agreements, or meet the criteria of carcinogenicity, mutagenicity, or reproductive toxicity as set forth by relevant international agencies; and
 - wildlife or products regulated under the Convention on International Trade in Endangered Species or Wild Fauna and Flora (CITES).
9. Cross-border trade in waste and waste products, unless compliant to the Basel Convention and the underlying regulations.
10. Trade related to pornography and/or prostitution.
11. Production and distribution of racist and discriminatory media.
12. Project's activities for which any of the following products is having a primary role:
 - production, use or trade in radioactive materials¹ and unbounded asbestos fibres or asbestos-containing products;
 - blast fishing and large-scale pelagic drift net fishing using nets in excess of 2.5 km in length;
 - production or trade in alcoholic beverages (except beer and wine) and tobacco;
 - production, use, trade or distribution of weapons and munitions; and
 - gambling, casinos or equivalent enterprises.
13. Use of Genetically Modified Organisms (GMOs) and invasive species.

Annex 2: ESMF timeline and budget

The Environmental and Social Safeguards (ESS) Specialist will be part of the PMU. S/he will be hired for the duration of the Project and will work in collaboration with/be supported by other project staff. (e.g. Gender Specialist, M&E Officer). The ESS Specialist will be responsible for ensuring the overall implementation of this ESMF, including: (i) conducting Environmental and Social Assessments using FAO's ESS Screening Checklist, and preparation of ESMPs for sub-project activities requiring them (in collaboration with technical experts such as the MoE technical advisor, forestry specialist, gender specialist, and relevant service providers); (ii) training PMU staff and relevant implementing agencies staff on the ESMF (including stakeholder engagement process and Grievance Redress Mechanism), with support from the Gender Specialist; (iii) ESMF validation: during stakeholder consultations, presenting, explaining to, and receiving feedback from stakeholders on the ESMF (including the Grievance Redress Mechanism) and incorporate, as needed, into the AWPB process; and (iv) as part of project M&E, and in collaboration with the PMU M&E Officer, preparing input on environmental and social safeguards aspects of the Project for annual reporting, and for Mid-Term and Final evaluations.

Project costs of relevant staff.

Costs description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	USD total costs
ESS safeguard specialist	30,000	40,000	15,000	7,500	7,500	7,500	7,500	115,000
International consultant (biodiversity/afforestation/reforestation/enrichment expert)	0	2,250	3,600	3,600	1,800	450	450	12,150
Gender Specialist	30,000	40,000	15,000	7,500	7,500	7,500	7,500	115,000
TOTAL	60,000	82,250	33,600	18,600	16,800	15,450	15,450	242,150

Workplan and responsibilities.

ACTIVITY	INDICATOR	YEAR 1				YEAR 2				YEAR 3				YEAR 4				YEAR 5				YEAR 6				YEAR 7				RESPONSIBILITY				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
CAPACITY BUILDING																																		
Capacity building of project staff/Implementing partners on ESS	Training of PMU staff on ESS provided at AWPB meetings																																	ESS Specialist
ESS SCREENING AND ASSESSMENT																																		
Identification of sub-project activities	List of sub-activities																																	ESS Specialist/FAO ESM Unit
ESS screening of sub-project activities	ESS Checklists																																	ESS Specialist/FAO ESM Unit
Environmental and Social Assessment and preparation of safeguards related documentation for compliance by sub-project activity and ESMPs	Pre-implementation documents per sub-project activity and ESMPs																																	ESS Specialist/FAO ESM Unit
ESS oversight																																		
STAKEHOLDER ENGAGEMENT-IMPLEMENTATION																																		
Annual Work Plan and Budget (AWPB)	Approved AWPBs																																	PMU/Steering Committee/Project ESS Specialist
Stakeholder consultations	Consultation reports																																	PMU M&E Officer and Specialist/ESS Specialist/Gender Specialist
GENDER ACTION PLAN																																		
Mainstreaming gender in project interventions	Details in Gender Action Plan																																	Gender Specialist/PMU M&E Specialist
MONITORING AND REPORTING																																		
Monitoring on ESS performance and stakeholder engagement, including Grievance Redress Mechanism	Project Progress reports																																	PMU M&E Specialist/ESS Specialist/Gender Specialist/FAO ESM Unit
Mid-Term and Terminal Review and Reporting	Mid-Term and Terminal Reports																																	FAO/PMU/PMU M&E Unit/External Independent Auditor
PROJECT MONITORING	Project Monitoring			AWPB*	APR**			AWPB	APR			AWPB	APR			Interim Evaluation	AWPB	APR			AWPB								APR		Final Evaluation	FAO/PMU/PMU M&E Unit/External Independent Auditor		
* Annual Work Plan and Budget																																		
** Annual Performance Report																																		

Annex 3. FAO environmental and social screening checklist format used to determine risk mitigation plan

Environmental and Social Risk Identification – Screening Checklist (ESMG, 2015)

Trigger questions

	Question	YES	NO
1	<p>Would this project:</p> <ul style="list-style-type: none"> • result in the degradation (biological or physical) of soils or undermine sustainable land management practices; or • include the development of a large irrigation scheme, dam construction, use of wastewater or affect the quality of water; or • reduce the adaptive capacity to climate change or increase GHG emissions significantly; or • result in any changes to existing tenure rights¹ (formal and informal²) of individuals, communities or others to land, fishery and forest resources? 		X
2	<p>Would this project be executed in or around protected areas or natural habitats, decrease the biodiversity or alter the ecosystem functionality, use alien species, or use genetic resources?</p>	X	
3	<p>Would this project:</p> <ul style="list-style-type: none"> • Introduce crops and varieties previously not grown, and/or; • Provide seeds/planting material for cultivation, and/or; • Involve the importing or transfer of seeds and or planting material for cultivation <u>or</u> research and development; • Supply or use modern biotechnologies or their products in crop production, and/or • Establish or manage planted forests? 	X	
4	<p>Would this project introduce non-native or non-locally adapted species, breeds, genotypes or other genetic material to an area or production system, or modify in any way the surrounding habitat or production system used by existing genetic resources?</p>		X
5	<p>Would this project:</p> <ul style="list-style-type: none"> • result in the direct or indirect procurement, supply or use of pesticides³: • on crops, livestock, aquaculture, forestry, household; or 		X

	<ul style="list-style-type: none"> • as seed/crop treatment in field or storage; or • through input supply programmes including voucher schemes; or • for small demonstration and research purposes; or • for strategic stocks (locust) and emergencies; or • causing adverse effects to health and/or environment; or • result in an increased use of pesticides in the project area as a result of production intensification; or • result in the management or disposal of pesticide waste and pesticide contaminated materials; or • result in violations of the Code of Conduct? 		
6	Would this project permanently or temporarily remove people from their homes or means of production/livelihood or restrict their access to their means of livelihood?		X
7	Would this project affect the current or future employment situation of the rural poor, and in particular the labour productivity, employability, labour conditions and rights at work of self-employed rural producers and other rural workers?	X	
8	Could this project risk overlooking existing gender inequalities in access to productive resources, goods, services, markets, decent employment and decision-making? For example, by not addressing existing discrimination against women and girls, or by not taking into account the different needs of men and women.		X
9	<p>Would this project:</p> <ul style="list-style-type: none"> • have Indigenous Peoples* living outside the project area¹ where activities will take place; or • have Indigenous Peoples living in the project area where activities will take place; or • adversely or seriously affect on Indigenous Peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (physical² and non-physical or intangible³) inside and/or outside the project area; or • be located in an area where cultural resources exist? <p>* FAO considers the following criteria to identify Indigenous Peoples: priority in time with respect to occupation and use of a specific territory; the voluntary perpetuation of cultural distinctiveness (e.g. languages, laws and institutions); self-identification; an experience of subjugation, marginalization, dispossession, exclusion or discrimination (whether or not these conditions persist).</p>		X

<p>¹The phrase "Outside the project area" should be read taking into consideration the likelihood of project activities to influence the livelihoods, land access and/or rights of Indigenous Peoples' irrespective of physical distance. In example: If an Indigenous community is living 100 km away from a project area where fishing activities will affect the river yield which is also accessed by this community, then the user should answer "YES" to the question.</p> <p>²Physical defined as movable or immovable objects, sites, structures, group of structures, natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic or other cultural significance located in urban or rural settings, ground, underground or underwater.</p> <p>³Non-physical or intangible defined as "the practices, representations, expressions, knowledge and skills as well as the instruments, objects, artifacts and cultural spaces associated therewith that communities, groups, and in some cases individuals, recognize as part of their spiritual and/or cultural heritage"</p>		
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Annex 2: Second Level Questions

Safeguard 1. Natural resources management

Question	Management of soil and land resources	No	Yes	Comments
1.1	Would this project result in the degradation (biological or physical) of soils	LOW RISK	<p>MODERATE RISK</p> <p>Demonstrate how the project applies and adheres to the principles of the World Soil Charter</p>	The project <u>will not result in the degradation (biological or physical) of soils</u>
1.2	Would this project undermine sustainable land management practices?	LOW RISK	<p>HIGH RISK</p> <p>A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.</p>	This project <u>will not undermine sustainable land management practices</u>

	Management of water resources and small dams	No	Yes	Comments
1.3	Would this project develop an irrigation scheme that is more than 20 hectares or withdraws more than 1000 m³/day of water?	LOW RISK	<p>MODERATE RISK</p> <p>Specify the following information:</p> <ul style="list-style-type: none"> a) implementation of appropriate efficiency principles and options to enhance productivity, b) technically feasible water conservation measures, c) alternative water supplies, d) resource contamination mitigation or/and avoidance, e) potential impact on water users downstream, f) water use offsets and demand management options to maintain total demand for water resources within the available supply. g) The ICID-checklist will be included, as well as appropriate action within the project to mitigate identified potential negative impacts. h) Projects aiming at improving water efficiency <u>will carry out thorough water accounting</u> in order to avoid possible negative impacts such as waterlogging, salinity or reduction of water availability downstream. 	This project will not develop irrigation schemes.
1.4	Would this project develop an irrigation scheme that is more than 100 hectares or withdraws more than 5000 m³/day of water?	LOW RISK	<p>HIGH RISK</p> <p>A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.</p>	This project will not develop irrigation schemes.

1.5	Would this project aim at improving an irrigation scheme (without expansion)?	LOW RISK	<p>MODERATE RISK</p> <p>The ICID-checklist will be included, as well as appropriate action within the project to mitigate identified potential negative impacts.</p> <p>Projects aiming at improving water efficiency will carry out thorough water accounting in order to avoid possible negative impacts such as waterlogging, salinity or reduction of water availability downstream.</p>	This project will not improve irrigation schemes.
1.6	Would this project affect the quality of water either by the release of pollutants or by its use, thus affecting its characteristics (such as temperature, pH, DO, TSS or any other)?	LOW RISK	<p>HIGH RISK</p> <p>A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.</p>	This project will not affect the quality of water either by the release of pollutants or by its use, thus affecting its characteristics (such as temperature, pH, DO, TSS or any other).
1.7	Would this project include the usage of wastewater?	LOW RISK	<p>MODERATE RISK</p> <p>Demonstrate how the project applies and adheres to applicable national guidelines or, if not available, the WHO/FAO/UNEP Guidelines on Safe Usage of Waste Water in Agriculture</p>	The project will not include the use of wastewater.
1.8	Would this project involve the construction or financing of a dam that is more than 15 m. in height?	LOW RISK	<p>CANNOT PROCEED</p>	The project will not involve the construction or financing of a dam of any height
1.9	Would this project involve the construction or financing of a dam that is more than 5 m. in height?	LOW RISK	<p>HIGH RISK</p> <p>A full environmental and social impact assessment is required.</p>	The project will not involve the construction or financing of a dam of any height

			Please contact the ESM unit for further guidance.	
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	Tenure	No	Yes	Comments
1.10	<p>Would this project permanently or temporarily deny or restrict access to natural resources to which they have rights of access or use? Could this project result in any changes to existing <i>tenure rights</i>¹ (<i>formal and informal</i>)² of individuals, communities or others to land, fishery and forest resources?</p> <p>¹Tenure rights are rights to own, use or benefit from natural resources such as land, water bodies or forests</p> <p>²Socially or traditionally recognized tenure rights that are not defined in law may still be considered to be 'legitimate tenure rights'.</p>	LOW RISK	PROCEED TO NEXT Q	The project <u>will not permanently or temporarily deny or restrict access to natural resources to which they have rights of access or use</u>
1.10.1	<p>Could this project result in a negative change to existing legitimate tenure rights?</p>	<p>MODERATE RISK Demonstrate how the project applies</p>	<p>HIGH RISK A full environmental and social impact assessment is required.</p>	The project <u>will not permanently or temporarily deny or restrict access to natural resources to which they have rights of access or use</u>

		and adheres to the principles/framework of the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security (VGGT)	Please contact the ESM unit for further guidance.	
	Climate	No	Yes	Comments
1.11	Could this project result in a reduction of the adaptive capacity to climate change for any stakeholders in the project area?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	This project <u>will not result</u> in a reduction of the adaptive capacity to climate change for any stakeholders in the project area. On the contrary it will increase the overall resilience of ecosystems and communities.
1.12	Could this project result in a reduction of resilience against extreme weather events?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	This project <u>will not result</u> in a reduction of resilience against extreme weather events in the project area
1.13	Could this project result in a net increase of GHG emissions beyond those	LOW RISK	PROCEED TO NEXT Q	This project <u>will not result</u> in a net increase of GHG emissions

	expected from increased production?			
1.13.1	Is the expected increase below the level specified by FAO guidance or national policy/law (whichever is more stringent)?	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	LOW RISK	
1.13.2	Is the expected increase above the level specified by FAO guidance or national policy/law (whichever is more stringent)?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	

Safeguard 2. Biodiversity, ecosystems and natural habitats

	Protected areas, buffer zones or natural habitats	No	Yes
2.1	Would this project be implemented within a legally designated protected area or its buffer zone?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.

	Biodiversity Conservation	No	Yes	Comments
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2.2	Would this project change a natural ecosystem to an agricultural/aquacultural/forestry production unit with a reduced diversity of flora and fauna?	LOW RISK	<p style="text-align: center;">HIGH RISK</p> <p>A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.</p>	<p>This project <u>will not be implemented within protected areas nor areas of high biodiversity sensitivity. This project <u>will not change</u> a natural ecosystem to an agricultural/aquacultural/forestry production unit with a reduced diversity of flora and fauna. However, this safeguard has been triggered to acknowledge that interventions on natural resources will happen (primarily forest activities) but for improvement and positive benefits.</u></p>
2.3	Would this project increase the current impact on the surrounding environment for example by using more water, chemicals or machinery than previously?	LOW RISK	<p style="text-align: center;">MODERATE RISK</p> <p>Demonstrate in the project document what measures will be taken to minimize adverse impacts on the environment and ensure that implementation of these measures is reported in the risk log during progress reports.</p>	<p>This project <u>does not increase the current impact on the surrounding environment for example by using more water, chemicals or machinery than previously</u></p>

	Use of alien species	No	Yes	Comments
2.4	<p>Would this project use an alien species which has exhibited an invasive* behavior in the country or in other parts of the world or a species with unknown behavior?</p> <p>*An invasive alien species is defined by the Convention on Biological Diversity as</p>	LOW RISK	<p style="text-align: center;">HIGH RISK</p> <p>A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.</p>	<p>This project <u>will not use an alien species which has exhibited an invasive* behavior in the country or in other parts of the world or a species with unknown behavior</u></p>

	<p>“an alien species whose introduction and/or spread threaten biological diversity” (see https://www.cbd.int/invasive/terms.shtml).</p>			
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	Access and benefit sharing for genetic resources	No	Yes	Comments
2.5	<p>Would this project involve access to genetic resources for their utilization and/or access to traditional knowledge associated with genetic resources that is held by Indigenous Peoples, local communities and/or farmers?</p>	<p>LOW RISK</p>	<p>MODERATE RISK</p> <p>Ensure that the following issues are considered and appropriate action is taken. The issues identified and the action taken to address them must be included in the project document and reported on in progress reports.</p> <p>For plant genetic resources for food and agriculture (PGRFA) falling under the Multilateral System of Access and Benefit-sharing (MLS) of the International Treaty on Plant Genetic Resources for Food and Agriculture (Treaty), ensure that Standard Material Transfer Agreement (SMTA) has been signed and comply with SMTA provisions.</p> <p>For genetic resources, other than PGRFA falling under the MLS of the Treaty:</p> <ol style="list-style-type: none"> 1. Ensure that, subject to domestic access and benefit-sharing legislation or other 	<p>This project will not involve access to genetic resources for their utilization and/or access to traditional knowledge associated with genetic resources that is held by Indigenous Peoples, local communities and/or farmers.</p>

			<p>regulatory requirements, prior informed consent has been granted by the country providing the genetic resources that is the country of origin of the resources or that has acquired the resources in accordance with the Convention on Biological Diversity, unless otherwise determined by that country; and</p> <ol style="list-style-type: none"> 2. Ensure that benefits arising from the utilization of the genetic resources as well as subsequent applications and commercialization are shared in a fair and equitable way with the country providing the genetic resources that is the country of origin of the resources or that has acquired the resources in accordance with the Convention on Biological Diversity; and 3. Ensure that, in accordance with domestic law, prior informed consent or approval and involvements of Indigenous Peoples and local communities is obtained for access to genetic resources where the Indigenous Peoples and local communities have the established right to grant such resources; and 4. Ensure that, in accordance with domestic legislation regarding the established rights of these Indigenous Peoples and local communities over the genetic resources, are shared in a fair and equitable way with the communities 	
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			<p>concerned, based on mutually agreed terms.</p> <p>For traditional knowledge associated with genetic resources that is held by Indigenous Peoples and local communities:</p> <ol style="list-style-type: none"> 1. Ensure, in accordance with applicable domestic law, that knowledge is accessed with the prior and informed consent or approval and involvement of these Indigenous Peoples and local communities, and that mutually agreed terms have been established; and 2. Ensure that, in accordance with domestic law, benefits arising from the utilization of traditional knowledge associated with genetic resources are shared, upon mutually agreed terms, in a fair and equitable way with Indigenous Peoples and local communities holding such knowledge. <p>Ensure that the project is aligned with the Elements to Facilitate Domestic Implementation of Access and Benefit Sharing for Different Subsectors of Genetic Resources for Food and Agriculture when it is the case</p>	
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Safeguard 3. Plant genetic resources for food and agriculture

	Introduce new crops and varieties	No	Yes	Comments
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3.1	Would this project Introduce crops and varieties previously not grown?	LOW RISK	<p style="text-align: center;">MODERATE RISK</p> <ul style="list-style-type: none"> • Follow appropriate phytosanitary protocols in accordance with IPPC • Take measures to ensure that displaced varieties and/or crops, if any, are included in the national or international <i>ex situ</i> conservation programmes 	This project <u>will not introduce crops and varieties previously not grown</u>
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	Provision of seeds and planting materials	No	Yes	Comments
3.2	Would this project provide seeds/planting material for cultivation?	LOW RISK	PROCEED TO NEXT Q	This project <u>will not provide seeds/planting material for cultivation</u>
3.2.1	Would this project involve the importing or transfer of seeds and/or planting materials for cultivation?	LOW RISK	<p style="text-align: center;">MODERATE RISK</p> <ul style="list-style-type: none"> • Avoid undermining local seed & planting material production and supply systems through the use of seed voucher schemes, for instance • Ensure that the seeds and planting materials are from locally adapted crops and varieties that are accepted by farmers and consumers • Ensure that the seeds and planting materials are free from pests and diseases according to agreed norms, especially the IPPC • Internal clearance from AGPMG is required for all procurement of seeds and planting materials. Clearance from AGPMC is required for chemical treatment of seeds and planting materials 	This project <u>will not involve the importing or transfer of seeds and/or planting materials for cultivation</u>

			<ul style="list-style-type: none"> • Clarify that the seed or planting material can be legally used in the country to which it is being imported • Clarify whether seed saving is permitted under the country's existing laws and/or regulations and advise the counterparts accordingly. • Ensure, according to applicable national laws and/or regulations, that farmers' rights to PGRFA and over associated traditional knowledge are respected in the access to PGRFA and the sharing of the benefits accruing from their use. Refer to ESS9: Indigenous Peoples and cultural heritage. 	
3.2.2	Would this project involve the importing or transfer of seeds and/or planting materials for research and development?	LOW RISK	<p>MODERATE RISK</p> <p>Ensure compliance with Access and Benefit Sharing norms as stipulated in the International Treaty on Plant Genetic Resources for Food and Agriculture and the Nagoya Protocol of the Convention on Biodiversity as may be applicable. Refer also to ESS2: Biodiversity, Ecosystems and Natural Habitats.</p>	This project <u>will not involve</u> the importing or transfer of seeds and/or planting materials for research and development

	Modern biotechnologies and the deployment of their products in crop production	No	Yes	Comments
3.3	Would this project supply or use modern plant biotechnologies and their products?	LOW RISK	<p>MODERATE RISK</p> <ul style="list-style-type: none"> • Adhere to the Cartagena Protocol on Biosafety of the Convention on Biological Diversity to ensure the safe 	This project <u>will not supply</u> or use modern plant biotechnologies and their products

			<p>handling, transport and use of Living Modified Organisms (LMOs) resulting from modern biotechnology that may have adverse effects on biological diversity, taking also into account risks to human health.</p> <ul style="list-style-type: none"> • Adhere to biosafety requirements in the handling of Genetically Modified Organisms (GMOs) or Living Modified Organisms (LMOs) according to national legislation or⁴ • Take measures to prevent gene flow from the introduced varieties to existing ones and/or wild relatives 	
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	Planted forests	No	Yes	Comments
3.4	Would this project establish or manage planted forests?	LOW RISK	<p>MODERATE RISK</p> <ul style="list-style-type: none"> • Adhere to existing national forest policies, forest programmes or equivalent strategies. • The observance of principles 9, 10, 11 and 12 of the Voluntary Guidelines on Planted Forests suffice for indigenous forests but must be read in full compliance with ESS 9- Indigenous Peoples and Cultural Heritage. • Planners and managers must incorporate conservation of biological diversity as fundamental in their planning, management, utilization and monitoring of planted forest resources. • In order to reduce the environmental risk, incidence and impact of abiotic and 	<p>Yes, this project will establish planted forest with the purpose of protecting soils, reduce anthropic pressure on natural forests and remediated degraded and non-longer suitable for farming agriculture soils. Furthermore, the project will establish shelterbelts/windbreakers to protect agricultural land from soil erosion.</p>

			biotic damaging agents and to maintain and improve planted forest health and productivity, FAO will work together with stakeholders to develop and derive appropriate and efficient response options in planted forest management.	
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SAFEGUARD 4 ANIMAL (LIVESTOCK AND AQUATIC) GENETIC RESOURCES FOR FOOD AND AGRICULTURE

	Introduce new species/breeds and change in the production system of locally adapted breeds	No	Yes	Comments
4.1	Would this project introduce non-native or non-locally adapted species, breeds, genotypes or other genetic material to an area or production system?	LOW RISK	PROCEED TO NEXT Q	This project <u>will not introduce</u> non-native or non-locally adapted species, breeds, genotypes or other genetic material to an area or production system
4.1.1	Would this project foresee an increase in production by at least 30% (due to the introduction) relative to currently available locally adapted breeds and can monitor production performance?	CANNOT PROCEED	LOW RISK	This project <u>will not address</u> agriculture production.
4.1.2	Would this project introduce genetically altered organisms, e.g. through selective breeding, chromosome set manipulation,	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	This project <u>will not introduce</u> genetically altered organisms, e.g. through selective breeding, chromosome set manipulation, hybridization, genome editing or gene transfer and/or introduce or

	hybridization, genome editing or gene transfer and/or introduce or use experimental genetic technologies, e.g. genetic engineering and gene transfer, or the products of those technologies?			use experimental genetic technologies, e.g. genetic engineering and gene transfer, or the products of those technologies.
4.2	Would this project introduce a non-native or non-locally adapted species or breed for the first time into a country or production system?	LOW RISK	<p>MODERATE RISK</p> <p>A genetic impact assessment should be conducted prior to granting permission to import (cover the animal identification, performance recording and capacity development that allow monitoring of the introduced species/ breeds' productivity, health and economic sustainability over several production cycles)</p> <ul style="list-style-type: none"> • http://www.fao.org/docrep/012/i0970e/i0970e00.htm • ftp://ftp.fao.org/docrep/fao/012/i0970e/i0970e03.pdf 	This project <u>will not introduce</u> a non-native or non-locally adapted species or breed for the first time into a country or production system.
4.3	Would this project introduce a non-native or non-locally adapted species or breed, independent whether it already exists in the country?	LOW RISK	<p>MODERATE RISK</p> <ul style="list-style-type: none"> • If the project imports or promotes species/breeds with higher performance than locally adapted ones, ensure: feed resources, health management, farm management capacity, input supply and farmer organization to allow the new species/breeds to express their genetic potential • Follow the OIE terrestrial or aquatic code to ensure the introduced 	This project <u>will not introduce</u> a non-native or non-locally adapted species or breed, independent whether it already exists in the country

			<p>species/breed does not carry different diseases than the local ones</p> <ul style="list-style-type: none"> • Include a health risk assessment and farmer/veterinary capacity development in the project to ensure the introduced species/breed do not have different susceptibility to local diseases including ecto-and endo-parasites than the locally adapted/native species/breeds. 	
4.4	<p>Would this project ensure there is no spread of the introduced genetic material into other production systems (i.e. indiscriminate crossbreeding with locally adapted species/breeds)?</p>	<p>MODERATE RISK</p> <p>Introduce a) animal identification and recording mechanism in the project and b) develop new or amend existing livestock policy and National Strategy and Action Plan for AnGR</p>	<p>LOW RISK</p>	<p>This project <u>will ensure</u> there is no spread of the introduced genetic material into other production systems (i.e. indiscriminate crossbreeding with locally adapted species/breeds)</p>

Collection of wild genetic resources for farming systems	No	Yes	Comments
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4.5	Would this project collect living material from the wild, e.g. for breeding, or juveniles and eggs for on-growing?	LOW RISK	MODERATE RISK Guidance to be provided	This project <u>will collect</u> living material from the wild, e.g. for breeding tree seedlings. This will be done according to FAO and other international guidelines.
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	Modification of habitats	No	Yes	Comments	
4.6	Would this project modify the surrounding habitat or production system used by existing genetic resources?	LOW RISK	MODERATE RISK Guidance to be provided	This project <u>will not modify</u> the surrounding habitat or production system used by existing genetic resources	
4.7	Would this project be located in or near an internationally recognized conservation area e.g. Ramsar or World Heritage Site, or other nationally important habitat, e.g. national park or high nature value farmland?	LOW RISK	MODERATE RISK Guidance to be provided	This project <u>will not be located</u> in or near an internationally recognized conservation area e.g. Ramsar or World Heritage Site, or other nationally important habitat, e.g. national park or high nature value farmland.	
4.8	AQ GR	Would this project block or create migration routes for aquatic species?	LOW RISK	MODERATE RISK Guidance to be provided	This project <u>will not block</u> or create migration routes for aquatic species.
4.9		Would this project change the water quality and quantity in the project area or areas connected to it?	LOW RISK	MODERATE RISK Guidance to be provided	This project <u>will not change</u> the water quality and quantity in the project area or areas connected to it

4.10	Would this project cause major habitat / production system changes that promote new or unknown chances for geneflow, e.g. connecting geographically distinct ecosystems or water bodies; or would it disrupt habitats or migration routes and the genetic structure of valuable or locally adapted species/stocks/breeds?	LOW RISK	<p style="text-align: center;">HIGH RISK</p> <p>A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.</p>	This project <u>will not cause major habitat / production system changes that promote new or unknown chances for geneflow, e.g. connecting geographically distinct ecosystems or water bodies; or would it disrupt habitats or migration routes and the genetic structure of valuable or locally adapted species/stocks/breeds</u>
4.11	Would this project involve the intensification of production systems that leads to land- use changes (e.g. deforestation), higher nutrient inputs leading to soil or water pollution, changes of water regimes (drainage, irrigation)?	LOW RISK	<p style="text-align: center;">MODERATE RISK</p> <p>Guidance to be provided</p>	This project <u>will not involve the intensification of production systems that leads to land- use changes (e.g. deforestation), higher nutrient inputs leading to soil or water pollution, changes of water regimes (drainage, irrigation)</u>

Safeguard 5. Pest and pesticides management

	Supply of pesticides by FAO	No	Yes	Comments
5.1	Would this project procure, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry?	LOW RISK	<p style="text-align: center;">MODERATE RISK</p> <ul style="list-style-type: none"> Preference must always be given to sustainable pest management approaches such as Integrated Pest Management (IPM), the use of ecological pest management approaches 	This project <u>will not procure, supply and/or result in the use of pesticides on crops, livestock, aquaculture or forestry</u>

			<p>and the use of mechanical/cultural/physical or biological pest control tools in favour of synthetic chemicals; and preventive measures and monitoring,</p> <ul style="list-style-type: none"> • When no viable alternative to the use of chemical pesticides exists, the selection and procurement of pesticides is subject to an internal clearance procedure http://www.fao.org/fileadmin/template/agphome/documents/Pests_Pesticides/Code/E_SS5_pesticide_checklist.pdf • The criteria specified in FAO's ESM Guidelines under ESS5 must be adhered to and should be included or referenced in the project document. • If large volumes (above 1,000 litres of kg) of pesticides will be supplied or used throughout the duration of the project, a Pest Management Plan must be prepared to demonstrate how IPM will be promoted to reduce reliance on pesticides, and what measures will be taken to minimize risks of pesticide use. • It must be clarified, which person(s) within (executing) involved institution/s, will be responsible and liable for the proper storage, transport, distribution and use of the products concerned in compliance with the requirements. 	
5.2	Would this project provide seeds or other materials treated with pesticides (in	LOW RISK	<p style="text-align: center;">MODERATE RISK</p> <p>The use of chemical pesticides for seed treatment or storage of harvested produce is subject to an internal clearance procedure</p>	This project will not provide seeds or other materials treated with pesticides (in the field and/or in storage).

	the field and/or in storage)?		[http://www.fao.org/fileadmin/templates/agphome/documents/Pests_Pesticides/Code/E_SS5_pesticide_checklist.pdf] . The criteria specified in FAO's ESM Guidelines under ESS5 for both pesticide supply and seed treatment must be adhered to and should be included or referenced in the project document.	
5.3	Would this project provide inputs to farmers directly or through voucher schemes?	LOW RISK	<p>MODERATE RISK</p> <ul style="list-style-type: none"> FAO projects must not be responsible for exposing people or the environment to risks from pesticides. The types and quantities of pesticides and the associated application and protective equipment that users of a voucher scheme are provided with must always comply with the conditions laid out in ESS5 and be subject to the internal clearance procedure [link]. These must be included or referenced in the project document. Preference must always be given to sustainable pest management approaches such as Integrated Pest Management (IPM), the use of ecological pest management approaches and the use of mechanical or biological pest control tools in favour of synthetic chemicals 	This project will not provide inputs to farmers directly or through voucher schemes.
5.4	Would this project lead to increased use of pesticides through intensification or expansion of production?	LOW RISK	<p>MODERATE RISK</p> <p>Encourage stakeholders to develop a Pest Management Plan to demonstrate how IPM</p>	This project will not lead to increased use of pesticides through

			will be promoted to reduce reliance on pesticides, and what measures will be taken to minimize risks of pesticide use. This should be part of the sustainability plan for the project to prevent or mitigate other adverse environmental and social impacts resulting from production intensification.	intensification or expansion of production.
5.5	Would this project manage or dispose of waste pesticides, obsolete pesticides or pesticide contaminated waste materials?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	This project <u>will not manage</u> or dispose of waste pesticides, obsolete pesticides or pesticide contaminated waste materials

SAFEGUARD 6 INVOLUNTARY RESETTLEMENT AND DISPLACEMENT

		No	Yes	Comments
6.1	Would this removal* be voluntary? *temporary or permanent removal of people from their homes or means of production/livelihood or restrict their access to their means of livelihoods	CANNOT PROCEED	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	The project <u>will not directly</u> or indirectly cause involuntary resettlement and displacement. Exercise of eminent domain and any other permanent or temporary, and economic and physical displacement due to involuntary resettlement will not be supported under the project.

Safeguard 7. Decent work

		No	Yes	Comments
7.1	Would this project displace jobs? (e.g. because of sectoral restructuring or occupational shifts)	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	This project will not displace jobs. (e.g. because of sectoral restructuring or occupational shifts)
7.2	Would this project operate in sectors or value chains that are dominated by subsistence producers and other vulnerable informal agricultural workers, and more generally characterized by high levels “working poverty”?	LOW RISK	MODERATE RISK Take action to anticipate the likely risk of perpetuating poverty and inequality in socially unsustainable agriculture and food systems. Decent work and productive employment should appear among the priorities of the project or, alternatively, the project should establish synergies with specific employment and social protection programmes e.g. favouring access to some social protection scheme or form of social insurance. Specific measures and mechanisms should be introduced to empower in particular the most vulnerable /disadvantaged categories of rural workers such as small-scale producers, contributing family workers, subsistence farmers, agricultural informal wage workers, with a special attention to women and youth who are predominantly found in these employment statuses. An age- and gender-sensitive social value chain analysis or livelihoods/employment assessment is needed for large-scale projects.	This project <u>will not operate</u> in sectors or value chains that are dominated by subsistence producers and other vulnerable informal agricultural workers, and more generally characterized by high levels “working poverty”
7.3	Would this project operate in situations where youth work mostly as unpaid	LOW RISK	MODERATE RISK Take action to anticipate likely risk of unsustainably ageing agriculture and food	This project <u>will operate</u> in situations where youth work mostly as unpaid contributing

	contributing family workers, lack access to decent jobs and are increasingly abandoning agriculture and rural areas?		<p>systems by integrating specific measures to support youth empowerment and employment in agriculture. A youth livelihoods/employment assessment is needed.</p> <p>Complementary measures should be included aiming at training youth, engaging them and their associations in the value chain, facilitating their access to productive resources, credit and markets, and stimulating youth-friendly business development services.</p>	<p>family workers, lack access to decent jobs and are increasingly abandoning agriculture and rural areas. Nonetheless, the project will work following the highest national and international laws and standards.</p>
7.4	<p>Would this project operate in situations where major gender inequality in the labour market prevails? (e.g. where women tend to work predominantly as unpaid contributing family members or subsistence farmers, have lower skills and qualifications, lower productivity and wages, less representation and voice in producers' and workers' organizations, more precarious contracts and higher informality rates, etc.)</p>	LOW RISK	<p>MODERATE RISK</p> <p>Take action to anticipate likely risk of socially unsustainable agriculture and food systems by integrating specific measures to reduce gender inequalities and promote rural women's social and economic empowerment. A specific social value chain analysis or livelihoods/employment assessment is needed for large-scale projects.</p> <p>Facilitation should be provided for women of all ages to access productive resources (including land), credit, markets and marketing channels, education and TVET, technology, collective action or mentorship. Provisions for maternity protection, including childcare facilities, should be foreseen to favour women participation and anticipate potential negative effects on child labour, increased workloads for women, and health related risks for pregnant and breastfeeding women.</p>	<p>This project will operate in situations where major gender inequality in the labour market prevails. Nonetheless, it will work to ensure gender equality and gender equity in each of its activities.</p>

7.5	Would this project operate in areas or value chains with presence of labour migrants or that could potentially attract labour migrants?	LOW RISK	<p style="text-align: center;">MODERATE RISK</p> <p>Take action to anticipate potential discrimination against migrant workers, and to ensure their rights are adequately protected, with specific attention to different groups like youth, women and men.</p>	<p style="text-align: center;">This project <u>will not operate</u> in areas or value chains with presence of labour migrants or that could potentially attract labour migrants</p>
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		No	Yes	Comments
7.6	Would this project directly employ workers?	LOW RISK	<p style="text-align: center;">MODERATE RISK</p> <p>FAO projects will supposedly guarantee employees' rights as per UN/FAO standards as regards information on workers' rights, regularity of payments, etc. Decisions relating to the recruitment of project workers are supposed to follow standard UN practices and therefore not be made on the basis of personal characteristics unrelated to inherent job requirements. The employment of project workers will be based on the principle of equal opportunity and fair treatment, and there will be no discrimination with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, etc.</p>	<p style="text-align: center;">Workers will be hired through entities implementing the specific activity - the condition of hiring workers from within a 25km radius will apply to companies to be selected by the project for the purposes of each activity.</p>
7.7	Would this project involve sub-contracting?	LOW RISK	<p style="text-align: center;">MODERATE RISK</p> <p>Take action to anticipate likely risk of perpetuating inequality and labour rights violations by introducing complementary</p>	<p style="text-align: center;">This project <u>does not foresee to involve</u> sub-contracting.</p> <p style="text-align: center;">Workers will be hired through entities implementing the specific</p>

			measures. FAO projects involving sub-contracting should promote, to the extent possible, subcontracting to local entrepreneurs – particularly to rural women and youth – to maximize employment creation under decent working conditions. Also, FAO should monitor and eventually support contractors to fulfil the standards of performance and quality, taking into account national and international social and labour standards.	activity. The condition of hiring workers from within a 25km radius will apply to companies to be selected by the project for the purposes of each activity.
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		No	Yes	Comments
7.8	Would this project operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks ⁵ ?	LOW RISK	<p>MODERATE RISK</p> <p>Take action to anticipate likely OSH risks by introducing complementary provisions on OSH within the project. Project should ensure all workers’ safety and health by adopting minimum OSH measures and contributing to improve capacities and mechanisms in place for OSH in informal agriculture and related occupations. For example, by undertaking a simple health and safety risk assessment, and supporting implementation of the identified risk control measures. Awareness raising and capacity development activities on the needed gender-responsive OSH measures should be included in project design to ensure workers’ safety and health, including for informal workers. Complementary measures can include measures to reduce risks and protect workers, as well as children working or playing on the farm, such as</p>	This project will not operate in a sector, area or value chain where producers and other agricultural workers are typically exposed to significant occupational and safety risks

			alternatives to pesticides, improved handling and storage of pesticides, etc. Specific provisions for OSH for pregnant and breastfeeding women should be introduced. FAO will undertake periodic inspections and a multistakeholder mechanism for monitoring should be put in place.	
7.9	Would this project provide or promote technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general?	LOW RISK	HIGH RISK A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.	This project will not provide or promote technologies or practices that pose occupational safety and health (OSH) risks for farmers, other rural workers or rural populations in general

		No	Yes	Comments
7.10	Would this project foresee that children <u>below</u> the nationally-defined minimum employment age (usually 14 or 15 years old) will be involved in project-supported activities?	LOW RISK	CANNOT PROCEED	This project will not allow nor tolerate that children <u>below</u> the nationally-defined minimum employment age (usually 14 or 15 years old) will be involved in project-supported activities
7.11	Would this project foresee that child <u>above</u> the nationally-defined minimum employment age (usually 14 or 15 years old), but under the age of 18 will be involved in project-supported activities?	LOW RISK	MODERATE RISK Take action to anticipate likely risk of engaging young people aged 14-17 in child labour ⁶ by changing design or introducing complementary measures. For children of 14 to 17 years, the possibility to complement education with skills-training and work is certainly important for facilitating their integration in the rural	This project will not allow that child <u>above</u> the nationally-defined minimum employment age (usually 14 or 15 years old), but under the age of 18 will be involved in project-supported activities

			labour market. Yet, children under the age of 18 should not be engaged in work-related activities in connection with the project in a manner that is likely to be hazardous or interfere with their compulsory child's education or be harmful to the child's health, safety or morals. Where children under the age of 18 may be engaged in work-related activities in connection with the project, an appropriate risk assessment will be conducted, together with regular monitoring of health, working conditions and hours of work, in addition to the other requirement of this ESS. Specific protection measures should be undertaken to prevent any form of sexual harassment or exploitation at workplace (including on the way to and from), particularly those more vulnerable, i.e. girls.	
7.12	Would this project operate in a value chain where there have been reports of child labour?	LOW RISK	<p>HIGH RISK</p> <p>A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.</p>	This project <u>will not operate</u> in a value chain where there have been reports of child labour

		No	Yes	Comments
7.13	Would this project operate in a value chain or sector where there have been reports of forced labour?	LOW RISK	<p>HIGH RISK</p> <p>A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.</p>	This project <u>will not operate</u> in a value chain or sector where there have been reports of forced labour

[Safeguard 8. Gender equality](#)

		No	Yes	Comments
8.1	Could this project risk reinforcing existing gender-based discrimination, by not taking into account the specific needs and priorities of women and girls?	LOW RISK	MODERATE RISK Take action to anticipate likely risk of perpetuating or reinforcing inequality by conducting a gender analysis to identify specific measures to avoid doing harm, provide equal opportunities to men and women, and promote the empowerment of women and girls.	This project will not risk reinforcing existing gender-based discrimination, by not taking into account the specific needs and priorities of women and girls
8.2	Could this project not target the different needs and priorities of women and men in terms of access to services, assets, resources, markets, and decent employment and decision-making?	LOW RISK	MODERATE RISK Take action to anticipate likely risk of socially unsustainable agriculture practices and food systems by conducting a gender analysis to identify the specific needs and priorities of men and women, and the constraints they may face to fully participate in or benefit from project activities, and design specific measures to ensure women and men have equitable access to productive resources and inputs.	This project will target the different needs and priorities of women and men in terms of access to services, assets, resources, markets, and decent employment and decision-making

Safeguard 9. Indigenous Peoples and cultural heritage

		No	Yes	Comments
9.1	Are there <i>Indigenous Peoples*</i> living <i>outside the project area**</i> where activities will take place? ^{8?}	LOW RISK	GO TO NEXT QUESTION	There are no Indigenous Peoples in the project areas.
9.1.1	Do the project activities influence the Indigenous Peoples living outside the project area?	LOW RISK	MODERATE RISK A Free, Prior and Informed Consent Process is required Project activities should outline actions to address and mitigate any potential impact Please contact the ESM/OPCA unit for further guidance.	There are no Indigenous Peoples in the project areas.

9.2	Are there Indigenous Peoples living in the project area where activities will take place?	LOW RISK	<p style="text-align: center;">MODERATE RISK</p> <p>A Free Prior and Informed Consent process is required. If the project is for Indigenous Peoples, an Indigenous Peoples' Plan is required in addition to the Free Prior and Informed Consent process.</p> <p>Please contact the ESM/OPCA unit for further guidance. In cases where the project is for both, Indigenous and non-Indigenous Peoples, an Indigenous Peoples' Plan will be required only if a substantial number of beneficiaries are Indigenous Peoples. project activities should outline actions to address and mitigate any potential impact.</p> <p>Please contact ESM/OPCA unit for further guidance. A Free, Prior and Informed Consent Process is required</p>	There are no Indigenous Peoples in the project areas.
9.3	<p>Would this project adversely or seriously affect on Indigenous Peoples' rights, lands, natural resources, territories, livelihoods, knowledge, social fabric, traditions, governance systems, and culture or heritage (<i>physical*</i> and <i>non-physical or intangible**</i>) inside and/or outside the project area?</p> <p><i>*Physical defined as movable or immovable objects, sites, structures, group of structures, natural features and landscapes that have archaeological, paleontological, historical,</i></p>	LOW RISK	<p style="text-align: center;">HIGH RISK</p> <p>A full environmental and social impact assessment is required. Please contact the ESM unit for further guidance.</p>	There are no Indigenous Peoples in the project areas.

	<p><i>architectural, religious, aesthetic or other cultural significance located in urban or rural settings, ground, underground or underwater.</i></p> <p><i>**Non-physical or intangible defined as "the practices, representations, expressions, knowledge and skills as well as the instruments, objects, artifacts and cultural spaces associated therewith that communities, groups, and in some cases individuals, recognize as part of their spiritual and/or cultural heritage"</i></p>			
<p>9.4</p>	<p>Would this project be located in an area where cultural resources exist?</p>	<p>LOW RISK</p>	<p>MODERATE RISK</p> <p>To preserve cultural resources (when existing in the project area) and to avoid their destruction or damage, due diligence must be undertaken to: a) verify that provisions of the normative framework, which is usually under the oversight of a national institution responsible for protection of historical and archaeological sites/intangible cultural heritage; and b) through collaboration and communication with Indigenous Peoples' own governance institutions/leadership, verifying the probability of the existence of sites/ intangible cultural heritage that are significant to indigenous peoples.</p> <p>In cases where there is a high chance of encountering physical cultural resources, the bidding documents and contract for any civil works must refer to the need to include recovery of "chance findings" in line with national procedures and rules.</p>	<p>There are no Indigenous Peoples in the project areas.</p>

Annex 4. PSEA risk screening checklist

Ensuring basic risk mitigation measures are in place ahead of stakeholder engagement	Responsibility	Comments	Link	Source
Does the AE have a SEAH Policy (or SEAH provisions in another policy)?	AE	<p>Yes, FAO disposes of a SEAH policy. Harassment in all its forms is contrary to the United Nations Charter, the FAO Staff Regulations and Rules and the Standards of Conduct for the International Civil Service. In line with Article 1 of the FAO Staff Regulations, the Director-General will endeavor to always ensure the highest standards of conduct by staff members.</p> <p>2. This Policy on Harassment, Sexual Harassment and Abuse of Authority is consistent with the principles and values of the UN system concerning the prevention of harassment and abuse of authority.</p>	<p>The relevant FAO policies that address SEAH are</p> <p>Policy on Sexual Harassment</p> <p>Policy on the Prevention of Harassment, Sexual Harassment and Abuse of Authority</p> <p>Protection from Sexual Exploitation and Sexual Abuse (PSEA)</p> <p>Whistleblower Protection Policy</p>	FAO
If the AE has contracted out stakeholder consultations, does that entity have a SEAH Policy (or are they contractually bound to apply the AE's)?	AE/Consultant	<p>As per contracts with external entities, PSEA measures also apply, in accordance with relevant contractual clauses in agreements. For this project, <i>stakeholder consultations were not outsourced</i>.</p> <p>The FAO PSEA relevant policies are also binding to person of any contractual status with FAO.</p>		FAO
Does the AE have an employee Code of Conduct?	AE	<p>Yes, FAO disposes of a personnel code of ethical conduct (2021) that provides clear indication about PSEA and Prevention of Sexual Harassment, Abuse of Authority and Harassment.</p>	<p>https://www.fao.org/3/cb4863en/cb4863en.pdf</p> <p>FAO Code of Ethical Conduct</p>	FAO

<p>If the AE has contracted out stakeholder consultations, does that entity have an employee Code of Conduct (or are they contractually bound to apply the AE's)?</p>	<p>AE/Consultant</p>	<p>For this project, stakeholder consultations were not outsourced.</p> <p>All FAO personnel (including, but not limited to, staff members, consultants, national project personnel (NPP), personal service providers, volunteers, and interns) are expected to behave in accordance with the ethical standards in the FAO Code of Ethical Conduct.</p>		
<p>Have AE employees and consultants conducting stakeholder consultations been trained on preventing SEAH and the Code of Conduct?</p>	<p>AE/Consultant</p>	<p>PSEA training is among the mandatory trainings for all FAO personnel of all categories. In the next column is the list of mandatory trainings on SEAH and Ethical Code that all FAO employees must complete at the start of their employment.</p>	<p>https://www.fao.org/3/nd482en/nd482en.pdf</p> <p>Prevention of Sexual Exploitation and Abuse (PSEA) (Mandatory)</p> <p>Prevention of Harassment, Sexual Harassment and Abuse of Authority (Mandatory)</p> <p>United Nations Course on Working Together Harmoniously (Mandatory)</p> <p>Ethics and Integrity at the United Nations (Mandatory)</p> <p>FAO Whistleblower Protection Policy (Mandatory)</p>	<p>FAO</p>
<p>Does the AE have a grievance mechanism in place in case of early SEAH complaints from stakeholder engagement?</p>	<p>AE</p>	<p>Yes, FAO has a GM in place for early SEAH complaints. FAO has a specific channel for SEA, which goes directly to the Office of the Inspector General. There is a 24h/ 7 days hotline for this.</p>	<p>https://www.fao.org/environmental-social-standards/en/</p> <p>SEA complaints can be lodged through FAO's Office of the</p>	<p>FAO</p>

			Inspector General by email, phone or online using EthicsPoint	
Does the AE have a specialist on staff who can undertake the more advanced assessment in Stage 4 as well as deal with early SEAH complaints if they arise; and if not, does the AE require budget and /or assistance with this?	AE	<p>FAO confirms that sufficient technical resources and capacities to ensure compliance with GCF requirements regarding SEAH are available (see also the FAO Annual Report on Corporate Policy, Processes and Measures on the Prevention of Harassment, Sexual Harassment and Sexual Exploitation and Abuse)</p> <p>FAO has PSEA specialists at global level that can support country-level PSEA Focal Points to undertake risk assessments.</p>	https://www.fao.org/3/nk304en/nk304en.pdf	FAO
Contextual Level (and Baseline Conditions)	Reference	Comments		
Does the country have laws prohibiting sexual harassment / stalking generally?	National /State law (Gender Assessment)	Yes, Serbia disposes of number of laws, policies and strategies to contrast SEAH. These include - among others: the family law (2005), the law on Amendments to the Criminal Code (2016), the law on preventing domestic violence (2017) and the law on free legal aid (2019)	https://evaw-global-database.unwomen.org/es/countries/europe/serbia?pageNumber=2	UNW
Do labor laws prohibit sexual harassment in the workplace?	National/State law (Gender Assessment)	Yes, Serbia disposes of a specific law. The law which prohibits harassment in the workplace (including sexual harassment) is the Law on the prohibition of harassment at work (Official gazette of Serbia no. br. 36/10). This Law has been in force since 2010.	https://www.ilo.org/dyn/travail/docs/2403/Labour%20Law%20Republic%20of%20Serbia.pdf	ILO
Does the country have laws prohibiting intimate partner violence (IPV)?	National/State law (Gender Assessment)	Yes, IPV is addressed by: the law on Amendments to the Criminal Code (2016), the law on preventing domestic violence (2017) and the law on free legal aid (2019)	https://evaw-global-database.unwomen.org/es/countries/europe/serbia?pageNumber=2	UNW

What is the prevalence of GBV in the country?	National statistics (Gender Assessment)	According to UN-Women [UNW, 2023], in Serbia, at the national scale, lifetime Physical and/or Sexual Intimate Partner Violence concerned in 2019 17 % of ever-partnered women aged 18-74 years while 34% while 2% of the same age cohort experienced non-partner sexual violence (lifetime).	https://evaw-global-database.unwomen.org/es/countries/europe/serbia?pageNumber=2	UNW
What is the legal age a person can marry?	National law	Serbia deposited the Convention on the Rights of the Child in 2001, which sets a minimum age of marriage of 18, and the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) in 2001, which obliges states to ensure free and full consent to marriage. Finally, article 23 of the family law (2005) sets the minimum age at 18.	https://evaw-global-database.unwomen.org/es/countries/europe/serbia/2005/family-law-official-gazette-of-the-rs-no-18-2005	UNW
Despite any laws, what is the prevalence of child marriage in the country?	National statistics	1% of girls in Serbia are married before their 15th birthday and 8% before their 18th birthday. Statistics show a higher percentage in rural areas in both cases. Urban 0.7% and 4.6%, Rural 2.5% and 14%.	https://mics-surveys-prod.s3.amazonaws.com/MICS6/Europe%20and%20Central%20Asia/Serbia/2019/Survey%20findings/Serbia%20%28National%20and%20Roma%20Settlements%29%202019%20MICS%20SFR_English.pdf	Serbia Statistic Office, UNFPA, EU
What is the income level of the country?	World Bank ranking (H, HM, M, LM, L)	Serbia is an upper middle-income country	https://data.worldbank.org/country/RS	WB

Where does the country rank on global gender indices?	World Bank Reports / Other	Compared to EU Member States, the United Kingdom, and other countries in the region, Serbia ranks 21st, between Croatia and North Macedonia. Compared to Croatia, Serbia has lower values on the index in the sub-domains of participation (77.0 versus 79.6), but higher values in the sub-domain of segregation and quality of work (62.5 versus 61.4). Compared to North Macedonia, Serbia has higher values in the sub-domain of participation (77.0 vs. 68.2), but significantly lower in the sub-domain of segregation and quality of work (62.5 vs. 70.7). Compared to first-ranked Sweden, Serbia has this domain of Index lower by 13.5 points, while compared to last-ranked Italy, it has an index higher by 6.1 points.	https://eurogender.eige.europa.eu/system/files/events-files/gender_equality_index_for_serbia_2021.pdf	EU
Is there a national action plan on GBV and/or sexual harassment?	National government	Yes, Serbia is currently executing the National Strategy for the Prevention and Combating of Gender-Based Violence against Women and Domestic Violence 2021-2025.	https://evaw-global-database.unwomen.org/es/countries/europe/serbia/2021/national-strategy-for-the-prevention-and-combating-of-gender-based	UNW
Does the country have specialized services for survivors of GBV (at both the national and local level) including women's shelters, adequate medical facilities and facilities which provide psycho-social support?	Local gov / NGOs	Yes, there are at least 10 organization financed by both the state and international donors that are active and specialized in providing services for survivors of GBV (at both the national and local level) including women's shelters, adequate medical facilities and facilities which provide psycho-social support.	https://eca.unwomen.org/en/stories/feature-story/2023/07/prioritizing-womens-needs-through-local-gender-responsive-budgeting-in-serbia#:~:text=UN%20Women%2C%20under%20a%20project,to%20introduce%20GRB%20since%202015.	UNW
Is the country currently experiencing war, internal conflict or	National / Media	No		

humanitarian disaster?				
Project Level Risks	Responsibility	Comments		
Are women concentrated in lower paid roles and mostly line-managed and supervised by men?	AE	Yes. In Serbia, women's wages are lower than men's even in professions where women make up the majority of the workforce, such as in the health care and welfare system. The wage gap between women and men is 8.8%	https://www.serbianmonitor.com/en/wage-gap-between-women-and-men-in-serbia-is-8-8-in-favour-of-men/	Academia
Are piece-rate systems or other performance-related pay structures used where individuals are in control of how much other workers get paid?	AE	No		
Will project workers have control over life-changing resources such as the allocation of compensation for displacement or access to basic or highly sought-after resources?	AE	Project workers will not be displaced. All workers will be selected within a radius of 25 miles from the worksite.		
Will security personnel be used? Will they be armed?	AE	No, the project will not employ armed security personnel.		
Will there be an influx of male workers into the project area (as opposed to only using local labor)?	AE	All workers in project areas (see selection criteria of activities) will be selected among men and women within a 25 km radius. Therefore, there will be no influx of male workers in project areas. Furthermore, project activities will be in remote forested areas generally far from houses and communities.		

Are local communities poor and lacking basic resources?	AE	Although poverty rate is higher in rural areas, local communities, by large, do not lack basic resources.		
Will migrant workers be employed by the project, especially those who may not speak the local language? Will they be employed on a temporary or daily basis?	AE	Hiring of workers will be made following the laws and regulations of Serbia and workers will need to abide with the FAO code of conduct and FAO policies. As works will occur in remote forested areas of the country, the project does not expect to have migrant workers.		
Will project workers all have formal contracts?		Yes, hiring of workers will be made following the laws and regulations of Serbia (Labor Law 24/05, 61/05 and 54/09). These regulate contracts, wages all the other aspects related to labor. Workers will need to abide with the FAO code of conduct and FAO policies.		
Will goods frequently be transported over long distances, especially through poor and/or remote communities?	AE	No, the project will not require transport of good, people or materials over long distances.		
Are worksites or project activities based in remote locations? Will worksites be spread out, with isolated spaces?	AE	Worksites will be in remoted forest and rural areas of the country. Nonetheless, as workers will be selected from communities within a radius of 25 km from the worksite, these will not require the establishment of camps or other temporary accommodation structures.		
Will project workers live in the community or in worker housing? If in worker housing, is it mixed sex?	AE	As workers will be selected from communities within a radius of 25 km from the worksite, these will not require the establishment of camps or other temporary accommodation structures.		

Will workers be required to travel long and potentially unsafe distances, and at times of day when transport options may be limited?	AE	Workers will be selected from communities within a radius of 25 km from the worksite. Based on the criteria identified in the FFP, Worksites must be accessible by road and transport from collection points in accessible areas to worksites will be guaranteed by the project through its partners and service providers.		
Will the project operate in highly pressurized work environments, with tight seasonal deadlines?	AE	The project will work with tight seasonal deadlines, but it will not be in highly pressurized work environments.		
Is the project located within a male-dominated sector where female workers will be employed?	AE	Forestry is a sector where women employment does not go above 14%. Nonetheless, employment will be open and accessible to all without any gender restriction.		
Have communities, especially low income/ vulnerable communities, voluntarily raised concerns in relation to SEAH/GBV during consultations?	AE	Participation in the project is voluntary and involves both state owned forests and forest owned by municipalities and private operators. Therefore, the project will assess SEAH/GBV during final identification of forestry investment sites.		
Have any changes been made to project design or adaptive management undertaken due to concerns of stakeholders and communities? (If yes, work through this checklist again)	AE	No, stakeholders have not raised concerns.		

Annex 5. PSEA risk mitigation matrix

Description of [Potential] Risks	Likelihood (LMH)	Potential Impact (LMH)	Risk Mitigation Measures
Contextual Risks			
National Level Risks <ul style="list-style-type: none"> • Lack of strong legal system to enforce laws • Low levels of prosecution of SEAH incidents 	L	L	<ul style="list-style-type: none"> • Ensure presence in the PMU of a gender and social expert with extensive experience of local context. • Ensure constant coordination between the project gender and social expert, the National Gender Coordinator, and the Regional Gender Coordinator in FAO. • Work with relevant gender/social welfare government ministries and departments, other anti-gender-based violence organizations or networks. • Strong enforcement of the AEs SEAH (and/or its equivalent) policy. • Enforcement of SEAH related laws as it pertains to the project/program. • Liaise institutional stakeholders with providers of SEAH training (e.g. UNFPA, UNWOMEN, UNIVF, OCHA among others) to project stakeholders and communities.
Societal Risks <ul style="list-style-type: none"> • Sociocultural norms that do not challenge SEAH • Low levels of awareness on rights, SEAH etc. • Limited services for SEAH survivors 	M	M	<ul style="list-style-type: none"> • Ensure regular visits to communities and local institutions of the gender and social expert to work with local government or authorities and to sensitize community members on SEAH safeguarding. • Identify champions where applicable to act as allies on SEAH safeguarding. • Provide SEAH training to project stakeholders and communities.
Project Risks			
<ul style="list-style-type: none"> • Limited SEAH protection services in project/program area • High rates of femicide or sexual violence (e.g., used as a tactic of war) in project/program areas 	L	L	As above societal risks and: <ul style="list-style-type: none"> • Through the work of the Gender and Social expert of the project, support local officials in campaigns on prevention of SEAH;

<ul style="list-style-type: none"> • Women fear that participation or employment in the project/program may exacerbate ongoing forms of SEAH. 			<ul style="list-style-type: none"> • Leverage existing relationships with government stakeholders; identify champions / supporters / changemakers within the government (specifically on SEAH). • Conduct SEAH awareness-raising and sensitization campaigns within the community. • Inform the community the community on SEAH risks, explain how to report them and the services available including SEAH GRM established by the project.
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ⁱThe estimated value for the reported reduction of net emissions from the private sector is obtained by summing up carbon removal and offset emissions. Reductions (830,000 tonne CO₂eq) are calculated dividing the carbon reduction loans (USD 50 million) / the average cost (USD 60) of mitigating 1 tonne of CO₂eq [[The High-Level Commission on Carbon Prices concludes that the explicit carbon-price level consistent with achieving the Paris temperature target is at least US\\$40–80/tCO₂ by 2020. A price of 60 USD per reducing 1 tonne of CO₂ eq. cost is therefore assumed to be reasonably conservative](#)]. Concerning offsets, the project estimates for the 7y of execution to reach a maximum offsets of approx. 200,000 tonne of CO₂eq (7y) derived from the assumption from private companies' willingness to invest about USD 5 million in offsets at an average estimated cost of USD 24.5 [[equivalent of the average international carbon market spot prices as positively tested by the Australian Government to price carbon credit unit \(Australian Government, 2021\)](#)] per tonne of CO₂eq. Assuming further that the interest of the private companies will continue at the same rate over the lifetime of the project, the total emissions reduction would correspond to 758,017tCO₂-e. (see Annex 9). Total carbon reductions from decarbonisation and offsets correspond to approx. 1.6 million tCO₂-e over the lifetime of the project of 27 years. Calculated over 7 years GHG emission reductions correspond to approx. 420,000 tCO₂-e.

ⁱⁱ Afforestation investments will follow the most updated guidelines from FAO (Guidelines for Forest Management of Main Forest Types of Serbia). Afforestation will be done using autochthonous species. High consideration will be given to biodiversity when establishing new forests avoiding monocultures or intensive forest plantation. Each investment will also follow the most advanced climate adaptive silviculture practices to ensure the highest possible survival rate of forestry investments and restoring natural ecosystems.

ⁱⁱⁱ Based on the FAO Definition, High forests are those originated mainly from seed.

^{iv} In 2019, 934,237 or 37.1% of all households were consumers of firewood. These households are largely concentrated in rural areas and make up the poorest segments of the population.

^vSerbia Statistical Release -- Registered employment, 2021: <https://publikacije.stat.gov.rs/G2022/HtmE/G20221023.html> In terms of existing employment, 6,715 individuals were employed formally in the Forestry and Logging sector in 2020, or 22.5% of those employed in Agriculture, Forestry and Fishing. This is likely an

underestimate since it does not include informal employment. Finally, individuals employed in the additional jobs created in the sector will also benefit from the project.

Annex 6. Environmental and Social Management Plan (ESMP) indicative outline

Environmental and Social Management Plan (ESMP)

Indicative outline

(Max 80 pages)

Note: The Environmental and Social Management Plan (ESMP) is a detailed project-specific plan that operationalizes the principles, requirements, and specific measures, actions, and strategies that will be implemented by the project to manage and mitigate the environmental and social risks and impacts associated with particular activities. The ESMP is ideally prepared during Formulation phase, and always before activities are implemented; it can be built on an existing ESMF, if that was the project's ES risk management instrument of choice while the activities and sites were unknown. Both moderate and high-risk projects are required to develop an ESMP before project activities are implemented.

1. **Executive summary** (optional)

Provide a brief overview of the project and the key environmental and social considerations. Indicate the project risk category as per the ES risk screening checklist. A summary of key findings from the baseline and risk assessment, objectives, and recommended actions may also be added to this section)

2. **Introduction**

Describe the project and the activities covered by this particular ESMP, including locations, and implementing partners. Describe the purpose and scope of this ESMF, which should be aligned with the project activities/components. Briefly identify the potential social and environmental impacts of the project – that will be further described in the sections below.

3. **Policy, legal and institutional framework**

Describe the key legal, regulatory, and institutional provisions related to the project' social and environmental aspects. This section should

refer to the international, national/regional/local, and institutional requirements relevant to the specific social and environmental aspects, risks and impacts, and safeguards triggered by the project. You might want to consider requirements from other international organizations, i.e., UNDP, ILO, and/or donors/implementing partners, as applicable.

4. **Environmental and social baseline**

Describe and analyse the environmental and social context where the project will be implemented. While some broad contextual information is necessary, the analysis should focus on the immediate context of the project site and aspects that relate to the identified impacts in order to be relevant to decisions about project design, operation, or mitigation measures. For general baseline information (regional, national), secondary data and existing assessment might be used. For site specific context and baseline information, primary data collection is strongly recommended. For projects that have conducted an ESIA, a summary of the baseline findings on social and environmental conditions may be used for this section.

The scope of the environmental and social baseline analysis will vary according to the nature of the project and the issues identified during the screening phase. The analysis might cover a range of physical, biological, socio-economic, and cultural aspects that could be potentially affected by the project. The following is a general guidance of aspects to be included in this section:

- 4.1. **Physical environment:** topography, climate, soils, rainfall, infrastructure, etc.
- 4.2. **Biological environment:** flora, fauna, endangered species, sensitive sites, and significant natural sites.
- 4.3. **Socio-economic and cultural environment:** population dynamics, land use, poverty trends, community structure and capacities, community health (current status and drivers of disease), sources of livelihoods, distribution of income, cultural heritage, goods and services, level of community environmental awareness on issues such as poverty and environment, biodiversity loss and climate change, extent of community dependence on natural resources for livelihoods and access to basic services, such as water and sanitation, health-care facilities, schools, agricultural extension, electricity, transport, and markets.

5. **Risk classification and management**

Indicate the risk categorization as per the FAO screening checklist. The risk categorization is obtained upon completion of the ES screening

checklist in FPMIS – add the checklist as an annex to this framework

6. Describe the potential environmental and social risks and impacts

Identify and analyse the potential risks and adverse impacts from the project, as well as the opportunities for enhancing its positive impacts. When identifying risks and impacts, consider each of the project’s activities. Please also describe how the project will address Sexual Exploitation and Abuse (SEA) related risks. This section should also consider cumulative impacts and cross-cutting issues.

7. Environmental and social management measures

Describe the mitigation measures to avoid, minimise, or mitigate the ES risks and impacts identified in the previous sections and in the ESIA. Identify the measures to enhance positive environmental and social outcomes.

8. Institutional and implementation arrangements, and estimated costs

Describe the institutional and implementation arrangements, as well as the estimated costs for the implementation of this ES risk management plan. In this section, the project team may choose to provide an overview of roles and responsibilities, and budget allocation; detailed information including timeline, may be added to the ESMP Matrix, Table 1 provided below – alternatively, the project may choose to provide all information required by sections 7 and 8 in the ESMP Matrix.

9. Monitoring arrangements

Describe the monitoring arrangements in place to ensure the implementation of this ESMP. In this section, the project team may choose to provide an overview of the monitoring arrangement, including responsibilities and timelines – alternatively, the project may choose to provide all information required by sections 7 and 8 in the ESMP Matrix, Table 1.

10. Stakeholder engagement

Briefly describe stakeholder engagement activities conducted, including: (i) identification of key stakeholders and their interests in the project; (ii) stakeholder engagement activities such as consultation and participation, conducted to date, and the key issues, concerns and feedback provided during these engagements; and (iii) how the project plans to incorporate stakeholder feedback and address their

concerns, during and post project implementation. Describe how stakeholder engagement will be incorporated as an ongoing project activity and indicate the main communication channels and frequency of engagement for each stakeholder type/group. Alternatively, this section may provide a summary of the key stakeholder engagement findings to date, and indicate a link to the Stakeholder Engagement Plan^v (SEP) developed for the project.

11. Grievance Redress Mechanism

Describe the project GRM, and how this will be communicated to project stakeholders. Alternatively, provide a link to the Grievance Redress Mechanism^v (GRM) developed for the project.

12. Information disclosure

Describe when and where project information will be/is publicly disclosed. The paragraph below could be used as guidance. For additional guidance: [ESS Guidance Note on ESOP2](#).

Disclosure of programme and project information supports stakeholders’ ability to effectively participate in project consultations. FAO strives for project information to be relevant, understandable, accessible, and considered culturally appropriate by stakeholders. Due attention will be dedicated to specific needs in the community groups affected by project implementation. This document will be publicly disclosed on FAO’s disclosure portal from **DATE** as well as through the following channels **XXX**

Table 1: Environmental and Social Management Plan Matrix

Activities <i>(Specify locations)</i>	Potential environmental and social risks and impacts <i>(Briefly describe the potential ES risks identified)</i>	ESS triggered	Mitigation Measures <i>(Briefly describe the mitigation measures for the identified risk. Indicate whether any</i>	Implementation Arrangements^v <i>(Responsible parties for implementation of the mitigation measures, and timeline for activities)</i>	Monitoring Arrangements^v <i>(Responsibilities, and timeline / frequency of the monitoring activities)</i>	Timeline	Estimated costs to implement the mitigation measures
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	<i>in line with the FESM)</i>		<i>specific instruments have been prepared such as Biodiversity Management Plan, Gender Action Plan, LMP, etc. and provide the reference – link/document etc.)</i>				

1. Annexes

- **ESMP guiding questions**
- **Completed environmental and social screening checklist:** Please attach here a copy of the most updated risk screening checklist of FPMIS.

Annex: ESMP guiding questions

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*Page numbering reflects contents in the stand-alone ESMP guiding questions document.

Introduction

These guiding questions for **moderate-risk** projects were developed to support and guide FAO project teams to develop the project's Environmental and Social Management Plan (ESMP).^v Adding to the information collected and analyzed during the prodoc and ESA preparation, the ESMP should expand on the environmental and social risks identification and assessment, and how they will be mitigated during project implementation.

The guiding questions formulated below serve as guidance to deepen the project's knowledge of the environmental and social baseline, beyond what is already described in the project document, and can be instrumental when completing the ES risk matrix.

The questions presented in this document are not exhaustive, they are intended to work as a starting point for the identification of risks and mitigation measures. In using this document, the project team may find helpful to respond to the questions in the applicable section (safeguard standard)^v, adding any other questions identified by the team. The ESM Unit strongly recommend annexing the guiding questions (as applicable to the project) to its ESMP.

- [ESS1 Biodiversity conservation and sustainable management of natural resources](#)
- [ESS2 Resource efficiency and pollution prevention and management](#)
- [ESS3 Climate change and disaster reduction](#)
- [ESS4 Decent work](#)
- [ESS5 Community health, safety, and security](#)

- [ESS6 Gender, equality, and prevention of gender-based violence](#)
- [ESS7 Land tenure, displacement, and resettlement](#)
- [ESS8 Indigenous peoples](#)
- [ESS9 Cultural heritage](#)

ESS1 Biodiversity conservation and sustainable management of natural resources

Direct and indirect impacts of the project on biodiversity

- a) A summary of the potential significant direct and indirect impacts of the project on biodiversity (as determined in the ESA and project design) should be included here. These could be presented in in table format (see Table 1 as example), including sensitive habitats and protected species that have been identified or are known to likely occur within the wider Project Area, as well as the types of impacts that may occur.
- b) **Mitigation/management measures.** This should outline the key mitigation/management measures that will be implemented to reduce/manage the impacts/risks.

Table ESS 1. Biodiversity Risk Matrix

Phylum/Taxa and common name	Project Biodiversity risk	Impacts (direct/indirect, design/construction/implementation)	Recommended mitigation measure	Timeline (for implementation of mitigation measures)	Responsible party	Estimated cost

ESS2 Resource efficiency and pollution prevention and management

Water management

- a) Irrigation activities

-
- More than 20 ha of irrigation, or improving existing irrigation schemes: how will the project avoid or address any potential negative impacts identified in the ICID-checklist?
 - How will the project avoid direct discharge of wastewater into freshwater courses, marine coastal areas, and surface runoff originating from production units or processing areas?
- b) Wastewater or runoff of contaminated water
- c) Restrict or alter riverine systems.

Pesticides on crops, livestock, aquaculture, or forestry

- a) In cases where pesticides are used, provide information about procedures for the selection, procurement, storage, handling, and disposal of pesticides in alignment with WHO/FAO guidelines (International Code of Conduct on Pesticide Management).
- b) Personnel must receive adequate training to handle and apply pesticides safely.

Fertilizers

- a) How will the project prevent overuse of fertilizers? For suggestions, see the FAO International Code of Conduct for Sustainable Use and Management of Fertilizers (the Fertilizer Code); the Protocol for the assessment of Sustainable Soil Management to assess impact on soil health; and the standard protocols and guidelines provided by the International Network on Fertilizer Quality.

Waste management

- a) Provide information on how the project will manage the waste related to:
- Plastic, wastewater, veterinary waste, or animal residue; and
 - Hazardous substances and materials.

ESS3 Climate change and disaster risk reduction

For assessment and mitigation of climate change and disaster risks the project should consider the following tools:

- a) Climate Risk Toolbox (CRTB) – video and tool;
- b) Ex-Act Tool.

ESS4 Decent work

General questions

- a) How will the project (positively or negatively) affect working conditions, generate employment (i.e. cash for work), or provide work-related training or technical support?

Cash for work (CFW)

- a) Could beneficiaries be exposed to conditions such as extreme heat, long working hours, handling machinery, exposure to toxic substances, heavy lifting, etc.? (If so, mitigation measures would involve training and use of PPEs)
- b) To the best of your knowledge, are there procedures in place in case of emergencies (accidents) that may result from cash for work activities?
- c) Will there be training, and PPE provided?
- d) Have works programmes been designed so as not to disrupt existing traditions of voluntary collective work?
- e) Have the programme activities been planned to minimize any conflicts with activities pursued by the local community?
- f) What could be the impacts on households because of CFW activities (e.g. intra-household decision-making, family relations, gender, children skipping school)?

Child and forced labor

- a) How will the project ensure that child labor is not used directly or through contractors or in the supply chain? Will there be age checks (verification) for all workers?
- b) How will the project ensure that young workers below 18 are not employed in dangerous work?
- c) Is the project at risk of indirectly creating child labor, such as by hiring adults from the same household, thus leading to a child having to temporarily take over those adults' responsibilities/tasks in the household. Consequently, that child will be placed out of school and/or exposed to hazardous situations.
- d) How will the project ensure that forced labor is not used directly or through contractors or in the supply chain?

Work conditions

- a) Could employment opportunities exacerbate potential risks of groups such as women, migrants, and other minorities? Examples include sexual harassment in a work environment that is usually not tolerant of women, lower salaries to migrants in comparison to locals, worse working conditions, etc.

Occupational safety and health

- a) How will the project ensure that workers are provided with a safe and healthy working environment?
 - Was the identification of potential hazards conducted?
 - Is there a procedure on how to prevent and address accidents, injury, and disease by minimizing the cause of such hazards?
 - Are workers trained in occupational health and safety?
 - Does the project need an emergency prevention, preparedness, and response arrangement/plan?
- b) Physical hazards in the agricultural sector (for other sectors please consult the [World Bank EHSGs](#)):
 - Operational and workplace hazards: Slips, trips, and falls (inadequate workplace) resulting in sprains, strains, and fractures; Ergonomics hazards from manual handling, lifting weights, or repetitive movements; Sharp and moving objects in the workplace; and Over-exposure to noise, vibration, and extreme or adverse weather conditions.
 - Machinery and vehicles – worker transportation, farm tractors, harvesting machinery, other machines used on farms. Risks of vehicle collisions, vehicle and machinery roll-overs, uncontrolled movement resulting in personal injury, etc.
 - Exposure to organic dust – high concentration of organic dust such as particles from grain, fungi, and bacteria.
- c) Risk of fire and explosion
 - Combustible dust and silo safety
- d) Biological hazards - Occupational health and safety hazards associated with crop production may include contact with venomous animals, such as stinging insects, spiders, scorpions, snakes, disease vectors (e.g., mosquitoes, ticks), and with certain wild mammals).
- e) Chemical hazards (pesticides – ESS2)

GRM for workers

- a) Does the project have a GRM accessible for workers?
- b) Does the GRM allow for anonymous complaints (to avoid retaliation)?
- c) How is the GRM communicated to workers?
- d) Is the GRM available for contract workers?

ESS5 Community health, safety, and security

Heavy machinery

- a) Will the project be moving or operating heavy machinery?
 - Will such machinery be moved using local roads?
 - Will such machinery potentially block or worsen the conditions of local roads?
 - Increased risk of vehicle or machinery injuries on roads and access routes around the community.

Exposure to hazardous materials

- a) How will the project store, transport, and dispose hazardous materials? Measures to avoid, minimize and mitigate exposure to hazardous materials (from a community perspective).

Natural hazards

- a) Will the project exacerbate the impacts caused by natural hazards, such as landslides or floods that could result from land changes due to the project activities? How will the project address such risks?
- b) Will the project change vegetation cover, existing topography, and hydrologic patterns (i.e. roads, pipelines, new agricultural development)
 - How will the project manage storm water flow?
 - How will the project prevent reduction in surface and groundwater availability (depending on resources used by the community for agricultural or other purposes)?

Exposure to diseases

- a) Could the project contribute to the spread of o water-borne, water-based, water-related, vector-borne disease, and other communicable diseases that could result from project activities? If yes, how will the project avoid, minimize, or mitigate such risks?

Influx of workers

- a) Will the project contribute to an increase influx of workers (in migration) in search of temporary or permanent labor?
 - Exposure to communicable diseases (e.g. STDs)

-
- Impact on inflation because of increase demand for services such as housing and food
 - Pressure on existing services (education, health, sanitation)

Buildings and structures

- a) Will the project involve new buildings and structures accessed by the public (warehouse, schools, etc.)? If yes:
- Has the building/structure been designed and certified or approved by competent authorities or professionals (engineer, architect, etc.)?

Security personnel

- a) Will the project engage security forces/personnel? If yes:
- Was the security services provider screened to ensure it does not have a record of unlawful and/or abusive acts
 - Establish a grievance redress mechanism to ensure communities can submit complaints about security personnel and/or security arrangements
- b) Will the project potentially exacerbate any existing conflict (i.e. communal, resource related, ethnic)?

Site waste

- a) What type of waste will be produced by the project?
- b) Who is responsible for the management of the waste?
- c) Is the waste going to be stored? Will it be transferred? Are there Recycling and Disposal Options?
- d) How the elimination of excess waste, e.g over ordering of products; will take place?
- e) how will the project measure the quantity of waste?

Hazardous materials

- a) Process Knowledge and Documentation: are there written safety procedures? or written operating procedures?
- b) Release Prevention and Control Planning: Is there a risk of a spill of uncontrolled hazardous materials? If so, facilities should prepare a spill control, prevention, and countermeasure plan as a specific component of their Emergency Preparedness and Response Plan.

ESS6 Gender, equality and prevention of Gender-based Violence

Discrimination and inequality

- a) How will the project address the risk of increasing gender-based discrimination or inequalities?

Sexual exploitation and abuse

- a) How is the project planning to address Sexual Exploitation and Abuse (SEA) risks? Examples of measures include:
- Budgetary support to Prevention of SEA (PSEA) such as for hiring PSEA expertise, raising awareness in the local communities etc.;
 - Ensure all project staff completed the mandatory FAO course on SEA before starting their work (in particular frontline workers e.g. M&E personnel, personnel involved in the distribution of inputs and/or cash; drivers, security guards supporting the project implementation etc);
 - Assess PSEA capacity of project IPs before engaging with them and build their capacity accordingly;
 - Sensitize project staff working on stakeholder engagement (in particular at community level) on how to communicate effectively on SEA (i.e. language and means of communication);
 - Ensuring project beneficiaries/local community know how to submit complaints on SEA issues (i.e. OIG FAO hotline);
 - Make use of inter-agency/joint Community Based Complaint Mechanism and SEA referral pathways (when applicable);
 - Sensitize project staff on the importance of confidentiality when dealing with SEA matters.

ESS7 Land tenure, displacement and resettlement

Land and people

- a) Are individuals or groups, regardless of tenure rights, already using the land where the project will be implemented for livelihood activities (these may include temporary activities such as animal husbandry, including by nomadic communities)
- Have these users been consulted in advance about potential changes of access/ use/ control?
- b) Project implementation area: is there a history of land or ethnic disputes?
- c) Legacy issues due to previous land acquisition/displacement
- Is there a history of overlapping or competing claims (e.g., territorial claims by Indigenous Peoples, intra-governmental disputes between national or regional governments, claims by different economic sectors (i.e., mining vs forestry/ agriculture)?
- d) Is the project located in a post-conflict area, with the potential presence of returnees?

Displacement (physical and economic; temporary and permanent)

- a) Will there be restriction of access (permanent or temporary) due to the implementation of the project, that may affect individuals, groups, or communities (land users)?
 - Types of restrictions: fence, roadblock, restoration of an access way, establishment of a protected area, rehabilitation of degraded areas.
- b) Will there be any economic displacement as a result of project implementation, such as restriction of access to arable lands (please also consider nomadic communities)?
 - Impacts on livelihoods should be presented with respect to a locally relevant categorisation of affected groups (communal land), households, or individuals. It should also indicate the ownership status (titleholder/non-titleholders, tenants, etc.) of those affected.
- c) Were there any recent changes in land tenure and/or access that have impacted the individuals, groups, or communities, in the project area, in the past five years?

Country/regional level land tenure practices

- a) Are there land governance laws (tenure), regulation and enforcement? (Legal framework)
- b) Is the country known for “land grabs” practices?
- c) If lands are largely held under public or customary ownership in the country, is there an established policy/procedure to transfer the rights of concessions through a process that requires public consultation?
- d) Are there instances where the government failed to take appropriate action associated to resettlement of populations? Are there reports of the use of excessive force to expropriate people from their lands?
- e) Are customary rights protected under the law and through processes considered to be fair and transparent, as per the VGGT?

ESS8 Indigenous Peoples

- a) Are the IPs involved or affected by the project dependent on natural resources within the project area?
 - According to the United Nations, the term ‘Indigenous Peoples’ refers to distinct collectives who answer to any of the more commonly accepted definitions. Regardless of the local, national and regional terms applied to them, self-identification as a distinct people is a fundamental criterion in the definition of Indigenous Peoples. Other key characteristics of the definition of Indigenous Peoples include: voluntary perpetuation of cultural distinctiveness (e.g. languages, laws, customary cultural, social, economic or political institutions); collective attachment to the lands, territories and resources they have traditionally owned, occupied or otherwise used or acquired; traditional livelihoods and tangible and intangible cultural heritage associated with their lands, territories, and resources; priority in time with respect to occupation and use of specific territory; and an experience of subjugation, marginalization, dispossession, exclusion or

discrimination, whether or not these conditions persist. Indigenous Peoples may have a distinct language or dialect, often different from the official language or languages of the country or region in which they reside.

- b) Will the project affect access to natural and/or cultural resources used by IPs? If yes, explain the outcome of the discussion of such restriction of access with the affected IP groups or individuals?
- c) When the project will be implemented in or near indigenous peoples territories (owned or claimed), what is the project strategy for conducting FPIC?
- d) Clearly describe measures to enable indigenous peoples to take advantage of opportunities brought about by the project, and to conserve and manage on a sustainable basis the utilization of the unique natural resource base upon which they depend. Such opportunities should be culturally appropriate.

ESS9 Cultural heritage

- a) Will the project implement activities next to known cultural heritage sites?
- b) Will the project implement activities next to places of worship or areas of cultural importance to communities?
- c) Will the project restrict or change access to communal areas where potential worship sites or areas of cultural importance are?
- d) Has the project consulted the local communities to map/indicate potential cultural heritage sites located in the surroundings of the project implementation area?
- e) In the mitigation measures, please also describe what will take place if Physical Cultural Resources are discovered in the area (suspension of work; demarcation of areas; information to the cultural authority).