**Addendums of competent bodies of the Republic of Serbia**

**for the creation of the Report on the Right to a Safe,**

**Clean, Healthy and Sustainable Environment**

1. Competent bodies of the Republic of Serbia implement several policies and programmes covering the human right to a safe, clean, healthy and sustainable environment through the Incentives for the support to the programmes which refer to preservation and improvement of environment and natural resources which cover the incentives for:

* sustainable use of agricultural land;
* sustainable use of forest resources;
* organic production;
* preservation of agricultural and other areas of high natural value;
* support to agro-ecological measures, good agricultural practice and other policies of environmental protection and preservation.

Law on Waters (“Official Gazette of RS”, no 30/2010, 93/2012, 101/2016, 95/2018 and 95/2018) regulates in detail the status of water, integral water management, management of water facilities and water land, sources and the manner of financing water activity, surveillance over the implementation of this law, and other issues of importance for water management.

2. Ministry of Agriculture, Forestry and Water Management is competent to implement the Law on Agricultural and Rural Development, Law on Agricultural Lawn, Law on Waters, and Law on Forests. Article 5 of the Law on Agricultural Land defines the Agricultural basis for damages, regulation and use of agricultural land, and Article 29 of the same Law defines the protection of agricultural land from frost, hail, fire and other natural disasters. The Law on Waters in Article 92 regulates the water protection against pollution, and Article 25 defines/regulates the principle of sustainable development – water management must be done so that the needs of existing generations are met in the manner that does not jeopardise the possibility of future generations to meet their own needs. Adoption of the Law on Waters in line with the EU directives, puts an emphasis in this field on the aspect of environmental protection, i.e. realisation of the environmental goals. There is a combined approach covering the control of pollution at the pollution sources through the establishment emission limit values and environmental quality standards. The “polluters pay” principle has been introduced which, in addition to a better water quality, should ensure a higher level of financing for the water sector. Examples of good practice: Financing the construction of a branch of a main pipeline Lučka reka – Javor; Financing the completion of the construction of Kamnare reservoir; Financing the construction of the main pipeline within the PBC “Ćelije” for the water supply for settlements Lomnica and Buci; Financing the Feasibility Study of the Conceptual Design of the System for taking and transporting additional amounts of water from the basin of Kačera to the accumulation of Garaši.

Article 49 of the Law on Forests prohibits waste disposal in forests.

3. The Strategy of Water Management on the territory of the Republic of Serbia until 2034 states that the Republic of Serbia, according to the construction of the sewage infrastructure, belongs to the group of medium developed countries, while in terms of the waste water treatment it is among the last ones. Namely, the sewage network covers around 55% of the population, while less than 10% of the population is covered by a certain type of waste water treatment. The pre-treatment of technological waste waters, before discharging in the sewage network or other recipient is obtained by a small number of industries. The fact is that the existing situation in the field of water protection against pollution is primarily a consequence of the lack of means, in particular, for construction and maintenance of the plants for waste water purification, both of the settlements and the industries and other consumers, and not the lack of adequate regulation. In addition to this, the water quality of big rivers on the territory of the Republic of Serbia is not endangered based on most water quality parameters.

According to the data from the Second Report of the Republic of Serbia under the United Nations Framework Convention on climate change, forest land (forestry) and the use of products made of cut-down trees, which eliminate the emissions of GHG (pits), was -17.848,08 Gg CO2eq, or -0,91 Gg CO2eq in 2014. This information shows that the forestry sector has a great impact on mitigation of GHG gasses.

4. We believe the main obstacles in fulfilling the obligations regarding the human right to a safe, clean, health and sustainable environment of financial nature and that there is no enough technical and expert support. Human and technical capacities dealing with this issue are insufficient.

Agricultural production has been faced with numerous challenges for years, caused by climate changes, since agriculture is at the same time a significant cause, and the sector which suffers most from the effects of climate change. The forecast is that in the future we can expect a further rise in temperature, change of the amount and distribution of precipitation, an increase in variability of climate parameters and occurrence of extreme climate events, such as droughts, floods, and storms.

7. Countries with big revenues through their examples of well implemented programmes and projects in the field of mitigation and adaptation and through the assistance (financial, technical, expert) may help in responding to climate changes.

**Addendums of competent bodies of the Republic of Serbia**

**For the creation of the Report on climate changes and human rights:**

**Safe climate**

1. Republic of Serbia is facing serious consequences of climate changes in the sector of agriculture. With the agricultural production which makes around 1% of the gross domestic product of the Republic of Serbia, the entire national economy is rather sensitive to the factors affecting agriculture. With no doubts, the climate changes will affect the quality and quantity of the yield of basic agricultural crops in Serbia, and the variability of the yield, which will be more and more evident with years. Plant production in the Republic of Serbia is mostly carried out in the conditions of natural water supply and natural variability of weather conditions during the year (except from the production on the protected areas), which is mostly the basic reason of big oscillations (instability) of the yield between certain years. According to the scenarios of climate change which foresee a further increase the concentration of greenhouse gases, it can be expected a more frequent occurrence of extreme weather conditions, then droughts and a reduction of the amount of summer precipitation in particular, an increased number of dry days and days with extreme temperatures in certain sub-periods of vegetation (high spring and summer temperatures). Also, we can expect warmer winters with fewer days with frost or even without days with frost.

The agriculture in Serbia has faced significant losses lately due to unfavourable weather conditions and extreme climate anomalies. Among the most significant ones there are damages caused by droughts, spring frost, hail, storms and floods. Since 2000, there have been several episodes of long droughts in Serbia which have caused significant losses. Extreme droughts occurred in 2000, 2003, 2007, 2011, 2012 and 2018. The effect of possible future climate changes on agricultural production in Serbia will reflect in the increased length of vegetation period and will postpone the beginning of vegetation by 20-30 days compared to the previous dates, as we approach the year 2100, which will significantly affect the plans of production and the time of work in the field. Warming will also affect the phenology of plants, bringing them to a faster development. The consequences of that will be reflected in reduced yield, unless the plant types adjust to the presence of high temperatures (changes in ripening groups). Dry periods will particularly affect the yield of grain crops which are not covered with irrigation. With the land with small water capacities the potential yield will be reduced.

Climate changes will have a highest effect on the maize yield. Unless the adjustment measures are applied, by 2030 we can expect a reduction of maize yield in non-irrigated conditions by 58%. A potential reduction of wheat yield will be by 16% before 2030. We expect a reduction of sugar production per hectare of sugar beet, and by 2100, a reduction of soya bean and vine production.

In the changed climate conditions, the thermal stress and a lack of precipitation may have a negative effect on the yield and quality of many vegetables and fruits. That can be manifested through a reduced fertility of the land, occurrence of diseases and pests, water stress, etc. Certain areal changes, as well as the changes in terms of time and intensity of pests and diseases are expected based on the possible climate changes in Serbia. A special challenge for the protection of herbs in the decades to come will be a fight against fungal diseases and pests, and certain virus diseases. The effect of climate changes increases the complexity of the integral plant protection. In case of stubble crops, according to the current scenarios, the climate changes could bring to a domination of pathogens which development requires higher temperatures or pathogens which can quickly adapt to dry conditions. We should bear in mind that a rise in temperature will have a negative impact on the health status and breeding of animals. In addition to that, there will be negative effects on sanitary conditions in the production of meat and milk.

2. In 2001, the Republic of Serbia ratified the UN Framework Convention on climate change and it has invested significant effort ever since to establish a legal, institutional and political frame focused on the obligations under the Convention. In principle, Serbia as a non-Annex 1 country, does not have the obligation to reduce the GHG emission according to the Convention, but as all other countries Serbia is expected to provide the information about the emissions and elimination of greenhouse gases, and the data on the activities taken for the implementation of the Convention.

On 29 May 2017, Serbian Parliament adopted the Paris Agreement, the global agreements on fight against climate change. Serbia thus became one of the signatories which also ratified the Paris Agreements and obliged itself to reduce the emission of greenhouse gases at the global level. The goal of Serbia under the Agreement is to reduce the GHG emission by 9.8% before 2030, compared to1990.

3. Competent bodies of the Republic of Serbia actively participate in the processes of mitigation and adaptation to climate changes.

* Serbian Government has appointed the Minister of Agriculture, Forestry and Water Management as the national Focal Point (NFP) for the GCF 2016. This appointment is a consequence of the competence of this ministry for three sectors which are most affected by climate changes (agriculture, forestry and water management). Green Climate Funding (GCF) is a global fund created to help the efforts of developing countries under the Convention to respond to the global challenges of climate change. GCF ensures the support to these countries to limit or reduce the emission of greenhouse gases (GHG) and the affectedness by changed climes conditions.
* Ministry of Agriculture, Forestry and Water Management helps in adaptation of agricultural production to changed climate conditions by providing subsidies for the procurement of the equipment for irrigation, anti-hail nets, anti-frost systems, organic production; genetic resources of plants and animals (autochthonous breeds of domestic animals and gene banks).
* IPARD programme for Serbia for the period 2014-2020 plans a support to certain investments which are not directly focused on mitigation and adaptation to climate changes, but indirectly contribute to a positive impact on climate changes:

**Measure 1** – Investments in physical property of agricultural households (investments in renewable energy sources for own consumption, storage and management of manure and procurement of agricultural mechanisation meeting the EU standards regarding the emission of exhaust gases);

**Measure 3** – Investments in physical property regarding the processing and marketing of agricultural products and fishery products (investments in renewable energy sources for own consumption);

**Measure 4** – Agro-ecological climate measures and organic agriculture (organic production);

**Measure 7** – Diversification of agricultural households and business development (investments in renewable energy sources for the purpose of a touristic project)

* Ministry of Agriculture, Forestry and Water Management (MAFWM) regresses the insurance of crops, fruits, multi-annual crops, nursery gardens and animals.
* In May 2019, the Forest Administration (MAFWM) made a Decision on granting the contract on financing the programmes and projects under the Competition for granting funds in line with the Annual Programme of Use of Funds from the Budget Fund for Forests of Serbia in 2019 for afforestation in spring 2019, when it was decided to finance the afforestation of 317,21 hectares. Also, the Forest Administration used the funds from the Budget Fund of RS to finance the works on afforestation and production of forest seedlings for afforestation every year, for the purpose of fight against climate changes and for the reduction of the emission of greenhouse gases, i.e. to ensure the right of individuals to a healthy environment. In 2019, the Budget Fund for forests provided funds for: production of 3.650.000 seedlings for afforestation in the value of around RSD 22.000.000; afforestation of 320 hectares in spring 2019 in the value of RSD 23.000.000, while the competition is yet to be made for afforestation in autumn, when the majority of works will take place. In average, those funds are used for the afforestation of between 1.500 and 2.000 hectares of new areas every year, and around 3.000.000 – 4.000.000 seedlings are used for that purpose. Within those areas, a recovery of forests damaged in natural disasters is also performed (due to fires, heavy snow, strong winds, heavy ice).
* MAFWM has created two brochures: “Good Agricultural Practice and Technologies for Mitigation of Effects of Natural Disasters in Maize Production in Serbia” and “Good Agricultural Practice and Technologies for Mitigation of Effects of Natural Disasters in Soya Bean Production in Serbia”. These brochures describe good agricultural practice and technologies for mitigation of the effects of natural disaster in maize and soya bean production in Serbia, which refer to crop rotation, land cultivation, ploughing, mulching, growing cover crops, selection of breed, sowing, combined sowing, plant nutrition (manuring), weed and pest control, irrigation/drainage, and harvest. The brochures are intended for the maize and soya beans producers, ministries and bodies of the Republic of Serbia, civil sector, researchers and academicians, agricultural experts and services, agricultural organisations and soya bean processors. The brochures are a result of the FAO project ‘Enhancement of Disaster Risk Reduction and Management (DRRM) capacities and mainstreaming Climate Change Adaptation (CCA) practices into the Agricultural Sector in the Western Balkans’ (TCP/RER/3504). Link: <http://www.minpolj.gov.rs/wp-content/uploads/datoteke/razno/i8848rs.pdf> и <http://www.minpolj.gov.rs/wp-content/uploads/datoteke/razno/i8850rs.pdf>
* in September 2018, the Group for Climate Change was established within the Sector for Agricultural Policy.
* MAFWM actively participates in the creation of the Climate Change Strategy with the Action Plan, Unique Methodology for Assessment of Damages caused by Natural and Other Disasters, HGH Inventory, Proposal of programmes for environmental protection in the Republic of Serbia for the period 2019 – 2025, etc.

4. One of the strategic objectives of developing energy sector in the Republic of Serbia by 2030 is the transition to sustainable energy and the key elements are the implementation of measures of energy efficiency, use of renewable energy sources, environmental protection and reduction of the effects on climate change by increasing the available capacities of renewable energy sources and the implementation of the “pure oil” technologies which will lead to a more rigid norms regarding environmental protection.

Apart from that, the Law on Efficient Use of Energy introduces the category of energy manager, appointed as a natural person by the designated energy consumer to monitor and record the manner of consumption and the amount of consumed energy, propose and implements measures of efficient energy use and perform other activities defined by this law. For the improvement of energy efficiency, the Budget Fund has been established and the financing is in line with this law and the regulations passed based on this law.

Also, this Law defines that the competent body of a local self-government unit with more than 20.000 citizens is obliged to make a programme of improvement of energy efficiency in the transport for the period of three years. Apart from that, legal persons performing obligatory technical inspections of motor vehicles in line with the law are obliged to provide the data which enable the identification and monitor of indicators of energy consumption in road traffic to the Road Traffic Safety Agency. The surveillance over the implementation of the provision of this law and regulations passed on the basis of this law is performed by the Ministry of Mining and Energy through the electric power Inspectorate and pressure equipment inspector.

In line with the Law on Energy, a Regulation was adopted on incentive measures for production of electricity from renewable sources and from highly efficient combined production of electrical and thermal energy. This Regulation closely defines the incentive measures for the production of electrical energy from renewable sources and from a highly efficient combined production of electrical and thermal energy, conditions for their realisation, duration of incentive period, rights and obligations arising from those measures for privileged producers of electrical energy and other energy entities.

6. Countries with high revenues with their examples of well implemented programmes and projects in the field of mitigation and adaptation and the assistance (financial, technical, expert) may help in providing responses to climate changes.

7. We believe that the main obstacles in the efforts to prevent the effects of climate changes on the human rights are of financial nature and the lack of technical and expert support. Human and technical capacities dealing with this issue are insufficient.

8. it is estimated that the climate changes will affect in particular the population in remote, underdeveloped rural areas which mostly perform agricultural production. In that respect, Ministry of Agriculture, Forestry and Water Management has recognised this issue, and introduced in the national incentives the Incentives for supporting programmes which refer to diversification of revenues and improvement of life quality in rural areas for the following: investments for the improvement and development of rural infrastructure; improvement of the activities in rural areas through the support to non-agricultural activities; support to the youth in rural areas; implementation of activities aimed at raising the competitiveness in terms of adding value through processing, and at introducing and certificating the system of food quality, organic products and production with the origin-labelling at households. The incentives for the support to programmes which refer to the improvement of competitiveness cover the incentives for: investments in physical property of agricultural households; establishing and strengthening associations in the field of agriculture; investment in processing and marketing of agricultural and food products and fishery products; risk management.

Ministry of Agriculture also gives incentives for the support of the improvement of the system for creation and transfer of knowledge covering the support for: development of technical and technological, applied, developmental and innovative projects in agriculture and rural development; support to counselling and information to agricultural manufacturers, associations, cooperatives and other legal entities in agriculture.

Agricultural counselling and expert services of Serbia perform the counselling activities in agriculture for the purpose of raising the general level of knowledge of agricultural manufacturers and their information, raising the competitiveness and modernisation of agricultural production, increase of profitability of production and quality of products, introduction of the production of healthy food, encouraging the interest associations of agricultural manufacturers, preservation of natural resources, environmental protection and the improvement of life conditions and culture of rural life, and therefore rural development.