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Environmental performance reviews

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Third Environmental Performance Review of Kyrgyzstan: draft recommendations¹

Note by the secretariat

Summary

At its special session in October 2022, the Committee agreed to postpone the adoption of the recommendations of the Third Environmental Performance Review of Kyrgyzstan to its next session in order for Kyrgyzstan to provide comments to the draft recommendations of the Environmental Performance Review to the ECE secretariat which were subsequently provided in June 2023. This document presents the recommendations of the third Environmental Performance Review of Kyrgyzstan as agreed initially by the Expert Group on Environmental Performance Reviews at its meeting conducted in a hybrid format in Tbilisi and by virtual means from 12 to 16 September 2022 and then subsequently at its meeting in Geneva 9 to 10 October 2023.

The Committee is invited to adopt the recommendations.

Chapter 1: Legal, policy and institutional framework

Recommendation 1.1:

The Cabinet of Ministers should:

(a) Adopt urgently a decree that approves the Ministry of Natural Resources, Ecology and Technical Supervision as an inspection body;

- (b) Prepare or complete legislation on waste management licencing, the import of wastes, emissions accounting, water basin management and the prohibition of harmful activities in all glaciers, and update emissions norms:
- (c) Complete the development of the environment and subsoil codes through an inclusive and transparent process, with the engagement of key stakeholders including civil society, industry and local self-government bodies, as well as central authorities;
- (d) Undertake and publish a review of gaps in implementing regulations and prepare a road map for their filling;
- (e) Follow more strictly its approved plan of legislative work so that cross-dependencies can be identified and multiple amendments to a legal act can be avoided;
- (f) Oversee how the initiators of legislation address comments received on draft legal acts, including from civil society, to ensure they are properly taken into account, and take corrective action as needed;
- (g) Raise penalties for administrative offences by authorities and enterprises in relation to inspections and State expertise and pursue such offences in the courts.

¹ This document was not formally edited; it will undergo editing before being published.

Recommendation 1.2:

The Cabinet of Ministers should implement strategic environmental assessment within the legislative framework, including in sectoral and spatial planning laws, provide procedures for its application in practice, raise awareness and, through the ministry responsible for the environment, provide support to the authorities responsible for its application.

Recommendation 1.3:

The Cabinet of Ministers should designate an authority to prepare, through an inclusive and transparent process, with the engagement of key stakeholders including civil society, a roadmap for the achievement of the Sustainable Development Goals and to establish a centralized system for monitoring progress against the roadmap.

Recommendation 1.4:

The ministry responsible for the environment should:

- (a) Establish an internal information management system to allow for electronic data sharing, initially for programme implementation;
- (b) Publish on its website all plan and programme quarterly and annual implementation reports, environmental publications including by the National Statistical Committee and information on past and scheduled activities, environmental offences and the state of the environment.

Recommendation 1.5:

The Cabinet of Ministers should:

- (a) Through a participatory and transparent process, develop, finalize and approve a programme for waste management, biodiversity priorities and an action plan and multiyear programmes on soil conservation, energy efficiency, including in housing and organic agriculture;
- (b) Engage civil society more actively in policymaking, including by explaining the opportunities for its participation, giving sufficient time and building its capacity to engage meaningfully;
- (c) Convene a multistakeholder group to assess the mechanisms in place to enhance policy coherence for sustainable development (according to Sustainable Development Goal indicator 17.14.1) and act upon the group's findings to improve policy coherence.

Recommendation 1.6:

The Cabinet of Ministers should:

- (a) Ensure that the Coordinating Council on Climate Change, Ecology and Sustainable Development and the National Council on Water and Land Resources both meet regularly and publish the reports of their meetings on the website of the Cabinet of Ministers;
- (b) Agree on the boundaries of the mandate of the ministry responsible for the environment, to resolve gaps and overlaps, particularly in relation to licencing, permitting and inspection and vis-à-vis other ministries, notably those responsible for agriculture, energy and economy.

Chapter 2: Regulatory and compliance assurance mechanisms

Recommendation 2.1:

- (a) Develop amendments on permits on water abstraction and use to the Water Code for the subsequent adoption by the Parliament;
- (b) Define the competent public authority on the issuance of permits for water abstraction and use;
- (c) Adopt an implementation regulation on the procedure for the issuance of permits for water abstraction and use.

Recommendation 2.2:

The Cabinet of Ministers should amend the 2014 Regulation on the procedure of conducting state ecological expertise by setting differentiated deadlines for the consideration of different types of documents.

Recommendation 2.3:

The Cabinet of Ministers should revise the 2015 Regulation on Environmental Impact Assessment to make it consistent with the requirements of the Conventions on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus) and on Environmental Impact Assessment in a Transboundary Context (Espoo), especially concerning: the list of planned activities for which environmental impact assessment is mandatory or which require screening and scoping stages; the public participation procedure; and a more detailed transboundary Environmental Impact Assessment procedure; as well as addressing climate change issues.

Recommendation 2.4:

The Ministry of Natural Resources, Ecology and Technical Supervision should ensure practical application of EIA in an open and transparent manner for the public.

Recommendation 2.5:

The Cabinet of Ministers should update the regulations defining competencies of the inspectorates that are responsible for compliance monitoring and environmental enforcement, as well as regulatory documents related to the procedure of conducting inspections.

Recommendation 2.6:

The Ministry of Natural Resources, Ecology and Technical Supervision should develop mechanisms and review procedures for different kinds of acts and omissions violating the national environmental law, and facilitate access to them for the public concerned.

Recommendation 2.7:

The Ministry of Natural Resources, Ecology and Technical Supervision in dialogue with business and industry, should draft, seek adoption according to the government procedure and apply regulations for self-monitoring, self-reporting and handling confidential industrial data, using as a basis the ECE Guidelines for Strengthening Environmental Monitoring and Reporting by Enterprises.

Recommendation 2.8:

The National Statistical Committee should develop an appropriate system of environmental reporting by enterprises, including energy suppliers.

Chapter 3: Greening the economy and financing environmental protection

Recommendation 3.1:

The Cabinet of Ministers should gradually phase-out fossil fuel and electricity consumption subsidies, eliminate the differences in excise duties of gasoline versus diesel and move towards cost recovery in utility services, while continuing to take measures to protect vulnerable households.

Recommendation 3.2:

The Cabinet of Ministers should communicate on the use of funds allocated to the Nature Development Fund and make public which projects are eligible for funding via the Fund and how funds been spent yearly.

Recommendation 3.3:

The Cabinet of Ministers should ensure that national guidelines for Green Public Procurement are developed and disseminated across all public authorities, and their implementation monitored.

Recommendation 3.4:

The Cabinet of Ministers should invest in training government officials regarding PPP project design and implementation, and develop clear guidelines for project selection.

Chapter 4: Environmental monitoring and information

Recommendation 4.1:

The Cabinet of Ministers should ensure that the annual programme regulating the environmental monitoring activities is timely adopted and implemented.

Recommendation 4.2:

The Cabinet of Ministers should:

- (a) Expand air quality monitoring of priority pollutants (particulates, SO₂, NO₂, O₃, CO, lead, VOCs, POPs) across the country.
- (b) Make provisions for monitoring to be established in all regions, with expansion also to rural areas to reveal rural air quality and prioritise automatic monitoring of particulates (especially $PM_{2.5}$ and PM_{10}) to support assessment of progress towards SDG targets.
- (c) Promote the utilization of available cost-effective monitoring technologies, such as passive sampling, to expand networks, combined with additional reference-grade equivalent automatic monitoring stations in selected cities.

Recommendation 4.3:

The Cabinet of Ministers should provide budgets to the Ministry of Natural Resources, Ecology and Technical Supervision to enable environmental monitoring systems, including groundwater and surface water quality, soil, forest and biodiversity monitoring.

Recommendation 4.4:

The Cabinet of Ministers, with the involvement of the National Academy of Sciences, should:

- (a) Undertake an assessment and adopt the list of priority long-term state monitoring and research programme topics on biodiversity, with special focus on rare and threatened flora, fungi and fauna species, natural ecosystems, habitats, plant communities, and invasive alien species;
- (b) Develop, adopt and ensure the implementation of a long-term regular state biodiversity monitoring and research programme, involving other relevant public scientific research and academic institutions as well as environmental NGOs, and mobilize adequate resources to ensure the continuation of biodiversity monitoring, nature inventories and scientific research in the long run;
- (c) Establish and ensure the operation of the national biodiversity information system, to gather, store and share results of biodiversity monitoring research programmes and projects, in particular those carried out with the support of public funding, and provide access to this system (with differentiated access and data administration levels) for all stakeholders involved in biodiversity conservation initiatives.

Recommendation 4.5:

The Cabinet of Ministers should:

- (a) Require accreditation of all analytical laboratories under concerned ministries and agencies with responsibilities in environmental monitoring, notably the analytical laboratory under the Ministry of Natural Resources, Ecology and Technical Supervision, and the air quality and surface water quality laboratories of KyrgyzHydromet;
- (b) Develop the capacity of analytical laboratories and consider independent analytical laboratories to improve environmental management of mining.

Recommendation 4.6:

The Cabinet of Ministers, with the involvement of the National Statistical Committee, and the Aarhus Centres in Kyrgyzstan, should:

(a) Establish an integrated and automated process for the regular collection, updating and public sharing of environmental data and information through interconnected data platforms, linking environmental monitoring data, environmental indicators and statistics, and environmental SDG data, and make the data publicly accessible online;

- (b) Ensure the regular production and publishing of all priority indicators under the revised ECE list of environmental indicators;
- (c) Reinitiate the regular production of National Reports on the State of the Environment of the Kyrgyz Republic through and inter-agency multi-stakeholder participatory process, ensuring the alignment of the reports with the international standards provided through the ECE Guidelines for the Preparation of Indicator-based Environment Assessment Reports in Eastern Europe, Caucasus and Central Asia and the Aarhus Convention, and promote the active dissemination of the reports and their findings to the public through all relevant agencies and channels.

Recommendation 4.7:

The Cabinet of Ministers should request large enterprises to integrate sustainability information into their reporting cycle and to provide the public and the National Statistical Committee with environmental and sustainability reports, which would allow the country to report on SDG indicator 12.6.1.

Chapter 5: Public participation and education for sustainable development

Recommendation 5.1:

The Cabinet of Ministers should establish clear and detailed procedures for the handling of information requests and disseminating environmental information, including:

- (a) Putting in place requirements for the website of the authority responsible for the environment, allocating budget, establishing training programmes and creating accountability for the ongoing maintenance and updating of information on the website in accordance with the Recommendations on the more effective use of electronic information tools adopted by the Meeting of the Parties to the Aarhus Convention;
- (b) Establishing a national pollutant release and transfer register system in accordance with the requirements of the Protocol on Pollutant Release And Transfer Registers;
- (c) Defining detailed internal procedures and allocating budget for: handling information requests, delegating authority, training staff of the department responsible for receiving requests to identify the departments or experts to handle the substantive response;
- (d) Defining accountability lines to the senior management and tracking procedures and periodic reporting on the status of handling of requests and periodic training for all staff.

Recommendation 5.2:

The authority responsible for the environment should:

- (a) Define detailed internal procedures to enable organization of early, effective and inclusive public participation in decision making on projects, plans, programmes, policies and legislation on environmental matters in line with the Maastricht Recommendations on Public Participation in Decision-making;
- (b) Seek funding and implement periodic training programme for all responsible staff on the legal requirements for and good practices and tools in participatory decision-making processes;
- (c) Ensure that any review or development of legislation carried out by the authority incorporates adequate and detailed safeguards for access to information, public participation and access to justice and shifts the main responsibilities for organizing public participation procedure to the public authority which is competent to take a decision on the proposed activity.

Recommendation 5.3:

The Cabinet of Ministers should establish legal and institutional frameworks to ensure effective public participation in decision-making with respect to genetically modified organisms.

Recommendation 5.4:

The Cabinet of Ministers, working with the General Prosecutor's Office, the Office of the Ombudsman, and the Ministries of Justice and the Environment, should:

- (a) Continue its efforts to raise awareness, the capacity and specialization of the judiciary and prosecutors to consider environmental cases;
- (b) Establish the necessary arrangements for promoting an e-justice initiative and the collection of the relevant quantitative and qualitative data for environmental cases;
- (c) Take the necessary measures to provide for appropriate recognition of and support to associations, organizations or groups promoting environmental protection and ensure that its national legal system is consistent with this obligation;
- (d) Examine the situation of environmental defenders, including relevant statistical information, to identify trends and develop a roadmap with legislative and practical measures aimed to protect environmental defenders, including whistle-blowers reporting non-compliance with environmental law, against strategic lawsuits and legal harassment;
- (e) Take adequate measures to ensure the protection of environmental defenders and organize relevant training events for different target groups.

Recommendation 5.5:

The Cabinet of Ministers should:

- (a) Establish a multistakeholder coordinating body on ESD to address the introduction of ESD at strategic and implementation level across the education system;
- (b) Ensure that ESD is well integrated in all the periodic national action plans for the implementation of the national education strategies in concrete, results oriented and measurable terms.

Recommendation 5.6:

The ministry in charge of education should:

- (a) Establish a unit responsible for ESD and ensure that its staff is trained to address both strategic and implementation tasks;
- (b) Develop educational standards that are based on ESD for all levels of education;
- (c) Ensure that teaching methodologies and materials reflect ESD;
- (d) Provide ESD training for educators at all levels.

Chapter 6: Implementation of international agreements and commitments

Recommendation 6.1:

The Cabinet of Ministers should make efforts to improve coordination with the international donor organizations and establish an institutionalized framework building on its positive experience in cooperation with the Development Partners Coordination Council.

Recommendation 6.2:

The Cabinet of Ministers should:

- (a) Ensure that the institutional framework of the focal points and designated national authorities remain stable, and increase it where necessary, to improve the implementation of the multilateral environmental agreements Kyrgyzstan is Party to;
- (b) Ensure that the Ministry of Foreign Affairs has an updated and publicly available database of all focal points of multilateral environmental agreements, and relevant authorities display on their websites information on focal points;
- (c) Ensure that focal points comply with their duties of sharing information, preparing and disseminating meeting reports;
- (d) Ensure that updated focal point information is available at the agreement secretariats;
- (e) Strengthen technical capacities to implement and report on multilateral environmental agreements.

Recommendation 6.3:

The Cabinet of Ministers should consider launching a new national phase within the UNEP Green Customs Initiative with the involvement of all the relevant national focal points and the State Customs Service.

Recommendation 6.4:

The Cabinet of Ministers should proceed with preparatory work, and develop roadmaps if needed, for the accession to:

- (a) Convention on Mercury;
- (b) Convention on the Transboundary Effects of Industrial Accidents;
- (c) Convention on the Protection and Use of Transboundary Watercourses and International Lakes and the Protocol on Water and Health;
- (d) Protocols to the Convention on Long-range Transboundary Air Pollution, in particular the EMEP Protocol and the amended Protocol on Heavy Metals;
- (e) Protocol on Pollutant Release and Transfer Registers and the Amendment on public participation in decisions on the deliberate release into the environment and placing on the market of genetically modified organisms to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters.

Chapter 7: Climate change

Recommendation 7.1:

The Cabinet of Ministers should:

- (a) Develop and adopt a long-term strategy for low carbon development with a view to achieve carbon neutrality;
- (b) Develop and adopt legislation on climate change mitigation and adaption;
- (c) Set a governance/institutional structure on the preparation on inventory on greenhouses gas and projections and their reporting;
- (d) Prepare and implement a capacity development plan on institutional strengthening on climate change;
- (e) Assess the impacts of climate variability and change and estimates of associated costs.

Recommendation 7.2:

The Cabinet of Ministers should:

- (a) Finalise the elaboration of the national adaptation plan and start the preparation of regional and local adaptation plans;
- (b) Develop and implement public awareness campaigns and raise awareness among the general public about climate change to increase the country's resilience to climate change;
- (c) Build local governments' capacities to adapt to climate change.
- (d) Pay a special attention to the climate change impacts on mine tailing facilities and to restoration.

Recommendation 7.3:

The Cabinet of Ministers should:

- (a) Facilitate the dissemination of technologies and techniques for stormwater reuse;
- (b) Facilitate the implementation of water catchment areas from pervious and impervious surfaces for eventual reuse of the water collected;
- (c) Promote the practice of rainwater harvesting in urban and rural areas;
- (d) Foresee that every single building reduces water consumption and implements measures to store rainwater for its reuse;
- (e) Promote awareness-raising campaigns on reducing water consumption especially in summer.

Recommendation 7.4:

- (a) Promote the upgrading of old energy infrastructure to improve productivity and increase energy security;
- (b) Improve the monitoring of the status of the energy infrastructure and record the number of incidents;
- *(c) Consider nature-based solutions as preferred adaptation options;*
- (d) Promote the development of renewable energy sources instead of fossil fuels wherever possible.

Chapter 8: Air protection

Recommendation 8.1:

The Cabinet of Ministers should ensure that the Ministry of Natural Resources, Ecology and Technical Supervision transitions to a modern Air Quality Index system based on pollutant concentrations in line with the latest science and internationally accepted standards.

Recommendation 8.2:

The Cabinet of Ministers should:

- (a) Prioritise initiatives transitioning away from coal burning in the residential sector with an emphasis on private houses;
- (b) Support initiatives and programmes promoting energy efficiency in buildings, particularly private houses;
- (c) Support deployment of low-carbon heating technologies, such as heat pumps, and renewable energy technologies;
- (d) Bolster the electricity sector so it can support wintertime heating needs, through substantial sectoral reforms, investment, and improvements.

Recommendation 8.3:

The Cabinet of Ministers should:

- (a) Invest in the human capacity and other resources of relevant Government agencies and institutions to ensure they can effectively fulfil their tasks around air quality management.
- (b) Establish a department to oversee air quality management.

Recommendation 8.4:

The Cabinet of Ministers should:

- (a) Develop policies incentivising the import of new and modern vehicles;
- (b) Ban and introduce penalties for the removal of catalytic converters from vehicles;
- (c) Introduce higher fuel quality standards;
- (d) Establish low-emissions zones in residential urban areas to prevent entry by high-emitting vehicles.

Chapter 9: Water Management

Recommendation 9.1:

The National Land and Water Council should approve the National Water Strategy and consecutively provide all required regulations for the administrative structure, responsibilities and budgets.

Recommendation 9.2:

The National Land and Water Council should approve the borders of the main water basins, which would allow the basin councils to start working with all stakeholders and to develop and implement river basin plans.

Recommendation 9.3:

The Cabinet of Ministers should ensure the establishment of a functioning system of issuing and supervising water use permits.

Recommendation 9.4:

Kyrgyzhydromet in cooperation with the Ministry of Natural Resources, Ecology and Technical Supervision should work on a classification of water bodies and a set of indicators to evaluate the ecological status of water bodies.

Recommendation 9.5:

The Ministry of Natural Resources, Ecology and Technical Supervision and the Ministry of Agriculture, Forestry and Water Resources should develop an implementation plan for a computer-aided administration and publication of information.

Chapter 10: Waste and chemicals management

Recommendation 10.1:

The Cabinet of Ministers should:

- (a) Continue and increase efforts to reclaim old tailings storage facilities, dumps and other abandoned mining facilities;
- (b) Develop a programme for the reclamation of infrastructure of settlements disrupted by the uranium production activities;
- (c) Continue and develop international cooperation, involving donors and interested States in the implementation of reclamation programmes.

Recommendation 10.2:

The Ministry of Natural Resources, Ecology and Technical Supervision, in cooperation with the National Statistical Committee, should:

- (a) Separate data on the amount of production waste generation and processing, and data on the amount of generated rock dumps in the statistical reporting of enterprises;
- (b) Evaluate and develop a more effective scheme for presenting statistical data, that is open access and broken down by the most significant industrial sectors and agriculture and show separately different types of waste, production waste and consumption waste, as well as broken down by hazard class;
- (c) Improve the Waste Classifier to clarify the hazard classes of waste, possible division into waste groups, to clarify their characteristics and names, to meet international standards and best practice approach.

Recommendation 10.3:

The Ministry of Natural Resources, Ecology and Technical Supervision, together with the Ministry of Economy, district state administrations and local self-governing bodies, should develop and implement:

- (a) A long-term National Solid Waste Management Strategy, which will include a goal setting component, evaluation and adjustment mechanisms;
- (b) Supporting plans at the regional level specifying and prioritizing the activities to be done.

Recommendation 10.4:

The Cabinet of Ministers should ensure that Bishkek municipality, as a matter of priority:

- (a) Reclaims the existing landfill;
- (b) Constructs a new landfill and waste sorting complex.

Recommendation 10.5:

- (a) The appointment of a body responsible for the implementation of the Action Plan for the Implementation of the Stockholm Convention on Persistent Organic Pollutants;
- (b) The implementation of the Action Plan within its deadlines;
- (c) The completion of the inventory of obsolete pesticides and their storage sites;
- (d) The decommissioning of oils and equipment contaminated with or containing PCBs;

- (e) The creation of basic warehouses for temporary storage of obsolete pesticides;
- (f) The development of a strategy for the final disposal of persistent organic pollutants.

Chapter 11: Biodiversity and protected areas

Recommendation 11.1:

The Cabinet of Ministers, working with the National Academy of Sciences, should ensure the necessary financial means to:

- (a) Prepare, commission and carry out field inventories, scientific research and assessments required for the revision and updating of the 2005 list of rare and endangered flora, fungi and fauna species;
- (b) Elaborate and adopt the revised and updated list of rare and threatened flora, fungi and fauna species;

Recommendation 11.2:

The Cabinet of Ministers should develop, adopt, and implement:

- (a) The National Biodiversity Strategy and Action Plan;
- (b) The subsequent Priorities for the Conservation of Wetlands of Kyrgyzstan, and resulting Action Plan for the next ten-year period;
- (c) A programme on the development of specially protected nature areas in line with the Programme for the Development of Green Economy 2019–2023;
- (d) National single species conservation and/or recovery plans, as well as national programs and action plans aimed at the preservation or restoration of natural ecosystems, habitats and plant communities.

Recommendation 11.3:

The Cabinet of Ministers should:

- (a) Extend the territories of existing specially protected nature areas and designate new specially protected nature areas, with particular focus on providing for adequate coverage of all main ecosystem types, and sufficient inclusion of habitats of rare and threatened wildlife species, possibly also their main migration corridors;
- (b) Designate certain glaciers as specially protected nature areas;
- (c) Promote the wide application of agreements on the proper functioning of ecological corridors, with the relevant local stakeholders and similar other effective area-based conservation measures;
- (d) Assign the status of specially protected nature areas to the most significant wetlands and include them in the Ramsar List;
- (e) Propose new natural or mixed criteria sites for inclusion into the World Heritage List;
- (f) Promote the UNESCO concept of Man and the Biosphere (MAB);
- (g) Support new initiatives for the establishment of transboundary protected areas;
- (h) Mobilize adequate resources to ensure the proper functioning of the national ecological network in the long run.

Recommendation 11.4:

The Cabinet of Ministers should raise the human, technical and operational capacities of the state authorities, research institutions and entities responsible for the management of specially protected nature areas, by:

- (a) Recruiting and training additional staff, in particular for conducting systematic biodiversity monitoring, area surveillance and law enforcement, and application of biodiversity conservation measures in the field;
- (b) Providing modern biodiversity monitoring and laboratory equipment for scientists and personnel of specially protected nature areas;
- (c) Providing outdoor equipment facilities, off-road vehicles and uniforms for field rangers;
- (d) Providing the continuation and strengthening of the effects of the 2022 Roadmap for the Year of Protection of Mountain Ecosystems and Climate Resilience.

Chapter 12: Health and the environment

Recommendation 12.1:

The Ministry of Health in cooperation with the National Statistical Committee and other relevant ministries, should:

- (a) Determine environmental health indicators, ensure their collection and analysis and make them publicly available;
- (b) Develop a database integrating the programme and results of sanitary control performed by the Ministry of Health and accessible by different State services;
- (c) Implement the use of the electronic platform for declaration of communicable diseases and relevant noncommunicable diseases and extend it as tool for epidemiological case investment;
- (d) Investigate and develop the direct interoperability of the databases.

Recommendation 12.2:

The Cabinet of Ministers should:

- (a) Determine priorities and develop a national strategy for environmental health;
- (b) Introduce environmental health approach and related priorities in national strategies;
- (c) Encourage and support the municipalities to introduce environmental health in their political agenda including urban planning;
- (d) Consider the possibility of joining networks of cities, such as the WHO Healthy Cities;
- (e) Develop and implement the environmental and health impact assessment procedure for urban planning and infrastructure projects.

Recommendation 12.3:

The Ministry of Health in cooperation with drinking water suppliers should:

- (a) Make safe drinking water and sanitation accessible in all areas, with a specific focus on schools and medical services;
- (b) Strengthen surveillance of waterborne diseases;
- (c) Develop a database and analyse data, and use the results from the sanitary control to prioritize actions aimed at improving the quality of drinking water;
- (d) Promote public awareness activities on water collection and use and reinforce hygiene education.

Recommendation 12.4:

The Cabinet of Ministers should:

- (a) Develop actions to limit pollutant emission into the air, both indoor and outdoor, and to reduce exposure to air pollution;
- (b) Collect information on the use and distribution of asbestos and lead and on radon concentrations;
- (c) Evaluate the concentrations and the health impact of the different environmental factors in indoor air, in particular in schools and kindergartens;
- (e) Develop laboratory capacity for lead analysis, raise awareness of medical staff on lead poisoning detection, organize registration of lead poisoning cases and carry out environmental investigations to determine and remove the exposure source for each case.
- (f) Develop communication campaign on indoor air quality for the population.

Recommendation 12.5:

- (a) Implement actions to reduce/stop human exposure to pollutants at contaminated sites;
- (b) Develop health monitoring and care in regard of the determined health impact;
- (c) Develop and implement a strategy on addressing health issues in the mining sector.

Chapter 13: Agriculture and the environment

Recommendation 13.1:

The Government and local governments should invest in further improvement of the irrigation infrastructure, particularly tertiary canals that supply water to farmers plots and to minimize water losses in irrigation.

Recommendation 13.2:

The Government should:

- (a) Strengthen capacities of water user associations by providing them with better incentives to execute their responsibilities, which will contribute to better climate resilient water management.
- (b) Promote irrigation techniques, which minimize the consumption of water.

Recommendation 13.3:

The Ministry of Agriculture, Forestry and Water Resources should:

- (a) Assess the effectiveness of existing pasture management arrangements including the effectiveness of Pasture Committees and develop their capacities as well as of the Pasture User Unions;
- (b) Entrust the Pasture Committees with the authority for sustainable pasture management and oversight of grazing schedules to avoid conflicts over pasture resources;
- (c) Mobilize resources for pasture management, increasing the funding from the state budget for the management of pasture lands, including for infrastructure improvement, monitoring the condition of pastures to development of plans for the management and use of pastures.

Recommendation 13.4:

The Cabinet of Ministers should:

- (a) Commission a feasibility study on the impact of production of biofuels on food security and environment;
- (b) Develop the legal base for production and utilization of biofuels in the country.

Chapter 14: Forestry and the environment

Recommendation 14.1:

The Cabinet of Ministers should:

- (a) In the light of experience and previous reforms of leskhozes, conduct an in-depth institutional assessment of the leskhoz management model;
- (b) Accelerate the forest sector reform process with a special focus on separating productive and economic functions from regulatory functions by leskhozes at local level;
- (c) Assess the effectiveness of current financial system of the forestry with the centralized budget, which obliges leskhozes to transfer all revenues from their activities to the central budget and develop a system which creates incentives for leskhozes to increase their economic efficiency.

Recommendation 14.2:

The Ministry of Agriculture, Water Resources and Regional Development, through the Forest Service should:

- (a) Develop a unified approach for preparing integrated forest resources management plans for all types of forests;
- (b) Further promote land rehabilitation plans outside the management of the Forest Service to restore productive forests for promoting economic activities, and improving water supply where feasible;
- (c) Strengthen coordination between the Forest Service and the relevant department in charge of protected areas of the Ministry of Natural Resources, Ecology and Technical Supervision for developing forest biodiversity protection and conservation measures;
- (d) Prepare annual or systematic information on forest management performance including management by leskhozes, areas leased to individuals and groups and communities;

(e) Estimate total (recorded and non-recorded) wood removals, which is an essential information for sustainable forest management and forest landscape restoration, to improve forest productive capacity.

Recommendation 14.3:

The Forest Service should:

- (a) Assess the effectiveness of existing community-based forest management arrangements;
- (b) Develop a community-based forest management concept based on the past experiences alleviating the weaknesses of the current system;
- (c) Further formulate policy and implementation modalities for community-based forest management, which support holistic and sustainable management and use of forest resources;
- (d) Promote incentive mechanisms through capacity development in market analysis and development whereby leaseholders would invest in joint processing and marketing;
- (e) Revise basis for calculating fees for leasing of land plots by considering aspects of payment for ecosystem services, carbon sequestration and a system of incentives for leaseholders to invest back into the ecosystems from benefits they receive through commercial activities;
- (f) Coordinate the system of leasing with the overall system of financing of forestry.

Chapter 15: Industry and the environment

Recommendation 15.1:

The Cabinet of Ministers should:

- (a) Develop, adopt and implement a National Mining Development Strategy with meaningful engagement of local communities;
- (b) Consider alternative economic activities to mercury mining.

Recommendation 15.2:

The Cabinet of Ministers should:

- (a) Develop a mining closure and rehabilitation regulation, including sanctions for non-compliance, according to international best practices and standards;
- (b) Develop adequate procedures to calculate the environmental damage and financial insurance to ensure a proper rehabilitation after closure;
- (c) Draft procedures on the conduct of independent monitoring.

Recommendation 15.3:

The Cabinet of Ministers should:

- (a) Enable and support all industries to green their operations, processes and products by using resources more efficiently;
- (b) Enhance industrial energy systems by expanding renewable energy sources;
- (c) Carry out a green technology needs assessment for the manufacturing and mining sectors;
- (d) Adopt a national industrial resource efficiency strategy;
- (e) Integrate a GHG emissions assessment in the environmental impact assessment of industrial and mining projects;
- (f) Develop adaptation measures specific to industry and mining sectors, including the gradual shift to the use of greener technologies and cleaner energy sources, and energy audits.

Recommendation 15.4:

The Cabinet of Ministers should:

(a) Prepare and adopt plans for industrial parks and eco-parks, which would include among others, benefits but also environmental requirements;

(b) Ensure that Strategic Environmental Assessment is carried out prior to the establishment of these parks as well as free economic zones.

Recommendation 15.5:

The Cabinet of Ministers should:

- (a) Periodically update and make available to the public the inventory of abandoned tailings in the country;
- (b) Carry out a comprehensive environmental, health and safety risk assessment for each abandoned mining tailings site listed in the inventory;
- (c) Identify high priority sites for rehabilitation;
- (d) Prepare feasibility studies with remediation options and related funding sources;
- (e) Establish a budget line and seek support from the international community and donors for the reclamation of abandoned mining tailings.

Recommendation 15.6:

The Cabinet of Ministers should:

- (a) Develop, adopt and implement a National Innovation Strategy;
- (b) Improve innovation and technological upgrading in industry through increasing public R&D expenditures and encouraging higher spending in the private sector, and investing in education and upskilling on innovation, considering gender diversity;
- (c) Consider innovation in the reuse and recycling of mine tailings, which avoids harm to people and the environment.

Chapter 16: Energy and the environment

Recommendation 16.1:

The Cabinet of Ministers should:

- (a) Undertake a comprehensive study on the development of appropriate national energy mix that will consider options of various power sources: their status, trends, economic analysis, environmental footprint, institutional and legislative barriers;
- (b) Increase the share of wind and solar RES and make sure that there is enough dispatchable generation to manage reliability of the power system.

Recommendation 16.2:

The Cabinet of Ministers should:

- (a) Reduce environment impacts from existing TPPs for power and heat generation by making them more efficient and environmentally friendly, including through carbon capture, use and storage technology.
- (b) Introduce mandatory environmental self-monitoring for TPPs and reporting to the authority in charge of environment.

Recommendation 16.3:

- (a) Restructure electricity tariffs to eliminate cross-subsidies and achieve the level of prices that reflects the full costs of production and investment in the power sector, while taking adequate measures to protect vulnerable social groups;
- (b) Develop a comprehensive energy saving policy and make financial instruments for increasing energy efficiency in industry and buildings affordable and widely available;
- (c) Consider incentivizing distributed and primarily renewables-based generation and enabling its integration into the power grid, to increase electricity production capacity to cover growing energy requirements of the population and businesses.

Recommendation 16.4:

The Cabinet of Ministers should consider options for harmonized reporting and sustainable management of natural resources endowment at the national level.

Chapter 17: Transport and the environment

Recommendation 17.1:

The Cabinet of Ministers and, where relevant, local authorities should:

- (a) Increase the quality and availability of the public transport fleet;
- (b) Increase the size of the public transport network to ensure full coverage within cities and for inter-city links;
- (c) Create dedicated lanes for public transport in order to increase its speed;
- (d) Encourage modal shift away from private cars to public transport, carpooling and non-motorised modes (walking, cycling);
- (e) Consider introducing integrated tariffs for public transport to further incentivise its use.

Recommendation 17.2:

The Cabinet of Ministers should:

- (a) Invest in public transport vehicle fleet replacement to reduce air pollution, and continue to replace obsolete buses with modern, lower polluting buses;
- (b) Provide the foundations for people to switch away from private car use;
- (c) Increase the efforts in gathering transport related statistics, especially the emission of harmful gases from vehicles;
- (d) Consider further incentivizing the use of newer and less polluting vehicles (for example by introducing higher rates importation tax for older vehicles, while continuing to take measures to protect vulnerable households);
- (e) Further enforce an efficient regulation for vehicle technical inspection and maintenance.

Recommendation 17.3:

The Cabinet of Ministers should:

- (a) Continue efforts aimed at electrifying the northern railway section;
- (b) Continue efforts to create a unified railway network connecting the north and south of the country to improve domestic and international communication;
- (c) Accelerate the renewal of the rolling stock and track rehabilitation;
- (d) Invest in rehabilitation and upgrading of multimodal terminals.

Recommendation 17.4:

The Cabinet of Ministers should:

- (a) Improve enforcement of road rules to reduce road traffic accidents;
- (b) Continue efforts towards the construction of new and the rehabilitation of existing roads to improve their quality, safety and efficiency.

Recommendation 17.5:

The Cabinet of Ministers should ensure the accession to and implement the missing UN inland transport legal instruments, in particular those related to transport infrastructure, vehicle regulations, the transport of dangerous goods and road safety, to ensure a high level of efficiency and safety and reduce environmental impact from transport.

Chapter 18: Risk management of natural and technological or anthropogenic hazards

Recommendation 18.1:

The Cabinet of Ministers should close the gap between national and local implementation of disaster risk reduction (DRR) by:

- (a) Revise the system of DRR and management at the national and local levels.
- (b) Describing and clarifying roles, expectations and responsibilities of all actors involved in DRR at both national and local levels as well as their interrelationships;
- (c) Establishing necessary conditions to enable local and regional organizations to adequately carry out their tasks with sufficiently qualified staff and technical and financial resources allocated to the organization;
- (d) Allocating through specific DRR budget lines, sufficient financial resources for enabling a sound implementation of DRR tasks by national and local organizations.

Recommendation 18.2:

The Cabinet of Ministers should increase efficiency and effectiveness of research and monitoring on natural hazards by:

- (a) Assessing the current national system of scientific research and monitoring DRR;
- (b) Involving in the assessment all parties that have a role, task and responsibility in research and monitoring in the context of DRR;
- (c) Establishing a plan that details collaboration and its organizational structure between organizations involved, as well as allocation of capacities and resources;
- (d) Formalizing the collaboration and conditions through a formal agreement.

Recommendation 18.3:

The Cabinet of Ministers should improve forecasting on natural hazards and early warning to the population and different sectors by:

- (a) Implementing recommendations in the Capacity for Disaster Reduction Initiative (CADRI) diagnostic report and the peer review by the Swiss Federal Office of Meteorology and Climatology among the CEWAP programme, and other studies on the subject on early warning;
- *(b) Intensifying collaboration with international partners;*
- (c) Expanding and developing early warning to a broader range of hazards;
- (d) Promoting active cross-sector cooperation, sharing of knowledge, information and data for timely, accurate and integrated risk assessments and early warning, among involved organizations;
- (e) Sharing with district and local authorities the necessary tools and building their capacities to enable them to inform the local population of the potential and actual hazardous situations;
- (f) Modernizing communication systems aiming at full coverage for early warning by at least telephone and internet.
- (g) Significantly intensifying and improving the monitoring of identified high-risk glacial lakes with necessary human and technical resources, in order to take timely and adequate measures to protect the population from the permanent danger of the catastrophic and life-threatening consequences of glacier lake outburst floods.

Recommendation 18.4:

- (a) Establish a prioritized list for remediation based on the results of the 2017 and 2018 Pure Earth survey;
- (b) Conduct field surveys of contaminated sites and assess them for whether and to what extent they may be exposed to natural disaster impacts and take protective measures where necessary;
- (c) Assess the sites in terms of the extent to which they are open and accessible to the public and take immediate measures to prevent access, removal of materials and further exposure to the contaminants;

- (d) Invest in awareness raising among the population and local government about the public health hazards of the contaminated sites;
- (e) Consider regular health screening of individuals who were and are directly exposed to the contaminants.

Recommendation 18.5:

- (a) Assess the current situation in data sharing and management with regard to DRR, with a view to improving the current data management system;
- (b) Establish policies for managing data for DRR that incorporate active data sharing as a prerequisite, as well as assign and/or further clarify roles and responsibilities of all stakeholders involved in disaster risk management;
- (c) Create the financial and technical conditions for the development of a central unified DRR database and associated state-of-the-art data infrastructure, to which the various organizations involved in DRR will be connected in order to provide information in uniform formats;
- (d) Task the National Statistical Committee to populate the DRR database with historical data held by the Ministry of Emergency Situations.