

Recommendations from the national and regional CVA reports

This document summarises the recommendations made in the national and regional CVA reports. These recommendations have been developed by the report writers in conjunction with national experts and local civil society organisations and aim to identify the most effective ways of responding to the challenges of climate change in the region.

The recommendations below have been divided into two sections: firstly, recommendations for policy makers (including sector-specific recommendations for key areas of concern identified by network members in the four countries) and secondly, recommendations for CSOs and national Red Cross societies. There is a note at the end of each recommendation identifying from which report it has been drawn (although this was checked against draft versions of the national CVAs and therefore should not be considered comprehensive).

Abbreviations: C – Croatia; Ma – Macedonia; Mo – Montenegro; S – Serbia; R – Regional report

1. Recommendations for policy-makers

1.1 Sector-specific

1.1.1 Agriculture and forestry

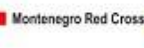
- **Conduct national vulnerability assessments of agricultural sector:** An in-detail effort to map the risks to the agricultural sector caused by climate changing, including an exact assessment of the impacts of crop yields and an vulnerability analysis of low-income rural households is the first step in developing a comprehensive adaptation and food security strategy for the agricultural sector. For agriculture in particular, the earlier such a strategy is adopted, the more likely it is to be successful. (Mo)
- **Strengthen linkages between the hydrometeorological and agricultural sectors:** Farmers have specialised climate information requirements, and may not be aware of the services offered by national hydrometeorological services. Increase research into new ways of obtaining useful information e.g. using remote sensing data to monitor soil fertility and water levels. (R)
- **Supporting farmers to improve sustainability:** This is particularly important for small farmers who may have difficulties accessing information about new farming techniques or crop diversification. It includes making capital and new technologies more available to farmers, promoting organic and sustainable farming techniques (including those that minimise soil degradation), especially for family farms, strengthening legislation surrounding food safety and animal health, encouraging the diversification of agricultural production and investigating the potential use of cereal for energy production, and exploring options for bio-fuel production. (Ma, Mo)



- **Encourage sustainable rural development: Improve** rural infrastructure, provide support for livelihood diversification beyond farming and encourage sustainable rural tourism. (Ma, Mo)
- **Improve irrigation efficiency:** Although only limited areas of most countries are irrigated at the moment this is likely to increase in the future. More efficient irrigation techniques such as drip irrigation will reduce this water usage significantly, while switching to crops which are less water-intensive to produce is another way to decrease water usage. (Ma, Mo)
- **Aim to reduce methane emissions from livestock farming:** Improved cattle feed, compulsory devices to extract methane from stables and regulations limiting the emission of GHGs from farming activities. (Mo)
- **Integrate climate change concerns into forest management:** This would include selecting species for drought resistance, and developing early warning systems for forest fires. (Ma)

1.1.2 Biodiversity

- **Development of indicators for monitoring biodiversity health:** A set of indicators should be developed to monitor climate change impact on biodiversity in the region, including identification and monitoring of invasive species and bell-weather species which may be able to give an indication of reaching dangerous climate change. This will also involve working closely with water and agriculture/forestry authorities to monitor water quality, biodiversity in aquatic ecosystems, and a healthy balance of species that are amenable to climate change in the forests. (S)
- **Research into biodiversity climate change impacts:** Currently there is limited information and data available surrounding the impacts of climate change on biodiversity in the region, and research urgently needs to be conducted to fill these knowledge gaps. (S)
- **Increase protected areas:** Given the strength of the biodiversity in this region, the percentage or protected areas should be raised, especially in biodiversity hotspots. The connectivity of protected areas should also be improved so that the migration routes of native species are preserved. (S)
- **Awareness-raising on the issue of biodiversity and climate change:** This should take place at all levels among the public, business, government and industry. (S)
- **Encourage sustainable ecotourism in protected areas:** Especially in Montenegro and Croatia, increasing numbers of tourist are likely to be visiting inland national parks (see section 3.5). Sensitively-developed, sustainable ecosystems provide a way to raise public awareness of national parks and biodiversity, while providing income for their upkeep. (R)



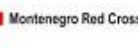


1.1.3 Energy

- **Investment in the electricity distribution network:** The highly centralised nature and aging infrastructure of the power distribution network in all four countries leaves it vulnerable to extreme weather, while encouraging micro-energy generation projects. Further decentralization of the energy sector would improve its resilience to extreme weather events. (Ma, Mo, S)
- **Increased investment in non-hydropower renewable energy:** Croatia has some facilities for wind power, and Serbia and Montenegro for solar and geothermal power; however, so far they have attracted limited investment and provide only small fractions of the total energy used so far. Given that the goal of European countries to obtain 20 % of all of their power from renewable resources by 2020, this should be a key area for investment, and the development of renewable energy should be incentivised. (Mo, Ma)
- **Reduction in hydropower dependency:** The current trend of blackouts caused by water shortages mean that the hydropower capacities of all four countries will only decrease in the future. Planned new hydropower developments should be carefully examined to establish if they really will provide long-term benefits, while existing hydropower plants should be modified to be more energy-efficient with less flow. (R)
- **Focus on energy conservation and efficiency:** This should become a national priority in each country in the region. Awareness-raising on the part of business and the public of the importance of these approaches, and for energy efficiency to be part of new planning and development. The importance of energy efficiency in all sectors should be incorporated in educational curricula, and better availability and marketing of energy-saving appliances, national awareness-raising campaigns surrounding energy efficiency in homes and businesses to reduce overall energy consumption. (Ma, Mo)
- **Promote the use of public transport:** Encourage the use of public transport through investment in and extension of the network, including the development of a system of bike paths; encourage the usage of fuel-efficient or electric vehicles; establish financial incentives for the use of more fuel-efficient vehicles, including hybrid and electric cars, to help minimise the emissions of greenhouse gases (Mo)

1.1.4 Human health and civil protection

- **Fully incorporate disaster risk reduction concerns into future planning and development:** The key to successful disaster risk management and climate change adaptation is to bring them in at the planning stage, and include them in development strategies in order to “climate-proof” development. This could include comprehensive hazard risk mapping for each country. (C, Ma, Mo, S)





- **Development of emergency plans for effective early warning systems for health risks of climate change:** The development of effective national EWS for heat waves, cold waves, floods and forest fires should be a priority, as well as mechanisms for detecting outbreaks of new diseases that may become prevalent as a result of climate change. A key area to focus on dissemination of the message, possibly an area where the state and CSOs could work together. (Ma, Mo)
- **Awareness-raising of the health risks from extreme weather and climate change:** This is an important corollary to the previous recommendation: without a high level of public awareness of the health risks from extreme weather, they are unlikely to heed emergency warnings. This is crucial for both health professionals and the general public, and should include cooperation with media outlets for dissemination of this important message. (Ma)
- **Enforce legislation concerning air pollution:** As development continues, air quality levels are likely to decrease. Developing and enforcing robust legislation concerning air quality and emissions from industry is important to prevent detrimental impacts to respiratory health. An early warning system based on air quality indicators would also be useful. (Ma, Mo)

1.1.5 Tourism

- **Encourage sustainable development in the tourism sector:** New tourist developments and infrastructure should be planned with minimal environmental footprints, with consideration given especially to ecologically sound waste-management and the use of renewable energy (including installation of solar panels on new buildings). At the same time, projected rises in temperature mean that greater efforts should be made to design buildings with efficient cooling systems. Sustainable ecotourism should be a key area targeted for growth; rather than focusing on large-scale coastal developments, planners have the opportunity to develop lower-impact, more sustainable ecotourism in national parks. (C)
- **Conduct a thorough risk assessment of tourist assets:** Major cultural, environmental and other touristic sites should be the subject of a thorough climate and natural hazard risk assessment, and arrangements made to safeguard these assets from any potential risks. (R)
- **Provide state support to private sector adaptation measures:** Provide resources and make information available to the private sector about how to best adapt to climate change in this sector, targeting smaller private entrepreneurs in particular who may have less support than large commercial enterprises. (R)
- **Explore diversification options:** To compensate for income lost from tourists staying away during hotter summers or from failure of climate-dependent activities such as skiing, operators might diversify through changing or expanding the tourist season or (e.g. skiing resorts could explore diversification into outdoor activities (hiking, horse-riding, rafting etc.) or spa tourism). Croatia and Montenegro in particular should begin to encourage and develop tourism in their interiors. (C)



1.1.6 Water resources

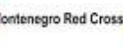
- **Repair and extension of water distribution network:** Currently a high volume of water in the region is lost through leakages within the water distribution network. Aging infrastructure needs to be repaired in order to minimise this loss in the future. At the same time, the network should be extended to fully cover rural areas, so that all citizens have access to safe, piped drinking water. (Ma, Mo)
- **Develop better water quality standards and monitoring:** The water quality across the region could be improved by closely monitoring the water supply and developing improved standards for water quality. The construction of more waste water treatment plants would also help improve the water quality. (Ma, Mo)
- **Improved waste water management and treatment:** Currently there are limited water processing plants, particularly in smaller settlements. The construction of more waste water treatment plants would also help improve the water quality. (Ma, Mo)
- **Increase the water efficiency of business, industry and private homes:** The efficient use of water in all sectors can be promoted via legislation and awareness-raising campaigns about the benefits of water conservation, recycling grey water etc. Awareness-raising on this issue should be conducted at all levels via the state and civil society. (Ma)
- **Encourage sustainable eco-tourism around water bodies:** This will provide an economic incentive to keeping water bodies well-maintained and free from pollution. (Mo)
- **Cross-border cooperation and basin management:** In order to manage water quality, ecosystem health and flooding risk on a regional level, the promotion of integrated basin management approaches to major rivers should be encouraged (e.g. basin management of the Danube). (R)

1.2 General recommendations

- **A strong focus on “no-regret” adaptation measures:** Since there is so much uncertainty surrounding the effects of climate change and natural hazards in the future, adaptation measures should be based on “no-regrets” options that provide benefits regardless of how the climate changes. (R)
- **The development of national climate change action plans:** This must be a priority for all national governments. There should be attempts made to actively involve CSOs in the development of the next national communications to the UNFCCC. (R)



- **Improved cooperation between sectors and government ministries:** In many cases, there are numerous ministries with responsibilities for various aspects of climate change with limited coordination between them. It is necessary to develop a coordinated national climate change action plan with a clear leadership structure in place and a clear procedure for cooperation between ministries and sectors in order to successfully tackle climate change. (C, Ma, Mo, S)
- **Development of an expert advisory body for climate change:** This body should include NGOs and other climate change experts and advise the government about the development of policies and legislation for climate change adaptation and DRR at all levels, and should operate at national levels and at a regional level for information-sharing. (Mo)
- **Improved data availability and accessibility:** Data related to climate change and climate change impacts is not always freely available in all countries. The development of a publically accessible database where this information can be easily found would make planning for future climate-smart development much easier. It is also vitally important that information on climate change be made available in language that is understandable by all levels. Scientists in particular must think about how they present their information so that all are able to benefit from it. (C, Ma, Mo, S)
- **Improved legislation and better enforcement of current legislation in environmental and planning sectors:** Many countries in the region already have environmental and planning legislation in place that would help mitigate the impact of climate change; however, this is often inadequately enforced. A commitment to enforce current building and planning regulations, especially in hazard-prone areas as well as developing more thorough legislation will put fewer people at risk in the future. (Ma, S)
- **Linking science with policy-makers and public:** Developing a network and lines of communication between scientists and decision makers will help the latter to develop sensible policies to effectively deal with climate change, while the former are better able to discern the needs of policy makers and the public in terms of data products. (S)
- **Ensure the participation of vulnerable groups in decision-making:** Often, the impacts of climate-change disproportionately affect the most vulnerable members of society. In order to fully incorporate the needs of vulnerable groups in climate change response policies there must be a concerted effort to identify these groups and make sure their needs are felt, including from CSOs representing the needs of such groups. (Mo)
- **Bringing climate change into educational system at all levels:** Not only do the countries in this region suffer from a lack of expertise in certain areas (especially science), there is also a lack of public awareness. One way to tackle this is to include climate change topics in the educational system, from primary level through to university, so climate change becomes a topic of common knowledge among the general public as well as scientists and government officials. (C, Ma, Mo, S, R)





- **Cross-border cooperation for better information-sharing:** There are many areas where effective cross-border cooperation could improve the quality of information available and prevent duplication of effort. The SEEVCC is a step in the right direction, but future areas of cooperation should include proactive data sharing, and potential development of a plan for shared supercomputing facilities to improve the climate modelling capacities of the region.
- **Develop functional, efficient early warning systems and emergency plans for all hazards:** Effective early warning systems can save huge losses, and the system in all four countries could be streamlined and improved, and take advantage of cross-border information sharing and warning dissemination. Include close cooperation with the media and public awareness-raising of the rising risks of natural disasters.

2. Recommendations for National Red Cross Societies and civil society organisations

- **Strengthen linkages with other relevant organisations:** There is high potential for better cooperation between CSO networks and national hydrometeorological organisations, military, etc. including cooperation with public health ministries for the monitoring of the incidence and mortality from weather-dependent diseases, and response to and preparation for natural disasters. (C, Ma, Mo, S)
- **Mainstream climate change into all activities:** CSOs should assess how all of their activities will be affected by climate change, not solely disaster preparedness programmes, and develop strategies to respond to this and design future programmes with climate impacts in mind. (Mo)
- **Build capacities in the area of advocacy:** Currently there is limited capacity among the CSO community to engage in lobbying and advocacy in the area of climate change adaptation, so training is required in this area. (Ma)
- **Actively engage with development and monitoring of legislation:** CSOs have a role to play in scrutinising policy and legislation proposals related to climate change and. To this end, they should aim to build good relationships with decision-makers and develop lobbying materials related to climate change adaptation. (Ma, S)
- **Civil society engagement with development of national communications to the UNFCCC:** CSOs in Montenegro have already given input into the development of the initial communication of Montenegro to the UNFCCC, which is a step that should be emulated in a systematic manner by all countries during the preparation of the next national communications. (R)
- **Identification of and assessment of needs of vulnerable groups:** CSOs are well-positioned to identify particular groups that are most vulnerable to the effects of climate change and disasters, and should work closely with policy-makers to ensure that the needs of these groups are met. (Mo)





- **Disaster preparedness and early warning:** All national RC societies and many CSOs have the potential to be involved in government early warning systems for disasters, including preparedness and response, and to that end should build the capacity of local branches for responding to extreme weather and disasters, especially hydro-meteorological disasters, and work with state EWS to disseminate warnings and respond to emergencies. (C, Ma, Mo, S)
- **Awareness-raising and media coverage:** CSOs have a major role to play in raising public awareness surrounding climate change. In order to do this effectively, there should be coordination with government awareness-raising campaigns, and media training available to effectively disseminate their messages. (Ma, Mo)
- **Strengthen regional and international cooperation:** Many of the countries in the region and further afield face similar challenges as a result of climate change. Documentation of experiences and best practice, building knowledge-sharing channels and cooperating in order to identify the best ways to respond to these challenges will all be crucial for state and non-state actors. (Mo, S)

