

Adaptation to Climate Change

Draft of EESC opinion, commenting on European Commission Green Paper on Adaptation

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Summary and recommendations

Climate change is one of the greatest challenges facing the world in the 21st century. Action to limit these changes by limiting emissions of greenhouse gases is the top priority. But it is also important to plan in good time for adapting to such changes as have now become unavoidable. The Green Paper is a welcome first step for Europe in facing up to this.

The EESC recommends that an over-arching European adaptation strategy should now be put in place as a framework, outlining the actions that will need to be taken at European level, at national level, and by other actors.

In the EESC's view the following key points should be covered in the development of the European and national adaptation strategies:

- Strategies should deal with planning for all the topics identified in the Green Paper including coast protection, floods and droughts, water resources, public health, agriculture and biodiversity, land-use and infrastructure planning, building and construction etc.
- The need for adaptation should take a much larger share of European budgets in future programmes, and should be built into the criteria for assessment of programmes and projects.
- Substantial new and additional resources should be committed by Europe and its members states to assist adaptation in the developing world.
- Mitigation and adaptation strategies must match up and complement one another. Risk assessment and management should be a crucial tool in establishing priorities.
- European research into adaptation climate change impacts and adaptation should be substantially increased.
- European civil society should be more extensively engaged in order to spread wider public understanding of the problems of climate change and the behavioural changes that will be needed to limit further climate change and to adapt to the changes that are now unavoidable.
- An independent European Advisory Body should be established to monitor progress and maintain pressure for action on adaptation.

General comments

Climate change is one of the greatest challenges facing the world in the 21st century.

The world has so far concentrated primarily on trying to mitigate the impact of climate change by limiting the emission of greenhouse gases. It is now however becoming increasingly clear that past emissions alone will cause a significant further warming of the atmosphere and seas over the next century and beyond. This will have major impacts on climate and weather related events, and on the physical and natural environment throughout the world. We now therefore need to focus more closely on these unavoidable impacts of global warming and climate change, and how best to adapt to them.

Such action must not diminish the efforts to limit emissions so as to mitigate further climate change. On the contrary, a proper understanding of how difficult adaptation could become should help to reinforce everyone's determination to achieve substantial reductions in emissions. To allow emissions to continue to rise unchecked would condemn future generations to much more painful and expensive adaptation.

Mitigation and adaptation strategies must match up and complement one another. We need to establish credible and deliverable strategies for restricting greenhouse gas emissions to tolerable target levels or ranges over realistic time-scales. The adaptation strategies must then map out how the world can best adapt to the most probable ranges of unavoidable climate change which those mitigation targets imply. Risk assessment and management will be a crucial tool in establishing the level of action needed and the order of priorities.

The Commission's Green Paper helpfully maps out many of the sectors that will be affected by climate change, and the kind of issues that will arise.

In the EESC's view there is now a strong case for the establishment of an over-arching European framework strategy dealing with the whole range of adaptation issues, and outlining the actions that will need to be taken at European level, at national level and by other actors.

This European Adaptation Strategy should itself call for the creation of National Adaptation Strategies by an appropriate date followed by regular national reporting on their implementation.

A European adaptation strategy will need to have a robust external dimension setting out how Europe plans to help other parts of the world to cope with their adaptation problems.

Europe will need strong and independent institutional arrangements to organise the necessary research and monitoring, and to hold the political bodies to account to deliver the necessary actions in good time. Civil society needs to be fully involved in the work of these institutions.

Specific Comments

The EESC believes that the specific action areas identified in the Green paper are broadly the right ones. Following the Green Paper the EESC recommends that the European Union and its Members states should now develop concrete programmes and actions on each of these topics within the framework of their overall strategies. Timetables and plans need to be established, and appropriate financial resources mobilised.

On most of the topics the primary responsibilities for organising the necessary works will lie with national and local authorities. But there should be an important role for the European Union in setting the framework and in stimulating and supporting the national efforts on adaptation. In particular the Committee suggests that the EU should:

- Undertake detailed research and monitoring to provide more detailed forecasts and scenarios of the likely pace and impact of climate change in the different parts of Europe and help to co-ordinate the separate research undertaken at many different levels on these issues throughout Europe.
- Develop methodologies for assessing impacts and developing appropriate adaptation strategies, and promote exchange of experience and best practice on this.
- Stimulate the development of national, regional and local adaptation strategies and implementation plans, and encourage the dissemination of best practice and experience building on what has already been done at the different levels.
- Identify trans boundary issues where co-ordination of action between neighbouring countries or across Europe may be necessary (for example relocation of communities or of agricultural or other economic activities; the protection of habitats and biodiversity; practical support in the event of major floods, fires, pandemics etc.).
- Assess the differential economic impacts of climate change as between different parts of the Union and the need for cohesion or structural fund support for adaptation programmes.
- Assess the differential impacts of climate change as between households and individuals, and as between SMEs and the adequacy of insurance and compensation arrangements throughout the Union.
- Identify any areas where European legislation or initiatives could play a useful part, e.g. by establishing standards for assessment of potential climate change related impacts and appropriate responses.

Comments on specific topics

Coast Protection - Sea levels will rise as ice melts and sea temperatures increase. In some places it may be necessary to construct or reinforce physical barriers to protect land and settlements. In others managed retreat and the recreation of protective sea marshes may be the more appropriate strategy coupled with relocation of occupiers of vulnerable properties.

Flooding - Climate change is likely to lead to more variable weather patterns with longer periods of drought punctuated by episodes of more intense rainfall leading to rapid run-off and flooding. Flood defence plans need to be updated to take account of these new weather conditions. In some cases new programmes of flood defence works will be needed. In others appropriate flood plains or catchment areas may need to be created or re-established to receive flood waters. Development may need to be restricted in such areas, and relocation considered.

Water Resources and Shortages - Water resources are already under pressure in several parts of Europe and these pressures are likely to become more acute as climate change leads to longer periods of low rainfall and drought. Measures may be needed to bring new sources of water to affected areas (e.g. through such measures as desalination or long distance transfers) and to manage the uses of water more efficiently. Incentives to promote efficient use of water (including water pricing) need to be strengthened. It may also be necessary to discourage activities such as intensive agriculture or tourism in the worst affected areas.

Public Health - Climate change may have consequences for public health in a variety of ways. It may cause widespread dissemination of vectors of disease, including in particular a northwards movement of a number of diseases previously confined to the tropics. Temperature extremes may also have more direct impacts. Plans need to be made to prepare for these changes.

Agriculture - Agriculture will be very strongly affected by climate change. Changes in temperature

and rainfall will affect the suitability of land for different agricultural purposes, and will lead to big changes in the quality and quantity of production that can be achieved and hence on the viability of different farming regimes in different parts of Europe.

The health check of the CAP to be undertaken in 2008 should provide the opportunity to make further changes to encourage farmers to adapt their farming practices to the changes in climate that are now in prospect.

Agricultural research into new crops and methods of cultivation better suited to emerging climatic conditions needs to be expanded. Similarly the impact of climate change on the prospects for rearing animals in different parts of Europe need to be assessed along with ways of dealing with climate change induced spread of diseases.

Biodiversity - Climate change will bring about major changes in the habitats of trees, plants and animals throughout Europe. In some cases particular species will no longer be able to survive in the changed habitats or will become critically at risk. Some species may successfully migrate to new habitats through natural processes. Other will need assistance in the transition if they are to survive. Existing biodiversity strategies and programmes will need to be updated and resources committed to implementation if this transition is to be accomplished without major species loss.

Land-Use Planning - The planning of urban and other settlements and of transport and infrastructure will increasingly need to take account of changes in temperature and weather regimes. These considerations need to be factored into design standards and into professional practice and training. Individual development programmes and projects will similarly need to take these climate change impacts into account. Impact assessment methodologies will need to be adapted appropriately.

Buildings - The building and construction business will be severely affected by climate change. We need stricter minimum regulations for energy efficiency in buildings, better building standards etc. Information also needs to be made more accessible for citizens on best-practice, and on what methods, materials and subsidies are available for renovations of older buildings and new construction to reduce energy consumption and make them more appropriate for changing temperature and weather conditions.

EU Budget – In the annual budget, the EESC recommends that the heading "adaptation" should appear for the policy areas where immediate investments will be needed (e.g. energy, research, agriculture, transport, building standards, natural disaster assistance, biodiversity protection, public health policy, etc.). The next Financial Framework should give a much higher share of available resources to programmes concerned with mitigation and adaptation to climate change. Member States should make similar changes in their own national budgets and spending programmes.

Structural Funds - In the European Regional Development Fund, the Cohesion Fund and the IPA (Instrument for Pre-Accession Assistance) there are criteria to support environment projects, but nothing is explicitly mentioned about adaptation to climate change and often the impact assessments are not adequate (many transport and energy projects are clearly harmful to the environment and the climate). In the next reviews of all these programmes much larger percentages of the available funds should be devoted to supporting measures for the mitigation of climate change and adaptation to it.

The **European Investment Bank (EIB)** and the **European Bank for Reconstruction and Development (EBRD)** should build climate change into their budgetary processes and into their criteria for evaluating projects and programmes.

The Insurance Industry has taken a great interest in climate change, and is increasingly factoring climate change considerations into its decisions on what events it is willing to insure against and on what terms. The EU and its member states should institutionalise an ongoing dialogue with the insurance industry so as to ensure that the insurance sector plays its full part in helping business and others to adapt to climate change.

Developing countries - Many developing countries will have more serious adaptation problems than Europe and fewer resources to deal with them. Some of the least developed countries have done very little to contribute to the problem of climate change but will be amongst the worst affected and have an extremely strong claim in equity and justice for co-operation and support. They will need support from the developed world, including human, technical and financial resources to help them adapt appropriately. Europe should take a leading role both in providing additional resources for adaptation measures within its own collective and national development assistance programmes, and in helping the international financial community to adjust to the adaptation challenge.

Some parts of the world will become much less hospitable to human settlement (and in extreme cases may even become virtually uninhabitable) either as a consequence of sea level rises or as a result of extreme weather conditions. Climate change may lead to growing pressures for increased migration into Europe from other parts of the world, as well as population shifts within Europe. Development agencies and other relevant Government Departments will need to be ready to help developing countries identify such situations in good time and to help plan for any necessary relocation programmes.

[The potential impacts of climate change at national and local level in Europe, and the likely pace of change are still only imperfectly understood, and a great deal of further research and analysis will be needed to improve and refine the forecasts. The European Environment Agency might have a useful role as a coordinating point for all the relevant research, monitoring, analysis and forecasting in this field, and as disseminator of best available information to decision-takers and others concerned with the detailed implementation of adaptation strategies. The EESC itself stands ready to play its part in promoting deeper and more widespread understanding of the impacts of climate change in the different parts of Europe and of the adaptation measures needed.](#)

[Civil society will need to be deeply engaged in the process of adaptation to climate change. Local communities, businesses and other organisations of all kinds will be increasingly affected by climate change, and will need to be involved with the response. People and organisations of all kinds need a deeper understanding of the changes that are already happening and are likely to happen in the future within their own lifetimes and those of their children. They also need a much fuller understanding of what will be involved for them in mitigating climate change and in adapting to it. Increasingly knowledge about these matters should become a core part of the curriculum in formal and informal education.](#)

The EESC stresses the importance of involving civil society at all levels. It fully supports the Green Paper's suggestion for sectoral Working Groups with interested parties to assist in developing the sector specific responses that will be needed. One important task for such groups should be to develop techniques for assessing risk levels, and auditing the readiness and preparedness of organisations and communities for responding to extreme weather events and other disasters that may become more severe or frequent as climate change progresses.

There are important roles for regional and local government authorities to co-ordinate and stimulate activity at their levels, and to mobilise public response and engagement. Public authorities at all

levels can also play a crucial part in showing the way through appropriate planning of their own buildings and developments and in their procurement policies.

The Green Paper proposes the creation of an over-arching European Advisory Group on adaptation with representatives of civil society to keep the whole process under review.

The Committee fully supports the idea of such a high level group. It considers that it should be established as an independent body with an independent chairman, charged with keeping the progress of the adaptation strategy under review and reporting regularly and publicly on progress and giving early warnings if action seems to be falling behind. The EESC itself also intends to keep progress in this area under regular scrutiny.