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| HA Sustainable development and bio-economy |
| *Coordinated by: Council of Baltic Sea States Secretariat for sustainable development* *Nordic Council of Ministers for bio-economy* |

[www.cbss.org](http://www.cbss.org); [www.norden.org](http://www.norden.org)

1. Sustainable development

The concept and political leading principle of sustainable development reconciles economic, environmental and social objectives. Many of the challenges for sustainability today worldwide are also at stake in the Baltic Sea region. These include growing demand for energy, climate change, and insufficient sustainable use of natural resources both in the sea and on land. UN Rio+20 acknowledges the need to further mainstream sustainable development at all levels, integrating economic, social and environmental aspects and recognizing their inter-linkages, so as to achieve sustainable development in all its dimensions.[[1]](#footnote-1)

The aim of the horizontal action is to support the transition of the Baltic Sea region into a sustainable and prosperous macro-region, to communicate best practices and to assist in the development of innovative practices in the implementation of the themes of the horizontal action in cooperation with relevant priority areas within the EUSBSR in line with Europe 2020 Strategy, its resourceefficiency flagships, the proposed 7th Environmental Action Programme and the EU Sustainable Development Strategy, EU SDS. The horizontal action takes a transnational, integrated and cross-sectoral approach to the global challenge of sustainable development by linking existing transnational public, sectorial and NGO-based cooperation, regional development and research projects and other activities within the EUSBSR as well as defining and filling potential gaps and developing new potentials.

The activities in the horizontal action are based on the overarching theme of sustainable development, focussing on Climate Change and promoting the Baltic Sea region as a Green Region.

The horizontal action aims to:

1. increase coordination and synergy among initiatives and projects dealing with sustainable development in the Baltic Sea region;
2. promote sustainable consumption and production as well as sustainable lifestyles in the Baltic Sea region;
3. consolidate findings and disseminate good examples, methods and experiences in the field to a larger audience in the Baltic Sea region as well as facilitate the follow-up activities and integrative cross-sectorial policy discussions and alignment of policies in the Baltic Sea region countries;
4. support the transition towards a climate adapted and low carbon Baltic Sea region;
5. cluster already existing activities and projects in the field of climate adaptation and mitigation and promote science-policy dialogues;
6. establish networks and dialogue amongst actors across national and sectorial borders in the Baltic Sea region in order to develop common data and knowledge bases, methods and strategies for macro-regional climate adaptation and mitigation.

Targets and indicators

A comprehensive system for the design, the monitoring and the follow-up of indicators and targets will be set up in 2013, under the responsibility of the horizontal action leaders. The still missing targets and deadline, baseline, and statistics/information sources related to the below indicators will be defined.

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| **Objective/ sub-objective** | **Indicator** | **Baseline Value (2012)** | **Target values/ deadline** | **Information sources for Baseline and Target** |
| **Cooperation:** Increased coordination and synergy in the BSR among public sector and NGO cooperation initiatives, projects and stakeholders dealing with sustainable development.  | Number of macro-regional projects resulting in the integration of sustainable development objectives in national-, regional or local action plans.  |  TBC. |  30. | Responsible National ministries in BSR countries; EU European Territorial Cooperation programmes BLA21F; ICLEI; BONUS Programme. |
| **Climate Change Mitigation:**  Becoming a low-carbon region.  | The BSR share of EU energy consumption produced from renewable resources, and greenhouse gas emissions levels.Energy Efficiency Index. | 1990 levels.Average for the BSS region in 2010 = xy %.[[2]](#footnote-2) | Reaching the RES share targets by BSR countries as envisaged in the EU climate and energy package by 2020.Reaching GHG mitigation targets for non-ETS sectors by BSR countries by 2020.[[3]](#footnote-3) Europe 2020 target on energy efficiency by 2020 should be adapted to the BSS.[[4]](#footnote-4) | Eurostat.EUROSTAT annual data available with 2 year time lag. |
| **Climate Change Adaptation:** Becoming a region adapted to the expected impacts of climate change | Macro-regional Climate Change Adaptation Strategy (CCAS) and its Action Plan developed and endorsed by BSR countries; Adoption of national Climate Change adaptation policies.  | 00TBC. | Outline ready by 2013.CCAS endorsed by all BSR EU member States by 2020.Climate Change adaptation policies adopted by all BSR EU Member States by 2020. | BALTADAPT project.Responsible national ministries in BSR countries. |
|  | Transnational and national policy documents revised/adopted addressing impacts of climate change in BSR. | TBC. | Number by 2015  | National ministries; European Commission.  |

Actions and flagship projects

**Action: ‘Green economy’**

The Baltic Sea region has a great potential to be a model region for green economy and to be world leading when it comes to the development of knowledge-intensive products and services, eco-innovations, as well as environmental technology, which can increase competitiveness and create new business opportunities that at the same time reduce negative environmental impacts. A greener economy will furthermore lead to a diversification of services and products and allow for new employment opportunities while protecting and conserving biodiversity and natural resources, promoting human well-being and equality.

During the last decade, many Baltic Sea region countries acquired considerable experience in the development of sustainable energy solutions and environmentally friendly technologies in various fields, including agriculture, forest management, water management, waste management, healthy lifestyles. However, great diversity remains with respect to both socio-economic developments and the implementation of sustainable practices. In order to make the BSR more resilient to future environmental, societal and economic challenges, macro-regional approaches to these issues need to be developed.

The action aims at supporting the transition of the Baltic Sea region into a green region that results in ‘improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities’.[[5]](#footnote-5)

*Flagship projects*

* ***Baltic Green Public Procurement, Baltic GPP in cooperation with PA SME.*** Public procurement constitutes 16-20% of GDP in Europe. This enormous amount of public sector money can through informed decisions move the market into a more sustainable direction.
Sustainable procurement can stimulate innovation and turn the public sector into a driving force in developing a green economy. Baltic GPP will establish a wide capacity building programme on Green Public Procurement (GPP) within Core Procurement Institutions (CPIs) across the Baltic Sea region, based on commonly applied training materials and purchasing actions of major Public Procurement across the Baltic Sea region. Buying innovative, eco-efficient products and services will significantly reduce environmental pollution and build up necessary know-how and capacities.Lead: Swedish Environmental Council, SEMCO. Deadline: 31December 2013.
* ***EFFECT – BSR Dialogue Platform on Energy and Resource Efficiency.*** EFFECT’s main aim is to map, foster and communicate good practice solutions in eco-efficiency that attract and enable cities, villages and BSR sub-regions as well as other relevant actors from the local, regional, national and pan-Baltic level to jointly develop and implement policies and concrete actions on becoming more energy and resource efficient, sustainable and resilient, while stimulating a greener economy. In the long term these activities will contribute to the creation of resilient societies and the promotion of the Baltic Sea region as a green region. Lead: CBSS-Baltic21. Deadline: 31August 2015.
* ***Create a network of sustainable cities and villages.*** The aim of the project is to exchange knowledge and good practices on environmentally friendly city management practices. Lead: Sweden. Deadline: 31 August 2015.
* ***Ecovillages.*** The project Ecovillages aims at fostering Ecovillages development as more sustainable way of living in rural areas of the Baltic Sea region. Lead: Lithuania. Deadline: December 2013.

*Potential flagship projects and activities:[[6]](#footnote-6)*

* ***REALS: Resilience and Ecology approaches for living Sustainability.*** Project aims at sharing experience of eco-technologies for rural development and promoting the idea of more sustainable lifestyle approaches in the urban and rural societies of the BSR.

Addition to the flagship projects, other expected outcomes of the horizontal action are:

* increased coordination and synergy among initiatives dealing with different aspects of sustainable development;
* clustering the relevant projects;
* disseminating best practices and examples in the field as well as facilitating the cross-sectorial policy discussions.

This could include: ***Green Agriculture for a Bluer Baltic Sea (GABBS) conference.*** The BSR wide agro-environmental conference that aims at sharing knowledge and good practice examples among the agricultural and environmental sector on best practices in the agri-environmental technology sector in the BSR in order to save the sea on land. The conference organised in cooperation with BSR projects (Baltic Manure, Baltic Compact, Baltic Deal and Beras) dealing with sustainable agriculture as well as priority areas ‘Nutri’ and ‘Agri’.

**Action: ‘Climate change and migitation’**

Climate change is perhaps the most pressing environmental issue in the world today. The effects of climate change are already being seen – in the Baltic Sea region and in the world. Many countries have made cutting greenhouse gas emissions their main environmental priority. However, further actions need to be taken to keep climate change below the 2°C-limit. Our region has a great potential for innovation in the field of renewable energy by using the sea, wind and biomass, which can reduce our dependency on fossil fuel, and it has a huge potential in the field of energy efficiency.

*Flagship projects*

* ***Implement fully the EU – Russia Energy Efficiency Initiative****,* particularly the annual work programmes of the Joint EU – Russia Thematic Group on Energy Efficiency of the EU – Russia Energy Dialogue, to be implemented jointly by the EU and Russian side. Lead: European Commission, DG ENERGY. Deadline: to be determined.

**Action: ‘Climate change adaptation’**

Climate change is one of the most pressing environmental issues today. The Baltic Sea with its coastal zones is a specific eco-region, where impacts from climate change can also be expected to be specific. The riparian BSR countries are thus all sharing a vulnerability to climate change with possible impacts on human security, environment and competiveness. In response to climate change, it is important to work not only on mitigation measures, the reduction of emissions of greenhouse gases, but also on strategies to adapt to the changes that are being experienced as well as those that are foreseen.

Several national, regional and local initiatives to adapt to climate change are already under way in the Baltic Sea region. However, further actions need to be taken. Therefore, facing up to the challenge to adapt to climate requires cooperation both between countries and between sectors in the BSR.

The establishment and implementation of a macro-regional climate change adaptation strategy and action plan will strengthen efforts to such cooperation, based on understanding and coping with specific impacts within the BSR. It is necessary for national, regional and local actors to cooperate on joint efforts on adaptation, including exchange of experiences, sharing of common knowledge and data bases, development and implementation of national climate adaptation strategies and action plans as well as sharing of ‘best practices’ for specific sectors within the BSR that are proven to be economically, socially and environmentally sustainable.

The consistency of the climate change adaptation strategy with actions at EU level further to the White paper from the European Commission on adaptation needs to be ensured. This issue could be addressed in the Impacts and Adaptation Steering Group proposed in the White Paper.

Ensuring complementarities with EU-wide initiatives, a regional strategy should focus on issues of cross border interest in the region such as: developing a more robust evidence base on the impacts and consequences of climate change, raising awareness of the need for action; ensuring and measuring progress (using indicators as benchmark for measuring progress) and recommending early action to ensure that adaptation is integrated in key policy areas – this means reviewing policies in the light of the risks of climate change and considering options for adaptive action. Further, the involvement of Russia in operational activities related to the elaboration on joint efforts concerning a climate change adaptation strategy for the whole Baltic Sea region could be considered.

*Flagship projects*

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* ***BALTADAPT.*** The aim is to develop a Baltic Sea region wide adaptation strategy and action plan. The strategy will be macro-regional and will focus on the sea and coastal areas in the Baltic region. Lead: Denmark, responsible for the development of the Strategy: Sweden. Deadline: 2013.

*Potential flagship projects[[7]](#footnote-7)*

* ***Climate change adaptation and civil security*** (in cooperation with priority area ‘Safe’).
* ***Cost-benefit analyses on climate change adaptation for the Baltic Sea Region*** and building and use of common science-based platforms for policy and sectorial dialogues integrating climate adaptation with other aspects of sustainable development (in cooperation with relevant priority areas).
* ***Cooperation in the field of climate change, where cooperation between schools and universities working in this field could be set up*** (in cooperation with PAC Hamburg on ‘Education’).

2. Bio-economy

The Baltic Sea region has everything it takes to become a global leader in sustainable biomass production and the biomass value-chain. We have a large concentration of biomass, well-developed infrastructure, technological and environmental knowledge and a long tradition for cooperation across the region. However, there is a need to develop cooperation across the region and across sectors. Also, there is a need to strengthen the cooperation between research and innovation, public organisations and private business at the macro-regional, national and local levels.

The concept of bio-economy reconciles economic, environmental and social objectives. Many of the global challenges for the development of a sustainable bio-economy today are also at stake in the Baltic Sea region. This includes amongst others population growth, growing demand for food, renewable resources for industry and energy, climate change, and in particular insufficient sustainable use of natural resources both in the sea and on land. The UN Rio+20 conference acknowledges the need to further mainstream sustainable development at all levels, integrating economic, social and environmental aspects and recognizing their inter-linkages, so as to achieve sustainable development in all its dimensions.[[8]](#footnote-8)

On a global scale the bio-economy deals with a transition from a fossil based economy to a more bio-based economy. Hence, the aim of the horizontal action is to explore how this transformation can be used as a tool to implement sustainable development. Increased demand on food, bioenergy and other bio-based products provides a great potential for economic growth. But it also implies risks for unsustainable development. There is a clear need to promote a decoupling of economic growth from environmental degradation. Therefore the horizontal action will focus on sustainable solutions throughout the entire value chain from biomass to food, bioenergy and bio-based products, looking at its potential to create solutions for sustainable economic, social and environmental development.

To do so, there is a need for pooling forces and bringing together public and private players in closer partnerships. The horizontal action will contribute to the overall ambitions in the EUSBSR to promote sustainability and prosperity. The horizontal action will put focus on sustainable biomass production for food, fibre and energy and its use in an environmental, technical, social and economic perspective and link it to regional, sustainable development.

The horizontal action is closely linked with relevant priority areas within the EUSBSR and in line with Europe 2020 Strategy and ‘Innovation for Sustainable Growth: A Bio economy’.[[9]](#footnote-9) The horizontal action takes a transnational, integrated and cross-sectoral approach to the global challenge of bio-economy by linking existing transnational public, sectorial and NGO-based cooperation, regional development and research projects and other activities within the EUSBSR as well as defining and filling eventual gaps and developing new potentials.

The horizontal action aims to:

1. support the transition towards a bio-economy for the Baltic Sea region;
2. to explore how to transform the increased demand on food, bio-based products for industrial use and bioenergy into sustainable solutions in the entire value chain. Increase coordination and synergy among initiatives and projects dealing with bio-economy in the Baltic Sea region;
3. promote sustainable production and use of biomass in the Baltic Sea region;
4. cluster already existing activities and projects in the field of bio-economy and promote science-policy dialogues;
5. pooling forces and bringing together public and private players in closer partnerships;
6. establish networks and dialogue amongst actors across national and sectorial borders in the Baltic Sea region in order to develop common data and knowledge base, methods and strategies for a knowledge based sustainable bio-economy;
7. consolidate findings and disseminate good examples, methods and experiences in the field to a larger audience in the Baltic Sea region as well as facilitate the follow-up activities and integrative cross-sectorial policy discussions and alignment of policies in the Baltic Sea region countries.

***Targets and indicators***

A comprehensive system for the design, the monitoring and the follow-up of indicators and targets will be set up in 2013, under the responsibility of the horizontal action leaders. The still missing targets and deadline, baseline, and statistics/information sources related to the below indicators will be defined.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Objective/ sub-objective** | **Indicator** | **Baseline Value (2013)** | **Target values/deadline** | **Information sources for Baseline and Target** |
| **Cooperation:** Increased coordination and synergy in the BSR among public sector and NGO cooperation initiatives, projects and stakeholders dealing with bio-economy.  | Number of macro-regional public sector, NGO and research and development projects resulting in the integration of bio-economy objectives in national-, regional or local action plans.  | 0 |  | Authorities, research institutions, and organisations in the BSR countries. |
| **Bio-economy:** Development of a sustainable bio-economy in the Baltic Sea region. | BSR bio-economy initiatives.  | 0 | 50 (tbc) | Authorities, research institutions, and organisations in the BSR countries. |

***Actions and flagship projects***

Work on bio-economy in the BSR could constitute a forum for sharing experiences and enhancing the discussion on sustainable development at European and even global level. ‘Engaging with global partners for a faster advance of research and innovation related to the bio-economy world-wide will be essential to maximise the sustainable use of natural resources and to foster positive socio-economic, environmental and climate change impacts. The world initiative Rio+20 also support bio-economy activities’.[[10]](#footnote-10)

The Europe 2020 Strategy calls for a bio-economy as a key element for smart and green growth in Europe.[[11]](#footnote-11)

Bio-economy aims to pave the way for a lower emission and more resource efficient society that combines food production with the sustainable use of renewable resources for industrial purposes and environmental protection. The conversion to a bio-based economy means a transition from an economy that, to a large extent, is based on fossil fuels, to a more resource-efficient economy based to a higher extent on renewable raw materials that are produced through the sustainable use of ecosystem services from land and water.

There is a need to explore how to transform the increased demand of biomass and bio-based products into sustainable solutions in the entire value chain from biomass to food, innovative bio-based products and bioenergy. These challenges link well with the European Commission’s Strategy and Action Plan on bio-economy.[[12]](#footnote-12)

The bio-economy approach combines a wide array of sciences (e.g. life sciences, agronomy, ecology, forestry sciences, marine sciences and social sciences) and link industrial technologies (e.g. biotechnology, nanotechnology and information and communication technologies) with local and tacit knowledge.

With its cross-cutting nature, the bio-economy approach offers a unique opportunity to address complex and inter-connected challenges, while at the same time achieving economic growth. Exchanges between research institutions, public authorities and private businesses should be strengthened at macro-regional, national and local levels to further explore how to transform the increased demand on biomass into sustainable solutions in the entire value chain from biomass to bio-based products and to the consumer.

The Baltic Sea region has a large concentration of biomass, well-developed infrastructure, technological and environmental knowledge and a long tradition for cooperation across the region. This cooperation should be intensified across national and regional borders, and across sectors.

This horizontal action will thus link existing projects and activities within the EUSBSR (e.g. flagship projects) and connected areas (the action is linked but not limited to on-going activities in e.g. priority areas ‘Agri’, ‘Energy’, ‘Innovation’ and ‘Bio’), and work towards identifying and filling eventual gaps, and developing potentials.

The horizontal action will include 7 overall themes, which we developed and jointly decided upon among a large group of stakeholders; researchers, business partners; public and private organisations and the civil society at the Nordic-Baltic biomass conference organized by the Nordic Council of Ministers on March 20-21 in 2012:

1. the central place or a hub for knowledge transfer;
2. the supply chain;
3. sustainability of biomass production and its use in a Baltic perspective;
4. improvement of cross-border cooperation and removal of trade barriers;
5. transport of biofuels and sustainable solutions;
6. policy and planning tools for land use in relation to biomass production.

Expected outcomes of the horizontal action are:

* increased coordination and synergy among initiatives and projects dealing with sustainable biomass production and use in the Baltic Sea region;
* workshops and conferences where the forefront of research, innovation and technology for biomass production and use is presented and shared;
* expert panels, which can help defining future challenges and possibilities.

*Potential flagship projects*

A range of projects can be engaged either as external projects, flagship projects under this horizontal action or through a clustering of flagship projects under various priority areas. This could include:

* ***The Nordic Bio-economy Initiative***. The Nordic Bio-economy Initiative is an on-going and adaptive policy process intended to ensure policy coherence in activities supporting the development of the Nordic bio-economy. Lead: NCM. Deadline: 2014.
* ***The Baltic Sea Region ‘Bioenergy Promotion II’ project.***The project aims at strengthening the development towards a sustainable, competitive and territorially integrated Baltic Sea region in the field of sustainable use of bioenergy. Lead: Germany. Deadline:for progress review to be determined.
* ***Sustainable Forest Management in the Baltic Sea Region – EFINORD*** (flagship project underpriority area ‘Agri’). Lead: EFINORD. Deadline: to be determined.

*Moreover the following projects could contribute:*

* Solid Biomass Project (with the NCM Working Group on Renewable Energy (AGFE)).
* Bio-economy as a driver for sustainable rural development.
* Capacity building to assess the impact of low-emission actions on bio-economy development.
* To develop a specific toolbox to analyse each bio-economy activity in terms of its influence on environment, economy and social consequences.
1. 2012, UN Rio+20 outcome document ‘The future we want’ http://sustainabledevelopment.un.org/futurewewant.html. [↑](#footnote-ref-1)
2. Projections made in 2007 showed a EU primary energy consumption in 2020 of 1842 Mtoe. (Directive on energy efficiency, repealing Directives 2004/8/EC and 2006/32/EC and amending Directive 2009/125/EC). [↑](#footnote-ref-2)
3. As established in the Commission’s Decision determining Member States' annual emission allocations. [↑](#footnote-ref-3)
4. Each Member State shall set an indicative national energy efficiency target, based on either primary or final energy consumption, primary or final energy savings, or energy intensity. A 20% reduction would result in 1474 Mtoe in 2020, i.e. a reduction of 368 Mtoe as compared to projections. [↑](#footnote-ref-4)
5. UNEP 2011, *‘Towards a Green Economy: Pathways to Sustainable Development and poverty eradication – a synthesis for policy makers‘.* [www.unep.org/greeneconomy](http://www.unep.org/greeneconomy). [↑](#footnote-ref-5)
6. The listed potential projects are preliminary ideas and should be further discussed and decided by the CBSS Expert group on Sustainable Development – Baltic 21. [↑](#footnote-ref-6)
7. The listed potential projects are preliminary ideas and should be further discussed and decided by the CBSS Expert group on Sustainable Development – Baltic 21. [↑](#footnote-ref-7)
8. 2012, UN Rio+20 outcome document ‘The future we want’ <http://sustainabledevelopment.un.org/futurewewant.html>. [↑](#footnote-ref-8)
9. European Commission’s staff working document accompanying the document ‘Innovation for Sustainable Growth: A Bio-economy for Europe’, COM(2012) 60 final. [↑](#footnote-ref-9)
10. European Commission’s staff working document accompanying the document *‘Innovation for Sustainable Growth: A Bio economy for Europe’, COM(2012) 60 final.* [↑](#footnote-ref-10)
11. Europe 2020 Strategy flagship initiative ‘A resource-efficient Europe’: http://ec.europa.eu/resource-efficient-europe/index\_en.htm. [↑](#footnote-ref-11)
12. Communication from the European Commission; *Innovation for Sustainable Growth: A Bio economy for Europe,* COM(2012) 60 final. [↑](#footnote-ref-12)