

Research plan
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PROBALT:
Improving societal conditions for the Baltic Sea protection

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1. Concept, objectives and expected outcome of the project

The concept of the project ‘Improving societal conditions for the Baltic Sea protection’ (hereafter referred as PROBALT) is based on the underlying idea that the effective protection of the Baltic Sea is not merely a question of producing scientific knowledge on ecological processes and simply transforming this knowledge into effective policy measures on a rational basis. Instead, designing policies is ultimately a social activity that depends on many conditioning socio-economic, political and cultural factors. Research and knowledge concerning the role of such societal factors in the environmental protection of the Baltic Sea is almost nonexistent.

Drawing on this idea, the PROBALT project **aims to make the prevention of the eutrophication of the Baltic Sea more effective by examining how socio-economic conditions and political processes can be adjusted for this goal**. This objective will be achieved through conducting the following three interrelated work packages:

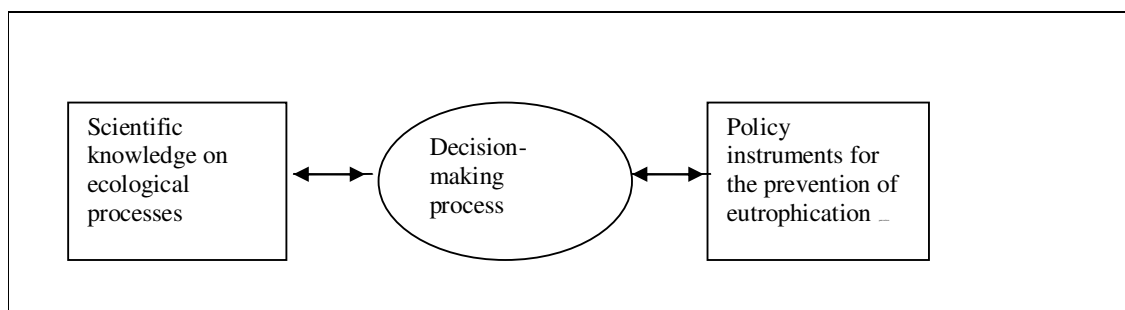
Work package 1: The analysis of societal conditions for the effective protection of the Baltic Sea. In this work package, the PROBALT project focuses on the decision-making process that is between the scientific knowledge and policy instruments. The prerequisite for studying the decision-making process is to define the contents of the existing policy instruments.

PROBALT analyses the contents of the existing policy instruments and the process that has led to their adoption at three levels: (i) national level, (ii) regional level and (iii) the European level. At the *national level*, all the nine coastal countries (Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Russia and Sweden) are examined as individual case studies. The PROBALT project focuses on the main factor(s) of eutrophication in each country, which may differ from country to country. At the *regional level*, the process that led to the adoption of the Baltic Sea Action Plan in November 2007 is used as a case study. At the *European level*, the role of the European Union is particularly important as the Union shapes the national and regional level through legislation and funding, and offers a framework for relations with Russia through its neighbourhood policy and within the Northern Dimension. The research setting will also shed light on the interplay of these levels.

Work package 2: The examination of nutrient trading as an instrument for more effective protection. The idea of creating nutrient trading system in the Baltic Sea is novel; nutrient trading has never been applied in international context. Recently NEFCO published a preliminary report on the applicability of nutrient trading in the Baltic Sea protection (one of the Principal Scientists of the current research proposal participated in writing of the report), but ecological impacts and welfare gains of trading, as well as incentives of individual countries to participate in trading program remained out of the analysis. In the PROBALT project these crucial features of trading are studied in detail and the results are contrasted to the three levels. A special task is to examine the ecological effectiveness of nutrient trading. This entails, first, analysing how to treat non-point sources in relation to point sources, given that achieving reductions among non-point sources is more difficult and subject to stochastic weather conditions. Second, it entails examining the trading rules to ascertain that water quality will not be worsened in any part of the Baltic Sea as a result of trading. The gains of trade (changes in profits and income) among polluting sources and the overall impacts on well-being at the national scale provide a basis to infer the political willingness of each country to support or oppose international mechanisms for the Baltic Sea protection.

Work package 3: The building of political capacity to protect the Baltic Sea. In WP 3, the PROBALT project aims at providing tools to more effectively combat eutrophication of the

Baltic Sea within the region. In this respect, PROBALT aims at three main concrete outcomes. *First*, based on the analysis of the societal conditions (WP 1) and the examination of existing and possible policy instruments (WP1 and WP2), the project *produces policy recommendations* for overcoming obstacles to the effective protection of the Baltic Sea. *Second*, PROBALT aims at *raising the awareness* about the state of the Baltic Sea in the individual countries. This will be done by disseminating information through a newsletter and a website of the project and by organising stakeholder meetings. In addition, policy-makers and officials in each country and in Brussels are kept informed about the research results of PROBALT as the project progresses. This part of the project will engage the media and training journalists on the politics of the protection of the Baltic Sea. It is done in cooperation with Media21, Global Journalism Network based in Geneva. *Third*, PROBALT aims at contributing to the formation of a regional-level advocacy coalition that will improve the protection of the Baltic Sea.



Picture 1. The aim of WP1 is to analyse factors that condition the decision-making process that determines how ecological knowledge is transformed into policy measures. The aim of WP2 is to examine nutrient trading as a possible policy instrument, and the aim of WP3 is to build political capacity that helps to remove the obstacles to the effective protection of the Baltic Sea.

The outcome of the PROBALT is knowledge on the societal conditions for effective protection (WP1). It will also produce detailed knowledge on nutrient trading (WP2). When giving policy recommendations, the PROBALT will produce tools to more effectively combat eutrophication by providing actors with information and by helping them to participate and act (WP3). When applied in practice, PROBALT will ultimately lead to overall improved protection and the state of the environment of the Baltic Sea.

2. State of the art, theory and methods

The underlying idea of the project

Despite existing protective activities, the process of eutrophication, which is regarded as the most serious ecological problem for the whole Baltic Sea, is constantly accelerating. Research shows that when a marine ecosystem changes from one state into another, self-generation properties evolve keeping the system locked. In the Baltic Sea an example could be an undesirable state of high-density filamentous algae. Reversing the trend by human actions will be difficult—if not impossible—and requires a long time (see Kuosa et al. 2006). Thus, more effective activities to counteract the now prevailing negative trend are urgently needed before this so called regime shift takes place. The main obstacle to the effective environmental protection of the Baltic Sea today is that ecological and biological facts concerning the Baltic ecosystem, which already are relative well known, do not, for one reason or another, lead to policies of environmental protection effective enough (Joas and Bonsdorff 2006; Haila 2008). To our knowledge, research

focusing explicitly on this transformation process from the viewpoint of social science does not exist. *The PROBALT project aims to fill this gap.*

Much of policy analysis interprets environmental, as well as other political, economic and social problems as issues in need of improved management and program design; their solutions found in the technical applications of the policy sciences are to be pursued by administrative means (Fischer 2003: 213; see also Amy 1987). Often associated with this orientation has been the belief in the superiority of scientific decision-making. Contrary to this view, the PROBALT project draws on the basic idea that linkages between scientific research on environmental problems (eutrophication) and environmental policy are not as simple as conventional approaches tend to assume (see Boehmer-Christiansen 1994; Frinckel and Davidson 2004). Instead, a mixture of political, socio-economic, cultural and other conditions shapes the process in which the ecological “facts” revealed by natural science are “transformed” into certain policy outcomes. In other words, environmental policy-making is not as rational in character as often presumed; there are aspects of politics, social interaction and conflicting rationalities and interests that intervene in the process. Accordingly, the policy analysis model PROBALT leans on extends the analytic goal beyond the technical efficiency of the governing institutions to include an assessment of the political interests and needs of the larger political community. Unlike most contemporary policy analysis, the approach of PROBALT does not take individual preferences as given but accounts for where people get their images of the world and how they shape their preferences (Fischer 2003: 223). PROBALT, in WP 1 in particular, thus applies an interpretative and deliberative model of policy analysis, introduced by Fischer and Forester (1993; see also Fischer 2003; Hajer and Wagenaar (eds.) 2003).

Methodology of Work Package 1

Interpretative and deliberative model of policy analysis is rooted in the so called argumentative turn in policy analysis. This means that it embodies a discursive, contextual understanding of social knowledge and the interpretative methods basic to acquiring it. The model draws on the notion that policy-making and politics are mostly about the struggle over meaning (Fischer 2003: 46). Thus, policy-making is to be analysed as not just as identification of relevant actors and their interests and resources in the political process. It is of crucial importance to analyse ways in which actors make arguments, and, by this way, to analyse beliefs, purposes and behaviour of actors in concrete cases. By studying arguments the actors make it is possible to answer the following questions: How have policy processes evolved and why? What arguments underlie the decisions made? What meanings, arguments, and lines of reasoning have the various groups of actors involved brought forward? What advocacy coalitions can be discerned? What are controversies or conflicts about? (cf. Runhaar et al. 2006). *In the analysis, special attention is paid on the relation of different arguments to practice, to what is actually being done.* By looking at controversies in this relation, it is possible to make sense of what lies behind the arguments, and what kind of cultural and other premises the arguments are based on. Consequently, conditions of the decision-making process can be clarified. In accordance with the method, the main data of WP 1 consists of interviews with stakeholders (policy-makers, officials, experts, journalists, NGO representatives etc.), scientific and policy documents and literature.

Methodology of Work Package 2

WP 2 focuses on the possibility of nutrient trading as an instrument for improving the protection of the Baltic Sea from eutrophication. The original idea to combine economic incentives to environmental policy research comes from the classical article by Buchanan and Tullock (1980) who trace out how economic interest intervene political agendas of firms and lobby groups (Ollikainen and Honkatukia 2001 provide preliminary political economy inferences to the Baltic Sea). This approach suits well the analysis of nutrient trading. Two possible trading systems can

be developed: emissions-for-estimated loadings and emissions-for-inputs (Shortle and Horan 2001). The emissions-for-estimated-loadings trading systems are widely used in the present USA nutrient trading, and it sounds feasible for the Baltic Sea region. Lankoski et al. (2008) provide the first analysis of nutrient trading at a river basin scale for the protection of the Gulf of Finland. The definition of how the allowances are traded between polluters (trading ratio) is possibly the most critical issue to political acceptance of nutrient trading, as it affects the profits of participating sources and their political willingness to accept nutrient trading (e.g. Horan and Shortle 2005; Harvie and Solomon 1998). Monitoring, enforcement and compliance are key questions for successful nutrient trading (e.g. Johansson 2002). Given different institutional settings of the Baltic Sea countries these challenges must be met well.

Methodology of Work Package 3

Deliberative policy analysis model suits well to the research setting of the PROBALT project, in particular when it comes to WP 3, since it emphasises the role of the analyst as a facilitator of public learning and political empowerment. Rather than providing technical answers designed to bring political discussions to an end, the task of the analyst-as-facilitator is to assist citizens in their efforts to examine their own interests and to make their own decisions (Caldwell 1975; Fischer 2003: 225). There is a need to make actors at the national, regional and international levels aware of the importance of the protection of the Baltic Sea, as well as of research results produced throughout Baltic Sea region. As part of WP3, policy recommendations will be given. These policy recommendations will introduce innovative and new environmental policy instruments that can be applied to the protection of the Baltic Sea from eutrophication (cf. Jordan et al 2003; Durant et al 2004).

3. Innovation and new approaches

PROBALT contributes to the methodological development of the ecosystem approach to environmental management (EAM), highlighted in the BONUS-169 Science Plan, by bringing in socio-economic and political dimensions. As noted earlier, the project challenges the superiority of scientific decision-making and emphasises the importance of the decision-making process that is between scientific knowledge and practical policy measures. Connected to this, an interdisciplinary PhD course linking natural and social science approaches will be organised. While deliberative policy analysis has gained popularity in the European environmental policy study (e.g. Hajer 2005; Dryzek 1997), it has only rarely (if at all) been applied to the study of environmental protection of the Baltic Sea. There are a few studies that focus on implementation of scientific recommendations on the protection of the Baltic Sea at the national level (e.g. Mickwitz 1998; see also Joas et al. 2008), but the regional level and, especially, the European level have received less academic attention.

The PROBALT project will pioneer with its wide research setting that covers all the nine coastal countries of the Baltic Sea, the regional level and the European level. The project produces transnational added value by networking within the individual countries. It brings together researchers with different backgrounds (disciplinary, but also national and cultural) and views from Finland, Germany, Russia and Poland. PROBALT will also provide for intensification of transnational cooperation. PROBALT takes all stakeholders, not only governments, into account in the research setting of the project. By covering a notable number of different actors, the PROBALT project will create a comprehensive picture of existing policy processes at all levels of activity. With the help of the WP 1 of the project, PROBALT will produce policy-relevant knowledge on the conditions for the effective environmental protection of the Baltic Sea at the national, regional, and European level. One pioneering aspect of PROBALT is to scrutinise

nutrient trading as an instrument for protecting the Baltic Sea (WP 2). So far, nutrient trading has been examined and applied in practice only within national jurisdiction, as a river basin approach. Now nutrient trading is expanded to cover all Baltic Sea countries. In WP 2, also possibilities of other new forms of activity, such as foundation-based activity and public-private partnerships will be studied.

PROBALT is innovative also in that the project, as set in WP 3 of the project, very intensively involves practical actors by keeping actively in touch with them, both in order to get information and to deliver information produced by the project. This applies to decision-makers but also to the representatives of the media and other non-governmental actors as a special media network will be established within of the project. The PROBALT project addresses both the regional and the international level, and will thus make actors at these levels better aware of the importance of the protection of the Baltic Sea, and the essential results of the project, too. Research projects often lack contacts with wider audience and, therefore, their impact factor remains limited. With a strong informational emphasis of the PROBALT project, stressed in WP 3, additional impact will be achieved. This will also promote the development and implement of EAM in the Baltic Sea region.

4. Themes and key research issues of BONUS-169 Science Plan addressed. Relevance for the management of the Baltic Sea—relation to Themes 1 and 7

The history of the cooperation on combating the eutrophication of the Baltic Sea is relatively long, and a multitude of national and international regulations, recommendations and conventions have been put forth. However, only modest results have been achieved so far. At the same time, the ecosystem of the Baltic Sea is deteriorating at an alarming rate. The PROBALT project suggests that this relative failure cannot be explained by the lack of knowledge on ecological restrictions and requirements for the protection, but rather by the failure of transforming scientific knowledge into effective and socially acceptable protective practices. The PROBALT project focuses on this transformation process by analysing its conditions (**WP 1 and WP 2**) and by providing tools for the transformation (**WP 3**). Accordingly, the PROBALT project supports the BONUS Call in its goal of *revealing linkages between environmental problems and the social and economic dynamics in responding to them*. PROBALT complements the ecosystem management approach to environmental management (EAM), highlighted in the BONUS-169 Science Plan, with a clear *societal dimension and focus*. **WP 3** of the PROBALT project aims to increase concern and bolster the “political will” that is argued to be among the main obstacles to effective protection. These goals are essential for linking science and policy—a task highlighted in the BONUS programme. They also *support the general foundations* of the BONUS programme. Finally, with a strong emphasis on the dissemination of information to wider society, the PROBALT project will serve as a mediator between the BONUS research programme, decision-makers and media throughout the Baltic Sea region.

WP 1 and WP 2 of the PROBALT project focus on the process of transforming scientific knowledge on eutrophication into protective measures and analyse the conditions of this process at different policy levels (individual countries, the regional level and the European level). WP 1 and WP 2 also examine the possibilities of nutrient trading as a tool of the prevention of eutrophication. With WP1 and WP2, the PROBALT project offers a significant complementary viewpoint to the Theme 1 (*Linking science and policy*) of the BONUS-169 Science Plan. The viewpoint of PROBALT highlights that even though science has a decisive role to play in effective environmental protection (as well as in the development and implementation of EAM), scientific knowledge needs to be successfully transformed into concrete management practices in

order to guarantee effective protection and to reach set goals. Thus, the PROBALT project is significant for the BONUS-169 Science Plan because it will provide social science based knowledge that, as stated in the description of the Theme 7 (*Integrating ecosystem and society*) of the Science Plan, is needed to support the EAM of the Baltic Sea resources. By studying the conditions for the effective protection of the Baltic Sea from country to country and in a comparative manner, PROBALT touches the key research issue 1 (*Explaining the spatial and temporal variations in human's uses of Baltic Sea ecosystem resources*) of the Theme 7, but specifically the research issue 3 (*Estimating society's values for conserving, protecting and restoring Baltic Sea ecosystem resources*). However, the PROBALT project reaches beyond this quite specific research issue with its contribution to the Theme 7 (*Integrating ecosystem and society*). It can be argued that it is not sufficient to confine to analysing merely values; the identification of the underlying socio-economic and other conditions that, inter alia, shape the formation of the values is also of crucial importance.

WP 3 of the PROBALT project addresses the goals of the BONUS-169 Science Plan by offering a good possibility for, citing the Science Plan, “linking the BONUS programme with outside world and vice versa”. Thereby, PROBALT addresses the key research issue 3 (Making a difference through dialogue, consultation, and information exchange and dissemination) of the Theme 1, on the one hand by identifying relevant stakeholders, their interests, concerns and motivations and the conditions for the establishment of the dialogue with the help of the case studies, and, on the other hand, by facilitating that dialogue through keeping constant touch with representatives of media and organising events where stakeholders can meet. The PROBALT project will also provide analyses of existing policy processes (WP 1) and put forth policy recommendations (WP 3). In sum: the results of PROBALT will contribute to the identification and communication of “lessons learnt” and “best practices of cooperation”, as emphasised in the BONUS-169 Science Plan Theme 1.

The PROBALT project is also linked to the Theme 3 of the BONUS-169 Science Plan as it covers the issue-area of eutrophication.

5. Contribution in producing deliverables described in the BONUS-169 Science Plan

First and foremost, the PROBALT project will contribute in producing those deliverables specified in the BONUS-169 Science Plan which are related to the “**Linking science and policy**” principal area of programme focus. By focusing on the decision-making process that is between scientific knowledge production and policy measures, the PROBALT project will increase the usability of research based results from the Baltic Sea science for wider audience, and contribute to more effective bridging of science and policy. PROBALT will study societal conditions of the effective protection of the Baltic Sea and, therefore, produce scientific information on priorities and preferences of the general public on the environmental problems of the Baltic Sea. Research results of the project will thus help in improving the design, implementation and evaluation of the efficacy of pertinent public policies and governance.

In particular, the PROBALT project will contribute to producing of deliverables by aiming at raising wider public awareness and understanding of what is going on with the environment of the Baltic Sea. Thus, PROBALT will help policy-makers at all levels. Research results will be useful for different institutions and regimes, such as the HELCOM. With its focus on the European level PROBALT will also provide tools for improved EU policies on the protection of the Baltic Sea by actively promoting the dialogue and the exchange of research results, lessons

learnt and best practices among all stakeholders within the Baltic Sea area. PROBALT will also provide instruments to support conflict resolution, a deliverable listed in the BONUS-169 Science Plan, too. As the PROBALT project team includes researcher from the Russian Federation and includes the Russian Federation as one of the geographical foci of the project, PROBALT will contribute also to better integration of national and EU-policies, and improved scientific and policy integration and cooperation with third parties beyond the European Union.

The PROBALT project will also contribute to the “**Large scale ecosystem threats and changes including responses and mitigation**” principal area of programme focus, in particular with its WP2, in which nutrient trading as an economic tool of the Baltic Sea will be examined. PROBALT will thus also address cost-efficient abatement and remedial measures for combating eutrophication.

A significant part of the PROBALT project is devoted to the production of information and presentational material, as suggested in the BONUS-169 Science Plan. Thus, PROBALT will help BONUS to **strengthen collaboration and the use of common resources**. Besides maintaining its own website, PROBALT will contribute the BONUS website with the material produced in the project. The PROBALT project team will actively take part in international scientific conferences and workshops. Besides, PROBALT will arrange its own project and stakeholder meetings in connection with the BONUS conferences. PROBALT will also organise an interdisciplinary course on the issue. The organisation of this kind of a course contributes to the aim of the BONUS-169 Science Plan to increase interdisciplinary collaboration and redress scientific fragmentation. PROBALT project team will also publish scientific papers in peer-reviewed journals, thus guaranteeing the scientific quality of the project which otherwise has a rather policy-oriented aim.

6. Dissemination plan

One of the main objectives of the PROBALT project is to disseminate information and research results. This task is set in WP3. Accordingly, information about the PROBALT project and its research results will be disseminated in the following forms (not in priority order):

- (i) Organising journalist training; this aims at raising awareness among key journalists. By organising journalist training, the PROBALT project also aims to establish a network for PROBALT
- (ii) Launching a website and an electronic newsletter. This will provide real-time information about the research results of PROBALT
- (iii) Organising seminars with key stakeholders (in connection with the BONUS-seminars) to inform the stakeholders on respective countries.
- (iv) Publishing the Final report with key findings and policy recommendations
- (v) Publishing peer-reviewed research articles; a task of individual researchers (also joint articles are possible) in scientific journals such as Environmental Politics, Environmental Values and journals of International Relations.

7. Participants and management of the project

Participants of the PROBALT project:

The PROBALT project has four partners:

- 1) **Finnish Institute of International Affairs (FIIA)**, which field of research encompasses the Baltic Sea Region and especially the environmental protection of the Baltic Sea.
- 2) **Centre for European Studies of European University at St Petersburg**, which offers graduate training in the areas of political science, sociology and European studies.
- 3) **Division for Peace Research of the Institute of Social Sciences at Kiel University**, which conducts in the perspective of peace research practically oriented scientific work and dissemination activities on issues of cooperation and conflict in the Baltic Sea region
- 4) **Department of Economics and Management at University of Helsinki**, which has the Unit of Environmental and Resource Economics. The unit gives graduate and doctoral course on environmental and resource economics and has a strong research group specialized in the issues of water pollution and the Baltic Sea protection.

The respective Principal Scientists are Teija Tiilikainen (FIIA), **Elena Belokurova** (St. Petersburg), **Christian Wellmann** (Kiel) and **Markku Ollikainen** (University of Helsinki). The project will also employ four post-doctoral researchers (1 in Kiel and 1 at FIIA, and two part-time researchers in the EUSP) and two PhD students (1 at FIIA, and 1 at the University of Helsinki).

Teija Tiilikainen is the Director of the Finnish Institute of International Affairs. She specialises in European integration and history of ideologies. She follows the development of EU's political institutions and the development of European security policy system, especially the development of common foreign and security politics. In the PROBALT, her team is responsible for carrying out WP1 and WP3 when it comes to the involvement of Denmark, Estonia, Finland, Latvia, Lithuania, Poland and Sweden, and the regional level, in the Baltic Sea protection.

Elena Belokurova is senior professor of European politics and regional development of the Russian North-West at the European University of St Petersburg. Her research interests include cooperation between the European Union and Russia in different fields, with a special emphasis on the regional and local dimensions. In the PROBALT project, her team is responsible for carrying out WP1 and WP3 when it comes to the involvement of Russia, Leningrad and Kaliningrad regions in particular, in the Baltic Sea protection.

Christian Wellmann is temporarily Acting Head of Division after having been Deputy Director and Research Co-ordinator of SHIP, a State financed facility for practically oriented research and dissemination at present in the process of being transformed from an institute affiliated to Kiel University into a Division of the University's Institute of Social Sciences. Guided by the perspective of conflict prevention his research interests cover conflict and co-operation in the Baltic Sea Region and EU-Russia relations in general with a special emphasis on region-building, transnational civil society co-operation and developments concerning Russia's Baltic Kaliningrad exclave. In the PROBALT project his team is responsible for WP1 and WP3 when it comes to the involvement of Germany and the European Union.

Markku Ollikainen, is professor of environmental and resource economics. His research interests cover controlling point and non-point nutrient pollution in the Baltic Sea, conservation of biodiversity in agriculture, forestry and marine environment, as well as economic instruments for environmental protection including taxes, subsidies, nutrient trading and green auctions in river basins. In the PROBALT project, his team at the University of Helsinki is responsible for research on nutrient trading (WP2).

Management of the PROBALT project

The Finnish Institute of International Affairs (FIIA) is the coordinator of the project. Teija Tiilikainen, the Director of FIIA, is the Project Coordinator starting from January 2011. The project team will meet twice a year, which forms an important management instrument for the PROBALT project. The administrative staff of the FIIA is also involved in the project management as far as technical, organisational and financial matters are concerned.

The conduct of the PROBALT project includes the following steps (see also the detailed work plan, p. 13-15):

- 1) Conducting WP1 and WP2 will begin immediately when the PROJECT begins.
- 2) As a part of WP3, a seminar to train journalists on the protection of the Baltic Sea will be organized (possibly in Poland). The purpose is to inform participants and to form a functioning network of journalists. This network will then be used during the project to disseminate research results and other relevant information on the topic.
- 3) Researchers will meet twice a year in an event which is divided in two parts. The first part of the meeting will be used to discuss the progress of the project. The second part of the meeting will be addressed to stakeholders and the wider public. The second part of the meeting and the journalist network are means to build bridges between research and decision-making, and to facilitate the taking of effective protection measures. Project meetings will be organised in connection to BONUS-169 conferences.
- 4) The researchers will develop policy recommendations.
- 5) A website will be established and electronic newsletters used to disseminate research results of the PROBALT. The newsletters will be sent to key stakeholders in each country, regional institution and the EU.
- 6) At the end of the project, main results of the analysis and policy recommendations will be published as a policy-relevant report, which will be disseminated directly to stakeholders and media.

8. Description of the significant facilities and large equipment available for the project

PROBALT employs social scientists, and, more to the point, the research setting of the PROBALT project does not require any special facilities or equipment. Participant institutions offer basic facilities, such as IT and phones, for the researchers.

9. Researcher exchange and training, including possibility of organising a course

The PROBALT project will employ two PhD students (one at the Finnish Institute of International Affairs and one at the University of Helsinki). Their supervision will partly be taken care of by the senior researchers/principal scientists of the PROBALT project team. PROBALT will also organise an interdisciplinary PhD course linking natural and social science approaches. This course can be organised in connection to the Forum for Education and Training (FET), the establishment of which is planned in the BONUS-169 Science Plan.

10. Detailed work plan/research plan divided into Work packages and Tasks indicating responsibilities of each consortium participant, as well as time schedule for the project

Each project participant has specified **tasks**.

Tasks of the Finnish Institute of International Affairs are the following:

- **Task F1:** To conduct WP1 (analysis of the conditions of the effective protection of the Baltic Sea) *at the national level*, focusing on *Denmark, Estonia, Finland, Latvia, Lithuania, and Sweden*
 - o **Task F1** consists of three parts: a) data collection b) analysis of the data c) reporting of results in the form of articles and in the Final report
- **Task F2:** To conduct WP1 *at the regional level* (the process that lead to the acceptance of the Baltic Sea Action plan)
 - o **Task F2** consists of three parts: a) data collection b) analysis of the data c) reporting of results
- **Task F3:** To carry the main responsibility of WP3
 - o **Task F3** includes the establishment and maintenance of the website, creation and maintenance of a stakeholder network, dissemination of policy recommendations, briefings etc, and organising a media training seminar and stakeholder meetings

- One of the tasks of the Finnish Institute of International Affairs is to act as a coordinator of the PROBALT project. It will carry the main responsibility for arranging project meetings and other events.

Tasks of the Department of Economics and Management, Helsinki University are the following:

- **Task H1:** To conduct WP2 *at the national level*
 - o **Task H1** consists of three parts: a) data collection b) developing country-based models for point and nonpoint source polluters
- **Task H2:** To conduct WP2 *at the international level*
 - o **Task H2** consists of three parts: a) developing a Baltic Sea model of nutrient trading b) analyzing the gains of trade and c) determining incentive of individual countries to participate in the trading program

Tasks of Peace Research Division of the Institute of Social Sciences of the Christian-Albrechts-University, Kiel:

- **Task K1:** To conduct WP1 (analysis of the conditions of the effective protection of the Baltic Sea) *at the national level*, focusing on *Germany*
 - o **Task K1** consists of three parts: a) data collection b) analysis of the data c) reporting of results
- **Task K2:** To conduct WP1 *at the European level*
 - o **Task K2** consists of three parts: a) data collection b) analysis of the data c) reporting of results
- **Task K3:** To participate in the planning of the activities included in WP3

Tasks of the European University of St Petersburg are the following:

- **Task E1:** To conduct WP1 (analysis of the conditions of the effective protection of the Baltic Sea) *at the national level*, focusing on *Russia (Leningrad region, Kaliningrad)*
 - o **Task E1** consists of three parts: a) data collection b) analysis of the data c) reporting of results

- **Task E2:** To participate in the planning of the activities included in WP3

WP1 concerning the national level of Poland will be conducted by a Polish researcher (to be found later). Accordingly,

- **Task P1:** To conduct WP1 (analysis of the conditions of the effective protection of the Baltic Sea) *at the national level*, focusing on Poland
 - o **Task P1** consists of three parts: a) data collection b) analysis of the data c) reporting of results

Time schedule for conducting the tasks

Tasks F1, K1, E1, P1 (WP1 at the national level):

Collection of data: Months 1-12; Analysis of data: Months 7-24; Reporting the research results: Months 19-36

Tasks F2, K2 (WP1 at the regional/European level):

Collection of data: Months 1-12; Analysis of data: Months 7-24; Reporting the research results: Months 19-36

Task H1 (WP2):

Collection of data and country-based modelling: Months 1-12

Task H2 (WP2):

Nutrient trading model and analysis: Months 7-24; Reporting the research results: Months 19-36

Tasks F3, K3, E2 (WP3)

Establishment and maintenance of the website: Months 1-36; Network creation and maintenance: Months 1-36; Dissemination of policy recommendations, briefings etc.: Months 7-36; Media training seminar: Month 6; Stakeholder meetings: Month 1, 6, 12, 18, 24, 30, 36

11. Gantt chart

See the next two pages (p. 13 and 14).

12. Plan of submitting the project data to some common database

The PROBALT project will report both the research process and results *on its own website*, which will be launched at the initial stage of the project. The website will offer project participants, as well as all stakeholders and the media a forum to gain information about PROBALT and the overall BONUS programme, too. In this connection, PROBALT can also provide the BONUS portal with information, too, and by this way also to other relevant marine research and policy information portals.

13. Ethical issues

Social scientists engage many ethical and social issues in their work. These issues relate to the choice of research topics, the methods applied to examine these topics, the communication of research findings to the public, and the involvement of researchers in the shaping of governmental policies and other public activities. Research on environmental policy is inevitably normative by nature—research on environmental policy, at least its policy-oriented branch, aims to produce knowledge on “better” policy alternatives to advance the good state of the environment (e.g. Ferre & Hartell 1994). In diverse environmental policy research settings, there often is, however, a tension between the protection of the environment and the interests of actors whose activities influence these environments. In the problematic of the PROBALT project, for example, there is a tension between the good state of the Baltic Sea and the livelihood of farmers whose source of livelihood exacerbates eutrophication. Thereby, even if the research has its normative bias, researchers need to be aware of these contradictions and tensions, and to be as objective as possible when conducting research.

By analysing the societal conditions of effective protection, PROBALT will also shed light on different beliefs and values that underlie environmental controversies. The PROBALT project research setting implies the articulation of these different beliefs and values and their admission into the process of policy deliberation (cf. Craig et al 1993). In this way, the project will address the ethical dimension of environmental problems, often neglected in policy-making.

The normative dimension of the PROBALT project includes also its aim to form an advocacy coalition. However, the project members will not take part in the coalition as such. Rather, the aim is to provide those actors interested in the protection of the Baltic Sea with information, and to facilitate their activity. Researchers will not participate in the activity of this advocacy coalition by themselves.

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