

# LIFE08 ENV/LV/000451

## FINAL Report Covering the project activities from 01/02/2010 to 30/11/2012

Reporting Date **30/11/2012** 

# Integrated Strategy for Riga City to Adapt to the Hydrological Processes Intensified by Climate Change Phenomena

Project location	Riga City
Project start date:	01/02/2010
Project end date:	30/11/2012
Total Project duration (in months)	34 months
Total budget	€ 662 240
EC contribution:	€ 329 270
(%) of total costs	50%
(%) of eligible costs	50%
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### 2. EXECUTIVE SUMMARY

Based on the Grant Agreement Nr.DAE-10-1-lī signed by RCC and EC on January 5, 2010, and the involvement of RCC City Development Department (hereinafter referred to as the Department) in the project Nr.LIFE08 ENV/LV/000451 "Integrated Strategy for Riga City to Adapt to the Hydrological Processes Intensified by Climate Change Phenomena" (hereinafter referred to as the Project) during the time of its implementation from February 15, 2010 to November 30, 2012 various activities necessary for successful Project implementation were carried out.

#### Project objectives, key deliverables and outputs

Since the issue of climate change is becoming more and more topical, the Project's aim is to adapt the economy, society and natural heritage of Riga to the consequences created by climate change and reduce their effect by establishing the necessary instruments and planning system. Improvements should be made to minimize the impact of hydrological processes' on Riga City territory and its residents in the near future.

To achieve these goals seven actions were set in the Project Proposal.

The most significant Project activities were the following:

- 1. Detailed research of current and potential impact of hydrological processes connected with climate change in the territory of Riga City;
- 2. Becoming acquainted with the experience and best practices in flood risk assessment and management in European cities Antwerp, the Hague, Rotterdam, and Hamburg;
- 3. The development of Flood Risk Management Plan for Riga City;
- 4. The development of Methodological Guidelines for Territorial Planning in flooding territories.

It was envisaged in the Project Proposal that Activity 3 of the Project – "The Development of Flood Risk Management Plan for Riga City" will be based on the information obtained within the framework of Activities 1 and 2.

Within the framework of Activity 1 a three-dimensional relief model of Riga city was developed. An up-to-date digital 3D relief model of Riga City was needed to study and to model hydrological processes (including flood) in Riga City. A study of hydrological processes was carried out, analysing and forecasting the impact on the territory of Riga City, that is caused or will be caused by flood, wind surges, coastal erosions on waterfronts. Also flood risk impact analysis was performed and calculations of possible economic loss in connection with the forecasted climate change were made. With the help of hydrological and hydrodynamic modelling the borders of flooding territories were determined in Riga City according to the current situation and for various climate change scenarios until the end of the century. In order to reduce and prevent flood threat, the impact of groundwater, intense precipitation and rainwater drainage system was studied and recommendations made. The proposals of engineer technical solutions for various alternatives of territory protection are included in the final report of the study.

Within the framework of Activity 2 specialists from the Project team and responsible officials from City Development Department and Riga City Council visited four European cities – Antwerp, the Hague, Rotterdam and Hamburg where they became acquainted with these cities' experience in flood management – studies, forecasts, planning and implementation of flood prevention measures.

Within the framework of Activity 3 Flood Risk Management Plan for Riga City was developed. It includes specific flood prevention measures and looks at various funding attraction options for the implementation of flood prevention measures. The experience of several European cities in combating flood and managing flooding territories was also taken into account.

Within the framework of Activity 4 Methodological Guidelines for territorial Planning in Flooding Territories were produced. The Methodological Guidelines comprise issues that are linked to territorial planning in parts of the city that are subjected to flood risk. In the course of the Project, the Project team organized seminars, work groups and trainings for territorial planners, representing municipalities with similar flooding risks as Riga City.

During the course of the Project, various public information events were organized. The residents were informed about the Project's activities, public opinion was listened to and a competition for secondary school pupils was organized.

In addition to the mentioned activities, to ensure that the Project is successfully and timely implemented, Project management and monitoring activities were carried out. The Project management was implemented by the Project management team – project manager, assistant and accountant, whereas Project monitoring was done by Project Steering Committee, comprised of representatives from Riga City Council, officials from City Development Department, as well as a representative from The Ministry of Environmental Protection and Regional Development and representatives from public organizations.

The impact of consequences caused by climate change in Riga City is still topical and it needs to be reduced. The frequency and intensity of flood have increased due to climate change, causing substantial financial and moral loss for Riga City and its inhabitants and posing flood threat to buildings, infrastructure and nature sites, including Natura 2000 territories. Therefore, Riga City needed its own Flood Risk Management Plan, which is one of the end products of the Project. As there are no analogous flood risk management plans at a municipality level that would meet the requirements of EU directive 2007/60/EK, Riga City flood risk management plan is innovative at a national scale.

The considerable progress of the Project was achieved by accurate implementation of the Activities stipulated in the Project Management and Project Publicity Plans. Project was implemented observing all the deadlines.

#### **Deliverable products of the project**

The deadlines for all Deliverable products were stated in Project Proposal, so the Project's time schedule was planned so that these deadlines could be observed. The table shows that all the Deliverables were prepared within the allocated time period in accordance with the time schedule, presented in Project Proposal.

Name of the Deliverable	Code of the action	Inception report (01.09.2010.)	Mid-term report (01.12.2011.)	Final report (28.02.2013)	Planned deadline
Report on Hydrological processes affecting territory of Riga City and their current and potential (linked with climate change phenomena) impacts	1	Not started	Finished 28.01.2011 Mid-term report (Annex 4)	Finished 28.01.2011 Mid-term report (Annex 4)	31.01.2011

Comprehensive report on the knowledge acquired during the visits and on proposals to use them for development of Riga	2	Not started	Finished 30.11.2010 Additional report prepared 15.06.2011 Mid-term report (Annex 5, 6, 7)	Finished 30.11.2010 Additional report prepared 15.06.2011 Mid-term report (Annex 5, 6, 7)	30.11.2010
Flood risk Management Plan for Riga City including funding opportunities for its implementation	3	Not started	In progress	Finished 19.06.2012 (Technical Annex 2,3)	31.07.2012
Resource Mobilization Plan for implementation of Flood Risk Management Plan	3	Not started	In progress	Finished 19.06.2012 (Technical Annex 4,5)	31.07.2012
Methodological guidelines for territorial planning of different flood risk zones in Riga City	4	Not started	In progress	Finished 19.06.2012 (Technical Annex 6, 7)	31.07.2012
Project Publicity Plan	5	Finished 28.04.2010 Inception report (Annex 2)	Finished 28.04.2010 Inception report (Annex 2)	Finished 28.04.2010 Inception report (Annex 2)	30.04.2010
Project booklet in 1000 copies, full colour, in Latvian (900 copies) and in English (100 copies)	5	Not started	Not started	Finished 27.09.2012 (Dissemination Annex 1)	30.09.2012
Layman's report in 1000 copies (including 500 copies of paper version and 500 CDs), full colour, in Latvian (900 copies) and in English (100 copies)	5	Not started	Not started	Finished 27.09.2012 (Dissemination Annex 2, 3)	30.09.2012
Project Management Plan	6	Finished 28.04.2010 Inception report (Annex 1) Revised 14.01.2011 As it was stated in Inception report	Finished 28.04.2010 Inception report (Annex 1) Revised 14.01.2011 As it was stated in Inception report	Finished 28.04.2010 Inception report (Annex 1) Revised 14.01.2011 As it was stated in Inception report	30.04.2010

#### The results achieved compared to what was planned in the project proposal

Since all the Deliverables were prepared within the allocated time period, then schematically Table 1 below shows summarised actual progress of the Project actions where the vertical line represents the current stage of the Project. A more detailed monthly overview of the Project actions/tasks can be found in the Mid-term report Annex 2.

		Start date			Inception report				Mid-term stage			Final date			
Actions/Tasks		2010			/	2011						2012			2013
	-	1Q	2Q	3Q	4Q	1Q	2Q	3Q	2	4Q	1Q	2Q	3Q	4Q	\1Q
General Project Schedule	Proposed in the application Actual	•	•												
Action 1 – detailed studies of hydrological processes about current and potential impact of climate changes in the Riga City territory	Proposed in the application Actual														
Action 2 – becoming acquainted with experience and best practices in identification, planning and management of flood risk zones in 4 European cities	Proposed in the application Actual														
Action 3 – development of Flood Risk Management Plan for Riga City	Proposed in the application Actual														
Action 4 – development of Methodological Guidelines for Territorial Planning in Flooding Territories	Proposed in the application														
Action 5 – ensuring Project publicity and public understanding about Project actions and results	Proposed in the application														
	Actual														
Action 6 – Project management	Proposed in the application Actual														
Action 7 – Project monitoring	Proposed in the application														
	Actual														

Table No.1

The table 1 shows that only Action 2 did not meet the set deadlines but it had its justification and technically all the requirements were met according to the Project Proposal (see 6.1. task by task – description Action 2).

Action 2 lasted till November 30, 2010, according to the Project Proposal. After returning from the experience exchange visits in Antwerp, the Hague and Hamburg a comprehensive

report "About the best practices and experience in identification, planning and management of flood risk zones in three European cities" was prepared. In compliance with the Project Proposal requirements, it was approved by the PSC (See Mid-term report Annex 5, 6, 7 Reports of experience exchange visits). The Hague was visited, because the representatives of Rotterdam City refused to host the Project delegation (e-mail of 12/07/2010). The change of the city was approved by the EC (letter from EC on the 1st of February, 2011 about the acceptance of city change). Taking into consideration the suggestion made by experts in the Hague and their offer to help with the organization of the visit, a possibility to organize and additional experience exchange visit to Rotterdam was considered Due to the undeniably similar geographical location of Riga and Rotterdam, the problem of flood and the role of the harbour in the development of the city, as well as the fact that the visit to Rotterdam was planned already in the Project Proposal, the decision was made to organize the visit. The decision was followed by e-mail correspondence to agree on the date and schedule of the visit, as well as to deal with technical and administrative issues and to select the members of the delegation. The experience exchange visit to Rotterdam took place from 15.03.2011. till 17.03.2011. (e-mail of 06/01/2011). This caused the shift in the time schedule concerning Action 2.

All other activities, stated in the Project Proposal were completed in accordance with planned time schedule.

#### **Problems encountered**

After launching the Project, a few deficiencies were detected; however, they were pointed out at the Inception Report (Paragraph 1.3.) and eliminated. Apart from that, the Project team did not encounter any significant problems that could hinder the implementation of the Project. All the activities and stages followed the plans of the Project and met the deadlines (Mid term report Annex 2 An updated Project timetable).

### **3. INTRODUCTION**

Part of Riga's territory constantly suffers from flood, and it causes considerable economic and moral damages to the owners of flooding areas. Furthermore, due to the climate change caused by global warming, the risks of flood and coastal erosion in the territory of Riga City are still growing. Therefore, in-depth studies were necessary for the Riga City to be prepared for climate change and to reduce their negative impact on the City territory.

In 2010 City Development Department of Riga City Council started implementing the Project "Integrated Strategy for Riga City to Adapt to the Hydrological Processes Intensified by Climate Change Phenomena". The Project is unique for both Latvia and the Baltic States, as no similar project has been implemented in the region so far. It is expected that its results will serve as an example for many local governments in Latvia and municipalities of the neighbouring countries, whose territories are subjected to flood risks.

The overall long-term objective of the Project was to timely identify the hydrologic factors that could adversely affect the residents of Riga, economy, nature conservation and cultural heritage in the future in connection with climate change, and either to prevent or to reduce these effects.

The other objectives were to raise the awareness of municipality's officials, entrepreneurs, school children, students and general public about the causes of climate change, its impacts and practical measures to be taken by different level and sector stakeholders, and by any citizen to reduce the climate change causes and to mitigate climate change impact and to help other municipalities in Latvia and elsewhere in Europe with similar environmental and other conditions, facing the same challenges to adapt their planning systems to these new circumstances.

The most significant Project activities and expected results were:

- Detailed analysis and assessment of the existing situation and future flooding trends for Riga City carried out and published in a comprehensive Report on Hydrological processes affecting the territory of Riga City and their current and potential (linked to climate change phenomena) impacts;
- Developed Flood Risk Management Plan for Riga City. The Plan includes specific flood risk prevention measures and considers different options to attract funding for risk prevention measures. Possible funding opportunities for implementation of Flood Risk Management Plan are aggregated in the Resource Mobilization Plan;
- The best practices and approaches in identification, planning and management of flood risk zones in four European cities studied and used in the Project;
- Developed Methodological Guidelines for Territorial Planning in flood risk zones. Therefore, increased knowledge in territorial planning of territories with different flood risks for Riga City Council officials and planners, as well as for representatives from other municipalities due to development of guidelines for territorial planning;
- Public information carried out. The public informed about the Project activities, and the public opinion also listened to.
- All Project activities implemented, expected Project results and objectives fully reached.

Thus, we can say that with implementation of this Project all stakeholders and residents of Riga City as well as other municipalities will benefit from the results of this Project. Appropriate use of Project results will help to protect the territory of Riga from flood and will serve as a good example also outside the country, especially in other Baltic states.

# 4. ADMINISTRATIVE PART

#### 4.1 Description of the management system

Project Management Team was responsible for the management of the Project. It consisted of a project manager, a project assistant and an accountant. However, during the time period from Project Inception Report till the Final Report the Project team was expanded in accordance with the Project Proposal. So, by the end of the Project, the Project team consisted of a project manager, a project assistant, an accountant, a PR specialist, an environmental specialist, a territorial planner, a policy formulation expert, a planning consultant, a fund raising consultant and a translator. All the employees were very well-informed about their main duties and were responsible for the results.

The direct project management was carried out by the Project manager:

- The Project manager planned, organized and managed the work of the Project team according to the approved Project Management Plan;
- Supervised the implementation of Project activities according to the Project proposal, Common Provisions and other related documents;
- Revised and supervised the funding of the Project, including the calculations of the costs of activities, funded by Project budget;
- Monitored and provided reports about the Project's progress;
- Conducted and supervised Project's team meetings.

Project assistant:

- Collected quantitative and qualitative data that confirmed the work accomplished in the course of Project;
- Organized Project meetings and prepared documentation for the meetings within the framework of the Project;
- Ensured filing, systematisation and record keeping of the Project's documentation.

#### Accountant:

- Ensured the Project's finance management in compliance with LIFE+ programme regulations;
- Prepared overviews of the Project's cash flow and submitted proposals for budget modifications to Project management;
- Ensured procurements necessary for the Project.

#### Public Relations specialist:

- Prepared, conducted seminars and publicity events according to the Publicity Plan;
- Organized the preparation and distribution of Project's press releases and informative materials;
- Organized the development and improvement of the Project's homepage on the Internet.

#### Environmental specialist:

- Prepared the final report about the impact of hydrological processes on the territory of Riga City and its sites;
- Participated in the development of Flood Risk Management plan for Riga City.

Territorial planner:

- Prepared Methodological Guidelines and recommendations for territory planning documentation in accordance with determined territories potentially subjected to flood risk in the municipality;
- Participated in the development of the Flood Risk Management Plan for Riga City.

Policy formulation expert:

• Developed the Flood Risk Management Plan for Riga City in cooperation with the Project team.

Planning consultant:

- Participated in the development of Methodological Guidelines
- Participated in the development of Flood Risk Management Plan for Riga City.
- Participated in the Strategic Environmental Impact Assessment procedure for the Flood Risk Management Plan.

Fund raising consultant:

- Reviewed and commented the cost-benefit analysis.
- Participated in the development of Flood Risk Management Plan for Riga City.

Translator:

• Provided written translations of the necessary Project information in English.

The structure of Project management (Figure No.01) was developed in accordance with the Project Proposal (Action 6). The Project team was created by signing work contracts between the Department and employees of the Project.

Figure No.1.



To implement the Project a Department work group was formed. Its aim was to help with the implementation of the Project's strategical aims and tasks in the field of city environment. This work group consisted of the employees of the Project and specialists from different structural units of the Department.

To create the Methodological Guidelines for territorial planning in territories subjected to flood risk a work group was also formed. Its main aim was to develop qualitative methodological

guidelines for territorial planning in territories subjected to flood risk. This work group consisted of the Project and Department specialists as well as representatives from RCC Housing and Environment Department and MoERD. The Project's supervision function was performed by the Project manager and the PSC, which was the most important implementor of the Project supervision. It was chaired by acting deputy Department director Gvido Princis. Afterwards Gvido Princis changed his position, therefore from 18<sup>th</sup> of June 2012 Guntars Ruskuls (Deputy Head of Strategic Management Board, Head of Strategic Planning division) was announced as the PSC director and was PSC director till the end of the Project.

#### 4.2 Evaluation of the management system

We consider that the implementation process of the Project has been very successful and in accordance with the Project Proposal, since, evaluating the envisaged activities of the Project, all the aims set were accomplished and all activities were completed in accordance with the Project's plans and time schedule, so it was not necessary to extend the end date of the Project.

We evaluate the Project management system as very good, because the main aim as well as the other goals of the Project were accomplished. The existing management system worked excellently due to the fact that the Project time schedule was strictly followed. One of the key factors to successful Project implementation might have been the fact that there were no Project partners involved. Since this Project had subcontractors who complied with all the contract terms, no problems were caused regarding the implementation of the Project. During the Project implementation, the Project team faced different difficulties which were found in the Project Proposal; however, the significance of these problems and their scope did not affect Project's initial goals and scope of the actions (please see Inception report). Later the Project team did not face any major problems that might have affected the course of the Project.

If we evaluate management system regarding the effectiveness of dissemination activities, we can say that the Project manager fully trusted the Project's PR specialist who is very experienced in this field and who ensured the publicity and enhanced public understanding during the course of the Project. The Presentation of the Project to mass media was according to the highest standarts reaching high publicity results.

The main aim of the Project future-oriented and now, when the Project is complete, it will be possible to make the necessary improvements to reduce the impact of hydrological processes on the territory of Riga and its inhabitants, to adjust the economy of Riga, society and natural heritage to the consequences caused by climate change and reduce its effects. Riga municipality has already ratified Flood Risk Management Plan and Methodological Guidelines for Territorial Planning in flooding territories, thus demonstrating its political stand in this matter. It is most likely that an action plan for flood threat prevention will be produced in the future, based on the results of Flood Risk Management Plan for Riga City. Subsequently, Projects will be written in order to raise funding for flood prevention measures. However, one of the main threats in future could be the shortage of funding for flood prevention measures. We regard the shortage of funding to be the main threat at the moment, nevertheless, the desire and stand to protect the territory of Riga from flood is unequivocal.

### **5. TECHNICAL PART**

On January 5, 2010, a Grant Agreement between RCC and EC was signed about the implementation of the Project "Integrated Strategy for Riga City to Adapt to the Hydrological Processes Intensified by Climate Change Phenomena". The Department implemented the Project in the period from the February 15, 2010, until November 30, 2012. The following tasks and actions were accomplished and caried out in compliance with the Project Proposal.

#### 5.1 Task by task - description

# Action 1 - Detailed studies of hydrological processes affecting territory of Riga City and their current and potential impacts. (Implementation time of the action 22/02/2010 – 31/01/2011)

Summary of Action 1							
Date	Activity						
February - March 2010	Research about climate change and hydrological processes in Riga City.						
	(See Inception Report)						
16.03.2010	Meeting and consultations with the leading scientists.						
	(See Inception Report)						
17.03.2010	Meeting with the Republic of Latvia Environmental Ministry's						
	Environmental Protection Department's Water Resource Division						
	Manager Tatjana Jansone. (See Inception Report)						
28.04.2010	PSC Meeting No. 1 (See Inception Report)						
18.05.2010	Project work group meeting No.1 (See Inception Report)						
April - May 2010	Implementation of the procurement "The Development of Riga City						
	Territory 3D Relief Model". (See Inception Report)						
May - September 2010	Implementation of the procurement "Study of Hydrological Processes						
	Connected with Climate Changes and Forecasting in Riga City and						
	Development of Recommendations for Protection of Riga City".						
<b>2</b> 0.00 <b>2</b> 010	(See Inception Report)						
20.08.2010	Project work group meeting No. 2						
02.09.2010	PSC Meeting No. 2						
October - November	Work on gathering information and preparation of a comprehensive report						
2010	project "Hydrological Processes Affecting Territory of Riga City and						
	Their Current and Potential (linked to climate change phenomena)						
26112010	Impacts".						
26.11.2010	The presentation of the report project (Intermediate results) of the						
	research "Hydrological Processes Affecting Territory of Riga City and						
	Ineir Current and Potential (linked to climate change phenomena)						
20.11.2010	Impacts in a discussion seminar.						
29.11.2010	Public discussion of the Project report in the premises of the City						
20.11.2010	Development Department.						
December 2010	Fisc Meeting No. 5						
December, 2010	Summary and incorporation of the results of public discussion in the final version of the report "Hydrological Processes Affecting Territory of Pige						
	City and Their Current and Potential (linked to alimate change)						
	city and then current and rotential (linked to climate change phonomona) Impacts"						
	phenomena) impacts .						

January, 2011	The last corrections to the final report.								
26.01.2011	Project work group meeting No. 3								
28.01.2011	PSC Meeting No. 4								
	The report "Hydrological Processes Affecting Territory of Riga City and								
	Their Current and Potential (linked to climate change phenomena)								
	Impacts" approved by the PSC.								

At the initial stage of this action in February and March, 2010, related research about climate change and hydrological processes in Riga City, as well as policy planning documents of different levels and various regulations, were gathered and studied. Meetings and consultations were held with scientists, with representatives of MoERD and other experts, and a detailed action plan for successful accomplishment of Action 1 aims was prepared and approved by the PSC.

As flooding risks are directly linked with the relief, the first step was qualitative relief data acquisition and implementation of the procurement "The Development of Riga City Territory 3D Relief Model", which had already been described in the Inception Report. A contract was signed with "METRUM" Ltd. that won the open competition for work completion. Up-to-date 3D relief data of the territory of Riga were necessary for further research, including determining territories subjected to flood risk and using hydrodynamic computer modelling. In the course of work additional relief data from certain smaller territories were needed. As they had not been scanned in the first time, another agreement Nr.DAE-10-17-lī was signed with "METRUM" Ltd. for additional data acquisition.

The next big step to reach Action 1 objectives was the implementation of the procurement "Study of Hydrological Processes Connected with Climate Changes and Forecasting in Riga City and Development of Recommendations for Protection of Riga City". It started with making regulations for the open competition. After the ratification of the regulations with the Department order of July 14, 2010, Nr.DA-10-64-rs by the established procurement commission, the procurement was announced on July 19, 2010 (on July 28, 2010 amendments were made to the regulations), and two offers were received. To assess the proposals objectively and professionally an agreement Nr.DAE-10-18-lī with computer modelling expert Dr. phys. Juris Mikelsons was signed.

Based on the act of August 31, 2010, passed by the procurement committee, on September 20, the contract Nr.DAE-10-20-lī was signed with "Centre of Processes' Analysis and Research" Ltd.

The results of the first stage of the procurement were received on November 12, 2010, based on which, a comprehensive report draft "Hydrological Processes Affecting Territory of Riga City and Their Current and Potential (linked to climate change phenomena) Impacts" was prepared. The work on the development of recommendations for the protection of Riga City territory, necessary for reaching the objectives of Action 3, continued within the framework of the above mentioned procurement until June 2011.

On November 26, 2010, the report draft "Hydrological Processes Affecting Territory of Riga City and Their Current and Potential (linked to climate change phenomena) Impacts" was presented in the seminar in Riga City Hall (See Mid-term report Annex 10 Participant registration page). More than 60 participants took part in the seminar. On November 29, 2010, a public discussion of the draft report was held in the premises of City Development Department (See Mid-term report Annex 11 Participant registration page). The general concept of problems generated by climate change was introduced in this seminar and public discussion. Until the end of December, 2010, the results of the public discussion were summarized and incorporated in the final version of the report "Hydrological Processes Affecting Territory of Riga City and Their Current and Potential (linked to climate change phenomena) Impacts".

In January, 2011, the last corrections were made to the final report (See Mid-term report Annex 3, 4 Deliverable Reports). The report was prepared for ratification and presentation to the PSC.

On January 28, 2011, the report "Hydrological Processes Affecting Territory of Riga City and Their Current and Potential (linked to climate change phenomena) Impacts" was approved by the PSC.

In the course of Action 1 implementation regular Department project work group meetings were organized for informative and consultative purposes (May 18, 2010; August 20, 2010; January 26, 2011). Other work group meetings were organized for informative and consultative purposes as well (April 26, 2011; December 7, 2011; March 1, 2012; May 31, 2012).

No problems and delays were identified with the implementation of this action and it was finalised in due time.

Table 2 below shows summarised actual progress of the Project Action 1 where the vertical line represents the current stage of the Project.

A more detailed monthly overview of the Project actions/tasks can be found in the Mid-term report Annex 2.

	[	St	art date	e		Inc	ception	report	Μ	lid-te	rm	stage	Final	date		
Actions/Tasks				20	10	/	2011				2012				2013	
		1	Q 20	Q	3Q	/4Q	1Q	2Q	3Q	40	Q	1Q	2Q	3Q	4Q	\1Q
General Project Schedule	Proposed in the application	•								•						•
	Actual			D												
Action 1 – detailed studies of hydrological processes about current and potential impact of climate changes in the Riga City territory	Proposed in the application															
	Actual															

Table No.2

the table 2 shows that tasks of Action 1 met all the requirements according to the Project Proposal.

Name of the Deliverable	Code of the action	Inception report (01.09.2010.)	Mid-term report (01.12.2011.)	Final report (28.02.2013)	Planned deadline
Report on Hydrological processes affecting territory of Riga City and their current and potential (linked with climate change phenomena) impacts	1	Not started	Finished 28.01.2011	Finished 28.01.2011	31.01.2011

Action 2 - Acquaintance with experience and best practices in identification, planning and management of flood risk zones in 3 European cities having similar conditions and facing similar challenges as Riga. (Implementation time of the action 01/05/2010 - 30/11/2010)

Summary of Action 2								
Date	Activity							
May – November 2010	Searching and identification of the necessary contacts for experience							
	exchange business trips to Antwerp, Rotterdam and Hamburg cities.							
	(See Inception Report)							
08.11.2010-12.11.2010	Experience exchange visit to Antwerp and the Hague.							
14.11.2010-17.11.2010	Experience exchange visit to Hamburg.							
30.11.2010	PSC Meeting No. 3							
	Preparation of a comprehensive report "The Best Practices and							
	Experience in Identification, Planning and Management of Flood Risk							
	Zones in 3 European Cities", approved by the PSC.							
22.12.2010-17.02.2011	E-mail correspondence to agree on the date and schedule of the Rotterdam							
	visit.							
28.01.2011	PSC Meeting No. 4							
15.03.2011-17.03.2011	Experience exchange visit to Rotterdam.							
15.06.2011	PSC Meeting No. 5							
	Report "About the Best Practices and Experience in Identification,							
	Planning and Management of Flood Risk Zones in Rotterdam" approved							
	by the PSC.							

All the Tasks of Action 2 were successfully completed and its aim was reached.

Even though this action was carried out in November, 2010, the preliminary works had been done already in May, 2010. Moreover, in March, 2011, an additional visit to Rotterdam was organized (letter from EC on February 1, 2011 about the acceptance of city change).

The first steps for the implementation of Action 2 were connected with establishing contacts and relationships necessary for organizing successful experience exchange trips to the cities planned in the Project Proposal – Antwerp (Belgium), Rotterdam (the Netherlands) and Hamburg (Germany). E-mails, providing information about the Project and expressing interest in cooperation and experience exchange were prepared and sent (e-mails of 19/05/2010).

Unfortunately, the city of Rotterdam was not interested in cooperation (e-mail of 12/07/2010), so the negotiations were began with the aim to agree on the visit with two other cities in the Netherlands – Dordrecht and the Hague. Finally, the Project team came to an agreement with the representatives of the Hague municipality (e-mail of 20/08/2010).

After receiving confirmations from the representatives of addressed municipalities, correspondence was began to agree on the dates and agendas of the visits. It was followed by dealing with technical and administrative issues, as well as selection of delegation members. All the administrative and technical issues were sorted out and the experience exchange visits could be successfully carried out.

One of the experience exchange visits was to Antwerp and the Hague -5 days from 08.11.2010. to 12.11.2010., while the other destination of the visit was Hamburg- 4 days from 14.11.2010. to 17.11.2010.

Seven people participated in both experience exchange visits – three repesentatives of the Project (the Project manager, Project territorial planner, Project environmental expert) and four people outside the Project – two representatives from the Department and two RCC officials, as it was planned in the Project Proposal. Although four members of the delegation (two

representatives from the Department and two RCC officials) were not directly employed by the Project, it was crucial to increase their understanding of the Project, since the Department and RCC will be the structural units ensuring the sustainability of the Project's results and taking over the ownership of the results.

To ensure comprehensive exchange of experience and information, the visits were organized after the completion of the draft report "Hydrological Processes Affecting Territory of Riga City and Their Current and Potential (linked to climate change phenomena) Impacts", which was prepared within the framework of Action 1.

the delegation obtained extremely useful information during these visits and became acquainted with the best practices in flood risk management in other European cities, and they also established important contacts with the state and municipality representatives in charge, as well as other specialists from other areas, who could provide additional information and consultation in the course of the Project implementation, if such necessary arose. For instance, in the Hague one expert suggested to visit Rotterdam, despite the previous refusal to cooperate, and what is more, offered his support in organizing this visit (Wouter Bijman, e-mail of 22/12/2010).

After returning from these experience exchange visits, a comprehensive report on "The Best Practices and Experience in Identification, Planning and Management of Flood Risk Zones in 3 European Cities" was prepared (See Mid-term report Annex 5, 6, 7 Deliverable reports in English and Latvian languages). Meeting the requirements stated in the Project Proposal, the report was approved by the PSC on November 30, 2010.

In parallel, the possibility to organize an experience exchange visit to the City of Rotterdam was considered within the planned Project budget of Action 2. Taking into consideration the suggestion made by experts in the Hague and their offer to help with the organization of the visit, the incomplete information obtained during the visit in the Hague, the undeniably similar geographical location of Riga and Rotterdam, the problem of flood and the role of the harbour in the development of the city, as well as the fact that the visit to Rotterdam was planned already in the Project Proposal, the decision was taken to organize the visit. The decision was followed by e-mail correspondence to agree on the date and schedule of the visit, as well as to deal with technical and administrative issues and to select the members of the delegation (e-mails starting from 22/12/2010 till 17/02/2011). The experience exchange visit to Rotterdam lasted 3 days from 15/03/2011 till 17/03/2011. During the visit the delegation obtained valuable additional information about flood risk management not only in Rotterdam and its surroundings, but also throughout the Netherlands (See Mid-term report Annex 5, 6, 7 Deliverable reports in English and Latvian languages).

Similar to previous visits, seven people participated in the experience exchange visit to Rotterdam – three repesentatives of the Project (the Project manager, Project environmental expert, Project policy formulation expert) and four people outside the Project – two representatives from the Department and two RCC officials.

After returning from the visit, the newly gained information was summarized in an additional report "About the Best Practices and Experience in Identification, Planning and Management of Flood Risk Zones in Rotterdam", which was approved by the PSC on June 15, 2011 (See Midterm report Annex 7 Additional Report).

The experience exchange visits, organized within the framework of the Project were successful – the obtained information and practice of other countries were used not only in the course of the Project implementation, while working on the next actions, but also in organizing the work in the Department, planning the development of the city. These experience exchange visits contributed to a better understanding of climate change and flood risk management issues among the project's employees and the Department's and RCC officials.

Table 3 below shows summarised actual progress of the Project Action 2 where the vertical line represents the current stage of the Project.

A more detailed monthly overview of the Project actions/tasks can be found in the Mid-term report Annex 2.



Table No.3

Table 3 shows that Action 2 did not meet the set deadlines but it had its justification and technically all the requirements were met according to the Project Proposal.

Action 2 lasted till November 30, 2010, according to the Project Proposal. After returning from the experience exchange visits in Antwerp, the Hague and Hamburg a comprehensive report "About the Best Practices and Experience in Identification, Planning and Management of Flood Risk Zones in three European Cities" was prepared. In compliance with the Project Proposal requirements, it was approved by the PSC (See Mid-term report Annex 5, 6, 7 Reports of experience exchange visits). The Hague was visited, because the representatives of Rotterdam City refused to host the Project delegation (e-mail of 12/07/2010). The change of the city was approved by the EC at the Project Inception Report. Taking into consideration the suggestion made by experts in the Hague and their offer to help with the organization of the visit, a possibility to organize an additional experience exchange visit to Rotterdam was considered due to the undeniably similar geographical location of Riga and Rotterdam, the problem of flood and the role of the harbour in the development of the city, as well as the fact that the visit to Rotterdam had already been planned in the Project Proposal, the decision was made to organize the visit. The decision was followed by e-mail correspondence to agree on the date and schedule of the visit, as well as to deal with technical and administrative issues and to select the members of the delegation. The experience exchange visit to Rotterdam took place from 15.03.2011. till 17.03.2011. (e-mail of 06/01/2011). This caused the shift in the time schedule concerning Action 2.

Name of the Deliverable	Code of the action	Inception report (01.09.2010.)	Mid-term report (01.12.2011.)	Final report (28.02.2013)	Planned deadline
Report on the knowledge acquired during the visits and on proposals to use them for development of Riga	2	Not started	Finished 30.11.2010 Additional report prepared 15.06.2011	Finished 30.11.2010 Additional report prepared 15.06.2011	30.11.2010

# Action 3 - Development of Flood Risk Management Plan for Riga City to adapt to the hydrological processes intensified by climate change phenomena and to mitigate their impact. (Implementation time of the action 01/02/2011 - 31/07/2012)

According to the Project Management Plan this action was implemented in the period from February 1, 2011, until July 31, 2012. Flood Risk Management plan was developed based on the results of the Project's Actions 1 and 2. Preparation of the draft version of Flood Risk Management plan was carried out and final version of Flood Risk Management plan was approved on June 19, 2012 at PSC meeting in RCC.

Counter-flood protection priorities were set and measures and activities, concerning all flood risk zones and the city, were identified. It was of great importance that the plan was acceptable not only from the point of view of city development, but also from the perspective of nature and culture-historical heritage preservation.

The alternatives for each flood risk zone were considered and the most appropriate measures for the protection and development of these zones were suggested. In addition, a cost- benefit analysis that helped to evaluate the cost effectiveness of each measure was performed.

An integral part of the Flood Risk Management plan was the preparation of recommendations about the necessary changes in the city planning documentation, for instance, the Development Plan for Riga City 2006 - 2018.

Funding possibilities were explored so that the implementation of Flood Risk Management Plan and Project results could be continued also after the end date of the Project. The results of this study were incorporated in the Resource Mobilization Plan (See Technical Annex 4 and 5) that provides information on all possible sources of funding, including municipality and state budget, various EU funds un programmes, loans, as well as state and PPP. The Resource Mobilization Plan presents three versions of funding models to implement the most significant actions identified in the Flood Risk Management Plan.

According to the requirements of EU and national legislation, the SEIA and a public discussion were organized (See Technical Annex 12 Participant registration page).

During the development of the Flood Risk Management plan a number of seminars for the interested parties and general public were organized. The results and conclusions of these seminars were included in the final version of the Plan. The draft of Flood Risk management plan was discussed in a one-day seminar for the interested parties and it was held in RCC premises. A part of this seminar was organized as a cooperation in groups where interested parties had the opportunity to present their comments and suggestions on the improvement of Flood Risk Management Plan (See Technical Annex 11 Participant registration page). Four public discussions were held in the premises of Riga Municipality in different parts of the city, in order to involve as many people as possible from all residential areas (See Technical Annex 12 Participant registration page).

General causes of climate change, consequences and measures and ways how to reduce the "carbon footprint" were discussed in the seminar on November 26, 2010 where the presentation of intermediate results of the research and a discussion seminar was held (Action 1) (Annex 10 of Mid-term report Participant registration page).

(World Wildlife fund has carried out a research on the so-called carbon footprint of Latvia – index that is becoming more and more topical all over the world along with the climate change. To maintain the equilibrium of climate in the world, carbon dioxide (CO2) emissions per person must not exceed 3.8 tons a year, however in Latvia they exceed the limit).

In the development of Flood Risk Management Plan essential technical information was prepared for the conceptual counter-flood engineer technical solutions, suggested in the research. Cost-benefit analysis was carried out, Resource Mobilization Plan was developed and SEIA was carried out, as well as seminars and discussions were organized. For successful implementation of Action 3 a policy formulation expert joined the Project team. Due to the fact that the Flood

Risk Management Plan was prepared based on the results of Actions 1 and 2, and one of the main implementors of Action 3 was Project territorial planner, who started work on August 2, 2010, a more detailed work plan, taking into account also the recommendations from Project territorial planner, was prepared until January 15, 2011 as it was proposed in the Inception Report (Annex 1, 2 An updated Project timetable and sections of Management plan). To carry out cost-benefit analysis and SEIA, the procurements were made.

The Flood Risk Management plan for Riga City is available also for anyone interested outside Latvia, it is published on the Project homepage <u>http://www.rigapretpludiem.lv/eng/project-documents/</u> and were presented in the final conference of the Project, thus ensuring its value also at the level of EU.

Flood Risk Management plan for Riga City to adapt to the hydrological processes intensified by the climate change phenomena and to mitigate their impact, including funding opportunities for its implementation, was approved by the Project Steering Committee on June 19, 2012 according to the Project Proposal and later by City Development Committee. Flood Risk Management Plan for Riga City was ratified in the RCC meeting on November 20, 2012 (See Technical Annex 14), although it was not intended in the project proposal that Flood Risk Management plan must be ratified by RCC.

No problems and delays were identified with the implementation of this action and it was finalised in due time.

Table 4 below shows summarised actual progress of the Project Action 3 where the vertical line represents the current stage of the Project.

A more detailed monthly overview of the Project actions/tasks can be found in the Mid-term report Annex 2.

		Start	date		Inc	ception	report	M	id-term	stage	Final	date		
Actions/Tasks			2	010	/		20	11			20	12		2013
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	\1Q
General Project Schedule	Proposed in the application		4						•					•
	Actual		•											
Action 3 – development of Flood Risk Management Plan for Riga City	Proposed in the application													
reisk management i fan for Riga City	Actual													

Table No.4

Table 4 shows that tasks of Action 3 met all the requirements and deadlines according to the Project Proposal.

Name of the Deliverable	Code of the action	Inception report (01.09.2010.)	Mid-term report (01.12.2011.)	Final report (28.02.2013)	Planned deadline
Flood risk Management Plan for Riga City including funding opportunities for its implementation	3	Not started	In progress	Finished 19.06.2012	31.07.2012

Resource Mobilization					
Plan for implementation	3	Not started	In progress	Finished	31 07 2012
of Flood Risk	5	Not started	in progress	19.06.2012	51.07.2012
Management Plan					

# Action 4 - Development of Methodological Guidelines for Territorial Planning of Different Flood Risk Zones. (Implementation time of the action 01/02/2011 – 31/07/2012)

According to the Project Management Plan this action was carried out in the period from February 1, 2011, until July 31, 2012. Methodological Guidelines for Territorial Planning of different flood risk zones (hereinafter referred to as the Guidelines) were approved on June 19, 2012 at PSC meeting in RCC. Guidelines are used for Riga City and are available to MoERD (based on Cabinet of Ministers order No. 676 "About MoRDLG liquidation" the functions of LR The Ministry of Regional Development and Local Government were taken over by Ministry of Environment and a new institution was established – LR MoERD) and municipalities, especially those, encountering similar problems, for instance, Carnikava, Mersrags, Roja, Kolka and others. MoERD support is crucial in order to ensure sustainability of the Guidelines. It was important that in the PSC a representative of Association of Latvian territorial planners was delegated; that helped to ensure professional communication about the topicality of the issue among territorial planners.

Such guidelines have never before been developed in the Baltic States, therefore they are of outstanding value and identify the most important steps for sustainable development of the territory and planning in flooding territories and on waterfronts The guidelines provide basic principles on how to start planning on waterfronts or in flooding territories, in order to achieve balanced development, by creating safe, organized and aesthetical environment so that both - the people and the territory - would benefit from it. Please see summary of Methodological Guidelines in Technical Annex 6 of this document.

At the beginning of the Project Project management plan and Project timetable were not so detailed about Action 4, therefore a more detailed plan, taking into account also the recommendations of the Project territorial planner, was prepared until the January 15, 2011 as it was proposed in Inception report (Annex 1, 2 of Mid-term report An updated sections of Project management plan and Project timetable).

In the development of the Guidelines the Project team used the experience, gained during experience exchange visits abroad that were part of Action 2.

The Guidelines are available also for anyone interested outside Latvia, they are published on the Project homepage <u>http://www.rigapretpludiem.lv/eng/project-documents/</u> and were presented in the final conference of the Project, thus ensuring its value also at the level of EU.

During the development of the methodological guidelines four work group meetings with experts and territorial planners were held and the results/conclusions were included in the final version of the Guidelines. Also there was a continuous e-mail correspondence about the guideline topics and necessary changes and improvements. The direct implementor of Action 4 was the Project territorial planner, who started work on August 2, 2010 and completed her work on August 31, 2012. To improve these guidelines the Project territorial planner worked in cooperation with the Project planning consultant.

Afterwards the Guidelines were presented in the seminar to the stakeholders and experts from other municipalities. Issues regarding the development of the guidelines were discussed and reccommendations were given. The results/conclusions were included in the final version of the Guidelines. The training seminar was provided to Riga City Council experts and other experts

from different municipalities of Latvia: Jurmala, Adazi, Saulkrasti, Kandava, Ogre, Garkalne, Babite, Tukums, Gulbene, Carnikava.

The guidelines were approved by the Project Steering Committee according to the Project Proposal and later by City Development Committee. Methodological Guidelines for Territorial Planning of Different Flood Risk Zones were ratified in the RCC meeting on Novemper 20, 2012. (See Technical Annex 15), although it was not intended in the project proposal that Methodological Guidelines must be ratified by RCC.

No problems and delays were identified with the implementation of this action and it was finalised in due time.

Table 5 below shows summarised actual progress of the Project Action 4 where the vertical line represents the current stage of the Project.

A more detailed monthly overview of the Project actions/tasks can be found in the Mid-term report Annex 2.

	[	Start	date		Inc	ception	report	Mic	l-term	stage	Final	date		
Actions/Tasks			20	)10	/		201	1			20	12		2013
		1Q	2Q	30⁄	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	\1Q
General Project Schedule	Proposed in the application	•	•						•					•
Action 4 – development of Methodological Guidelines for Territorial Planning in Flooding Territories	Proposed in the application Actual													

Table No.5

Table 5 shows that tasks of Action 4 met all the requirements and deadlines in accordance with the Project Proposal.

Name of the Deliverable	Code of the action	Inception report (01.09.2010.)	Mid-term report (01.12.2011.)	Final report (28.02.2013)	Planned deadline
Methodological guidelines for territorial planning of different flood risk zones in Riga City	4	Not started	In progress	Finished 19.06.2012	31.07.2012

Action 5 – Publicity, Awareness Rising and Dissemination of Project Results are described in a separate chapter (Chapter 6.4). (Implementation time of the action 15/03/2010 – 30/11/2012)

Action 6 – Project Management is described with in the Administrative part (Chapter 5). (Implementation time of the action 15/02/2010 – 30/11/2012)

#### Action 7 – Project Monitoring. (Implementation time of the action 15/02/2010 – 30/11/2012)

The function of the Project supervision was carried out by the Project manager and PSC. The PSC was the main implementor of the Project supervison. It was led by the acting deputy director of the Department Gvido Princis till June 17, 2012. Afterwards Gvido Princis changed his position, therefore from June 18, 2012, Guntars Ruskuls (Deputy Head of Strategic Management Board, Head of Strategic Planning division) was announced the PSC director. See table below.

PSC director:		
G. Ruskuls	_	Deputy Head of Strategic Management Board, Head of
		Strategic Planning division RCC City Development
		Department
<b>PSC Committee members:</b>		
J. Radzevics	—	RCC executive director
A.Klavins	-	RCC Dwelling and Environmental Department's
		Environmental Management Chief, Deputy Director
I.Urtane	_	LR MoERD Spatial Planning Department's Director
E.Kalnina	_	Vice-president of the non-governmental organization
		"Environmental Protection Club"
Z.Varts	_	Representative of the society "Latvian Territorial
		Planning Association"
PSC secretary:		
M. Krumins	_	RCC City Development Department LIFE+ Project
		assistant

PSC consisted of representatives from the administration - RCC executive director Juris Radzevics, RCC Dwelling and Environmental Department's Environmental Management Chief, deputy director Askolds Klavins, LR MoERD Spatial Planning Department's director Inguna Urtane, vice-president of the non-governmental organization "Environmental Protection Club" Elita Klavina and representative of the society "Latvian Territorial Planning Association" Zintis Varts.

PSC meetings were organized when there was a need, on the average, once in three months, where the work accomplished during the Project was presented. Since the Inception Report date 7 PSC meetings have taken place: (April 28, 2010; September 2, 2010; November 30, 2010; January 28, 2011; June 15, 2011; December 16, 2011; June 19, 2012).

Between the meetings of the PSC the function of the Project supervision till the June 17, 2012 was performed by acting deputy director of the Department Gvido Princis, but from June 18, 2012 by Deputy Head of Strategic Management Board, Head of Strategic planning division Guntars Ruskuls.

On May 16 and November 16, 2011, meetings were held with the Project Monitoring team representative, in order to discuss the Project implementation stage and development. Last meeting with the Project Monitoring team representative was held on December 5, 2012, in order to discuss the Project Final report.

Alongside the Department work group for the Project development, whose aim was to help to implement the strategic aims and tasks in the field of city environment defined in the Project, a work group was established for the development of Methodological Guidelines for territorial planning in flooding territories Their main objective was to develop qualitative Metodological Guidelines for Territorial Planning in flooding territories. This work group consisted of Project and Department specialists as well as representatives of RCC Dwelling and Environmental Department and MoERD.

Both work groups participated in the planned activities, events and meetings of the Project, submitted proposals, participated in experience exchange events and ensured the coordination of the work of the Department's structural units involved in the Project development.

Specialists from the Department's Board of Economics and Urban Planning worked there. They ensured that the knowledge gained during the Project could be used in tackling Riga City development issues, as well as in increasing the Department officials' understanding of the climate change and flood risk management.

For a clearer overview of the Project activities a Management Plan time schedule was prepared at the beginning of the Project and was sent together with the Inception report. As it was previously foreseen it was ammended until 15/01/2011 with more specific tasks for Actions 3 and 4 (Annex 2 of Mid term report An updated Project timetable).

No problems and delays were identified with the implementation of this action and it was finalised in due time.

	PSC meetings held:							
28.04.2010	PSC Meeting No. 1 (See Inception Report)							
02.09.2010	PSC Meeting No. 2 (See Inception Report)							
30.11.2010	PSC Meeting No. 3 (See Mid-term Report)							
28.01.2011	PSC Meeting No. 4 (See Mid-term Report)							
15.06.2011	PSC Meeting No. 5 (See Mid-term Report)							
16.12.2011	PSC Meeting No. 6							
19.06.2012	PSC Meeting No. 7							
	Monitoring Team meetings held:							
16.05.2011	Meeting with monitoring team representative (See Inception Report)							
16.11.2011	Meeting with monitoring team representative							
11.12.2012	Meeting with monitoring team representative							

#### **MILESTONES OF THE PROJECT**

Name of the Milestone	Code of the action	Inception report (01.09.2010.)	Mid-term report (01.12.2011.)	Final report (28.02.2013)	Planned Deadline
Project team established and operational	6	Finished 15.03.2010	Finished 15.03.2010	Finished 15.03.2010	15.03.2010
Project Publicity Plan and Project Management Plan developed and approved by PSC	5, 6, 7	Finished 28.04.2010 Inception report (Annex 1, 2, 3)	Finished 28.04.2010 Inception report (Annex 1, 2, 3)	Finished 28.04.2010 Inception report (Annex 1, 2, 3)	31.05.2010
Project webpage developed and operational	5	- Information updated regularly 30.06.2010	- Information updated regularly 30.06.2010	- Information updated regularly 30.06.2010	30.06.2010

Experience and best practices in identification, planning and management of flood risk zones in 3 European cities acquired and Comprehensive report on this approved by the PSC	2	In progress	Finished 30.11.2010 Additional report prepared 15.06.2011 Mid-term report (Annex 5, 6, 7)	Finished 30.11.2010 Additional report prepared 15.06.2011 Mid-term report (Annex 5, 6, 7)	30.11.2010
Detailed studies of hydrological processes affecting territory of Riga City and their current and potential impacts performed and Report on Hydrological processes affecting territory of Riga City and their current and potential (linked with climate change phenomena) impacts approved by the PSC	1	In progress	Finished 28.01.2011 Mid-term report (Annex 4)	Finished 28.01.2011 Mid-term report (Annex 4)	31.01.2011
Flood Risk Management Plan for Riga City to adapt to the hydrological processes intensified by the climate change phenomena and to mitigate their impact including funding opportunities for its implementation prepared and approved by the PSC	3	Not started	In progress	Finished 19.06.2012 Final report (Technical Annex 2, 3)	31.07.2012
Methodological guidelines for territorial planning of different flood risk zones in Riga City prepared and approved by the PSC, territorial planners trained in use of these guidelines	4	Not started	In progress	Finished 19.06.2012 Final report (Technical Annex 6, 7)	31.07.2012
Measures of Project Publicity Plan implemented timely	5	In progress	In progress	Finished 30.11.2012	30.11.2012

	Project Work Group meetings held:
18.05.2010	Project Work Group meeting No. 1 (See Inception Report)
20.08.2010	Project Work Group meeting No. 2 (See Mid-term Report)
26.01.2011	Project Work Group meeting No. 3 (See Mid-term Report)
26.04.2011	Project Work Group meeting No. 4 (See Mid-term Report)
07.12.2011	Project Work Group meeting No. 5
01.03.2012	Project Work Group meeting No. 6
31.05.2012	Project Work Group meeting No. 7
Project	Work Group meetings for development of methodological guidelines held:
20.06.2011	Project Work Group meeting No. 1 (See Mid-term Report)
05.10.2011	Project Work Group meeting No. 2
31.01.2012	Project Work Group meeting No. 3
30.05.2012	Project Work Group meeting No. 4
	Project Research Competition Committee meetings held:
26.04.2011	Project Research Competition meeting No.1 (See Mid-term Report)
27.04.2012	Project Research Competition meeting No.2
	Other meetings held:
16.03.2010	Meeting and consultations with the leading scientists carrying out studies of
	climate changes and hydrological processes in the country. (See Inception
	<i>Report</i> )
17.03.2010	Meeting with the Republic of Latvia Environmental Ministry's Environmental
	Protection Department's Water Resource Division Manager Tatjana Jansone.
	(See Inception Report)
28.05.2010	Project Kick-off workshop. (See Inception Report)
26.11.2010	Presentation of Intermediate results of the research and a discussion seminar in
	Riga City Hall. (See Mid-term Report)
29.11.2010	Meeting with citizens and the presentation of intermediate results of the research
	(See Mid-term Report)
27.01.2011	Presentation of the Project to university students from France (University of
	Cergy – Pontoise/ France) (See Mid-term Report)
01.02.2011	Meetings with experts (See Mid-term Report)
08.02.2011	Meetings with experts (See Mid-term Report)
24.02.2011	Meeting with geography and environmental science teachers from Riga City
	comprehensive schools (See Mid-term Report)
16.06.2011	Presentation of final results and a seminar discussion (See Mid-term Report)
27.06.2011	Seminar for the participants of VASAB (Visions and Strategies around the
	Baltic Sea 2010) (See Mid-term Report)
13.09.2012	Meeting with LIFE+ Project "Inovative Solutions for Railway Noise
	Management" members.

#### 5.2 Evaluation

Methodology applied

This Project has achieved all the set objectives thanks to the proper management, right choice of methodology for implementation for project management and for content implementation.

Our Project proposal focused on realistic proposals, appropriate planning and management of flood risk territories at municipal level ensured sustainable management and planning. The whole planning system, development of Methodological guidelines and training of territory planners were innovative measure for all country and served as a good example even outside the country, especially in other Baltic states.

Successful implementation of the project was also due to its monitoring activities. Project monitoring was done by Project manager and Project Steering Committee, comprised of representatives from Riga City Council, officials from City Development Department, as well as a representative from The Ministry of Environmental Protection and Regional Development and representatives from public organizations.

That is why there was a low risk of weak involvement to ensure project sustainability. There was a visible and strong support of decision-makers and executives. In order to mitigate the risk of weak involvement regular meetings with decision makers and executives and project progress presentations to them were carried out (primary through the PSC and other means such as participation in the conferences, workshops).

All discussions, awareness raising measures for stakeholders and general public has linked together two topics – flood risk management in Riga City as a concrete case more or less familiar to most of stakeholders and inhabitants of Riga from one hand and climate changes as global phenomena that in the same time directly influence local circumstances on the other hand.

Importance and actuality of the project activities is proven through the number of participants in the workshops, work groups, discussions, which were organized during the project. Local stakeholders actively took part, discussed and suggested recommendations for future on future actions to be taken for the sustainable development.

This project was unique for both Latvia and the Baltic States, as no similar project hasn't been implemented in the region so far. Project results will serve as an example for many local municipalities in Latvia and municipalities of the neighbouring countries, territories of which are prone to flood risks.

- Results achieved against the objectives

The project methodology was efficient as the project objectives and results were achieved in due time, and the project has been completed successfully. Action indicators have been set correctly and helped to check the project progress. Results of each action have logically contributed to next actions and achievement of the most significant project activities and expected overall results:

Task	Foreseen in the	Achieved	Evaluation
	revised proposal		
1. Detailed studies	1. Detailed studies of	This objective was fully met and	All targets
of hydrological	hydrological	Detailed analysis and assessment	were fully
processes affecting	processes affecting	of the existing situation and future	met
territory of Riga	territory of Riga City	flooding trends for Riga City was	
City and their	and their current and	carried out and published in a	
current and	potential impacts.	comprehensive Report on	
potential impacts.		Hydrological processes affecting	
		the territory of Riga City and their	

		current and potential (linked to climate change phenomena) impacts	
Acquaintance with experience and best practices in identification, planning and management of flood risk zones in 3 European cities	Acquaintance with experience and best practices in identification, planning and management of flood risk zones in 3 European cities	Acquainted with the best practices and approaches in identification, planning and management of flood risk zones in 4 European cities studied and used in the Project.	All targets were fully met
Development of Flood Risk Management Plan for Riga City to adapt to the hydrological processes intensified by the climate change phenomena and to mitigate their impact.	Development of Flood Risk Management Plan for Riga City to adapt to the hydrological processes intensified by the climate change phenomena and to mitigate their impact.	Developed Flood Risk Management Plan for Riga City. The Plan includes specific flood risk prevention measures and considers different options to attract funding for risk prevention measures. Possible funding opportunities for implementation of Flood Risk Management Plan are aggregated in the Resource Mobilization Plan.	All targets were fully met
Development of Methodological guidelines for territorial planning of different flood risk zones.	Development of Methodological guidelines for territorial planning of different flood risk zones.	Developed Methodological Guidelines for Territorial Planning in flood risk zones. Therefore, increased knowledge in territorial planning of territories with different flood risks for Riga City Council officials and planners, as well as for representatives from other municipalities due to development of guidelines for territorial planning.	All targets were fully met
Publicity, awareness raising and dissemination of project results.	Publicity, awareness raising and dissemination of project results.	Public information was carried out. The public was informed about the Project activities. Also we listened to the public opinion.	All targets were fully met
Project management and monitoring	Project management and monitoring	All Project activities implemented, expected Project results and objectives fully reached.	All targets were fully met

#### 5.3 Analysis of long-term benefits

#### **5.3.1 Environmental benefits**

#### a) Direct / quantitative environmental benefits

By implementing this Project, the most significant environmental benefits could accrue from both main documents, prepared within the framework of the Project – Flood Risk Management Plan for Riga City and Methodological Guidelines for Territorial Planning in flooding territories.

To understand the environmental benefits of this Project, it is worthwhile to evaluate the possible impact of the so-called zero scenario (non-implementation of the developed planning document) on natural environment. It has to be taken into account that territories, subjected to flood risk, can be relatively divided into two groups:

• Nature territories or territories that have not been changed and have no construction, as well as protected nature territories and micro-reserves;

• Urbanized territories with an impeded infiltration of precipitation water, elevated ground, various types of construction, as well as territories that can be considered polluted or potentially polluted.

In the first case, the possible flood-induced harm to the environment cannot be considered serious, since the natural conditions in the given territories are closely linked to the preceding flooding episodes. What is more, future existence of the majority of specially protected nature territories located in Riga depends on their flooding. Regular flooding is more or less necessary also for a number of micro-reserves. It contributes to the protection of target species and biotopes.

All the protected nature territories located in Riga – nature park "Piejura" and nature reserves "Vecdaugava", "Kremeri" and "Jaunciems" are located in the direct vicinity of surface water objects or a number of surface water objects are included in their territories. During the preparation of Flood Risk Management Plan, the assessment included in IPCC report of Year 2007 was used for model calculations of flood levels. According to this assessment, taking into account A1B climate change scenario, the water level will rise with the average speed of 4.8 mm/year. It can be foreseen that in case of such relatively slow rise of average water level and the related rise of maximum flood level, the migration of their most significant elements (typical biotopes and protected species) upwards along the coast could take place in the existing natural territories, thus, taking over new territories and, possibly, losing a part from the existing ones, which, in this case, is a natural process.

In the second case, the situation is considerably more complex. Flood may cause indirect risk of environmental pollution, because if urbanized territories flood, the following pollutants may be spread in the environment:

• Substances that are stored to ensure technological processes, trade or transportation and reloading (for example, petrol stations, cargo handling terminals and others.);

• Substances that are used in the manufacturing process as raw material, lubricants and others or in auxiliary processes (boiler houses, production unit, factories and others);

• Substances found in ground waters or in the ground that, in case of flood, can surface and reach surface water bodies, including River Daugava, or in the form of a thin layer can be transported to other areas where they would precipitate, polluting other adjacent territories (from polluted or potentially polluted areas where the pollution of petroleum products or other pollutants have been found).

To prevent the spreading of pollution in the biogeochemical cycle (in the soil, surface and underground waters, and in the air), the polluted and potentially polluted territories should be well protected from flooding. In such situations non-implementation of flood prevention plan should be criticized from the perspective of environment and nature. It has to be taken into account that the likelihood of flooding significantly complicates the possible rehabilitation of polluted areas.

Non-implementation of the planning document in certain specific situations can also be criticized due to the possible impact on soil quality. If flood prevention and erosion prevention measures are not implemented, the erosion of the sea coast and banks of River Daugava in the territory of Riga will become more widespread, and will also intensify in the existing erosion sites.

#### b) Relevance for environmentally significant issues or policy areas

Flood Risk Management Plan was developed in compliance with the effective Riga City development planning document – Riga City Development Plan 2006 - 2018, that consists of three main connected documents:

- Development Programme of Riga 2006 2012;
- Plan of Riga City Territory 2006 2018;
- Long-term Development Strategy of Riga until 2025.

In the development of the Plan the recommendations for flood risk management provided on the Project FLOODsite homepage were taken into account where possible (*FLOODsite* is an integrated project in the Global Change and Ecosystems priority of the Sixth Framework Programme of the European Commission. The FLOODsite consortium includes 37 of Europe's leading institutes and universities and 250 independent scientists who did research between 2004-2009 and provided recommendations for flood risk assessment and management in European Union countries according to the EU Flood Directive. The information about the Project is available at <u>http://www.floodsite.net</u> ). *FLOODsite* supports the implementation of European Commission Flood Directive (*European Parliament and Council Directive* 2007/60/EK (October 23, 2007) on flood risk assessment and management) in European Union countries, as well as shares experience in flood risk management in European cities that have similar issues to those of Riga.

In compliance with the requirements of legislation, both the Flood Risk Management Plan project and Strategic Environmental Impact Assessment (SEIA) Environment report project were revised and commented on by Environment State Bureau (ESB). In accordance with the decision of ESB, both above-mentioned projects were sent to the responsible government and municipality institutions – Ministry of Environmental Protection and Regional Development, Ministry of Interior, State Environmental Service Lielriga Regional Environmental Board, Nature Conservation Agency, corresponding structural unit of Health Inspectorate, Riga Planning Region Administration, State Fire and Rescue Service, Freeport of Riga Authority, State Inspection for Heritage Protection, as well as to the Environmental Consulting Council, which represents public organizations.

#### 5.3.2 Long-term sustainability

#### a) Long term / qualitative environmental benefits

The project results contribute to long-term environmental sustainability in the following way:

- three-dimensional relief model of Riga City territory was developed;
- a study of hydrological processes was carried out, analyzing and forecasting the current and potential impact of flood, wind surges, coastal erosion, fluctuations of ground water levels, intense precipitation, and the technical condition and capacity of rainwater drainage systems on Riga City territory;

- with the help of hydrological and hydro dynamic modeling the boundaries of flooding territories in Riga City were determined for current situation and several climate change scenarios until the end of the century;
- recommendations for engineer technical solutions for several territory protection alternatives were made;
- in connection with forecasted future climate change flood risk impact was analyzed and possible macroeconomic losses were calculated.

Within the framework of Strategic Environmental Impact Assessment an environmental overview was prepared, containing the following information:

- description of current environmental conditions and possible changes if the Plan is not implemented;
- environmental conditions in territories that might be greatly affected by the implementation of the Plan;
- environmental problems, connected with the implementation of the Plan, especially those, referring to specially protected nature territories and micro-reserves, specially protected species, their habitats and Riga Bay protective zones;
- international and national environmental protection goals, especially those, referring to management of water resources, ensuring sustainable development and the content of the planning document to be assessed;
- environmental impact assessment of implementation of the planning document and its possible alternatives (includes direct and indirect, secondary, the interrelated and overall impact of the planned activity and other activities, shortterm, medium-term and long-term impact, as well as permanent positive and negative impact), also impact on people, their health, their material values, cultural, architectural and archaeological heritage, nature and landscape variety, soil quality, water quality, air quality, climate factors, as well as assessment of interaction of the above mentioned areas;
- comparison of planning document alternatives, justification for selecting the optimal solution, providing suggestions for preventing or reducing major impact of flood prevention activities included in the Plan or their alternatives on the environment;
- envisaged activities to ensure the monitoring of the planning document implementation.

#### b) Long-term / qualitative economic benefits

In selecting the most suitable flood prevention measures the results of cost-benefit analysis were taken into consideration.

Cost-benefit analysis includes the following:

- calculations of approximate construction costs (as of 2011) for flood prevention measures and their alternatives;
- cost-benefit analysis for flood prevention measures and their alternatives in each specified flood risk zone:
  - basis of estimates for the development of the calculation part of socioeconomic cost-benefit analysis;
  - socio-economic cost-benefit analysis;

- ENPV (economic net present value) of flood prevention measures, their EIRR (economic internal rate of return), cost-benefit ratio;
- the most rational flood prevention measure for each specified flood risk zone;
- sensitivity analysis for the chosen flooding scenario for all flood prevention alternatives in each flood risk zone, including analysis of such main variable factors as discount rate, construction expenses, as well as flood-induced damage expenses.
- financial sources and models for flood prevention measures included in Flood Risk Management Plan and the developed recommendations for prioritizing and financing these measures:
  - short analysis of financial instruments and sources available for the implementation of flood prevention measures;
  - general analysis of the financing models of flood prevention measures (world's experience) and possibilities of their adaptation to the needs of Riga municipality;
- recommendations to determine the flood prevention measures of highest priority, the implementation of which would be necessary also if the budget of the municipality is limited.

#### c) Long-term / qualitative social benefits

According to the results of Project's cost-benefit analysis, it can be concluded that the implementation of flood prevention measures in 12 (+3) sub territories has an overall positive effect on the public because socio-economic benefits exceed the expenses.

The socio-economic model itself was developed, based on prudent assumptions (The investment and maintenance expenses were calculated for ensuring a qualitative building and maintenance process, including unforeseen expenses, and the assumptions about economic return were as pessimistic as possible), in order to show, as accurately as possible, the minimal possible economic return from the implementation of flood prevention measures.

According to the results of sensitivity analysis it can be concluded that the developed socioeconomic model is objective and socio-economic return is not subjected to negative changes (in real life the socio-economic return can only be greater).

The main changing factor that will influence the socio-economic profitableness of this Project in the long term is the increase of economic values of the territory (or values of real estate) according to the market development trends in western and northern Europe. The increase of the value of this variable correspondingly increases the favorableness of the flood prevention measures of this Project to the society. It means that real socio-economic benefits could be even two or more times as great (in addition quantifying the identified benefits that were accounted for as non-monetary benefits within the framework of this analysis), as the ones calculated.

The seminars held within the framework of the Project and the reflection of flood related problems in mass media and on the Project's homepage (<u>www.rigapretpludiem.lv</u>) provided significant information to the employees in both private and public sectors, as well as to the society as a whole. People were informed about the impact of flood on the city environment, inhabitants, their cultural and historical values and economic activity, since climate change forecasts predict that flood will increase in its frequency and volume.

5.3.3 Replicability, demonstration, transferability, cooperation: Transferability & potential for commercialisation, including cost-effectiveness compared to other solutions, benefits for stakeholders, drivers and obstacles for transfer, if relevant: market conditions, pressure from the public, potential degree of geographical dispersion, specific target group information, high project visibility (eye-catchers), possibility in same and other sectors on local and EU level.

It is expected that Project results will serve as an example for many local municipalities in Latvia and municipalities of the neighbouring countries, territories of which are prone to flood risks.

In order to produce the investment project of flood prevention measures implementation, a multi-criteria analysis has to be carried out to the recommended flood prevention measures and an *Action Plan* for Flood Risk Management Plan should be devised. The development of the *Action Plan* for Flood Risk Management Plan has to be done in accordance with improving rainwater drainage systems and regulations for exploiting (managing) waterfronts.

The following activities will be necessary for the implementation of specific measures included in the Plan: technical projects of flood prevention constructions protecting certain territories, financial update and environmental impact assessment. For the implementation of specific measures included in the Plan the development of technical projects will be necessary (including the necessary geological and geotechnical studies, all the necessary approvals).

The implementation of the measures included in the Plan depends on the assets available to the municipality and the possibilities to attract funding.

Making a decision about the implementation of flood prevention measures, the entrepreneurs should be given the option to choose other effective anti-flood constructions (or materials) that correspond to the requirements of Latvian building regulations and would provide the same or even better protection against the potential flood.

During the implementation of Flood Risk Management Plan the following activities are required: regular monitoring of change of environmental conditions in territories under question, monitoring of technical condition and functionality of anti-flood constructions; and monitoring of those environmental parameters that served as basis for the decisions and process models that were used in the preparation of the planning document.

#### 5.3.4 Innovation and demonstration value

The Project is unique for both Latvia and the Baltic States, as no similar project has been implemented in the region so far. It is expected that its results will serve as an example for many local municipalities in Latvia and municipalities of the neighbouring countries, territories of which are prone to flood risks. Development of Flood Risk Management Plan for Riga City according to the requirements of EU Directive 2007/60/EC is an innovation for Latvia itself because there are no other similar plans at the municipal level in Latvia.

All discussions and awareness raising measures for stakeholders and general public have linked two issues – flood risk management in Riga City as a certain case, more or less familiar to most of stakeholders and inhabitants of Riga and climate change as global phenomenon that, at the same time, directly influences local conditions.

Appropriate planning and management of flood risk territories at municipal level through integration of their planning in the overall planning system, development of Methodological Guidelines and training of territorial planners were innovative measures for all the country and in future will serve as a good example even outside Latvia, especially in other Baltic states.

This Project was unique at a national scale and was the first attempt to bring together all groups interested in the urban development planning with the ambition to reach the consensus in identifying the best tools to be used and measures to be taken to enhance City's development and at the same time to preserve the natural and historical values and adapt to the climate changes.

The Project results were widely disseminated and dissemination of results will be continued in future, since the approach and the developed Methodological Guidelines can be applied in the territorial planning in other cities and towns with similar natural and socio-economic conditions in Latvia and outside it.

To ensure demonstration character of the Project close cooperation with the Ministry of Environmental Protection and Regional Development was developed. This was done in order to ensure that documents prepared during the Project were adequately incorporated in river basin management system, created according to the Water Framework Directive that is under supervision of the above mentioned ministry. Close cooperation with the Ministry of Environmental Protection and Regional Development was ensured to enhance the distribution of the produced Guidelines, best practices adopted from other EU countries and lessons learned to other municipalities, since this Ministry is in charge of the development and implementation of state policy in the area of regional politics, territorial planning, habitation policy, development and action of local governments. To ensure demonstration character of the Project, publicity, awareness raising events and dissemination of Project results played an important role.

#### 5.3.5 Long term indicators of the project success

The Project proved to be a success because the goals set in the Project Proposal coincided with the goals achieved at the end of the Project. The goals of all actions were successfully met, results obtained and corresponding documents developed, thus providing help to Riga City in ensuring the success and development in the long term. Further development of the city will be planned based on the produced and ratified documents.

On November 20, 2012 the documents, developed within the framework of the Project – "Flood Risk Management Plan for Riga City" and "Methodological Guidelines for Territorial Planning in Flooding Territories" were ratified with a decree issued by Riga City Council.

- The implementation of Flood Risk Management Plan for Riga City requires:
  - prioritizing the recommended flood prevention measures;
  - continued cooperation with the Ministry of Environmental Protection and Regional Development, increasing the significance of the document to the national level;
  - preparation of applications for receiving co-funding from EU funds for priority flood prevention measures in the planning period 2014 2020;
  - close cooperation among Riga City Council City Development Department, Housing and Environment Department, Traffic Department and Property Department, as well as with other structural units of Riga City Council, public authorities, public organizations and inhabitants for prioritization, implementation and maintenance of flood prevention measures.

# The implementation of Methodological Guidelines for Territorial Planning in Flooding Territories requires:

- continued cooperation with the Ministry of Environmental Protection and Regional Development, increasing the significance of the document and incorporating it in the process of territorial planning;
- introduction of this document to territorial planners, whose daily responsibilities are connected with planning territories prone to flooding.

#### 5.4 Dissemination issues

Dissemination issues were the task of Action 5 – publicity, awareness raising and dissemination of Project results. Implementation time of the action was 15/03/2010 - 30/11/2012, therefore this action was carried out throughout the Project starting from March 15, 2010, when the PR specialist started working for the Project. The PR specialist dealt with publicity generation and public awareness rising.

Within the framework of Project Action 5 the Project Publicity Plan was prepared (sent with Inception Report). It was prepared, taking into account instructions, included in the Project Proposal and based on the activities included in the Project Management Plan. Project Publicity Plan was carried out along with the Project Management Plan (sent with Inception report) and its actions. The Project Publicity Plan was approved by the PSC.

We consider that the tasks/actions defined in Project Proposal Activity 5 were fully completed and the goals reached. It is proved by the summary of the Activity 5 results, as well as the overall performance data (see below) – organized seminars, public discussions, press releases, Project home page, informative materials, closing conference and others. The list of publications (See Dissemination Annex 4), as well as the summary of TV and radio broadcasts (see www.rigapretpludiem.lv section "Galleries") serve as verification of the above mentioned, considerably exceeding the performance data specified in Project Proposal.

#### 5.4.1 Dissemination: overview per activity

#### Seminars:

For dissemination of Project results the following seminars were organized until the final stage of the Project:

- On November 26, 2010, in Riga City Hall a seminar on Intermediate results of the research was held. It included a presentation of the results and a discussion (Annex 10 of Mid-term Report Participant registration page).
- On November 29, 2010, in the premises of the Department a meeting with citizens and a presentation of intermediate results of the research were held (Action 1) (Annex 11 of Mid-term Report Participant registration page).
- On January 27, 2011, In Riga City Hall a Project presentation was given to university students from France (University of Cergy Pontoise / France) (Annex 12 of Midterm Report Participant registration page).
- On February 24, 2011, a meeting with geography and environmental science teachers from Riga comprehensive schools was held. During the meeting the teachers were informed about the Project and its aims (Annex 13 of Mid-term Report Participant registration page).
- On May 18, 2011, a meeting with geography and environmental science teachers from Riga schools was held. The aim of this meeting was to present the idea of the competition of research works, as well as to brief them on the competition regulations and to answer the questions (Annex 14 of Mid-term Report Participant registration page).
- On June 16, 2011, a final results presentation and a seminar discussion were organized (Annex 15 of Mid-term Report Participant registration page).
- On June 27, 2011, a seminar for VASAB (Visions and Strategies around the Baltic Sea 2010) participants was held (Annex 16 of Mid-term Report Participant registration page).

- On February 17, 2012, a seminar was organized in City Hall. Within the framework of the seminar, the project of Flood Risk Management Plan for Riga City and Strategic Environment Impact Assessment were discussed. (Technical Annex 11, 12 Participant registration page).
- On June 15, 2012, a special training seminar and presentation seminar was organized in City Hall to present the developed Methodological Guidelines for Territorial Planning in flooding territories to the responsible specialists of municipalities of Latvia and territorial planners, in territories of which water bodies and water objects, potentially posing flood threat are located (Technical Annex 9, 10 Participant registration page).

#### **Press releases:**

Within the framework of the Project in the period from the Inception report until the Project Final Report fifteen press releases regarding the implementation of the Project were prepared and sent to the media:

Date of	Title of release	
dissemination		
28.05.2010.	Project to study and prevent flooding risks launched in Riga	
	(See Inception Report)	
02.09.2010.	Riga City relief model presented	
21.09.2010.	Study of the hydrological processes in Riga will be carried out	
	and recommendations made for protection of urban areas	
24.11.2010.	Inhabitants are invited to the meeting about the progress of the project "RIGA AGAINST FLOOD"	
26.11.2010.	The first stage of flood research in Riga has been completed	
14.12.2010.	Riga gets acquainted with the experience of European cities in	
	flood management	
21.12.2010.	In the next hundred years severe flood possible in Riga	
17.03.2011.	In Riga sea and wind surges have greater impact than spring	
	spate	
10.05.2011.	LIFE+ Project is organizing a competition of research works!	
16.06.2011.	The research on flood threat in Riga completed!	
01.11.2011.	The economic effectiveness and return on flood prevention	
	measures in Riga will be evaluated	
07.02.2012.	Inhabitants welcome to express their opinion on Riga Flood	
	Management Plan	
14.03.2012.	Three more days for the inhabitants to express their opinion on	
	Riga Flood Management Plan	
04.06.2012.	The work on the development of guidelines for territorial	
	planning in flooding territories has been completed	
17.10.2012.	Project "Riga Against Flood" concludes	

So far the information included in press releases has been widely reflected in the following media (only the most significant media and publications are mentioned):

TV: LTV1, LNT, TV3, TV5 – evening and morning news broadcasts.

Radio: LR1, LR4, Radio Baltkom, Radio SWH – daily news broadcasts.

Newspapers: "5 min", "Diena" "Neatkariga Rita Avize", "Latvijas Avize", "Chas", "Vestji Segodnya", Telegraf".

**Web resources:** news agencies LETA (www.leta.lv); BNS (www.bns.lv); www.db.lv; www.nra.lv; www.jelgavniekiem.lv; www.building.lv; http://ltvzinas.lv; www.ezinas.lv; www.rdpad.lv; www.nozare.lv; www.ir.lv; www.diena.lv; www.riga24.lv, www.ves.lv; www.riga24.lv; www.kasjauns.lv.

All main publications are available on the Project's homepage here: <u>http://www.rigapretpludiem.lv/eng/publications-gallery/</u>

Also radio broadcasts are available on the homepage gallery: <u>http://www.rigapretpludiem.lv/eng/audio-gallery/</u>

Detailed Publications archive is attached in Dissemination Annex 4.

TV and radio broadcasts, as well as publications in newspapers and on the Internet are posted on the Project's homepage <u>http://www.rigapretpludiem.lv/eng/</u> section "Galleries".

#### **Other activities:**

At the beginning of the Project the necessary information for the visual materials of the Project was prepared. It was followed by information coordination, the selection of most appropriate material and the production of Project's and Project's employees' seals, business cards (from recycled paper) and e-mail business cards.

#### **Project website:**

Within the framework of the Project the Project homepage was created <u>www.rigapretpludiem.lv</u> and is operational as of 30/06/2010. Prior to this, other LIFE+ project homepages were studied on LIFE+ homepage: <u>http://ec.europa.eu/environment/life/index.htm</u>. The slogan "Riga Against Flood" (in Latvian "Rīga pret plūdiem") (<u>www.rigapreptpludiem.lv</u>) was chosen as a domain for the Project homepage, and it is registered in the Network Information Centre of The Institute of Mathematics and Computer Science, University of Latvia. The main information of the homepage is available in Latvian and in English. The homepage reflects information on the Project, its activities, tasks, aims and results.

The homepage was constantly updated by posting all Project activities, press releases, reports, maps, plans and other materials, as well as the information about the upcoming public discussions and other events.

The homepage has a special section – photo gallery. It is also possible for public to post their questions on the homepage and receive answers. Since the Inception report date, a new section on Project homepage was added – Competition (Research paper competition), where Google application form was integrated in a Project web page, thus making it very easy to apply for this competition of research works.

From July 2010 till the end of October 2012 there had been 10 9746 visits to the homepage. An average 436 homepage visits per month, which is two times more as it was proposed in the Inception report. Most of the visitors come from Latvia; however, people from 87 other countries have also visited the Project homepage. TOP 10 significant homepage visiting numbers came from the Netherlands, Germany, United Kingdom, the United States, Sweden, Russia, Estonia, Finland, Canada and France. Direct website visits were 28.49% of all visits, search engines made 27.5% of all visits and through the references and links from other pages - 44.01%.

Project homepage can be easily found through the Google search engine as well.

The homepage will be available five years after the end date of the Project.

In the course of the Project banners have been created that appear as links to the Project's homepage in other homepages related to Riga municipality. Regular information on the Project's activities is posted on the Department's Board of Economics international projects homepage.

It is ensured that Project webpage will be available 5 years after the Project conclusion. All information about project, objective, activities and results will be available on the webpage.

#### Notice boards:

Within the framework of the Project, according to the Project Management Plan, informative notice boards, providing basic information, were updated, created and made available to the public. They reflect information about the Project, its activities, tasks, plans and results.

As in the initial stage of the Project, six sets of informative notice board updated information were made in August 2011. They are still exhibited in Riga City Hall and in the premises of Riga City executive authority, as well as in the Department's customer service centre. As previously the sixth informative notice board was a mobile "roll-up" board, which was used during Project's seminars (Annex 8 of Mid-term Report Project notice board pictures with updated information). After the Project end date, notice boards made within the Project, will be handed over to City Development Department of Riga City Council, which will be able to use them following their own plans, by putting notice boards in the premises of Department, Customer Service Centres or Executive Directorates of Riga Districts.

#### General awareness-raising campaign for school children

To raise youth's awareness about the consequences caused by climate change and their impact on the environment, within the framework of the Project, events targeting Riga City schoolchildren were organized, for instance, a competition of research works was announced to involve secondary school pupils. The theme of the research work had to be related to the Project theme – the influence of climate change and its consequence on a global or local scale. Prior to the announcement of the competition, the competition regulations were prepared and informative activities were carried out. In cooperation with RIIMC two project team meetings with geography and environmental science teachers from Riga schools were held. The idea of the competition as well as competition regulations were presented during the Project meetings (Annex 13, 14 of Mid-term Report Participant registration pages of both meetings).

In cooperation with RIIMC the information about the competition was forwarded to all comprehensive schools in Riga. There is also a separate section on the Project's homepage http://www.rigapretpludiem.lv/eng/competition/, where more detailed information about the competition is available. It was also possible to submit the theme for the competition there. Also cooperation with one of the most popular Riga youth Internet portal www.rigarulle.lv about the informative support to engage the school youth in the activities was started. Pupils could submit the themes of their research works until the end of Year 2011. Candidates submitted their research works until April 1, 2012. According to competition regulations, the best works were evaluated by a competent board, comprised of Project's department specialists and experts from RCC City Development Department. The best three works were selected to defend their works in person, which was also evaluated by competition board. The defence of the research papers took place on April 27, 2012, and the winners were awarded at a special event on May 17, 2012. The winners were awarded special certificates of appreciation and money prizes. (Photographs from the defence of research works and award ceremony are available on Project's home page

<u>www.rigapretpludiem.lv</u> section Galleries). The best creative and research works were published on the Project's homepage.

Initially 1000 EUR were allotted for the money awards of the competition, but since the Project's specialists decided not to organize a competition for primary school pupils, only 500 EUR were spent. The decision not to organize the other competition was made after questioning geography and environmental science teachers who stated that problems of the Project are too complex and, thus, unsuitable for primary school pupils However, it can be considered that most schoolchildren in Riga are informed about the issues dealt with in the Project, since representatives of the Project met geography and environmental science teachers from Riga schools twice, presented the problems and issues discussed in the Project, their aims and tasks, shared with their informative presentations and asked to pass the information to the school children.

#### **Public discussions**

Within the framework of the Project Action 3 "The Development of Flood Risk Management Plan for Riga City" participation in organizing public discussion on the Development of Flood Risk Management Plan for Riga City and Resource Mobilization Plan was taken. The draft of Flood Risk Management Plan was discussed in a one day seminar that was held in RCC on the 17th of February, 2012, (a part of this seminar was organized as cooperation of work groups, where it was possible to comments and/or give suggestions concerning improvements of the draft of Flood Risk Management Plan).

Four public discussions were organised to discuss Flood Risk Management Plan for Riga City and its Strategic Environmental Impact Assessment. They were held in the premises of Riga municipality and Public Libraries in different suburbs of Riga, to involve as many people from different suburbs as possible:

- On February 17, 2012 in City Hall
- On February 20, 2012 in Bolderaja library
- On February 21, 2012 in Jugla library
- On February 22, 2012 in Sarkandaugava library.

From February 7 till March 17, 2012, everyone interested in Flood Risk Management Plan for Riga City and its Strategic Environmental Impact Assessment were welcomed to:

- Riga City Construction Board Customer service centre;
- Bolderaja library;
- Jugla library;
- Sarkandaugava library;
- Visit web pages: www.rdpad.lv and www.rigapretpludiem.lv.

to obtain information about Flood Risk Management Plan for Riga City and its Strategic Environmental Impact Assessment and submit recommendations and suggestions concerning the above-mentioned documents in written form (e-mail or post) to Project specialists.

In compliance with the order of implementation steps of Action 2, press releases were prepared and forwarded to the media. The press releases contained information about the public discussions, their progress, as well as the results and achievements of this action.

#### Booklet

Within the framework of the Project an informative booklet was prepared until 30.09.2012 (according to Project proposal). It includes the results of the Project and summary of the Methodological Guidelines. To prepare the booklet, the necessary information was aggregated from the materials, produced within the framework of the Project. The design of the booklet was created and it was printed in colour in 1000 copies (containing both languages – Latvian and English). In the project proposal there were determined 900 copies in Latvian and 100 copies in English, but project team considered that it is more appropriate to include both languages in all 1000 booklets. The booklet was distributed to the Project's target audience at the final stage of the Project as well as to the participants of the closing conference. The format of this booklet was chosen to serve as a source of information about the Project's activities and achievements to a wider audience and partners in other EU countries. The booklet also contains information explaining climate change and its impact on the environment and socioeconomic areas in Riga City.

Information materials will also be available to all interested in the premises of RCC. They will also be distributed in Riga Central Library and its branches and in the Office of Riga City Architect.

#### Conference

At the final stage of the Project the closing conference was organized in Riga on September 28, 2012. In the conference the results of the Project and the products were presented. Foreign experts, representatives from RCC and the Department as well as representatives from other departments and Project's target groups, field experts were invited to participate in the closing conference. Presentations and a press release were prepared for the conference and sent to the media after the event. Also the Project booklet, the public overview and the CD of the Project were distributed to the participants of the conference and others.

Final indicators tables can be found in Technical Annex 16.

#### 5.4.2 Layman's report

Within the framework of the Project a public overview of the Project for wider audience was prepared until 30.09.2012 (according to Project proposal). It includes the description of the Project, its results and the summary of the products created within the framework of the Project. To prepare the overview, the necessary information was aggregated from the materials, produced within the framework of the Project. The design of the overview was created and 1000 copies (containing both languages – Latvian and English) were made, out of which 50% were printed, but 50% - in an electronic format (CD). In the project proposal there were determined 900 copies in Latvian and 100 copies in English, but project team considered that it is more appropriate to include both languages in all 1000 copies. The Project overview was distributed at the final stage of the Project - at the closing conference of the Project.

Please see Layman's report in Dissemination Annex 2, 3.

#### 5.4.3 After-LIFE Communication plan

To ensure the availability of the Project's results after the end date of the Project, and After-Project Communication Plan was produced. The Plan comprises activities that can be carried out after the Project is completed in order to provide information about the Project's results to its target audience and wider public. The Project's homepage <u>www.rigapretpludiem.lv</u> with all the information obtained in the course of the Project will be available to anyone interested at least five years after the end date of the Project. After-project Communication Plan is attached to the Final report (See Dissemination Annex 5).

No problems and delays were identified with the implementation of this action and it was finalised in due time.

Name of the Deliverable	Code of the action	Inception report (01.09.2010.)	Mid-term report (01.12.2011.)	Final report (28.02.2013)	Planned deadline
Project Publicity Plan	5	Finished 28.04.2010	Finished 28.04.2010	Finished 28.04.2010	30.04.2010
Project booklet in 1000 copies, full colour, in Latvian (900 copies) and in English (100 copies)	5	Not started	Not started	Finished 28.09.2012.	30.09.2012
Layman's report in 1000 copies (including 500 copies of paper version and 500 CDs), full colour, in Latvian (900 copies) and in English (100 copies)	5	Not started	Not started	Finished 28.09.2012.	30.09.2012

## 6. COMMENTS ON THE FINANCIAL REPORT

#### 6.1. Costs incurred

PROJECT COSTS INCURRED				
	Cost category	Total cost according to the Commission's decision*	Costs incurred from the start date to 30/11/2012	0⁄0**
1.	Personnel	357 760	247 780	69.26
2.	Travel	22 400	18 433	82.29
3.	Outside assistance	230 600	207 836	90.13
4.	Durables: total <u>non-</u> <u>depreciated</u> cost	7 400	3 064	41.42
	- Infrastructure sub- tot.		0	
	- Equipment sub-tot.	7 400	3 064	41.42
	- Prototypes sub-tot.		0	
5.	Consumables	1 000	501	50.00
6.	Other costs		0	
7.	Overheads	43080	31 136	72.27
	SUM TOTAL	662 240	508 750	76.82

\*) If the Commission has officially approved a budget modification indicate the breakdown of the revised budget

\*\*) Calculate the percentages by budget lines: How many % of the budgeted personnel costs are incurred by 30/11/2012

Project cost summary tables include project budget amendments that were submitted with the Inception report and accepted by EC as stated in the letter from EC. (Annex 20 of Mid-Term report Project budget with amendments).

Total Project costs amount to 76.82 % from the initially planned Project costs. This can be explained by the fact that at the time when the Project employees started working on the Project, salary rates were adjusted to the salary rates of employees already employed by the office. Also the purchase of all planned fixed assets was not necessary, since the office equipment for ensuring the Project's administrative functions was partially provided by the Riga City Council. Another reason for the anticipated budget surplus is that as a result of public tenders, the necessary services were offered at lower costs than previously estimated.

Notes on costs from the perspective of cost categories:

- **Personnel costs** comprise 69.26%, as it was previously mentioned the salary rates of the Project employees were adjusted to salary rates of the employees already working in the office, and they were lower than envisaged in the Project proposal.
- **Travel** for the purposes of experience exchange, business trips were organized within Activity 2 and they were successful. In addition to the originally planned travel budget, a

visit to the Hague was organized. Seven people participated in each of tree experience exchange visits- three repesentatives of the Project (Renars Grinbergs, Maija Vanaga, Dace Berzina) and other people which vary in each of visit- outside the Project (Guntars Ruskuls, Andris Locmanis, Valdis Gavars, Askolds Kļaviņš, Guna Jankovska-Galzone, Juris Radzevics, Sergejs Zaletajevs, Gvido Princis, Olga Veidina, Uldis Jansons), as it was planned in the Project Proposal. Although ten members of the delegation (five representatives from the Department and five RCC officials) are not directly employed by the Project, it is crucial to increase their understanding of the Project, since the Department and RCC will be the structural units ensuring the sustainability of the Project's results and taking over the ownership of the results.

Travel category also includes additional expenses for the Project manager and Project accountant's visit to Life+ programme Kick-off event in Tallinn.

The amount of incurred costs in Travel category is 82.29% from the originally planned.

- External assistance all the planned procurements of external services were successful, ensuring the obtaining of all the necessary research and data for the implementation of the Project. More detailed information can be found in the Table "Detailed information about the Project's costs according to Project's activities", including the information about contractors, who are not registered as the VAT payers). Outside assistance assets amount to 90.13% from the originally planned.
- **Durables equipment** in this category fixed assets four computers and a camera were purchased for the work-related needs of Project's employees. The purchase of the camera was considered according the Project budget amendments (accepted by European Commission with the e-mail letter from Mrs Susan Brassart dated on April 20, 2010, Financial Annex 2)

Since the purchase of all initially planned fixed assets was not necessary due to the fact that the office equipment for ensuring the Project's administrative functions was partially provided by the office, the expenditure in this category amounts to just 41.42% of the originally planned.

Consumables – this category was created as a result of Project budget amendments (submitted with Inception report and approved by European Commission's letter dated on February 1, 2011, Financial Annex 3) These funds were allocated to the prize fund for awareness-raising campaign for secondary school pupils – money awards for the best three prize-winners in the competition of research papers related to the Project theme – the influence of climate change and its consequence on a global or local scale. In the Financial report as Suppliers of Consumables are indicated three secondary school pupils - Peteris Pakalns, Justina Ignatavicute, Svetlana Afanasfeva- the persons who received the money awards.

The expenses in this category comprise only 50% of the planned, because the Project's specialists decided not to organize the other competition for primary school pupils. The decision was made after questioning geography and environmental science teachers who stated that issues of the Project are too complex and thus unsuitable for primary school pupils.

Overheads – these costs have been calculated 6.54% from the actual Project costs in accordance with the Project proposal. Overheads include payments to cover the expenses during the initial stage of the Project that are related to ensuring administrative functions: production of business cards and seals, telecommunications, purchase of office goods and others.

In addition, we would like to inform you that the VAT paid within the framework of the Project is included in Project costs. So, according to the legislation of the Republic of Latvia and

tax administration of the Republic of Latvia VAT rebate, paid within the framework of the Project, is not possible (Financial Annex 1 Letter from State Revenue Service about Value Added Tax)

# - Detailed information about the Project's costs according to Project's activities

Activities		
Action 1 "Detailed studies of hydrological processes affecting territory of		
Riga	City and their current and potential impacts"	
1.	Personnel :	22881.17
	- Environmental specialist M.Vanaga (1593 h):	14504.84
	Within the framework of the Activity did research and aggregated materials,	
	required for the development of 3D relief model for Riga City and research	
	"Hydrological Processes Affecting Territory of Riga City and their Current	
	and Potential Impacts" and prepared technical documentation for the purchase	
	Of this research.	9276.22
	- Territorial planner D.Berzina (952 n). Within the framework of the Activity studied the results of Activity 1 to use	83/0.33
	the obtained research in developing Methodological Guidelines for Territorial	
	Planning in flooding territories	
2.	Outside assistance:	126457.89
	- Development of 3D relief model for Riga City (contractor: Metrum, ltd.)	16308.25
	- Reserch of hydrological processes connected with climate change and	105258.17
	forecasting in Riga City (contractor: Centre of Processes' Analysis and	
	research, ltd.)	
	- Preparation of basic technical information for the recommended flood	3928.63
	prevention engineer technical solutions for Riga City (contractor: Guntars	
	Zakis, not registered as VAT payer)	
	- Procurement expert services, evaluation of submitted tenders for the	487.38
	research of hydrological processes in Riga (contractor: Juris Mikelsons, <i>not</i>	
	registered as VAI payer)	(2.09
	- Organization of the Project's Kick- off meeting, expenses for the coffee	02.98
	- Organization of Project's informative seminar about the results of the	178 33
	research carried out within the framework of Project's Activity 1 - expenses	170.55
	for the coffee break (contractor: Fazer Amica 1td)	
	- Organization of Project's informative seminar about the results of the	234.15
	research carried out within the framework of Project's Activity 3 - expenses	
	for the coffee break (contractor: Fazer Amica, ltd.)	
3.	Equipment:	325.51
	- One portable PC with necessary software and bag used by Environmental	325.51
	expert M.Vanaga, depreciated amount (supplier: MA-1 Datori, ltd.)	
Actio	on 2 "Acquaintance with the experience and best practices in	18031.64
ident	ification, planning and management of flood risk zones in 3	
Euro	pean cities"	
1.	Travel:	18031.64
	- Experience exchange visit to Antwerp and the Hague (November 8 -	7858.78
	November 11, 2010, 7 people, 5 days)	
	- Experience exchange visit to Hamburg (November 14 - November 17,	5717.70
	2010, 7 people, 4 days)	
	- Experience exchange visit to Rotterdam (March 15 - March 17, 2011, 7	4455.16
	people, 3 days)	

Action 3 "Development of Flood Risk Management Plan for Riga City to		105535.80
adapt to the hydrological processes intensified by the climate change		
phenomena and to mitigate their impact"		
1.	Personnel:	51364.79
	- Environmental specialist M Vanaga (2125 h):	20813.66
	Within the framework of the Activity M Vanaga participated in the	20015.00
	development of Flood Risk Management Plan ensuring the incorporation of	
	data and research results from Activity 1 in the Plan	
	- Territorial planner D Berzina (198 5 h):	1840.02
	Within the framework of the Activity D Berzina was involved in the	10.000
	development of Flood Risk Management Plan providing the necessary	
	information about the data obtained during the course of development of	
	Guidelines for Territorial Planning in flooding territories.	
	- Policy formulation expert R.Rudzite (2304 h):	23652.63
	Within the framework of the Activity in cooperation with other Project's	
	employees R. Rudzite participated in the development of Flood Risk	
	Management Plan and Resource Mobilization Plan.	
	- Fund raising consultant I.Bergs (464 h):	5058.48
	Within the framework of the Activity I.Bergs was involved in the	
	development of Flood Risk Management Plan by preparing the necessary	
	information about cost-benefit analysis data of flood prevention measures, as	
	well as participated in the development of mechanisms for resource	
	mobilization measures and funding attraction.	
2.	Outside assistance:	53845.50
	- Development of recommendations for protection of Riga City against flood	13750 35
	threat (contractor: Centre of Processes' Analysis and Research 1td)	15750.55
	(recommendations were produced simultaneously with the research "Research	
	of Hydrological Processes Connected with Climate Changes and Forecasting	
	in Riga City" within the framework of a common procurement)	
	- Cost-effectiveness analysis of measures included in flood risk prevention	16580.84
	activities and evaluation of the alternatives (contractor: Baltkonsults, ltd.)	10500.04
	Strategic Environmental Impact Assessment of Flood Risk Management	22689 56
	Plan (contractor: Environmental Consulting Office ltd)	22009.50
	- Development of technical specification and evaluation criteria of tenders for	619 89
	procurement of cost-effectiveness analysis (contractor: OramV ltd <i>not</i>	013103
	registered as VAT paver)	
	- Organization of an informative seminar about Flood Risk Management Plan	204.86
	-expenses for the coffee break (contractor: Baltic Restaurants Latvia, ltd.)	
3.	Equipment:	325.51
	- One portable PC with necessary software and bag was used by territorial	325.51
	planner D.Berzina, depreciated amount (supplier: MA-1 Datori, ltd.)	
Action 4 "Development of Methodological guidelines for territorial		26073.64
planning of different flood risk zones'		
1. Personnel:		
	- Territorial planner D. Berzina (2329 h):	22925.25
	Within the framework of the Activity D. Berzina developed Methodological	
	Guidelines for Territorial Planning in flooding territories, including	
	preparation of recommendations for planning documents linked to the	

	identification of flooding territories in Riga.	
	- Planning consultant E. Berzins (235 h):	2533.61
	Within the framework of the Activity E. Berzins participated in the	
	development of Methodological Guidelines for Territorial Planners, as well	
	as consulted un gave recommendations on the development of planning	
	documents.	
2.	Outside assistance:	289.27
	- Organization of workshop for territorial planners and presentation of	289 27
	"Methodological Guidelines for Territorial Planners" - expenses for the	209.27
	coffee break (contractor: Baltic Restaurants Latvia ltd.)	
3	Fauinment:	325 51
5.	- One portable PC with necessary software and has was used by Policy	325.51
	formulation expert R Rudzite, depreciated amount (supplier: MA_1 Datori	525.51
	Itd)	
Actio	n 5 "Dublicity, owomeness relating and discomination of president	54057 15
Actio	and 5 Fublicity, awareness raising and dissemination of project	54957.15
resul		2020444
1.	Personnel:	30394.44
	- PR expert J. Jeksevics (2612 h):	28486.85
	Within the framework of the Activity J. Jeksevics developed the Project's	
	Publicity Plan, implemented Project's publicity measures and activities in	
	compliance with the Plan, as well as produced "After – life Communication	
	Plan".	
	- Translator M. Miglane (239 h):	1907.59
	Within the framework of the Activity M. Miglane provided translations of	
	Project's public materials, including English translations of textual	
	information for the Project's homepage.	
2.	Outside assistance:	23781.01
	- Development of Project website (contractor: PR Studio, ltd.)	2942.69
	- Registration of domain for Project webpage (contractor: Institute of	31.83
	Mathematics and Computer Science)	
	- Designing informative notice boards and preparation of an informative	170.59
	wallchart -1 item (contractor: M Dizains, ltd.)	
	- Preparation and installation of informative notice boards, 5 items	1591.91
	(contractor: DizainaCentrs.lv, ltd.)	
	- Designing updates for informative notice boards and preparation of updated	240.63
	informative wallcharts (contractor: MID lab, ltd.)	
	- Preparation and new designed and updated informative notice boards and the	265.81
	content of roll-up (contractor: DizainaCentrs.lv, ltd.)	
	- Development of design and layout for booklets and Layman's report	3635.19
	(contractor: Darba Vide, ltd.)	
	- Printing booklets (1000 hard copies) and Layman's report (500 hard copies	4067.95
	and 500 CDs), (contractor: NRJ reklamai, ltd.)	
	Organization of the final project conference (international) for 100 participants	10834.41
	(space, equipment rent, translation and catering services, travel and	
	subsistence of two guest speakers, handouts and visual materials). (contractor:	
	Baltijas Celojumu Grupa, ltd.)	
3.	Equipment:	280.98
	- One portable PC with necessary software and bag was used by Project	280.98
	Manager, depreciated amount (supplier: MA-1 Datori, ltd.)	200.90

4.	Consumables:	500.72
	- Awards for awareness-raising campaign for students - money awards for the	500.72
	best three prize-winners in the competition of pupils' research papers related	
	to the Project's theme – the influence of climate change and its consequence	
	on a global or local scale.	
Actio	on 6 ''Project management''	147568.34
1.	Personnel:	115756.68
	- Project manager R. Grinbergs (4568 h):	52013.02
	Within the framework of the Activity R. Grinbergs monitored the	
	implementation of Project's activities and the development of financial and	
	Project's reports, conducted Project's meetings and events, as well as ensured	
	the availability of the Project information to the interested parties.	
	- Project assistant M. Krumins (4890 h):	36736.53
	Within the framework of the Activity M.Krumins prepared Project's reports,	
	organized and kept records of Project's meetings, organized foreign	
	experience exchange visits, prepared and kept Project's documentation and	
	carried out other tasks entrusted by the Project manager.	
	Project accountant L. Kronberga (2277 h):	25102.68
	Within the framework of the Activity L. Kronberga prepared and updated	
	Project's cash flow overviews and budget amendments, prepared Project's	
	financial reports, participated in organizing Project's procurements, disbursed	
	Project's costs and prepared their substantiating documentation and controlled	
	the compliance of expenses with Project's activities.	
	- Translator M. Miglane (203 h):	1904.45
	Within the framework of the Activity M. Miglane provided translations of	
	Project's reports.	
2.	Equipment:	274.92
	- One digital photo camera was purchased for the needs of the Project to	274.92
	provide visual representation of the activities, carried out during the Project,	
	depreciated amount (supplier: Delain, Itd.)	401.00
3.		401.00
	- Participation in Life+ Kick-off meeting, February 2, 2010 (2 people - Project	401.00
- 1	manager and accountant, 1 day)	21125 74
4.		51155.74
Actio	n / "Project monitoring"	5386.29
1.	Personnel:	1924.20
	- Project manager R. Grinbergs (169.5n) Within the former of a fithe Activity D. Crinhenes mentioned and controlled	1924.20
	whinin the framework of the Activity R. Grindergs monitored and controlled	
	the implementation of the Project and ensured that it complied with the Project	
2	proposar and regulations of the programme.	2462.00
<u></u>	Drajaat External audit (guppliar: KDMC Daltiag 1td)	3402.09
mor	- Project External audit (supplier: KPWIG Baltics, Itd.)	5462.09
101	AL ALL ACTIONS	507217.43

#### 6.2. Accounting system

For the documentation of working hours in the Project, the time-sheet, offered by Life+ programme was used. It can be found with the financial reporting document. For the Project's purposes, the form was amended with additional lines that indicate how many hours each employee spends on each activity.

In all the invoices that were received for the outside services, provided for the needs of the Project, the Project number LIFE08 ENV/LV/000451 was indicated, thus stating that the corresponding expenses refer to the Project.

#### 6.3. Auditor's report/declaration

Please see Audit report which is attached to the Project's Financial Annex 4.