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## ラトヴィア共和国概況

1991 年 8 月 20 日に独立回復を宣言して以来、ラトヴィア共和国は 1922 年憲法の再発効を行い、同憲法に基づいた政治体制及び行政組織の整備による旧ソ連体制の一掃と、国連や欧州評議会などの国際機関への加入により主権国家としての地位を確立した。

昨年 1998 年 10 月の総選挙により成立したクリシュトパンス氏を首相とする少数派内閣は政権の安定が不安視されていたが、1999 年 2 月に社会民主連合との協力取極めが結ばれたことにより 1999 年度予算が無事に成立し、順調な内政運営が行われつつある。

また、1994 年からは市場経済へ移行するために、国营企業の民営化(1998 年 7 月終了予定)や土地所有を自由化するための土地所有法の制定(1996 年)、投資家を保護するための破産法の制定(1996 年)などの体制改革と法律の整備が進められている。経済動向は 1996 年以降急速に回復し、経済(GDP)成長率は 1996 年 3.3%、1997 年 6.5%と堅調な動きを見せていた。しかし、1998 年は輸出総額の約 2 割を占める最大の貿易相手国であったロシアの経済危機により同国向け輸出が減少し、「ラ」国経済成長率の鈍化が懸念されている。また、農産品・加工食品業や繊維工業などの軽工業製品業では従業員の大量解雇が行われており、失業率(1997 年 7.0%)の上昇による社会不安増大も懸念されている。

# ラトヴィア共和国の概要

(平成11年3月現在)

<b>一般事情</b>	
1. 面 積	約6万5,000km <sup>2</sup> (日本のおよそ6分の1)
2. 人 口	約246万人 民族構成は、ラトヴィア人55.5%、ロシア人32.4%など。
3. 首 都	リーガ(人口約81万人)
4. 公用語	ラトヴィア語
5. 宗 教	ルター派プロテスタント(60%)、カトリック(30%)、その他ロシア聖教など(10%)
<b>略 史</b>	
13世紀	リーガ、ハンザ同盟都市として繁栄
16～17世紀	スウェーデンによる支配(リーガはスウェーデン領内で最大の都市となる)
18～19世紀	ロシアによる支配
1918年	独立を宣言
1940年	ソ連による併合
1991年	独立回復
1994年	ロシア軍撤退(ただし、スクルンダ・レーダー基地は2000年2月まで存続)
1995年	欧州評議会加盟
<b>政治体制・内政</b>	
1. 政 体	共和制
2. 元 首	ウルマニス大統領 93年、独立回復後初の選挙で成立した国会より選出(任期3年)。 96年、国会による選出投票にて再選され、2期目を務める。
3. 議 会	一院制(任期4年)、100議席(比例代表制)
4. 内 政	95年10月の総選挙の結果、国会は小党分立状態となり、民間人のシュチュエーレ氏を首班とする連立内閣が成立した。同内閣はEU加盟を目標として積極的な経済改革を推進したが、97年7月、汚職法防止違反問題を契機とする首相と与党との間の亀裂の表面化から総辞職し、8月、クラスツ経済相を首班とする新内閣が発足した。クラスツ内閣は前政権の路線を引き継ぎ、EU加盟、均衡予算の実現などを目標に掲げた。98年3月からの対露関係の悪化により民主党サイムニエクスが政権を離脱、内閣は危機に陥ったかに見えたがクラスツ首相はこれを乗り切り、10月の総選挙まで政権を維持した。10月の総選挙では改革の推進を掲げる4政党が合わせて70議席を獲得し中道右派の安定政権誕生が期待されたが、政治家個人間の確執などにより、シュチュエーレ元首相の国民党を除いた3党による少数派内閣が誕生した(首相はクリシュトパンス)。同内閣の社会民主連合の支持への依存が不安材料であったが、99年2月に同連合と協力取極めが結ばれて、同連合から農相が入閣し、99年度予算も無事成立した。
<b>経 済</b>	
1. 概 況	94年から市場経済化のための体制改革が進められてきている。95年の銀行危機は経済全体に影響を及ぼしたが、96年、経済は急速に回復、97年予算は均衡予算となった。98年も経済は堅調な動きを見せていたが、露の経済危機により露への輸出が減少、特に食品業や繊維工業などで従業員の大量解雇にふみ切る企業もあり、失業率の上昇、成長率の鈍化が懸念される。
2. 主要指標	(1) 1人当たりGDP(97年) 2,078ドル (日本:36,509ドル) (2) GDP(97年) 55億3,638万ドル 日本:4兆5,952億ドル(499兆8,659億円) (3) 経済(GDP)成長率 97年:6.5%(96年:3.3%) 日本 97年:0.1%(96年:3.4%) (4) 物価上昇率 97年:8.4%(96年:17.6%) 日本 97年:2.0%(96年:0.1%) (5) 失業率 97年:7.0%(96年:7.2%) 日本 97年:3.4%(96年:3.4%) (6) 為替レート(97年平均) 対ドル・ラツツ 0.58
3. 貿 易	対外貿易は、94年に入超に転じて以来、貿易収支赤字が拡大している。主要貿易相手としては、地域別では、95年以降EU諸国がCIS諸国を上回っている。 (1) 96年輸入総額 12億7,817万ラツツ、輸出総額 7億9,517万ラツツ 97年輸入総額 15億8,235万ラツツ、輸出総額 9億7,175万ラツツ (2) 97年は、EU諸国が輸入総額の53.2%、輸出総額の48.9%、CIS諸国がそれぞれ17.9%、29.5% 国別では露が輸入総額の15.6%、輸出総額の21%、独がそれぞれ16%、13.8%
4. 財 政	(1) 国家予算(98年度) 歳入14億1,100万ラツツ(約24億3,000万ドル) 歳出15億2,500万ラツツ(約26億2,000万ドル) (2) 財政収支(97年度) 5,800万ラツツの黒字で独立回復後初の財政均衡を達成 (98年度) 530万ラツツの黒字
5. 外国直接投資	ラトヴィアへの直接投資が多い上位5か国は、デンマーク(2,181億6,750万ラツツ)、露(1,095億320万ラツツ)、米(1,049億9,270万ラツツ)、独(436億8,880万ラツツ)、英(428億2,130万ラツツ)、*( )内の数字は93年から96年までの累積

対外関係	
1. 外 交	
(1) 基本方針	<p>E U、N A T Oへの加盟を目標とし欧州の政治、経済及び安全保障体制への参入を志向  バルト三国間及び北欧諸国との協力推進  ロシアとの善隣友好関係の構築</p>
(2) 当面の課題	<p>E Uと新規加盟希望国との交渉開始への参加、E U加盟に向けてE U基準に沿った法制度等の整備  N A T O拡大の動きに合わせ、N A T O加盟をめざす。  ロシアとの対等な善隣友好関係構築に向け、実務関係など地道な外交努力を重ねる。  他のバルト諸国及び北欧等バルト海沿岸諸国との協力関係緊密化</p>
2. 国防	
(1) 兵力	<p>国防軍は陸、海、空合わせて約3,300人。  この他、ラトヴィアに忠誠を誓う18歳以上の男女ボランティアで構成されるホームガード(郷土防衛隊)がある(総兵力約1万6,500人、常勤約900人)。</p>
(2) 予算	<p>国家予算の約1.9%(98年度)</p>
日本との関係	
1. 政治関係	<p>伝統的友好関係にあり、日本は、ラトヴィアの民主化・市場経済化への努力を支援しており、ラトヴィア側からの期待も大きい。</p>
2. 通商関係	
(1) 貿易(97年X通関統計)	<p>日本の対ラトヴィア輸出：7億6,500万円 品目：自動車、金銭登録機、送信機器  輸入：14億3,200万円 鉱物性及び化学肥料、ガラス繊維など</p>
(2) 95年、特惠関税の適用対象国とした。	
3. 経済協力	<p>ラトヴィアの独立回復後、同国の安定的改革支援に向けて、国際収支改善及びインフラ整備のための輸銀融資を行っている。96年、ラトヴィアを含むバルト三国を円借款及び技術協力の対象国とすることを決定、96年度は3名、97年度は6名、98年度は8名の研修員を受入れ、99年2月にはエネルギー分野の専門家を派遣した。また、97年5月には同三国を文化無償協力の対象国とし、ラトヴィアには98年、リエパーヤ交響楽団への楽器供与を決定した。</p>
4. 文化関係	<p>リーガ日本語学校及びラトヴィア大学の日本語講座が同国における日本語教育を行っている。94年、ラトヴィア・日本友好協会が正式に登録された。また、96年1月よりジャパン・インフォメーション・センターが我が国に関する広報活動を行っている。</p>
5. 外交関係	<p>1925年 通商航海条約調印  1926年 東京にラトヴィア領事館開設  1929年 リーガに日本公使館開設  1940年 ソ連への併合に伴い、領事館及び公使館閉鎖  1991年 独立回復に伴い外交関係再開  1992年 在スウェーデン日本国大使館によるラトヴィア兼轄開始  1996年 リーガにジャパン・インフォメーション・センター開設  1997年 在京ラトヴィア・インフォメーション・センター開設</p>
6. 在留邦人数	<p>6人</p>

Application for the Technical Cooperation

(Development Study)

by the Government of Japan.

1. Project digest.

(1) Project Title.

"Study for Estimation of Lake Lubanas water quality and water level determinators as the basis for integrated wetland complex management"

(2) Location

Geographical co-ordinates: 56°49'43"N, 26°52'22"E. Lies within boundaries of Rezekne, Madona, Balvi regions; nearest town Varakljani, approximately 30 km from centre of the complex. Total area - 78,000 ha. The entire area lies between +89.2 and +112.6 m (sea level). Refer to **Appendix A** for the map.

*Wetland type* Complex of inland wetlands.

(3) Implementing agency

Ministry of Environmental Protection and Regional Development

*Executing agency* - Laboratory of Ecology, Daugavpils Pedagogical University

Number of the staff of the Implementing Agency:

1st category - 3

2nd category - 12

3rd category - 103

Number of the staff of the Executing Agency:

1st category - 1

2nd category - 2

3rd category - 4

Budget, allocated to the implementing agency - 814'881 (Ls/yr)

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Organisation chart - Appendix D

*(4) Justification of the project*

**Present conditions of the sector:**

For eleven years already the Lake Lubans does not exist as a natural water body. After enormous transformations which lasted for almost 60 years the lake is separated from its catchment by dams, and it has become regulated. Opposite to the planned results, floods have not been completely averted, and many new problems have arise, e.g.: the water body Lubans is rapidly losing the character of a living system; the former wetlands and peculiar biotopes are running dry.

Refer to **Appendix C** for details.

**Sectoral development policy of the national government**

Taking into account the importance of the lake Lubans problem prompt solution, Latvian government included it to the National Environmental Action Program (NEAP), adopted at 1997 Jan 10. It was included to chapter 8 of NEAP (Reduction of Biodiversity). Action name is "Integrated management plan for Lubanas wetlands complex", action number is 8E12.

**Problems to be solved in the sector:**

- to stop progressive eutrophication of the Lake and the degradation of aquatic ecosystem;
- to eliminate risks caused by the economic activity to biodiversity and wildlife habitats;
- to determine valuable factors for Lubanas wetlands complex ecosystem functioning and build a prognostic model;
- to assess impact of economic activity on ecosystem (agriculture, forestry and fish farming);
- to determine factors of landscape degradation;
- to develop integrated management plan of Lubanas wetlands complex.

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**Outline of the project:**

The project is aiming to Lubanas wetlands complex (LWC) integrated management plan design. To achieve the goal (long-term objective) we have to solve following problems (short-term objectives):

1 - to work out complex of measures for water quality control, water level control to stop aquatic ecosystem progressive eutrophication and wetlands landscape degradation;

1.1 - to design a system for water quality control;

1.2 - to design a system for water level control;

1.3 - to design a system of agrotechnical treatments;

1.4 - to design a system of forestry treatments;

1.5 - to design a system of monitoring, including the following

subsystems:

1.5.1 - water quality monitoring subsystem;

1.5.2 - water level monitoring subsystem;

1.5.3 - subsystem of bioindication parameters, to characterise ecosystem condition.

2- to work out complex of protective measures for unique landscape of Lubanas wetlands complex (LWC), its characteristic floristic and faunistic species composition;

2.1 - to work out adequate methods for biodiversity evaluation;

2.2 - to evaluate losses of floristic and faunistic diversity;

2.3 - to develop and carry out measures for biodiversity restoration.

3- to work out the complex of measures for counterbalancing the interests of different landowners groups on the LWC territory;

3.1 - to develop plans of economic activities for different action groups in LWC to provide regional sustainable economic development;

3.2 - to develop programmes of ecological risk minimisation for different action groups.



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### Project beneficiaries

We consider the following groups to become the prospective beneficiaries during and after the project implementation:

#### 1. Local inhabitants

benefits to be expected:

- 1.1 increasing welfare,
- 1.2. cost-effective agriculture,
- 1.3. sustainable forestry,
- 1.4. non-exhaustive fishery,
- 1.5. tourism development.

#### 2. Potential investors

- 2.1. Favourable economic environment,
- 2.2. Guaranteed economic security.

#### 3. Local specialists.

- 3.1. Scientific exchange with Japanese consultants,
- 3.2. Technology exchange,
- 3.3. Personnel training.

#### 4. Local government.

- 4.1. Model of sustainable regional development.

(5) *Desirable time of the commencement of the Project* - 36 months.

(6) *Expected funding source* (refer to **Appendix B** "Co-financial scheme")

(7) *Other relevant projects*

Working out the recommendations for functional zoning of the lake's Râzna water drainage basin

*Objectives of this project:*

- to define present status of forests in the lake's Râzna water drainage basin in connection with the Land and Forestry Reforms in Latvia;

- to determine the ratio between afforested and forestless spaces in the lake's Râzna water drainage basin;
- to estimate the agricultural and forestry intensity in the coastal zone of the lake Râzna;
- to investigate the influence and consequences of economic activity on water quality and biodiversity in the lake Râzna;
- to work out programme of recommendations for elimination of negative consequences of non-rational land use in the coastal zone of the lake Râzna;
- to work out the functional zoning of the lake's Râzna water drainage basin.

The project was supported by RSS 599/1997 grant (project description is available in Internet at homepage of the Laboratory of Ecology <http://www.dpu.lv/ecolab>)

## 2. TOR of the proposed Study.

### *(1) Necessity*

The first stage of the project "Integrated Management Plan of Lubanas Wetlands Complex" implementation is carrying out the development study "Study for Estimation of Lake Lubanas water quality and water level determinators as the basis for integrated wetlands complex management".

### *(2) Justification of the Japanese Technical Co-operation.*

We need Japanese Technical Co-operation because it is success of Japanese R&D that is well known in the world, especially in the topics related to solution of problems with high degree of complexity. We think that Japanese experience in rural development projects design (e.g. "Diversified Crops Irrigation Engineering Project in the Philippines", report of Hideyuki KANAMORI, Development Specialist In Irrigation, Japan International Cooperation Agency (JICA), also "Participatory Approach for Tropical Forest Conservation in Rural Development Arenal Conservation and Development

Project", Costa Rica, report of Wataru YAMAMOTO, Consultant, RECS International Inc., Takayuki HAGIWARA, Researcher, Exeidea Ltd.) will be of vital help to our project development.

Also environmental modelling and successful application of ecosystem simulation models having been designed by Japan specialists are well known (e.g. NIRE Simulation Models for Local Environmental Impact Assessment). We have no such sophisticated experience in data processing. We also hope that Japanese experience in monitoring techniques (e.g. NIRE Measuring and Monitoring Technologies for the Environment) will help us to build up-to-date system of environmental monitoring.

Taking into account the above suggestions we consider Japan International Cooperation Agency (JICA) Technical Cooperation the best variant.

### *(3) Objectives of the Study*

Aim of the Development Study is following:  
to evaluate the dynamics of factors determining water quality and water level of the Lake Lubanas.

Outcome of the Development Study is following:  
model of water quality control and water level management.

The Development Study includes:

1. Definition of the present status of forest and agricultural lands in the LWC in connection with the Land reform in Latvia.
2. Definition of present status of forests in LWC in connection with the Forestry Reform in Latvia.
3. Ecological and economic evaluation of agricultural and forestry activities consequences on water quality and biodiversity of the LWC.
4. Ecological and economic evaluation of hydrotechnical and hydromelioration activities consequences on water quality and biodiversity of the LWC.
5. To work out a programme of recommendations for elimination of negative consequences of non-rational use of land and water resources in the LWC.

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6. To work out functional zoning of the LWC.

7. To evaluate sufficiency of the legislative framework for economically interested action groups in the study area. To work out programme of recommendations for the legislative framework development if necessary. Look at **Appendix E** for details of interdependence of The Development Study and the whole Project.

*(4) Area to be covered by the Study*

Lubanas Wetlands Complex. Refer to **Appendix A** for the map.

*(5) Scope of the Study:*

The study scope of the Project to be considered is as follows:

(However at the moment it is obvious that all details shall be decided upon in discussion with the Japanese party and that changes are still possible)

5.1. Preliminary research.

5.1.1 Available data acquisition.

5.1.1.1 Socio-economic environment analysis,

5.1.1.2. Natural conditions analysis,

5.1.1.3 Hydrological data acquisition,

5.1.1.4 Aquatic flora and fauna analysis,

5.1.1.5 Other flora and fauna analysis.

5.1.1.6 Survey of the present system of environmental protection status of LWC lands.

5.1.2 Field research programme elaboration.

5.2. Field research.

5.2.1 Definition of the present status of forest and agricultural lands in the LWC in connection with the Land reform in Latvia.

5.2.2 Definition of present status of forests in LWC in connection with the Forestry Reform in Latvia.

5.2.3 Ecological and economic evaluation of agricultural and forestry activities consequences on water quality and biodiversity of the LWC.

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5.2.4 Ecological and economic evaluation of hydrotechnical and  
hydromelioration activities consequences on water quality and  
biodiversity of the LWC.

5.3. Collected data analysis. Models preparation, verification and testing.

5.3.1 To work out a programme of recommendations for elimination of  
negative consequences of non-rational use of land and water  
resources in the LWC:

5.3.1.1 water quality model,

5.3.1.2 water balance model,

5.3.1.3 water pollution model,

5.3.1.4 functional role of forests in the catchment area,

5.3.1.5 agricultural pollution model,

5.3.1.6 other environmental components dynamics.

5.3.2 Functional zoning.

5.3.2.1 Mapping agricultural activity,

5.3.2.2 Mapping forestry activity,

5.3.2.3 Mapping recreation,

5.3.2.4 Mapping other economic activity,

5.3.2.5 Defining functional zones of LWC.

5.3.3 To evaluate sufficiency of the legislative framework for  
economically interested action groups in the study area. To  
work out programme of recommendations for the  
legislative framework development if necessary.

5.3.4 Building integrated analytical model of water quality and water  
level control in Lake Lubanas.

5.3.4.1 Model construction (from partial models),

5.3.4.2 Model verification,

5.3.4.3 Model application to development of programmes of  
ecological risk minimisation for different economically  
active groups in the region of the Study.

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*(6) Study Schedule*

Study period is 36 months, expected field investigation period - 18 months.

*(7) Major outputs*

- 7.1 Integrated analytical model of water quality and water level control in Lake Lubanas.
- 7.2 Programmes of ecological risk minimisation for different economically active groups in the region of the Study.
- 7.3 Environmental friendly business guidelines for small and medium-sized enterprises.

*(8) Other relevant information*

- 8.1 Appendix A (maps)
- 8.2 Appendix B (background financial information)
- 8.3 Appendix C (background ecological information)

**3. Facilities and Information for the Study Team**

*(1) Assignment of counterpart personnel*

Environment Protection Department of Ministry of Environmental Protection and Regional Development.

- personnel involved - 4

Laboratory of Ecology, DPU

- personnel involved - 7

Rezeknes Regional Development and Nature Protection Committee

- personnel involved - 3

*(2) Available data:*

- 2.1 1991-1992. Research report of Environmental Consulting and Monitoring Centre.
- 2.2 Institute of Geodesy and Geoinformation of Latvian University, GIS.
- 2.3 State Land Service, GIS.
- 2.4 Annual reports of state reserves in LWC.

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#### 4. Remarks.

4.1 It is understood, that the work ahead will be done by JICA as well as by Latvian scientists, officials and others concerned, though the final decision on the division of competencies will be made later.

4.2 After adopting the Scope of the Work by Japanese Study Team, JICA and Latvian government, the last party will guarantee necessary environment for the smooth project implementation.

4.3 Credit in ¥ is a topic for discussion, but at the moment it is convenient enough.

4.4 Prospects of the realisation of the project:

4. 4.1 The proposed study will become the preparatory work to the project "Integrated management of Lubanas wetlands complex".

4.4.2 The experience achieved by the study team have direct implementation in the following regions, which have less sophisticated complexes of the same type:

- Northern Lithuania;
- Northern Poland;
- Western Russia;
- Northwest Belarus.

4.5 The supply of necessary working equipment for the Study and further for the Project would be included in the scope of the work.

#### 5. Necessity of urgent action.

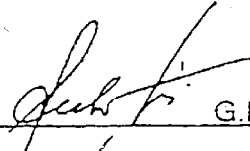
It is progressive eutrophication of wetlands ecosystem, leads towards unrecoverable losses of biodiversity, degradation of the unique landscape, caused by the rash human interference into natural processes that demand pressing action to counterbalance contradictions and recover normal functioning of the ecosystem. Changes in the national legislation, Land and Forestry Reforms implementation makes the conflict of interests between

private landowners, fishermen, farmers and another economically active groups in the LWC region more acute.

6. The Latvian Government claims, that if any arise against members of the Japanese Study team resulting from, occurring in the course of or otherwise connected with the discharge of their duties in the implementation of the study, except when such claims arise from gross negligence or wilful misconduct on the part of the member of the Study team.

7. Ministry of Environmental Protection and Regional Development of Latvian republic shall act as counterpart agency to the Japanese Study Team and also as co-ordinating body in relation with other governmental and non-governmental organisations concerned for the smooth implementation of the Study. Laboratory of Ecology of DPU is assigned to be executing agency from Latvian part.

The Government of Latvian Republic assures that the matters referred to in this form will be ensured for the smooth conduct of the Development Study by the Japanese Study Team.

Signed:  G. Pukitis

Titled: State secretary

On behalf of the Government of the Latvian Republic.

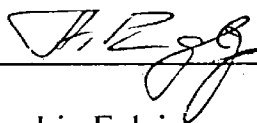
Date: *October 09, 1997*



SCOPE OF WORK  
FOR  
THE STUDY  
ON  
ENVIRONMENTAL MANAGEMENT PLAN FOR LUBANA  
WETLAND COMPLEX  
IN  
THE REPUBLIC OF LATVIA

AGREED UPON BETWEEN  
THE MINISTRY OF ENVIRONMENTAL PROTECTION AND REGIONAL DEVELOPMENT  
AND  
THE JAPAN INTERNATIONAL COOPERATION AGENCY

RIGA, MARCH 18, 1999



Mr. Andris Eglajs  
Deputy State Secretary  
Ministry of Environmental Protection  
and Regional Development (MEPRD)



Mr. Masahiro Ota  
Leader of Preparatory Study Team  
Japan International Cooperation  
Agency (JICA)

## I. INTRODUCTION

In response to the request of the Government of the Republic of Latvia (hereinafter referred to as "the Government of Latvia"), the Government of Japan has decided to conduct the Study on Environmental Management Plan for Lubana Wetland Complex in the Republic of Latvia (hereinafter referred to as "the Study") in accordance with the relevant laws and regulations in force in Japan.

Accordingly the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the official implementation of the technical cooperation programs of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the Government of Latvia.

The present document sets forth the scope of work with regard to the Study.

## II. OBJECTIVES OF THE STUDY

The objectives of the Study are :

1. to develop an environmental management plan for sustainable use of Lubana Wetland Complex, taking into account of characteristics of the ecosystem, water management, land-use and people's living
2. to carry out technology transfer on environmental management planning and its implementation to the counterpart personnel through the joint work in the course of the Study.

## III. STUDY AREA

The Study area shall cover the Lubana Wetland Complex. (approximately 78,000 ha)

## IV. SCOPE OF THE STUDY

The integrated Environmental Management Plan, which is expected output of the Study, will consist of the scope as follows,

1. to identify the representatives of ecosystems in the area, particularly the vegetation type of forests and marshlands, wildlife including waterfowl and their habitat, and human and natural impacts to the habitat ecosystem
2. to identify fluctuation of the seasonal water level, submersion and damage by flooding and possible countermeasures
3. to identify and review the present land-use and to develop ideas for future

- land use planning
4. to review the GIS for the Study and for the implementation of the management plan developed according to the Study
  5. to formulate an integrated environmental management plan according to the above Study and consultation with the counterpart organizations including local administrations

To achieve the above objectives, the Study will cover the following items:

1. Collection and review of existing data and information
  - (1) Social and economic condition
  - (2) Natural condition (meteorology, hydrology, topography and geology)
  - (3) Land use, vegetation and eco-system
  - (4) Water level and water quality
  - (5) Laws and regulations related to the environmental management and conservation
  - (6) Organizations and institutions related to the environmental management and conservation
  - (7) Development plans and policies in the Study area
  - (8) Related projects by other donors
2. Aerial photo and/or satellite image analysis
3. Field reconnaissance
  - (1) Hydrology and Topography
  - (2) Fauna and flora
  - (3) Land use, vegetation and eco-system
  - (4) Water level
  - (5) Infrastructure, tourism facilities and other related facilities
  - (6) Environmental resources and landscape
4. Analysis of present condition and function of its eco-system and environment impact by human activities
5. Formulation of environmental management plan
  - (1) Socio-economic framework
  - (2) Environmental zoning plan for wetland conservation and sustainable use
  - (3) Environmental monitoring plan
  - (4) Recommendation for future land use
  - (5) Local community development plans including eco-tourism

- (6) Environmental management plan including the utilization of GIS
- (7) Facility plan
- (8) Institutional arrangement and financial plan
- (9) Evaluation and recommendation

## V. SCHEDULE OF THE STUDY

The Study will be conducted in accordance with the tentative schedule as attached in the Appendix 1. The schedule is tentative and subject to be modified when both parties agree upon any necessity that arises during the course of the Study.

## VI. REPORTS

JICA shall prepare and submit the following reports in English to the Government of Latvia.

1. Inception Report:  
Thirty(30) copies at the beginning of the work in Latvia.
2. Progress Report (1):  
Thirty(30) copies at the end of the first work period in Latvia.
3. Interim Report:  
Thirty(30) copies at the beginning of second work period in Latvia.
4. Progress Report (2):  
Thirty(30) copies at the end of second work period in Latvia.
5. Draft Final Report:  
Fifty(50) copies at the third field work period.  
The Government of Latvia shall submit its comments within one(1) month after the receipt of the Draft Final Report.
6. Final Report:  
Fifty(50) copies within two(2) months after receipt of the comments on the Draft Final Report.

## VII. UNDERTAKINGS OF THE GOVERNMENT OF LATVIA

1. To facilitate the smooth implementation of the Study, the Government of Latvia shall take necessary measures:
  - (1) to secure the safety of the Japanese Study Team (hereinafter referred to as "the Team")

- (2) to permit the members of the Team to enter, leave and sojourn in Latvia for the duration of their assignment therein, and to exempt them from foreign registration requirements and consular fees,
  - (3) to exempt the members of the Team from taxes, duties and any other charges on equipment, machinery and other materials brought into and out of Latvia for the implementation of the Study,
  - (4) to exempt the members of the Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Team for their services in connection with the implementation of the Study,
  - (5) to provide necessary facilities to the Team for remittance as well as utilization of funds introduced into Latvia from Japan in connection with the implementation of the Study,
  - (6) to secure permission for entry into private properties or restricted areas for the implementation of the Study,
  - (7) to secure permission for the Team to take all data and documents (including photographs and maps) related to the Study out of Latvia to Japan, and
  - (8) to provide medical services as needed. Its expenses will be chargeable on the members of the Team.
2. The Government of Latvia shall bear claims, if any arises, against the members of the Team resulting from, occurring in the course of, or otherwise connected with, the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Team.
  3. Ministry of Environmental Protection and Regional Development (hereinafter referred to as "MEPRD") shall act as a counterpart agency to the Team and shall also act as a coordinating body in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study.
  4. MEPRD shall, at its own expense, provide the Team with the followings, in cooperation with other organizations concerned:

- (1) available data and information related to the Study,
- (2) counterpart personnel,
- (3) suitable office space with necessary equipment and furniture in Riga and the project site.
- (4) an appropriate number of vehicles with drivers, and
- (5) credentials or identification cards.

#### VIII. UNDERTAKINGS OF JICA

For the implementation of the Study, JICA shall take the following measures:

1. to dispatch, at its own expense, the Team to Latvia, and
2. to pursue technology transfer to the Latvia counterpart personnel in the course of the Study.

#### IX. CONSULTATION

JICA and MEPRD shall consult with each other in respect of any matter that may arise from or in connection with the Study.

# TENTATIVE SCHEDULE

MONTH	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
WORK IN LATVIA																			
WORK IN JAPAN																			
REPORT PRESENTATION	△					△					△					△			
	IC/R					P/R (1)					IT/R					P/R (2)			
																DF/R			

REMARKS:

IC/R : Inception Report

P/R : Progress Report

IT/R : Interim Report

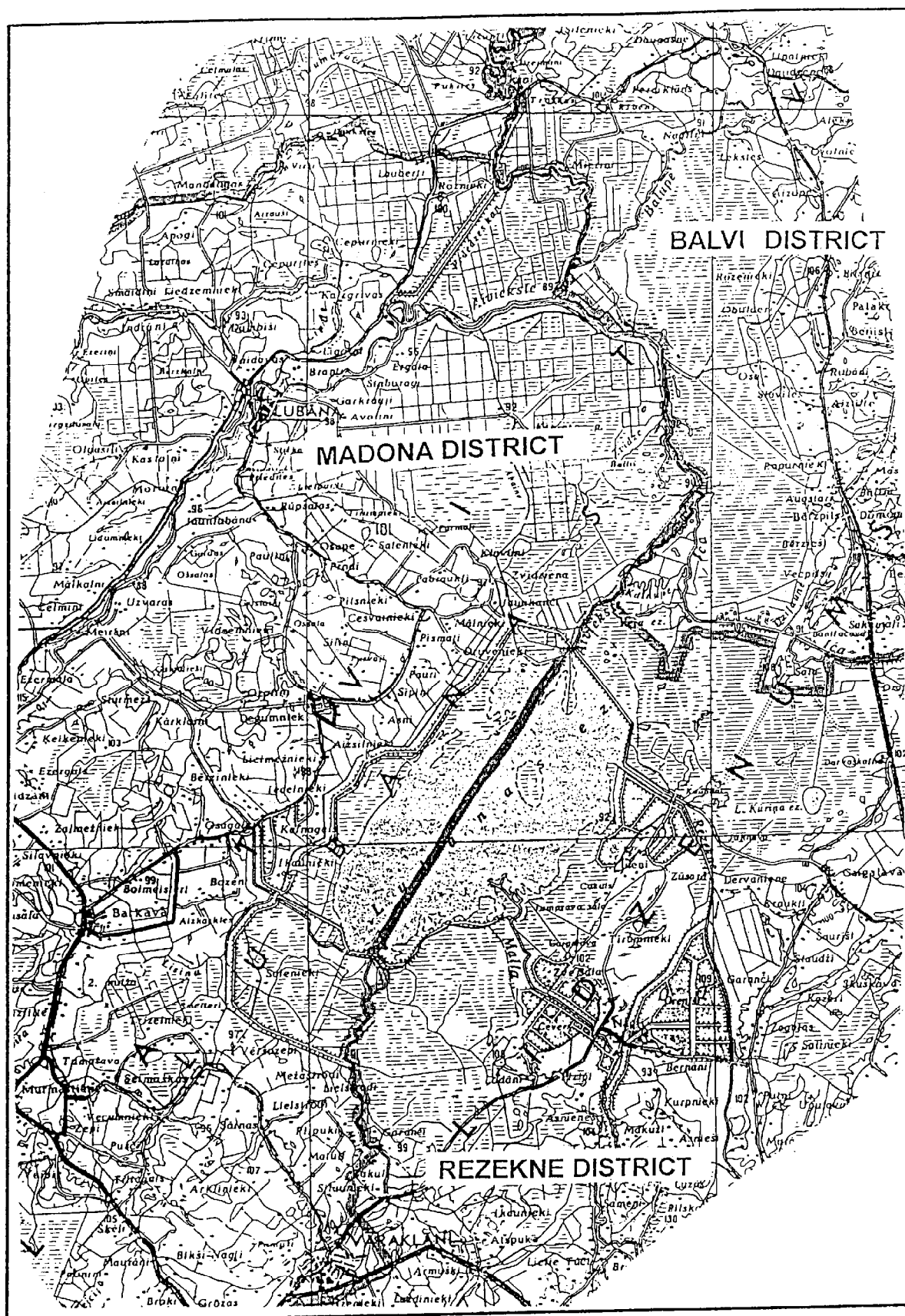
DF/R : Draft Final Report

F/R : Final Report

Appendix 1

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## STUDY AREA FOR LUBANA WETLAND COMPLEX

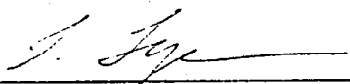
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MINUTES OF MEETING  
ON  
THE SCOPE OF WORK  
FOR  
THE STUDY  
ON  
ENVIRONMENTAL MANAGEMENT PLAN FOR LUBANA  
WETLAND COMPLEX  
IN  
THE REPUBLIC OF LATVIA


AGREED UPON BETWEEN  
THE MINISTRY OF ENVIRONMENTAL PROTECTION AND REGIONAL DEVELOPMENT  
AND  
THE JAPAN INTERNATIONAL COOPERATION AGENCY

RIGA, MARCH 18, 1999



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Ms. Ilona Jepsen  
Deputy Director,  
Environmental Protection Department,  
for the Director of Environmental  
Protection Department,  
Ministry of Environmental Protection  
and Regional Development (MEPRD)



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Mr. Masahiro OTA  
Leader of the Preparatory Study Team  
Japan International Cooperation Agency  
(JICA)

Witness



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Mr. Andris Eglajs  
Deputy State Secretary  
Ministry of Environmental Protection  
and Regional Development (MEPRD)

In response to the request of the Government of the Republic of Latvia (hereinafter referred to as "the Government of Latvia"), the Government of Japan has decided to conduct the Study on Environmental Management Plan for Lubana Wetland Complex in the Republic of Latvia (hereinafter referred to as "the Study") through the Japan International Cooperation Agency (hereinafter referred to as "JICA").

The Japanese Preparatory Study Team (hereinafter referred to as "the Study Team"), headed by Mr. Masahiro OTA, visited the Republic of Latvia and carried out field surveys of the study area and had a series of meetings with the Ministry of Environmental Protection and Regional Development (hereinafter referred to as "MEPRD") and other authorities concerned of the Government of Latvia from March 7th to March 26th, 1999. The list of attendants is shown in Annex.

The draft S/W (scope of work) proposed by the Study Team was discussed in detail between MEPRD and the Study Team, and both side agreed to adopt the S/W with the following understandings.

#### I Study area

The study area shall cover the Lubana Wetland Complex which is indicated on the map attached in the Scope of Work. However, the areas intensively studied will be finalized during the discussions at the commencement of the Study on the basis of the each component of the Scope of Work.

#### II Target year

It is agreed that the Study would cover the period until the year of 2010..

#### III Coordination of the Study with other Ministries and local Organizations concerned

In order to coordinate the interests among Ministries concerned and to secure smooth implementation of the Study, it is agreed to establish the Steering Committee under a chairmanship of MEPRD. The members of the Committee consists of organizations as follows,

Ministry of Finance  
Ministry of Foreign Affairs  
Ministry of Economy  
Ministry of Agriculture,  
- Dept. of Forestry,  
- Dept. of Fisheries,  
- Dept. of Land Reclamation System Administration  
Ministry of Science and Education

In order to reflect interests of the local organizations and communities to the output of the Study, and to secure smooth implementation of the Study, it is also agreed that the Working Group at the local level is established under the leadership of MEPRD and its Regional Environmental Boards. Major members of the Group may consist of organizations as follows,

The Regional Environmental Boards,  
The District Administration of Rezekne, Madona and Belvi  
The Land Reclamation System Administration,

The Forestry Superintendence,  
Council for Regional Development for Latgale Region,  
The Fishery Administration  
Teici state reserve  
Some townships concerned

The researchers of Laboratory of Ecology, Daugavpils University who own intensive scientific research experiences in the Study area may play a role of coordination among the Group members.

#### IV Full-Scale Study Team

The full-scale study team, which JICA dispatches, consists of members required to perform the Scope of Work (S/W). The professions may include subjects as follows,

Environmental Management  
Regional Development/ Eco-tourism Development  
Wetland Hydrology  
Ornithologist and/or Wildlife Management  
Forestry, Vegetation and/or ecology  
Land-use Specialist/ GIS specialist  
Agricultural Policy and Economics  
Inland fishery specialist

#### V Joint Work with MEPRD and Working Group

It is agreed that each member of the full-scale study team works together with the counterpart personnel, including an official who plays a role of the project manager, assigned by MEPRD and the Working Group members to make sure incorporation of their interests to the Study output and smooth implementation of the Study.

#### VI Data and Information for the Study

It is agreed that MEPRD provides the available data and information necessary for the Study to the full-scale study team for the implementation of the Study. Some of them, for example, are as follows,

All relevant archives  
Satellite image  
Hydro-meteorological data  
Digital maps  
Forest inventory data  
Land survey data/ Latvian state geological survey data

It is also agreed that MEPRD makes necessary arrangement for other Ministries and local organizations to provide data and information for free to the full-scale study team.

#### VII Arrangement of the Study Implementation

1. The Study Team requested MEPRD to provide interpreters (Latvian-English) for smooth implementation of the Study. However, MEPRD expressed difficulty to respond to the Team's request due to financial reasons. The Study Team replied to convey the situation on interpreters to the

JICA Headquarters.

2. The Study Team requested that MEPRD would provide two vehicles with drivers necessary for the Study. However, MEPRD expressed difficulty over the request due to shortage of official vehicles. The Study Team replied to convey the situation on vehicles to the JICA Headquarters.

3. The Study Team requested that MEPRD is to arrange the offices with communication facility and office furniture for the full-scale study team in Riga, Rezekne and Daugavpils University. The telecommunication cost, however, will be paid by the full-scale study team. MEPRD will make necessary arrangement for the full-scale study team.

#### VIII Counterpart Training in Japan

According to the request made by MEPRD concerning the training of a counterpart personal in Japan held by JICA, the Study Team replied to convey the request to the JICA Headquarters for consideration.

#### IX Seminar and Workshop

According to the request to organize seminar at the final stage and workshops on the occasion of submission of each report to MEPRD by the full-scale study team, the Study Team replied to convey the request to the JICA Headquarters.

#### X Others

MEPRD acknowledged briefing of the JICA Development Study Program made by the Team.

## MEMBER LIST

Ministry of Foreign Affairs  
Ms. Dace Treija Head of Asia and Africa Division  
Ms. Egita Sedule Second Secretary, Asia and Africa Division

Ministry of Environmental Protection and Regional Development  
Mr. Rolands Arturs Bebris Director, Environmental Protection Department  
Ms. Ilona Jepsen Deputy Director, Environmental Protection Department  
Mr. Vilnis Bernards Senior Official, Environmental Protection Department  
Ms. Ilona Tesnova Senior Official, Environmental Protection Department  
Mr. Ilgonis Strauss Head of Division, Investments Department  
Mr. Janis Aizsalnieks External Relations Coordinator, Investments Department  
Mr. Janis Karro Director Rezekne Regional Environmental Board  
Ms. Erika Ruskule Deputy Director, Rezekne Regional Environmental Board  
Mr. Jevgenijs Sobko Director, Madona Regional Environmental Board  
Dr. Ilze Kirstuka Director, Latvian Environmental Data Center  
Ms. Polina Berg Specialist of Information Department, Latvian Hydro-meteorology Agency

Ms. Inga Gavena Adviser, State Geological Survey  
Mr. Agris Lacis State Geological Survey

Ministry of Agriculture  
Ms. Gunta Ozolina Deputy Director, National Board of Fishery  
Ms. Inga Erta Engineer, Rezekne Forestry Superintendancy

Rezekne District Council  
Mr. Monvids Svarcs Chairman  
Mr. Valerijs Zvirgzdins Executive Director  
Ms. Sandra Ezmale Main Specialist, Territorial Planning Department  
Mr. Janis Berzins Territorial Planner, Osupe Township Administration  
Mr. Stanislavs Smelters Head of Barkava Township Administration  
Mr. Dzintars Kazulis Deputy Head of Osupe Township Administration  
Mr. Voldemars Dreimanis Head of Nagli Township Administration  
Ms. Ginta Kalvane Director, Nagli Fish Firm  
Mr. Juris Smocs Licensed Fisherman in Lake Lubana

Aivieksste State Department of Land Reclamation System  
Mr. Arkadijs Sluckis Director

Daugapils Pedagogical University  
Dr. Arturs Skute Head of Ecology Laboratory  
Mr. Jevgenijs Cernihovics Forest Resource Management, Ecology Laboratory  
Mr. Juris Soms GIS Expert, Department of Geography