

WORK PLAN

for the cooperation between

ROSNIIVKH and RIZA

in the year

2002

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1 Introduction

1.1 The start

Since 1991 a cooperation has developed between two sister institutes on inland water management: the Russian Research Institute for Complex Utilization and Protection of Water Resources (ROSNIIVKH, Yekaterinburg) and the Dutch Institute for Inland Water Management and Wastewater Treatment (RIZA, Lelystad).

1.2 Memorandum of Understanding

In 1993 the cooperation was formalized in a Memorandum of Understanding (MOU) for cooperation in the fields of environmental protection, nature and water management. Partner from the side of the Russian Federation is the Ministry of Natural Resources. From the Dutch side, three ministries participate: the ministries of Transport, Public Works and Water Management (V&W); Agriculture, Nature and Fisheries (LNV) and Spatial Planning, Public Health and Environment (VROM). Working programs that specify the MOU were made in 1993, 1997 and 2001.

Until 2001, cooperation between ROSNIIVKH and RIZA was the main component of the V&W contribution to the MOU. The 1997 working program mentions the following items regarding the cooperation between ROSNIIVKH and RIZA:

- a pilot project on integrated water management in the Tura river basin
- joint research projects in the field of water systems analysis methods
- implementation of World Bank projects on transboundary waters of the Severskyi Donets.

The present working program, which applies to the period 2001 – 2003, specifies the following subjects for the cooperation of ROSNIIV and RIZA:

- information exchange on the legal basis for water management
- expansion of the pilot project in the Tura basin in line with the EU Water Framework Directive
- application of the experience and results of the Tura river basin pilot study in other regions and basins
- workshop on integrated water management and stakeholder participation
- remote sensing studies to improve monitoring, exploitation and efficiency of water management

In 2000, an evaluation took place of the first 10 years of the cooperation between ROSNIIV and RIZA. The activities in the cooperation were grouped into 3 themes: joint projects, scientific exchange and networks of contacts. The evaluation concluded that on all 3 themes the cooperation was highly successful, and no fundamental changes were needed in the coming years.

1.3 Structure of the workplan

In the workplan the activities in the cooperation are grouped into the following themes:

1. Project management
2. Co-financing
3. Scientific exchange
4. Joint projects - research and planning

This grouping is similar, but not identical with the one in the evaluation 1991-2000.

Project management and co-financing are added as specific themes, as they require considerable input and specific activities. The theme "networks of contacts" is dropped, as it is considered to be a side-product of the activities in the other themes.

2 Project management

Project management is a self-evident part of all projects, which still can require a fair amount of resources. Therefore it is useful to pay explicit attention to these activities.

Activities

- Coordination of cooperation
- Preparation and sanctioning of work plan
- Project secretariat

Products

Work plan 2002

Personnel

ROSNIIVKH: Natasha Shagalova

RIZA: Willem Oosterberg

Missions

13 - 18 January preparation of Workplan 2002. Henk Wolters, Willem Oosterberg -> Russia

December preparation of Workplan 2003, Willem Oosterberg -> Russia

3 Co-financing

Aims

The funds in terms of money and personnel that are provided by RIZA and ROSNIIVKH set a boundary to the size of the cooperation. The activities can be expanded by finding external donors.

Activities in 2002

Possibilities of co-financing by the Dutch SENTER program will be identified. Other initiatives may develop on an ad-hoc basis.

Personnel

ROSNIIVKH:	Natasha Shagalova
RIZA:	Willem Oosterberg

4 Scientific exchange - study tours, seminars and workshops

Aims

The aims of the study tours, seminars and workshops are transfer of knowledge and ideas and the acquaintance with various aspects of water management in Russia and the Netherlands.
The target is to have per year at least 1 study tour/ workshop in the Netherlands and 1 study tour/ workshop in Russia.

Activities in the period 1991 - 2001

-> Netherlands

Up till now, a number of study tours to the Netherlands have been made; for example:

- 1997 Integrated river basin management
- 1998 Water management planning
- 1999 Licensing for water use and water discharge
- 2000 Interactive planning
- 2001 Visit of Directors of ROSNIIV branches

-> Russia

In Russia, the following activities have been organised:

- 1996 Seminar "Healthy water by better management", Yekaterinburg
- 1997 Seminar "Healthy water by better management", Tumen
- 1999 Scientific-practical seminar "Water management planning in the Tagil river basin", Nizhniy Tagil
- 2001 Workshop "The Lyovikha mine ecological problems and ways of their solution"
- 2001 Jubilee symposium "10 year cooperation of ROSNIIV – RIZA"

Activities in 2002

-> Netherlands

- Symposium Diffuse Pollution, Amsterdam
Date : 30 September – 4 October 2002
Attending from ROSNIIV: Nadesda Prokhorova
Galina Borisova
- Study tour "Sediment Decontamination and Ecological Restoration in the Netherlands"
Date: 1 week in June
Attending from ROSNIIV: A.N. Popov
Y Rybakov
A. Kotchev (interpreter)
- Wetland Restoration Course
Date: 29 May - 26 June
Attending from ROSNIIV: Andrey Nosal
- Public Participation - preparation of work in 2003
Date: October
Attending from ROSNIIV: Natasha Shagalova
from Oblast: to be decided

-> Russia

- Course on presentation techniques, January 2002
The course is given by Bouke Ottow, RIZA

Activities in 2003

In 2003 a study tour on public participation will be held in the Netherlands. Key players involved in water management in the Yekaterinburg area (ROSNIIV, Oblast etc.) will participate. The study tour focusses on process architecture, methods for participation and applicability in the Russian setting. The study tour results in a plan for the implementation of a number of participation sessions in the Yekaterinburg area.

5 **Research projects and plan-development projects ("joint projects")**

5.1 Introduction

Aims

The aims of the joint projects are the exchange of scientific knowledge and skills, as well as knowledge and skills on

- the political, organisational, institutional and financial aspects of integrated water management
- the organisation of research, reporting and presentation

The aims of the joint projects are quite similar to the aims of the study tours and seminars. Evidently, the study tours and seminars are efficient venues for the exchange of well-developed knowledge and general skills. Joint projects, which are more expensive, are called for when new knowledge is necessary, or the application of skills is quite specific to a situation.

Joint projects in the period 1991 - 2001

In the period 1991 - 2001 the following projects have been started:

- Comparison of Dutch, EU and Russian water quality standards.
- Water management plan for the Tura basin
- Development of the Index of Trophic Completeness – an index for the effects of water pollution on the macrofauna community
- Application of GIS in water management

The first project has been completed in 1999. The other projects are still continuing.

From the workshops in Nizhny Tagil and Lyovikha copper mine a specific line of action was agreed on to limit the polluting effects of the Lyovikha mine. This is considered as a specific project.

The projects are described in turn below, with a description of aims, activities until 2001 and the proposed activities, products, personnel and missions in 2002.

5.2 Water management plan for the Tura basin

Introduction

In 1997 a project was started with the aim to develop and implement an integrated water management plan for the Tura Basin. In the preparation of this plan, the following stages were distinguished:

- Assessment of the current situation in the basin
- Working out of management goals and tasks of planning
- Definition of the difference between current and planned situation in the river basin; Definition of the problems
- Description of the programs and management plans necessary for attaining of target indicators
- Informing the population, development of consultation measures
- Prioritizing of water protective measures; agreement on coordination of the proposed actions
- Development of a program of actions
- Preparation of the integrated water management plan

Activities 1998 - 2001

Many activities were undertaken in the period 1998 – 2001 that led to the publication, in 2001, of 2 products:

- RosNIIVKh & RIZA, 2001
Atlas Integrated Water management in the Tura Basin
- RosNIIVKh & RIZA, 2001
Integrated water management in the Tura Catchment (1998 – 2000)

Of the stages listed above, these products cover the first and third stage in detail, and touch on the other stages as well.

Activities in 2002

In 2002 attention will be paid to the analysis of the economic analysis of water resources

The following subjects are important:

- a. water pricing and cost recovery - in the NL and Russian situation
- b. water pricing and cost recovery - what is required by the EU Water Framework Directive
- c. cost-benefit analysis - assessment of complex water projects

Products

Working paper:

“Comparison of Russian and Dutch approaches to the economics of water resources”

Missions

Ms. Kozlova and Ms. Krutikova will spend 2 months in the Netherlands to prepare a draft of the working paper. In this work they will be assisted by economists from the Netherlands Economic Institute (NEI) and the Erasmus University Centre for Sustainable Development and Management (ESM). Period of stay is expected to be August - September.

Personnel

ROSNIIVKH:	Iulia Kozlova Ksenia Krutikova Nadesda Prokhorova
RIZA:	Willem Oosterberg
NEI:	Teun Botterweg Esther Uiterwaal
ESM:	Jacco van Noort a.o.

Activities in 2003 and 2004

In 2003 a comparison will be made of the contents of the integrated water management plan for the Tura Basin with the requirements of the EU Water Framework Directive. Preparations for this project can be performed in 2002, if personnel and time allows.

5.3 The Lyovikha mine ecological problems and ways of their solution

Introduction

From the workshops in Nizhny Tagil and Lyovikha copper mine a specific line of action was agreed on to limit the polluting effects of the Lyovikha mine. Here, 2 phases were distinguished:

- Phase 1:
Construction of a mixing station for the application of lime to the effluent of the mine
- Phase 2:
Definition of a project for the economic recuperation of metals in mine effluent; finding funds for this definition

Activities in 2002

Activities in phase 1 will be continued. Phase 2 will be started after completion of phase 1.

Personnel

ROSNIIVKH: Yury Rybakov

Missions

No missions in 2002

5.4 Development of the Index of Trophic Completeness

Introduction

It is well established that the macrozoobenthos species composition is quite specific for the physical and chemical characteristics of water bodies. Water bodies in the Yekaterinburg area tend to be quite natural in all aspects, except for the level of heavy metals. Thus the area provides a valuable setting for the investigation of the relationship between specific heavy metals and benthos composition. This composition is quantified in the Index of Trophic Completeness (ITC).

Activities 1991 - 2001

The work on the relationship between specific heavy metals and the ITC started in 1993. It is the oldest component of the ROSNIIV – RIZA cooperation, and has led to a number of scientific publications.

Activities in 2002

It is targeted that the project will be completed in 2002. Remaining activities are:

- Monitoring of macrofauna in water systems high in Zn (near Wladiwostok), Mn (near St. Petersburg) and suspended solids (in N Ural)
- Validation of ITC in Austria and Denmark (workshop)
- Scientific publication of validation

Products

- Scientific publication on validation of the ITC
- Final report on the monitoring of macrofauna

Personnel

ROSNIIVKH: Timur Pavluk
RIZA: Abraham bij de Vaate

Missions

Reservation for 1 mission, either Abraham bij de Vaate -> Russia, Timur Pavluk -> Netherlands, or both Timur Pavluk and Abraham bij de Vaate -> Vienna

5.5 Application of GIS in water management

Introduction

As a consequence of the decision to develop a water management plan for the Tura Basin, an investment was made to start a GIS unit within ROSNIIV.

Aims

Setup of a GIS unit within ROSNIIV.

Activities until 2001

- Purchase and installation of equipment (1998)
- GIS course and GIS training in NL and Russia (1998)
- Collecting of basic data and collation of database by ROSNIIV (1998 – 2001)
- Pilot in the use of satellite images for assessment of water quality (2001)

The pilot that was performed in 2001 led to the conclusion that the satellite images are useful for classifying terrestrial areas in the Basin, but are not very useful for the monitoring of water quality.

Activities in 2002

With the publishing of the Atlas and the Report for the Tura Basin in 2001, the GIS unit has completed a major project and has developed capacity on GIS and satellite image processing.

Activities in 2002 will focus on finding a new direction for the unit. Options are:

- strengthening the position of the GIS unit within ROSNIIV
- adoption of a new project, f.e. an Atlas of a new Basin
- further development of satellite image processing with terrestrial applications. Images are readily available, but certification of personnel is required.
- development of a GIS course and the skills to teach GIS

Personnel

ROSNIIVKH: to be decided

Missions

No missions in 2002

Capacity, budget and overview of missions

5.6 Capacity

Capacity in man-days

	RIZA	External NL	ROSNIIV
Project management			
Coordination	W. Oosterberg 15		N. Shagalova 15
	H. Wolters 5		N. Prokhorova 10
Secretariat	WATC 1		A. Kochev 10
TOTAL	21		35
Study tours and workshops			
-> Netherlands			
Diffuse Pollution			N. Prokhorova 5
			G. Borisova 10
Wetland Restoration Course			A. Nosal 45
Sediment Decontamination and	W. Oosterberg 5		A.N. Popov 7
Ecological Restoration in the NL	J. Doze 8		Y. Rybakov 7
	WATC 4		A. Kotchev 7
Study tour Public Participation	W. Oosterberg 3		N. Shagalova 7
	M. Spierings 7		to be decided 7
	F. vd Ven 2		
-> Russia			
Presentation techniques	B. Ottow 7		Various attending 40
TOTAL	36		135
Projects			
Tura Basin			
Water Economics	W. Oosterberg 5	NEI-TB 6	N. Prokhorova 5
	WATC 2	NEI-EU 3	I. Kozlova 50
		ESM 3	K. Krutikova 50
Index of Trophic Completeness			
Validation ITC, publications	B. bij de Vaate 20		T. Pavloek 30
			E. Pavloek
			A. Minin
TOTAL	27		130
TOTAL	84	12	300

5.7 Budget for the Cooperation ROSNIIV – RIZA

P: RIZA personnel

F1: external personnel

F2: other expenses

5.2.1 Budget in 1000 Euro

	P	F1	F2	TOTAL
Project management				
Coordination	14,1		5,1	
TOTAL				19,2
Study tours and workshops				
-> Netherlands				
Diffuse Pollution			4,5	
Sediment Decontamination and Ecological Restoration	9,3		3,2	
Study tour Public Participation	8,1		2,6	
-> Russia				
Course on presentation techniques	4,7		1,7	
TOTAL				34,1
Projects				
Tura Basin management plan				
Water Economics	3,4	8,3	5,3	
	1,0	2,9		
		2,9		
TOTAL				23,6
Index of Trophic Completeness				
Field Equipment			1,7	
Mission to Yek or Vienna	6,7		3,4	
Model for index calculation	6,7			
TOTAL				18,6
TOTAL				42,2
TOTAL	54,1	14,0	27,4	95,5

5.8 Budget for the Coordination of the MOU

5.2.2 Budget in 1000 Euro

	P	F	F2	TOTAL
Coordination of MOU				
Travel expenses MOU, NL - Moskou			3,4	
Participation in Ecwatech, 2 persons			3,4	
Contribution to congress NL- Russia		7,8		
Support of Harry Leummens, 1 month		9,1		
Contribution to ROSNIIV for congress			3,6	
TOTAL				27,3

5.9 Overview of missions

Theme	Activity	NL<-->RU	Personnel	Period
Project management	Workplan 2002	-> RU	Henk Wolters Willem Oosterberg	13 – 18 January
	Workplan 2003	-> RU	Willem Oosterberg	December
Scientific exchange	Symposium Diffuse Pollution	-> NL	Galina Borisova Nadesda Prokhorova	30 September – 4 October
	Sediment Decontamination and Ecological Restoration	-> NL	A.N. Popov Y. Rybakov Alexander Kotchev	1 week in May or June
	Wetland Restoration Course	-> NL	Andrey Nosal	29 May - 26 June
	Preparation of Public Participation Study Tour	-> NL	Natasha Shagalova	October
	Course Presentation Techniques	-> RU	Bouke Ottow	13 – 18 January
Projects				
Tura Basin	Water economics	-> NL	Iulia Kozlova Ksenia Krutikova	August + September
ITC	Reservation for 1 mission	To be decided	To be decided	To be decided

6 Agreement on the cooperation in 2002

In accordance with the workplan for the cooperation between ROSNIIVKH in Russia and RIZA in the Netherlands in 2002, herewith both parties confirm their agreement on the activities and will cooperate to execute the work, as described in the plan.

Ministry of Natural Resources
ROSNIIVKH

Rijkswaterstaat,
RIZA

Prof. doctor A. Tchernyaev,
Director

Ing. B. Fokkens
Director Wetland Development and Restoration
Department

Yekaterinburg,

2002

Lelystad,

2002