

Contract

between

Institute of Water and Ecology Problems
Far Eastern Branch of the
Russian Academy of Sciences

and

Research Institute for Humanity and Nature
Inter-University Research Institute Corporation
National Institute for the Humanities

on

The Research of the Amur River
and the Amur River Basin for 2009

Contract
between
Institute of Water and Ecology Problems
Far Eastern Branch of the Russian Academy of Sciences
and
Research Institute for Humanity and Nature
Inter-University Research Institute Corporation
National Institute for the Humanities
on
The Research of the Amur River
And the Amur River Basin for 2009

In accordance with discussions made during the International Symposium on Amur-Okhotsk Project (March 22-24, 2005), and in the framework of the Implementation Agreement on the Joint Research of Amur River, its Estuary and the Sea of Okhotsk between The Institute of Water and Ecology Problems, Far Eastern Branch of the Russian Academy of Sciences (IWEP FEB RAS) and The Research Institute for Humanity and Nature (RIHN) signed on April 19, 2005, and based on the Agreement on Cooperation between FEB RAS and RIHN signed on March 4, 2004, the Amur-Okhotsk Project of RIHN hereinafter to be called CUSTOMER in the person of Prof. Akihiro Kinda, Director, Inter-University Research Institute Corporation, National Institute for Humanities, on one side, and the IWEP FEB RAS hereinafter to be called EXECUTOR in the person of Professor Alexei N. Makhinov, Deputy Director of IWEP, on the other side, concluded the contract as follows.

Contract

between

Institute of Water and Ecology Problems
Far Eastern Branch of Russian Academy of Sciences

and

Research Institute for Humanity and Nature
Inter-University Research Institute Corporation
National Institute for Humanities

on

The Research of the Amur River and the Amur River Basin for 2009

1. Subject of the Contract

1.1 The CUSTOMER is to be charged with and the EXECUTOR is to be taken the responsibility for the continuation of research in Amur River in the research project entitled "The Research of the Amur River and the Amur River Basin for 2009".

1.2 The research according to this Contract is to be carried out on the basis of "Implementation Agreement on the Joint Research of Amur River, its Estuary and the Sea of Okhotsk between IWEP FEB RAS and RIHN" signed by both parties on April 19, 2005.

1.3 The EXECUTOR is to be responsible for following works in 2009:

- to prepare necessary arrangement including invitation letters for the Japanese participation to field activities in Russia.
- to conduct intensive observation in Kiya watershed (see Supplements 1-4)
- to submit a final report of 2009 and analyzed data during the project to the CUSTOMER.

1.4 The CUSTOMER is to be responsible for following works:

- to provide necessary tools, determine methods and make observations with Russian colleagues during the project.
- to provide the Japanese members with the transfers (including payment of customs taxes) between Japan and Russia.
- to provide shipping of necessary equipments between Japan and Russia.
- to prepare the expenses for the EXECUTOR's works noted in item 1.3.

2. Technical conditions

- 2.1 The intensive observation in Kiya watershed will be carried out from the date of Contract signing by both parties to October 2009.
- 2.2 The period of implementation is from the date of Contract signing by both parties till March 1, 2010.
- 2.3 The EXECUTOR and the CUSTOMER are to make copies of observation records and results obtained within the framework of "The Research of Amur River and Amur River basin for 2009" and are to provide them to each other.
- 2.4 The CUSTOMER and EXECUTOR have equal rights on the results of work and are to use them for the joint investigations within framework of the Implementation Arrangement between IWEP FEB RAS and RIHN.

3. Costs

- 3.1 The EXECUTOR is to provide Quotation to the CUSTOMER on expenses of EXECUTOR' works noted in the Item 1.3 prior to the conclusion of the Contract.
- 3.2 The CUSTOMER is to pay in US Dollars the total amount \$ 19662 (nineteen thousand six hundred sixty two) USD to the EXECUTOR for the work noted in item 1.3 in accordance with the calculations for individual stage of the works, given in Supplements 1-4
- 3.3 Japanese members who will participate in the work noted in items 1.3 are to pay for the following expenses (these expenses are not involved in the amount above): air, train and ship fares between Japan and the research fields and personal fees such as accommodations and meals.
- 3.4 Expenses of the surface transportation in the local research area are to be involved in the amount above and are to be paid by the EXECUTOR.
- 3.5 The payment is to be made as follows:
 - the first payment of \$ 15730 USD (80%) being just after the conclusion of the Contract;
 - the second (final) payment of \$ 3932 USD (20%) being just after the receipt of Final Report.
- 3.6 All payments to the EXECUTOR are transferred through the bank on the account of the EXECUTOR according to Supplement 5.
- 3.7 The EXECUTOR is to submit Final Report including all results of works before March 1, 2010.
- 3.8 On termination of the work at March 1, 2010, the EXECUTOR is to submit the Document about the accomplishment of the work to the CUSTOMER in two copies. The Contract is considered to be over after signing of the Document is done by both sides and final payment is made.
- 3.9 If the CUSTOMER has well based motives to reject the accomplishment of the work it has to prepare and send to the EXECUTOR list of necessary improvements, dates and conditions of their implementation.

4. Other conditions

- 4.1 The both sides bear responsibility for safety measures of their representatives, taking part in the experimental works.
- 4.2 In case of destroying of habitable premises, devises and equipment due to natural disaster (fire, earthquake, lightning etc.) the schedule of the work and calculations are to be corrected taking into account an occurred damage.
- 4.3 The equipment, tools and other properties obtained for the implementation of the Contract are to be belonged to the side, which purchased them.
- 4.4 The CUSTOMER shall not be liable for any losses or damages occurring to the equipment belonging to IWEP FEB RAS or for any loss, cost, injury or damages to any third party during the research cruise and activity.
- 4.5 The EXECUTOR shall not be liable for any loss or damages occurring to the properties belonging to the CUSTOMER during the research activity.

5. Effective period of the Contract

- 5.1 The Contract is to be effective after the signing by both sides, and is to terminate at the time of signing of the Document by both sides and final payment transfer by the CUSTOMER.

Details of the intensive observation activities at Kiya watershed in 2009

The following activities of No. 1 to 5 are planned to be conducted. Field observation (No. 1, 2, 3 and part of 5) is made basically biweekly, but more frequently on a flooding period (July to September). The total number of field observation is 8 times.

1. Water chemistry of river water at 3 sites (8 times).
2. Water chemistry of seepage, ground waters (for 3 observation wells) and deep underground water (1 well in Marucino) in hinterland when they appears (~6 locations, 4 times).
3. Flow rate measurement at 3 sites (8 times).
4. Continuous monitoring of river water level using a logger at 2 sites.
5. Ground water level: manual measurement at all observation wells (8 times) and continuous monitoring using a logger at 3 wells (floodplain in Marucino).

Conditions:

- a) Observation wells are to be installed at 8 locations in the hinterland (5 along the catena on floodplain in Marucino, 3 along the catena on floodplain nearby Marucino).
- b) Regarding to water levels, the relative height among wells is requested to be measured if possible.
- c) The same 5 loggers, as in 2008, will be used: 2 for river and 3 for ground water.

1. Hydrological observations in Kiya watershed

Total number of the river discharge (and water level) measurements:	24
Per the Kiya measurement price (16 times)	US \$ 200
Per the Birushka discharge measurement price (8 times)	US \$ 50
Total number of the river samples to be obtained	24
Per sample price	US \$ 10
Total manual measurements at all observation wells	64
Per measurement price	US \$ 30
Total number of the ground and underground water samples to be obtained:	24
Per sample price	US \$ 15
Subtotal	US\$ 6120

2. Chemical analyses on samples collected at Kiya watershed during the intensive observation

Type of samples: River water	
Total number of water samples:	24
Analytical components:	per sample price
Total dissolved Fe, acid soluble Fe and Fe(II)	US \$ 23
Total Organic Carbon (TOC analyzer)	US \$ 9

Turbidity	US \$ 14
Total number of water samples obtained in April 2009:	12
Analytical components:	per sample price
Trace Metals (Cu, Al, Mn, Co, Ni)	US \$ 33
Total dissolved Fe, acid soluble Fe and Fe(II)	US \$ 23
Total Organic Carbon	US \$ 9
Subtotal	US \$ 1884
Type of samples: Seepage, ground and underground water	
Total number of water samples:	24
Analytical components:	per sample price
Total dissolved Fe, acid soluble Fe and Fe(II)	US \$ 23
Nitrate, Nitrite, Ammonia, Phosphate, Silicate	US \$ 30
Total Organic Carbon	US \$ 9
Total number of water samples obtained in April 2009 (filtered and unfiltered):	30
Analytical components:	per sample price
Total dissolved Fe	US \$ 10
Total Organic Carbon	US \$ 9
Subtotal	US \$ 2058

Intensive Observations at Kiya Watershed

1. Management of field and laboratory work	\$200 x 1 person x 6 months	US\$ 1200
2. Salary of a driver at field works	\$70 x 1 driver x 8 trips	US\$ 560
3. Expedition meals expenses	\$20 x 8 days x 3 persons	US\$ 480
4. Materials (reagents, oxygen, batteries, etc.)		US\$ 1000
5. Fuel for car	\$70 x 8 trips	US\$ 560
6. Loggers re / installation	\$300 x 5 units	US\$ 1500
7. Rent of van (car)	\$100 x 8	US\$ 800
Subtotal		US\$ 6100

Project Management costs

Management of the project	
(\$100/month x 5 months)	US\$500
Coordination between Japan and Russia	
(\$200/month x 5 months)	US\$ 1000
Logistical support of the expeditions and data analyses	
(\$50/month x 4 months)	US\$ 200
Sample storage fee	
(\$50/month x 4 months)	US\$ 200
Quality control of analytical data	
(\$100/month x 4 months)	US\$ 400
Invitation fees and other expenses	US\$ 900
<u>Bank commission</u>	<u>US\$ 300</u>
Sub total	US\$ 3500

**Calculation of "The Research of the Amur River and
the Amur River Basin for 2009"**

1. Hydrological observations in Kiya watershed	US\$ 6 120
2. Chemical analyses on samples collected at Kiya (river, seepage, ground and underground)	US\$ 3 942
3. Intensive observation at Kiya watershed	US\$ 6 100
4. Project Management costs	US\$ 3 500
TOTAL	<u>US\$ 19 662</u>