

Contract

between

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

and

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

on

The Research of Amur River Basin, Amur
Liman and Sakhalin Bay for 2006

Contract

between

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

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

on

The Research of Amur River Basin, Amur Liman and Sakhalin Bay for 2006

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 Ecological Problems, Far Eastern Branch of Russian Academy of Sciences (IWEP-FEBRAS) and The Research Institute for Humanity and Nature (RIHN) signed on April 19, 2005, and based on the Agreement on Cooperation between FEBRAS and RIHN signed on March 4, 2004, the Amur-Okhotsk Project of RIHN hereinafter to be called CUSTOMER in the person of Prof. Yoneo Ishii, Director, Inter-University Research Institute Corporation, National Institute for Humanities, on one side, and the IWEP-FEBRAS hereinafter to be called EXECUTOR in the person of Professor Alexei N. Makhinov, Deputy Director of IWEP, on the other side, concluded the two contracts (contract-1 and contract-2) as follows.

- Contract-1: The Research Cruise in Amur-Liman and Sakhalin Bay for 2006
- Contract-2: The Amur Terrestrial Research Project (ATRP) in 2006

Contract-1

between

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

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

on

The Research Cruise in Amur Liman and Sakhalin Bay for 2006

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 Liman and Sakhalin Bay in the research project entitled "The Research Cruise in Amur Liman and Sakhalin Bay for 2006".

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-FEBRAS and RIHN" signed by both parties on April 19, 2005.

1.3 The EXECUTOR is to be responsible for following works in 2006:

- to conduct, during the ship cruise in early half of August, 1) surface and bottom water sampling at nine stations in Amur Liman and Sakhalin Bay; and 2) bottom sediment sampling at nine stations, 3) to analyze chemical components (See in Supplement 1) at laboratories of IWEP-FEBRAS and other related institutions for the samples obtained during the cruise in the Amur Liman-Sakhalin Bay in August, 4) submit a final report of 2006 research 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 ship cruises.
- 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 provide the chartering fees for research vessels at Nikolaevsk-na-Amure.

- to provide travel fee and traveling expenses of Russian participants
- to prepare the expenses for the EXECUTOR's works noted in item 1.3.

2. Technical conditions

- 2.1 The Research Cruise in Amur Liman and Sakhalin Bay will be carried out in August 2006.
- 2.2 The period of implementation is from July 15 2006 till 15 March 2007.
- 2.3 The EXECUTOR and the CUSTOMER are to make copies of observation records and results obtained within the framework of "The Research Cruise in Amur Liman and Sakhalin Bay for 2006" 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-FEBRAS 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 \$ 19,400 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 Supplement 2.
- 3.3 Japanese members who will participate in the work noted in items 1.3 and 1.4 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 \$15,520 USD (80%) being just after the conclusion of the Contract;
 - the second (final) payment of \$ 3,880 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 (See item 6) according to Supplement 3.
- 3.7 The EXECUTOR is to submit Final Report including all results of works before March 15, 2007.
- 3.8 On termination of the work at March 15, 2007, 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 vessel and/or the equipment belonging to IWEP-FEBRAS 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.

6. Legal Address and Signs of sides

CUSTOMER

Research Institute for Humanity and Nature (RIHN)
Inter-University Research Institute Corporation
National Institutes for the Humanities
457-4 Motoyama Kamigamo, Kita-ku, Kyoto 603-8047, JAPAN
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EXECUTOR

Institute of Water and Ecological Problems (IWEP)
Far Eastern Branch of Russian Academy of Sciences (FEBRAS)
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Phone: +7-4212-227573; Fax: +7-4212-325755

Bank requisites:

INN2721000890/KPP272101001

Beneficiary's bank: Bank of Foreign Trade (Vneshtorgbank) Khabarovsk Branch
Khabarovsk, Moskovskaya str., 7, tel. 7-4212-326-965 S.W.I.F.T. VTBRRUM2RHA
transit foreign currency account No.40503840102001005834.

INN 7702070139 KPP 272102001 OGRN 1027739609391

OKPO 09805165 OKVED 65.12

BIK 040813727 account 30101810400000000727 in GRKts Khabarovsk

CUSTOMER

Prof. Yoneo Ishii
Director
Inter-University Research
Institute Corporation, National
Institute for Humanities
(Tokyo, Japan)



EXECUTOR

Prof. Alexei N. Makhinov
Deputy Director
Institute of Water and Ecological
Problems FEBRAS
(Khabarovsk, Russia)



DD, MM, JR. 6 2006

DD, MM 26.06.2006

The Contract is made in two copies in English

Supplement 1

Chemical analyses in "The Research Cruise in Amur Liman and Sakhalin Bay for 2006"

1. Chemical Analyses

1-1. Chemical analyses of water samples

1-1-1. Number of water samples	18 samples
1-1-2. Chemical components	
"Trace Metals (Cu, Al, Mn, Co, Ni)"	US\$ 17.62 / 1 sample
"Total Fe and Fe(II)"	US\$ 7.05 / 1 sample
"Nitrate, Nitrite, Ammonia, Phosphate, Silicate, Main Ions (Cl, SO ₄ , Na, K, Ca, Mg)"	US\$ 40.52 / 1 sample
<u>"Total Organic Carbon (Turin method)"</u>	<u>US\$ 10.57 / 1 sample</u>
Sub total	US\$ 1,363.68

1-2. Chemical analyses of particle samples.

1-2-1. Number of particle samples	18 samples
1-2-2. Chemical components	
<u>"Water turbidity"</u>	<u>US\$ 10.57 / 1 sample</u>
Sub total	US\$ 190.26 / 1 sample

1-3. Chemical analyses of sediment samples

1-3-1. Number of sediment samples	9 samples
1-3-2. Chemical components	
"Total Fe"	US\$ 7.50 / 1 sample
"Total Organic Carbon"	US\$ 8.81 / 1 sample
<u>"Total Nitrogen"</u>	<u>US\$ 8.81 / 1 sample</u>
Sub total	US\$ 226.08

<u>TOTAL</u>	<u>US\$ 1,780</u>
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Supplement 2

Calculation of "The Research Cruise in Amur Liman and Sakhalin Bay for 2006"

1. Equipment transportation cost	
Khabarovsk-Nikolaevsk na Amure	US\$ 1,000
<u>Nikolaevsk-na-Amure-Khabarovsk</u>	<u>US\$ 1,000</u>
Sub total	US\$ 2,000
2. Sample transportation cost	
Khabarovsk-Nikolaevsk na Amure	US\$ 1,000
<u>Nikolaevsk-na-Amure-Khabarovsk</u>	<u>US\$ 1,000</u>
Sub total	US\$ 2,000
3. Travel fee and traveling expenses of Russian participants	
Khabarovsk – Nikolaevsk na Amure	US\$ 1200
Nikolaevsk na Amure – Khabarovsk	US\$ 1200
Traveling expenses (\$20 x 4 person x 10 days)	US\$ 800
<u>Purchasing of field stuff</u>	<u>US\$ 300</u>
Sub total	US\$ 3500
4. Chemical analyses expenses (see supplement 1)	US\$ 1780
5. Project Management costs	
Management of the project	
(\$250/month x 9 months)	US\$ 2,250
Coordination between Japan and Russia	
(\$250/month x 9 months)	US\$ 2,250
Logistical support of ship cruise and data analyses	
(\$200/month x 9 months)	US\$ 1,800
Sample storage fee	
(\$200/month x 9 months)	US\$ 1,800
Quality control of analytical data	
(\$220/month x 6 months)	US\$ 1,320
<u>Bank commission</u>	<u>US\$ 700</u>
Sub total	US\$10,120
TOTAL	<u>US\$19,400</u>

Document
on the cost of work
According to the Contract between IWEP-FEBRAS and RHIN for 2006

Project title: "The Research Cruise in Amur Liman and Sakhalin Bay for 2006".

We, undersigned Prof. Yoneo Ishii on behalf of the Inter-University Research Institute Corporation, National Institute for Humanities, hereinafter to be called CUSTOMER, on the one side, and Prof. Alexei N. Makhinov on behalf of the Institute of Water and Ecological Problems, Far Eastern Branch of Russian Academy of Sciences, hereinafter to be called EXECUTOR, on the other side, concluded the agreement about the cost on the above mentioned research in sum of 19,400 USD (Nineteen thousand, four hundred US Dollars).

This Document is the basis for the calculations and payments between CUSTOMER and EXECUTOR.

CUSTOMER

Prof. Yoneo Ishii
Director
Inter-University Research
Institute Corporation, National
Institute for Humanities
(Tokyo, Japan)



EXECUTOR

Prof. Alexei N. Makhinov
Deputy Director
Institute of Water and Ecological
Problems FEBRAS
(Khabarovsk, Russia)

A handwritten signature in black ink, appearing to read 'A. Makhinov', written over the printed name of the Executor.

DD. MM. JJ. 6 2006

DD. MM. 26.06.2006

The Contract is made in two copies in English

Contract-2

between

Institute for Water and Ecological Problems
Far Eastern Branch of Russian Academy of Sciences

and

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

on

the Amur Terrestrial Research Project (ATRP) in 2006

1. Subject of the Contract.

- 1.1. The CUSTOMER is to be charged with and the EXECUTOR is to be taken the responsibility for completion of the Amur Terrestrial Research Project (ATRP) in 2006 (Supplement 1).
- 1.2. The research according to this Agreement is to be carried out on the basis of "Implementation Agreement on the Joint Research of the 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 2006:
 - making the observations and sampling as noted in Activity Plan for the ATRP (Supplement 1);
 - reception of Japanese members in IWEP FEB RAS and arrangement of them and acquaintance with the experimental / test sites of the Amur basin to survey in July and in September 2006;
 - submit a final report of 2006 research and analyzed data during the project to the CUSTOMER.
- 1.4. The CUSTOMER is to be responsible for following:
 - to deliver the required research equipment for autonomic hydrological and climate data logging noted in Activity Plan for the ATRP (Supplement 1);
 - to cover the expenses for the IWEP's works noted in item 1.3.

2. Technical conditions.

- 2.1. The first period of implementation is the middle of July 2006 and the second period of implementation is the beginning of September 2006.

2.2 The EXECUTOR and the CUSTOMER are to make copies of observation records and results obtained within the framework of "the Amur Terrestrial Research Project (ATRP) in 2006" and are to provide them to each other.

2.3 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-FEBRAS 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 \$ 21,523 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 Supplement 2.

3.3 Japanese members who will participate in the work noted in items 1.3 and 1.4 are to pay for the following expenses (these expenses are not involved in the amount above): air, train and ship fares between Japan and Khabarovsk.

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 \$ 17,218 USD (80 %) being just after the conclusion of the Contract;
- The second (final) payment of \$4,305 (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 (see item 6) according to Supplement 3.

3.7 The EXECUTOR is to submit Final Report including all results of works before March 15, 2007.

3.8 On termination of the work at March 15, 2007, 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.

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 field expedition works.
- 4.2. In case of destroying of habitable premises, devices and equipment due to natural disaster (fire, earthquake, lightning, rainstorm etc.) the schedule of the work and calculations are to be corrected taking into an occurred damage.
- 4.3. The equipment, tools and other properties obtained for the implementation of the Agreement are to be belonged to the side, which purchased them.
- 4.4. The CUSTOMER shall not be liable for any losses occurring to the vehicle and/or equipment belonging to EXECUTOR or for any loss, cost, injury or damages to any third party during the field expedition and activity.
- 4.5. The EXECUTOR shall not be liable for any losses occurring to the vehicle and/or equipment belonging to CUSTOMER or for any loss, cost, injury or damages to any third party during the field expedition and 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 Document by both sides.

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OKPO 09805165 OKVED 65.12
BIK 040813727 account 30101810400000000727 in GRKts Khabarovsk

CUSTOMER

Prof. Yoneo Ishii
Director
Inter-University Research
Institute Corporation, National
Institute for Humanities
(Tokyo, Japan)



EXECUTOR

Prof. Alexei N. Makhinov
Deputy Director
Institute of Water and Ecological
Problems FEBRAS
(Khabarovsk, Russia)

DD, MM, JJ. 6 2006

DD, MM 26.06.2006

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Preliminary Activity Plan
for the Amur Terrestrial Research Project (ATRP)
in snow-free period 2006

Part 1. Research by Russian scientists.

(1-1) Water sampling and discharge measurement of main and tributaries in Anui Basin

Sites: Zavalny, Burnt-2, Zabyty, Burnt-1, Large Ertookooly, Koopturkoo, Manoma, Elman, lower main Anui – in total **6** small and **3** large rivers.

1.1.1. Sampling of stream water in July and September for chemical analysis:

July and September – in total $2 \times 9 = 18$ samples.

1.1.2. Measurement of water discharge (water level height and stream velocity in cross section of river)

July and September – in total $2 \times 9 = 18$ measurements (values).

These measurements and samplings are recommended to couple with 2 joint expeditions.

1.1.3. Analysis of dissolved total iron and solutes concentration

The detail analysis for major ions ($K^+ + Na^+$, Ca^{2+} , Mg^{2+} , SO_4^{2-} , Cl^-), DOC (dissolved organic carbon), total Fe, total Si and total Mn in lab in Khabarovsk.

In total **18** samples \times **9** analyses = **162** analyses in lab.

(1-2) Investigation of groundwater level and water chemistry in wetland near Slavyanka

1.2.1. Installation of observation well for groundwater.

According to participants' skill in water conditions monitoring in wetland, with peat layer less than 100 cm, nearby Slavyanka, it is enough to organize a network of observation "holes" (50x50x100 cm trenches) equipped by long (1-1,5 m) metal stocks. The height of top of these stocks should be measured accurately by special devices we have, and aggregated into integral height system to draw the ground water surface.

1.2.2. Monitoring of groundwater level in each well.

The monitoring of groundwater level is 20 times a research season (June – October)

1.3.3. Sampling of groundwater for chemical analysis.

2 samples in total (July and September)

1.3.4. Analysis of groundwater with the same protocol for river water.

In total **2** samples \times **9** analyses = **18** analyses

Part 2. Expedition by Japanese and Russian scientists.

Research assistance and arrangement for the following expeditions by Japanese members:
Dr. Muneoki Yoh and Baku Ohji, a doctoral student.

Russian members:

Dr. Vlad Shamov, Dr. Vlad Kim / Dr. Vlad Shestyorkin / Dr. Lira Matyushkina, Dmitriy Ryzhov,
Anton Kuznetsov (both are doctoral students), 1 vehicle driver.

In total **7 participants**.

Site of field survey

Wetlands and lower reaches forest areas of the Amur basin, with a special focus on the Gassi lake watershed. The analysis of Fe^{2+} is carried out at field sites by Japanese side..

Time of the surveys (in 2006)

- Twice; 1st survey around the middle of July, and 2nd survey around early September
Preliminary terms: 1) July 14-21 and 2) September 5-12.
- Each survey will take about one week or so.

Main contents of survey made by Japanese side

1) Activities at the field sites

a) sampling of

- the river and lake waters (about **15 sites** per one survey) using a car for 1st survey, while for 2nd survey, sampling is made using a car and a rubber boat for the Amur river and its tributaries, the Gassi Lake, etc.

In total – **30 samples**

- the soil (ground) waters around the Gassi lake. In total – **18 samples**,

- the soil (around the Gassi lake). In total – **20 samples**.

b) installation of tension lysimeter (porous cup) and piezometer and a setting of monitoring equipments for air and soil temperature (near the Gassi lake)

2) Sample analysis in laboratories.

Water and soil samples are transported to Japan for chemical analyses, if possible.

The analyses are going to be conducted by IWEP members for the following items: total dissolved Fe, acid-dissolved Fe, major ions (K^+ , Na^+ , Ca^{2+} , Mg^{2+} , SO_4^{2-} , Cl^-), DOC (dissolved organic carbon), total Si, total Mn: **11 kinds of analysis**.

Some analyses are also going to be conducted in IWEP by Japanese members.

Supplement 2

Calculation of "The Amur Terrestrial Research Project (ATRP)"

Management of total work	\$250 x 1 person x 2 times	US\$ 500
Coordination of joint work	\$100 x 1 person x 2 times	US\$ 200
Logistics	\$50 x 5 person x 2 times	US\$ 500
Salary of Russians specialists along 2 joint expeditons	\$300 x 2 Senior Researchers \$200 x 2 Postdoc Student \$150 x 1 Driver	US\$ 600 US\$ 400 US\$ 150
Expedition meals for Russians	\$10/d x 16 days x 5 persons	US\$ 800
Expedition material (reagents, batteries, photoprinting)	\$300	US\$ 300
Fuel	\$250 / 2 joint expeditions	US\$ 500
Analyses for water	\$20 x 68 x 11 analyses	US\$ 14960
Translation services	\$100/2 days x 1 person	US\$ 200
Chartage of microbus, boat & engine, labs; Slavyanka accomodations etc.	\$2413	US\$ 2413
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Total		US\$ 21523

Document
on the cost of work
According to the Contract between IWEP-FEBRAS and RIHN for
2006

Project title: "The Amur Terrestrial Research Project (ATRP)"

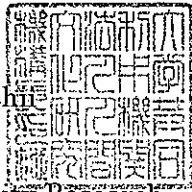
We, undersigned Prof. Yoneo Ishii on behalf of the Inter-University Research Institute Corporation, National Institute for Humanities, hereinafter to be called CUSTOMER, on the one side, and Prof. Alexei N. Makhinov on behalf of the Institute of Water and Ecological Problems, Far Eastern Branch of Russian Academy of Sciences, hereinafter to be called EXECUTOR, on the other side, concluded the agreement about the cost on the above mentioned research in sum of 21,523 USD (Twenty one thousand five hundred twenty three US Dollars).

This Document is the basis for the calculations and payments between CUSTOMER and EXECUTOR.

CUSTOMER

EXECUTOR

Prof. Yoneo Ishii
Director
Inter-University Research
Institute Corporation, National
Institute for Humanities
(Tokyo, Japan)



Prof. Alexei N. Makhinov
Deputy Director
Institute of Water and Ecological
Problems FEBRAS
(Khabarovsk, Russia)

A handwritten signature in black ink, appearing to read 'A. Makhinov'.

DD, MM, YF. 6. 2006

DD, MM, 26.06 2006

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