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**Russian Federation**  
**Biodiversity Conservation Project**

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Project Document  
May 1996



**THE WORLD BANK**

## **GEF Documentation**

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### Currency Equivalents

Currency Unit	=	Ruble
1 ruble	=	100 kopecks

### Market Exchange Rates

Ruble per US\$1

	Period Average	End of Period
1993	1,018	1,247
1994	2,212	3,550
1995	4,566	4,640
1996 (as of March 31)	4,764	4,856

### Recipient's Fiscal Year

January 1 - December 31

### Weights and Measures Conversions

<i>Metric System</i>		<i>US System</i>
1 meter (m)	=	3.2808 feet
1 kilometer (km)	=	0.6214 mile
1 square meter (m <sup>2</sup> )	=	1.196 square yards
1 metric ton (ton)	=	1.102 short tons

### Acronyms and Abbreviations

CD	Component Director	IUCN	World Conservation Union
CM	Component Manager	MEPNR	Ministry of Environmental Protection and Natural Resources
CPPI	Center for Project Preparation and Implementation	NBS	national biodiversity strategy
CV	curriculum vitae	NCB	national competitive bidding
EA	environmental assessment	NGO	non-governmental organization
EIA	environmental impact assessment	NPV	net present value
EFP	Environmental Framework Program	NRM	natural resource management
EMP	Environmental Management Project	PD	Project Director
ERR	economic rate of return	PIG	Project Implementation Group
FFS	Federal Forest Service	PM	Project Manager
FSU	former Soviet Union	PPA	Project Preparation Advance
GC	General Consultant	PPAR	Project Performance and Audit Report
GEF	Global Environment Facility	SDR	Special Drawing Rights
GET	Global Environment Trust Fund	SOE	statement of expenditure
GOR	Government of Russia	SW	staff weeks
IBRD	International Bank for Reconstruction and Development	TA	technical assistance
ICB	international competitive bidding	TOR	Terms of Reference
IDA	International Development Association	WCMC	World Conservation Monitoring Centre
IEPNM	Institute for Economic Problems of Nature Management	WWF	World Wide Fund for Nature

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# **Russian Federation**

## **Biodiversity Conservation Project**

**Project Document**  
**May 1996**

**Infrastructure, Energy and Environment Division**  
**Country Department III**  
**Europe and Central Asia Region**

## **PART I: PROJECT SUMMARY**



**RUSSIAN FEDERATION**  
**BIODIVERSITY CONSERVATION PROJECT**  
**PART 1: GRANT AND PROJECT SUMMARY**

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**Recipient:** The Russian Federation

**Beneficiaries:** Ministry of Environmental Protection and Natural Resources;  
Federal Forest Service

**Amount:** SDR 13.8 million (US\$ 20.1 million equivalent)

**Project ID No.:** RU-GE-8801

**Terms:** Grant

**Financing Plan:**

	<b>Local</b>	<b>Foreign</b>	<b>Total</b>
	-----US\$ million equivalent-----		
GET Grant	11.0	9.1	20.1
Govt. of Russia	4.8	0.0	4.8
Govt. of Switzerland	0.5	0.6	1.1
<b>TOTAL</b>	<b>16.3</b>	<b>9.7</b>	<b>26.0</b>

**Economic Rate of Return:** Not Applicable

**Maps:** IBRD 27085, 27267, 27290, 27268, 27289





**THE RUSSIAN FEDERATION**  
**BIODIVERSITY CONSERVATION PROJECT**

**PART 1: Grant and Project Summary**

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1. **Background.** The Russian Federation, at one eighth of the world's land mass, contains an enormous diversity of vast ecosystems which represent some of the last few remaining areas where the dynamics of ecological processes and wildlife populations can operate naturally. The eight biogeographic zones encompass 54 ecological zones and contain associations of species which are outstanding in terms of uniqueness, endemism and biodiversity. Of equal importance is the role of the huge expanses of forest and tundra which act as a significant carbon sink. Although much of Russia's biodiversity falls outside of the protected area system, this system which covers 6% of the country, is the largest, one of the most important and until recently, one of the best organized in the world (see map IBRD 27085).
2. The Government of Russia (GOR) recognizes that with the current transition of the Russian economy there will be impacts on biodiversity and nature protection. Indeed these impacts are already significantly undermining environmental protection and biodiversity conservation. Agricultural and forestry resource use occurs in changing and ill-defined administrative and legal circumstances, further complicated by the uncertainty generated by the land reform and privatization process. Administrative and political decentralization has assigned the responsibility of policy implementation to a local level, which has resulted in a loss of coordination and a minimal implementation of laws and activity regulation. The consequent unsustainable use of natural resources is augmented by the fragmented institutional structure - particularly evident in the Protected Area administration - which is uniformly and simultaneously beset by a lack of coordination, efficacy, finance and clarity. At the Federal level, the Ministry of Environmental Protection and Natural Resources (MEPNR) is entrusted with the task of overall coordination of activities related to Protected Areas, while certain types of Protected Areas are administered by other line agencies, such as the Federal Forest Service (FFS) in the case of National Parks.
3. Consequently, there is an urgent need for a clearly defined methodology which will reconcile the current dynamism in economic and political development with the restraint required to prevent significant biotic depredation. In order for an ecologically sustainable use of natural resources to occur, environmental concerns must be comprehensively incorporated into the private, public and community decision making process. This implies that decision makers have to understand the essential importance of the nature of environmental objectives vis-à-vis other development objectives; the most effective means and potential actions to attain those objectives; and the ways in which such environmental concerns can be effected in practical terms.
4. This project is associated with the Environmental Framework Program of the Russian Federation (EFP), and specifically with the Environmental Management Project (EMP) loan from the Bank to the Russian Federation which has provided financing for the core components of the EFP. The EFP has been designed to enhance the current system of environmental management in the Russian Federation. The EFP is estimated to cost a total of US\$282 million over a period of approximately four to five years. It addresses environmental and natural resource management issues at a federal, regional and local levels in demonstration areas across a wide spectra of natural areas. It has eight principal components: i) institutional and policy strengthening; ii) air quality management; iii) water quality and water quality management; iv) hazardous waste management; v) biodiversity conservation and natural resources management; vi) conservation and management of cultural and natural heritage; vii) the National Pollution Abatement Facility; and viii) Center for Project Preparation and Implementation (CPPI). Of these, the EMP, with a total cost of US\$ 110 million, concentrates on core elements of i, iii, iv, vii and viii. This

project, although financially distinct from the EMP, consists of the core biodiversity component of the EFP and therefore is associated with, and will be implemented under, the same organizational arrangements as the EMP (see Figure 1.1).

5. **Lessons from Previous Bank/IDA Involvement.** The proposed project was developed in concert with the Environmental Management Project. It draws substantially from the project's Project Preparation Advance (PPA). The PPA (see Annex 1.2 for a summary of PPA activities) was particularly successful, not only in disbursement effectiveness (\$780,000 was disbursed in seven months), but also in making significant progress in developing project methodology and organizational issues as well as initiating very comprehensive and innovative work in Biodiversity Policy Matrices and protected area Gap Analysis. The project also benefited from lessons learnt from other bi-lateral and NGO projects currently being implemented in Russia. Additionally, in terms of experience drawn from other GEF Biodiversity projects, it draws on other countries' projects during the GEF Pilot Phase. The key lessons include: (a) the importance of a national strategic framework for biodiversity policy; (b) the need to build in financial sustainability and long-term commitment from the Government; (c) the need to involve local people and regional administrations in design and implementation; (d) the role of macroeconomic and sector policies in establishing an appropriate incentive framework for resource conservation; (e) the need to expand the protected area system and improve management technologies for unprotected habitats with high biodiversity and environmental values. Finally, the community participation programs supported under the project incorporate lessons learned from several on-going pilot activities in Russia managed by NGOs, the Government and other donor agencies.

6. **Rationale for GEF Funding.** Funding from the GEF is justified for three reasons.

7. ***Global Importance of the Biodiversity of the Russian Federation.*** The vast range of endemic and non-endemic species in Russia represents a significant percentage, which is now vulnerable, of the world's total biodiversity. Additionally, the expanses of forest and tundra act as a significant carbon sink. The rapid destruction of this, aligned to the high rates of tropical forest deforestation (the other major arboreal sink) will have a significant affect on global climatic processes. The protected area system is in a process of dissolution which is diminishing its effectiveness. Given the global importance of the country's biodiversity, immediate action is required to halt this process and develop management regimes more aligned to current social economic conditions.

8. ***Financial Necessity.*** Russia's economic circumstances are difficult. The freeing of wholesale and consumer prices, the rise in credit (16% of GDP went in the form of loans to state enterprises), accompanied by a weakened financial position has led to high inflation rates, as high as 10% per month in 1993 and currently down to approximately 4-5% per month. Since 1991, imports and exports have declined by 30 and 22 percent respectively, with the external balance still worsened by extensive capital flight. GDP has declined by 40% as a result in the decrease in foreign trade and the sharp cutback in foreign investment and defense expenditures. Fiscal policy during the past few years has been characterized by a significant decline in budgetary revenues with Federal fiscal revenues declining from 17 percent of GDP in 1992 to 11 percent in 1994. Income distribution worsened significantly between 1991 and 1994 with the share of income accruing to the richest fifth of the population nearly doubling in proportion to the share of the poorest fifth. As a result, up to one third of the population may have fallen below the poverty line. Therefore, those scarce resources which are available are used to address concerns which are perceived to be priority issues - economic restructuring, developing a social safety net etc. National financial resources are not likely to be available for biodiversity issues which may appear to be a long term priority even though of global significance. Recognizing that this is a time that the economy is in transition, the GEF's

role of focusing on these incremental issues within the framework of EFP and EMP will be of crucial importance. Many opportunities for biodiversity conservation will be lost without short term GEF assistance as institutions, policies and structures take time to adapt and be replaced in many cases by new financial mechanisms and structures.

9. ***Social participation.*** There is an urgent need to develop mechanisms to encourage the participation of local communities into the management of protected areas. Their current exclusion from this process has been a major factor in the protected areas' financial unsustainability. Such participation will need to concentrate on education, training and arbitration measures as well as looking specifically at the development of constructive relationships with indigenous peoples.

10. ***Project Financing.*** The total cost of the project is estimated to be US\$ 26.0 million equivalent, for which the GEF grant of US\$ 20.1 million equivalent is proposed. The GOR will provide US\$ 4.8 million equivalent to finance institutional strengthening actions and ecosystem protection services (budgeted under the Federal Targeted Program of State Support of State Natural Zapovedniks and National Parks Up To the Year 2000<sup>1/</sup>). The Swiss Government is expected to provide a grant of US\$ 1.1 million equivalent to parallel finance components on public support and education programs. This is in addition to the US\$ 2.7 million equivalent provided by the Swiss Government which, under a broad framework program of biodiversity conservation priorities, will be used to support sustainable forest management and the enforcement of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Other initiatives under this framework program include support (minimum US\$ 12 million equivalent) from the US Government, EU TACIS and other donors.

11. ***Project Objectives.*** The main objective of this project will be to assist the Russian Federation maintain optimum levels of biodiversity in accordance with the principles of economic and environmentally sound sustainable development. The project will assist in ensuring the enhanced protection of biodiversity, within and outside protected areas, in conformance with the Government's obligations under the Convention on Biological Diversity. More specific objectives include: i) supporting the development of federal and regional biodiversity strategies; ii) developing and implementing mechanisms and approaches which will mainstream biodiversity conservation and environmental protection into the policy making process; iii) assessing the protected area institutional framework and subsequently strengthening its effectiveness; iv) enabling the participation of all interested stakeholders, including aboriginal peoples and local communities into biodiversity conservation; and v) developing an inter-regional demonstration of inter-sectoral biodiversity conservation and environmentally sustainable natural resource management. The realization of these objectives will: i) substantially strengthen the economic feasibility and sustainability of biodiversity conservation within the Russian Federation; ii) leave a legacy of integrated planning demonstrating the necessity of combining financial/economic policy, socio-economics and appropriate normative and resource allocation mechanisms to ensure sustainable biodiversity conservation; iii) help safeguard numerous endangered and vulnerable species including the Siberian Tiger (*Panthera tigris altaica*), Snow Leopard (*Panthera uncia*) and Pallas's Sea Eagle (*Haliaeetus leucoryphus* Pall.); iv) provide a realistic policy to ensure the protection of Lake Baikal; and, v) facilitate the integration of native peoples into protected area management. These objectives will be monitored according to the *Guidelines for Monitoring and Evaluation of GEF Projects*, and will include key monitoring criteria on biological, socioeconomic, financial, institutional and other factors. These key project performance indicators have been identified

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<sup>1/</sup> Approved by a Decree of the President of the Russian Federation (Decree No.1032, dated Oct. 10, 1995).

during appraisal (see Annex 5.1), and quantifiable evaluation criteria would be further refined during the Project Launch Workshop, as agreed at negotiations.

12. **Project Description.** The proposed project would comprise four components.

13. ***The Strategic Overview Component*** (13 percent of total costs) will assist in the strengthening of the federal and regional biodiversity strategies already envisaged by the Russian Government under its commitments upon ratification of the Convention on Biological Diversity (17 February, 1995). It will enable the development of a federal strategy and will also develop the methodologies and procedures for regional strategies. As part of the latter activity, a model regional strategy for the Nizhniy Novgorod region will be created. The initial strategies will consist of i) an assessment of extent, status and vulnerability of biodiversity; ii) current normative instruments which affect biodiversity conservation; and, iii) an action plan which will define remedial actions. After their completion, significant analytical and participatory actions will be undertaken to mainstream environmental protection and biodiversity conservation into federal and regional development policies. They will include a rigorous analysis of the economic linkages between biodiversity conservation and sound economic policy and the development of training programs to disseminate this information, as well as an assessment of potential conservation funding mechanisms. In addition, a biomonitoring information system will be established to assist policy makers take appropriate account of biodiversity issues. GET funds will be used to procure foreign and local consultants' services for the above strategies, action plans and policy support assistance, as well as to purchase specialized computer and GIS equipment for the biomonitoring information system.

14. ***The Protected Areas Component*** (53 percent of total costs) will complement the GOR's federal program for the support of natural protected areas up to the year 2000, and its current process of reorganization of the institutions and mechanisms for nature protection. It will assist in increasing the efficiency of the federal management, while assuring that appropriate management and financial functions are devolved to the regions within a modified institutional structure. In parallel with this, the component will improve biodiversity conservation by focusing on seven ecologically representative regions of high biodiversity value. These include: Northwestern Russia, Center of European Russia, Upper and Middle Volga, Northern Caucasus, Lake Baikal, Southern Siberia and the Far East. The component will implement specific activities which will: i) systematically address training and professional development needs; ii) extend educational outreach and community participation; iii) consolidate coverage of vulnerable areas requiring protection; iv) strengthen the protection and enforcement services for the protected areas; and v) develop a national protected area data base. The GET grant will finance consultants' services and professional development/training packages for the above activities, as well as procurement of urgently required field research and monitoring equipment, vehicles and computer and office equipment, and miscellaneous infrastructure works for the selected protected areas.

15. ***The Lake Baikal Regional Component*** (25 percent of total costs) will provide a practical regional demonstration of the inter-sectoral and administrative coordination necessary for the incorporation of biodiversity conservation into a development policy which meets acceptable and sustainable economic and social welfare targets. The component presents an integrated three-pronged program to directly address these issues and entails a set of inter-related initiatives to strengthen natural resource management and thus biodiversity conservation capability and effectiveness at the inter-regional, the regional, and community levels. It will enable the adoption and implementation of an inter-regional biodiversity conservation and natural resource management strategy. Simultaneously, three model regional demonstration projects will be implemented which will entail significant improvements in land and resource management practices, and in the system of planning and decision-making for the purposes of biodiversity conservation and the

improvement of local socio-economic conditions. At the community level, support will be provided for biodiversity initiatives that will facilitate essential applied research in biodiversity conservation, as well as small scale community initiatives, the work of environmental non-governmental organizations, and the activities of native peoples which promote biodiversity conservation. The GET grant will finance monitoring and computer equipment, and consultants' services for the inter-regional and regional activities, and will finance the annual programs of small grants at the community level.

16. ***Project Management and Coordination Component*** (9 percent of total costs) will supplement the implementation structure established and already functioning satisfactorily under the EMP to implement the project activities (details of this organization are set out below).

17. **Project Implementation and Organization.** The project will significantly follow the implementation structure established and already functioning under the EMP. The MEPNR, with the participation of the FFS, will have overall responsibility for execution of the project, but will delegate certain administrative functions under the project to the CPPI established under the EMP and used during the Project Preparation Activities (PPA) process. The CPPI will have responsibility for coordination between implementing entities and multilateral and bilateral donors, for procurement, disbursement, financial and technical management, and project identification and preparation. The Project Implementation Group (PIG) will operate as a department of the CPPI. The MEPNR will provide policy guidance with regards to the project and oversee operations of the PIG, through a Biodiversity Supervisory Committee chaired by the MEPNR's Deputy Minister for Biological Resources (Project Director *ex-officio*). Such policy guidance will be necessarily coordinated with the Inter-ministerial Commission on Environmental Protection and Natural Resource Use already established by the Government. The Project will be led by a Project Manager selected according to Terms of Reference approved by Bank and reporting to the ex-officio Project Director, with team managers assigned to the individual components. The Lake Baikal component will be administered by regional teams to be established at each of the regional administrations (Irkutsk, Ulan-Ude and Chita) which will be under the policy guidance of a working group of the already existing Governmental Commission for Baikal, which is chaired by the Minister of the MEPNR and equal voting power is shared by the Federal government and the regional governments. The teams for the Strategic Overview and the Protected Areas components will be located in Moscow. These teams will be supported by local and foreign consultants to be hired under the project with a high local to foreign person-month input because of the extensive experience of Russian institutions in this field. A more detailed description of the project management structure is provided in paragraphs 5.1-5.4 of the Technical Annex.

18. **Project Sustainability.** Sustainability is sought to be ensured by: (i) developing a self-sustaining Biodiversity Strategy and Action Plan linked to the economic, social and political decision making process through the Inter-ministerial Commission on Environmental Protection and Natural Resource Use and the EMP; (ii) dealing with sectorial and inter-sectorial issues and linkages at national and regional level; (iii) strengthening institutional capacity to provide the long term basis for regulation, organization and management, and (iv) developing comprehensive and innovative financial mechanisms to support biodiversity conservation and protected areas. These mechanisms will include environmental trusts, fiscal policy, resource use allocation mechanisms, mitigative license fees, cost sharing approaches, visitor permits, appropriate development of ecotourism facilities and optimum staffing levels of protected areas to ensure the effective implementation of management plans and biodiversity protection. While ensuring that sustainability is a key development objective of this project, the Federal and local government levels are already expected to contribute to the incremental costs of this project. At the Federal level the Federal Program of State Support of Natural Protected Areas Up To the Year 2000, approved within the

Government, but awaiting endorsement by the parliament provides for three to five fold increase in recurrent funding for protected areas and some related biodiversity conservation activities in the MEPNR. Support for protected areas has been provided at local (oblast) levels and the regional components will be exploring opportunities for the development of sustainability at this local level. As well the project appraisal has refined a decreasing level of support for expenditures which though necessarily established by the project will remain after project completion. These expenditures will therefore be progressively taken up by the government.

19. **Community and NGO Involvement.** The project has provided for extensive involvement of local communities and non-governmental organizations (NGOs) in its implementation. The PPA for this project benefited from significant NGO involvement, not only in the preparation of the material, program and details, but also in informal and formal consultation and discussion. At the international level IUCN and WWF (US), and at the national level WWF (Russia), the Socio-Ecological Union (SEU) of Russia, (through its various sub-organizations) played particularly constructive roles, as did local NGOs in the Lake Baikal region, including Baikal Wave and the Baikal Fund. The project makes provision for NGO, local community and native culture participation throughout all three of the sub-components in the following ways: The **Strategic Overview Component** will make an assessment of native cultures' relationship to biodiversity and will encourage local community and native peoples participation in the establishment of regional biodiversity strategies. NGOs will be consulted and involved in the development of the Federal Biodiversity Strategy. Within the **Protected Areas Component**, NGOs will be involved in designing the education programs and will be an important target group in the outreach programs as well as participating in the Regional Associations. Local communities are targeted as one of the main focal points as community participation is considered to be essential in ensuring the continued survival of the protected area system. In the same way, the role of native cultures in helping to find ways to protect biodiversity will be examined and there are measures to introduce new categories of protection to reflect the importance of this activity. In the **Lake Baikal Component**, a significant part of the community biodiversity initiatives will involve NGOs, local communities and native cultures, and will include applied research by academic institutions, community development linked to biodiversity conservation and sustainable development as well as small scale grants to individuals to encourage integrated natural resource management which enhances biodiversity protection (see Annex 3.6 for details of the implementation of local biodiversity initiatives).

20. **Agreements Reached.**

The following agreements have been reached with the Recipient:

(a) **Prior to negotiations**, the following actions have been taken by the Recipient: (i) the MEPNR and the Federal Forest Service have issued a Memorandum of Agreement, satisfactory to the Bank, detailing their respective responsibilities for implementation of project components on protected areas under their control; (ii) by the order of the Minister of the MEPNR, a Project Supervisory Committee has been established and its key members appointed; (iii) the State Ecological Expertise has reviewed the proposed Project and officially confirmed that the Project fully complies with the requirements of the federal environmental legislation; and (iv) a Project Manager under Terms of Reference acceptable to the Bank has been appointed by the MEPNR.

(b) **At negotiations**, (i) the MEPNR has confirmed by a Ministerial letter both the Government's contributions to the Project and its commitment to ensuring appropriate

interactions between federal and regional protected area management organizations; (ii) clear arrangements shall be confirmed by the MEPNR and the Swiss Government through an exchange of letters, by June 30, 1996, to the effect that Project activities to be financed by the Swiss Government shall be supervised by the Project's Supervisory Committee; (iii) Lake Baikal Supervisory Committee shall be established, reporting to the Governmental Commission for Baikal and to the Project's Supervisory Committee; and it shall include six representatives of the administrative bodies of the Republic of Buryatia and Irkutsk and Chita Oblasts and six representatives of the Baikal region's NGO community; and (iv) in order to formally associate the Project with the EMP, the EMP Loan Agreement will need to be amended to refer to the Project as a part of the EMP; the letter of amendment shall be signed on the day of Grant Agreement signing.

(c) Prior to effectiveness, that: (i) the Project Implementation Group will be established with functions, procedures and staffing acceptable to the Bank; and (ii) the General Consultant will be hired by the CPPI under terms of reference and in accordance with procedures satisfactory to the Bank.

(d) Prior to disbursement, that: (i) for expenditures under the Strategic Overview Component – a decree or other appropriate pronouncement acceptable to the Bank, will be issued by the executive authorities of at least one relevant oblast expressing support and providing for the implementation of the regional biodiversity strategies; and (ii) for expenditures under the Lake Baikal Regional Component – the Governmental Commission for Baikal will issue a general resolution enabling the Project's implementation, and the administrations of Chita and Irkutsk Oblasts and the Government of the Republic of Buryatia will issue clear implementing resolutions providing for the creation, staffing and operations of the implementation bodies under the Lake Baikal component.

21. **Environmental Aspects.** The project will be subject to formal environmental assessment procedures for natural resource management development activities as a function of its policy and regulatory support. In addition the project is expected to have a positive environmental impact through the improved management and protection abilities of the protected area system of the Russian Federation as well as the introduction of new land use and conservation measures through the implementation of the Federal and regional biodiversity Strategies and in the Lake Baikal regional component. The project has been screened as Category C (no Environmental Assessment or environmental analysis is required). However, the project may support some activities with potentially adverse minor impacts, such as small-scale civil work construction in nature reserves and development of new enterprises. These activities will require environmental screening carried out in accordance with guidelines acceptable to the Bank.

22. **Social Aspects.** The project will not involve any resettlement. Protected area management plans and biodiversity strategies will pay particular attention to the impact of project activities on cultural property and the development of sound mitigation measures to ensure adequate protection. Similarly, the project will closely monitor the needs of ethnic minorities living within or adjacent to project areas. In particular, the terms-of-reference for biodiversity strategies, nature reserve management plans and community projects will require detailed review of minority issues to ensure that they are not adversely affected by project activities and that the social and economic benefits they receive are consistent with their cultural preferences. Minorities will participate directly in the design and implementation of project activities and all components will be screened to avoid adverse impacts for indigenous peoples. Where indigenous

peoples are affected by the sub-components then, as according to Bank requirements, an indigenous peoples' development plan satisfactory to the Bank will be an integral part of the component.

23. **Project Benefits.** The benefits from this project would accrue at four levels, global, national, regional and local.

- From the **global perspective** the project would further stabilize and secure an effective protected area network which would ensure the viability and safety of some of the world's most endangered species and areas of richest biodiversity. Also at this level, it would help safeguard the vast expanses of vegetation and habitat which act as a vital carbon sink.
- At the **national level** the project will ensure the protection of the Russian Federation's biodiversity at a time of profound economic and political change which would otherwise pose immediate and profound threats to its safety. It will also strengthen the institutional, planning and renewable resource management capacity of the Government thereby helping to develop a viable and sustainable economy. Moreover, it will develop a funding mechanism to ensure that Russia is able to meet the incremental costs which arise from the responsibility of protecting such large areas of globally important biodiversity.
- At a **regional level** it will not only serve to protect biodiversity but will also form a model for the synthesis of environmental protection and sustainable development in an area of substantial biodiversity importance. Furthermore, it will establish a training program for protected area administrators and managers, thereby ensuring that the requisite skills are dispersed throughout Russia.
- At the **local level** it will ensure the existence not only of particular protected areas and the vulnerable species within them, but also by explicitly linking the welfare of communities to the protection of biodiversity, develop greater economic self-sufficiency, so providing regional and local socio-economic benefits and securing sustainable regional development. It will also engender a trained core of local officials and enable concrete, visible local action for biodiversity protection. Furthermore, it will allow for the positive participation of local and indigenous people into resource management activities, which will enhance their ability to maintain cultural identity, retain traditional association with customary practices and sustain economic viability.

24. **Risks.** The main risks include: (a) unsustainable resource use because of the present political and economic situation which is creating adverse impacts on biodiversity; (b) weakening of the Federal institutional structures and slow formation of new structures with greater regional autonomy, which compounds resource use issues; (c) wide geographic spread that adds to complexity and need for close management and supervision; and, (d) inadequate participation of local communities in the implementation of either the regional biodiversity strategies or the new protected area management plans, thereby prolonging the unsustainable use of natural resources both within and outside of the protected areas. All of the above will be closely reviewed under the project's monitoring and evaluation program and supervised by Bank missions. The project counters these risks by:

- developing national and regional programs which demonstrate the economic benefits in incorporating the economic values of biodiversity conservation and other environmental externalities into the decision making process;



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- strengthening and clarifying institutional responsibility while simultaneously re-structuring resource use allocation mechanisms and enabling local community participation to ensure greater levels of transparency;
  - ensuring that the program has a clearly defined regional focus which involves local people and indigenous peoples in definite projects with tangible benefits;
  - maintaining a strong focus on developing; (a) innovative financing mechanisms for conservation; (b) comprehensive outreach programs by protected areas; and, (c) redefining staff requirements to re-oriented protected area management plans will greatly improve the protected area systems' economic efficiency and capability.
  - establishing an integrated regional model in Lake Baikal which by developing strong regional interests to biodiversity protection, demonstrates the economic linkages of biodiversity conservation to sustainable development and strongly supports the involvement of local communities.
  - inclusion of a general supervision consultant to assist in the management and supervision of the project.

Schedule ARUSSIAN FEDERATIONBIODIVERSITY CONSERVATION PROJECTEstimated Costs and Financing Plan  
(US\$ million equivalent)

	Local	Foreign	Total	% Foreign Exchange	% Total Costs
<u>Estimated Project Cost</u>					
Strategic Overview Component	1.5	1.4	2.9	48	13.1
Protected Areas Component	6.9	4.8	11.7	41	53.1
Lake Baikal Regional Component	3.8	1.7	5.5	31	24.4
Project Management and Coordination Component	1.6	0.5	2.0	22	9.4
<u>Base Cost</u>	<u>13.8</u>	<u>8.3</u>	<u>22.1</u>	<u>38</u>	<u>100.0</u>
Physical contingencies	1.3	0.7	2.0		7.8
Price contingencies	1.1	0.7	1.8		7.0
<u>Total Project Cost</u>	<u>16.3</u>	<u>9.7</u>	<u>26.0</u>	<u>38</u>	<u>114.8</u>
(totals may not add due to rounding)					
<u>Financing Plan</u>					
GET Grant	11.0	9.1	20.1	45	77
Government of Russia	4.8	0.0	4.8	0	19
Government of Switzerland	0.5	0.6	1.1	55	4
<u>Total</u>	<u>16.3</u>	<u>9.7</u>	<u>26.0</u>	<u>38</u>	<u>100</u>

Schedule BRUSSIAN FEDERATIONBIODIVERSITY CONSERVATION PROJECTDisbursements

Category	Amount of GET grant (US\$ million)	% of expenditures to be financed
(1) Goods	2.9	100% of foreign expenditures, 100% of local expenditures (ex-factory costs), 80% of local expenditures for other items procured locally
(2) Consultant Services, Training and Study Tours	13.3	100%
(3) Community Investment Grants	2.5	100%
(4) Incremental Operating Expenses	1.4	100% of local expenditures incurred up to June 30, 1998, and 50% of local expenditures thereafter
<u>Total</u>	<u>20.1</u>	

GET Grant's Estimated Disbursement Profile (US\$ million)

Bank's Fiscal Year	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>
Annual	0.2	3.8	5.4	5.1	3.4	1.7	0.5
Cumulative	0.2	4.0	9.4	14.5	17.9	19.6	20.1

## Schedule C

**RUSSIAN FEDERATION**  
**BIODIVERSITY CONSERVATION PROJECT**  
**Summary of Proposed Procurement Arrangements**  
 (US\$ thousand equivalent) <sup>1</sup>

Project Element	Procurement Method			Non GET Financed	Total Costs
	ICB	NCB	Other <sup>2</sup>		
<b>Goods</b>					
Field/Research and Professional Equipment	350 (350)		1,715 (884)	831	2,065 (1,234)
Office and Computer Equipment			817 (715)	102	817 (715)
Vehicles			1,831 (936)	895	1,831 (936)
<i>Total Goods</i>	<i>350</i> <i>(350)</i>		<i>4,363</i> <i>(2,535)</i>	<i>1,828</i>	<i>4,713</i> <i>(2,885)</i>
<b>Services</b>					
Consultants			11,102 (10,329)	773	11,102 (10,329)
Training and Study Tours			2,157 (1,271)	886	2,157 (1,271)
Professional and Legal Services			1,986 (721)	1,265	1,986 (721)
Publications			1,025 (1,005)	20	1,025 (1,005)
<i>Total Services</i>			<i>16,270</i> <i>(13,326)</i>	<i>2,944</i>	<i>16,270</i> <i>(13,326)</i>
<b>Other</b>					
Applied Research/Community Grants			2,500 (2,500)		2,500 (2,500)
Incremental Operating Expenses			2,531 (1,387)	1,144	2,531 (1,387)
<i>Total Other</i>			<i>5,031</i> <i>(3,887)</i>	<i>1,144</i>	<i>5,031</i> <i>(3,887)</i>
<b>TOTAL (of which GET)</b>	<b>350 (350)</b>		<b>25,663 (19,748)</b>	<b>5,196</b>	<b>26,013 (20,098)</b>

Totals are rounded.

<sup>1</sup> Figures in parentheses represent the amounts financed by the GET grant, including contingencies.

<sup>2</sup> Other GET procurement methods include Consultancy Services-Technical Selection (US\$14.2m), International Shopping (US\$3.0m) and National Shopping (US\$2.6m).

Schedule D

**RUSSIAN FEDERATION**  
**BIODIVERSITY CONSERVATION PROJECT**  
**Timetable of Key Project Processing Events**

Step	Timing
(a) Time taken to prepare the project:	42 months
(b) Prepared by:	MEPNR (with GEF PPA-funded assistance of local and foreign consultants)
(c) First Bank mission:	April 1992
(d) Appraisal mission departure:	October 1995
(e) Negotiations:	April 1996
(f) Planned date of effectiveness:	June 1996
(g) List of relevant Project Completion Reports and Project Performance Audit Reports:	None

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<sup>2/</sup> A detailed list of individuals that contributed to the GEF PPA is provided in Annex 1.2.



## **PART II: TECHNICAL ANNEX**





**RUSSIAN FEDERATION**  
**BIODIVERSITY CONSERVATION PROJECT**

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## **RUSSIAN FEDERATION**

### **BIODIVERSITY CONSERVATION PROJECT**

#### **CHAPTER 1: Country and Sector Background**

---

##### **A. Introduction**

1.1 In the past 70 years, the Russian Federation has inherited an enormously costly environmental legacy from decades of inefficient economic development that basically failed to include environmental factors in macroeconomic and sector development strategies and national investment plans. There are ongoing costs across the economy from, for example, natural resource loss and pollution, that are not stated explicitly in the national accounting process or sector budgets but are obviously a significant percentage of GNP. The Russian Federation is not unique in this respect, most industrializing countries followed a similar development path, although in many cases, made more dramatic structural adjustments at an earlier stage of development. In the past, many countries in transition from a centralized state economy to a more market orientated system, adopted a policy of economic efficiency in its limited traditional sense of ignoring many environmental issues, to pursue the adjustment process. Currently, however, many reasons can be found for incorporating environmental and natural resource management concerns directly into the economic adjustment process as is being done in Russia and some other countries of the FSU.

1.2 As a country searches for new sources of growth and comparative advantage, it may (as in the case of Russia) use natural resources such as forests, lands, oil, gas, minerals, water, and vegetation much more intensively. It is plausible that natural resource intensive exports would be expanded and promoted to replace the old traditional exports. In such a case, decision-makers have to cost existing natural resources used in trade at their full opportunity cost, to avoid giving a false sense of comparative advantage in the short and medium term. If these resources are not adequately costed at the macro level, use rates of those resources will be much higher, and serious misallocation of resources, environmental degradation, or depletion may occur. In some cases, irreversible damages may also occur in the country (for example, destruction of biodiversity resources and fragile ecosystems). An important general point regarding adjustments during such transition periods is that any set of reforms implemented at the national level (such as privatization, industrial restructuring, monetary and market liberalization) will have a great influence and impact on the allocation of resources, on the environment and the use and management of natural resources ("natural capital" for short). These policies are not at all neutral with regard to natural resources, the environment or biodiversity.

1.3 Another argument for including environmental concerns in macro-planning is that the solution to many environmental quality and resource management problems rests on major institutional and organizational changes (for example, regarding property rights, taxes and subsidies, regulations, laws, and private sector participation). If the reform process does not take into account these institutional realities at the beginning, some of the most important sources of national capital depletion and degradation will be very difficult to correct at the end of the process. For example, if property rights, user rights, or management rights over a significant amount of forests, for instance, are given to an economic agent during the reform process, without appropriate environmental assessment it will be almost impossible to reverse those rights after the reform process; or if they are reversible, the reassignment will be at very high costs.

1.4 Government decision-makers in the executive and legislative branches at the federal, regional and local levels in the Russian Federation are searching for ways to restructure and reform the economy to

promote efficient and more sustainable economic growth. This is an impossible goal without taking environmental quality and natural resource management factors into consideration. Some important initial steps have been taken, but much more needs to be done at all levels of legislative and executive government, or this initial momentum will be lost, along with the enormous opportunities that currently exist for influencing the reform process. The Environmental Framework Program of the Russian Federation (EFP) and the Environmental Management Project (EMP), with which this project is associated, are designed to help the Government of Russia to meet this urgent need and to take advantage of these opportunities.

### *Geographic Context*

1.5 The Russian Federation covers 17,075,400 square kilometers (km<sup>2</sup>), almost twice the size of the United States and 70% of the territory of the FSU. Its population in 1991, 148.5 million, was exceeded only by China, India, the United States, Indonesia and Brazil. Even though its population density is low on average by world standards, it is characterized by wide regional variations from as high as 52-77 per km<sup>2</sup> in the economically well developed regions in European Russia, to less than 1 per km<sup>2</sup> in parts of Siberia. Russia is home for about 120 nationalities or ethnic groups of which 82% represent ethnic Russians. This situation is reflected in the country's complex system of administration. There are 20 republics within the Russian Federation, as well as five autonomous regions and 10 autonomous districts. The remainder of the Russian Federation is administratively divided into 6 territories (krays) and 49 regions (oblasts).

1.6 Extending halfway around the northern hemisphere and covering much of eastern and northeastern Europe and all of northern Asia, the territory of Russia displays an enormous variety of landforms and ecological systems. The major ecological/climatic zones stretch east to west across the country, and are made up of various tundra subzones in the extreme northern areas, mostly above the Arctic Circle, that give way to a vast forest belt covering approximately two-thirds of the entire country. The forest zone may be further divided into two subzones: taiga forests and mixed forests. The taiga is characterized by the preponderance of coniferous forests of spruce, larch, fir and Siberian stone pine. Deciduous species birch, aspen and alder are of secondary importance. In the mixed forests, so called "broad-leaved" species (for example, oak) appear together with conifers. Further south the land turns to open steppes, and finally to hot drylands and semi-deserts (see map IBRD 27085). Massive mountain ranges such as the Urals, the Caucasus and the mountain areas of Siberia (for example, the Altay, the Sayans, Lake Baikal and the Trans-Baikal regions, and the mountains of the Far East) interrupt these lowland features. Positioned in latitudes where precipitation mostly exceeds evaporation, Russia contains many long rivers, lakes and wetlands. Rivers such as the Volga in European Russia and the Ob and Yenisey in Siberia are among the world's longest. Lake Baikal is the deepest freshwater lake in the world and contains 20% of the world's total freshwater, more than all of the Great Lakes of North America combined.

## B. Biological Diversity in the Russian Federation

1.7 The vast landscapes of the Russian Federation represent one of the last opportunities on Earth to conserve relatively intact ecosystems large enough to allow ecological processes and wildlife populations to fluctuate naturally. The country holds some of the world's most important repositories of biological diversity in areas such as the Far East of Russia, considered one of the major "cradles of biodiversity", where the Maritime (Primorskiy) Kray is recognized by the IUCN as a world center of plant diversity with more than 3,000 higher plant species, as is the Lake Baikal Region which has approximately 2,500 species.

In the southern Far East of Russia, more than twelve million hectares (ha) have remained undisturbed due to its inaccessibility; this, the largest remaining contiguous ecosystem in Russian Far East and Eurasia, which protects habitat and complete ecosystems for an extensive range of endangered and vulnerable species. Another extraordinarily floristically rich region is the Northern Caucasus, where approximately 3,700 species of 803 genera and 142 families of vascular flora are represented. These unique assemblages of species surpass the diversity and level of endemism found among temperate forests anywhere else in the world.

1.8 While the enormous size of the country and the large continuous stretches of similar habitat can sometimes obscure the wealth of diversity, Russia hosts some of the world's rarest species as identified by IUCN in the *Red List of Threatened Animals*. These include, among others, the Siberian Tiger (*Panthera tigris altaica*), Anatolian Leopard (*Panthera pardus orientalis*), Siberian Musk Deer (*Moschus moschiferus*), Asiatic Black Bear (*Ursus Thibetanus*), European Bison (*Bison bonasus*), Oriental Stork (*Coconia boyciana*), Siberian Crane (*Grus leucogeranus*) as well as one of the most endangered of the world's endangered species, the Snow Leopard (*Pantheria uncia*).

### *Nature Reserves in Russia*

1.9 A significant proportion of this biodiversity is protected by Russia's nature reserve system which, covering nearly 6% of the country, is the largest, one of the most important, and until recently, one of the best organized systems in the world. It consists of Zapovedniks (strict nature reserves used for research and biosphere conservation, occupying 1.42% of Russia), National Parks (protected, but allowing limited tourism, agriculture, and grazing, occupying 0.38% of Russia), Zakazniks (special purpose reserves, established to safeguard certain flora or fauna populations, usually for a specified period, occupying 4% of Russia), and Natural Monuments (Pamyatniki Prirody) (see map IBRD 27085 and Annex 1.1).

1.10 As of December 31, 1994, Russia had 89 Zapovedniks, covering a total area of 29,120,800 ha, and 28 National Parks, covering 6,443,100 ha. According to a 1991 inventory, there were more than 1,000 Zakazniks with a total area of 44 million ha. Federal-level Zakazniks number 69, occupying 11.5 million hectares. Although Zapovedniks have been established in all of the thirteen of the physical-geographic zones (Arctic, Fenno-Scandinavia, Russian Plain, Caucasus, Urals, Western Siberia, Caspian-Turgay, Central Siberia, Southern Siberian Mountains, Yana-Kolyma, Baikal-Dzhugdzhur Mountain Region, Amur-Sakhalin, Northern Pacific Region), they are not evenly distributed throughout these zones. For example, 24 Zapovedniks have been established in the Russian plain region, while the Arctic zone currently has only two Zapovedniks (see map IBRD 27267).

1.11 The 82 Zapovedniks administered by the MEPNR comprise more than 40% of the world's total of strict scientific reserves (IUCN Category I). Russia has an extremely distinguished history of research in these reserves, sixteen of which are part of the UNESCO Biosphere Reserve program, and an enormous amount of scientific data has been amassed in them over the decades. Russian nature reserves protect a

significant number of species, many of which are listed in Russian and International Red Data Books of Rare and Endangered Species. Box 2.2 provides additional information on species representation in the protected areas system.

### C. Associated Environment Management Project

1.12 This project is a part of the EFP and is associated with the Environmental Management Project financed by a loan from the Bank to the Russian Federation. The EFP has been designed to enhance the current system of environmental management which has been characterized as fragmented and uncoordinated with more than ten government agencies having some responsibility for environmental concerns. These agencies have found it extremely difficult to realize their objectives. This is mainly explained by the legacy of a system of centralized management of the economy that emphasized production over efficiency, concentrated pollution-intensive industries in enormous complexes, compartmentalized decision-making, and treated natural resources as free goods.

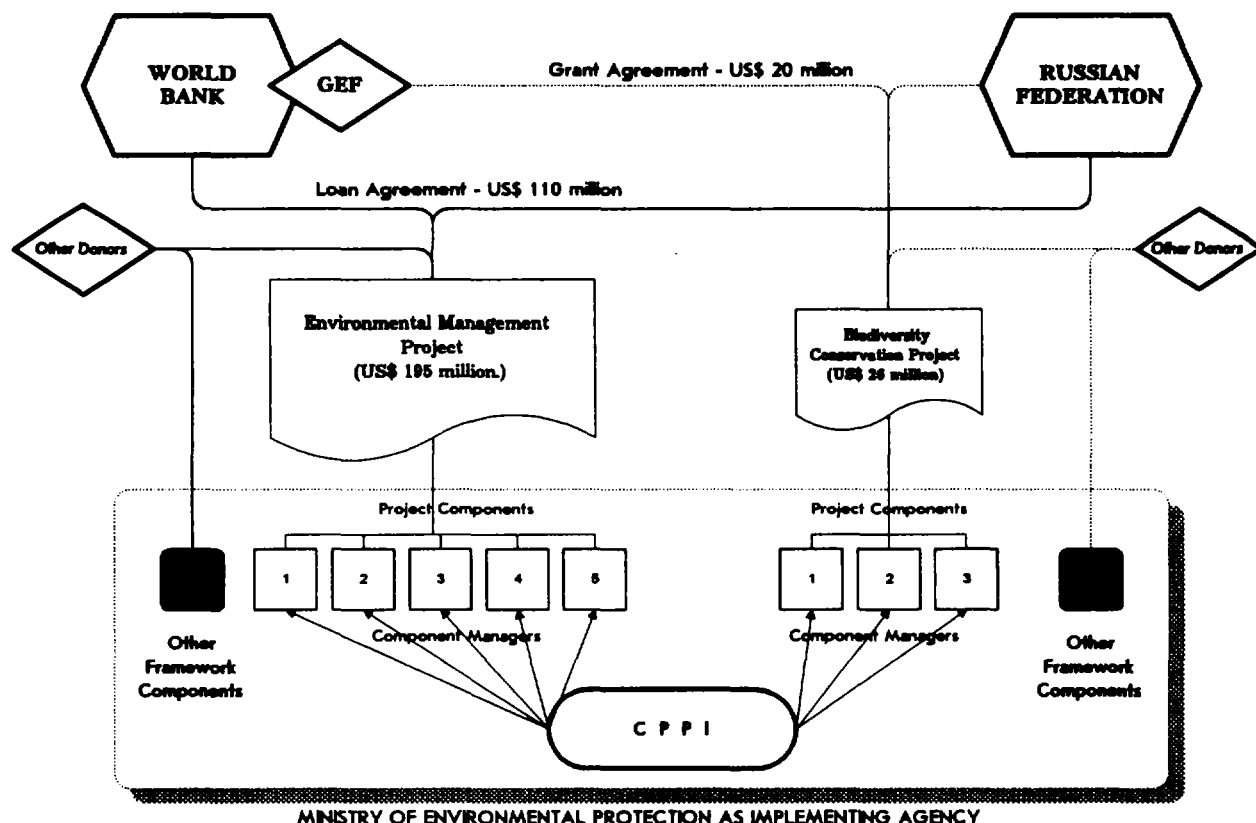
1.13 The failure of the previous, centrally planned Soviet system to efficiently and effectively manage regional economic development and environmental issues was implicitly recognized in the Russian Federal Treaty of March 14, 1992<sup>2/</sup>, that formally devolves much of the former powers and resources of the central ministries and committees to regional and local level agencies. The trend toward decentralization has major implications for solving environmental and natural resource management problems. These changes, while creating much uncertainty and confusion, also present unprecedented opportunities for providing strategically targeted support and assistance, based on sound economic, social, environmental, and natural resource management principles. The Environmental Framework Program and the Environmental Management Project have been designed to support these changes.

1.14 The EFP is estimated to cost a total of US\$282 million over a period of approximately four to five years. It addresses environmental and natural resource management issues at a federal, regional and local levels in demonstration areas across a wide spectra of natural areas. It has eight principal components: (i) institutional and policy strengthening; (ii) air quality management; (iii) water quality and water quality management; (iv) hazardous waste management; (v) biodiversity conservation and natural resources management; (vi) conservation and management of cultural and natural heritage; (vii) the National Pollution Abatement Facility; and (viii) Center for Project Preparation and Implementation. Of these, the EMP, with a total cost of US\$ 110 million, concentrates on core elements of (i), (iii), (iv), (vii) and (viii). This Project, although financially distinct from the EMP, represents the core biodiversity component of the EFP and therefore is associated with, and will be implemented under, the same organizational arrangements as the EMP (see Figure 1.1).

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<sup>2/</sup> Treaty of the Delimitation of the Objects of Jurisdiction and Powers between the Federal Bodies of the State Authority of the Russian Federation and the Bodies of Authority of the Republics within the Russian Federation.

Figure 1.1. Environmental Framework Program in Russia



#### D. Lessons Learned from Previous Bank Involvement

1.15 The proposed project is able to draw on the extensive and successful PPA initiated for this program as well as several projects which are currently being implemented in Russia. The PPA included preparatory data analysis on: (i) an assessment of Russia's biodiversity, including an initial gap analysis, identification of a policy matrix and current biodiversity programs; (ii) a workshop on biodiversity economics; (iii) a needs analysis for natural resource and protected area management training programs; (iv) a workshop on biodiversity conservation management and ecotourism; and, (v) the definition of the Lake Baikal regional program including data on the harmonization of environmental standards, development of the regional program and the Local Biodiversity Initiative sub-component. The PPA was extremely successful in defining and implementing effective means to utilize project funds, and the Gap Analysis and Policy Matrix studies were outstanding studies which are of importance and relevance beyond Russia.

1.16 Additionally, in terms of experience drawn from other GEF biodiversity projects, it draws on project experience from other countries under the GEF Pilot Phase and from NGOs in Russia. The key lessons include: (a) the importance of a national strategic framework for biodiversity investments; (b) the need to build in financial sustainability and long-term commitment from the Government; (c) the need to involve local people and regional administrations in design and implementation; (d) the key role of

macroeconomic and sector policies in establishing an appropriate incentive framework for resource conservation; (e) the need to expand the protected area system and improve management technologies for unprotected habitats with high biodiversity and environmental services values. Finally, the community participation programs supported under the project incorporate lessons learned from several on-going pilot activities in Russia managed by NGOs, the Government and other donor agencies, particularly (a) the importance of integrating local communities into the assessment of community needs through participatory rural appraisal techniques; and (b) the need to establish clear, mutually agreed contracts that identify the respective rights and responsibilities of reserve staff and local communities in resource use within and outside reserves.



## **RUSSIAN FEDERATION**

### **BIODIVERSITY CONSERVATION PROJECT**

#### **CHAPTER 2: Project Background**

---

##### **A. Strategic Overview**

2.1 Experience from a variety of countries suggests that successful biodiversity strategies involve three elements: identifying priority problems, defining priority actions, and ensuring effective implementation. Effective implementation can only be achieved if the strategy's conservation objectives are realistic and consistent with broader political, economic, and social conditions. Rigorous analysis of the losses of biodiversity, their causes, and the social and economic impact of these losses on society can help to identify and clarify the priority issues. But such expert analysis needs to be balanced with stakeholder involvement, both in identifying problems and exploring solutions. Environmental strategies must involve those who are either responsible for the problems or who are adversely affected by them, those who control the instruments for solving the problems, and those who have relevant information and expertise. The more diversified the actors involved, the greater the opportunities for exchanging information and improving understanding.

2.2 A strategy planning framework which balances rigorous analysis with effective and broad participation faces two major challenges in the Russian Federation. First, to convince the Government to view the biodiversity strategy as a continuous, cyclical process within the overall planning framework for sustainable social and economic development (environmental planning and policy-making cannot be worthwhile or productive if it is viewed as a one-time event). Second, to help build local and regional strategies, so that the details of policies and action plans promoted at a national level can increasingly be generated by the institutions and communities who will be responsible for implementing them. A realistic strategy for biodiversity conservation will necessarily involve trade-offs among economic, social and ecological objectives. Such decisions cannot be determined by scientific or analytical methods alone. They involve value judgments and political decisions, and therefore require broad participation in decision making. Participation by stakeholder groups is critical for all major tasks within the strategy development process. Effective participation can provide the basis for a realistic strategy built on a broad knowledge base, with understanding and commitment from key groups, and with strong links to promising local initiatives.

2.3 Effective planning for biodiversity conservation at a national level will require the early involvement of regional entities. In many cases, formulation of general policies will need to be complemented by more specific planning and implementation at the regional level. Regional governments should become parties of the strategy process at its early stages. The ability to create and implement regional strategies for biodiversity conservation consistent with broad national policies is likely to be key condition for success in such a vast country as Russia.

##### *The Strategy Process*

2.4 The traditional approach to strategies has been to carry out these major steps in sequence, one after the other. Studies and information gathering would be followed by the publication of a strategy document, which would be followed by action planning, which would be followed by implementation, and finally evaluation. But experience now shows that this sequential approach has several critical weaknesses: i) it encourages an excessive emphasis on the preparation of a strategy document; ii) there is no

commitment to periodically reviewing and adjusting the strategy; iii) implementation tends to be unnecessarily delayed; and, iv) feedback into the next round of the cycle generally receives inadequate attention.

2.5 Many of the problems with the traditional, sequential approach can be avoided if the strategy is planned and implemented as a series of repeating steps within a continuing cyclical process. The following four-phased process has been found to be the most constructive, and it is this process to which the project will adhere:

Phase 1. Organizing the strategy: (Establishing the institutional framework and designating leadership).

Phase 2. Launching the strategy: (Making plans for the strategy, including participation and communications plans, setting priorities, preparing a preliminary statement of goals and objectives, hiring staff and consultants).

Phase 3. Strategy Development, Action Planning, and Implementation:

- (a) **Assessment and Study:** (Gathering and evaluating information on the status and trends of the nation's biodiversity and biological resources, laws, policies and organizations, program budgets, and human capacity).
- (b) **Strategy Formulation:** (Determining goals and operational objectives, involving stakeholders in identifying and analyzing options for future actions, consulting closely with other environment and development plans and strategies). The first strategy formulation being completed 2-3 years after the strategy has been launched.
- (c) **Action planning -** (Determining who will do what, where, how, and with what resources, with timetables).
- (d) **Implementation** (launching practical activities as well as policy and institutional changes, having stakeholders shift from being planners to implementors) should be continual.

Phase 4. Evaluation and Monitoring:

The results of evaluation and monitoring (establishing indicators of success, adjusting future action plans based on accumulating experience, reporting progress to different audiences) are reviewed and the entire strategy process adjusted as necessary at least every 18 months. The first two phases, "Organizing the Strategy" and "Launching the Strategy" are necessarily sequential. But the three elements in the third phase do not have to be carried out in sequence (with the exception that action planning should follow strategy formulation). Any of these elements can begin once the strategy has been organized and launched. The cyclical approach to the Biodiversity Strategy process requires a comprehensive management regime, but this is particularly important in Russia, where a biodiversity conservation strategy, in order to cope with the demands of the transition period may be best viewed as a process for managing and adapting to change.

## *Policy Support*

2.6 While the federal and regional strategies enable a clear assessment to be made of the current status of biodiversity conservation, they are not in themselves sufficient to ensure the mainstreaming of biodiversity conservation into policy making. This can only occur if the economic linkages between environmental protection and economic development are analyzed and articulated clearly.

2.7 Important economic policy decisions are being made without consideration of their impacts on biodiversity. This not only leads to unforeseen - and often avoidable - environmental costs but causes many potential economic benefits and viable investment opportunities linked to biodiversity to be overlooked or underestimated. Consequently, there is an urgent need to improve the quality and quantity of economic information on biodiversity which flows to decision-makers. This means new and technically sound economic analysis of topics such as agricultural and energy subsidies, forest management laws and regulations, benefits from non-timber forest products, natural resource ownership and access rights, pricing of tourism services, genetic property rights, biotechnology, international trade agreements and constraints facing indigenous peoples. Such analyses are particularly valid for the Russian Protected Area system, where in real terms, the budgets have fallen by 70-90% over the past few years. This has placed enormous pressure on conservationists and park managers to generate their own funding as well as to demonstrate the actual and potential economic benefits of biodiversity conservation in comparison to development alternatives. Innovative and significant work was undertaken in the PPA to identify major sectorial impacts on biodiversity and the linkages between economic dynamics and ecosystem integrity. Box 2.1 provides a very summarized matrix derived from this activity.

2.8 In economic terms, biodiversity losses can be attributed to two fundamental forces. First, the increasing demand for unconverted land and unexploited natural resources attributable to expanding human population densities, income growth and inequitable distributions of income and wealth. Second, the investments being made in managing and regulating natural resource use and environmental impacts are inadequate. This under-investment in biodiversity arises because the true rate of return earned by natural resource owners from land conversion or resource over-exploitation is usually less than the perceived rate of return (i.e., externalities have been ignored). This underestimation of the value of biodiversity conservation can be attributed to (a) market failures, (b) missing markets for global benefits, and (c) inefficient and misguided government policy interventions.

2.9 Specifically, economic approaches can be used to analyze different aspects of the biodiversity problem in Russia, including: i) demonstrating the potentially significant economic values of the sustainable use of biological resources; ii) exploring ways to realize the economic revenues from biological resources; iii) explaining why biodiversity is threatened, despite these economic values; iv) finding cost-effective ways to mitigate the negative environmental impacts of economy-wide policies; v) analyzing the impact on biodiversity of Russian laws, regulations, decentralization, and social and economic policies; vi) strengthening the economic case for biodiversity protection, generating additional funds for the protected area system, and to clarify the trade-offs between conservation and development alternatives.

Box 2.1: Biodiversity Policy Matrix

Macroeconomic processes in Russia in 1989-1996 and their relation to negative environmental changes	Types of natural communities and biosystems													
	Off-shore sea	Lakes in arid zones	Fresh water bodies	Swamp & wet-land	Tund- ra	Tai- ga	Forests of Central Russia	Forest- steppes of Southern Russia	Steppe & semi-desert	Mead- ows & agroce- noses	Soil biota	Urban areas	Natural protect- ed areas	Endange- red species
Social and political instability	◆	◆	■	◆	■	■	◆	◆	◆	■	■	■	●	◆
Autarchy, economic self-isolation of regions	■	•	•	■	◆	■	◆	●	■	■	■	◆	●	●
Extension of rights of local authorities to economic subjects	■	•	•		•	•	■	■	■	•		◆	■	◆
Sharp rise in prices for energy resources		○	■	•	■	■	◆	◆	■	○	•	■	■	□
Inflation, economic recession	■	■	■	■	◆	■	■	■	•	○	■	■	◆	◆
Structural changes in economy, military-industrial conversion	○					○			•	•	•	■	○	•○
Privatization of the means of production in industry	◆	□	□	□	□	◆	□	◆	□	◆	□	◆	◆	◆
Delays in agrarian reforms	•	•	•				■	■	■	■	■	◆	■□	•○
Agrarian and industrial reforms are in balance		•	■	■	•		■	■	■	■	■	■	◆	■
Governmental regulation of agriculture continues	○	•		○		○		□	•		•	■	□	□
"Opening" of national economy to the World market	◆	■	■	■	■	■	■	■	■	□	□	•	•○	◆
Weakness of authority	◆	■	◆	■	■	■	◆	◆	■	■	■	■	◆	■
Public takes active part in politics	◆	◆	○	◆	◆	○	○	○	□	◆	◆	○	◆	◆

Key:

Intensity of processes that cause negative change

Intensity of processes that reduce negative change

low    medium    high    very high

low    medium    high    very high

•    ■    ◆    ●

○    □    ◇    ○

Source: Adapted by Bank staff from GEF Biodiversity PPA. A. Martynov (1995).

2.10 During the PPA, the establishment of a trust fund to further support the protected area system was explored. Conservation funds do exist in Russia, although their structure and operations do not resemble the kinds of national conservation funds which have been established recently around the world. These existing funds currently provide about 5% of the total funds for nature conservation in Russia and biodiversity is only one of many environmental activities supported by these funds. The Environmental Protection Law of 1991 established Ecological Funds at federal, regional, and district levels. Currently, their only sources of funds are fines and charges for violations of environmental protection laws, mainly pollution limits. The Environmental Protection Law directed that such funds raised at the district level be

distributed as follows: 60% to remain in the district fund; 30% to go to the regional fund, and 10% to go to the federal fund. The monies collected by these ecological funds are spent on programs established by local Environment and Nature Resources Committees and by local authorities. Any surplus funds are deposited in banks or invested in ecologically-oriented enterprises. The use of funds is decided by the fund managers, who are appointed by Government agencies. The MEPNR appoints the managers of the Federal Fund, while regional administrations (sometimes in cooperation with the MEPNR's regional branches) appoint the managers of the regional funds.

2.11 A Seminar on the Economics of Biodiversity was conducted in March 1995, during the PPA phase to explore economic approaches to biodiversity. This workshop was the first of its kind in Russia. Preparation of case studies for the workshop brought together economists, scientists, protected area managers, ecologists, geographers, and others to use methods of analysis which were completely new to the country. Work initiated at this workshop will be continued and expanded in the project and in the further development of the National Biodiversity Strategy.

## **B. Protected Area Systems**

### *Institutions and Management*

2.12 The main legal enactment regulating the issues of nature conservation in Russia is the Environmental Protection Law (1991). The law defines the major types of specially protected natural areas and their protection regimes. Other legislative acts pertinent to the preservation of natural and cultural heritage of Russia include the Decree of the Supreme Soviet of Russian Federation # 447-1 of December 25, 1990 "On Urgent Measures for Conservation of National Natural and Cultural Heritage". At the end of 1994 a new Law "On Protected Areas" was adopted by the RF creating a framework to strengthen protected areas systems and increase coordination between them. This is the first national law dedicated solely to protected areas. It describes all legal aspects for planning and management in all categories of protected areas. The law divides responsibilities over different types of protected areas between federal and regional authorities.

2.13 Russia's protected areas fall under the jurisdiction of several federal agencies within various ministries, including the MEPNR, the FFS, the Ministry of Culture, the Ministry of Agriculture, the Ministry of Defense, and the Academy of Sciences. Most of the eighty-eight Zapovedniks are managed by the Division of Nature Reserve Management in the Department of Biological Resources and Nature Reserve Management which is in the MEPNR. Several other agencies also manage Zapovedniks including two by the universities of St. Petersburg and Voronezh respectively, four by the Academy of Sciences and one by the regional forest service of Bashkortostan Republic. The MEPNR houses a Division of Finance which allocates funding.

2.14 National parks are established and financed by the Federal government, and 26 out of 28 are under the authority of the FFS. This has, within its Department of Especially Protected Forests, a Division of National Parks, staffed by five administrators. The National parks are directly managed by the Forest Service's regional units, except three which are directly under the FFS. Two National parks are subordinate to Regional administrations (Moscow city and Yaroslavl Region). Zakazniks and Nature Monuments make up the central component of regionally administered protected areas. Zakazniks that are established by the federal Government usually have a staff of professional game managers, or rangers. If the Zakaznik is created at a regional level, enforcement of the protection regime is exerted by regional

administrations of the MEPNR. Land users (various state enterprises) are legally responsible for managing and protection of Zakazniks and Nature Monuments.

2.15 This historic reserve system is a systematic and comprehensive attempt to maintain and protect a significant sample of the world's biodiversity. But the system now faces serious threats. At least one half of the Zapovedniks and one third of the National Parks are in or approaching a critical state, and the system itself is in jeopardy. Exploitation of natural resources is increasing, often supported by local administrations. Increasing use and access to public lands under privatization and deregulation has intensified the threats to protected ecosystems, while adjacent lands are often subject to clearcutting, mining, agriculture, and pollution from industrial activities. There is no clear and consistent enforcement of laws and regulations, and penalty provisions, if applied are deficient, to guarantee the long-term survival and financing of the protected area system. Compounding these threats, levels of funding available to support the protected area networks have fallen precipitously. In real (constant price) terms, financial support for the Zapovednik network has declined to less than 20% of the 1985 level. Serious shortcomings are apparent at all levels of protected areas management: interagency cooperation, departmental functions, and operation of individual protected areas. Management structures within the responsible federal agencies are weak and fragmented.

2.16 Planning for conservation programs in individual reserves is inadequate, and neither Zapovedniks or National Parks are required to develop management plans. Work conducted by scientists in nature reserves is poorly integrated into management and policy development. Even the limited funds available for individual protected areas are not being used effectively. Virtually all reserve budgets are now spent on wages and salaries. But staff wages do not even reach subsistence levels. Infrastructure maintenance is ignored. Offices, laboratories, vehicles, and other equipment are deteriorating while many protected areas have become almost defenseless against the growing pressures around their borders. Most Zapovednik and National Park directors lack specific experience or training in protected area management, although they often have a diverse and valuable range of skills. There is a severe lack of training programs to build on these diverse skills, and to provide a common understanding of the nature reserves' purpose and the tools by which this could be implemented.

#### **BOX 2.1. SPECIES PROTECTED IN RUSSIA'S NATURE RESERVES**

The most recent reliable data on the number of species protected in strict nature reserves were recorded in 1987, when 59 Zapovedniks existed. Many more Zapovedniks have been created since then, so these figures should be used only as indicators of the important role of protected areas in habitat protection. Thus, in 1987:

Zapovedniks protected 168 species of terrestrial mammals (69% of terrestrial mammals found in Russia). Of the 65 mammal species listed in the Red Data Book of Russia, 25 (3 marine species) were identified in Zapovedniks.

Zapovedniks protected 515 species of birds (83% of birds found in Russia). Of the 109 birds listed in the Red Data Book of Russia, 60 were identified in Zapovedniks.

Zapovedniks protected 40 species of reptiles (61% of reptiles found in Russia). Of the 11 reptiles listed in the Red Data Book of Russia, 5 were identified in Zapovedniks.

Zapovedniks protected 26 species of amphibians (96% of amphibians found in Russia). Of the 4 amphibians listed in the Red Data Book of Russia, 3 were identified in Zapovedniks.

There is little information available on species diversity and ecosystem types in National Parks. However, rough estimates conclude that up to 800 vascular plants and up to 200 vertebrates (to 190 birds and 50 mammals) have been recorded in National Parks.

Reliable data on species diversity in Zakazniks and Natural Monuments are not available.

Equally, the population as a whole is largely unaware of the protected area system while communities in the vicinity of protected areas are frequently feel alienated by the system.

### C. Lake Baikal

2.17 Lake Baikal provides compelling reasons for assistance. It is one of those areas like the Great Rift Valley in Africa, which by its sheer uniqueness is of supreme global importance. Lying in a deep tectonic depression, at 30 million years old it is the planet's oldest lake, the deepest point of 1,637 m makes it the deepest and at 31,500 km<sup>2</sup> it is one of the largest. It contains 20% of the world's freshwater, sustaining 2,600 species of biota, two thirds of which are endemic. The diversification of adjacent landscapes, from alpine tundra, mountain and boreal coniferous forest to steppe

and semi-desert - together with the lake itself, constitutes an area of exceptional diversity with 2,500 species of flora (10% of which are endemic) and 400 species of birds. The Baikal watershed (338,770 km<sup>2</sup>) is predominantly located in Russia where it falls under the jurisdiction of Irkutsk Oblast, Buryatia and Chita Oblast. The IUCN Red Data Book and that of the Russian Federation (1988) indicate that 10 species are threatened or endangered, including the Swan Goose (*Anser cygnoides*), Pallas's Sea Eagle (*Haliaeetus leucoryphus* Pall.), Siberian Red Dog (*Cuon alpinus* Pall.) and the Snow Leopard (*Panthera uncia*). Currently, the protected area network in the region consists of 5 Zapovedniks (2 of which are Biosphere Reserves), 3 National Parks, 27 Zakazniks and several dozen botanical and zoological Natural Monuments. In addition, in 1987 a forestry protection zone was established which prevents logging from the shore to the ridge line around the lake (see map IBRD 27268).

2.18 The region has an extremely rich and diverse cultural history as attested to by numerous archaeological sites, many of which are also of global significance. Today, the region's native peoples are represented by Buryats, Evenks, and Soyots. Although cultural traditions have been eroded this century, many skills and traditional knowledge still abound. There is also a strong desire to bring back many of these traditions today. A complex of economic, social and institutional characteristics and processes and

Box 2.3. Biodiversity of the Baikal Region				
Basic Systemic Groups of Fauna and Flora	Number of Species			
	Total	Subject to Special Protection		Recommended for Special Attention
		IUCN, USSR and RSFSR Red Books	Buryat ASSR Red Book and Regional Lists	
<b>Flora</b>				
Algae	1,300	-	-	-
Micromycetic				
Fungi	700	7	-	30 - 40
Lichens	450	12	6	30 - 40
Bryophytes	230	2	-	10 - 15
Vascular Plants	1,800	27	130	20 - 30
<b>Animals</b>				
Sponges	10	-	-	-
Turbellaria	100	-	-	-
Rotifers	50	-	-	-
Oligochaetes	90	-	-	-
Mollusks	130	-	-	3
Crustaceans	550	-	-	1
Spiders	190	-	-	5 - 7
Myriopoda	10	-	-	-
Insects	5,000	17	28	15 - 20
Fishes	55	2	5	-
Amphibians	5	-	4	-
Reptiles	7	-	4	-
Birds	350	24	96	6 - 10
Mammals	83	4	26	-
Source: GEF Project Preparation Advance, 1995				

resulting land, water and resource use policies and practices, however, has led to considerable, yet still largely localized, environmental degradation with attendant stresses on the region's biodiversity.

2.19 The transition period, with the attendant dynamics of decentralization and market liberalization has deepened the administrative authorities dependence upon the natural resources in the area as well as forcing the industrial sectors to search for wider and different markets. In common with much of Siberia, the region is faced with an outmoded industrial infrastructure of insufficient flexibility to be readily adaptable, the economic viability of which is further undermined by the rising cost of fuel and the declining transport subsidies which used to enable access to far-distant potential markets. The transition period has had contrasting impacts on the environment. On one hand, the production decreases have led to a small reduction of 5% in pollutants, but on the other, economic exigency has substantially reduced the efficacy and potential of environmental protection and monitoring as well as distorting resource allocation mechanisms.

2.20 The region is faced by difficult economic and social problems and inevitably policies which seek to address these are considered to be of the highest priority. The efforts to increase production and maintain increasingly eroded living standards inevitably create policy options with often complex trade-offs. This can mean that attempts to forge a development model within concepts of sustainability and reduced environmental impact are frequently frustrated. Anthropogenic influences in the region (see map IBRD 27268) are increasingly significant and include: agriculture, now a major source of chemical discharge, has increased steppe landscapes which are now subject to substantial soil erosion from overgrazing; significant industrialization which began in the 1950's with the creation of the Irkutsk Hydroelectric Power Station (1956), followed by chemical plants and the construction of the Selenga and Baikalsk paper mills and has led to industrial pollution whether atmospheric or of effluent, becoming a major source of environmental degradation with at least 150,000 ha of forest affected as well as between 5-10,000 km<sup>2</sup> of the lake; forestry which occupies 70% of the territory and is increasingly subject to forest fires (over 1,500 equaling 50,000 ha *per annum*), and pests and diseases (30,000 ha destroyed by Siberian Bombyx); hunting, which has led to significant species decline and in some instances extinction (recent data - excluding poaching which may be of equivalence - indicates that the average annual take of sables (*Martes zibellina*) was 6,000, squirrel (*Sciurus*) 450,000 and muskrat (*Ondatra zibethica*) 95,000).

2.21 The protection of Lake Baikal and the adjacent habitat requires a coordinated approach to resource use in the region. Such coordination, which would assign the lake as the single unit of account, against which all development policies would be measured, implies that a clear assessment of comparative advantage forms the basis of regional development. This, at first, might seem antithetical to the individual regions which are attempting to maximize revenues. To counter this, an instrument is required which can help form the necessary conceptual, legislative and project base which helps develop the over-arching inter-regional development plan based upon ecologically and economically sustainable criteria.



**RUSSIAN FEDERATION**  
**BIODIVERSITY CONSERVATION PROJECT**

**CHAPTER 3: Project Description**

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**A. Project Objectives**

3.1 The main objective of this project will be to assist the Russian Federation maintain optimum levels of biodiversity in accordance with the principles of economic and environmentally sound sustainable development. The project will assist in ensuring the enhanced protection of biodiversity, within and outside protected areas, in conformance with the Government's obligations under the Convention on Biological Diversity. This will be achieved by: i) supporting the development of federal and regional biodiversity strategies; ii) developing and implementing mechanisms and approaches which will mainstream biodiversity conservation and environmental protection into the policy making process; iii) assessing the protected area institutional framework and subsequently strengthening its effectiveness; iv) enabling the participation of all interested stakeholders, including aboriginal peoples and local communities into biodiversity conservation; and, v) developing an inter-regional demonstration of inter-sectorial biodiversity conservation and environmentally sustainable natural resource management. The realization of these objectives will: i) substantially strengthen the economic feasibility and sustainability of biodiversity conservation within the Russian Federation; ii) leave a legacy of integrated planning demonstrating the necessity of combining financial/economic policy, socio-economics and appropriate normative and resource allocation mechanisms to ensure sustainable biodiversity conservation; iii) help safeguard numerous endangered and vulnerable species including the Siberian Tiger (*Panthera tigris altaica*), Snow Leopard (*Panthera uncia*) and Pallas's Sea Eagle (*Haliaeetus leucoryphus Pall*); iv) provide a realistic policy to ensure the protection of Lake Baikal; and, v) facilitate the integration of native peoples into protected area management. These objectives will be monitored according to the *Guidelines for Monitoring and Evaluation of GEF Projects*, and would be expected to include key monitoring criteria on biological, socioeconomic, financial, institutional and other factors. These key indicators will be identified and agreed to during appraisal.

**B. Detailed Project Description<sup>4/</sup>**

3.2 The project will include the following three components.

*Component One: Strategic Overview (US\$ 3,405,000)<sup>5/</sup>*

*Sub-component (a): National and Regional Biodiversity Strategies (US\$ 575,000)*

3.3 This activity will strengthen the development of the federal strategy, develop the methodologies and procedures for regional strategies, and create a model regional strategy at Nizhniy Novgorod. These initial strategies will:

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<sup>4/</sup> Estimated breakdown of the GEF-financed component costs by financier, by project year, and by expenditure type is provided in Annex 4.1, Tables B and C.

<sup>5/</sup> Total costs with contingencies are used in this chapter.

- assess the extent, status and vulnerability of biodiversity;
- detail current normative instruments which affect biodiversity conservation;
- develop an action plan which will define remedial activities.

**Box 3.1. Model Regions/Sites for Protected Areas Activities**

Regions	Zapovedniks	National Parks
Northwest	- Laplandskiy - Kostomukhskiy - Rdeyskiy - Nizhnevinskiy	- Vodlozerskiy - Kenozerskiy - Yugyd Va - Valdaiyskiy
Center	- Bryanskiy Les - Tsentral'-Chernozemnyi - Kaluzhskie Zaseki	- Orlovskoye Polesye - Meshchera - Smolenskoye Poozerye
Upper and Middle Volga	- Kerzhenskiy - Zhigulevskiy - Shulgan Tash	- Samarskaya Luka - Charvash Varmane - Khvalynskiy
Northern Caucasus	- Teberdinskiy - Daghestanskiy - Kabardino-Balkarskiy	- Prielbruskiy
Baikal	- Baikalo-Lenskiy - Barguzinskiy	- Pribaikalskiy - Zabaikalskiy - Tunkinskiy
Southern Siberia	- Altayskiy - Katunskiy - Kuznetskiy Alatau - Ubsu-Nurskaya Kotlovina	
Far East	- Sikhote-Alinskiy - Lazovskiy - Ussuriyskiy - Khankayskiy - Magadanskiy - Khinganaskiy - Botchinskiy - Kurilskiy	

3.4 Effective implementation and sustainability will be assured by the federal strategy being under the ultimate authority of the established Inter-Ministerial Commission on Environmental Protection and Natural Resource Use (the Commission) which, under the chairmanship of a Deputy Prime Minister, is responsible for coordinating natural resource use and management across line ministries. A *Secretariat* will be formed to orchestrate data collection, creation of the federal strategy and action plan, policy analysis, stakeholder participation and development of regional strategies, initially at Nizhniy Novgorod, where preparatory and design activities have already been advanced. The *Secretariat* will also

oversee evaluation and monitoring activities and will be in the Policy and Regulatory Support Unit in the CPPI. Inter-ministerial coordination will be developed by the assigning personnel in each line ministry who will be responsible for integration and implementation of the strategy and work directly with the Secretariat and as required in the regions, such as Nizhniy Novgorod.

3.5 A clear implementation schedule will be followed for the federal strategy. It will be carried out in four phases: i) initial organization (May - October 96); ii) launch (November - December 96); iii) strategy development, action planning and implementation (January 97 - 99); and iv) evaluation and monitoring, a continuous process with major reviews every eighteen months. The regional pilot strategy (as well as subsequent regional strategies, which will be funded at a later stage under the Policy Support Sub-component) will also follow this format. The GEF funding will cover consultants' services, workshops and publications.

*Sub-component (b): Biodiversity Policy Support (US\$ 1,725,000)*

3.6 This sub-component will strengthen the effectiveness of the biodiversity strategies, at federal and regional levels, by undertaking significant analytical and participatory actions which ensure that key concepts in biodiversity economics are introduced to decision-makers and researchers. This will support the mainstreaming of biodiversity and environmental values into policy formulation and implementation. Support will be provided for:

- analysis of economic linkages and impacts on biodiversity as part of a iterative policy support program. This will set the curricula and education programs for the regional

training courses. The former will be comprehensive and continuous and will be part of the review of the strategies (US\$215,000);

- developing and publishing guidelines, source materials and training programs on regional strategy development (US\$200,000);
- setting up a series of stakeholder working groups - through the NGOs and unions - which have access to the biodiversity secretariat/regional authorities (US\$75,000);
- development of 3 additional regional biodiversity strategies, after a review 30 months after project implementation. Samara and Rostov-on-Don have already expressed an interest (US\$435,000);
- assessment of biodiversity economics which will i) develop a training program on environmental and biodiversity economics; ii) develop case studies and applied instances around the country, focusing on protected areas and sites of critical biodiversity importance which will develop precedent; iii) disseminate case history and methodologies to administrations, NGOs, protected area managers and the public (US\$500,000);
- assessment of potential conservation finance mechanisms, including *inter alia*: i) a feasibility study on the development of creating a National Conservation Fund. The study would assess regional and local implementation and adaptivity; taxation liability, sources of funding, management structure, operational and procedural rules and legal status. If, following the feasibility study, the Government decides to create a fund, the project would support consultants activities to enable its establishment. Such a fund, if created, would support a range of conservation programs including protected areas, biodiversity projects instigated by communities and NGOs and applied research into biodiversity conservation issues; and ii) the possibility for utilizing debt conversion opportunities to finance environmental activities may be explored, if considered appropriate (US\$300,000).

*Sub-component (c): Biomonitoring Information System (BIOTA) (US\$ 1,105,000)*

3.7 The lack of accurate, recent and accessible data is one of the most critical impediments to effective environmental policy formulation in Russia. Data must be available for all Ministries and development agencies and a concerted effort will be made to ensure that they are actively involved in the design and preparation of the system. The project will establish a meta-data base center in the MEPNR which will integrate scientific data, archival materials, and maps on the state and dynamics of ecosystems and natural communities. The center will, after project establishment rely on relatively small financial support for maintenance from the MEPNR as major data sets will be the responsibility of the cooperating agencies and institutions. World wide examples of such systems including the ERIN system now operating in Australia will provide guidelines for the establishment and on going support for such a system. The center will maintain close connections with the World Conservation Monitoring Center (WCMC) and IUCN and will also form one of the regional hubs of the Biodiversity Data Network coordinated by WCMC. The Center's activities will include:

- creating a network of qualified producers and users;
- technical and consultative support for ecological information systems;

- a training program on GIS applications for biodiversity conservation personnel, environmental and administrative organizations;
- the distribution of data-base and GIS information;
- analysis and preparation of information for applied environmental purposes;
- design and distribution of methodologies and GIS approaches to assist in biodiversity monitoring and evaluation;
- establish appropriate linkages to the protected area data sets (also supported by this project in Component Two)

***Component Two: Strengthening Protected Area Systems (US\$ 13,819,000)***

3.8 This component will strengthen the protected area system<sup>\*</sup>. It will address the most urgent problems which can be summarized as: i) lack of institutional incapacity to direct and manage the protected area system; ii) ineffective material and technical capabilities of Zapovedniks and national parks; iii) lack of public awareness (nationally and internationally) about the need to preserve Russia's biological diversity and protected areas; iv) poorly developed mechanisms for development of the system, i.e., creation of new types of protected areas and supporting and maintaining those protected areas which already exist; and, v) lack of preparation in academic institutions for professional level training in protected area management. This component will counteract these problems and is divided into five sub-components each with a subset of model projects that will: i) facilitate institutional change in management of protected areas; ii) improve operational and planning capabilities; iii) build public support in Russia and the international community; iv) create new protected areas; and, v) provide training in all aspects of protected areas management. Criteria for program elements and model projects (improvement in the management of protected areas, innovation, urgency, probability of success, sustainability of results, cost effectiveness, public support building and the potential for developing inter-organization partnerships) and in the case of model projects also included socio-economic and biodiversity value, were established in the PPA.

3.9 A significant proportion of this component will be implemented in the first two and half years of the project at the end of which there will be a major project review. There will be an initial focus on 7 regions - Northwestern Russia, Center of European Russia, Upper and Middle Volga, Northern Caucasus, Lake Baikal, Southern Siberia, and the Far East - reflecting the range of ecosystems and problems that are most suitable models for replication helping to ensure broad understanding and applicability (see Box 3.1). Each region will provide 4 to 8 model protected areas (a total of 27 Zapovedniks and 14 National Parks for the duration of the Project) as sites for activities described below. The approach also ensures that a range of biodiversity is addressed by working at the regional landscape level as well as at the species level, and the multiple sites assure reproducibility as well as system-wide applicability of products.

***Sub-component (a): Institutional Support (US\$ 882,000)***

3.10 All institutional levels of nature reserve management require support. Although this may necessitate some reassignment of authority, and each level - federal, regional and local - will be strengthened. One of the current distortions of the system is that the institutions' mutual inter-dependence is obscured. This component, while modifying and clarifying some of these relationships, ensures that financial control, policy setting and management will be coordinated and will ensure effectiveness for biodiversity conservation.

- The MEPNR and the FFS will be strengthened by establishing mechanisms, procedures and capacities for coordinating financial and policy responsibilities for nature reserves.

Training programs will be run in personnel and financial management, dispute mediation and data base management.

- A Joint International Expert Council on Protected Areas will be established. This Council will convene twice a year and serve as both a contact for the project to the international science establishment and provide technical advice on project implementation. Extended applied research programs for protected area activities will also be funded.
- **Regional Associations** will be formed and strengthened. These will provide the formal coordination between national parks and Zapovedniks and between **Regional Zapovedniks Directorates**. The latter will have been delegated responsibility from the MEPNR for the coordination and maintenance of policy and similar management standards. The regional associations will ensure full stakeholder participation by being composed of representatives of local communities, indigenous peoples, NGOs, regional Environmental Committees, as well as Zapovednik and National Park Directors. The offices, capabilities, and equipment of the Regional Directorates serve to house both the MEPNR and Forest Service Regional Protected Area offices and functions. A director, technical and support staff would be hired, an office set up and management plans reviewed. A plenary meeting of all protected area managers will be held at the end of 2 years to review the regional operations concept and develop methodologies for its wider application.

Also, complementary to the project activities, though not funded by the Project, a Federal Coordinating Commission (FCC) on Protected Areas will be established by the Government to improve interagency coordination and management. The FCC will coordinate the Federal Forest Service, Ministry of Agriculture's Game Management Department, and the MEPNR's Department for Nature Reserve Management. Quarterly meetings will be held to review issues, initiatives, their management, and coordination. A small Secretariat will be established with linkages to institutions such as the Academy of Science.

*Sub-component (b): Operations and Planning (US\$ 2,745,000)*

3.11 Management of core functions in both Zapovedniks and National Parks requires major adjustments. Facing significant budgetary cuts in real terms, protected areas must streamline research and protection operations and monitoring and preservation of ecosystems and species diversity. These sub-component programs improve the capacity of protected areas for goal and project-oriented planning, and for monitoring, implementing and evaluating protection and conservation initiatives. This has seven elements:

- establishment of an information system for 110 protected areas through the procurement of and training on PC's and 5 regional workstation servers;
- creation of linkages to BIOTA to facilitate planning and management. Identification of priority areas for acquisition and model sites for the first two years of this project;
- development of management plans and fund-raising and financial planning for 10-12 model protected areas in 3-5 model regions;

- establishment of ecosystem monitoring units at each Regional Office and consist of 5 Units (measurements and analysis, lab, communications, administration, data management - to be mostly funded through the Federal budget);
- further encouraging scientific research in the parks and Zapovedniks by fostering publication and participation, via grants, in related technical communities around the world; and,
- support of *ex-situ* conservation for the most acutely threatened species, including translocation, housing and restoration.

*Sub-component (c): Public Support and Education Programs (US\$ 2,903,000)*

3.12 The PPA conference held in Sochi highlighted the need for constituency building and establishing proactive community relations. Directors of Zapovedniks and National Parks are trying hard to improve the visibility of their reserves locally and regionally, to start educational programs, to engage in conflict resolution and community outreach activities, and to establish mutually beneficial relationships with local and regional governments and other entities. This sub-component will support this process by the following three activities:

- establishment of a Coordinating Center for Environmental Education and Public Support staffed by 11 professionals. They will initiate model programs in the 16 model protected areas focusing on training trainers. Collections and exhibits will be constructed and school projects with attendant kits and materials will be developed. This sub-component will be funded by the Swiss Government (US\$668,000);
- publications and promotional materials will take 3 forms: a) the publication of field guides for the biota of the 5 regions as well as brochures for the initial 16 model protected areas; b) support the production of targeted film and television programs; and, c) publication of a newsletter, technical Journal of Applied Conservation, and other specialist publications; and,
- one or two model ecotourism projects based on ecological carrying capacity within the context of a regional land use plan. A package of policy and incentives will be developed for each region.

*Sub-component (d): Ecosystem Protection (US\$ 6,448,000)*

3.13 The gap analysis component of the PPA determined that the current system of protected areas, although extensive, is neither representative nor sufficiently comprehensive to protect many areas of vulnerable and important biodiversity (see Map IBRD 27267). The present transition period offers a window of opportunity for the expansion of the system to appropriate levels. However, it will have to be extended before land privatization, which is increasing, so raises land values as to make purchase costs exorbitant. This sub-component addresses these issues by complementing the recently adopted Federal Program of State Support of Natural Protected Areas Up To the Year 2000, and moreover, establishing a consistent mechanism to coordinate expansion of the protected areas network. Many large tracts of wilderness in Russia remain unprotected. Currently, the federal Government lacks a nation-wide strategy for planning and establishing protected areas so that negotiations during the process of designating new protected areas are ad hoc, leading to insufficient, poor quality arrangements. As new property rights evolve, land acquisition and the attendant issues of compensation, management agreements and equity will become increasingly complex, so that new mechanisms for creating and designating natural areas are urgently required to ensure that ecologically vulnerable and important areas are adequately protected from inappropriate use and ownership. The protection of biologically integrated landscapes is significant because while animals such as waterfowl, sturgeon, and salmon migrate across international boundaries, institutions and protection does not. Animals bound to use such routes are excellent indicators of the viability of nature in a region. The program will work to avoid conflicts by developing methods for reaching compromises between all stakeholders. Among the most valuable natural areas are those territories which are used by native peoples in the north of European Russia and Siberia. Creating protected areas in these regions requires consideration of the needs and interests of these indigenous peoples. The following activities will be implemented:

- gap analysis in 3 areas per region (15 areas in total) over 2 years will identify poorly represented biotic communities, followed by management plans which ensure that the protected area is based upon the annual requirements of the region's biota. The protected area will maintain viable ecosystems and populations based on keystone representatives of species guilds and their carrying capacity;
- activities to strengthening the protection services for protected areas by developing policy and legislation and ensuring compliance with the law. The activities include training and professional development in information/education/public relations/conflict resolution, modes and management of enforcement and enforcement planning, CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) related customs enforcement, and media production;
- case reviews of successful local involvement in protected area systems around the world, regular consultation with stakeholders, studies of attitudes and determinants of decision-making, and professional development and training in land use planning. The project will create sustainable economic development plans for local communities;
- 5 site specific projects will ensure ecosystem restoration of degraded and/or fragmented areas in critical areas which require protection, with strengthening the existing protections service through the procurement of the lacking special equipment and vehicles;

- establishment of new areas requiring protection, based on criteria such the area's contribution to the maintenance of viable wild populations, the reduction of habitat fragmentation, value as rare species habitat and contribution to poorly represented biomes; and,
- the protection of biologically integrated landscapes as habitat for migratory species will be supported initially in the watersheds of the Dnieper, Don, Volga, and Amur rivers. Inventories (emphasizing tagging and ringing), international data base construction, study tours and implementation plans will be followed by initial implementation and legal formulation.

*Sub-component (e): Training (US\$ 841,000)*

3.14 This sub-component will develop a comprehensive training program for protected area staff, in order to augment the current program which is neither comprehensive nor adequate. No sustained reform is possible without systematic training in the Zapovednik and National Park systems. A comprehensive staff recruitment and training system is needed which: provides existing staff with essential skills, organizes professional exchanges for protected area managers, produces and publishes handbooks and training materials, selects students at universities and trains them to become protected area managers and, in the long run, creates special training for managers in institutes of higher education. This system needs a built-in mechanism that evaluates current staff qualifications, training needs, and plans staff development policies. A large gap in the education system is the lack of curricula and training related to protected areas management, legislation, policy, planning, and practices. A comprehensive program for improving protected area staff qualifications and integrating conservation themes into education curricula was developed during the PPA and is ready for immediate implementation. The training program to be supported by the project will result in 900 personnel being trained over five years, publication of key management handbooks and development of curricula at existing academic institutions. In addition, annual meetings for protected area managers and staff will be held. Both will have a focal topic. They will rotate among the Protected Areas/Regional Headquarters, with every 4th year being held in Moscow. The latter distinct sub-component (annual courses for protected area managers) will be financed by the Swiss Government.

*Component Three: Lake Baikal Regional Program (US\$ 6,340,000)*

3.15 The Lake Baikal component will establish a regional model (complementary to the activities undertaken under components 1 and 2 above), capable of duplication, which will demonstrate the inter-sectorial and administrative coordination necessary to incorporate biodiversity protection into a development policy which meets acceptable and sustainable targets of economic growth and social-economic development. This requires a region-wide system of integrated natural resource management which treats the lake as the unit of account by integrating biodiversity values into regional economic policy and using biodiversity as the key indicator of sustainable development. All three sub-components will build on the considerable volume of preparatory work undertaken during the PPA.

3.16 The component will consist of three levels of activity - inter-regional, regional and local. This will ensure the full participation of all levels of government as well as comprehensive stakeholder and public participation.



*Sub-component (a): Inter-regional Activities (US\$ 950,000)*

3.17 These activities will include a set of essential actions which will be carried out in each of the administrative areas, but which will be closely coordinated. They have also been designed to interrelate with similar but national scale components in Component One of the project and one of the features of the project will be to provide case experience on the linkages that will be required between similar activities at national and regional levels. Activities to be funded (mostly as consultants' services) will include:

- analysis of linkages between economics and environmental protection (development of matrices);
- biodiversity and environmental economics;
- data collection and dissemination;
- evaluation and monitoring;
- analysis of sources of growth and comparative advantage;
- policy trade-offs and determination of transparent resource allocation mechanisms;
- development of uniform regional legal, environmental and economic regulatory mechanisms; and
- study of biodiversity conservation issues leading to development of Biodiversity Strategies.

*Sub-component (b): Regional Activities (US\$ 2,890,000)*

3.18 These activities will develop model biodiversity conservation activities in the Goloustnaya River, Tugnuy-Sukhara Rivers and Khilok River watersheds and will include agriculture, forestry and land improvement initiatives within an ecosystem approach. It will encourage the participation of programs implemented in remote settlements aimed at improving the use of land, water and forest resources and environmental education, as well as the creation of essential and ecologically appropriate production and social infrastructure. It will include:

- sustainable forest management programs which will incorporate an extensive series of programs on forest restoration, fire ecology and management, environmental monitoring, analysis of sustainable forest economics and forest manager training;
- extensive environmental education training programs;
- model agricultural projects - grazing, animal husbandry, arable and soil maintenance - which serve to rehabilitate degraded areas of vulnerable biodiversity;
- development of management plans for the Zakazniks within the watersheds. This will assess status of legislative protection and develop new regulations and implementation procedures to ensure biodiversity conservation;
- development of model sites within the Zakazniks which demonstrate environmentally appropriate methods of land and resource use; and,
- Each watershed will establish a management unit for the project which will ensure the involvement of all the stakeholders, including local communities and indigenous peoples.

*Sub-component (c): Local Biodiversity Activities (US\$ 2,500,000)*

3.19 Activities financed under this sub-component will provide small grants to institutions, NGOs, local communities, businesses and individuals to encourage small scale or specific programs. This would include applied research projects, environmental monitoring, ecotourism, nursery development, traditional resource use practices, appropriate husbandry programs (horse, cattle and other livestock breeding), management of protected areas, publication of environmental literature and development of local school programs. The component will encourage the participation of the native populations, representatives of remote settlements, and women.

3.20 The component will finance projects with the greatest potential to promote biodiversity conservation and improvements in natural resource management, in relation to project cost. Other considerations taken into account in project selection will include social and educational potential, replicability and thus transferability, innovation, professional development and training, use of local knowledge and capability, post project assimilation/sustainability, and linkage to other elements of the Project. Grants under this component will range from US\$1,000 to US\$50,000. The component will not fund: (a) projects involving direct obligations of the federal, oblast, republic, or local governments, (b) pure research or administration projects, with limited tangible benefits for biodiversity conservation and environmental protection; (c) projects directly involving members of the Supervisory Council or their affiliates.

3.21 Projects will be pre-selected by each of the regional center teams and reviewed and endorsed by the Baikal Commission for projects which meet the requirements indicated in Annex 3.6. which includes the establishment of local advisory councils (LAC's) to ensure transparent and public participation. In short, funding will be available to local groups, organizations, NGOs, academic institutions and other local entities, and individuals residing or working in the Lake Baikal region, specifically the Irkutsk and Chita Oblasts and the Buryat Republic of the Russian Federation. Funding will also be available to international individuals and groups, particularly those working in partnership with Russian counterparts.

3.22 The component will provide short, medium, and long term financing to qualified projects. All grant recipients will be required to provide the Supervisory Council (with copies to the CPPI) with semi-annual, mid-term and project completion reports, describing project progress, problems, and future activities. At the completion of each project, or annually, if the project requires more than 18 months to be implemented, grant recipients will submit to the Supervisory Council (with copies to the CPPI) financial statements describing the expenditures under the grant for the period in question. For grants above US\$10,000, recipients will submit audited reports issued by an independent auditing organization, concerning the financial aspects of the project.

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**CHAPTER 4: Project Cost and Financing Plan**

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**A. Project Costs**

4.1 Total project costs (see Schedule A) are estimated at US\$26.0 million, including incremental costs eligible for GET financing estimated at US\$20.1 million, or about 77 percent of total costs. These incremental costs were calculated by (a) identifying the "baseline" investment and recurrent expenditures that Government would have made in support of biodiversity in the absence of the project (\$4.8 million); (b) calculating the cost of implementing the new policy biodiversity conservation approach across the country (\$26.0 million); (c) subtracting the baseline expenditures from the "Global" project costs to isolate the GEF incremental costs (\$20.1 million); and, (d) subtracting earmarked funding for the project from other donors (\$1.1 million expected from the Swiss Government). The baseline situation was developed in conjunction with the Ministry of Finance (MOF) and the MEPNR, and was derived from public expenditure patterns of the last three years on the assumption that they would be maintained in real terms.

4.2 The total project costs include a foreign exchange component of US\$9.8 million or about 38 percent of total costs. Cost estimates are based on quantities derived from technical discussions during preparation and pre-appraisal missions. Unit costs were reviewed during pre-appraisal based on those currently prevailing and used in the initial work by the Canada Parks Service and the Socio-Ecological Union of Russia. Price contingencies of US\$1.8 million are included. Price contingencies for costs expressed in US dollars are based on the average annual international escalation rate of 2.6 percent a year projected for the 10-year period 1995-2004. Physical contingencies of US\$2.0 million are included, based on an average rate of 5 percent for goods and 10 percent for services and works. Taxes and duties are estimated at US\$4.1 million and are not included in costs. Detailed cost tables are given in Annex 4.1.

**B. Financing**

4.3 The financing plan is summarized in Schedule A. The proposed GET grant of \$20.1 million would cover 77 percent of total project costs. Counterpart funding would finance the balance of project costs, including US\$ 4.8 million equivalent from the Recipient and US\$ 1.1 million equivalent expected from the Government of Switzerland. The Recipient's counterpart funding would come from budgetary revenues and would cover procurement of special field equipment for protection services and for ecosystem monitoring stations, certain professional and legal services aimed at institutional strengthening (committed under the Federal Program referred to in paragraph 10 of the Project Summary), ministerial administrative costs and, partially, project operating costs (including, *inter alia*, office space and overhead expenses of Project Director and Component Directors). The Swiss Government is expected to finance technical assistance components on public support and education programs.

**C. Procurement**

4.4 All GET-financed items will be procured in accordance with the Bank's Guidelines. Schedule C summarizes the methods of procurement. Project procurement plan and arrangements for major and critical packages are outlined in Annex 4.2. The EMP Project Implementation Manual acceptable to the Bank will include the GEF Project Implementation Schedules that will detail procurement administration,

procurement lists, notes, and schedules -- all subject to the Bank's approval. Donor financing of the EFP will be on a parallel basis and procurement of these items will follow the donors' procurement procedures.

4.5 Implementation of the project will require procurement of goods, the selection and employment of consulting firms and individuals to carry out consulting and other technical assistance services. Assisted by a General Consultant and the CPPI, the PIG will undertake the procurement of all goods and will assist the project's Supervisory Committee, Component Managers, and regional subcomponent teams, with the selection of consulting firms and individuals. Similarly, it will be responsible for submitting procurement related progress reports to the Bank, as further discussed in paragraph 5.18. For administrative purposes, all consulting firm contracts over US\$50,000 will be managed by the CPPI.

4.6 Services. Consulting and other technical assistance services worth US\$16.3 million will be provided by both firms and individual experts (of which the GET grant will finance US\$13.3 million). The EMP Project Implementation Manual will be used for the GEF Project, since it includes, inter alia, generic consultant selection schedules. All consultants will be selected and employed following the World Bank's Guidelines on the Use of Consultants and using the Bank's Standard Contracts for Consultant Services dated June 1995. Proposals will be invited from short-listed consulting firms for all assignments with an estimated value of no less than \$100,000 each. Individual consultants will be selected from an evaluation of the CV's of at least three candidates.

4.7 The Bank will require for its prior review, the terms of reference (TOR), the method of selection, advertisements, letters of invitation, the proposed selection, and negotiated contract prior to award for consultant services, except for contracts less than \$100,000 each. However, this exception to prior Bank review will not apply to TORs; single source selection of firms (if any); employment of individual consultants with contracts above \$50,000; or assignments of a critical nature.

4.8 Goods worth US\$4.7 million would be required for the project, which amount to 18 percent of total project costs and comprise vehicles, office equipment, field and research equipment. The GET grant will finance \$2.9 million worth of goods.

4.9 International Competitive Bidding (ICB) procurement procedures would apply to all contracts for items or groups of items estimated to cost US\$300,000 or more. At least one package of specialized professional and computer equipment at an estimated value of US\$350,000 is expected to be procured using ICB procedures. Bank's Standard Bidding Documents dated January 1995 will be used by CPPI for the preparation of all ICB procurement packages. Final drafts of these documents, including the number and type of packages, the lists and technical specifications of equipment, will be subject to the Bank's prior review. Preferences for domestically manufactured goods as defined in paragraphs 2.54 and 2.55 and Appendix 2 of the Bank's Procurement Guidelines will apply to all ICB packages.

4.10 International Shopping (IS) procurement procedures acceptable to the Bank would apply to all contracts for items or groups of items estimated to cost less than US\$300,000 and US\$3.0 million in the aggregate. National Shopping (NS) procurement procedures would apply to all contracts for items or groups of items estimated to cost US\$50,000 or less and US\$2.6 million in the aggregate, since small quantities of diverse equipment are required. Contracts using shopping procurement procedures would be awarded and administered through the CPPI on the basis of comparisons of price quotations solicited from at least three qualified suppliers, as described in the Bank Guidelines.

4.11 Each contract for goods estimated to cost US\$100,000 or more, as well as the first contracts for goods procured under IS and NS procedures, regardless of their value, will be subject to the Bank's prior review. The Bank will also review in advance general technical specifications of all groups of items to be procured using shopping procedures.

4.12 Other project elements to be financed under the GET grant include community investment grants and incremental operating expenses.

4.13 Community investment grants worth of US\$2.5 million under the Baikal Local Biodiversity Activities sub-component will be governed by the implementation and procurement procedures acceptable to the Bank that are outlined in Annex 3.6 and paragraphs 28-32 of Annex 4.2. The exact composition of these grants cannot be known at this stage, however, they are expected to include US\$1.6 million estimated to be spent on international and national shopping for small packages of equipment and goods, and US\$0.9 million estimated to be spent on technical assistance services.

4.14 Incremental operating expenses worth of US\$1.4 million to be financed by the GEF will include additional project implementation expenses incurred by the PIG and the component/subcomponent teams and not covered by the Government contribution, such as incremental staff salaries, office rental and utility costs, communication, stationary and copying expenses. With respect to incremental staff (estimated at US\$1.1 million throughout the life of the project), the Bank's Consultant Guidelines will apply; whereas other items will be procured under the National Shopping procedures.

#### **D. Disbursement**

4.15 Disbursements would be made against statements of expenditure (SOE's) for all expenditures relating to: (a) contracts for goods, research services, training and study tours, and incremental operating expenses not exceeding US\$50,000 equivalent per contract; (b) contracts for consultancy services with firms not exceeding US\$100,000 equivalent per contract, and contracts for consultancy services with individuals not exceeding US\$50,000 equivalent per contract. The supporting documents for SOE's would be retained by the CPPI. In the case of contracts for goods and services above these thresholds, disbursements would be made against the full documentation with the contracts themselves and other supporting documents.

4.16 The project will include the following conditions of disbursement: (a) for expenditures related to the regional biodiversity strategies under the Strategic Overview Component, a decree or other appropriate pronouncement acceptable to the Bank, has been issued by the executive authority of at least one relevant oblast expressing support and providing for the implementation of the regional biodiversity strategies, and (ii) for the Lake Baikal Regional Component, the Governmental Commission for Lake Baikal should have issued a general resolution enabling the project's implementation and the administrations of Chita, Irkutsk and the Government of Buryatia will have issued clear implementing resolutions (decrees) providing for the creation, staffing and operations of the implementation bodies under the Lake Baikal component.

4.17 In order to disburse the grant proceeds efficiently, a special account would be opened by the MEPNR for the Project Implementation Group in US dollars in a commercial bank to be selected following the formal procedure established by the Bank. (For the purposes of the Lake Baikal Regional Component, four project bank accounts would be opened by the Baikal Component Supervisory Committee and by the Project Teams in Irkutsk, Ulan-Ude and Chita). The initial deposit for the Special Account will be US\$0.5 million, equivalent to the grant's financing of average three months' expenditures for small foreign

payments (under US\$50,000) and all ruble payments. After the GET Grant has cumulatively disbursed US\$4.0 million, the Special Account deposit will be increased to US\$0.75 million. Applications for replenishment of this account will be submitted monthly, or whenever the account is drawn down by 50 percent, whichever comes first.

4.18 The project is expected to be completed by June 30, 2001, and the closing date would be June 30, 2002. The estimated schedule of disbursement is given in Schedule B. About 61 percent of all disbursements will be made during the first three years, reflecting the large amount of technical assistance, training, and planning required to build capacity and prepare improved management plans during the early years of the project; relatively small amounts will be disbursed for specific investment requirements during the final two years.

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**CHAPTER 5: Project Organization and Management**

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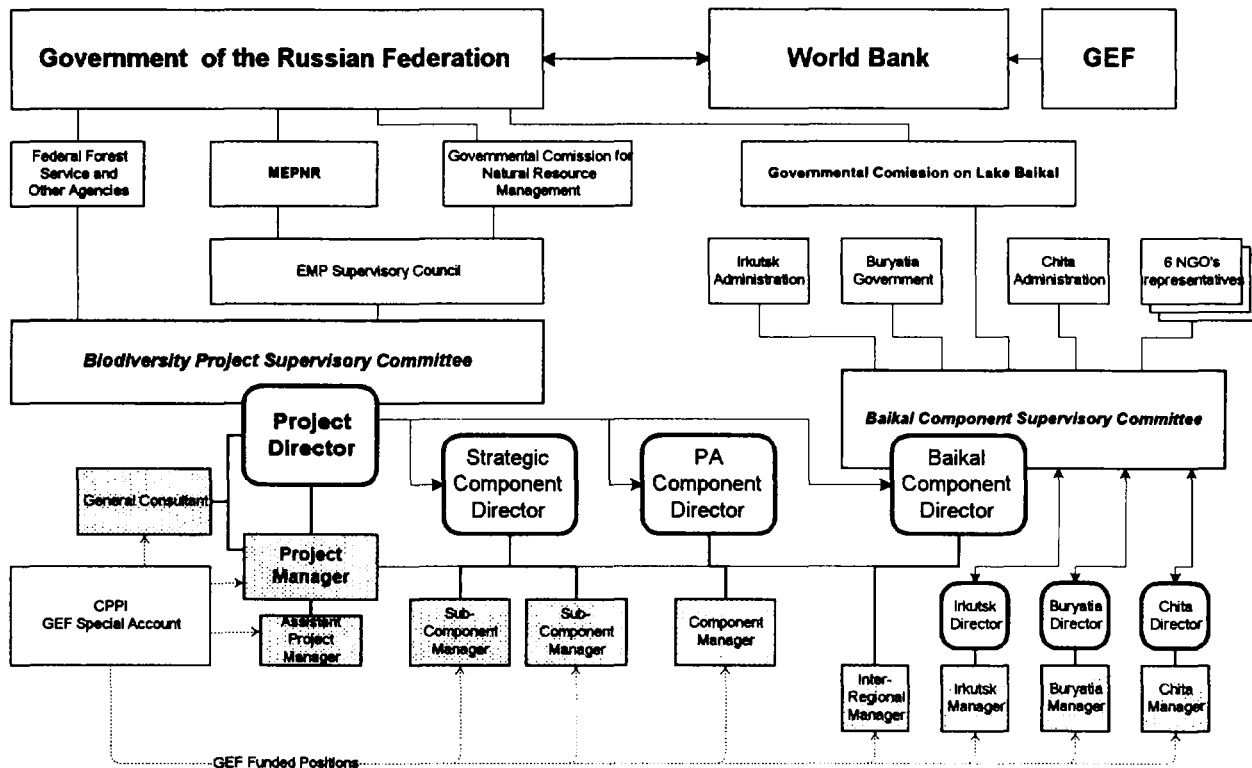
**A. Organization and Management**

5.1 The project is associated with the EMP and will essentially use the EMP's organizational structure. The GOR established a high-level interagency Commission for Natural Resource Management chaired by a Deputy Prime Minister to oversee the overall policies for the implementation of the EMP components and the associated EFP projects. The MEPNR was designated as the lead agency for the management of the EFP projects and the coordination of their implementation. On a more technical level, several interagency Supervisory Committees are established to provide guidance for individual EMP components and associated projects. The project's issues are to be specifically addressed by a relevant Project Supervisory Committee comprised of the Deputy Minister of the MEPNR (Chair), a high-level official of the FFS (Deputy Chair) and technical representatives of these and other agencies and institutions. The Supervisory Committee's Chair will also be appointed to work in the capacity of Project Director. Other appointed positions within the project will be those of Component/Subcomponent Directors and FFS Coordinator, all of whom will continue to perform official duties in their respective agencies. This is distinct from the project management staff who will be competitively selected by the Supervisory Committee and hired on a full-time basis by the CPPI following the agreed upon terms of reference (see Annex 5.3).

5.2 The principal role of the CPPI as a separate non-commercial legal entity governed by the MEPNR is to assist the project management groups of the Bank financed components of the EFP, as well as GEF funded projects, to follow Bank procurement, disbursement, accounting, auditing and reporting procedures and requirements. The professional and technical management of the project will be exercised by the Project Implementation Group - an autonomous unit of the CPPI, although the CPPI's core team will exercise the following administrative functions: (i) providing overall project coordination; (ii) disseminating information regarding Bank and donor financed EFP components; (iii) liaising with other funding agencies; and (iv) facilitating project training activities. The CPPI will be responsible for executing contracts with all advisers and experts at international, national and regional levels - both individuals and firms.

5.3 The Biodiversity Project Implementation Group (PIG) will be administratively established as a department of the CPPI, but will report on technical matters to the Biodiversity Project Director (PD), a Government-appointed senior official who will be responsible for approving policies and providing guidance on critical aspects of component design, operation, and review; the PD, in coordination with the Supervisory Committee, will also appoint key staff of the PIG and will be assisted by a Special Adviser and a General Consultant (see Fig. 5.1 for an outline of the Project's organizational structure). The PIG will be headed by the Project Manager (PM), an individual competitively selected and hired on a full-time basis. The PM will report to the PD and will be fully responsible for the day-to-day management of the PIG, including: staff/consultant selection and performance; budget management and approval of expenditures; planning, organizational federal/regional coordination of the technical work, scheduling and quality control; reporting and reviewing of work in progress. The CPPI's Accounting and Procurement Units will work together with the PM (assisted, if needed, by an Assistant Project Manager) on issues related to staff/consultants selection and performance; consolidation of the overall project budget and financial records; management of the project's Special Account and payment of invoices that have been approved by the PM under the budget; provision of procurement and logistics services for the project; information management and reporting; and, bilateral donor program coordination.

**Fig. 5.1. Organizational Structure of the GEF Project**



5.4 Similarly, at the project component level, the heads of the appropriate departments of the MEPNR will be appointed by the Minister to perform the functions of **Component Directors (CD)** who will report to the PD and will each be supported by one or more **Component Managers (CM)** selected and hired through the CPPI by normal Bank procedures. While the CD's, in consultations with the Forest Service Coordinator, will provide operational and policy guidance for their respective component activities and facilitate coordinated provision of the agreed-upon Government contribution to the project, the CM's will report to their CD and to the overall PM and will be responsible for component/regional team budgets, work programs and schedules, staff/consultant selection, hiring and performance and progress reporting. The following organizational arrangements have been made for each GEF component, the details of which will be supplied in the GEF-related annexes to the EMP Project Implementation Manual:

The *Strategic Overview* team will work under the guidance of the head of the MEPNR's Department of Biological Resources Conservation who will perform the CD functions for the whole component. Component Managers will provide day-to-day management of activities. The whole team will work in close collaboration with the EMP's Policy and Regulatory Support Component to maximize the complementarity between the components. A group of independent experts will also be brought together under an International Scientific and Technical Committee, chaired by IUCN, to provide suggestions drawn from comparable programs around the world.



The *Protected Areas Component* team will work under the guidance of the head of the MEPNR's Department of Protected Areas who will perform the CD functions for this component and, in close consultations with the Forest Service Coordinator, will prioritize specific Government contributions including those under the framework of the "Federal Targeted Program of the State Support for State Natural Reserves and National Parks for the Period up to 2000". The CD will also coordinate education and training activities funded under the Swiss grant. The CM will report to the CD and will be responsible for day-to-day management of the component activities.

The *Lake Baikal Regional Component* teams will be directed by their own Supervisory Committee that will report to the already existing Governmental Commission for Baikal and to the overall project's Supervisory Committee. The Baikal Supervisory Committee, that will meet 4-5 times a year, will be chaired by the Executive Secretary of the Baikal Commission (Component Director). The Baikal Supervisory Committee will also include a total of six representatives of the administrative bodies of the Republic of Buryatia and Irkutsk and Chita Oblasts and six representatives of the Baikal region's non-governmental organization (NGO) community. The six administrative representatives will include the Regional Subcomponent Directors nominated by the government of the Republic of Buryatia and administrations of Irkutsk and Chita Oblasts and appointed by the MEPNR. The heads of the regional bodies of the MEPNR in the Republic of Buryatia and Irkutsk and Chita Oblasts or their designees will be among these six representatives. The six NGO representatives would be nominated by the NGO community for a one-year term on a rotation basis. Each Regional Subcomponent Manager, selected and hired by the CPPI, will be supervised by the respective Regional Subcomponent Director. The Regional Subcomponent Directors and Regional Subcomponent Managers will be responsible for the regional and local activities under this component. The inter-regional activities will be supervised and directed by the Baikal Supervisory Committee. The Inter-regional Subcomponent Manager, selected from outside the region and hired by the CPPI, will be responsible for day-to-day inter-regional activities under this component, and will be supervised by the Component Director.

5.5 In addition, a **General Consultant (GC)**, an internationally selected individual, will assist the Project Director and the Project Manager in the management and supervision of the project. Services of a **Special Adviser (SA)**, an independent highly reputable professional specialist, will be occasionally used by the Project Director for project activities' review and quality control.

#### *Project Implementation Manual and Schedule*

5.6 A detailed Project Implementation Manual is being developed by the CPPI under the EMP to provide detailed instructions to project component teams on all aspects of project management and organization. In addition a detailed project activity plan, a list of key development and monitoring indicators and Schedule will be established by CPPI to serve as a baseline against which the overall project, its individual components and subcomponents, and the integration across them can be evaluated in terms of the progress in meeting the project's objectives. The Project Launch Workshop held shortly after the Grant signing will review the schedule as well as prepare, with the assistance of the General Consultant, TOR's and work plans for any of the outstanding subcomponents. This will expand the summarized table of the monitoring and evaluation indicators provided in Annex 5.1.B.

## **B. Involvement of NGOs and Local Communities**

5.7 NGOs in Russia consist mainly of professional, academic, and scientific organizations; unlike NGOs in most other countries, many have close administrative ties to government agencies. Russian NGOs directly contribute \$0.32 million per annum (p.a.) to biodiversity protection and an immeasurable amount in kind. The PPA of this project benefited from significant NGO (international and national) involvement, not only in the preparation of the material but also in informal and formal consultation and discussion. The Socio-Ecological Union of Russia, through its various sub-organizations played a particularly constructive role as did local NGOs in the Lake Baikal region, including Baikal Wave and the Baikal Fund.

5.8 Several international NGOs have been involved in conservation in Russia, the total contribution of which is approximately US\$2 million per annum, although this is increasing. The World Wide Fund for Nature (WWF) helped to identify conservation priorities as well as playing a pivotal role in the PPA. This is in addition to their own programs which include extensive projects in the Russian Far East to maintain biodiversity and habitat as well as Siberian Tiger protection. Other NGO activities include among others: IUCN, which maintains an increasingly strong presence which is mostly directed towards assisting in policy reform for protected areas; The International Crane Foundation (ICF), which been working on projects including Siberian Crane reintroduction and protection, study of Siberian Crane breeding grounds on the Ob river and assistance to the Muraviovka Nature Reserve; TRAFFIC Network International, which is working on three projects to help promote the sustainable trade in wildlife; Eurasia Foundation which is funding environmental management and protected area projects in Karelia, Ussuri River Watershed and the Far East; and, ISAR which through its subsidiary, the International Clearinghouse in the Environment (ICE), has funded 19 projects and over 100 local environmental groups. The lessons learned from NGO's implementation experience have been reflected in the design of the project.

5.9 The project makes provision for NGO, local community and native culture participation throughout all three of the sub-components in the following ways:

5.10 The Biodiversity Strategy will make an assessment of native cultures' relationship to biodiversity and will encourage local community and native peoples participation in the establishment of regional biodiversity strategies. NGOs will be formally and informally involved in the development of the Federal Biodiversity Strategy.

5.11 Within the Protected Areas component, NGOs will be involved in designing the education programs and will be crucial element in the outreach programs which are planned. Local communities are targeted as one of the main focal points, in that community participation is considered to be essential in ensuring the continued survival of the protected area system. In the same way, the role of native cultures in helping to find ways to protect biodiversity will be examined and there are measures to introduce new categories of protection to reflect the importance of this activity.

5.12 In the Lake Baikal component, a significant part of the Local Biodiversity Initiatives sub-component will be available for NGOs, local communities and native cultures. This sub-component has been specifically designed to enable such participation which will include applied research by academic institutions, community development linked to biodiversity conservation and sustainable development as well as small scale grants to individuals to encourage integrated natural resource management which enhances biodiversity protection.

### **C. Environmental and Social Aspects**

5.13 The project will be subject to formal environmental assessment procedures for natural resource management development activities as a function of its policy and regulatory support. In addition the project is expected to have a positive environmental impact through the improved management and protection abilities of the protected area system of the Russian Federation as well as the introduction of new land use and conservation measures through the implementation of the Federal and regional biodiversity Strategies and in the Lake Baikal regional component. However, the project may support some activities with potentially adverse minor impacts, such as small-scale construction in nature reserves and development of new enterprises as part of the Lake Baikal Local Biodiversity Initiatives. Therefore, the project in general, and these activities in particular, will: (i) be subject to approval by the State Ecological Expertise, and (ii) require the preparation of environmental screening carried out in accordance with guidelines acceptable to the Bank. Technical reviewers will screen the projects to determine whether they include any of the following activities, which could have a negative environmental impact: road construction, dam construction, use of pesticides and fertilizers, deforestation, timber extraction, civil works, large animal husbandry, wild animal husbandry, commercial fishing, ecotourism, use of exotic species, product processing, use of large quantities of non-degradable materials, dredging and/or filling. If the sub-project includes activities which may have a negative environmental impact, the technical reviewer will analyze the impact and characterize it as significant or negligible. If considered significant, the reviewer will determine whether mitigating measures could be taken which would decrease the environmental impact of the activity to ensure environmental sustainability. For all projects involving potentially negative environmental impacts, this will be monitored during implementation.

5.14 Protected area management plans and biodiversity strategies will pay particular attention to the impact of project activities on cultural property and the development of sound mitigation measures to ensure adequate protection. Similarly, the project will closely monitor the needs of ethnic minorities living within or adjacent to project areas. In particular, the terms-of-reference for biodiversity strategies, nature reserve management plans and community projects will require detailed review of minority issues to ensure that they are not adversely affected by project activities and that the social and economic benefits they receive are consistent with their cultural preferences. Minorities will participate directly in the design and implementation of project activities.

### **D. Project Monitoring, Evaluation and Supervision**

5.15 The project will implement a comprehensive monitoring and evaluation program (the overall program is summarized in Annex 5.1). Each protected area will monitor impacts of project activities, using the results of inventories, community consultation, and applied research. The project monitoring process will be written into the individual management and development plans of each reserve.

5.16 Each nature reserve management plan will include a section on monitoring and evaluation requirements. In addition to the primary gathering of background information at each site during the planning process, each plan will specify additional surveys or inventories that are needed to complete the resource inventory to form the baseline data against which future project success and impact can be measured. Indicator parameters will be identified for regular (at least annual) resampling and will form the basis for monitoring trends in biotic and socio-economic factors and evaluating the effectiveness of the management prescriptions being applied or tried in the project. Each management plan will be required to identify its own specific goals and success indicators which can serve as targets against which to measure project progress. In addition, each management plan will specify an annual review and revision meeting

and a final evaluation in the last year of implementation. These final evaluation reports will be brought together to form the overall project evaluation report.

5.17 Overall monitoring and evaluation will be carried out by the Project Supervisory Committee with assistance from international experts. The project has provided 10 person-months for this activity. To ensure effective monitoring and evaluation, the following assurances were achieved at negotiations: (a) adequate policies and procedures will be maintained to monitor and evaluate project implementation and achievement of objectives on an ongoing basis, in accordance with indicators satisfactory to the Bank; and (b) a monitoring and evaluation plan will be prepared and furnished to the Bank for comment by August 31, 1996, and implemented thereafter taking into account the Bank's comments.

5.18 The Project Director, assisted by the Project Manager and in coordination with the CPPI, will be responsible for reporting progress according to the agreed implementation timetables, which are summarized in Annex 5.2. Semi-annual reports will be submitted to the Bank showing progress assessment of all activities against agreed annual work programs and targets and will include a review of procurement activities. These reports will serve as a basis for Bank supervision missions and for preparation of the next year's work program and budget. To ensure effective reporting, the following agreements were reached at negotiations: (a) progress reports will be furnished to the Bank for review by July 1 and January 1 of each year, beginning with January 1, 1997; and (b) an annual work plan and financing plan for project activities for the next calendar year will be furnished to the Bank for review by November 1 of each year, beginning with November 1, 1996.

5.19 The project will be supervised by the Bank twice a year. Supervision will be more technically oriented, with a core team consisting of a task manager and a biodiversity specialist. As required, the core team will be supplemented by other specialists, in such areas as institutional development, parks management, and management information systems. Whenever possible, local professionals and non-governmental organizations will be recruited as short-term consultants to assist Bank supervision missions. The first supervision mission is proposed for July 1996 to launch the project and ensure the timely preparation of the work plan and budget for the following year. A mid-term review of the project is planned by July 1, 1998. To ensure effective preparation of the mid-term review, the following assurances were obtained at negotiations: (a) a mid-term report that summarizes the results of the monitoring and evaluation program, assesses progress achieved in project implementation, and makes recommendations to ensure efficient implementation of the remainder of the project and achievement of project objectives will be prepared and furnished to the Bank by July 1, 1998; and (b) the government will review the mid-term report with the Bank by September 1, 1998, and thereafter take all measures required to ensure efficient completion of the project and achievement of project objectives, taking into account the conclusions and recommendations of the mid-term report and the Bank's comments on the report.

#### **E. Project Accounting, Financial Reporting and Auditing**

5.20 The Project Implementation Group will utilize the appropriate accounting systems established for the project by the CPPI to ensure timely and accurate accounting of all transactions under the project. The Project will share services of a disbursement/financial officer retained by the CPPI under its staffing plan, which will enable the PIG to maintain all project accounts in accordance with internationally acceptable accounting practices and in line with the EMP system of accounts.

5.21 The annual financial statements and reports of the Project (including the Special Account) would be audited in accordance with generally accepted auditing standards by independent auditors acceptable to the Bank. The annual audit report is to be submitted to the Bank by the CPPI on behalf of the PIG within four months after the end of each fiscal year.



## **RUSSIAN FEDERATION**

### **BIODIVERSITY CONSERVATION PROJECT**

#### **CHAPTER 6: Benefits, Justification and Risks**

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##### **A. Project Benefits**

6.1 The benefits from this project would accrue at four levels, global, national, regional and local. From the **global perspective** the project would further stabilize and secure an effective protected area network which would ensure the viability and safety of some of the world's most endangered species and areas of richest biodiversity. Also at this level, it would help safeguard the vast expanses of vegetation and habitat which act as a vital carbon sink. At the **national level** the project will ensure the protection of the Russian Federation's biodiversity at a time of profound economic and political change which would otherwise pose immediate and profound threats to its safety. It will also strengthen the institutional, planning and renewable resource management capacity of the Government thereby helping to develop a viable and sustainable economy. Moreover, it will develop a funding mechanism to ensure that Russia is able to meet the incremental costs which arise from the responsibility of protecting such large areas of globally important biodiversity. At a **regional level** it will not only serve to protect biodiversity but will also form a model for the synthesis of environmental protection and sustainable development in an area of substantial biodiversity importance. Furthermore, it will establish a training program for protected area administrators and managers, thereby ensuring that the requisite skills are dispersed throughout Russia. At the **local level** it will ensure the existence not only of particular protected areas and the vulnerable species within them, but also by explicitly linking the welfare of communities to the protection of biodiversity, develop greater economic self-sufficiency, so providing regional and local socio-economic benefits and securing sustainable regional development. It will also engender a trained core of local officials and enable concrete, visible local action for biodiversity protection. Furthermore, it will allow for the positive participation of local and indigenous people into resource management activities, which will enhance their ability to maintain cultural identity, retain traditional association with customary practices and sustain economic viability.

##### **B. Justification for GEF Involvement**

6.2 The proposed project meets the eligibility criteria and program priorities of the GEF as follows: the project strengthens conservation, management, and sustainable use of ecosystems and habitats that have been identified as national priorities by the government in the EFP and EMP; increases the involvement of local communities in the planning and management of nature reserves; introduces a new, innovative economic incentive program to reduce biodiversity land-use conflicts in critical habitats; builds institutional capacity for preparation of conservation plans and implementation of sustainable land-use programs; develops new research mechanisms and priorities to encourage scientific excellence and facilitate international exchange; expands the role of local and international NGOs in sector planning and management; and promotes conservation of endemic species, such as the Nerpa Seal and other plants and animals unique to Russia. GEF involvement in the development of EMP has made possible a combined approach to resource use in Russia that integrates national and global benefits into sector planning and management. Without GEF funding, the MEPNR would continue to maintain a minimum level of reserve protection and management on the basis of ad hoc, unprioritized responses to the sector's needs. Recognizing that this is a time that the economy is in transition, the GEF's role of focusing on these incremental issues within the framework of EFP and EMP will be of crucial importance. Many

opportunities for biodiversity conservation will be lost without short term GEF assistance as institutions, policies and structures take time to adapt and be replaced in many cases by new financial mechanisms and structures.

### C. Risks

6.3 The main risks include: (a) unsustainable resource use because of the present political and economic situation which is creating adverse impacts on biodiversity; (b) weakening of the Federal institutional structures and slow formation of new structures with greater regional autonomy, which compounds resource use issues; (c) wide geographic spread that adds to complexity and need for close management and supervision; and, (d) inadequate participation of local communities in the implementation of either the regional biodiversity strategies or the new protected area management plans. All the above will be closely reviewed under the project's monitoring and evaluation program and supervised by Bank missions.

The project counters these risks by:

- developing national and regional programs which demonstrate the economic benefits in incorporating the economic values of biodiversity conservation and other environmental externalities into the decision making process;
- strengthening and clarifying institutional responsibility while simultaneously re-structuring resource use allocation mechanisms and enabling local community participation to ensure greater levels of transparency;
- ensuring that the program has a clearly defined regional focus which involves local people and indigenous peoples in definite projects with tangible benefits;
- maintaining a strong focus on developing: (a) innovative financing mechanisms for conservation; (b) comprehensive outreach programs by protected areas; and, (c) redefining staff requirements to re-oriented protected area management plans will greatly improve the protected area systems' economic efficiency and capability.
- establishing an integrated regional model in Lake Baikal which by developing strong regional interests to biodiversity protection, demonstrates the economic linkages of biodiversity conservation to sustainable development and strongly supports the involvement of local communities.
- inclusion of a general supervision consultant to assist in the management and supervision of the project.



## **RUSSIAN FEDERATION**

### **BIODIVERSITY CONSERVATION PROJECT**

#### **CHAPTER 7: Agreements Reached and Recommendation**

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**7.1** Prior to negotiations, the Recipient has performed the following actions:

- (a) the MEPNR and the FFS have issued a Memorandum of Agreement, satisfactory to the Bank, detailing their respective responsibilities for implementation of project components on protected areas under their control;
- (b) by the order of the Minister of the MEPNR, a Project Supervisory Committee has been established and its key members appointed;
- (c) the Committee for State Ecological Expertise has reviewed the proposed Project and officially confirmed that the Project fully complies with the requirements of the federal environmental legislation;
- (d) a Project Manager under Terms of Reference acceptable to the Bank has been appointed by the MEPNR.

**7.2** During negotiations, agreements were reached with the Recipient that it would carry out, or cause to be carried out, the following actions:

- (a) the MEPNR has confirmed by a Ministerial letter both the Government's contributions to the Project and its commitment to ensuring appropriate interactions between federal and regional protected area management organizations;
- (b) clear arrangements shall be confirmed by the MEPNR and the Swiss Government through an exchange of letters, by June 30, 1996, to the effect that Project activities to be financed by the Swiss Government shall be supervised by the Project's Supervisory Committee;
- (c) Lake Baikal Supervisory Committee shall be established, reporting to the Governmental Commission for Baikal and to the Project's Supervisory Committee; and it shall include six representatives of the administrative bodies of the Republic of Buryatia and Irkutsk and Chita Oblasts and six representatives of the Baikal region's NGO community;
- (d) in order to formally associate the Project with the EMP, the EMP Loan Agreement will need to be amended to refer to the Project as a part of the EMP; the letter of amendment shall be signed on the day of Grant Agreement signing.

**7.3** For Grant effectiveness, the following conditions will apply:

- (a) the Project Implementation Group will be established with functions, procedures and staffing acceptable to the Bank; and

- (b) the General Consultant will be hired by the CPPI under terms of reference and in accordance with procedures satisfactory to the Bank.

7.4 The following conditions of disbursement will apply:

- (a) for expenditures under the Strategic Overview Component -- a decree or other appropriate pronouncement acceptable to the Bank, will be issued by the executive authorities of at least one relevant oblast expressing support and providing for the implementation of the regional biodiversity strategies; and
- (b) for expenditures under the Lake Baikal Regional Component -- the Governmental Commission for Baikal will issue a general resolution enabling the Project's implementation, and the administrations of Chita and Irkutsk Oblasts and the Government of the Republic of Buryatia have issued clear implementing resolutions providing for the creation, staffing and operations of the implementation bodies under the Lake Baikal component.

7.5 Subject to agreement on the above, the Biodiversity Conservation Project is suitable for a GEF Trust Fund grant of \$20.1 million equivalent to the Russian Federation.

## **ANNEXES**



## ANNEX 1.1

### LISTS OF EXISTING AND GOVERNMENT-PROPOSED PROTECTED AREAS

**Table 1: List of Existing Zapovedniks of the Russian Federation<sup>6/</sup>**  
(For locations see Map IBRD 27085)

N in Map	Zapovednik	Administrative Region (Oblast, unless otherwise stated)	Area, '000 ha	Year establ.
1	Altayskiy	Altayskiy Kray	881.238	1932
2	Astrakhanskiy	Astrakhanskaya	66.816	1919
3	Azas	Tyva Republic	337.290	1985
4	Baikalo-Lenskiy	Irkutskaya	659.919	1986
5	Baikalskiy	Buryatia Republic	165.724	1969
6	Barguzinskiy	Buryatia Republic	374.423	1916
7	Bashkirskiy	Bashkortostan Republic	49.609	1930
8	Bassegi	Permskaya	37.957	1982
9	Bolshaya Kokshaga	Mariy-El Republic	21.400	1993
10	Bolshekhokhtsirskiy	Khabarovskiy Kray	45.123	1963
11	Botchinskiy	Khabarovskiy Kray	267.380	1994
12	Bryanskiy Les	Bryanskaya	12.168	1987
13	Bureinskiy	Khabarovskiy Kray	358.444	1987
14	Chazy	Khakassia Republic	24.141	1991
15	Chernye Zemli	Kalmykia Republic	125.000	1990
16	Daghestanskiy	Daghestan Republic	19.061	1987
17	Dalnevostochniy	Primorskiy Kray	64.316	1978
18	Darvinskiy	Vologodskaya	112.673	1945
19	Dauriskiy	Chitinskaya	44.752	1987
20	Denezhkin Kamen	Sverdlovskaya	78.192	1991
21	Dzerginskiy	Buryatia Republic	237.806	1992
22	Dzhugdzhurskiy	Khabarovskiy Kray	806.256	1990
23	Galichya Gora	Lipetskaya	0.231	1925
24	Great Arctic	Krasnoyarskiy Kray	4169.222	1993
25	Ilmenskiy	Chelyabinskaya	30.380	1920
26	Kabardino-Balkarskiy	Kabardino-Balkaria Republic	74.099	1976
27	Kaluzhskie Zaseki	Kaluzhskaya	18.533	1992
28	Kandalakshskiy	Murmanskaya	70.527	1932

<sup>6/</sup> Sites included in the list for model activities under the Protected Areas Component are highlighted by shading (see also Box 3.1 of the Project Document).

N in Map	Zapovednik	Administrative Region (Oblast, unless otherwise stated)	Area, '000 ha	Year establ.
29	Katunskiy	Altayskiy Kray	130.079	1991
30	Kavkazskiy	Krasnodarskiy Kray	263.277	1924
31	Kedrovaya Pad	Primorskiy Kray	17.897	1925
32	Kerzhenskiy	Nizhegorodskaya	46.940	1993
33	Khankaiskiy	Primorskiy Kray	37.900	1990
34	Khinganskiy	Amurskaya	97.836	1963
35	Khoperskiy	Voronezhskaya	16.178	1935
36	Kivach	Karelia Republic	10.880	1931
37	Komandorskiy	Kamchatskaya	3648.679	1993
38	Komsomolskiy	Khabarovskiy Kray	63.866	1963
39	Kostomukhskiy	Karelia Republic	47.457	1983
40	Kronotskiy	Kamchatskaya	1099.000	1934
41	Kurilskiy	Sakhalinskaya	65.365	1984
42	Kuznetskiy Alatau	Kemerovskaya	455.500	1989
43	Laplandskiy	Murmanskaya	268.436	1930
44	Lazovskiy	Primorskiy Kray	120.024	1957
45	Les na Vorskle	Belgorodskaya	1.038	1979
46	Magadanskiy	Magadanskaya	883.805	1982
47	Malaya Sosva	Tumenskaya	225.562	1976
48	Malyi Abakan	Khakassia Republic	97.829	1993
49	Mordovskiy	Mordovia Republic	32.148	1936
50	Nurgush	Kirovskaya	5.919	1994
51	Nizhnesvirskiy	Leningradskaya	41.600	1980
52	Okskiy	Ryazanskaya	55.731	1935
53	Olekminskiy	Sakha (Yakutia) Republic	847.108	1984
54	Orenburgskiy	Orenburgskaya	21.600	1989
55	Pasvik	Murmanskaya	14.727	1992
56	Pechoro-Ilychskiy	Komi Republic	721.322	1930
57	Pinezhskiy	Arkhangelskaya	41.244	1974
58	Polistovskiy	Pskovskaya	36.025	1994
59	Poronaiskiy	Sakhalinskaya	56.694	1988
60	Prioksko-Terrasnyi	Moskovskaya	4.945	1945
61	Pryvolzhskaya Lesostep	Penzenskaya	8.308	1989
62	Putoranskiy	Krasnoyarskiy Kray	1887.300	1988
63	Rdeiskiy	Novgorodskaya	35.922	1994
64	Sayano-Shushenskiy	Krasnoyarskiy Kray	390.368	1976
65	Severo-Osetinskiy	North Ossetia Republic	28.999	1967

N in Map	Zapovednik	Administrative Region (Oblast, unless otherwise stated)	Area, '000 ha	Year establ.
66	Shulgan Tash	Bashkortostan Republic	22.500	1986
67	Sikhote-Alinskiy	Primorskiy Kray	347.052	1935
68	Sokhondinskiy	Chitinskaya	211.007	1973
69	Stolby	Krasnoyarskiy Kray	47.154	1925
70	Taimyrskiy	Krasnoyarskiy Kray	1781.928	1979
71	Teberdinskiy	Stavropolskiy Kray	84.996	1936
72	Tsentralno-Chernozemnyi	Kurskaya	4.874	1935
73	Tsentralno-Lesnoy	Tverskaya	21.380	1931
74	Tsentralno-Sibirskiy	Krasnoyarskiy Kray	972.017	1985
75	Ubsu-Nurskaya Kotlovina	Tyva Republic	39.600	1993
76	Ussuriyskiy	Primorskiy Kray	40.432	1934
77	Ust-Lenskiy	Sakha (Yakutia) Republic	1433.000	1985
78	Verkhne-Tazovskiy	Tumenskaya	631.308	1986
79	Visherskiy	Permskaya	241.200	1990
80	Visimskiy	Sverdlovskaya	13.506	1971
81	Vitimskiy	Irkutskaya	585.021	1982
82	Volzhsko-Kamskiy	Tatarstan Republic	8.034	1960
83	Voronezhskiy	Voronezhskaya	31.053	1927
84	Voroninskiy	Tambovskaya	10.819	1994
85	Wrangel Island	Magadanskaya	795.650	1976
86	Yuganskiy	Tumenskaya	622.886	1982
87	Yuzhno-Uralskiy	Chelyabinskaya	254.914	1978
88	Zeyskiy	Amurskaya	99.390	1963
89	Zhigulevskiy	Samarskaya	23.140	1927

**Table 2: List of Existing National Parks of the Russian Federation<sup>2/</sup>**  
 (For locations see Map IBRD 27085)

N in Map	National Park	Administrative Region (Oblast, unless otherwise stated)	Area, '000 ha	Year estab.
1	Bashkiria	Bashkortostan Republic	83.200	1986
2	Chavash Varmane	Chuvashia Republic	25.200	1993
3	Kenozerskiy	Arkhangelskaya	139.200	1991
4	Kurshkaya Kosa	Kaliningradskaya	6.621	1987
5	Losinyi Ostrov	Moskovskaya	11.144	1983
6	Mariya Chodra	Mari-El Republic	36.600	1985
7	Meshchera	Vladimirskaia	118.758	1992
8	Meshcherskiy	Ryazanskaya	103.000	1992
9	Nizhnyaya Kama	Tatarstan Republic	26.100	1991
10	Orlovskoye Polesye	Orlovskaya	4.778	1993
11	Paana-Jarva	Karelia Republic	103.300	1992
12	Pereyaslavskiy	Yaroslavskaya	21.700	1988
13	Pribaikalskiy	Irkutskaya	412.742	1986
14	Prielbruskiy	Kabardino-Balkaria Republic	100.400	1986
15	Pripyshmenskie Bory	Sverdlovskaya	49.000	1993
16	Russkiy Sever	Vologodskaya	166.400	1992
17	Samarskaya Luka	Samarskaya	128.000	1984
18	Shorskiy	Kemerovskaya	418.000	1989
19	Smolenskoye Poozerie	Smolenskaya	146.200	1992
20	Sochinskiy	Krasnodarskiy Kray	190.000	1983
21	Taganai	Chelyabinskaya	56.400	1991
22	Tunkinskiy	Buryatia Republic	1183.600	1991
23	Valdaiskiy	Novgorodskaya	158.500	1990
24	Vodlozerskiy	Karelia Republic, Arkhangelskaya	404.700	1991
25	Yugyd Va	Komi Republic	1891.701	1992
26	Zabaikalskiy	Buryatia Republic	269.300	1986
27	Zavidovskiy	Tverskaya, Moskovskaya	125.400	1929
28	Zyuratkul	Chelyabinskaya	86.800	1993

<sup>2/</sup> Sites included in the list for model activities under the Protected Areas Component are highlighted by shading (see also Box 3.1 of the Project Document).



**Table 3: List of Government-Proposed Zapovedniks of the Russian Federation**  
(For locations see Map IBRD 27085)

N in Map	Proposed Zapovednik	Area, '000 ha	Planned Date	Priority, points	Distance from Mining Sites, km
1	Akhtynskiy	25.000	2001-2005	1	20
2	Amurskiy	100.000	2001-2005	3	
3	Badzhalskiy	250.000	2001-2005	1	
4	Barabinskiy	15.000	1996-2000	4	
5	Bastak	42.000	1994-1995	1	
6	Bogdinsko-Baskunchakskiy	54.000	1996-2000	3	20
7	Bolshezemelskiy	660.000	1994-1995	4	
8	Bolonskiy	350.000	2001-2005	1	50
9	Dyakovskiy Les	30.000	1994-1995	3	
10	Donguzskaya Step	8.000	1996-2000	1	20
11	Enozyorskiy Tundrovyi	300.000	1996-2000	3	10
12	Gydanskiy	1000.000	1994-1995	2	
13	Kamsko-Bakaldinskiy	200.000	1996-2000	2	
14	Kayskiy	12.000	2001-2005	4	50
15	Khvalynskiy	10.000	2001-2005	3	30
16	Kilemarskiy	40.000	1996-2000	2	
17	Kologrivskiy Les	60.000	1996-2000	2	
18	Koryakskiy	1000.000	1994-1995	3	
19	Kulundinskiy	180.000	2001-2005	3	20
20	Kumikushskiy	100.000	1996-2000	1	
21	Kunovatskiy	807.400	1994-1995	1	
22	Leshak-Shchelya	25.000	2001-2005	1	
23	Nenetskiy	560.000	1994-1995	4	
24	Nizhegorodskiy Lesostepnoy	10.000	1996-2000	2	
25	Nizhne-Khopyorskaya	9.000	1996-2000	4	
26	Norskiy	213.000	1994-1995	3	3
27	Omskiy	30.000	1994-1995	4	
28	Ozero Bolshoye Toko	400.000	1996-2000	1	
29	Pelymskiy Tuman	45.000	1996-2000	1	
30	Podmoskovnyi	50.000	1994-1995	2	50
31	Pravdinskiy	2.400	1994-1995	4	
32	Pribrezhnyi	800.000	2001-2005	3	

N in Map	Proposed Zapovednik	Area, '000 ha	Planned Date	Priority, points	Distance from Mining Sites, km
33	Prisurskiy	19.000	1996-2000	2	30
34	Rostovskiy Stepnoy	9.500	1994-1995	3	
35	Sadki	92.000	2001-2005	4	
36	Selemdzhinskiy	100.000	1996-2000	1	50
37	Severo-Uralskiy	250.000	2001-2005	1	
38	Shaitan-Tau	18.500	1994-1995	3	
39	Shantarskiy	300.000	1994-1995	1	
40	Stavropolskiy Lesostepnoy	19.000	1994-1995	4	
41	Svetlinskiy	14.000	1996-2000	2	20
42	Syrdyk	30.000	1996-2000	3	
43	Talashorskiy	60.000	1996-2000	3	
44	Tavolzhanskiy	35.000	1996-2000	4	
45	Tlyaratinskiy	30.000	1996-2000	1	
46	Tsentralno-Alasnyi	500.000	2001-2005	3	20
47	Tulskie Zaseki	14.000	1994-1995	3	
48	Tungusskiy	100.000	1996-2000	1	
49	Udylskiy	300.000	1996-2000	1	20
50	Ufimskoye Plato	35.000	2001-2005	1	
51	Urkinskiy	72.600	2001-2005	3	
52	Ust-Vilyuyskiy	1016.000	2001-2005	3	30
53	Utrish	20.000	1996-2000	1	
54	Verkhnealdanskiy	500.000	2001-2005	1	
55	Verkhneanuyskiy	300.000	2001-2005	1	40
56	Verkhnesukpayskiy	400.000	2001-2005	1	
57	Vilyuyskiy	500.000	2001-2005	2	
58	Volchikhinskiy	20.000	2001-2005	3	50
59	Yaivinskiy	40.000	1996-2000	1	
60	Yakutskiy Gornyi	500.000	2001-2005	3	
61	Yakutskiy Severo-Zapadnyi	500.000	2001-2005	3	50
62	Yamalskiy	1000.000	1994-1995	3	
63	Yano-Indigirskiy	1200.000	1996-2000	1	
64	Yuzhno-Dagestanskiy	18.000	2001-2005	4	50
65	Yuzhnотayoznnyi Pikhtovyi	100.000	2001-2005	1	
66	Zapadno-Kamchatskiy	200.000	2001-2005	1	
67	Zavolzhskiy Lesnoy	6.000	1996-2000	3	

## ANNEX 1.2

### OVERVIEW OF ACTIVITIES CARRIED OUT UNDER THE PPA AND KEY CONTRIBUTING EXPERTS

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#### A. Outline of Activities

The Project Preparation Advance (PPA), initiated by the GEF and conducted by numerous Russian and international experts for the preparation of the Russian Biodiversity Conservation Project, was extremely successful in identifying priority areas needing focus for biodiversity initiatives. The PPA included preparatory data analysis concerning:

- 1) an assessment of Russia's biodiversity, including an initial gap analysis, identification of a policy matrix and current biodiversity programs;
- 2) a workshop on biodiversity economics;
- 3) a needs analysis for natural resource and protected area management training programs;
- 4) a workshop on biodiversity conservation management and ecotourism; and,
- 5) definition of the Lake Baikal regional program including data on the harmonization of environmental standards, development of the regional program and the Local Biodiversity Initiative sub-component.

The PPA was extremely successful in defining and implementing effective means to disburse project funds, with the Gap Analysis and Policy Matrix components producing exceptional studies considered of high importance and relevance among the international community. Summaries of individual components are listed below.

***Biodiversity Gap Analysis.*** Experts, under the direction of the designated Deputy Minister, provided an analytical framework for the assessment of Russian Biodiversity. This included, among other things, the formulation of a policy matrix enabling the identification of policies and issues impacting biodiversity; and, a gap analysis which by examining the current extent of the protected area system will indicate the need for further protective measures. It also entailed collating a data base on all current or proposed natural resource management and biodiversity protection technical assistance programs.

A rapid conservation evaluation method for assessing the current status of biodiversity - gap analysis - provided a systematic approach for evaluating the protection afforded biodiversity in given areas. PPA participants used geographic information systems (GIS) as well as existing floral and faunal documentation to identify "gaps" in Russian biodiversity protection that might be filled by the establishment of new preserves or changes in land-use practices.

***Biodiversity Economics Workshop.*** In a short time period, a number of case studies were prepared on the economics of biodiversity conservation in Russia, economic evaluation in protected areas, and assessments of economic investments in biodiversity conservation. Experts reviewed case studies prepared by international

economists to provide a basis for developing Russian case studies. As a result, several innovative economic approaches were developed.

The results of the case studies were shared at the seminar on "Economics of Biodiversity", held in Moscow from February 29 to March 3, 1995. International specialists were invited to give presentations and provide expertise; these included, among others, John Dixon of the World Bank and Anil Markandya of the Harvard Institute for International Development. Russian participants included representatives of Russian protected areas, the MEPNR, scientists from economic and natural resource management institutions, Moscow State University, and non-governmental organizations. In all, approximately 50 people actively participated in the seminar.

*Analysis of Protected Areas Training Programs.* The goal of this component was to analyze current staff qualifications and recommend priority measures in staff training for protected areas management. No meaningful reform is possible without introduction of systematic training in the Zapovednik and National Park systems. Currently there are no existing educational institutions to prepare personnel in nationally protected areas. At the same time, university and forestry institute curriculums, not including pedagogical institutes, do not contain either theoretical issues of nature protection, or practical conservation aspects.

The PPA defined priority measures to be included in a comprehensive staff recruitment and training providing existing staff with essential skills; organize professional exchanges for protected area managers; produce and publish handbooks and training materials; and a long term focus on creating special management programs within institutes of higher education. The results culminated in the creation of a complete three-year series of short-term courses designed to involve all personnel managing Zapovedniks and National Parks.

The courses will provide, among other benefits, an excellent opportunity for managers to create active discussion sessions on similar management problems. Courses will also act as a stimulus for future prospects concerning these reserves and how they can organize other interactive exercises inter-regionally

*Sochi Biodiversity Conservation Management and Ecotourism Workshop.* In accordance with the Decree of the President of the Russian Federation on February 4, 1994 (Decree # 236, "Concerning Strategy of the Russian Federation for Environmental Protection and Sustainable Development"), one of the key focuses of the country should be the increased support of public education ecological programs.

Currently, directors of Zapovedniks and National Parks are trying hard to improve the visibility of their reserves locally and regionally by initiating educational programs, to engage in conflict resolution and community outreach activities, and to establish mutually beneficial relationships with local and regional governments and international entities. Protected area staff have never been trained to undertake most of these activities, relevant experience is starting to accumulate.

PPA participants developed and held a conservation management and ecotourism workshop focusing on managers' concerns. This workshop identified central issues needing to be addressed at a national, regional and local level by protected area managers, planners and numerous other entities, to ensure that protected areas ecological carrying capacity is not exceeded by the ad hoc development of ecotourism policies. Research conducted in the Needs Analysis for Natural Resource Management and Training Program was used as background material for this workshop.

***Definition of the Lake Baikal Program and Lake Baikal Workshop on Inter-regional Natural Resource Management*** This section provided essential information for the future development of the regional biodiversity conservation and natural resource management (NRM) sub-component of the Russian Federation Biodiversity Conservation Project, and in establishing a supportive data network to facilitate operations. The Lake Baikal Workshop on Inter-regional Natural Resource Management was also held which identified and determined the fundamental economic and policy issues necessary for a comprehensive biodiversity strategy.

Topics addressed in this component included:

- a) assessing the current available data bases, and design of information systems, relying on current data sets and institutions to enable the harmonization of environmental standards as preparation for the Evaluation and Monitoring component of the Lake Baikal Regional Program;
- b) identifying key indicators, institutional and administrative, in the decision making process for NRM and development;
- c) establishing a data communication network and process between these indicators which ensures policy decision making relates to such inputs;
- d) collating available data on the region's ecology and biodiversity, including preceding policy and legislative instruments with particular emphasis on those which related to forestry, agriculture and commercial fishing;
- e) gathered and created a data base of available economic data, especially that on the current status of utilization, yield and importance of natural resources and associated biodiversity use - particularly the traditional utilization of the native peoples - within the regions.

## **B. Key Contributing Experts to the GEF Project Preparation Activities**

**Special Acknowledgements to:** A. M. Amirkhanov, A. A. Averchenkov, N. R. Danilina, E. A. Mikhaleenko (Ministry of Environmental Protection and Natural Resources)

**General Consultants:** E. Simonov, L. Williams, M. Wells (Protected Areas); P. Grigoryev (Baikal)

- |        |   |                     |
|--------|---|---------------------|
| I)     | <b><u>Project Preparation Component (1)</u></b><br>Analysis of Social and Economic Factors Influencing Biodiversity             | A. S. Martynov      |
| II)    | <b><u>Project Preparation Component (2)</u></b><br>Gap Analysis (including maps)  | I. G. Lysenko       |
| II-A)  | <b><u>Att. 1. Assessment of Biodiversity: Quantitative Approaches for Integrating Related Information</u></b>                   |                     |
|        | 1) Methods of Evaluating the Functions of Specially Protected Natural Territories   | V. Dezhkin          |
|        | 2) Integration of Expert Estimation Data and Different Kinds of Quantitative Factors on a Space-Frequency Basis                 | I. G. Lysenko       |
|        | 3) Approaches to the Methodology of Complex Ecological Estimates by biodiversity Factors on the Basis of Basins                 | S. S. Barinova      |
|        | 4) Biodiversity Connection with Ecosystem Stability and Quantitative Determination Methods                                      | V. V. Artiukhov     |
|        | 5) Biodiversity Analysis of the Communities of Big and Medium-Size Mammals of Central Russia                                    | I. Lomanov, Mosheva |
| II-B)  | <b><u>Att. 2. Present-Day State of Ecological Mapping in Russia and Main Sources of Information</u></b>                         | A. V. Doncheva      |
| III)   | <b><u>Project Preparation Component</u></b><br>Report on Financing of Biodiversity Conservation in the Russian Federation       | D. Daushev          |
| III-A) | <b><u>Microeconomics Case Studies</u></b>   |                     |
|        | 2.1.1 Economic Aspects of Biodiversity  | S. N. Bobylev       |
|        | 2.1.3 Economic Case Study of El Nido, Phillipines   | J. Dixon            |
|        | 2.1.5 Evaluation of "willingness to pay" and other elements of economic evaluation of Biological Resources in the Moscow Oblast | I. Kamennova        |

2.1.6	Commentary on Kamennova, Martynov	S. N. Bobylev
2.1.7	Economic Impact Assessment of Gold Mining in the Chikoy River Basin	I. P. Glazyrina
2.1.8	Replacement cost approach in evaluating Biological Resources of the Moscow Region	O. Medvedeva
2.1.9	Measuring the effect of conserving biodiversity through "indirect use value": Carbon credits in Volgograd Oblast	S. Bobylev, A. Golub
III-B)	<u>Macroeconomics Case Studies</u>	
3.1.2	Impact of Economic Reforms on Biodiversity Conservation	S. N. Bobylev
3.1.8	Government expenditures on the Protected area system: past, present and future	A. K. Blagovidov
IV)	<u>Project Preparation Component (4)</u> Seminar on Economics of Biodiversity	S. N. Bobylev
V)	<u>Project Preparation Component (5)</u> Protected Areas Immediate Action Plan	A. K. Blagovidov
VI)	<u>Project Preparation Component (6)</u> Improving Qualifications and Personnel training for Work with Specially Protected Natural Areas (SPNA)	V. B. Stepanitsky
VII)	<u>Project Preparation Component (7)</u> Protected Areas Management Workshop (Sochi): Environmental Education, and Work with local populations in Zapovedniks and National Parks	V. B. Stepanitsky
VIII)	<u>Priority Response Program</u> National Biodiversity Strategy - Protected Areas Immediate Action Plan.	A. K. Blagovidov, I. Chebakova, M. Williams
<b>LAKE BAIKAL REGIONAL COMPONENT</b>		
I)	<u>Natural Resource Management and Conservation of Biodiversity in Watershed of Goloustnaya River</u> (Irkutsk Oblast)	A. N. Suturin, V. A. Mitrofanov, I. I. Maximova, V. V. Kravchenko, Y. I. Misurkeyev, A. L. Malevsky, A. V. Vasianovich, A. S. Pleshanov, L. M. Korytnyi, B. M. Ishmuratov, Z. Y. Abdrashitova, G. Y. Abdrashitova, L. N. Vaschuk, A. P. Chernikov, N. P. Shirokobokova

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- II) Sukhara-Tugnuv River Watershed Management Project  
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V. T. Noskov, S. V. Ivanov, T. B. Bardakhanova,  
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- III) Khilok River Watershed Management Project  
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V. F. Zadorozhnyi, A. M. Vozmilov, Y. F. Kharitonov,  
V. F. Senotrusov, A. G. Filipov, L. M. Yadikin,  
T. P. Savenkova, L. M. Faleichik
- IV) Inter-Regional Data:  
Natural Resources, Economic Characteristics and Biodiversity  
Financing Support for Sustainable Development of Baikal Region K. A. Biks,  
Proposals on Improving Natural Resource Management and  
Biodiversity management T. G. Boikov,  
Scientific Programs Involving Conservation of Biodiversity Y. P. Gorlachova,  
in the Baikal Region T. Z. Dorzhiyev,  
Environmental Standards and their Application in the Baikal Region M. T. Itiguilova,  
Existing Structure of Natural Resource Management and Preservation O. V. Korsun,  
of Biodiversity in Baikal Region V. Y. Kuzevanov,  
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- V) General Assistants I. E. Timashev,  
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- VI) Sources for inter-regional maps V. S. Mikheyev,  
A. B. Imetkhenov



## ANNEX 3.1

### STRATEGIC OVERVIEW COMPONENT

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#### *SUB-COMPONENT (A): NATIONAL AND REGIONAL BIODIVERSITY STRATEGIES*

##### **Organization and Management**

1 The management structure will consist of a Committee chaired by the Component Director and a Secretariat headed by the Strategy Sub-Component Manager. The main tasks of these bodies will be to coordinate, facilitate, and support the work of the participants, i.e., the organizations inside and outside government who prepare and implement the strategy.

##### *Role of the Secretariat*

2 The Minister of the MEPNR will provide overall direction for the strategy and will operate at an inter-ministerial level, with full authorization and support from the country's existing inter-ministerial institutions (e.g. the Commission on Sustainable Development). This would include: i) facilitating intersectoral cooperation; ii) ensuring that participation and coverage of the key issues are adequate; iii) consider the policy implications and refine policy recommendations of the strategy; and, iv) keeping high-level political authorities and participants informed.

3 The Secretariat (the Sub-Component Managers and support staff) will be operating in collaboration with the Policy and Regulatory Support Unit of the CPPI under the EMP and will be responsible for the following: i) assembling and analyzing information; ii) facilitating and supporting the fullest participation from all sectors of the population; iii) assisting in policy drafting, especially cross-sectoral policies; iv) assisting in action planning; v) identifying areas for capacity-building is most needed, and providing training for developing capacities in various aspects of strategy preparation and implementation; vi) launching demonstration projects and programs in collaboration with sectoral agencies, NGOs, and communities to build capacity, develop policy, and guide implementation; vi) running a communications program; and, viii) coordinating strategy implementation and monitoring and evaluation.

##### **Launching the Strategy**

4 Initial meetings of the Secretariat, involving wider groups of participants where necessary, will concentrate on: i) defining the scope of the strategy and the main issues to be addressed; ii) reviewing existing strategic planning processes in the country (or elsewhere); identifying the highest priority capacity-building and training needs; and, iv) preparing a work plan and schedule of responsibilities, including plans for participation and communications.

5 On the basis of these initial discussions, the Secretariat will prepare a strategy proposal in order to develop an early understanding of and support for the strategy. The participatory nature of the strategy will be demonstrated by allowing the prospectus to be worked on by a wide range of key potential participants for future phases of the process.

## **Regional Aspects of the Biodiversity Strategy Process**

6 The declaratory nature of federal legislation, combined with the increased decentralization of political authority and financial responsibility, means that effective implementation of the Biodiversity Strategy will depend upon its adoption and adaptation by regional administrations. The Project will support this process by developing the steps to establish the institutional framework for regional conservation strategies, including the following:

- (a) prioritizing the early development of Guidelines on Planning and Implementing Regional Biodiversity Strategies.

- (b) supporting the development of framework documents, guidelines, and action plans developed nationally by government agencies participating in the Biodiversity Strategy process to be passed to these agencies' regional offices.

- (c) advocating that Regional administrations or a federal agency such as the MEPNR to be authorized to request subordinate regional agencies to gather appropriate stakeholders in Regional Biodiversity Conservation Committees which would coordinate development of regional strategies.

- (c) encouraging the role of Conservation NGO networks in developing and implementing the regional strategies.

7 While Regional Biodiversity Conservation Committees would emphasize local issues and problems, they would coordinate closely with the National Biodiversity Strategy process, to avoid incompatibilities between regional action plans and national policies. Such coordination will be facilitated by: i) assigning staff in the National Biodiversity Strategy Secretariat the specific responsibility for supporting national-local linkages and coordination; ii) having National Biodiversity Strategy representatives within each of the key national ministries.

### *Nizhniy Novgorod Regional Strategy*

8 A pilot regional biodiversity strategy has already begun in the Nizhniy Novgorod Region, where much of the necessary groundwork has been done. The priority task is working with an amenable local administration to establish a nature reserve system that can be fully implemented towards the end of the decade, in the face of massive land privatization. Certain key elements have already been delineated, including documentation of more than 200 areas cited for preservation, development of a database for endangered species, and development of a conservation enforcement service. Elements of a comprehensive 30-year regional conservation program have also been drafted.

9 The Regional Biodiversity Strategy project in the Nizhniy sub-component include the following:

- (a) Strengthening the Strategy's institutional and managerial framework.

- (b) Launching the Strategy.

- (c) Undertaking a series of sectoral and intersectoral studies identifying the principle linkages between economic activity in the region and biodiversity use and conservation. On the basis of these

studies, options should be explored for mitigating the currently harmful effects of current forestry and other industrial practices on biodiversity.

(d) Explore the social and economic issues surrounding the establishment of new nature reserves, to identify the costs and benefits to various local stakeholders, to seek compromise solutions, and to explore different forms of reserve management.

(e) Establishing evaluation and monitoring procedures.

*SUB-COMPONENT (B): BIODIVERSITY POLICY SUPPORT*

10 Economics of Biodiversity Conservation. Specifically, economic approaches can be used to analyze different aspects of the biodiversity problem in Russia, including: i) demonstrating the potentially significant economic values of the sustainable use of biological resources; ii) exploring ways to realize the economic revenues from biological resources; iii) explaining why biodiversity is threatened, despite these economic values; iv) finding cost-effective ways to mitigate the negative environmental impacts of economy-wide policies; v) analyzing the impact on biodiversity of Russian laws, regulations, decentralization, and social and economic policies; vi) strengthening the economic case for biodiversity protection, generating additional funds for the protected area system, and to clarify the trade-offs between conservation and development alternatives.

11 The sub-component, for which an organization such as the Department of Environmental Economics at Moscow State University would be suitable to act as the focal point, will consist of the following:

(a) Development of a technical training program in environmental, and particularly biodiversity, economics.

(b) Support for further applied work to be linked to the training program:

(i) The development of further case studies in selected protected areas, for which guidelines will be developed. With support from interested protected area managers and local officials, these cases will be used to combine rigorous economic and technical analysis with actual management problems, leading to research findings which are immediately applicable. Dissemination of the studies' results will provide important models for similar studies to be undertaken elsewhere, and as examples for future training courses.

(ii) The sites chosen for case studies or applied research will, wherever possible, overlap with areas selected for implementation of other components of the GEF and EMP project, to maximize the opportunities for demonstrating synergies between economic and other approaches to biodiversity conservation.

(iii) Socio-economic case studies will evaluate land use/development alternatives during the protected areas planning process as an input to negotiations with regional authorities.

12 **Conservation Finance Mechanism.** The project would initially undertake a feasibility study for the development of a National Conservation Fund for Russia and/or regional funds to support biodiversity conservation. If following the feasibility study, the Government decided to create such a fund, the project would assist the Government by providing consultant services to establish the fund's legal, administrative and financial structure. The major objectives of such a fund would likely be: i) to secure adequate and sustainable financial support for the protected area system; and ii) to support biodiversity conservation projects developed by local communities and NGOs. The Conservation Fund could be financed from a variety of sources, including among others grants, debt swaps, fiscal contributions and investment premiums. Critically, the lengthy and expensive legal and administrative work needed to establish such funds need only be undertaken once, to establish the umbrella mechanism. Like any other trust-like arrangement in Russia, such an arrangement would require special legislation. Such a conservation fund, if set up under the guidance of the GEF program, would provide significant additionality to current funding sources. Equally, such a fund, by pooling resources would provide substantial leveraging possibilities, both in terms of investment opportunity and operation potential.

*SUB-COMPONENT (C): BIOMONITORING INFORMATION SYSTEM (BIOTA)*

13 The project will establish a meta-data base center in the MEPNR which will integrate scientific data, archival materials, and maps on the state and dynamics of ecosystems and natural communities. The center will, after project establishment rely on relatively small financial support for maintenance from the MEPNR as major data sets will be the responsibility of the cooperating agencies and institutions. World wide examples of such systems including the ERIN system now operating in Australia will provide guidelines for the establishment and on going support for such a system. The center will maintain close connections with the World Conservation Monitoring Center (WCMC) and IUCN and will also form one of the regional hubs of the Biodiversity Data Network coordinated by WCMC. The Center's activities will include:

- creating a network of qualified producers and users;
- technical and consultative support for ecological information systems;
- a training program on GIS applications for biodiversity conservation personnel, environmental and administrative organizations;
- the distribution of data-base and GIS information;
- analysis and preparation of information for applied environmental purposes;
- design and distribution of methodologies and GIS approaches to assist in biodiversity monitoring and evaluation;
- establish appropriate linkages to the protected area data sets (also supported by this project in Protected Area Systems Component).

## **ANNEX 3.2**

### **Strategic Overview. Policy Support Sub-Component**

#### **Terms of Reference**

##### **1. Economic Aspects of Biodiversity**

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#### **Background**

1. The Russian Federation is currently making the transition from a centralized state economy to a more market oriented system. During this transition there exists the temptation to use its natural resources such as forests, lands, oil, gas, minerals, water, and vegetation more intensively. The decisions to use these resources are often made without inclusion of the full social costs in the decision-making calculus. Without properly taking into account negative externalities resulting from pollution or diminished biodiversity, a misallocation of resources will result.

2. Presently there does not exist adequate expertise to provide the appropriate economic insights when economic policy decisions are being made in natural resource use. As a result it is necessary to develop the appropriate expertise to introduce key concepts in the economics of biodiversity to decision-makers and researchers and to support the use of economic analysis in developing and implementing of the Biodiversity Strategy for Russia

3. In recognition of this, the Russian Government has approached the World Bank and received funds to help address this issue. A grant from the Global Environment Facility of approximately \$20.1 million equivalent will be used to support the Biodiversity Conservation Priority Response Program for the Russian Federation.

4. The Program contains three main components: A Strategic Overview component, Protected Areas component and Lake Baikal component. A subcomponent of the Strategic Overview is the Economics of Biodiversity.

#### **Objectives**

5. The specific subcomponents, for which the Department of Environmental Economics at Moscow State University might be appropriate to act as the focal point, will consist of the following:

a) Develop of a technical training program in environmental and biodiversity economics.

b) Develop case studies and applied instances around the country, focusing on protected areas and sites of important biodiversity, which will develop legal precedent; and

c) Disseminate case history of methodologies to administrators, NGOs, protected area managers, and the public.

## Tasks

### A. Train-the-Trainer Economics Theory/Environmental Economics Training

6. Currently academic economic staff possesses little, if any, formal neoclassical economics theory education. Informal training in the form of self-education, scholar exchange programs, and occasional seminars has provided the basis for academic staff. Their western counterparts typically have achieved a Bachelors, Masters and Ph.D. in economics, with special emphasis on natural resources, environmental and biodiversity economics. It is, therefore, recommended that a strong economic theory foundation be established. This should include instruction in principles of micro and macro economics theory, augmented by advanced micro and macro economics theory training. The most cost-effective approach to fulfilling this task would be to invite a Ph.D. economist to provide in-house training. To maximize the effective of this resource it would be preferable that this individual also specializes in resource/environmental economics. This would leverage the use of this resource by allowing for the continual association of resource/environmental issues during the theory training. Such an individual would also be available to provide instruction for students as well as possibly engage in joint research efforts with faculty. This training will occur within the first 6 months to 1 year from date of funding.

7. The foregoing is to be augmented by enrollment in relevant workshops, such as offered by the EDI of the World Bank, short-term environmental courses (see *Directory of Short-Term Environmental Courses*, U.S. Environmental Training Institute), sabbaticals abroad, and scholar-exchange programs.

### B. Environmental and Biodiversity Economics Training Workshop

8. The objective of this task is to improve the quality and quantity of economic information on natural resources use and biodiversity which flow to decision/policy makers. It is envisioned that there are three distinct audiences to be targeted: Ministries, Federal, Regional and Local Agency decision makers who may or may not possess the necessary economic insights with respect to natural resources and biodiversity impacts associated with their decisions, economists whose responsibility is to provide the proper economic perspective of proposed regulations and policy to decision makers, and graduating economic major students embarking on careers in the government, research institutions, and NGOs. It is further envisioned that this workshop will have transferability and be carried forward by other institutions and universities throughout Russia.

9. a) Decision/Policy Makers. Course content for decision makers should be designed to sensitize decision/policy makers to the natural resources/biodiversity conservation ramifications associated with decisions. Recognition by decision makers that the potential exists for their decisions to impact these resource areas will encourage them to request supporting economic analyses. Course content should include a broad overview of the ramifications from both a macro and micro economic perspective. Macro-level topics should include implications of fiscal and monetary policy. For example, implications of sectoral policy, especially that which is focused on the natural resource use-intense sectors such as agriculture, forestry, and energy; the relationship between property rights and resource utilization; and, the role of taxes, credit, and interest rates on the rate of resource utilization; and trade policy defining tariffs, custom duties, and quotas. Micro-level topics should include discussion of the role and effects of economic instruments such as user fees, subsidies, emission charges, fines, marketing permits, etc. Such a course should be designed for one or two days duration as it is unlikely to obtain a time commitment in excess of this from decision/policy makers.

10. b) Economists. Although the course content for the economists of the various government agencies, institutes, and NGOs will address the same range of topics provided for the decision makers training course the depth of instruction will be much greater. In addition, there will be two additional segments to course: economic theory and valuation techniques. Since there is a high probability that the participants in these workshops will have had little or no training in neoclassical economic theory the first segment of this workshop will be structured to address this deficiency. The third segment of the course will include exposure to the various valuation techniques that are available to economists to aid in the valuation of non-market goods, e.g., contingent valuation methodology to estimate willingness to pay (accept) to consume, avoid, or maintain a good, service or reduction in risk; travel-cost method; and cost-of-illness approach. Also the concept of option values, existence values and opportunity cost will be examined. This list is not exhaustive--there are numerous texts available that should be consulted to insure all the relevant methods and concepts are presented to the students. The training of trainers workshop *Political economy of the Environment* developed by the Economic Development Institute of the World Bank provides a good template for the workshop. Given the existence of the affiliate of the Institute in Moscow it is recommended that the MSU faculty seek cooperation of the Institute in the development of the course. The length of this workshop should be a minimum of one week, preferably two weeks.

11. c) Prospective Government, Institute, and NGO Economists. The course described in paragraph 10 will be provided to graduating economist embarking on a career in government, institutions or NGO community. Recently the Economics Department of Moscow State University graduated its first class of neoclassically trained economists. By incorporating the Workshop into the curriculum of future graduating economists will eventually eliminate the training identified in paragraph 10. Once this training is institutionalized, a form of sustainability will be established that will foster a perspective that properly incorporates the natural resources and biodiversity implications associated with policy making.

### C. Develop Case Studies

12. This subcomponent will develop additional case studies (these are in addition to those developed for the Biodiversity Workshop) in selected protected areas (and also in unprotected areas of high biodiversity value where resource use conflict exists) for which guidelines will be developed and applied instances around the country, focusing on protected areas and sites of critical biodiversity importance which may help establish legal precedent.

13. The primary criteria for selection of case studies sites will be presence of priority issues, e.g., biodiversity preservation in a protected area. Sites chosen for case studies or applied research will, wherever possible, overlap with areas selected for implementation of other projects of the GEF and EMP project, to maximize the opportunity for demonstrating synergies between economic and other approaches to biodiversity conservation. In addition, alternative valuation methodologies will be employed to demonstrate those circumstances when most appropriate. If sufficient information avails itself more than one valuation technique to allow for a comparison of results and thereby provide insight to potential over- or underestimates of impacts.

14. In addition to providing the case studies reports, a summary of valuation methods developed under Task 2 will be included. This section, or chapter, of the report will identify which technique is most appropriate for the research of interest, discuss data requirements, survey design, and recommended statistical analysis to be performed.

15. The services of a western trained economist with extensive applied research experience will be secured to work closely with the MSU economics staff to aid in conducting the case studies (e.g., project selection, project design, survey design, data collection and analysis, and writing of the case study), and the development of the summary of valuation methodologies to be included with the case studies publication. The presence of an experienced economist will not only provide a quality check on the project, but provide additional training for the Russian counterparts.

#### **D. Disseminate Case History and Valuation Methodologies**

16. This component will assemble the results of the applied research and case studies and disseminate to administrations, NGOs, protected area managers and the public. The promulgation of this information will leverage the results of Task 3 by providing important models for similar studies to be undertaken elsewhere, and to serve as examples for future training courses such as defined in Task 2.. Particular attention will be given to the valuation methodologies employed, as this publication will provide guidance to economists and decision/policy makers in agencies throughout the country. This will be viewed as a living document and continually updated as additional case studies are completed or as new valuation methodologies are introduced.

#### **Economic Aspects of Biodiversity (US\$ 500,000)**

<b>Economic Aspects of Biodiversity Budget (US\$ '000)</b>							
<b>Task*</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>	<b>Total</b>
1. Theory Training	100						100
2a. Decision Maker Wrkshp	10	5					15
2b. Economist Wrkshp	10	5					15
2c. Prospective Employee Wrkshp							
3. Case Studies		100	100	100			300
4. Dissemination			20	20	30		70
<b>Total</b>	<b>120</b>	<b>110</b>	<b>120</b>	<b>120</b>	<b>30</b>		<b>500</b>



## **2. Evaluation of Economic Linkages Between Current Process of Economic Reforms and Biodiversity**

### **Background**

1. The Russian Federation is currently making the transition from a centralized state economy to a more market oriented system. During this transition there exists the temptation to use its natural resources such as forests, lands, oil, gas, minerals, water, and vegetation more intensively.
2. The Russian government is sensitive of the potential for degradation of its resource base and environment during this process and is therefore forging a biodiversity strategy at the federal level. However, during this process there are also macro-economic decisions, both fiscal and monetary, property rights reforms, and trade policy are being implemented at the national level. Many of these initiatives, and remaining policies and institutions from the pre-revolution period, will have a significant impact on natural resources and biodiversity. Therefore, it is imperative that knowledge is made available to decision/policy makers of the possible ramifications of their decisions with respect to natural resources and biodiversity.
3. The beneficiaries of this information include not only the Ministry for Protection of the Environment and Natural Resources but also those agencies responsible for natural resource management, legal, economic, and macro-economic policy.

### **Objectives**

4. Past and current macro policies have played an important role in depleting biodiversity resources in the Russian Federation. These policies have been biased against the preservation of those resources, and some of the new reforms may not be "biodiversity neutral." In order to provide guidance to the development of the Federal Biodiversity Strategy as well as to macro-economic decisions an evaluation of the linkages between the current process of economic reforms and biodiversity is required. Therefore, the main objective of this component is to understand how the process of economic reforms is affecting, and will affect, biodiversity related resources in the country.

### **Tasks**

#### **i. Evaluation of Economic Linkages**

5. To satisfy the above objective the consultant(s) shall complete the following three tasks: i) identify and ascertain the influence of the economy wide macro-economic policies; ii) identify the degree of influence of sector specific economic instruments, with particular emphasis on the natural resource-based sectors such as agriculture, forestry, fishing, etc.; and iii) determine what economy wide macro-economic policies and economic instruments of sector-oriented policy are antagonistic or complementary in nature.
6. Macro-economic policy. The various relationships between economy wide policies and the environment will be systematically reviewed to identify the potential impacts on the environment. A preliminary analysis was conducted for the project preparation component employing an Action Impact Matrix Approach (see "Analysis of Social and Economic Factors Influencing Biological Diversity"). It is recommended that this effort be revisited updating, amplifying, and clarifying where appropriate. Also, particular attention must be devoted to discussion of the analysis' findings and the current and future policy implications to maximize the analysis' usefulness to policy/decision makers.

7. **Sectoral Policy.** In addition to economy wide policy reforms being pursued by the Russian Government there also exists broad sectoral activities such as agricultural intensification, industrial protection, and energy use that hold the potential to impact the environment and biodiversity. An analysis will be conducted to ascertain the impacts of these forms of sectoral policies; particular attention will be given to the natural resource use-based sectors, e.g., agriculture, forestry, mining, fishing, etc. It is recommended that the Policy Analysis Matrix approach be used to analyze the pattern of incentives at micro-economic level and to provide quantitative estimates of the impact of policies on this pattern. Input data should be obtained from the relevant ministries, but adjusted where necessary to reflect the full social costs.

8. It is recognized that economy wide macro-economic policy impacts sector resource use decisions. Conversely, policies in an important sector of the economy can also influence the macroeconomic setting. Therefore, the results of the two analyses will be integrated to ascertain the interplay between national and sectoral policy. At a minimum it will be ascertained in policies are antagonistic or complementary. The results of these findings will help shape a biodiversity strategy and provide valuable guidance to economy wide macro-economic policy.

9. In order to minimize the costs of this analysis, secondary information will be drawn upon when possible and augmented where necessary. The identification mission felt that there exists significant data necessary to carry out such a study. Government agencies and institutes will be canvassed to obtain as much of this information as possible.

#### **Resource Requirements and Timetable**

10. This study will need the participation of local as well as international consultants. In addition, there will be a need to set up an interdisciplinary team that will be able to address sectoral as well as intersectoral issues in an inter-regional context. Attached to these consultants, a study leader will be identified, who will be in charge of managing all the associated tasks of the study. In addition, two researchers and a secretary will be needed. Within this context, it is expected that the study will be one year. Funds will also be made available for the use of computer facilities and other needed tasks.

### **3. Analysis of Linkages Between Economics and Environmental Protection and Sources of Growth and Comparative Advantage**

#### **Background**

1. The successful management of natural resources and biodiversity in the Lake Baikal region will, by necessity, require interventions at the inter-regional level. These interventions will increase awareness about the magnitude of existing natural resource linkages (e.g., between increased deforestation and sedimentation of the lake); the necessary policy-making mechanisms to reach consensus, and the creation (or intensification) of development distortions associated with ecological, institutional and economic externalities. These externalities often translate into negative impacts on the environment including, for example, air and water pollution which, by their very nature, do not respect geopolitical boundaries. These external effects are exacerbated by the adoption of policies and instruments (e.g., taxes, leases, property rights) that are inconsistent -- both across the oblasts and between the oblasts and the country level -- creating new threats to the natural resource base and the environment.
2. It is central to any development assistance process to know the potential of different sectors or activities in the economy. Several economic models and procedures have been developed to assess the real comparative advantage that a region or a country has in terms of production and trade. By estimating such advantages (or disadvantages), policy makers will be able to allocate scarce financial and human resources into those activities for which the maximum comparative advantage is present. Within this context, it would not be advisable to allocate resources into sectors that are not economically viable (in a broad sense), because most resources will be wasted. Correspondingly, such an analysis would also reveal that sector or sectors that provide the greatest potential for growth, again providing guidance or direction for the allocation for scarce investment resources.
3. To be performed correctly, a comparative advantage analysis must consider the real (social) benefits of the goods and services to be generated and the real (social) costs of the resources employed to generate those goods and services. For example, it would be inappropriate to estimate revenues based upon government supported prices, rather than the prices that would be established by the supply and demand forces of the market. Correspondingly, any externalities generated by an economic activity must be accounted for, e.g., the social cost of generating electricity with low grade brown coal must include the cost of treating emissions to an environmentally acceptable level.
4. The foregoing requires knowledge of the linkages that exist between national/regional macro-economic policies, micro-economic mechanisms and instruments and resource utilization. Macro policies that define property, taxes, trade policy, etc. will create a milieu in which the various economic decision makers perform. For instance, the absence of properly defined property rights may produce a situation whereby resources such as air or water may be viewed as a free good and easily exploited, high taxes may promote accelerated resource consumption, or a protective trade policy that, say, limits imports may result in products with inflated prices. Economic instruments often provide perverse incentives that result in nonoptimal resource use. It is imperative that the role of these mechanisms, instruments and institutions play is understood. Correspondingly, an understanding how economic incentives can be used to direct behavior in a desired direction is equally valuable.

## Objectives

5. The main objectives of this component are: i) an analysis of the linkages between existing macro- and micro-economic policy and instruments, and resource use and environmental protection; ii) a comprehensive inter-regional study on the sources of growth and comparative advantage in the Lake Baikal region; and iii) to identify the most important instruments of intervention (e.g., economic incentives, institutions) that would keep the level of biodiversity and natural resource use optimal over space and time.

6. Subsidiary objectives will be: i) to see the extent to which regional disparities will determine new patterns of development in response to the reform process; ii) to conduct a public expenditure and investment review at the level of Irkutsk, Chita and Buryatia, and advise the governments of the main results; and iii) to estimate the real values of the natural resources embodied in production and trade and advise policy makers of the key issues and constraints the region is likely to face in the near future.

## Tasks

### i. Analysis of Macro- and Micro-Economic Factors and Externalities

7. The actual analysis of economy wide policies and the environment will not be performed in this component. However, the analysis will be performed under a separate work assignment and thus will be available to provide insight to those policies impacting the Lake Baikal region. It is imperative that this information is taken into account when conducting the comparative advantage analysis and analyzing the micro-economic instruments impacting resource decisions.

8. It is recommended that the Policy Analysis Matrix approach be used to analyze the pattern of incentives at the micro-economic level and to provide quantitative estimates of the impact of policies on this pattern. Input data should be obtained from the relevant ministries, but adjusted where necessary to reflect the full social costs.

9. Also the micro- and macro-economic policy decisions of the individual regions comprising this inter-regional-wide analysis will also be identified and assessed and incorporated within the PAM where appropriate.

10. In addition to ascertaining which instruments that are currently employed have the greatest potential to direct resource use in the desired direction, a brief review of the literature will be conducted to identify other economic incentives that may be useful in helping direct resource use toward optimal utilization levels.

### ii. Inter-regional Comparative Advantage Analysis

11. The contractor shall conduct an inter-regional comparative advantage analysis. There are several traditional methods for assessing sources of growth and comparative advantage that are acceptable, e.g., partial equilibrium analysis (like the estimation of domestic resource cost coefficients), general equilibrium models, and input-output and programming models. Regardless of the approach employed the input data will be adjusted to correct for market distortions resulting from existing national and regional macro- and micro-economic influences. Also, the externality costs will be accounted for where appropriate.

12. The analytical capacity at the regional level seems to be satisfactory, however, there is a lack of unifying knowledge on areas like "resource economics." This is a recent field of inquiry in Russia and expertise is not currently present in most areas of the country. Therefore, it is important to note that resource economists with expertise in comparative advantage analyses should be involved in this task. This input will be particularly valuable in areas dealing with biological resources and biodiversity. In this regard, the study will consider the hiring of international consultants that have the necessary expertise and experience to carry this type of study. Several university and research centers in the United States devote most of their resources to this type of study. It would be useful to consider the inclusion of Russian resource economists in this task so that experience is gained in this methodology.

13. In order to minimize the costs of this analysis, secondary information will be drawn upon when possible and augmented where necessary. The identification mission felt that there exists significant data necessary to carry out such a study. Government agencies and institutes will be canvassed to obtain as much of this information as possible.

#### **Resource Requirements and Timetable**

14. This study will need the participation of local as well as international consultants. In addition, there will be a need to set up an interdisciplinary team that will be able to address sectoral as well as intersectoral issues in an inter-regional context. Attached to these consultants, a study leader will be identified, who will be in charge of managing all the associated tasks of the study. In addition, two research assistants and a secretary will be needed. Funds will also be made available for the use of computer facilities and other needed tasks. Within this context, it is expected that the study will be one year.

#### **4. Evaluation of Economic Linkages Between Economic Development and Biodiversity**

##### **Background**

1. During the process of economic reform in the Russian Federation there exists the potential for degradation of its resource base and environment. There are macro-economic decisions, both fiscal and monetary, property rights reforms, and trade policy being implemented at both the national and regional level, as well as remaining policies and institutions from the pre-revolution period, that have a significant impact on natural resources and biodiversity. The Russian government is sensitive to this and is forging a biodiversity strategy at the federal level.

2. Due to the size of Russia as well as the continued process of political and economic decentralization it is of paramount importance that there is also regional adaption and implementation of the Biodiversity Strategy. It is, therefore, imperative that knowledge of these influences be made available with respect to natural resources and biodiversity to regional decision/policy makers responsible for the development of regional biodiversity strategy and economic policy.

##### **Objectives**

3. The ecological diversity characteristics of biodiversity in Russia requires the formulation and implementation of "regional" approaches and strategies. Furthermore, a successful regional biodiversity strategy requires not only that a region consider its own initiatives and policies, but also have an understanding other regions and national economy wide micro- and macro-economic and sectoral policies. The objective of this study are to develop knowledge and understanding of the economic linkages of national, inter-regional, regional, sectoral, intersectoral, and cross-sectoral policies and institutions to provide guidance for a regional biodiversity strategy. .

##### **Tasks**

4. To properly account the economic aspects into a Regional Strategy the following tasks will be performed: I) identify and ascertain the degree of influence of **national** economy wide macro- and national microeconomic sectoral policies; ii) identify and ascertain the degree of influence of own **regional** micro- and macro-economic policy; iii) identify and assess the influences of **inter-regional** activities; and iv) assess the **sectoral** issues (with particular emphasis on the resource-based sectors including biodiversity as a sector), **inter-sectoral** issues (including, forestry, agriculture and rural development, transport corridors and infrastructure, industry, water supply and irrigation and, mining and energy, and **cross-sectoral** issues (including watershed management, waste generation and disposal, poverty and biodiversity conservation, technological change and biodiversity).

##### **i. Federal and Inter-regional Macro- and Micro-Economic Factors**

5. The actual analyses of economy wide policies and the environment will not be performed in this component. However, this analysis will be performed under a separate work assignment and thus will be available to provide insight for formation of regional policy and strategy. Inter-regional policy assessment will be peculiar to the region and will be performed as specified in Task 2 below.

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**ii. Analysis of Macro- and Micro-Economic Factors and Externalities**

6. It is recommended that the Policy Analysis Matrix (PAM) approach be used to analyze the pattern of incentives at the regional micro-economic level and to provide quantitative estimates of the impact of policies on this pattern.

7. To the extent that inter-regional and national micro- and macro-economic policy decisions impact a region these effects will be incorporated within the PAM where appropriate.

8. Input data should be obtained from the relevant ministries and institutions, and adjusted where necessary to reflect full social costs.

**Resource Requirements and Timetable**

9. The initial studies will need the participation of local as well as international consultants. However, once sufficient expertise has been developed among Russian resource economists it should not be necessary to employ international consultants. In addition, there will be a need to set up an interdisciplinary team that will be able to address sectoral as well as intersectoral issues in a regional and interregional context. Attached to these consultants, a study leader will be identified, who will be in charge of managing all the associated tasks of the study. In addition, two research assistants and a secretary will be needed. Funds will also be made available for the use of computer facilities and other needed tasks. This will be an ongoing exercise required by each region prior to development of a biodiversity strategy. In general, it is expected that each study will require about a one year.

### ANNEX 3.3

## NATURE PROTECTION COMPONENT (US\$ 13,819,000)

### Cost of Sub-Component Activities

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<b>(i) Institutional Support</b>	<b>882,000</b>
<i>Strengthening of the MEPNR Department of Protected Areas</i>	<i>170,000</i>
- clarification financial and personnel management; training in management, dispute mediation, data base management of related hardware and software for the MEPNR	68,000
- study tour of protected area management plans; visits to Regional Centers	68,000
- independent auditor of protected area activities and expenditures	34,000
<i>Strengthening of Federal Forest Service Department of National Parks</i>	<i>120,000</i>
- clarification financial and personnel management; training in management, dispute mediation, data base management of related hardware and software for the FFS	48,000
- study tour of protected area management plans; visits to Regional Centers	48,000
- independent auditor of protected area activities and expenditures	24,000
<i>Forming of Joint International Expert Council on Protected Areas</i>	<i>150,000</i>
<i>Regional strengthening</i>	<i>442,000</i>
- creation of 2 model Regional Zapovedniks Directorates	62,000
- support of 5-6 Regional Associations of Protected Areas	380,000
<b>(ii) Operations and Planning</b>	<b>2,745,000</b>
- establishing an information net and protected areas database (of which US\$360,000 from the Federal budget)	710,000
- development of management plans for 10-12 model protected areas	1,300,000
- establishing ecosystem monitoring stations (of which US\$510,000 from the Federal budget)	535,000
- scientific research grants in the parks and Zapovedniks	200,000
<b>(iii) Public Support and Education Programs</b>	<b>2,903,000</b>
- development of a Coordination Center for Environmental Education and Public Support; design of innovative education programs (Swiss Government grant)	668,000
- initiation of 8-10 model school projects in protected areas, with attendant kits and materials, transport	1,185,000
- publication of field guides, collections and exhibits in protected areas	330,000
- creation of video materials on protected areas, for television	240,000



-	publication of newsletter and scientific-popular journal of applied conservation (of which US\$20,000 from the Federal budget)	80,000
-	ecotourism development in 1-2 model protected areas	400,000
<b>(iv)</b>	<b>Ecosystems Protection</b>	<b>6,448,000</b>
	<i>Strengthening the protection services for 10-12 model protected areas</i>	<i>2,778,000</i>
-	development of protection services management plans	150,000
-	strengthening the protection services' equipment (of which US\$1,278,000 from the Federal Program)	2,628,000
	<i>Protection of rare species and integrated ecosystems (of which US\$40,000 from the Federal Program)</i>	<i>360,000</i>
	<i>Development of plans of acquisition and organization of new Federal Protected Areas</i>	<i>2,560,000</i>
-	10-12 new high priority protected areas in the model regions (GET grant)	1,400,000
-	<u>30 new medium priority protected areas in the model and other regions (from the Federal Program)</u>	<u>1,160,000</u>
	<i>Creation of 3 regional systems of protected areas in model regions</i>	<i>750,000</i>
<b>(v)</b>	<b>Training</b>	<b>841,000</b>
-	<u>four annual advanced training courses for protected area managers and staff (Swiss Government grant)</u>	<u>270,000</u>
-	five regional in-service workshops and development of handbook	115,000
-	development of conservation academic courses for college students	190,000
-	supplementary student training	60,000



## ANNEX 3.4

### GUIDELINES FOR PREPARING MANAGEMENT PLANS FOR NATIONAL PARKS AND OTHER PROTECTED AREAS

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#### Introduction

1 Management Plans are documents which guide the use and control of resources within protected natural areas. It is important for each national park or other type of protected area to have some type of management plan, to help ensure adequate and effective management of the area's natural resources, as well as to minimize potential conflicts among different resource users. This annex outlines the types of information which protected area management plans should generally contain and intended to facilitate the preparation of management plans by protected areas agencies (particularly in developing countries). It also seeks to facilitate the evaluation of draft management plans by the staff of agencies which provide financial or technical assistance for protected area establishment and management (including the World Bank).

2 In general, all management plans should incorporate certain basic features. These include: A description of baseline conditions; statement of the specific management objectives for the protected area; definition of appropriate uses and zones within the protected area; and a detailed program of management activities which is to be carried out over a specified time period. However, each management plan will vary in format and specific content, according to the type of protected area and its special management objectives and needs.

#### Description of Baseline Conditions

3 Each management plan should include a description of currently existing or "baseline conditions within the protected area. An accurate description of baseline conditions is important because it provides a series of reference points against which progress in achieving management objectives can be monitored and evaluated.

4 As part of the description of baseline conditions, management plans should indicate major information gaps which could impede effective protected area management (such as the habitat needs of certain endangered species, or whether particular natural resource use levels are sustainable). After identifying these gaps, the management plan should propose how and when they could be adequately filled, through some type of research or monitoring.

#### *Important natural features*

5 A management plan should describe the important natural features of the protected area, including: Climate; soils; water resources; geological formations; outstanding scenic areas; vegetation and ecosystem types; and flora and fauna. With respect to the latter category, the management plan should provide lists of the plant and animal species known or suspected to exist within the protected area. In particular, the plan should indicate (as available data permit) which species are of special management concern because they are endangered, threatened, or rare; ecological keystone species (upon which many other species depend); pests or nuisances (including introduced species which may threaten the native biodiversity); foci of human use (whether consumptive or non-consumptive); or otherwise merit special attention. A management plan should also describe any significant cultural property found within the protected area, such as archaeological ruins or sacred religious sites.

### Human settlement and natural resource uses

6 A management plan should discuss the extent and history of any human settlement in or near the protected area. The plan should specify: Whether or not the people living within the protected area are permanent residents; whether they are recent colonists, long-established residents, or indigenous; the legal and de facto status of their land tenure; and the types of subsistence or commercial activities which they carry out.

7 In addition to human settlement (if any), a management plan should discuss the ongoing human uses of the protected area, both within and outside its borders. Within the protected area, such uses might include: Scientific research; environmental monitoring; tourism and recreational activities; environmental education; subsistence, sport, or commercial hunting, fishing, or gathering; wood extraction (involving tree cutting or merely the collection of fallen wood); livestock grazing; agriculture; or mining. The management plan should comment on the degree of impact (including the areal extent, amount of damage, and degree of reversibility) of these human uses on the protected area's natural resources, including its plant and animal life, soils, and waters. Outside the protected area, human uses which either depend upon or affect resource management within the protected area might include water use, fishing or other harvesting, agriculture, or mining. The management plan should discuss which human uses are presently legal and illegal, which are de facto controlled or regulated, and, most importantly, which are desirable or tolerable (and which are not), in terms of the management objectives for the protected area.

### Statement of management objectives

8 Each management plan should discuss the principal management objectives of the protected area, i.e., the main purposes for which the protected area exists. Defining these management objectives properly implies (among other things) identifying the important natural resource and environmental values which the protected area seeks to conserve in perpetuity. In this context, the management plan should identify any particularly sensitive natural or cultural features of the protected area which may require special management.

9 A management plan should indicate the specific official category of protected area (such as national park, biological reserve, wildlife refuge, ecological station, forest reserve, indigenous reserve, or other). It is important to remember that the meanings implicit in protected area nomenclature vary from one country to another. (For example, a "Forest Reserve" in one country may imply strict preservation, while in another it implies regulated commercial logging.) For this reason, each management plan should discuss the management implications of the chosen category of protected area. The management plan should also indicate the legal framework under which the protected area was established, including the relevant law(s) and implementing decree(s) (which should be included as an annex).

10 A management plan should indicate the size of the protected area, including the extent (in hectares or other units) of different ecosystem types or vegetation zones, as well as different prescribed use zones (discussed below). The official boundaries of the protected area should be described and indicated on a sufficiently large-scale (detailed) map.

11 Another factor which needs to be considered in defining management objectives is the land tenure situation of the protected area. A management plan should discuss (and show on a map, if needed) the extent to which the land encompassing the protected area is owned by the government, private individuals, or collective associations (tribal groups, elidos, etc.).

### Definition of Appropriate Uses and Zones

12 The management plan should define, indicate on a map, and justify the selection of specific zones where different types of human activities and infrastructure would or would not be permitted. Examples include: A core, strictly protected zone surrounded by a buffer zone (where more intensive human uses are permitted); zones where roads and trails may and may not be constructed; intensive recreational use zones where campgrounds, shops, visitor centers, or other facilities are concentrated (to minimize impacts upon the rest of the protected area); areas critical to the survival of particular rare species where human visitation is highly controlled (particularly during the breeding season); and zones to which hunting, fishing, wood gathering, or other consumptive activities may be restricted.

### Program of Management Activities

13 A management plan should identify all the special management activities which are proposed for achieving the plan's objectives. Aside from direct protection activities needed to ensure the integrity of the protected area's boundaries, such management might include (for example): Captive propagation and release into the wild of threatened animal or plant species; prescribed burning to maintain the desired successional stages of native vegetation; environmental education, extension, or other assistance programs for nearby local communities; and research and monitoring activities.

14 A management plan should list and justify those investments in infrastructure (such as physical demarcation, control posts, visitor centers, staff housing, laboratories or other research facilities, roads, parking areas, trails, observation platforms, boardwalks, and boat docks) which appear necessary for achieving the management objectives for the protected area. The same applies to a wide variety of field and office equipment, including 4-wheel drive vehicles, motorcycles, boats and outboard motors, horses, office furniture, camping equipment, binoculars, radios, and tools. The management plan should also have a chronogram (timetable) which indicates the phasing of each management activity (including any construction work) over the next 5 or so years.

15 A management plan should specify and justify the number of protected area staff (including any volunteers) needed for effective plan implementation, along with their functions, titles, occupational specializations, and required abilities and expertise. The plan should also indicate where the staff would be deployed within the protected area (or in buffer zones or administrative centers outside the protected area), and where they would be expected to live.

16 A management plan should have a detailed budget, which should specify clearly those expenditures which are one-time investments (civil works and equipment) and those which are recurrent costs (salaries, fuel, supplies, and spare parts). The management plan should also identify the expected sources of financing to cover all of the planned investments and recurrent costs. These funding sources can include (among others): Annual (national and sub-national) government appropriations; special earmarked government funds, such as hotel tax, electric power, fishing license, or other special revenues; visitor user fees; proceeds from controlled resource extraction and NGO in-kind contributions. To the extent possible, the management plan should discuss the apparent reliability of these financing sources: For example, how likely are annual government contributions to continue at the current level of support?

17 A management plan also needs to specify the institutional framework for managing the protected area. If more than one agency is responsible for different aspects of management, the management plan should indicate the precise institutional responsibilities of each agency. The plan should also state whether

any specific legal inter-agency agreements (such as convenios) are needed. If NGOs are assigned particular management functions, these should also be defined (as precisely as possible) within the management plan.

18 If significant resource use conflicts exist between local people and the conservation objectives of the protected area, the management plan should propose actions which would reduce or eliminate such conflicts. Such actions could include (for example): Agreements with the local people to confine their activities to specified intensive-use zones of the protected area; regulations to prohibit those activities which would seriously damage the sensitive natural resources of the protected area; provision of alternative income opportunities (including direct employment related to protected area management); or re-drawing the boundaries of the protected area to exclude the settled or intensively-used portions. Involuntary resettlement of people from financial and social costs are involved. (In the case of World Bank-assisted protected areas, any such resettlement would need to comply with the Bank's rigorous Involuntary Resettlement Policy.)

19 If there are conflicting or unresolved land claims, the management plan should recommend steps for eventually resolving them. If private inholdings exist within otherwise public (government-owned) land, the management plan should discuss whether land purchase by the government is needed, or whether alternative mechanisms (such as regulations and agreements with landowners) can be used to ensure compatible resource uses on the private lands.

### The Management Planning Process

20 Management plans should be the result of an interactive and Participatory process of planning resource uses within each protected area (and outside of it, where the uses would affect the protected area). The management planning process should include the participation of scientific specialists, interested user groups, and representatives of local communities, as well as government officials. Management plans should be living documents, subject to periodic revision as management needs change, or as more is learned about management needs and constraints. Some parts of a management plan can be completed in a few days, while others may take months (or even years) to define. While a long-term management plan is being developed, and "interim management plan" or "operational plan" can be used.

## **ANNEX 3.5**

### **LAKE BAIKAL REGIONAL COMPONENT**

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#### **A) INTER-REGIONAL COMPONENT (US\$ 950,000)**

1 This component includes measures which address the fundamental obstacles to the adoption and implementation of an inter-regional biodiversity conservation and natural resource management strategy for the Baikal region. The initiatives to be undertaken include:

##### **(i) Data and Information Flow (US\$ 300,000)**

2 This will entail undertaking the following initiatives in order to improve the quality and accessibility of data necessary to develop sound environmental policies:

- Establishment of a meta-database. (US\$ 60,000)
- Establishment of a database management system. (US\$120,000)
- Data Analysis and its use in biodiversity conservation. (US\$80,000)
- Development of a protocol of access to data among the regions. (US\$10,000)
- Improvement of communication and data exchange. (US\$30,000)

##### **(ii) Policy Evaluation (US\$ 150,000)**

3 Policy makers in the region are confronted with major trade-offs between economic development, environmental protection, and social welfare. Integrated and sustainable natural resource management requires a comprehensive evaluation of the policy formulation process, and of the consequences of policy implementation on biodiversity and the natural environment. Preliminary work on this was already performed during the PPA phase, but this will be extended to:

- develop public participation, implementation and compliance mechanisms;
- recommend procedures to incorporate environmental externalities into the decision making process;
- develop a training component in environmentally sustainable resource management.

4 This initiative will require international expertise in environmental policy development and analysis, but will rely largely on local expertise. The study will be conducted during the first two years of the project.

##### **(iii) Strengthening of Legal/Regulatory Base (US\$ 200,000)**

5 The inconsistency of the legal and regulatory base is compounded by poor enforcement and inappropriate fines. Given the lack of transparency in resource use allocation mechanisms and a poorly developed incentive structure biodiversity conservation is badly served by current resource use practices. To address this issue, this sub-component will:

- analyze documentation prepared during the PPA phase, as well as additional materials, and will recommend improvements to the normative system, including the regulatory and compliance regime at the inter-regional and regional levels, and institutional strengthening.

- define the measures necessary to harmonize environmental standards, and their application, for resource usage and pollution levels. This would include concrete proposals on the improvement of information gathering, analysis and use, improvement of the regulatory and enforcement regimes on both inter-regional and regional levels, and strengthen institutional capacity of the relevant agencies (through training, education and reorganization)

6 The study will take 175 staff weeks and will primarily be undertaken by local specialists but an international consultant will be required in the initial stages. This initiative will be undertaken during the first three years of the project.

**(iv) Economic Perspectives on Biodiversity Conservation and Natural Resource Management (US\$150,000)**

7 This sub-component will carry out a comprehensive study of the potential sources of growth and comparative advantage in the Baikal region. It will include:

- Assessment of the effects of regional disparities on potential development patterns;
- Review of public expenditure and investment;
- identify the most important economic instruments of intervention capable of ensuring optimum resource use; and,
- estimate the real values, and therefore impacts, of the natural resources used in production and trade

8 The study will take 40 staff weeks, including domestic and international consultants. 25 staff weeks of researchers, secretaries, translators and editors will be needed. Funds will be available for computer facilities and workshops, information dissemination and publication. The first draft should be completed within the first year, at which time the study arrangement will be reviewed.

**(v) Regional Biodiversity Conservation Strategy and Action Plan (US\$150,000).**

9 The above initiatives, and those from the PPA, will provide a foundation for a biodiversity conservation strategy and action plan for the Baikal region. The Baikal strategy will be developed along the same lines, and in close cooperation with, the federal Biodiversity Strategy. The Biodiversity Conservation Action Plan (BCAP) will define specific tasks, timelines, costs and responsibilities, as well as monitoring and evaluation procedures.

10 The strategy and action plan will be developed and implementation will begin during the project. Foreign consultancy will be required, but the strategy will be developed by local experts. The administrations of the three regions, various institutes, protected area representatives, community leaders, and NGOs will also be actively involved in its development and implementation.

**(B) REGIONAL ACTIVITIES (US\$2,890,000)**

11 Three model demonstration projects, one each in Irkutsk Oblast, the Republic of Buryatia and Chita Oblast, will be implemented to demonstrate a range of adjustments in land and natural resource governance and practices for effectively dealing with a complex and diverse set of environmental and socio-economic problems. This will be done on the basis of watersheds, each one characterized by its own environmental, land and resource use, economic, social, and institutional characteristics and issues. This



will demonstrate a range of potential mechanisms for addressing a variety of issues, and thus will ensure the wider applicability of the results.

(i) **Goloustnaya River Watershed - Irkutsk Oblast (US\$890,000)**

(a) *Sustainable Forest Management (US\$390,000)*. Forestry operations in the watershed have resulted in the fragmentation of habitats and environmental degradation. Forestry, however, remains an industry upon which the majority of local residents depend. A continuing economic downturn in the industry will force an increasingly larger number of people to exploit the forest's natural resources further. The following measures which will be developed under a forest management plan will reverse environmentally destructive practices, and re-orient the forest management to a sustainable, ecosystem based regime.

- *Forest Restoration (US\$150,000)*. Past clear-cutting patterns have resulted in large areas of deforested land which cannot be reforested by natural regeneration. The forest management plan will include; an evaluation of harvesting and regeneration techniques and the construction of a nursery for seedling propagation. This initiative will be performed in the first three years of the project. It will require foreign consultancy, local technical staff and support, equipment, and supplies.

- *Fire Management (US\$100,000)*. A fire management plan will be developed which will consider the area's fire regime, the current extent of the problem (spatial, ecological, economic), the causes of fires, the role of fire in the ecosystem, the effects of fire suppression. It will define options for fire management. The options will be costed as well as the potential to attract external financing for the implementation of the plan. Foreign consultancy with the assistance of local consultants, the Forestry Committee, the Forestry Enterprise, and the local administration and population of the watershed. This initiative will be performed in the first two years of the project.

- *Environment-Economy Linkages (US\$100,000)*. This initiative will support the definition and evaluation of options to create an economically viable yet environmentally sustainable forest industry. The economic and socio-economic dynamics of the forestry industry will need be assessed, as will the possibilities for diversifying the watershed's economic base. The study will concentrate on the linkages between economic activities and social and environmental conditions. This initiative will be implemented over the first two years of the project. It will require a foreign resource economist. The Forestry Enterprise, Oblast, regional and local administrations, and the local population will be directly involved in proposing and evaluating alternative development proposals.

- *Training for Forestry Managers (US\$40,000)*. The re-orientation of forest management will be rely on appropriate training in forest management. Joint training for selected foresters from the three regions will be organized. This initiative will develop a training program which will address key elements of biodiversity conservation theory; fire management and the role of fire in ecosystems; technical aspects of harvest management; ecosystem based management of the forest; and, non-timber and other values of forests. This initiative will be undertaken in the first two years of the project. It will require foreign

and local consultants, and provide for the development and production of educational materials.

(b) *Environmental Monitoring (US\$125,000)*. This will develop and implement a cost-effective, manageable, and goal oriented monitoring program for the watershed which will be strongly related to management capability. The initiative will support: the definition, current use, drawbacks and parameters of available monitoring projects and techniques in the watershed; the establishment of baseline conditions among these parameters; and, the definition of essential material requirements for implementing a biodiversity conservation monitoring and training program. This initiative will be undertaken over the duration of the project. It will require foreign consultants, local expertise familiar with the watershed (Institute of Geography in Irkutsk), local residents and NGOs. Material requirements will be defined after the first year of the initiative and those that are essential to the implementation of an effective monitoring program will be supported.

(c) *Watershed Management Capability (US\$85,000)*. The resolution of land and resource use conflicts, and the mitigation of stresses on the watershed's environment and biodiversity requires a comprehensive land use plan. Such a plan is currently being prepared under the Russian-German (GTZ) landscape planning project. This initiative will support: an assessment of existing natural resource management responsibility and capability; the definition of key obstacles and solutions to integrated management. Options will include potential changes in land ownership, organizational and decision-making procedures. It will be undertaken in the first 18 months of the project. It will require a foreign and domestic consultant, and the assistance and participation of the Oblast, regional and district and local administrations, the Oblast Forestry Department, the Forestry Enterprise in the watershed, and the principals of the Russian-German landscape planning project.

(d) *Recreation Management Plan (US\$75,000)*. The watershed is subjected to increasing levels of unorganized recreational use with visitor numbers exceeding 30,000 per year. This, unless regulated will have significant environmental impacts upon ecologically vulnerable areas. The initiative will support the development and partial implementation of a recreation management plan focusing on areas of recreational potential where conflicts with biodiversity conservation already exist. It will be based on the study carried out under the Japanese Personnel and Human Resources Development Grant (PHRD) which occurred at the same time as the PPA. The PHRD grant developed an ecotourism management plan for Lake Baikal based upon its ecological carrying capacity. This initiative will be integrated with others in the Bolshoye Goloustnoye area that are being pursued under funding from USAID, such as the creation of a landscape park and trail construction, as well as the landscape planning work being conducted under the Russian-German (GTZ) project. This initiative will be undertaken in the first two years of the project. It will require a foreign consultancy, and will draw upon expertise and information available in Irkutsk (Institute of Geography, Pribaikalskiy National Park, Institute of Biology).

(e) *Environmental Education Program and Information Center (US\$100,000)*. The success of any local program ultimately depends upon the involvement

of people directly affected by it. This initiative will raise the awareness and interest of the watershed's population in their environment, their roles and potential contributions to improving environmental conditions and project implementation, and will provide opportunities for direct public input. It will support: the development and implementation of an environmental education program; the development of environmental curricula for primary and secondary schools, as well as the general population; and the establishment of a public environmental education center. It will assess: the information requirements; identify existing information; potential information delivery mechanisms; and, the possibility of utilizing already existing environmental information centers such as the Baikal Center for Citizen Initiatives, which has an office in Irkutsk. This initiative will be realized over the duration of the project. It will require a local specialist in environmental education and communication, and the active involvement of local community leaders.

(f) *Grazing and Biodiversity Conservation (US\$65,000).*

- **Establishment of Botanical Reserve for Endangered Species (US\$15,000)**  
The laciniate violet (*Viola uralica* Turcz.) is an East Siberian endemic listed in the Red Book of the RSFSR. In 1994, a rare dense population of the plant was discovered in a degraded state in an area of intense unregulated recreation. The creation of a 1.5 ha botanical reserve in this area will enhance the protection of this extremely rare species. This initiative will develop an effective management plan for the reserve. This initiative will be undertaken in the first 18 months of the project. It will require local expertise in the plant's ecology and habitat rehabilitation, and will involve Pribaikalskiy National Park, the Institute of Geography in Irkutsk, and Irkutskenergo Company, which has an interest in the land of concern.

- **Establishment of Grazing Regime (US\$50,000).** Unregulated grazing around the villages of Maloye Goloustnoye and Bolshoye Goloustnoye has led to the degradation of soil and vegetation cover over approximately 3,000 ha. This initiative will develop a grazing regime in the two areas. Attention will be given to: evaluation of the environmental condition and potential carrying capacity of the rangeland, the selection of environmentally appropriate sites for pasture; rotation of grazing; alternatives to range feeding and their economic implications; economic incentives and other instruments to promote the adherence to the grazing regime; and, the development of a rangeland monitoring program. On the basis of the results of the study, this initiative may provide limited funding to help establish pastures. This initiative will be undertaken in the first three years of the project. It will be led by a foreign consultant and will involve local expertise from the Agricultural Institute, and residents of the two affected villages.

(g) *Management Organization (US\$50,000).* An organizational structure for implementing the project above was developed during the PPA. A detailed feasibility study is now required. Once structural and procedural characteristics have been determined, this initiative will support incremental costs for the duration of the project. The initial appraisal will be conducted after six months by domestic specialists and will involve the Oblast, local administration, the land users and residents of the watershed. Detailed incremental costs will be determined during the first stage of this initiative but will include travel, communication, publication expenses, and any necessary hardware and software.

**(ii) Tugnuy-Sukhara Rivers Watershed - Republic of Buryatia (US\$1,135,000)**

(a) *Land Use Plan (US\$200,000)*. A comprehensive land use plan will be developed for the watershed. The land use plan will include: the definition and mapping (GIS) of land cover, physical characteristics of the watershed, species distribution, land and resource uses, areas of environmental sensitivity and their significance to development, functional or process information such as erosion, deposition, species migration routes and others. The draft document will include recommended zoning and its implications. The plan will specify clear goals, measurable objectives, and an implementation mechanism. Close contact will be maintained with the residents and resource users, as well as the government, academic community, and non-governmental organizations. The plan will be developed over the first three years of the project and will require the input of numerous domestic specialists and an international consultant.

(b) *Monitoring Program (US\$100,000)*. As for the Goloustnaya River watershed, there is a need to develop and implement a goal-oriented, manageable, and cost-effective monitoring program for biodiversity conservation. The design of the monitoring program will follow the outline presented in the Goloustnaya River watershed.

(c) *Agriculture (US\$165,000)*.

- *Alternative Crops and Breeds (US\$75,000)*. Considerable environmental degradation has occurred due to the planting of crops and husbandry of cattle maladapted to the environmental limitations of the watershed. This initiative will support: an analysis of the problem due to the introduction of non-native livestock and forage; and, the development of specific recommendations for changing the forage base and types of livestock so that less environmental damage occurs. It will entail a cost/benefit analysis and will consider the implications of a change to a more traditional form of animal husbandry. The initiative will require local expertise and an international resource economist specializing in range management. This initiative will be undertaken over the first two years.

- *Soil Erosion (US\$90,000)*. Nearly 50% of agricultural land exhibit varying degrees of erosion due to inappropriate management and cattle breeding practices. This initiative will develop applied measures to arrest soil erosion. The initial phase will analyze the issue, after which different sites will be selected to demonstrate varying options. The Lenin collective farm in the watershed already has some experience in utilizing anti-erosion measures, and could serve as a model project. The initiative will disseminate the results to the agricultural community by means of an extension service. Local expertise will be utilized in the realization of this project. The project will be undertaken over the first two years of the program.

(d) *Sustainable Forest Management (US\$340,000)*. Many of the problems associated with past and current forestry policies and practices discussed in reference to the Goloustnaya River watershed are evident in this watershed as well. As in the case of the Goloustnaya River watershed, the main purpose of the forestry related initiatives will be to re-orient forest management from the exploitation of timber resources to a more comprehensive, ecosystem based forest management regime by the development of an

environmentally sustainable forest management plan. Cost savings will be realized by coordinating the implementation of identical initiatives such as training of forest managers, and the demonstration of forest restoration techniques for all three watersheds.

- *Forest Restoration (US\$100,000)*. The requirements under this initiative are similar to those described under the Goloustnaya River watershed component.

- *Fire Management (US\$100,000)*. A fire management plan will be prepared for the watershed, following the outline presented under the Goloustnaya River watershed fire management component.

- *Environment-Economy Linkages (US\$100,000)*. This will define and evaluate, as in the Goloustnaya River watershed, the options by which economic gains can be realized by environmentally sustainable forest management.

- *Training of Forestry Managers (US\$40,000)*. A training program will be provided for forestry managers in the watershed covering the topics described under the Goloustnaya River watershed component on forestry management training.

(e) *Managing for Biodiversity Conservation and Use in a Protected Area (US\$190,000)*.

- *Management Plans for Zakazniks (US\$75,000)* There are two large Zakazniks in the watershed of high biodiversity values due to their vegetation types (Transbaikalian steppes and forest steppes). However, considerable resource use conflicts, including grazing, ploughing, poaching, fires, and forest harvesting, increasingly threaten the reserves' biodiversity values. This initiative will prepare management plans for the two Zakazniks. This will be innovative in that although there are hundreds of Zakazniks in Russia, apparently no management plans have been implemented which have done other than set production levels and some protection regime for the specific resource for which the Zakaznik was originally established. The experience gained from a more comprehensive management plan will be transferable to other vulnerable Zakazniks. Consideration will be given, among others things, to the status and distribution of resources and uses, their trends, resource use conflicts and their effects on biodiversity and zoning. The plans will specify the management goals and measurable objectives for reserve management, the resourcing requirements for implementation, as well as responsibilities, and will prescribe a monitoring program which will be focused on assessing the status of biodiversity in the reserves. The preparation of the management plans will be undertaken by local experts and representatives of the administration, and will necessarily closely involve the resource users themselves. A short-term foreign consultancy may also be required. This initiative will be implemented over the first two years of the project.

- *Legislative Protection for Zakazniks (US\$45,000)* Concurrent with the preparation of management plans for the Zakazniks, this initiative will support the strengthening of legal protection for the Zakazniks. It will suggest regulations, and implementation procedures, to effectively determine appropriate resource and land use with reference to maintaining biodiversity values. The legislation will be regional, and will regulate resource use in the Zakazniks in accordance with the management plans. Clearly, the support of authorities at the regional and local levels will be required. This initiative

will be implemented over the first two years of the study, and will require domestic legal expertise.

- Environmentally Appropriate Methods of Land and Resource Use (US\$70,000). The severity of resource conflicts in the Zakazniks, as well as their site specificity require model projects on environmentally sustainable land use to be developed. Sites will be selected in which existing land, water and forest uses can be improved through the demonstration of alternative techniques. An educational program for resource users in the Zakazniks will be developed and implemented. The projects will review restoration processes and define rational regimes for steppes and forested steppes resource use. It will be implemented over the first three years of the project, and will develop and publish information materials. Local expertise will implement this initiative.

(f) *Development and Implementation of Environmental Education Programs and an Extension Consulting Service (US\$90,000)*. The initiative presented under Environmental Education Program and Information Center for the Goloustnaya River watershed will be replicated in this watershed. Although the specific information requirements of the local populations will differ slightly, a coordinated approach will result in considerable savings across the three watersheds.

(g) *Watershed Management (US\$50,000)*. An organizational structure for the management of this project was developed in the PPA. It involves the establishment of a Committee for Natural Resources Management, a horizontal management structure including all responsible agencies in the watershed. It represents a marked departure from the traditional resource management framework and will make decision-making more integrated. The incremental costs of this new structure, established as a model specifically for this project, will be supported, including travel, communication, publication expenses, and essential hardware and software.

### (iii) **Khilok River Watershed - Chita Oblast (US\$865,000)**

(a) *Land Use Plan (US\$225,000)*. The development and implementation of a comprehensive land use plan for the Khilok River watershed will resolve many aspects of the watershed's environment degradation, and associated losses of biodiversity. The plan will essentially replicate the Tugnuy-Sukhara Rivers watershed project. The plan will evaluate the environmental carrying capacity and develop an ecologically based zone plan of the watershed. The plan will require the conversion of essential information into an electronic format. Since a GIS platform already exists, training of selected individuals is essential at the outset of the project. As before, the planning process will be participatory. International expertise will be required, although the majority of the participants in the preparation of the plan will be domestic specialists. The plan, which includes an implementation mechanism, will be prepared during the first three years of the project.

(b) *Monitoring Program (US\$150,000)*. A monitoring program will be developed and implemented in the watershed. The design of the program and the steps in its development and implementation as for the other watersheds.

(c) *Sustainable Forest Management (US\$370,000)*. The Khilok River watershed exhibits some of the same forestry and forest management problems of the other two watersheds. The project will support the development of a forest management plan with similar initiatives to re-orient the management of the forests towards environmentally sustainable management, including:

- Forest Restoration (US\$150,000)
- Fire Management (US\$100,000)
- Environment-Economy Linkages (US\$100,000)
- Training for Forestry Managers (US\$40,000)

(d) *Environmental Education and Extension Consulting Service (US\$70,000)*

(e) *Institutional Strengthening for Watershed Planning and Management (US\$50,000)*. A new organizational structure has been proposed for the implementation of the project during the PPA phase - the Department of the River Khilok. This body would coordinate the implementation of various elements of the project, and would provide for integration in decision-making through a horizontal structure. The value of such a structure is clearly evident. The incremental costs associated with the establishment and operation of this Department will be supported for the duration of the project. These include costs such as those associated with transportation, communications, publication, and information dissemination specific to this project.

(C) **LOCAL BIODIVERSITY INITIATIVES (US\$2,500,000)**

12 The main objective of this sub-component is to provide financial support, on a grant basis, to competitively selected small-scale projects, programs, and other initiatives which will directly help promote biodiversity conservation and improvements in natural resource management in the Lake Baikal region. It is intended to encourage the active participation of local communities, native peoples, non-governmental organizations (NGOs), academic institutions, and individuals in biodiversity conservation and natural resource management.

13 Variable size grants (\$1,000 - \$50,000) will be provided to researchers conducting applied work in biodiversity conservation, environmental NGOs, community organizations, small businesses, and individuals. Potential initiatives would include: applied biodiversity conservation research, community level environmental monitoring and pollution control initiatives or cooperatives for organic food production; re-introduction of traditional resource use practices and techniques which aid biodiversity conservation by helping to restore the land conditions; publication of environmental literature and introduction of environmental education programs in schools; and, biologically sustainable economic ventures of a small scale such as the commercial production of medicinal plants. Native peoples, villagers, and women will be particularly encouraged to participate in this program.

14 A single financing mechanism will be established in the Baikal region to facilitate the funding of the above initiatives. The mechanism will be administered in the region by a Supervisory Committee composed of equal representation from the governmental and NGO/scientific communities. Representation from the three regions will also be equal. The use of the funds will be transparent through the use of a thorough reporting and auditing process.





## **ANNEX 3.6**

### **LAKE BAIKAL COMPONENT IMPLEMENTATION OF LOCAL BIODIVERSITY INITIATIVES SUB-COMPONENT**

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1 Projects will be pre-selected by the project teams established in each of the regional centers (Irkutsk, Ulan-Ude and Chita) and reviewed and endorsed by the Lake Baikal Supervisory Committee which will consist of a total of six administrative representatives of the Government of Buryatia and Administrations of Irkutsk and Chita Oblast (including three regional subcomponent directors), six non-government representatives (from the local, academic, scientific, social, or NGO communities), and one national representative from the Governmental Commission for Lake Baikal, all with strong experience in the Baikal region and in biodiversity conservation. The managers of regional subcomponents from the Buryat Republic, Irkutsk Oblast, and Chita Oblast will be non-voting members of the Committee.

2 Each regional team will be headed by a Manager, assisted by one to three technical and operational assistants. Each team will receive advice and non-binding recommendations from a local advisory council (LAC), appointed by the relevant oblast/republic administration and composed of representatives of the local academic and scientific community, NGOs, social organizations, civic leaders, natural resource/land users, and other non-governmental representatives with an interest and experience in the field of biodiversity conservation and natural resource management. Members of the LACs will serve on a voluntary, pro-bono basis. Each LAC will, in consultation with the each regional center team, determine the LAC's internal rules of procedure.

3 The Lake Baikal Supervisory Committee will adopt a standard application form which will be made available through the regional center teams to all interested parties free of charge. Interested applicants will submit completed application forms to the regional teams. Applications will be required to be submitted by a specific date to be considered in that year's grant program. (For the first year, no more than 20 percent of the funds available under this component would be committed.)

4 Each application will, among other things, describe: (a) the proposed project and goals for which grant funding is being sought; (b) the specific work to be carried out and its organizational arrangements; (c) the specific products to be produced; (d) the timetable of the proposed project and all products; (e) the breakdown of the financial requirements; (f) a cost/benefit analysis; and (g) the applicants' experience and qualifications.

5 Within 30 days of receiving a grant application, the regional center team will decide whether to pre-approve, reject or return such an application in order to obtain further information. All such decisions will be communicated to the applicants in writing and will describe, in the case of the application's rejection or request for additional information, the reasons for such a decision.

6 If the application is pre-approved by the regional team, it will be forwarded by the regional center team, together with any supporting information or materials deemed relevant by the regional team, to the Supervisory Committee for formal review and approval. The Supervisory Committee's decision (approval, rejection, or request for additional information) will be made in writing within 45 days of receiving the pre-approved application.

7 Upon the approval of the Supervisory Committee, the regional center team will, within 15 days, invite the applicant to execute a grant agreement on behalf of the Supervisory Committee. A typical grant agreement will contain, among other things, terms and conditions related to: (a) the usage of the funds; (b) the maintenance of records and accounts and, if applicable, auditing requirements; (c) the procurement of

goods, services, and works; (d) inspection by the Supervisory Committee and/or the regional team; (e) counterpart contributions, if applicable; (f) penalties for breaches of agreement covenants; (g) reporting procedures; (h) taxation procedures for the grant funds; (i) tranche or other methods of disbursement; and (j) dispute resolution. Funding under this component will be available to local groups, organizations, NGOs, academic institutions and other local entities, and individuals residing or working in the Lake Baikal region, specifically the Irkutsk and Chita Oblasts and the Buryat Republic of the Russian Federation. The component will encourage the participation of the native populations, representatives of remote settlements, and women. International firms, individuals and institutions will also be eligible to participate providing it is on a partnership basis with a Russian counterpart.

8 The component will finance projects with the greatest potential to promote biodiversity conservation and improvements in natural resource management in the Lake Baikal region, in relation to project cost. Other considerations that will be taken into account in project selection will include social and educational potential, replicability and thus transferability, innovation, professional development and training, use of local knowledge and capability, post project assimilation/sustainability, and linkage to other elements of the Project. Grants under this component will range from \$1,000 to \$50,000. The component will not fund: (a) projects involving direct obligations of the federal, oblast, republic, or local governments, (b) pure research or administration projects, with limited tangible benefits for biodiversity conservation and environmental protection; (c) projects directly involving members of the Supervisory Committee or their affiliates, unless the member so involved abstain from voting or any other decisions related to the project in question.

9 The component will provide short, medium, and long term financing to qualified projects. All grant recipients will be required to provide the Supervisory Committee (with copies to the CPPI) with semi-annual, mid-term and project completion reports, describing project progress, problems, and future activities. At the completion of each project, or annually, if the project requires more than 18 months to be implemented, grant recipients will submit to the Supervisory Committee (with copies to the CPPI) financial statements describing the expenditures under the grant for the period in question. For grants above \$10,000, recipients will submit audited reports issued by an independent auditing organization, concerning the financial aspects of the project.

10 The component will finance goods (including equipment, office materials) and incremental operating costs (including office rent, incremental salaries, communications expenses, travel expenses) related to the administration and implementation of this component, and the cost of qualified sub-projects. The latter will cover the cost of goods, services, operating costs, and works specified in the grant agreement between the grant beneficiary and the Supervisory Committee.

11 Funds under approved projects will be made available to the recipients based on expenditures incurred (supported by adequate documentation), or likely to be incurred in the near future. In the latter case, the grant agreement will specify the terms and conditions of tranche financing. Examples of possible projects include, but are not limited to, projects in the areas of applied research, environmental monitoring, ecotourism, nursery development, traditional natural resource use practices, publication of environmental literature and development of local school programs, and improvement of land and natural resource management.

## ANNEX 4.1

### DETAILED PROJECT COSTS

#### A. Components Project Cost Summary (US\$ thousand equivalent)

Components	Local Costs	Foreign Costs	Total Base Cost	% Foreign Exchange	Total Cost (w/ cont.)	% Total Costs
<b>Strategic Overview Component</b>						
Federal/Regional Biodiversity Strategies	324	160	484	33	575	2.2
Biodiversity Policy Support	644	807	1,450	56	1,725	6.6
BIOTA Information System	558	417	975	43	1,105	4.2
<i>Total for component</i>	<i>1,525</i>	<i>1,384</i>	<i>2,909</i>	<i>48</i>	<i>3,405</i>	<i>13.1</i>
<b>Protected Areas Component</b>						
Institutional Support	401	370	771	48	882	3.4
Operations and Planning	1,058	1,257	2,314	54	2,745	10.6
Public Support and Education	1,750	721	2,471	29	2,903	11.2
Ecosystems Protection	3,304	2,136	5,441	39	6,448	24.8
Training	387	328	715	46	841	3.2
<i>Total for component</i>	<i>6,899</i>	<i>4,812</i>	<i>11,712</i>	<i>41</i>	<i>13,819</i>	<i>53.1</i>
<b>Lake Baikal Regional Component</b>						
Inter-Regional Activities	580	245	825	30	950	3.7
Regional Activities	1,705	794	2,499	32	2,890	11.1
Local Biodiversity Activities	1,514	649	2,163	30	2,500	9.6
<i>Total for component</i>	<i>3,799</i>	<i>1,688</i>	<i>5,487</i>	<i>31</i>	<i>6,340</i>	<i>24.4</i>
Project Management and Coordination	1,620	454	2,073	22	2,450	9.4
<b>Total Baseline Costs</b>	<b>13,843</b>	<b>8,338</b>	<b>22,181</b>	<b>38</b>	<b>26,014</b>	<b>100.0</b>
Physical Contingencies	1,259	760	2,019			7.8
Price Contingencies	1,123	691	1,814			7.0
<b>Total Costs</b>	<b>16,225</b>	<b>9,788</b>	<b>26,014</b>	<b>38</b>		<b>100.0</b>

Total costs are rounded.

**B. Detailed Project Costs, by Financier and by Project Year**  
(US\$ thousand equivalent)

Project Components	GEF Expenditures, by Project Year						Project Costs, by Financier			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	GEF Sub-total	Gov't of Russia	Swiss Grant	Total Costs
<b>Strategic Overview</b>	<b>415</b>	<b>715</b>	<b>715</b>	<b>485</b>	<b>245</b>	<b>120</b>	<b>2,695</b>	<b>710</b>	<b>0</b>	<b>3,405</b>
<i>(i) National and Regional BD Strategies</i>	<b>25</b>	<b>115</b>	<b>150</b>	<b>60</b>	<b>20</b>	<b>0</b>	<b>370</b>	<b>205</b>	<b>0</b>	<b>575</b>
Federal Strategy	25	100	75	40	0	0	240	155	0	395
Model Regional Strategy	0	15	75	20	20	0	130	50	0	180
<i>(ii) BD Policy Support</i>	<b>15</b>	<b>270</b>	<b>430</b>	<b>360</b>	<b>210</b>	<b>105</b>	<b>1,390</b>	<b>335</b>	<b>0</b>	<b>1,725</b>
Analysis of Economic Linkages	0	75	65	0	0	0	140	75	0	215
Guidelines on Regional Strategy Dev't	0	60	90	0	0	0	150	50	0	200
Stakeholder Work Groups	15	15	15	15	15	0	75	0	0	75
Dev't of 3 Add'l Regional Strategies	0	0	0	75	75	75	225	210	0	435
Economics of BD	0	120	110	120	120	30	500	0	0	500
Conservation Finance Mechanisms	0	0	150	150	0	0	300	0	0	300
<i>(iii) Biomonitoring Information System</i>	<b>375</b>	<b>330</b>	<b>135</b>	<b>65</b>	<b>15</b>	<b>15</b>	<b>935</b>	<b>170</b>	<b>0</b>	<b>1,105</b>
Establishment of BIOTA Center	325	100	0	0	0	0	425	0	0	425
BIOTA Projects	35	215	120	50	0	0	420	0	0	420
<i>Biotopes</i>	0	110	0	0	0	0	110	0	0	110
<i>BD Atlas of Northern Eurasia</i>	0	70	70	0	0	0	140	0	0	140
<i>Monitoring of Mammals BD</i>	0	0	50	50	0	0	100	0	0	100
<i>GIS and BIOTA Training</i>	35	35	0	0	0	0	70	0	0	70
Incremental Operating Costs	15	15	15	15	15	15	90	170	0	260
<b>Protected Areas Component</b>	<b>450</b>	<b>2,421</b>	<b>2,581</b>	<b>2,355</b>	<b>1,160</b>	<b>290</b>	<b>9,257</b>	<b>3,418</b>	<b>1,144</b>	<b>13,819</b>
<i>(i) Institutional Support</i>	<b>130</b>	<b>226</b>	<b>296</b>	<b>120</b>	<b>60</b>	<b>0</b>	<b>832</b>	<b>50</b>	<b>0</b>	<b>882</b>
Strengthening the MEPNR Dept. of PA	70	50	50	0	0	0	170	0	0	170
Strengthening FFS Dept. of NP	50	35	35	0	0	0	120	0	0	120
Creation of Joint Int'l Expert Council on PA	10	50	40	0	0	0	100	50	0	150
Strengthening of 2 model Regional Zap. Directorates	0	31	31	0	0	0	62	0	0	62
Strengthening of 5-6 Regional Assns.	0	60	140	120	60	0	380	0	0	380
<i>(ii) Operations and Planning</i>	<b>40</b>	<b>635</b>	<b>400</b>	<b>400</b>	<b>400</b>	<b>0</b>	<b>1,875</b>	<b>870</b>	<b>0</b>	<b>2,745</b>
Establishing an Information Net	0	350	0	0	0	0	350	360	0	710
Development of 10-12 Management Plans	0	220	360	360	360	0	1,300	0	0	1,300
Establishing Ecosystem Monitoring Stations in PA	0	25	0	0	0	0	25	510	0	535
Scientific Research Grants in PA	40	40	40	40	40	0	200	0	0	200
<i>(iii) Public Support and Education Programs</i>	<b>105</b>	<b>350</b>	<b>700</b>	<b>700</b>	<b>350</b>	<b>10</b>	<b>2,215</b>	<b>20</b>	<b>668</b>	<b>2,903</b>
Dev't of Coord. Center for Env. Educ. and Publ. Support	0	0	0	0	0	0	0	0	668	668
System of 8-10 model school projects of env. enlightenment	65	280	280	280	280	0	1,185	0	0	1,185
Creation of field guides and exhibits in PA	30	60	90	90	60	0	330	0	0	330
Creation of video materials on PA, for television	0	0	120	120	0	0	240	0	0	240
Publication of Newsletter and Sci.-Popular J. of Conservation	10	10	10	10	10	10	60	20	0	80
Ecotourism Dev't in 1-2 Model PA	0	0	200	200	0	0	400	0	0	400

Project Components	GEF Expenditures, by Project Year						Project Costs, by Financier			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	GEF Sub-total	Gov't of Russia	Swiss Grant	Total Costs
<b>(iv) Ecosystem Protection</b>	<b>130</b>	<b>1,110</b>	<b>1,110</b>	<b>1,060</b>	<b>280</b>	<b>280</b>	<b>3,970</b>	<b>2,478</b>	<b>0</b>	<b>6,448</b>
Strengthening the Protection Services for 10-15 model PA	50	500	500	450	0	0	1,500	1,278	0	2,778
- dev't of Protection services mgmt. plans	50	50	50	0	0	0	150	0	0	150
- protection services equipment	0	450	450	450	0	0	1,350	1,278	0	2,628
Protection of Rare Species and Integrated Ecosystems	80	80	80	80	0	0	320	40	0	360
Dev't of plans of organization of new federal PA	0	280	280	280	280	280	1,400	1,160	0	2,560
Creation of 3 regional systems of PA	0	250	250	250	0	0	750	0	0	750
<b>(v) Training</b>	<b>45</b>	<b>100</b>	<b>75</b>	<b>75</b>	<b>70</b>	<b>0</b>	<b>365</b>	<b>0</b>	<b>476</b>	<b>841</b>
Four annual advanced training courses for PA managers	0	0	0	0	0	0	0	0	476	476
Five regional in-service wkshps, dev't of handbook	20	25	25	25	20	0	115	0	0	115
Writing of conservation acad. courses for college students	25	75	50	50	50	0	250	0	0	250
<b>Lake Baikal Regional Component</b>	<b>120</b>	<b>1,645</b>	<b>2,145</b>	<b>1,290</b>	<b>700</b>	<b>440</b>	<b>6,340</b>	<b>0</b>	<b>0</b>	<b>6,340</b>
<b>(A) Inter-regional Activities</b>	<b>20</b>	<b>285</b>	<b>410</b>	<b>180</b>	<b>55</b>	<b>0</b>	<b>950</b>	<b>0</b>	<b>0</b>	<b>950</b>
Data and Information Flow	20	100	100	50	30	0	300	0	0	300
Policy Evaluation	0	70	80	0	0	0	150	0	0	150
Strengthening Legal/Regulatory Base	0	40	80	80	0	0	200	0	0	200
Economic Perspectives	0	50	100	0	0	0	150	0	0	150
Regional BD Strategy and Action Plan	0	25	50	50	25	0	150	0	0	150
<b>(B) Regional Model Watershed Activities</b>	<b>0</b>	<b>860</b>	<b>1,235</b>	<b>610</b>	<b>145</b>	<b>40</b>	<b>2,890</b>	<b>0</b>	<b>0</b>	<b>2,890</b>
<b>1. Goloustnaya Watershed (Irkutsk)</b>	<b>0</b>	<b>220</b>	<b>435</b>	<b>170</b>	<b>45</b>	<b>20</b>	<b>890</b>	<b>0</b>	<b>0</b>	<b>890</b>
<b>(a) Sustainable Forest Management</b>	<b>0</b>	<b>80</b>	<b>150</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>290</b>	<b>0</b>	<b>0</b>	<b>290</b>
Forest Restoration	0	30	60	60	0	0	150	0	0	150
Fire Management Plan	0	40	60	0	0	0	100	0	0	100
Training for Forest Managers	0	10	30	0	0	0	40	0	0	40
<b>(b) Environm. Monitoring</b>	<b>0</b>	<b>25</b>	<b>25</b>	<b>50</b>	<b>25</b>	<b>0</b>	<b>125</b>	<b>0</b>	<b>0</b>	<b>125</b>
<b>(c) Envir.-Economy Linkages</b>	<b>0</b>	<b>20</b>	<b>80</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>100</b>
<b>(d) Watershed Management Capability</b>	<b>0</b>	<b>25</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>85</b>	<b>0</b>	<b>0</b>	<b>85</b>
<b>(e) Recreation Management Plan</b>	<b>0</b>	<b>25</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>75</b>	<b>0</b>	<b>0</b>	<b>75</b>
<b>(f) Env. Education Program and Info. Center</b>	<b>0</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>100</b>	<b>0</b>	<b>0</b>	<b>100</b>
<b>(g) Grazing and BD Conservation</b>	<b>0</b>	<b>15</b>	<b>30</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>65</b>
Est. of Botanical Reserve	0	5	10	0	0	0	15	0	0	15
Est. of Grazing Regime	0	10	20	20	0	0	50	0	0	50
<b>(h) Management Organization</b>	<b>0</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>0</b>	<b>0</b>	<b>50</b>

Project Components	GEF Expenditures, by Project Year						Project Costs, by Financier			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	GEF Sub-total	Gov't of Russia	Swiss Grant	Total Costs
<b>2. Tugnuy-Sukhara Watershed (Buryatia)</b>	0	355	480	240	40	20	1,135	0	0	1,135
(a) Land Use Plan	0	60	60	80	0	0	200	0	0	200
(b) Monitoring Program	0	20	20	40	20	0	100	0	0	100
(c) Agriculture	0	75	90	0	0	0	165	0	0	165
<i>Alternative Crops and Breeds</i>	0	35	40	0	0	0	75	0	0	75
<i>Soil Erosion</i>	0	40	50	0	0	0	90	0	0	90
(d) Sustainable Forest Management	0	115	185	40	0	0	340	0	0	340
<i>Forest Restoration</i>	0	20	40	40	0	0	100	0	0	100
<i>Fire Management</i>	0	40	60	0	0	0	100	0	0	100
<i>Env.-Economy Linkages</i>	0	40	60	0	0	0	100	0	0	100
<i>Training of Forestry Managers</i>	0	15	25	0	0	0	40	0	0	40
(e) Managing for BD Conservation and Use in a PA	0	65	85	40	0	0	190	0	0	190
<i>Management Plans for Zakazniks</i>	0	35	40	0	0	0	75	0	0	75
<i>Legislative Protection for Zakazniks</i>	0	20	25	0	0	0	45	0	0	45
<i>Env. Appropriate Methods of Land and Resource Use</i>	0	10	20	40	0	0	70	0	0	70
(f) Env. Education and Extension Consulting Service	0	10	20	20	20	20	90	0	0	90
(g) Watershed Management	0	10	20	20	0	0	50	0	0	50
<b>3. Khilok Watershed (Chita)</b>	0	285	320	200	60	0	865	0	0	865
(a) Land Use Plan	0	70	75	80	0	0	225	0	0	225
(b) Monitoring Program	0	30	40	40	40	0	150	0	0	150
(c) Sustainable Forest Management	0	150	170	50	0	0	370	0	0	370
<i>Forest Restoration</i>	0	50	50	50	0	0	150	0	0	150
<i>Fire Management</i>	0	50	50	0	0	0	100	0	0	100
<i>Env.-Economy Linkages</i>	0	30	50	0	0	0	80	0	0	80
<i>Training of Forestry Managers</i>	0	20	20	0	0	0	40	0	0	40
(d) Env. Education and Extension Consulting Service	0	15	15	20	20	0	70	0	0	70
(e) Inst. Strengthening for Watershed Planning	0	20	20	10	0	0	50	0	0	50
<b>(C) Local Biodiversity Initiatives</b>	100	500	500	500	500	400	2,500	0	0	2,500
<b>Project Management</b>	461	317	307	287	287	147	1,806	644	0	2,450
(i) Central PIG	246	152	152	152	152	80	934	330	0	1,264
(ii) General Consultant	90	45	35	25	25	0	220	0	0	220
(iii) Baikal Supervisory Committee	20	30	30	20	20	16	136	98	0	234
(iv) Irkutsk PIG	35	30	30	30	30	17	172	72	0	244
(v) Buryatia PIG	35	30	30	30	30	17	172	72	0	244
(vi) Chita PIG	35	30	30	30	30	17	172	72	0	244
<b>Total Project Costs</b>	1,446	5,098	5,748	4,417	2,392	997	20,098	4,772	1,144	26,014

**C. Detailed GEF-financed Project Costs, by Expenditure Account  
(US\$ thousand equivalent)**

Project Components	Goods			Services				Grants	Incremental Oper. Expenses			Total GEF
	Office & Comp. Equip.	Field & Profess'l Equip.	Vehicles	Consultants	Prof. Serv-ices	Training Workshops & Trips	Publications		Office	Staff	Other	
<b>Strategic Overview</b>	116	155	0	1,830	190	238	167					2,695
<i>(i) National and Regional BD Strategies</i>	0	0	0	283	0	50	37					370
Federal Strategy				192		24	24					240
Model Regional Strategy				91		26	13					130
<b>(ii) BD Policy Support</b>	23	0	0	1,040	100	98	130					1,390
Analysis of Economic Linkages				140								140
Guidelines on Reg. Strategy Dev't				75		15	60					150
Stakeholder Work Groups	23					53						75
Dev't of 3 Add'l Regional Strategies				225								225
Economics of BD				300	100	30	70					500
Conservation Finance Mechanisms				300								300
<b>(iii) Biomonitoring Information System</b>	93	155	0	507	90	90	0					935
Establishment of BIOTA Center	93	155		157		20						425
BIOTA Projects	0	0	0	350	0	70	0					420
<i>Biotopes</i>				110								110
<i>BD Atlas of Northern Eurasia</i>				140								140
<i>Monitoring of Mammals BD</i>				100								100
<i>GIS and BIOTA Training</i>						70						70
Incremental Operating Costs				45			45					90
<b>Protected Areas Component</b>	374	896	900	5,399	392	664	632					9,257
<i>(i) Institutional Support</i>	186	0	0	0	152	324	169					832
Strengthening the MEPNR Dept. of PA	68					68	34					170
Strengthening FFS Dept. of NP	48					48	24					120
Creation of Joint Int'l Expert Council on PA	20					70	10					100
Strengthening of 2 model Regional Zapo. Directorates	12					43	6					62
Strengthening of 5-6 Regional Assns.	38				152	95	95					380
<b>(ii) Operations and Planning</b>	0	350	0	1,525	0	0	0					1,875
Establishing an Information Net		350										350
Development of 10-12 Management Plans				1,300								1,300
Establishing Ecosystem Monitoring Stations in PA				25								25
Scientific Research Grants in PA				200								200

Project Components	Goods			Services				Grants	Incremental Oper. Expenses			Total GEF Expenses
	Office & Comp. Equip.	Field & Profess'l Equip.	Vehicles	Consultants	Prof. Serv-ices	Training Work-shops & Trips	Publications		Office	Staff	Other	
<b>(iii) Public Support and Education Programs</b>	0	0	0	1,585	240	0	390					2,215
Dev't of Coord. Center for Env. Educ. and Publ. Support												0
System of 8-10 model school projects of env. enlightenment				1,185								1,185
Creation of field guides and exhibits in PA							330					330
Creation of video materials on PA, for television				240								240
Publication of Newsletter and Sci.-Popular J. of Conservation							60					60
Support of Ecotourism Dev't in 1-2 Model PA				400								400
<b>(iv) Ecosystem Protection</b>	188	546	900	2,149	0	188	0					3,970
Strengthening the Protection Services for 10-15 model PA		450	900	150								1,500
- dev't of Protection services mgmt. plans				150								150
- protection services equipment		450	900									1,350
Protection of Rare Species and Integrated Ecosystems		96		224								320
Dev't of plans of organization of new federal PA				1,400								1,400
Creation of 3 regional systems of PA	188			375		188						750
<b>(v) Training</b>	0	0	0	140	0	152	73					365
Four annual advanced training courses for PA managers												0
Five regional in-service wkshps, dev't of handbook						92	23					115
Writing of conservation acad. courses for college students				140		60	50					250
<b>Lake Baikal Regional Component</b>	204	90	0	2,910	229	247	161	2,500				6,340
<b>(A) Inter-regional Activities</b>	8	90	0	800	0	15	38					950
Data and Information Flow		90		210								300
Policy Evaluation				150								150
Strengthening Legal/Regulatory Base				200								200
Economic Perspectives	8			120			23					150
Regional BD Strategy and Action Plan				120		15	15					150



Project Components	Goods			Services				Grants	Incremental Oper. Expenses			Total GEF Expenses
	Office & Comp. Equip.	Field & Profess'l Equip.	Vehicles	Consultants	Prof. serv-ices	Training Work-shops & Trips	Publications		Office	Staff	Other	
<b>(B) Regional Model Watershed Activities</b>	<b>196</b>	<b>0</b>	<b>0</b>	<b>2,110</b>	<b>229</b>	<b>232</b>	<b>123</b>					<b>2,890</b>
<b>1. Goloustnaya Watershed (Irkutsk)</b>	<b>60</b>	<b>0</b>	<b>0</b>	<b>653</b>	<b>70</b>	<b>75</b>	<b>32</b>					<b>890</b>
(a) Sustainable Forest Management	45	0	0	203	30	0	12					290
Forest Restoration	45			75	30							150
Fire Management Plan				100								100
Training for Forest Managers				28			12					40
(b) Environm. Monitoring				125								125
(c) Envir.-Economy Linkages				100								100
(d) Watershed Management Capability				85								85
(e) Recreation Management Plan				75								75
(f) Env. Education Program and Info. Center					40	40	20					100
(g) Grazing and BD Conservation	0	0	0	65	0	0	0					65
Est. of Botanical Reserve				15								15
Est. of Grazing Regime				50								50
(h) Management Organization	15					35						50
<b>2. Tugnuy-Sukhara Watershed (Buryatia)</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>833</b>	<b>101</b>	<b>71</b>	<b>65</b>					<b>1,135</b>
(a) Land Use Plan	20			180								200
(b) Monitoring Program				100								100
(c) Agriculture	0	0	0	165	0	0	0					165
Alternative Crops and Breeds				75								75
Soil Erosion				90								90
(d) Sustainable Forest Management	30	0	0	278	20	0	12					340
Forest Restoration	30			50	20							100
Fire Management				100								100
Env.-Economy Linkages				100								100
Training of Forestry Managers				28			12					40
(e) Managing for BD Conservation and Use in a PA	0	0	0	110	45	0	35					190
Management Plans for Zakazniks				75								75
Legislative Protection for Zakazniks					45							45
Env. Appropriate Methods of Land and Resource Use				35			35					70
(f) Env. Education and Extension Consulting Service					36	36	18					90
(g) Watershed Management	15					35						50

Project Components	Goods			Services				Grants	Incremental Oper. Expenses			Total GEF Expenses
	Office & Comp. Equip.	Field & Profess'l Equip.	Vehicles	Consultants	Prof. Serv-ices	Training Work-shops & Trips	Publications		Office	Staff	Other	
<b>3. Khilok Watershed (Chita)</b>	71	0	0	624	58	86	26					865
(a) Land Use Plan	11			191		23						225
(b) Monitoring Program				150								150
(c) Sustainable Forest Management	45	0	0	283	30	0	12					370
Forest Restoration	45			75	30							150
Fire Management				100								100
Env.-Economy Linkages				80								80
Training of Forestry Managers				28			12					40
(d) Env. Education and Extension Consulting Service					28	28	14					70
(e) Inst. Strengthening for Watershed Planning	15					35						50
<b>(C) Local Biodiversity Initiatives</b>								2,500				2,500
<b>Project Management</b>	70	0	36	190	0	123	0		168	1,064	155	1,806
(i) Central PIG	60	0	15	0	0	75	0		150	534	100	934
(ii) General Consultant	0	0	0	190	0	30	0		0	0	0	220
(iii) Baikal Supervisory Committee	10	0	0	0	0	18	0		0	98	10	136
(iv) Irkutsk PIG	0	0	7	0	0	0	0		6	144	15	172
(v) Buryatia PIG	0	0	7	0	0	0	0		6	144	15	172
(vi) Chita PIG	0	0	7	0	0	0	0		6	144	15	172
<b>Total Project Costs</b>	763	1,141	936	10,329	811	1,271	960	2,500	168	1,064	155	20,098

## ANNEX 4.2

### PROCUREMENT PLAN

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#### I. TECHNICAL ASSISTANCE COMPONENTS

##### A. General

1. **Procurement Administration.** The procurement plan and schedule for the project are summarized in Schedule B. The Project Implementation Group (PIG) at the CPPI will be responsible for all equipment procurement and for the administrative aspects of the employment of consultants in accordance with the Grant Agreement. In meeting this responsibility, the CPPI will be assisted by a General Consultant (GC) and one of the GC's first tasks will be assist in complying with the established procurement procedures currently in use by CPPI in the EMP, and training additional PIG staff in detailed procurement planning and scheduling, preparation of documents, inviting bids and quotations, setting up procedures for receipt, public opening and recording of bids, evaluation, awarding of contracts, and complying with the Bank's review and "no objections" requirements. The GC will also assist in setting up the PIG office and computer equipment.

2. **Procurement Planning.** Typical procurement schedules covering ICB equipment and consultant selection will be given in the Project Implementation Manual. These schedules are consistent with those being used on other Bank projects in the Russian Federation. Specific equipment and consultant procurement schedules will also be given in the Project Implementation Manual. Over time, the PIG will refine these schedules based on actual experience.

##### B. Equipment

3. Equipment procurement will be timed to meet the needs of the particular component. Thus, while it might seem attractive to procure all computers in one package, because of storage difficulties and possible security risks, some computers will be procured later in the implementation phase. The alternative of phased delivery by the supplier might not allow users to take advantage of technology upgrading.

4. **Documents.** The Bank's Standard Bidding Documents (dated January 1995) in English will be used for the procurement of equipment. Working translations of these into Russian are available for facilitating use of the Standard Documents and will be held on computer by the PIG.

5. **Methods of Procurement.** Packages of equipment above US\$300,000 will be procured through ICB. Russian manufacturers competing under ICB would receive a preference in bid evaluation as detailed in paragraphs 2.54 and 2.55 of the Bank Guidelines and Appendix 2 thereof. For equipment and goods below an estimated contract value of US\$300,000, procurement will be through International Shopping. National Shopping will be used for items and packages below US\$50,000 including regular office and technical supplies.

6. The lists and specifications of regular equipment to be procured for the project (excluding the Baikal Local Biodiversity Activities sub-component) will be prepared by the PIG. However, because of their specialist nature, specifications for technical equipment (e.g. GIS and monitoring equipment) will be

prepared by the technical consultants for the subcomponents. The timing of specification preparation is given in the relevant equipment procurement schedules.

7. The project will require three different levels of computer. First, "scientific" level computers will be required for the BIOTA Information Network sub-component. These will require high level, open operating systems of the UNIX type, or equivalent. They will also be using software for which annual license fees are required. Second, most sub-component implementation teams also require computers with fast operating systems (586, Pentium or equivalent), 8MB RAM and memory well in excess of 200MB. These have been termed "higher level" computers. Third, offices will require both stand alone and linked "workstations".

8. Depending on the size of the packages, most computer procurement will be through ICB and will require specifications which allow reputable suppliers to bid. However, there are specific requirements for the project computers. All the workstation computers must be capable of running the same applications, interchanging data in a compatible format and, in some cases, sharing the same applications. Higher level computers must also be capable of running workstation applications plus those for which they are designed. Thus, all operating systems must be compatible and must also be able to run MS-DOS applications. The computers must also be able to run widely recognized word processing, spreadsheet, project management and data base applications. It would also be an advantage if these applications were identical or compatible with those used by the Bank. Thus, while the computer's operating system will not be specified, its required characteristics will be based on the above requirements.

9. Given the "off the shelf" nature of the higher level and workstation computers, a two stage bidding procedure will not be adopted. However, technical merit will be taken into account in the evaluation of bids. The technical merit parameters will include (inter alia): speed of processor running applications designed for it and also running in an "emulation" mode for other applications; the length of time the supplier has been in business; and the servicing arrangements in Russia.

10. Component equipment lists will be given in the GEF annex to the Project Implementation Manual.

11. ***The Bank's Prior Review Requirements.*** For equipment procured for the technical assistance components of the Project: for all contracts greater than US\$100,000, the Bank's prior review will be as specified in Appendix 1 to the Bank's Guidelines for Procurement. Also the first contract in each procurement category will be subject to the Bank's prior review regardless of its value.

### **C. Consulting Firms Contracts**

12. ***Procedures and Administration.*** Consultants will be selected and employed in accordance with the Bank's Guidelines on the Use of Consultants. The PIG will be responsible for developing and administering this policy and will produce detailed procedures which all component management groups (CMGs) will follow. However, the procedures will be designed such that the project's Supervisory Committee, Project and Component Managers will have the major input into the actual selection of consulting firms and the professional management of their contracts. Thus the PIG will be responsible for administrative aspects of the selection and employment process and for the routine administration of consultant contracts, with the PM being: (a) responsible for the professional management of the consulting firm's assignment; and (b) the recipient of the consulting firm's output.

13. **Estimated Costs.** For budget purposes, foreign consulting services have been estimated on the basis of US\$10,000/month (US\$15,000/month for managers) inclusive of social costs, overhead, fee and overseas allowance. An additional amount of US\$10,000/month has been allowed for living costs, foreign and local travel and contingencies. Russian consulting firm rates have been estimated at US\$1,500-2,000/month.

14. **Consultants' Terms of Reference.** The status of preparation of terms of reference for the major consulting assignments is given in the Project Implementation Manual. Prior to inviting proposals, with the exception of the strategic overview component consultants, the terms of reference for each subcomponent technical assistance assignment will be reviewed by the General Consultant (expected to be appointed in May/June 1996), in conjunction with the PSC, the PIG and the PM, and cleared by the Bank. The terms of reference for assignments later in the project cycle will be drafted nearer the time when they are required.

15. **Selection Procedures.** Above an estimated value of US\$100,000, proposals will be invited from a short list of consulting firms. Proposal evaluation will be on technical merit. However, a budget for the assignment will be included in the Letter of Invitation as outlined in the Bank's Guidelines.

16. **Selection Committees.** Selection Committees will be convened jointly by the Project Supervisory Committee (or Baikal Supervisory Committee) and by the Project or Component Director responsible for the assignment in accordance with CPPI procedures. The Director will work closely with the PIG in conducting the affairs of the Selection Committee. The PIG will act as a resource, will provide administrative support for the Committee, and will be represented on the Committee. However, the appropriate Supervisory Committee will have majority representation on a Selection Committee.

17. **Data on Consulting Firms.** The PIG will be responsible for building and maintaining data on consulting firms. The Bank will make available to the CPPI data from the DACON system. The data will also be made available to CM's.

18. **Documents.** The Bank's standard documentation will be used for consultant selection and employment. As for equipment, the working translations of these into Russian will be held on the PIG computer data base to facilitate the use of the Standard Documents.

19. **Contracts.** In general, contracts with consulting firms will be of two years duration. However, a contract over two years duration will include a provision requiring a major review after the first 21 months to assess the consulting firm's performance and to determine the need for and/or scope of the future work.

20. **Bank's Prior Review Requirements.** For all consulting firm contracts over US\$100,000 the Bank would wish to receive for its review and clear the following:

**Prior to Invitation.**

- (i) The short list of firms proposed to be invited for an assignment;
- (ii) The Invitation Package including:
  - (a) the proposed Terms of Reference and details of the assignment budget;

- (b) the Letter of Invitation and Supplementary Information for Consultants with full details of the proposed evaluation procedure; and
- (c) Any variations from the Bank's standard contract.

**Prior to contract Negotiations:**

- (a) a copy of the winning proposal with the right to request copies of all proposals if required.

**Prior to contract signature:**

- (a) a copy of the proposed contract with the final terms of reference.

**After contract signature:**

- (a) two confirmed copies of the signed contract.

**D. Contracts With Individual Consultants**

21. **General.** The costs of project personnel specifically engaged to prepare and implement the project will be financed under the project. The project personnel include the PM and staff of the PIG, the component and subcomponent teams' staff, and individual experts advising the Supervisory Committee.

22. **Policies.** The PIG will be responsible for developing personnel policies such that there is reasonable consistency in terms, conditions and benefits for all project consultants. A consultant scale consistent with scales under other Bank financed projects, is to be determined by the MEPNR.

23. **Selection.** Selection of consultants under individual contracts will be on the basis of three CVs with the selection being made by the PSC. For higher level positions, the "no objections" of the PIG will be required. The Bank's "no objections" are required for all individual consultant contracts above \$50,000.

24. **Contracts.** A contract for the employment of the Project Manager (in Russian and English) has been agreed with the Bank and, with appropriate modifications, will be used as a basis for all individual consultant contracts. Where individual Russian and foreign experts are employed on a subcontract basis with the main subcomponent technical assistance consultants, the latter's contract will be designed to cover these subcontracts. Individual consultant contracts will be of one year's duration, but may be extended by mutual agreement.

25. **Payroll.** To facilitate Bank replenishments of the Special Account, the PIG together with the CPPI will set up a payroll accounting system and require CM's to set up similar payroll accounting systems acceptable to the PIG and to the Bank. Rather than require documentation to support payment to each individual consultant, the Bank will accept the documentation certified by the PIG covering payroll accounts. With the exception noted in para. 24 the Bank will not require its prior review of specific individual consultant contracts, but reserves the right to review such contracts on a random basis.

## **E. Professional, Research and Legal Services**

26. The project includes for professional, research and legal services to be undertaken under each component. While the general scope of most of these services is known, preparation of detailed terms of reference will be carried out by the Supervisory Committees, CM's and subcomponent consulting firms. Selection and employment of consultants to carry out these services will be in accordance with the CPPI's procedures and the Bank's guidelines.

## **F. Training**

27. All three project components include training activities. With the PIG, the General Consultant will be the focal point for facilitating training activities to achieve economies of scale and to avoid duplication of effort. Above US\$100,000, proposals would be invited from at least three training institutions and these would be evaluated as for consulting firm assignments with the Bank's prior review requirements being met. The Project Implementation Manual includes equipment lists, costs, schedules and consultant selection schedules.

## **II. THE BAIKAL LOCAL BIODIVERSITY ACTIVITIES SUB-COMPONENT**

28. *Procurement Administration.* Detailed procurement procedures for the Baikal Local Biodiversity Activities (including selection and award of small grants) were discussed at negotiations and relevant provisions included in the GEF Grant Agreement. The Lake Baikal Supervisory Committee (BSC) will be responsible for procurement by small grant recipients in close liaison with the General Consultant. The Bank's standard procurement documents will be used with appropriate modifications to reflect the Lake Baikal Supervisory Committee as the grants' administrator.

29. *Methods of Procurement.* Because of the nature and size of small grants (typically between US\$1,000 and US\$50,000) ICB procurement will not be applicable for this sub-component. Packages above US\$50,000 per contract will be procured by International Shopping on the basis of price quotations obtained from at least three suppliers from at least two countries eligible under the Guidelines, in accordance with procedures acceptable to the Bank. Below \$50,000 per contract procurement of goods will be by National Shopping awarded on the basis of a comparison of price quotations obtained from at least three suppliers from the Russian Federation eligible under the Guidelines, in accordance with procedures acceptable to the Bank. Procurement of minor civil works in communities, if included by a grant applicant as a separate component in a small grant package (all below \$10,000 per grant), may be done under fixed price, lump sum sub-contracts on the basis of quotations obtained from three qualified domestic contractors in response to a written invitation which shall include detailed description of works, including basic qualifications, the required completion date, basic form of agreement acceptable to the Bank, and relevant drawings, etc. For sub-contracts in scattered and remote locations (under \$3,000 per grant), sole source contracting may be considered, if otherwise impractical.

30. *Items to be Procured.* The items and packages to be procured are likely to be infrastructural and consultative in nature. To maximize the impact of the small grants in supporting biodiversity conservation and natural resource management, the sub-component is likely to finance equipment, civil works and services.

31. *The Bank's Prior Review Requirements.* For each annual small grants program, the Baikal Component Supervisory Committee would develop standard grant application package (detailing the

proposed advertisement, application format, proposal evaluation criteria, award procedures and monitoring and reporting requirements), which would have to be reviewed by the Bank.

32. ***Consulting Firm Contracts.*** The Small Grant recipients will have to follow its procedures for the selection and employment of consultants. These procedures will follow the Bank's Guidelines on the Use of Consultants. The BSC will also follow the Bank's Guidelines when employing technical assistance for its own use. Working with the PIG, the BSC will build up its own data base on technical expertise and will use the DACON information as an input.



### Procurement Plan: Arrangements for Major Contracts

Type	Lot/Item No.	Nature of Packages	Estimated Cost (US\$ equiv.)	Procurement Method *	Major Activities Schedule (Dates)			
					Issue of Documents	Bid Prep./ Submission	Contract Signature	Delivery Complete
<b>Goods</b>	1 - 3	Computer & Office Equipment (PIG, MEPNR, FFS) - 3 lots up to \$70,000 per lot	186,000	IS	4/96	5/96	7/96	10/96
	4 - 5	Ditto (Strategic Component sites) - 2 lots up to \$45,000 per lot	68,000	NS	8/96	9/96	12/96	3/97
	6 - 8	Ditto (Regional Assn's of PA) - 3 lots up to \$65,000 per lot	188,000	IS	6/97	7/97	10/97	1/98
	9 - 11	Ditto (Other PA Component sites) - 3 lots up to \$40,000 per lot	70,000	NS	8/96	9/96	12/96	3/97
	12 - 20	Ditto (Baikal Component sites) - 9 lots up to \$40,000 per lot	204,000	NS	8/96	9/96	12/96	3/97
	21	GIS Equipment (BIOTA Center)	248,000	IS	10/96	12/96	3/97	7/97
	22	Ditto (PA Info. Network)	350,000	ICB	4/97	6/97	9/97	2/98
	23	Ditto (Baikal Component)	90,000	IS	6/97	8/97	11/97	3/98
	24	Protection Equip. (Rare Species Program)	96,000	IS	6/97	8/97	11/97	3/98
	25	Ditto (Protection Services)	230,000	IS	10/97	12/97	2/98	5/98
	26	Field Research Equip. (Protection Services)	220,000	IS	10/96	12/96	3/97	7/97
	27 - 33	Vehicles (Protection Services) - 7 regional lots up to \$130,000 per lot	900,000	IS	10/97	12/97	2/98	5/98
	34 - 37	Ditto (PIG, Baikal teams) - 4 lots	36,000	NS	7/96	8/96	10/96	1/97
	38 - 42	Publication/Training Packages (Strategic Component) - 5 lots up to \$70,000 per lot	212,000	IS/NS	8/96 1st yr.	10/96	12/96	3/97
	43 - 56	Ditto (Field Guides & Exhibits) - 14 lots up to \$25,000 per lot	330,000	NS	8/96 1st yr.	10/96	12/96	3/97
	57 - 68	Publication/Training Packages (Other PA packages) -	302,000	NS	8/96 1st yr.	10/96	12/96	3/97

Type	Lot/Item No.	Nature of Packages	Estimated Cost (US\$ equiv.)	Procurement Method *	Major Activities Schedule (Dates)			
					Issue of Documents	Bid Prep./ Submission	Contract Signature	Delivery Complete
		12 lots up to \$50,000 per lot						
	69 - 77	Ditto (Baikal Component) - 9 lots up to \$35,000 per lot	161,000	NS	8/96 1st yr.	10/96	12/96	3/97
<b>Services</b>	1	General Consultant	220,000	Ind.	3/96	4/96	6/96	6/01
	2	Federal Biodiversity Strategy	216,000	SL	7/96	8/96	10/96	10/98
	3	Nizhniy Novgorod Regional Pilot Strategy	117,000	SL	5/97	6/97	8/97	8/99
	4 - 6	Other Regional Strategies - 3 lots up to \$75,000 per lot	225,000	SL	5/98	6/98	8/98	8/00
	7	Biodiversity Economics	430,000	SL	7/96	8/96	10/96	10/00
	8	Conservation Finance Studies	300,000	SL	10/96	12/96	2/97	2/99
	9-12	Other Strategic Policy Support and Training - 4 lots up to \$140,000 per lot	282,000	SL	7/96	9/96	11/96	11/99
	13	BIOTA Center Development & Support	177,000	SL/SS	8/96	10/96	1/97	1/99
	14 - 17	Biomonitoring Information Network Programs - 4 lots up to \$140,000 per lot	420,000	SL/SS	8/96	10/96	1/97	1/99
	18 - 29	Protected Areas Management Plans - 10-12 lots up to \$130,000 per lot	1,300,000	SL/SS	7/97 1st yr.	9/97	12/97	12/98
	30 - 39	Protected Areas Model School Projects - 8-10 lots up to \$150,000 per lot	1,185,000	SL/SS	9/96 1st yr.	11/96	2/97	2/98
	40 - 41	Ecotourism Support Model Projects - 1-2 lots up to \$400,000 per lot	400,000	SL	11/97	1/98	4/98	4/00
	42 - 53	Plans of Org. of New Federal PA's - 10-12 lots up to \$140,000 per lot	1,400,000	SL/SS	9/96 1st yr.	1/97	3/97	3/98
	54 - 56	Plans of Org. of New Reg'l Systems of PA's - 3 lots up to \$130,000 per lot	375,000	SL/SS	9/96 1st yr.	1/97	3/97	3/98
	57 - 62	Support to Regional Associations of PA's - 5-6 lots up to \$35,000 per lot	152,000	SL/SS	7/97	9/97	12/97	12/99
	63 - 67	Other PA Studies and Management Plans - 5 lots up to \$240,000	839,000	SL	7/97 1st yr.	9/97	12/97	12/99

Type	Lot/Item No.	Nature of Packages	Estimated Cost (US\$ equiv.)	Procurement Method *	Major Activities Schedule (Dates)			
					Issue of Documents	Bid Prep./ Submission	Contract Signature	Delivery Complete
		per lot						
	68 - 73	Conservation Academic Courses for College Students - 3-6 lots up to \$50,000 per lot	140,000	SL/Ind.	10/96 1st yr.	12/96	2/97	8/97
	74 - 83	Other PA Education & Training Programs - 10 lots up to \$95,000 per lot	664,000	SL/SS	10/96 1st yr.	12/96	2/97	8/97
	84 - 89	Lake Baikal Inter-Regional Studies and Strategy - 6 lots up to \$210,000 per lot	815,000	SL	9/96	11/96	1/97	1/00
	90 - 97	Goloustnaya Model Watershed Programs (Irkutsk) - 8 lots up to \$235,000 per lot	798,000	SL/SS	9/96	11/96	1/97	1/00
	98 - 104	Tugny Model Watershed Programs (Buryatia) - 7 lots up to \$300,000 per lot	1,005,000	SL/SS	9/96	11/96	1/97	1/00
	105 - 109	Khilok Model Watershed Programs (Chita) - 5 lots up to \$315,000 per lot	768,000	SL/SS	9/96	11/96	1/97	1/00
	110 - 114	Project Management Annual Workshops	93,000	SS	5/96 1st yr.	6/96	7/96	9/96
Grants	---	Baikal Community Investment Grants - annual programs up to \$500,000/yr.	2,500,000	IS/NS/SL/SS/Ind.	10/96 1st yr.	2/97	4/97	4/98
Increm. Operat. Expenses	---	Project Management Staff - about \$215,000/yr.	1,064,000	Ind.	3/96	4/96	6/96	6/01
	---	Other Operating Expenses - about \$65,000/yr.	323,000	NS	5/96 1st yr.	6/96	7/96	9/96

\* Procurement methods: ICB - International Competitive Bidding; IS - International Shopping; NS - National Shopping; SL - Short List of Consulting Firms (standard technical evaluation); SS - Sole Source Firms; Ind. - Individual Consultant Selection.



## ANNEX 5.1

### MONITORING AND EVALUATION PROGRAM

Monitoring and evaluation will occur throughout the project and is a key component of supervision (see Annex 5.1.B). Additionally, mission members will be selected to provide specific expertise to evaluate aspects of individual components.

The project has built-in monitoring and evaluation mechanisms to ensure that the project evolves and is responsive to changing circumstances. These mechanisms include a mid-term review and workshop which will enable project implementation to be modified appropriately. The project also provides for the establishment of a Joint International Expert Council on Protected Areas to evaluate and provide a forum for the review of project implementation in the global context. Individual project components, such as the Biodiversity Strategies and protected area management plans, will develop and specify monitorable indicators, responsible institutions and a monitoring and evaluation schedule.

The Government has established an inter-ministerial Commission for Environmental Protection and Nature Resource Management, which will, *inter alia*, support the integration of project outputs and maximize their utility in effecting the sustainable development of natural resources and biodiversity conservation in the Russian Federation. The table below (Annex 5.1.A) summarizes the approach that will be taken in the project in respect to monitoring and evaluating individual components.

#### A. Monitoring and Evaluation Criteria

Project Components	Evaluation Criteria
<b>STRATEGIC OVERVIEW</b>	
<b>(i) National and Regional Biodiversity Strategies</b>	Completion of Strategies and Action Plans; involvement of NGOs, academic community and general public; and, integration of strategies with governmental and regional administration policy
<b>(ii) Biodiversity Policy Support</b>	
• Analysis of Economic Linkages	Comprehensive assessment of major economic indicators
• Guidelines on Regional Strategy Development	Relevance to local and regional administrations and NGOs and integration with national policy
• Stakeholder Work Groups	Frequency, representativeness and relevance of participation and inclusion into the strategies' development
• Development of 3 Add'l Regional Strategies	Validity, feasibility and level of stakeholder participation
• Economics of Biodiversity	Relevance of Natural Resource Management and biodiversity conservation to economic decision makers
• Conservation Finance Mechanisms	Maintenance and enhancement of protected area and conservation programs recurrent funding requirements
<b>(iii) Biomonitoring Information System (BIOTA)</b>	Accessibility to national, international, governmental, regional, governmental and non-governmental agencies; and, ability to remain versatile and available for updating

Project Components	Evaluation Criteria
<b>STRENGTHENING PROTECTED AREA SYSTEMS</b>	
(i) Institutional Support	Integration of protected areas into a systematic approach to biodiversity conservation management between national, regional and cross-sectorial organizations; and, cost effectiveness in relation to achievable management objectives as related to individual protected area management plans
(ii) Operations and Planning	Definition of appropriate and adequate conservation measures for an adequately representative sample of biodiversity linked to measures for the sustained use of natural resources outside protected areas and contiguous local communities
(iii) Public Support and Education Programs	Development of public support for biodiversity conservation and conservation management institutions and organizations
(iv) Ecosystem Protection	Upgrading of protected area management to ensure adequate protection of biodiversity; and, linkage to international cooperation for endangered and threatened species across boundaries which divide ecosystems
(v) Training	Development of appropriate and evolving standards for professional managers and field staff, both at initial entry and throughout subsequent career progression
<b>LAKE BAIKAL REGIONAL COMPONENT</b>	
(i) Inter-regional Activities	Integration of consistent, adequate and complimentary regional approaches to natural resource management and biodiversity conservation
(ii) Regional Model Watershed Activities and Local Activities	Development of economic, environmental and socially sustainable natural resource management which allows sustained growth and equitable stakeholder participation
<b>PROJECT MANAGEMENT</b>	Efficient and timely production of specified high quality outputs. Coordination between project components and related government and non-governmental programs

## B. Supervision Plan

Project Year	Supervision Mission Number	Activity/Task	Skill Requirement	Staff Weeks
<b>PY 1</b>  April 1996 to Dec. 1996	1 July 1996	Review of legal issues, organizations and management; procurement arrangements and plan, establishment of contracts, work plans PY 1. Conduct of the Project Launch Workshop	Task Manager Institutional Expert Legal Expert Procurement Expert	8 sw
	2 Nov/Dec 1996	Review of field activities, training, procurement and disbursements; PY 1 Performance review and discuss PY 2 work program	Task Manager Conservation Expert	4 sw
<b>PY 2</b>  Jan. 1997 to Dec. 1997	3 Apr/May 1997	Review of activities, training, procurement and disbursements	Task Manager Conservation Expert	4 sw
	4 Sept/Oct 1997	Review of annual activities, training, procurement, financial performance, PY 2. Discuss annual work plan PY 3.	Task Manager Conservation Expert	4 sw
<b>PY 3</b>  Jan. 1998 to Dec. 1998	5 May/June 1988	Mid-term review - project design - training - monitoring - procurement - accounting - audit - disbursements - others	Task Manager Conservation Expert Institutional Expert Legal Expert Procurement Expert	10 sw
	6 Nov/Dec 1998	Review of activities, training, procurement and disbursements; review of activities PY 3 and discuss work plan PY 4.	Task Manager Conservation Expert	4 sw

Project Year	Supervision Mission Number	Activity/Task	Skill Requirement	Staff Weeks
<b>PY 4</b>  Jan. 1999 to Dec. 1999	7 Apr/May 1999	Review of activities, training and disbursements	Task Manager Conservation Expert	4 sw
	8 Oct/Nov 1999	Review of activities PY4 and discuss work plan PY5	Task Manager	2 sw
<b>PY 5</b>  Jan. 2000 to Dec. 2000	9 Apr/May 2000	Review of activities and disbursements	Task Manager Conservation Expert	4 sw
	10 Oct/Nov 2000	Review of activities PY5 and discuss work plan PY6	Task Manager	2 sw
<b>PY 6</b>  Jan. 2001 to Jun. 2001	11 Feb/Mar 2001	Preparation of final evaluation report	Task Manager Institutional Expert Conservation Expert	6 sw
	12 June 2001	Final review of project activities and discuss project completion report	Task Manager Conservation Expert	4 sw



## ANNEX 5.2

### PROJECT IMPLEMENTATION TIMETABLE

<b>Project Year</b>	<b><u>Activity/Task</u></b>	<b><u>Responsibility</u></b>	<b><u>Executing Period</u></b>
<b>PY 0</b>  from November 1995 to June 1996	Negotiations	Bank / GOR	April 1996
	Signature of Grant Agreement	Bank / GOR	May/June 1996
	Finalize Project Action Plan and Annexes to EMP Implementation Manual	CPPI / PIG	June/July 1996
	Establish the Supervisory Committee	MEPNR / FFS	March/April 1996
	Appoint Project teams and Director	MEPNR	April/May 1996
	Open Special Account	CPPI	June 1996
<b>PY 1</b>  from June 1996 to December 1996	Start Procurement of Goods, Services and Works	CPPI / PIG	June-Dec. 1996
	Project Launch Workshop	CPPI	July 1996
	Preparation of first semi- annual / Annual report	PIG / CPPI	November 1996
	Prepare Work program and budget for 1997	CPPI / PIG / MEPNR	December 1996
<b>PY 2</b>  from January 1997 to December 1997	Annual audit of project accounts	Bank / CPPI	January 1997
	Third semi-annual report	PIG	June 1997
	Fourth semi-annual report Prepare Annual Report	PIG / CPPI	November 1997
	Prepare Work program and budget for 1998	CPPI / PIG / MEPNR	December 1997

<b>Project Year</b>	<b><u>Activity/Task</u></b>	<b><u>Responsibility</u></b>	<b><u>Executing Period</u></b>
<b>PY 3</b>  from January 1998 to December 1998	Annual audit of project accounts  Fifth semi-annual report  Mid Term Report July 1, 1988  Sixth semi-annual report Prepare Annual Report  Prepare Work program and budget for 1999	Bank / CPPI  PIG  MEPNR / Bank  CPPI / PIG  MEPNR / CPPI / PIG	January 1998  June 1998  July-Sep. 1998  November 1998  December 1998
<b>PY 4</b>  from January 1999 to December 1999	Annual audit of project accounts  Seventh semi-annual report  Eighth semi-annual report Prepare Annual Report	Bank / CPPI  PIG  CPPI / PIG	January 1999  June 1999  November 1999
<b>PY 5</b>  from January 2000 to December 2000	Annual audit of project accounts  Ninth semi-annual report  Tenth semi-annual report Prepare Annual Report	Bank / CPPI  PIG  CPPI / PIG	January 2000  June 2000  November 2000
<b>PY 6</b>  from January 2001 to December 2001	Project Completion  Implementation Completion Report  Follow-up Disbursements  Grant Closing	MEPNR / FFS  CPPI / PIG / Bank  CPPI / Bank  Bank / GOR	June 2001  October-Dec. 2001  June 2001-June 2002  June 2002

## **ANNEX 5.3**

### **TERMS OF REFERENCE FOR PROJECT MANAGEMENT**

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#### **TERMS OF REFERENCE - Project Director**

##### **Background**

The Russian Federation Government and the World Bank (acting as an Implementing Agency for the Global Environment Facility (GEF)) has prepared a program of activities to support biodiversity conservation within the country. Annex One gives a summary of the rationale and background to the project.

The position of Director of the GEF Biodiversity Program is to be filled as soon as possible. Set out below are the Terms of Reference for the position. The suitable individual will hold the position of Deputy Minister of the Ministry of Environmental Protection and Natural Resources (MEPNR) with responsibility for the Department/Division of Biological Resources. The appointment will be for the duration of the project although it will automatically be reviewed and, if necessary, revised upon change of personnel with responsibility for the Biological Resources Department/Division.

##### **Responsibilities**

The GEF Biodiversity Director will direct and manage the GEF Biodiversity Project (hereafter called GEF BD).

The Director will:

- i. provide technical and administrative oversight for the implementation of the GEF BD, prepare proposals for GEF BD staffing, coordinate with the CPPI for the employment of specialists and coordinate implementation and reporting activities of the three Component Teams;
- ii. in cooperation with the CPPI, supervise procurement of equipment and other material necessary for the GEF BD in a timely and cost efficient manner according to Bank guidelines and procedures as adopted by the CPPI;
- iii. approve quarterly reports made by Project Manager to the CPPI detailing: a description of the actions undertaken during the reporting period; a budget report; implementation issues and recommendations for resolution; detailed planned actions (consistent with the Project Implementation Schedule and annual work program); and, recommendations for coordination of the activities being undertaken under the oversight of the Team leaders for each of the components of the project;
- iv. in consultation with the CPPI, Team leaders and the Task Manager of the World Bank develop a costed annual work program to be approved by the Minister of the MEPNR and agreed with the Director of the CPPI.
- v. in consultation with the CPPI ensure that component activities are conducted in a timely fashion and that financial and human resources are at hand to complete component tasks as specified in the project documents;
- vi. responsible for appropriate coordination, liaison, monitoring and project supervision with the Policy and regulatory Support Unit of the CPPI for the EMP, local and regional administrations and the relevant government agencies and institutions.

## **Russian Federation**

### **Global Environment Facility Biodiversity Conservation project**

#### **TERMS OF REFERENCE - Project Manager**

##### **Background**

The Russian Federation Government and the World Bank (acting as an Implementing Agency for the Global Environment Facility (GEF)) has prepared a program of activities to support biodiversity conservation within the country. Annex One gives a summary of the rationale and background to the project. The position of Project Manager of the GEF Biodiversity Conservation Program is to be filled as soon as possible. Set out below are the Terms of Reference for the position. Ideally the suitable individual will be acquainted with World Bank procedures but must be fluent in Russian and English and have recognized expertise the management of natural resource, biodiversity or environmental programs. An initial appointment will be made for a period of 12 months, and subject to performance two further period of 30 months will be considered.

##### **Responsibilities**

The main function of the Project Manager is to assist the Project Director in the administrative and logistical functions of the GEF Biodiversity Project (hereafter GEF BD). In this respect the Project Manager will:

- i. provide administrative oversight for the implementation of the GEF BD, prepare proposals for GEF BD staffing, coordinate with the Project Director and CPPI for the employment of specialists and coordinate implementation and reporting activities of the three Component Teams;
- ii. in cooperation with the CPPI, ensure procurement of equipment and other material necessary for the GEF BD in a timely and cost efficient manner according to Bank guidelines and procedures as adopted by the CPPI;
- iii. make and submit quarterly reports to the Project Director and CPPI detailing: a description of the actions undertaken during the reporting period; a budget report; implementation issues and recommendations for resolution; detailed planned actions (consistent with the project Implementation Schedule and annual work program); and, recommendations for coordination of the activities being undertaken under the oversight of the Team leaders for each of the components of the project.
- iv. in consultation with the Project Director, CPPI, Team leaders and the Task Manager of the World Bank develop a costed annual work program to be approved by the Minister of the MEPNR and agreed with Project Director and Director of the CPPI.
- v. under direction of the Project Director and in consultation with the CPPI ensure that component activities are conducted in a timely fashion and that financial and human resources are at hand to complete component tasks as specified in the project documents.
- vi. under direction of the Project Director, facilitate the appropriate coordination, liaison, monitoring and project supervision with the Policy and Regulatory Support Unit of the CPPI for the EMP, local and regional administrations and the relevant government agencies and institutions.

##### **Further Information**

The GEF Biodiversity Project Manager is employed on a contract basis, signed with the CPPI and acts on behalf of the CPPI Director.

## **The Russian Federation**

### **GEF Biodiversity Conservation Project**

#### **TERMS OF REFERENCE - General Consultant**

##### **Background**

The Russian Federation Government and the World Bank (acting as an Implementing Agency for the Global Environment Facility (GEF)) has prepared a program of activities to support biodiversity conservation within the country. Annex One gives a summary of the rationale and background to the project and Annex Two gives a detailed component description.

The position of General Consultant of the GEF Biodiversity Program is to be filled as soon as possible. Set out below are the Terms of Reference for the position. Ideally the suitable individual will be acquainted with World Bank procedures but must be fluent in Russian and English and have recognized expertise the management of natural resource, biodiversity or environmental programs. The General Consultant will have excellent interpersonal skills, worked extensively in the Russian Federation, substantial experience of program management and will have proven ability to work effectively with counterpart staff at all levels. An initial appointment will be made for a period of 14 months over the first 30 months of the project. Subject to performance a further period of 9 months over the remaining 30 months of the project will be considered.

##### **Responsibilities**

The General Consultant will report directly to the Project Director and will work on a daily basis with the Project Manager of the Biodiversity Project (hereafter called GEF BD). The General Consultant will provide impartial top level advice and assistance in the professional, technical, management and coordination aspects of the Project. In particular, the General Consultant will carry out the following tasks:-

- i. provide advise on the technical and administrative management for the for all project components, assist in the preparation of proposals for the project's staffing, assist the Project Manager in liaising and coordinating preparation and implementation of project activities;
- ii. assist in the review of quarterly reports submitted to the CPPI on the sub-component's activities. These reports will detail: a description of the actions undertaken during the reporting period; a budget report; implementation issues and recommendations for resolution; detailed planned actions (consistent with the project Implementation Schedule and annual work program); and recommendations for coordination of other component activities;
- iii. working with the CPPI and the Project Manager, review the costed annual work program for the sub-component and submit to the Component Director for review for submission to the Minister of the MEPNR and the Director of the CPPI for approval;
- iv. assist the Project manager in ensuring that component activities are conducted in a timely fashion and that financial and human resources are at hand to complete component tasks as specified in the project documents;
- v. ensure that the technical quality of the Strategic Overview component's interaction with the Policy and Regulatory Support (PRS) Component manager of the EMP. Assist in the dialogue. Advise on the activities for the GEF team working on the coordination of the biodiversity strategy and policy with the EMP PRS team as well as

with the Academy of Science so that a federal Biodiversity Strategy and Action Plan is developed with broad stakeholder and public participation;

vi. advise on the manner of appropriate coordination, liaison, monitoring and project supervision with local and regional administrations and the relevant government agencies and institutions, in particular those involved in the implementation of the Lake Baikal component.

vii. in cooperation with the CPPI, help review all Terms of Reference for the principle positions to be selected as part of project implementation.

**The Russian Federation**  
**GEF Biodiversity Conservation Project**

**TERMS OF REFERENCE**

**Director of the Strategic Overview Component**

**Background**

The Russian Federation Government and the World Bank (acting as an Implementing Agency for the Global Environment Facility (GEF)) has prepared a program of activities to support biodiversity conservation within the country. Annex One gives a summary of the rationale and background to the project. The position of Director of the Strategic Overview Component of the GEF Biodiversity Program is to be filled as soon as possible. Set out below are the Terms of Reference for the position. The suitable individual will hold the position of Director of the Department of Biological resources in the Ministry of Environmental Protection and Natural Resources (MEPNR). The appointment will be for the duration of the project although it will automatically be reviewed and, if necessary, revised upon change of personnel with responsibility for Department of Biological Resources.

**Responsibilities**

The Director of the Strategic Overview component will report to the Biodiversity Director and under the Project Director's guidance will direct and manage the GEF Strategic Overview Component of the Biodiversity Project (hereafter called GEF BD).

The Strategic Overview Director will:

- i. provide technical and administrative oversight for the implementation of the Strategic overview Component, review with the Component Manager proposals for the component's staffing, and coordinate preparation and implementation activities with the Policy and Regulatory Support Component Director of the Environmental Management Project;
- ii. on a daily basis work with the component's sub-component managers (i. national and regional biodiversity strategies and biomonitoring information system; and, ii. biodiversity policy support);
- iii. review quarterly reports submitted to the CPPI on the components' activities. these reports will detail: a description of the actions undertaken during the reporting period; a budget report; implementation issues and recommendations for resolution; detailed planned actions (consistent with the project Implementation Schedule and annual work program); and, recommendations for coordination of other component activities;
- iv. review the costed annual work program for the component, prepared by the Component Manager and the CPPI and which will be submitted to the Minister of the MEPNR and the Director of the CPPI for approval.
- v. in consultation with the CPPI and Component Manager ensure that component activities are conducted in a timely fashion and that financial and human resources are at hand to complete component tasks as specified in the project documents;
- vi. be responsible for appropriate coordination, liaison, monitoring and project supervision with local and regional administrations and the relevant government agencies and institutions. This will ensure appropriate development of the federal and regional Biodiversity Strategies and Action Plans.

**The Russian Federation**  
**GEF Biodiversity Conservation Project**  
**Strategic Overview Component**

**TERMS OF REFERENCE**

**Lake Baikal Sub-component Managers**

**Background**

The Russian Federation Government and the World Bank (acting as an Implementing Agency for the Global Environment Facility (GEF)) has prepared a program of activities to support biodiversity conservation within the country. Annex One gives a detailed component description.

Four positions of Sub-component Manager of the GEF Biodiversity Program in Lake Baikal are to be filled as soon as possible. Three are to primarily coordinate regional activities in Chita, Irkutsk and Buryatia and the fourth is to provide expertise and assistance with respect to the coordination of the inter-regional components of the project. Set out below are the Terms of Reference for the position. Ideally the suitable individual will be acquainted with World Bank procedures but must be fluent in Russian and English and have recognized expertise the management of natural resource, biodiversity or environmental programs. An initial appointment will be made for a period of 12 months, and subject to performance two further period of 30 months will be considered.

**Sub-component Activities**

The Lake Baikal component will establish a regional model (complementary to the activities undertaken under the other two components), capable of duplication, which will demonstrate the inter-sectorial and administrative coordination necessary to incorporate biodiversity protection into a development policy which meets acceptable and sustainable targets of economic growth and social-economic development. This requires a region-wide system of integrated natural resource management which treats the lake as the unit of account by integrating biodiversity values into regional economic policy and using biodiversity as the key indicator of sustainable development. All three sub-components will build on the considerable volume of preparatory work undertaken during the PPA.

The component will consist of three levels of activity - inter-regional, regional and local. This will ensure the full participation of all levels of Government as well as comprehensive stakeholder and public participation.

*Sub-component (a): Inter-regional Activities (US\$ 950,000)*

These activities will include a set of essential actions which will be carried out in each of the administrative areas, but which will be closely coordinated. They have also been designed to interrelate with similar but national scale components in Component One of the project and one of the features of the project will be to provide case experience on the linkages that will be required between similar activities at national and regional levels. Including:

- analysis of linkages between economics and environmental protection (development of matrices);
- biodiversity and environmental economics;
- data collection and dissemination;



## Responsibilities

The Biodiversity Policy Support Sub-component Manager will report directly to the Strategic Overview Component Director and under the Component Director's guidance will manage the GEF Biodiversity Policy Support Sub-component of the Biodiversity Project (hereafter called GEF BD).

The Biodiversity Policy Support Sub-component Manager will:

- i. provide technical and administrative management for the implementation of the Biodiversity Policy Support Sub-component, prepare proposals for the component's staffing, liaise and coordinate preparation and implementation activities with the Policy and Regulatory Support Component Director of the Environmental Management Project;
- ii. prepare quarterly reports submitted to the CPPI on the sub-component's activities. These reports will detail: a description of the actions undertaken during the reporting period; a budget report; implementation issues and recommendations for resolution; detailed planned actions (consistent with the project Implementation Schedule and annual work program); and, recommendations for coordination of other component activities;
- iii. working with the CPPI, prepare the costed annual work program for the sub-component and submit to the Component Director for review for submission to the Minister of the MEPNR and the Director of the CPPI for approval;
- iv. ensure that component activities are conducted in a timely fashion and that financial and human resources are at hand to complete component tasks as specified in the project documents;
- v. coordinate on a frequent basis with the Biodiversity Strategy and Biota Sub-component manager and the Policy and Regulatory Support (PRS) Component manager of the EMP. Ensure that the GEF team working on biodiversity strategy and policy are fully coordinated with the EMP PRS team as well as with the Academy of Science;
- vi. be responsible for appropriate coordination, liaison, monitoring and project supervision with local and regional administrations and the relevant government agencies and institutions. This will ensure appropriate development of the federal and regional Biodiversity Strategies and Action Plans;
- vii. in cooperation with the CPPI, prepare Terms of Reference for all sub-component activities paying particular attention to those TORs detailed in Annex 3.2 of the World Bank project document. In addition, the manager will develop regular communication with international institutions and agencies working in the field of environmental economics.

actions (consistent with the project Implementation Schedule and annual work program); and, recommendations for coordination of other component activities;

- iii. working with the CPPI, prepare the costed annual work program for the sub-component and submit to the Component Director for review for submission to the Minister of the MEPNR and the Director of the CPPI for approval;
- iv. ensure that component activities are conducted in a timely fashion and that financial and human resources are at hand to complete component tasks as specified in the project documents;
- v. coordinate on a frequent basis with the Forest Service with respect to the project provisions for national parks.
- vi. be responsible for appropriate coordination, liaison, monitoring and project supervision with local and regional administrations and the relevant government agencies and institutions.
- vii. in cooperation with the CPPI, prepare Terms of Reference for all sub-component activities.

## **The Russian Federation**

### **GEF Biodiversity Conservation Project Strategic Overview Component**

#### **TERMS OF REFERENCE**

##### **Lake Baikal Sub-component Managers**

###### **Background**

The Russian Federation Government and the World Bank (acting as an Implementing Agency for the Global Environment Facility (GEF)) has prepared a program of activities to support biodiversity conservation within the country. Annex One gives a detailed component description.

Four positions of Sub-component Manager of the GEF Biodiversity Program in Lake Baikal are to be filled as soon as possible. Three are to primarily coordinate regional activities in Chita, Irkutsk and Buryatia and the fourth is to provide expertise and assistance with respect to the coordination of the inter-regional components of the project. Set out below are the Terms of Reference for the position. Ideally the suitable individual will be acquainted with World Bank procedures but must be fluent in Russian and English and have recognized expertise the management of natural resource, biodiversity or environmental programs. An initial appointment will be made for a period of 12 months, and subject to performance two further period of 30 months will be considered.

###### **Sub-component Activities**

The Lake Baikal component will establish a regional model (complementary to the activities undertaken under the other two components), capable of duplication, which will demonstrate the inter-sectorial and administrative coordination necessary to incorporate biodiversity protection into a development policy which meets acceptable and sustainable targets of economic growth and social-economic development. This requires a region-wide system of integrated natural resource management which treats the lake as the unit of account by integrating biodiversity values into regional economic policy and using biodiversity as the key indicator of sustainable development. All three sub-components will build on the considerable volume of preparatory work undertaken during the PPA.

The component will consist of three levels of activity - inter-regional, regional and local. This will ensure the full participation of all levels of Government as well as comprehensive stakeholder and public participation.

###### *Sub-component (a): Inter-regional Activities (US\$ 950,000)*

These activities will include a set of essential actions which will be carried out in each of the administrative areas, but which will be closely coordinated. They have also been designed to interrelate with similar but national scale components in Component One of the project and one of the features of the project will be to provide case experience on the linkages that will be required between similar activities at national and regional levels. Including:

- analysis of linkages between economics and environmental protection (development of matrices);
- biodiversity and environmental economics;
- data collection and dissemination;

- evaluation and monitoring;
- analysis of sources of growth and comparative advantage;
- policy trade-offs and determination of transparent resource allocation mechanisms;
- development of uniform regional legal, environmental and economic regulatory mechanisms; and
- study of biodiversity conservation issues leading to development of Biodiversity Strategies.

*Sub-component (b): Regional Activities (US\$ 2,890,000)*

These activities will develop model biodiversity conservation activities in the Goloustnaya River, Tugnuy-Sukhara Rivers and Khilok River watersheds and will include agriculture, forestry and land improvement initiatives within an ecosystem approach. It will encourage the participation of programs implemented in remote settlements aimed at improving the use of land, water and forest resources and environmental education, as well as the creation of essential and ecologically appropriate production and social infrastructure. It will include:

- sustainable forest management programs which will incorporate an extensive series of programs on forest restoration, fire ecology and management, environmental monitoring, analysis of sustainable forest economics and forest manager training;
- extensive environmental education training programs;
- model agricultural projects - grazing, animal husbandry, arable and soil maintenance - which serve to rehabilitate degraded areas of vulnerable biodiversity;
- development of management plans for the Zakazniks within the watersheds. This will assess status of legislative protection and develop new regulations and implementation procedures to ensure biodiversity conservation;
- development of model sites within the Zakazniks which demonstrate environmentally appropriate methods of land and resource use; and,
- Each watershed will establish a management unit for the project which will ensure the involvement of all the stakeholders, including local communities and indigenous peoples.

*Sub-component (c): Local Biodiversity Activities (US\$ 2,500,000)*

Activities financed under this sub-component will provide small grants to institutions, NGOs, local communities, businesses and individuals to encourage small scale or specific programs. This would include applied research projects, environmental monitoring, ecotourism, nursery development, traditional resource use practices, appropriate husbandry programs (horse, cattle and other livestock breeding), management of protected areas, publication of environmental literature and development of local school programs. The component will encourage the participation of the native populations, representatives of remote settlements, and women.

The component will finance projects with the greatest potential to promote biodiversity conservation and improvements in natural resource management, in relation to project cost. Other considerations taken into account in project selection will include social and educational potential, replicability and thus transferability, innovation, professional development and training, use of local

knowledge and capability, post project assimilation/sustainability, and linkage to other elements of the Project. Grants under this component will range from US\$1,000 to US\$50,000. The component will not fund: (a) projects involving direct obligations of the federal, oblast, republic, or local governments, (b) pure research or administration projects, with limited tangible benefits for biodiversity conservation and environmental protection; (c) projects directly involving members of the Supervisory Committee or their affiliates.

Projects will be pre-selected by each of the regional center teams and reviewed and endorsed by the Baikal Supervisory Committee for projects which meet the requirements indicated in Annex 3.6. which includes the establishment of local advisory councils (LACs) to ensure transparent and public participation. In short, funding will be available to local groups, organizations, NGOs, academic institutions and other local entities, and individuals residing or working in the Lake Baikal region, specifically the Irkutsk and Chita Oblasts and the Buryat Republic of the Russian Federation. Funding will also be available to international individuals and groups, particularly those working in partnership with Russian counterparts.

The component will provide short, medium, and long term financing to qualified projects. All grant recipients will be required to provide the Supervisory Committee (with copies to the CPPI) with semi-annual, mid-term and project completion reports, describing project progress, problems, and future activities. At the completion of each project, or annually, if the project requires more than 18 months to be implemented, grant recipients will submit to the Supervisory Committee (with copies to the CPPI) financial statements describing the expenditures under the grant for the period in question. For grants above US\$10,000, recipients will submit audited reports issued by an independent auditing organization, concerning the financial aspects of the project.

## Responsibilities

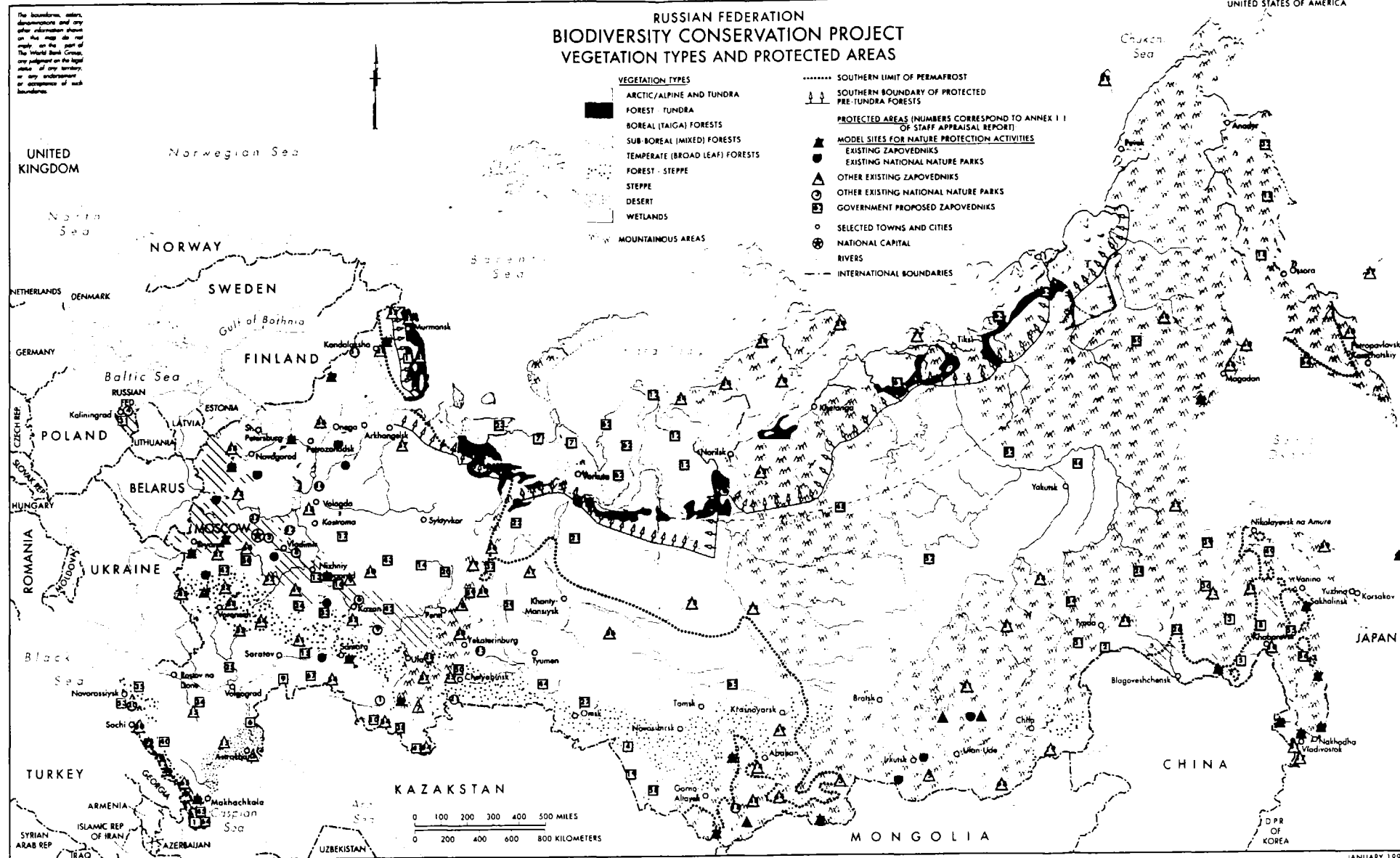
Each Sub-component Manager will report directly to each of the Sub-component Director (who are members of the relevant administration) as well as to the overall Project Director.

Each Sub-component Manager will:

- i. provide technical and administrative management for the implementation of the Lake Baikal Component, prepare proposals for the component's staffing, liaise and coordinate preparation and implementation activities with each of the other sub-component managers;
- ii. prepare quarterly reports submitted to the CPPI on the sub-component's activities. These reports will detail: a description of the actions undertaken during the reporting period; a budget report; implementation issues and recommendations for resolution; detailed planned actions (consistent with the project Implementation Schedule and annual work program); and, recommendations for coordination of other component activities;
- iii. working with the CPPI, prepare the costed annual work program for the sub-component and submit to the Component Director for review for submission to the Minister of the MEPNR and the Director of the CPPI for approval;
- iv. ensure that component activities are conducted in a timely fashion and that financial and human resources are at hand to complete component tasks as specified in the project documents;

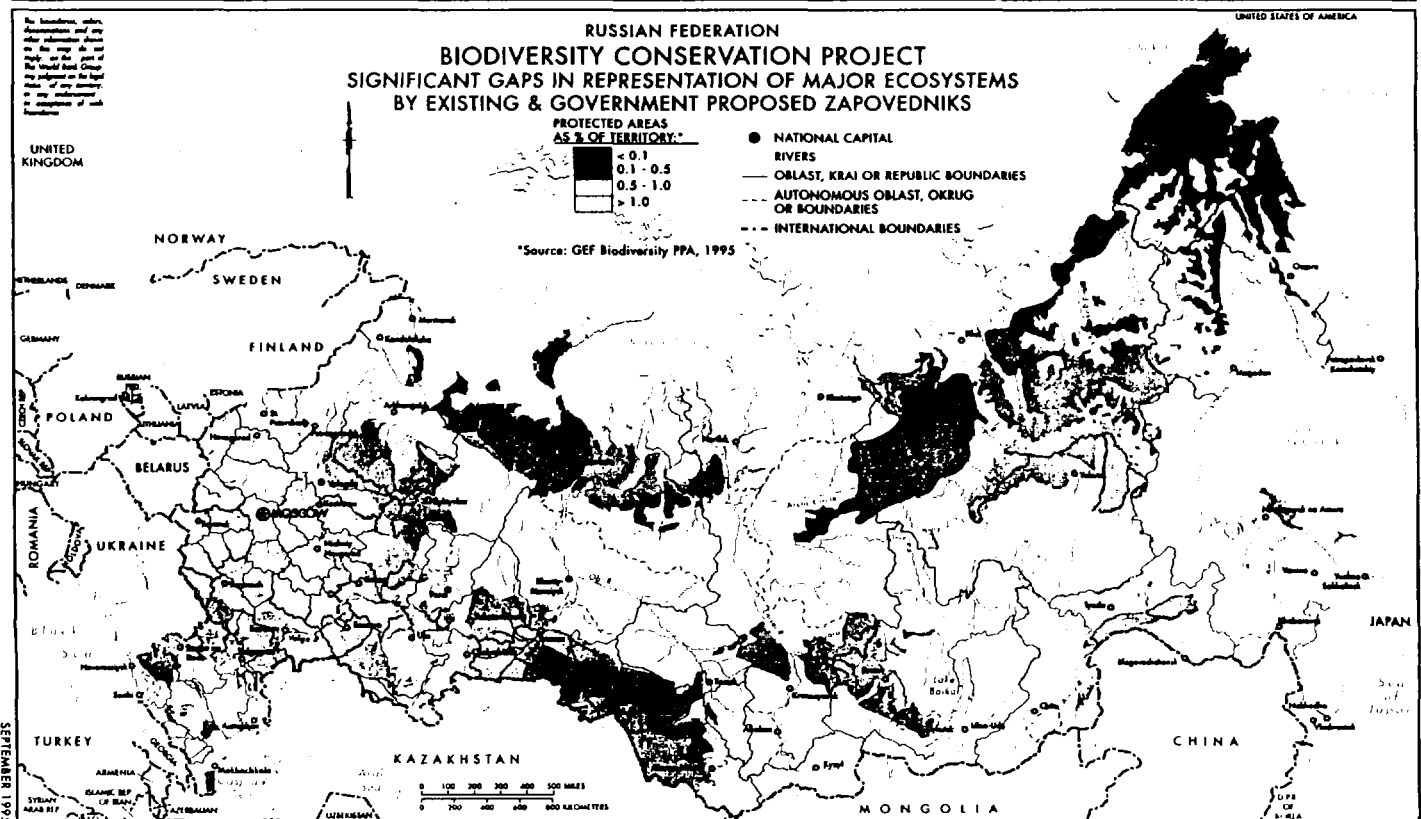
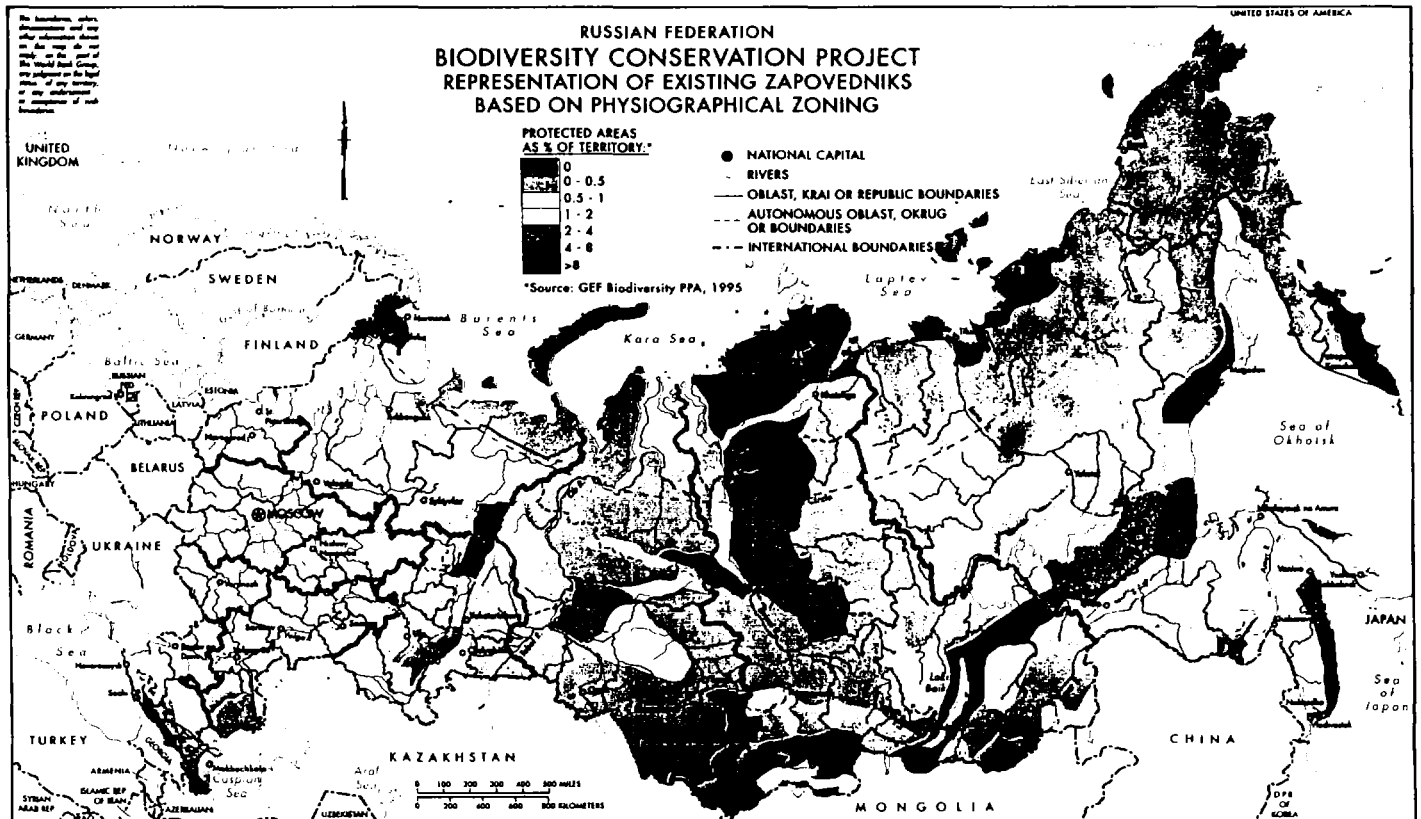
v. be responsible for appropriate coordination, liaison, monitoring and project supervision with local and regional administrations and the relevant government agencies and institutions. This will ensure appropriate development of the federal and regional Biodiversity Strategies and Action Plans;

vii. in cooperation with the CPPI, prepare Terms of Reference for all sub-component activities. In addition, the manager will develop regular communication with international institutions and agencies working in the field.



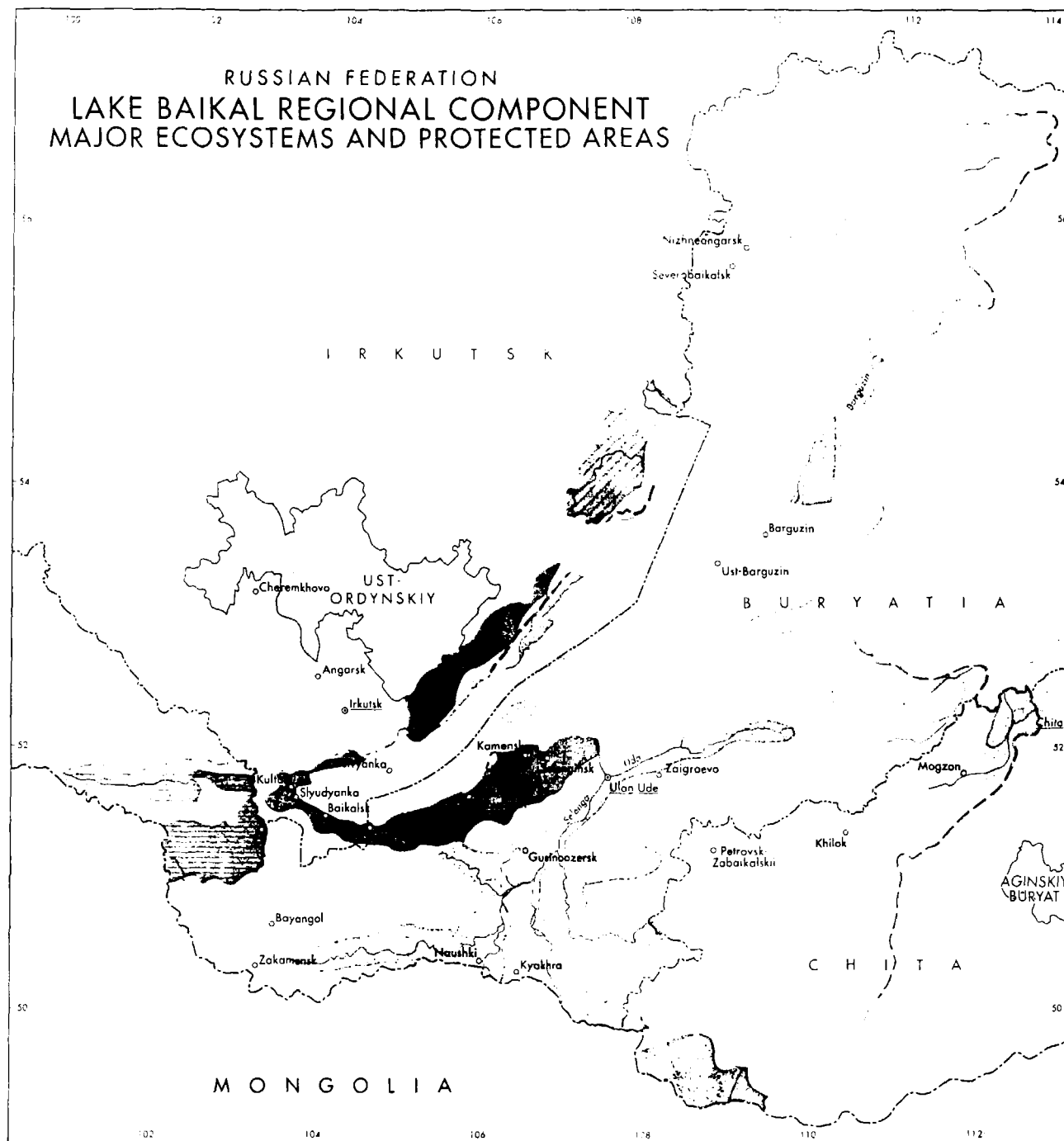








# RUSSIAN FEDERATION LAKE BAIKAL REGIONAL COMPONENT MAJOR ECOSYSTEMS AND PROTECTED AREAS



## MAJOR ECOSYSTEMS

- ALPINE, SUBALPINE, AND OPEN TAIGA WOODLAND
- MOUNTAIN-TAIGA DARK CONIFEROUS (FIR-KEDRA)
- MOUNTAIN-TAIGA LARCH
- SUBTAIGA AND FOREST-STEPPE LARCH
- SUBTAIGA AND FOREST-STEPPE PINE

## PROTECTED AND NATURAL AREAS

- STRICT RESERVES (ZAPOVEDNIKS)
- NATIONAL PARKS
- GAME REFUGES (ZAKAZNIKS)
- LAKE PROTECTION ZONE

- LAKE BAIKAL CATCHMENT AREA
- SELECTED CITIES
- REPUBLIC/OBLAST CAPITALS
- NATIONAL CAPITAL
- RIVERS
- AUTONOMOUS OKRUGS AND OBLASTS
- REPUBLICS AND OBLASTS
- INTERNATIONAL BOUNDARIES

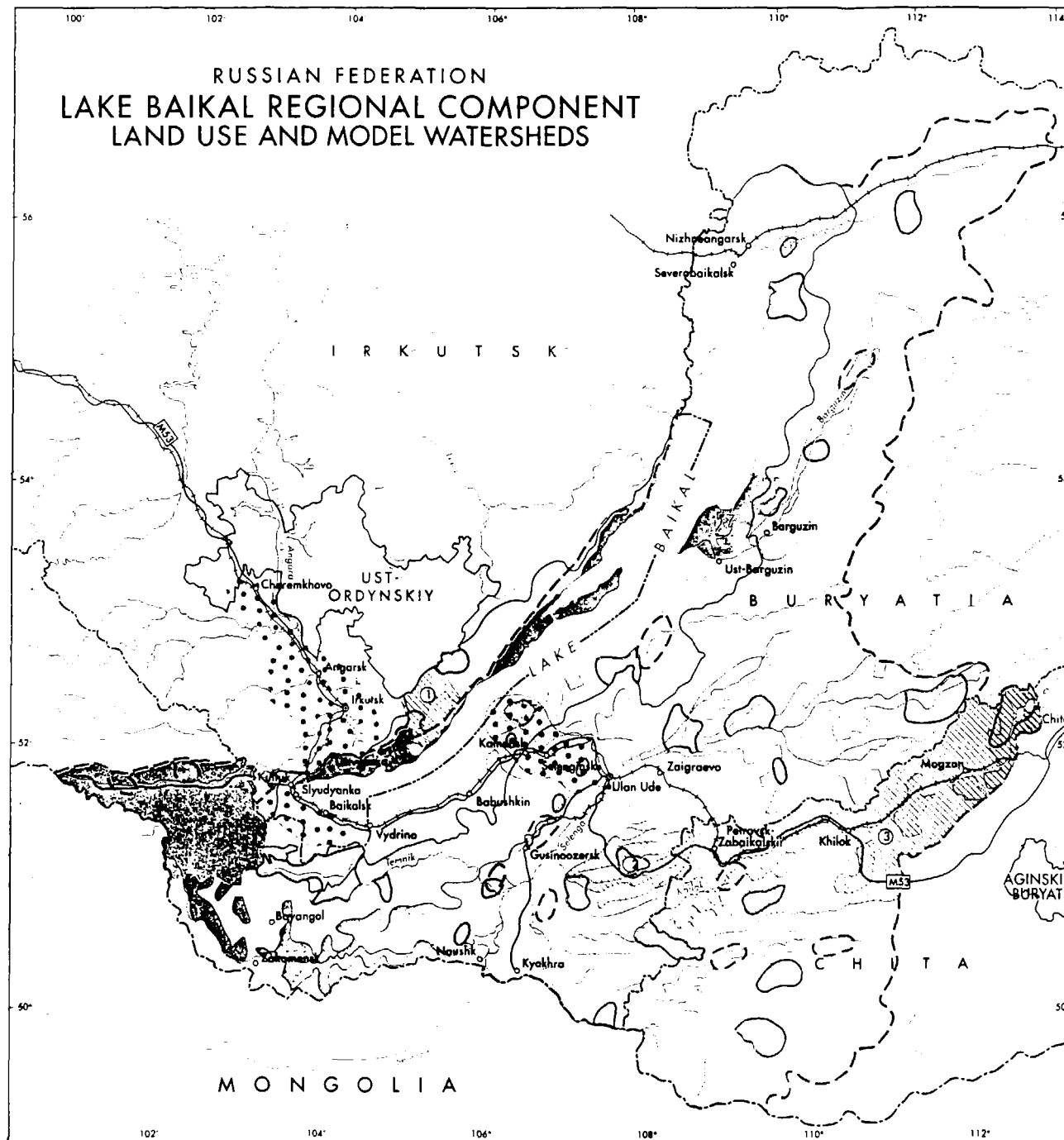
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# RUSSIAN FEDERATION LAKE BAIKAL REGIONAL COMPONENT LAND USE AND MODEL WATERSHEDS



## TYPE OF ANTHROPOGENIC INFLUENCE:

- AGRICULTURE
- FORESTRY AND HUNTING
- RECREATION
- INDUSTRY

## PROTECTED AND NATURAL AREAS:

- STRICT RESERVES (ZAPOVEDNIKS)
- NATIONAL PARKS
- GAME REFUGES (ZAKAZNIKS)
- LAKE PROTECTION ZONE

## LAKE BAIKAL CATCHMENT AREA

## MODEL PROJECT AREAS:

- ① GOLOUSTNAYA RIVER WATERSHED (IRKUTSK OBLAST)
- ② TUGNUI-SUKHARA RIVERS WATERSHED (BURYATIA)
- ③ KHILOK RIVER WATERSHED (CHITA OBLAST)

## SELECTED CITIES

## REPUBLIC/OBLAST CAPITALS

## NATIONAL CAPITAL

## ROADS

## RAILROADS

## RIVERS

## AUTONOMOUS OKRUGS AND OBLASTS

## REPUBLICS AND OBLASTS

## INTERNATIONAL BOUNDARIES

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