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Financial Planning for Biodiversity in Western Asia

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Armenia

Armenia's planning document[1] provided an information review of finances for biodiversity conservation. The financing of biodiversity conservation programmes is supported by a number of mechanisms, including the State budget and foreign contributions to projects. While environmental problems are recognised, the environment is not considered as a national priority for public expenditure. According to the Ministry for Finance and Economics, the priorities for investment include: (1) the provision of a secure energy supply; (2) maintenance of basic social services (health, education and poverty alleviation); (3) maintenance of existing infrastructure (energy, transport, communications etc.); and (4) capital investments likely to generate economic growth.

State budget: Limited State resources, and the low priority placed on environmental issues, have meant that public expenditure in this sector has been minimal to date. At present, State expenditure on the environment is effectively restricted to covering the operating costs of the Ministry of Nature Protection and its affiliated agencies. In 1998 expenditure was approximately US$980,000 or 0.3% of total public expenditure (0.06% of GDP). The current State budget meets less than 35% of the basic needs for biodiversity conservation funding, and the existing expenditure is primarily for payment of staff salaries. Almost no investment is made into equipment or other capital costs, and there is inadequate support for scientific research on biodiversity.

Environmental spending is focused on three principal areas: (1) Fisheries; (2) Forestry; and (3) Protected areas. Additional activities covered include the funding of the Environmental Inspectorate which is responsible for the enforcement of relevant legislation and regulations, and for the collection of payments for natural resource use.

Fisheries: Direct expenditure for protection and regeneration of fish stocks represents around US$34,000 annually, financed via the Ministries for Nature Protection and Agriculture. The level of expenditure is currently insufficient to make effective assessments of fish stocks, and to set sustainable levels of fishing to ensure recovery of stocks.

Forestry: Forest protection activities are financed both from the State budget (c. US$200,000 in 1998) and from the profit from selective (sanitary) felling (c. US$664,400 in 1998). Of a total income of around US$864,000 in 1998, expenditure equalled US$804,000. However, the costs of sustainable forest protection are estimated to be 4-5 times greater than current expenditures, and are likely to grow substantially. At present the average salary for forestry personnel is equivalent to US$16 per month, which undermines effective protection activities. Levels of illegal felling have been estimated to be 4-5 times higher than legal felling. Appropriate enforcement could help protect these valuable forest assets, and potentially increase income from legal felling by a factor of three or four. However, this argument is

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[1] Armenia (1999). Biodiversity Strategy and Action Plan for the Republic of Armenia: GEF Project Implemented by UNDP, Ministry for Nature Protection, Yerevan, July 1999, 114 pp.

balanced by concerns about whether such extensive felling can be sustainable, without reducing forest cover further.

Protected areas: The State budgets for the various protected areas operated under the Ministry for Nature Protection in 1998 are US$ 326,000. The protected areas expenditure can be broken down into 56% for salaries, 43% for other operational costs and less than 1% (c. US$3,260) for capital expenditure, including equipment. Despite the proportion of the budget spent on personnel, average salaries in 1998 were equivalent to US$20. Such low wages inevitably affect the capacity for effective conservation of protected areas. The amount available for capital expenditure is minimal, and underlies the current lack of technical material and equipment.

Public expenditure: Public investments in environmental protection and mitigation (including pollution control and restoration, water and energy efficiency measures) declined from US$4 million (0.25% GDP) in 1996 to US$1.6 million (0.11% GDP) in 1997. Within these figures, funding for biodiversity conservation activities is not specifically indicated.

Internationally funded programmes: At a government level, international projects requiring co-financing and loans are focused on national priorities, and have not previously included environment programmes. At present, only grant-based environmental projects have been adopted, and donors have generally dealt directly with the Ministry of Nature Protection (rather than going through the co-ordination of the Ministry of Finance and Economy). A number of internationally funded projects have been conducted through the Ministry of Nature Protection, most of which were initiated by donor organisations, although the MNP has produced its own project proposals aimed and multi- and bi-lateral donors. External funding of environmental projects is relatively recent (the first project was agreed in 1995). Since then these projects (mainly focusing on capacity building and policy development) have provided environment-related funding equivalent to approximately US$ 600,000 per annum between 1996 and 1997, roughly equivalent to the total State budget for those years (US$584,000 and US$656,000). Donor assistance tends to support immediate national priorities, and as a result environmental projects are not currently a high priority for donor agencies (excepting UNDP and related organisations), and few other international donors are interested in environmental projects. Relative to overall donor assistance in Armenia, relatively little funding has been provided for environmental issues (less than 0.2% of a total of US$354 million in 1996).

Direct economic value of biodiversity: Biodiversity provides direct and indirect economic benefits to Armenia. At present such values are not recognised or included in economic forecasts and decision making. Information on the direct use value of biodiversity suggests that the revenue from biological resources is in the region of US$ 3 million per year. This does not include indirect costs, such as revenue from tourism and recreation linked to protected areas. Assessments of potential revenue per annum from direct use of various biological resources are:

Biological resource	Potential revenue (US$)

Forest resources	84 million
Pastures and hay-lands	1.7 million
Revenues from livestock grazing	500,000
Medical herbs	50,000
Edible plants	180,000
Berries and fruits	180,000
Fisheries	122,000

The revenue generated from sustainable use of biological resources could be greatly enhanced through adoption of market pricing strategies. At present, pricing policy is generally driven by the need to raise revenue rather than by market forces. For example, timber prices are currently determined by the costs of extraction and the need to generate specific revenues, and as a result timber products are undervalued, and are sold well below international prices. It has been suggested that the introduction of modern technologies, along with revised pricing and effective marketing of timber, could increase income from forestry by 650% (to around US$7,900,000). In general, there is a need for an integrated economic policy and pricing mechanism with regard to forest and biodiversity management, which relates market values to revenue generation.

Current State budgets are insufficient to support the needs of biodiversity conservation in Armenia. At present government budgets are supplemented by funds from international donors. The biological diversity of Armenia represents an important economic asset, although the true values of biological resources are rarely considered in economic policy and pricing structures. Armenia is clearly on the way to developing a market economy and, sooner or later, the pricing of biological resources is likely to be determined by market forces.

Armenia's planning document contained 13 objectives providing quantifiable targets to be attained through the implementation of the plan, some with specific financial aims:

- To increase internal and external investments in order to conserve and regenerate landscapes and biodiversity by 30% by 2004.

- To support and extend the capacity to use science as a vital tool in guiding conservation management (including both research and monitoring), through increased investment of 15% in both relevant scientific programmes and professional training by 2004.

- To ensure the use of appropriate ecologically-friendly technologies in support of biodiversity conservation, through increased investment in this field of 10% by 2004.

The biodiversity action plan documented action/activities, related activities, related objectives, duration, estimated budget, outputs and priority. The likely cost of each activity is indicated using rough budget categories (ranges), not precise figures. While financial aspects were considered under several thematic

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areas, the action plan contained a strategic component on financial resources for implementing the BSAP, including:

- Review financing from state budget for biodiversity (Activities: review and revise the state budget for biodiversity conservation, in line with other institutional changes within management agencies - revision of financial contributions; review and revise self-financing mechanisms for supporting biodiversity conservation - self-financing mechanisms; investigate mechanisms by which realistic economic values can be placed on biodiversity within relevant State budgets - mechanisms identified; develop and implement system for using a proportion of income from payments and fines for natural resources use for biodiversity conservation - financial revisions)

- Source financing for biodiversity projects through grants and loans (Activities: develop and run a small grants scheme for biodiversity projects - grants scheme; develop a scheme of micro-credits and interest-free loans to promote sustainable use - loan scheme; establish a special grants and credits commission to disburse and monitor funds for biodiversity projects – commission; organize a coordinating unit to administer grant and credit programmes - coordinating unit; establish and manage an Environment Fund to finance biodiversity conservation projects, including applied research - fund established)

- Develop mechanisms to stimulate external investment in biodiversity conservation (Activities: Conduct a review of potential external donors and investors for biodiversity conservation, and identify appropriate projects – review; provide inputs to build capacity within Ministries, NGOs and other organizations to design and submit funding proposals for donors - capacity building; provide inputs to build capacity within Ministries, NGOs and other organizations to collaborate with the private sector in funding biodiversity projects - capacity building; develop a fundraising plan focusing on Armenian diaspora, particularly in Europe and the Americas - fundraising plan)

Azerbaijan

Azerbaijan's planning document[2] contained a section on financing of the national strategy and action plan. Activities envisioned in the National Strategy and Action Plan will be funded from the following sources:

- funds considered for solution of environmental problems, within cost estimates of relevant state entities in the centralized costs of the State Budget;

- State fund for environmental protection;

- Micro-credits;

- Small grants;

- Donations from International donors and financial entities.

Financing action plans on regeneration, conservation and efficient use of biodiversity:

- Encourage international investment in biodiversity conservation

    o Join Small Grant Programme of the Global Environmental Facility - Ministry of Ecology and Natural Resources, Azerbaijan National Academy of Sciences;

    o Review the existing funding opportunities and requirements of the international agencies (donors) financing biodiversity related projects, and develop Priority Projects Portfolio - Ministry of Ecology and Natural Resources, Azerbaijan National Academy of Sciences;

    o Explore opportunities of concessionary loans for co-financing required for future GEF projects and develop project projects for funding - Ministry of Ecology and Natural Resources, Azerbaijan National Academy of Sciences)

- Encourage investment in biodiversity from entities within Azerbaijan

    o Develop and implement measures related to biodiversity conservation and sustainable use - Ministry of Ecology and Natural Resources, Ministry of Industry and Energy, Azerbaijan National Academy of Sciences, Ministry of Agriculture, Ministry of Finance;

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[2] Azerbaijan (2006). Order of the President of the Republic of Azerbaijan on Approval of the National Strategy and Plan of Action on Conservation and Sustainable Use of Biodiversity in the Republic of Azerbaijan, Baku, 24 March 2006, 19 pp.

- Explore and use opportunities to mobilize funding from private entities functioning in the country, to finance priority projects - Ministry of Ecology and Natural Resources, Azerbaijan National Academy of Sciences;

- Develop and operationalize mechanism for using the State Environmental Protection Fund to finance priority projects on biodiversity conservation - Ministry of Ecology and Natural Resources).

Georgia

Georgia's planning document[3] contained a strategic goal (H) to ensure appropriate financial and economic programmes are in place in order to support effective conservation of biodiversity, and to ensure the delivery of the BSAP, with the following specific objectives:

- To formulate an indicative economic plan for biodiversity conservation, based on international experience, and ensuring regional and local application

- To bring the budget law and tax law in line with environmental legislation of Georgia, to ensure economic mechanisms such as environmental insurance and eco-labelling are introduced, and that environmentally friendly technologies are promoted.

- To create additional financial mechanisms to promote biodiversity conservation (taking into account the risk factors facing protected areas, the need for insurance mechanisms to indemnify financial risks, and the opportunity for cross-sectoral debate between state crediting institutions and ministries.

- To take into consideration the main aspects of biodiversity conservation when formulating economic policies.

- To assess and value biodiversity in protected areas using new methods and techniques.

- To create sustainable economic mechanisms for the conservation of biodiversity.

- To provide economic incentives for low-waste production methods and for waste treatment.

Activities included:

- Collect data necessary for the valuation of biodiversity (including opinion surveys with key stakeholders, identification of primary risk factors and use of internationally accepted methods)

- Evaluate the economic structure using macroeconomic and sector-specific strategies

- Study the impact of economic policies and economic activities on biodiversity

- Identify and estimate the benefit to major sectors of products and services derived from biodiversity and analyse its use

- Conduct economic assessment of the consequences of the loss of biodiversity

- Estimate financial needs for biodiversity conservation based on valuation assessments

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[3] Georgia (2005). National Biodiversity Strategy and Action Plan (2005), Tbilisi, 106 pp.

- Plan for biodiversity conservation management based on economic indicators

Iraq

Iraq's national biodiversity strategy and action plan was under preparation.

Israel

Israel's planning document[4] did not address financing issues.

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[4] Israel (2010). Israel's National Biodiversity Plan, Policy and Planning Division, Department of Landscape and Biodiversity, January 2010, 32 pp.

Jordan

Jordan's planning document[5] did not address funding issues.

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[5] Jordan (2003). National Biodiversity Strategy and Action Plan (NBSAP), 2003

Kuwait

Kuwait's national strategy[6] noted that the EPA will be responsible for co-ordination and overviewing the implementation of the Strategy; and where appropriate the EPA will assist partners agencies including NGOs with technical and financial support. The Strategy will be financed through EPA central budget allocations; however in order that the Strategy remains as opportunistic as possible the EPA will seek to raise additional revenue to fund biodiversity initiatives as they arise. There is possibility of establishing a National Biodiversity fund from various sources such as fees from biodiversity use, private donations and war reparation funds. The EPA will seek the greater support, involvement and investment by the private sector in instituting environmentally sustainable activities and projects such as the management of environmental services e.g. sewerage and agricultural technology.

C. FUNDING BIODIVERSITY CONSERVATION

Short-term (1-3 years)

The EPA will fund the implementation of the Strategy through its central budget   allocation.

Medium to Long-term: (3-5 years)

1. The EPA will seek to supplement this funding by raising revenue from:

- Funds raised from biodiversity use e.g. grazing, commercial and recreational fishing, fees from visitors to protected areas, hunting licences
- Income from land leases and pollution penalties.
- International assistance for specific programmes.
- Assistance from local and regional trust funds such as Awqaf Fund for the development of the Environment and Kuwait Foundation for the Advancement of Sciences.
- Donations form the private donors and individuals.

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[6] Kuwait (1998). The National Biodiversity Strategy for the State of Kuwait, Environment Public Authority, State of Kuwait, 1998, sponsored by United Nations Development Programme (UNDP), Kuwait with Technical Assistance from IUCN – The World Conservation Union, 51 pp.

Lebanon

Lebanon7 estimated total cost for strategy implementation at US$21.1 million based on planned actions: US$2.575 million for short term activities, US$9.1 million medium term, and US$9.425 million long-term.

The strategy implementation included an action to explore and implement funding arrangements for both priority and long-term activities identified in the strategy and action plan, with such indicators as national budget allocation and foreign source funding.

Under the theme of agrobiodiversity, the document contained measures to develop incentives, taxation measures and penalties and impart financial dimension to agrobiodiversity in order to monetarize benefits from conservation. The indicators include: increase in funds allocated to agrobiodiversity research work; studies underscoring the financial gains from agrobiodiversity conservation; contact with bioprospecting companies. Under the theme of in-situ conservation, measures included to collect entry fees, and reduce prices for local population. Under the theme of international cooperation, actions were to review bilateral and multilateral development and technical assistance programs related to biodiversity or having biodiversity components, and prepare a framework for optimum participation; and ensure that all development assistance agencies with programmes in Lebanon are aware of the Biodiversity Strategy and Action Plan, and develop a framework for inter-ministerial co-ordination to prevent conflicting externally supported development activities.

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[7] Lebanon (1998). National Biodiversity Strategy and Action Plan, Ministry of Environment, November 1998, 67 pp.

Oman

Oman's planning document[8] did not go into financing issues, but identified some priority actions: establishment of a habitat compensation program for sites affected by energy exploration and transportation activities; a pilot project of organic farming; assistance to farmers to increase productivity and conserve water resources.

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[8] Oman (2001). National Biodiversity Strategy and Action Plan, Ministry of Regional Municipalities, Environment and Water Resources, 2001, 61 pp.

Qatar

Qatar's planning document[9] advocated that the emphasis on "projects" as the principal implementation mechanism is based on the need for the SCENR to direct activities with definite terms of reference, timetables and payment schedules. Without these factors it is easy to lose tract of such projects. In addition to the "projects" approach to implementing the NBSAP, improvements to the conservation and sustainable use of biodiversity could come about by incorporating biodiversity considerations into regular programs and activities of sectoral departments. In order for the SCENR to develop, finance and monitor an annual list of project proposals, all concerned ministries, organizations and institutions in Qatar need to prepare detailed action plans/project proposals.

The document identified sources of funding, and noted that the success of the NBSAP will depend on the level of budget allocations set aside by SCENR as well as those of concerned ministries, organizations and institutions for the preparation and implementation of detailed action plans/project proposals. It would be useful for the SCENR to consider new and innovative sources of funding for the NBSAP such as: a) charging for ecosystem services; b) the introduction of new taxes, fees and royalties (for example on oil and gas exploitation); and c) the return of a proportion of the fees paid for fishing licenses and hunting permits to conservation activities.

Under the theme of ecotourism, the document encouraged private sector financing. Sources of funding from the private sector should be thoroughly explored and used creatively to finance conservation projects in protected areas (such as a diving submarine to explore marine life and coral reefs). Indicators were: amount of money raised from visitor's fees; level of monetary benefits to local businesses from visitors; level of credit facilities available for local businesses to develop and expand; level of private sector investment and financing available to ecotourism.

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[9] Qatar (2004). National biodiversity strategy and action plan, October 2004, 72 pp.

Saudi Arabia

Saudi Arabia's planning document[10] mentioned that the success of the national biodiversity strategy depends on securing funds that are allocated by the concerned ministries, institutions and organizations for preparation and implementation of the detailed action plans.

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[10] Saudi Arabia (2005). The National Strategy for Conservation of Biodiversity in the Kingdom of Saudi Arabia, Prepared and Issued by the National Commission for Wildlife Conservation and Development, January 2005, 94 pp.

Syria Arab Republic

Syria's strategy and action plan[11] contained an objective for strengthening capabilities to providing with financial resources for PAs and activating them for Biodiversity conservation with the following measures:

- Determine international financing tools and opportunities, especially national ones for Biodiversity conservation and sustainable use.

- Develop partnership system between public and private sectors regarding financial resources.

- Conduct a training program on financial resources activation.

- Update and promote national strategy to activate such financial resources for Biodiversity.

- Develop multi resources small grants system.

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[11] Syria (2002). National Strategy and Action Plan, Ministry of State for Environmental Affairs, in Arabic, 159 pp.

Turkey

Turkey's planning documents[12] did not address funding issues specifically.

According to its second planning document[13], with regard to financial resources, the insufficiency of resources as well as the unbalanced distribution and ineffective use of resources and the lack of economic incentives draw attention. Stress has been put on the need for additional resources due to the high cost of determination and recording of genetic resources, in particular, and the establishment and maintenance of remote monitoring and display systems. It has been determined that economic incentives are needed in the areas of R&D, the creation of alternative income-generating resources, rehabilitation, the sustainable use of meadows, the expansion of effective irrigation methods, and the compensation of treatment plant costs.

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[12] Turkey (2001). The National Strategy and Action Plan for Biodiversity in Turkey, February 2001, 70 pp.

[13] Turkey (2007c). The National Biological Diversity Strategy and Action Plan, 2007, 176 pp.

Yemen

Yemen's strategy document[14] recognized the need for creating a reliable resource mobilization mechanism to finance environmental protection and facilitate greater involvement of private sectors, NGOs and local councils in environmental protection activities. A few references were made: develop a funding program to stimulate traditional experience and sustainable use of biodiversity at a local level; encourage marketing of cash crops products in protected areas to create job opportunities for peoples living there; provide incentives and support for fishing cooperatives and communities in adopting equitable quotas of fishery resources; establish "polluter pays" legislation to recover rehabilitation costs of damaged resources by polluting industries.

In order to develop the action plan that translate the strategy vision, goals and priority objectives into implementable actions, a long list of options composed of forty broad actions were first identified and then they were short listed into seven priority initiatives (project concepts) based on the following priority criteria: (1) Geographic Impact, (2) Consistency with Convention Objectives, (3) Urgency, (4) Sequence (5) Country-driven, (6) Attainable and Resourceable, and (7) Multisectoral Implications to the objectives of this strategy. These priority project concepts form the Action Plan of this Strategy, with the indicative cost of US$38.3 million.

A list of 7 programmes at a cost of US$40.3 million.

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[14] Yemen (2005). National Biodiversity Strategy and Action Plan, Environment Protection Authority (EPA), Ministry of Water and Environment, January 2005, 71 pp.