

# JOHANNESBURG SUMMIT 2002

## ARMENIA



## COUNTRY PROFILE



UNITED NATIONS

## **INTRODUCTION - 2002 COUNTRY PROFILES SERIES**

Agenda 21, adopted at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, underscored the important role that States play in the implementation of the Agenda at the national level. It recommended that States consider preparing national reports and communicating the information therein to the Commission on Sustainable Development (CSD) including, activities they undertake to implement Agenda 21, the obstacles and challenges they confront, and other environment and development issues they find relevant.

As a result, in 1993 governments began preparing national reports for submission to the CSD. After two years of following this practice, the CSD decided that a summarized version of national reports submitted thus far would be useful. Subsequently, the CSD Secretariat published the first Country Profiles series in 1997 on the occasion of the five-year review of the Earth Summit (Rio + 5). The series summarized, on a country-by-country basis, all the national reports submitted between 1994 and 1996. Each Profile covered the status of all Agenda 21 chapters.

The purpose of Country Profiles is to:

- Help countries monitor their own progress;
- Share experiences and information with others; and
- Serve as institutional memory to track and record national actions undertaken to implement Agenda 21.

A second series of Country Profiles is being published on the occasion of the World Summit on Sustainable Development being held in Johannesburg from August 26 to September 4, 2002. Each profile covers all 40 chapters of Agenda 21, as well as those issues that have been separately addressed by the CSD since 1997, including trade, energy, transport, sustainable tourism and industry.

The 2002 Country Profiles series provides the most comprehensive overview to date of the status of implementation of Agenda 21 at the national level. Each Country Profile is based on information updated from that contained in the national reports submitted annually by governments.

Preparing national reports is often a challenging exercise. It can also be a productive and rewarding one in terms of taking stock of what has been achieved and by increasing communication, coordination and cooperation among a range of national agencies, institutions and groups. Hopefully, the information contained in this series of Country Profiles will serve as a useful tool for learning from the experience and knowledge gained by each country in its pursuit of sustainable development.

## **NOTE TO READERS**

The 2002 Country Profiles Series provides information on the implementation of Agenda 21 on a country-by-country and chapter-by-chapter basis (with the exception of chapters 1 and 23, which are preambles). Since Rio 1992, the Commission on Sustainable Development has specifically addressed other topics not included as separate chapters in Agenda 21. These issues of trade, industry, energy, transport and sustainable tourism are, therefore, treated as distinct sections in the Country Profiles. In instances where several Agenda 21 chapters are closely related, for example, chapters 20 to 22 which cover environmentally sound management of hazardous, solid and radioactive wastes, and chapters 24 to 32 which refer to strengthening of major groups, the information appears under a single heading in the Country Profile Series. Lastly, chapters 16 and 34, which deal with environmentally sound management of biotechnology, and transfer of environmentally sound technology, cooperation, capacity-building respectively, are presented together under one heading in those Country Profiles where information is relatively scarce.

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## LIST OF COMMONLY USED ACRONYMS

ACS	Association of Caribbean States
AMCEN	Africa Ministerial Conference on the Environment
AMU	Arab Maghreb Union
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CARICOM	The Caribbean Community and Common Market
CBD	Convention on Biological Diversity
CIS	Commonwealth of Independent States
CGIAR	Consultative Group on International Agricultural Research
CILSS	Permanent Inter-State Committee for Drought Control in the Sahel
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COMESA	Common Market for Eastern and Southern Africa
CSD	Commission on Sustainable Development of the United Nations
DESA	Department for Economic and Social Affairs
ECA	Economic Commission for Africa
ECCAS	Economic Community for Central African States
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ECOWAS	Economic Community of West African States
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FIDA	Foundation for International Development Assistance
GATT	General Agreement on Tariffs and Trade
GAW	Global Atmosphere Watch (WMO)
GEF	Global Environment Facility
GEMS	Global Environmental Monitoring System (UNEP)
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection
GHG	Greenhouse Gas
GIS	Geographical Information Systems
GLOBE	Global Legislators Organisation for a Balanced Environment
GOS	Global Observing System (WMO/WWW)
GRID	Global Resource Information Database
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
IAEA	International Atomic Energy Agency
ICSC	International Civil Service Commission
ICSU	International Council of Scientific Unions
ICT	Information and Communication Technology
ICTSD	International Centre for Trade and Sustainable Development
IEEA	Integrated Environmental and Economic Accounting
IFAD	International Fund for Agricultural Development

IFCS	Intergovernmental Forum on Chemical Safety
IGADD	Intergovernmental Authority on Drought and Development
ILO	International Labour Organisation
IMF	International Monetary Fund
IMO	International Maritime Organization
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
IPCS	International Programme on Chemical Safety
IPM	Integrated Pest Management
IRPTC	International Register of Potentially Toxic Chemicals
ISDR	International Strategy for Disaster Reduction
ISO	International Organization for Standardization
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature and Natural Resources
LA21	Local Agenda 21
LDCs	Least Developed Countries
MARPOL	International Convention for the Prevention of Pollution from Ships
MEAs	Multilateral Environmental Agreements
NEAP	National Environmental Action Plan
NEPAD	New Partnership for Africa's Development
NGOs	Non-Governmental Organizations
NSDS	National Sustainable Development Strategies
OAS	Organization of American States
OAU	Organization for African Unity
ODA	Official Development Assistance/Overseas Development Assistance
OECD	Organisation for Economic Co-operation and Development
PPP	Public-Private Partnership
PRSP	Poverty Reduction Strategy Papers
SACEP	South Asian Cooperative Environment Programme
SADC	Southern African Development Community
SARD	Sustainable Agriculture and Rural Development
SIDS	Small Island Developing States
SPREP	South Pacific Regional Environment Programme
UN	United Nations
UNAIDS	United Nations Programme on HIV/AIDS
UNCED	United Nations Conference on Environment and Development
UNCCD	United Nations Convention to Combat Desertification
UNCHS	United Nations Centre for Human Settlements (Habitat)
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDRO	Office of the United Nations Disaster Relief Coordinator
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
UNFPA	United Nations Population Fund

UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNIFEM	United Nations Development Fund for Women
UNU	United Nations University
WFC	World Food Council
WHO	World Health Organization
WMO	World Meteorological Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization
WWF	World Wildlife Fund
WWW	World Weather Watch (WMO)

## **CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES**

**Decision-Making:** The National Council on Sustainable Development was set up on July 25, 2002. It is chaired by the Prime Minister and includes representatives of relevant state bodies and the civil society. The ministries of Foreign Affairs and of Nature Protection are the state bodies responsible for the coordination and direct implementation of all aspects of international cooperation on the sustainable development.

**Status:** Progress in the implementation of the economic reforms is largely determined by the support provided by the international community, including the World Bank, International Monetary Fund, United Nations, European Bank, as well as other financial institutions and individual countries. The assistance provided by donor countries and organizations to the Republic of Armenia is implemented in five main areas: provision of macroeconomic stabilization; public investment programs; private sector development; technical assistance for institutional building and economic reforms; and humanitarian assistance. Most of these are also part of the Poverty Reduction Strategic Program.

**Capacity-Building, Education, Training and Awareness-Raising:** Information on sustainable development and cooperation in this field is disseminated through the media, government and NGO publications. Regular seminars are held under the auspices of the relevant institutions and the international agencies.

**Information:** Information is gathered at the respective government offices, through both national and international state and non-governmental sources.

**Research and Technologies:** No information available.

**Financing:** Activities in the field of international cooperation are financed through the state budget and international donor agencies, as well as through means, ear-marked for specific projects.

**Cooperation:** The UNIDO Integrated Program for, adopted in 2001, contains provisions on sustainable development. Armenia is an active participant of the regional preparatory commissions of ESCAP and ECE. Being a party to major international conventions in the field, Armenia integrates their provisions in all areas of international cooperation and national actions targeted at sustainable development and nature protection.

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## **CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES - TRADE**

**Decision-Making:** No information available.

**Programmes and Projects:** No information available.

**Status:** The progress in the implementation of the economic reforms is considerably determined by the support provided by the international community, including the World Bank, International Monetary Fund, United Nations, European Bank, as well as other financial institutions and foreign countries. The assistance provided by donor countries and organizations to the Republic of Armenia is implemented in six main directions:

1. provision of macroeconomic stabilization;
2. public investment programs;
3. private sector development;
4. technical assistance for institutional building and economic reforms;
5. humanitarian assistance; and
6. anticorruption programs.

The Government strategy supposes the gradual decreasing of the humanitarian assistance and targeting the financing on the development programs. Armenia pursues a trade liberalization strategy. Import tariffs at the rates of 0-10% are applied. There are no export taxes. The EU Partnership and Cooperation Agreement was signed in 1995, and entered into force on July 1, 1999. EU is one of main foreign trade partners of Armenia. Armenia has free trade agreements with CIS countries. Major structural changes in the field of foreign trade have taken place due to the export increase and import decrease. The negotiations with WTO member states are nearly concluded, and accession of Armenia to WTO is expected in the end of 2002. (The Final Working Party Meeting on the accession of Armenia to WTO is set to take place in the end of September, 2002.)

**Capacity-Building, Education, Training and Awareness-Raising:** No information available.

**Information:** No information available.

**Research and Technologies:** No information available.

**Financing:** No information available.

**Cooperation:** No information available.

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## CHAPTER 3: COMBATING POVERTY

**Decision-Making:** In order to organize and coordinate the Poverty Reduction Strategy Paper (PRSP), preparation process Steering Committee on PRSP was established, which started the implementation of the final policy paper developing process immediately. To ensure the broad participation, the Committee was extended with representatives of the Government and Parliamentary Committees as well representatives of political parties presented in the Parliament, civil society, and the donor community.

**Programmes and projects:** Poverty Reduction Strategy Paper.

**Status:** the expert groups conducted the elaboration of the Poverty Reduction Strategy Paper in the beginning of 2002. At present the draft of PRSP is ready, which has been presented to the society discussion. The final document intended to be approved by the Government of Armenia at the end of the October.

**Capacity-Building, Education, Training and Awareness-Raising:** Two organizations “Institute for Democracy and Human Rights (IDHR)” NGO and the “Economic Reforms Analysis and Information Center” Closed Joint-Stock Company under the Government of Armenia were awarded contracts in order to ensure public participation in and public awareness on the PRSP elaboration process, its contents, and the deliberation.

**Information:** The collection, accumulation of the information is fulfilled by the National Statistical Service, particularly Households Surveys, which is conducted and published annually.

**Research and Technologies:** The end-goal of the PRSP is to overcome poverty in Armenia. The PRSP should include both medium-term (three years) and long-term strategic as well as short-term objectives to overcome poverty. Based on the methodology of assessment of poverty as multidimensional phenomenon, the PRSP should present the level, nature, and trends of poverty in Armenia. Following an analysis of the current poverty situation, the factors influencing poverty, the mechanisms of such influence, and the capacity of the country, the PRSP should specify the current tasks related to overcoming poverty, as well as priorities, with a description of the ways of implementing such tasks and the legislative, political, economic, social, institutional, and other measures required in this respect. The PRSP should specifically focus on important tools for overcoming poverty, such as: human development; enhanced participation; reduction of the shadow economy and corruption; more efficient use of social tools for overcoming poverty; and improvement in public administration.

**Financing:** The elaboration and implementation of the Project are supported by the State and Local Budgets, Social Insurance Fund and Donor Society.

**Cooperation:** The Poverty Reduction Strategy Paper Elaboration and Implementation Process are supported by the donor organizations. The representatives of the international organizations are also involved in the Steering Committee providing their full participation in the Poverty Reduction Strategy in Armenia.

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## CHAPTER 4: CHANGING CONSUMPTION PATTERNS

**Decision-Making:** The Ministry of Finance and Economy is responsible for the decision – making.

**Programs and Projects:** The Government of Armenia has declared the poverty alleviation one of its strategic objectives, and the Interim Poverty Reduction Strategy Paper (I-PRSP) laid down the strategic ways to achieve this main goal. The I-PRSP also defined core activities and conditions for elaboration of the final PRSP. Besides, the I-PRSP included the assessment of the existing poverty situation in Armenia, and the Government policies aimed at its improvement.

**Status:** The macroeconomic stability has been achieved in Armenia since independence. The Government has directed its efforts towards securing stable macroeconomic environment with the help of tighter monetary and fiscal policies. The results of those policies are relatively stable exchange rate and consumer prices.

During the last five years, the average annual economic growth has comprised about 5.9 percent. The year 2001 was the most favorable from the point of economic growth. In 2001 9.6 percent of Gross-Domestic Product (GDP) growth was recorded in Armenia. The current account deficit is decreasing consistently. It has lowered to 9.5 percent of GDP in 2001 in comparison with the 18.7 percent in 1997.

The main priority task of the Government remains poverty reduction. The poverty still remains on a very high level, decreasing very slowly. In 2001, 50.9 percent of population was poor. The average consumption/GDP ratio for last 5 years amounted 110.9 percent. This indicator is decreasing very sharply and equaled to 101.7 percent of GDP in 2001. The growth rate of consumption for last 5 years comprises about 4 percent.

**Capacity-Building, Education, Training and Awareness-Raising:** No information available.

**Information:** No information available.

**Research and Technologies:** The fulfilling surveys in this sphere are mainly macroeconomic, and are based on econometric and macroeconomic models and interrelations. Armenia focuses mainly on the problem of income distribution and transfers and on implementing econometric methods to study that problem. Because of the shortage of the statistical information on the poverty indicators, Armenia now needs to carry out targeted researches.

**Financing:** The elaboration and implementation of the Project are supported by the State and Local Budgets, Social Insurance Fund and Donor Society.

**Cooperation:** There is cooperation with IMF, WB, UNDP and other donor organizations in Armenia.

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## CHAPTER 4: CHANGING CONSUMPTION PATTERNS - ENERGY

**Decision-Making:** The government body responsible for policy building, development strategy elaboration and decision making in the field of energy is the Ministry of Energy. The Ministry of Energy implements the state energy policy through the drafting and implementation of laws, programs and governmental decisions. The Law on Energy, adopted in 2001, regulates the energy sector, i.e. relationship between state bodies, legal entities in action and final consumers of gas, electricity and heat. The Law pays singular attention to the energy supply security and efficient energy use issues. The Energy Regulatory Commission, established in 1997, is responsible for tariffs setting and licensing.

**Programs and Projects:** Significant assistance aimed at overcoming the severe energy crisis of 1992-1995 and the achievement of the state stabilisation policy was provided by the financial support of donor organizations. The following projects are under implementation:

- conservation of non-completed construction of Unit 5 on Hrazdan TPP with co-financing by EBRD;
- investment project for rehabilitation of transmission and distribution grids by WB and JBIC financing;
- Kanaker HPP and transmission system rehabilitation financed by German KfW;
- the measures for safety upgrade of the existing Armenian NPP are continuously being implemented by technical and financial assistance from US DoE, Russian Federation, EU/Tacis, France, GB and IAEA;
- electricity consumption controlling and metering computer-aided system has been installed by USAID support;
- evaluation of wind potential on the perspective areas development financing by of Netherlands government; and
- gas supply system rehabilitation by EU/INOGATE assistance.

Increased roles for the private sector and further privatization have been major objectives of power sector reform. The privatization or putting under Management Contract of electrical Distribution Company is supposed to be implemented during 2002. The main generation power plants are included in the list of Law “On 2001-2003 program of privatization of state property”, including Hrasdan TPP, Yerevan TPP, Sevan-Hrazdan HPPs cascade and Vorotan HPPs cascade.

**Status:** Independent generation power plants are now in use, such as Hrazdan TPP, Yerevan TPP, Medzamor NPP, Sevan-Hrazdan HPPs Cascade, Vorotan HPPs cascade and several small Hydro Power Plants. Transmission function has been separated from system operation service. “ArmEnergO” is responsible for the system operation service and dispatching, and separate High Voltage Grid Company for transmission. One inter-network Distribution Company implements the distribution service and retail trades. Together they create a basis for the establishment of a real energy wholesale market. Electricity production on the grid amounts to around 5,8 billion kWh per 2001 year (NPP – 2 billion kWh, TPP – 2,8 billion kWh, HPP - 1 billion kWh), which is half as great than in eighties. The structure of electricity consumption has been changed, share of residential consumption about 34%. Natural gas consumption in Armenia in eighties was firmly above 5-6 bcm/year, but at present it drop to around 1.3 bcm/year.

The results of asset reevaluation showed that the sector’s main assets resources have already expired. 38% of installed capacities are over 30 years old. The current stage of development should ensure transition of Energy Sector on a new improved level of operation up to 2015. A package of measures targeted at the total re-equipping of the power sector should be implemented, as well as new technologies should be introduced and large-scale utilization of national energy resources should be implemented. For successful achievement of set targets the considerable financial resources should be attracted for implementation the investment projects. It is obvious that the attraction of private capital will play the principal role for solving this problem, as well as credit and technical assistance support by international financial organizations should ensure the sustainable development of Armenian Energy Sector. The state policy of Energy Sector development based on three-level diversification strategy: generation side (HPP, TPP, NPP); fuel supply side (natural gas, oil, nuclear fuel); and fuel transportation side

(creating at least two routs of supply natural gas, the main primary sources for energy sector of Armenia). To achieve a greatest level of independence from imported fuel, the main preference will be given to development of domestic hydro and another renewable energy sources and implementation of strong energy efficiency policy.

**Capacity-Building, Education, Training and Awareness-Raising:** The State University and Engineering University of Armenia and Energy Technical School are the basis educational institutions for professional community preparation. The special Training Centres in Power Companies and special Training Centre consisting of Energy Research Institute is under operation for advanced training of transmission and distribution companies staff. Energy specialists also participate in training programs realised by international education organizations and foreign companies.

**Information:** The special telecommunication system to serve all Companies of the Energy Sector is under operation. Electricity consumption controlling and metering computer-aided system was put into operation at the end of 2001. System gives possibility to control and collect information about electricity consumption in the main part of electrical grid. Ones per month analyse of all received information realise for electricity balance preparation. Energy companies are familiar with Internet service. Internet page [www: armenergy-invest.com](http://www.armenergy-invest.com) has been established since February 2002.

**Research and Technologies:** Research activities are carrying out by specialised research and design organisations such as: Energy Research Institute; Hydro Design Institute; Electrical Network Design Institute; Atomic Research Institute; Gas Design Institute; and Seismic Design Institute.

**Financing:** The major financing for Energy Sector companies operation arrive by electrical, gas and heat energy trade, state budget subsidies, international donor organisations credits, technical and humanitarian assistance, private investors.

**Cooperation:** Implementation of the Ministry's energy policy has ensured the participation of Armenia as reliable and equal partner in such well-known international organizations as USAID, IAEA, TACIS (INOGATE), USEA, the Power Council of CIS, the European Energy Charter and the Black Sea Economic Cooperation. Energy sector operates on bilateral contracts with Russia Federation, Georgia an Iran. Power System of Armenia is ready to operate in parallel with NIS countries.

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## CHAPTER 4: CHANGING CONSUMPTION PATTERNS -TRANSPORT

**Decision-Making:** The Ministry of Transport and Communication of RA is the authority, which is liable for development, representation and adoption of laws, decisions, administrative normative documents, as well as for development of policies in the field of transport. The interested ministries and societies are getting involved while processing the above-mentioned documents, as well as participating in decision-making.

**Programs and Projects:** Currently, implemented are the Transport Loan Program sponsored by World Bank, which purpose is the rehabilitation of roads and railway as well as the Road Construction Program sponsored by the Lince Foundation in order to reconstruct highways. Furthermore, following projects have been developed have been developed and acquired the Government's approval: the 2000-2001 Program for Public Roads Reconstruction of RA; the program for repairing and developing "Zvartnots" airport; the program of rehabilitation of Armenian railway; and a number of programs of local importance. Within the given framework of inter-governmental agreement between Russian Federation and the Republic of Armenia, a program for reconstruction and exploitation of "Kavkaz" railway-ferry boat has also been developed.

**Status:** Because of financial difficulties during the last 10 years, the technical condition of manufacturing bases of the infrastructures (such as railway, aviation, road transport, roads, metro, electrical transport) of our system is in disconsolate situation. The blockade caused idleness to number of railways and roads.

For improving the condition within the boundaries of "Highway Loan Program" sponsored by World Bank within the period of 1995-2000, 630km of roads, which are of interstate significance, have been repaired. Number of programs have been developed and represented to interested international organizations in order to receive loans and grants. 70% of road transport and road constructing companies have been privatized. It is intended to privatize all the same kind of companies by 2003. The programs, as well as the improvement activities are held only by the means of tenders.

**Capacity-Building, Education, Training and Awareness-Raising:** The Republic owns the appropriate scientific and human potential for solving the problems of the system. The preparation of the necessary specialists for the system is realized by the state higher educational facilities, colleges and postgraduates. The Armenian International Road Carriers Association organizes short-term courses for the operators, who are involved in international forwarding. The information concerning to the issues of the system is accessible; the population is being informed by the means of radio, mass media, television, press and advertisements.

**Information:** Generally, the process of informing within the system is implemented by the means of written notifications, and the processing and the gathering of the latter is particularly automated. According to RA Government Decision N152, dated on March 16, 1999, the principles for creation, investment and development for United Official Information System of the Republic of Armenia are established.

By the Collegiate Decision of the Ministry of Transport and Communication of RA the suggestion for creating a local electronic network with the organizations of the Ministry of Transport and Communication of RA had been approved. "National Information Center" service was established on the 1<sup>st</sup> of July 2001.

**Researches and Technologies:** Because of the lack of financing, the researches and investments in new technologies are not being realized in the system, expect for the activities planned by the investment programs, for which the finance is provided. Numbers of new technology programs, received form various international organizations, are not implemented because of the financial constricts.

**Financing:** The founding of the system's programs is generally implemented by the means of loans and grants of international organizations, and partially by the state budget and in very small volume by the means of companies, which came true their operations. Because of the deficit in the national budget a lot of programs are not implemented.

**Cooperation:** The cooperation is established with the following organizations: World Bank; European Union; Development Bank of Japan; TACIS; USAID; with number of NIS states; with the Islamic Republic of Iran; and other donor organizations. The Republic of Armenia joined the TIR convention in 1993 (UN customs convention on international forwarding for the usage of leaflets for road transport). Since 1999, the Republic of Armenia is a member of IRU (International Road Union).

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## CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY

**Decision-Making:** The Ministry of Social Affairs is responsible for a range of demographic issues. The National Statistical Service (NSS) manages the statistical activities and is targeted at serving the public interest.

The scientific-methodological advisory board plays a definite role in decision-making in the field of statistics that is functioning on a voluntary basis and consisting of members from scientific, educational and public organizations. The fundamental legislation on the statistical activity includes on the Laws “On State Statistics”, “On Population Census” and “Three year State Statistical Work Program.” The legal basis for the field is mentioned in corresponding chapters.

**Programmes and Projects:** A long-term multi-annual integrated statistics program “Three year State Statistical Work Program of the statistical system of Armenia” is developed, discussed and agreed with all categories of users. See also under **Chapters: 3, 4, 6, 7, 14, and 35.**

**Status:** As of January 1, 2002, the population of Armenia is 3,8 mln. This figure, however, may not accurately reflect the 700,000 citizens who have emigrated over the last five years due to adverse socio-economic conditions. The census of 2001 gave 3.0-mln number of population. The urban population is 66.5% (women - 51.4%). Density of population is 128 persons/sq.km.

For 2001, the number of births was 32.065, the number of deaths 24.003, number of infant death - 15.4 per 1000 birth, and number of maternal death - 18.8 per 100.000 births. Migration for 2001 was 10.3 hundreds of people. Average life expectancy for 2000 was 75.5 years.

The challenges are:

- lack of administrative records within the administrative registers;
- unsatisfactory relations with the users;
- weak potential of marketing;
- lack of equipment for regional offices; and
- lack of modern information dissemination means (Internet, CD-ROM and etc.).

**Capacity-Building, Education, Training and Awareness-Raising:** See under **Chapters: 3, 4, 6, 7, 14, and 35.**

**Information:** The sources for the information collection are: statistical reports; surveys; and administrative registers. The reports on implementation of the statistical work programs are published, including via Internet ([www.armstat.am](http://www.armstat.am)).

**Research and Technologies:** No information available.

**Financing:** State budget, also Armenia receives assistance for the Institution Building Loan Social Component, from financing by the World Bank Paros System. The World Bank, USAID and the Government of Netherlands finance the Social Investment Fund.

**Cooperation:** Other cooperation is made with the EU TACIS Programme, World Bank, USAID and other international organizations.

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## CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH

**Decision-Making:** The responsible bodies are: the Government of Armenia, Ministry of Health, with the participation of NGOs, academicians from the Yerevan State Medical University and National Institute of Health.

### Programs and projects:

- National Program on Basic Benefit Package of Medical Services for Vulnerable Groups;
- Optimization of Health Care System;
- Strengthening Primary Health Care;
- Implementation of Family Medicine;
- Implementation of Mandatory Health Insurance;
- Child and Maternity Health Care Programs;
- National Program on Prevention of Tuberculosis; and
- National Program on Prevention of HIV/AIDS.

A range of local and international organizations and NGOs are involved in the process of implementation of programs mentioned above.

**Status:** The Government is introducing a comprehensive reform program, intended to secure stable financing of health care system more efficient and cost effective way, and to protect an access to basic services for all the population. Key elements of the reform program include:

- Diversification of health financing by formalizing some user cost-sharing and rationalizing subsidization, combined with the introduction of performance based, comprehensive provider-payment mechanisms and the decentralization of management.
- Reorientation of the health system away from hospital based curative care towards preventive, primary health-care through consolidation of hospital capacity and integration of internationally supported programs into national health programs.
- Ensuring equity by introduction of a basic benefits package and protecting vulnerable groups.
- Redefinition of medical education to reflect primary care orientation and to correct imbalances in human resource supply.
- Ensuring minimum standards through introduction of a licensing and quality ensuring through accreditation process.
- Promoting private sector activity in the health sector through appropriate legislation and privatization of health facilities.

**Capacity-Building, Education, Training and Awareness-Raising:** Armenia has sufficient number of physicians and nurses to undertake the whole range of activities in providing health care services. New Departments of Family Medicine were founded in the Yerevan State Medical University and National Institute of Health in 1998. Postgraduate education and trainings of Family doctors are financed by the World Bank loan. Population is informed about the current situation and ongoing programs in the health care system through television/radio programs and outreach campaigns.

**Information:** The Ministry of Health collects the information from the Health Departments of local governments (marzpetarans) and health facilities. Several databases are created to manage and to distribute this information.

**Research and Technologies:** Researches are being undertaken in the fields of Cancer Prevention, Familial Mediterranean Fever, Molecular Medical Genetics, Stress and its consequences, etc. Technologies are being implemented in Heart Surgery, Laparoscopy, Integrated Management of Childhood illnesses, Prevention and Treatment of Tuberculosis, production of pharmaceuticals, etc.

**Financing:** Health Care is predominantly financed from the state budget. Ranges of specific programs are financed by the credits of the WB, USAID and UN organizations (WHO, UNICEF, UNDP, etc) grants and by other international and foreign governmental and nongovernmental organizations.

**Cooperation:** The Ministry of Health closely cooperates with local, international and foreign governmental and nongovernmental organizations (WB, USAID, WHO, UNICEF, UNDP, International Red Cross, Medicins sans Frontiers, OXFAM, etc.).

STATISTICAL DATA/INDICATORS			
	1990	1995	2000
Life expectancy at birth (years)			
Male	67.9	67.9	70.5
Female	74.8	74.4	74.5
Infant mortality (per 1000 live births)	18.5	14.2	15.6
Maternal mortality rate (per 100, 000 live births)	40.1	34.7	52.5
Access to safe drinking water (% of urban and rural housing fund)		96.4	
Access to sanitation services (% of urban and rural housing fund)			
Other data Main causes of death	Cardiovascular diseases, disorder of respiratory system, cancer		

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## CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

**Decision-Making:** The governmental body responsible for policy building, strategy elaboration and decision making in the field of human settlement development is the Ministry of Urban Development. The Ministry is implementing the state policy through: the drafting and application of laws, regulations, programs and governmental decisions; as well as through controlling and licensing. Legislation includes: “Law on urban development”; “Law on responsibility for delinquency in the field of urban development”; “Law on tenement-houses management”; and “Law on condominium”. Government and local bodies, public and non-governmental organizations as well as the public take part in the development and implementation of the projects.

**Programs and Projects:** These include: a complex plan of earthquake area reconstruction; drafting of maps and plans for the country as a whole; individual regions and cities; pilot project of two-stage zoning; continuous activities within the framework of the National Plan of the Sustainable Development of the Human Settlements and the Habitat; the Project on anti-landslides activities (2002-2004); and the Project on reconstruction of exploiting bridges.

**Status:** Armenia is a typical mountainous country and is characterized with complex relief, limited land, water and forest resources, and high seismicity. Population is distributed among 48 towns (66,5%) and in 953 villages. As a necessary prediction for sustainable development of settlements, the modern plans and projects on urban development are under preparation in the Republic. These plans are aimed to provide the vitality and sustainable development of settlements and consider the ecological and social demands.

A state policy is under development for the development and implementation in the field of reconstruction of settlements that are suffered/destroyed by earthquake (1988). Provision of appropriate accommodation for the population is one of the main problems for Armenia.

**Capacity-Building, Education, Training and Awareness-Raising:** Armenia has sufficient number of specialists in this field. However, majority of local bodies have no skilled specialists for the implementation of their duties. The training of necessary specialists for the system is realised by Yerevan State Architecture and Construction University and Yerevan State Architectural College. Population is informed about the situation and ongoing programmes through television/radio broadcasts, mass media, press and outreach companies, and exhibitions.

**Information:** The aim is to analyze and systematize information from regions, local communities and separate organizations and to create databases. Currently, within State Committee of the Real property Cadastre the activities are implemented in the field of creation and centralisation of information on cadastre, topographic surveys, digital maps, etc.

**Research and Technologies:** No information available.

**Financing:** Financing comes from the state budget and international investments.

**Cooperation:** The cooperation partners include international and various national governmental and non-governmental organizations: World Bank, UN agencies, TACIS and USAID. Number of projects has been implemented with the assistance of GTZ (Organization on Technical Cooperation, Germany) and SIDA, which were also instrumental in organizing seminars and training. Fruitful cooperation also comprises cooperation with CIS countries.

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## **CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING**

**Decision-Making:** Government of Armenia is a main decision maker in this field, but in the process involved are also all stakeholders, such as Academic sector, non-governmental organization, business, etc.

**Programmes and Projects:** Number of programs and projects promote integration of environmental issues into sectors development policies. These are: National Environmental and Health Action Plan; Natural Resources Management and Poverty Reduction Project; Poverty Reduction Strategy; Food Security Policy Project; Concept of the Balanced Rural Development; and National Plan on Sustainable Development of Human Settlement.

**Status:** National Council on Sustainable Development chaired by the Prime Minister was established in July 2002. Council is responsible for the general coordination in the field of implementation of sustainable development policy, strategy and action plans.

**Capacity-Building, Education, Training and Awareness-Raising:** University courses on sustainable development, publications, television and radio broadcasts, public hearings, workshops is being organized.

**Information:** Decision of the Government, official reports, web sites, seminars and workshops provide information.

**Research and Technologies:** No information available.

**Financing:** The state budget and foreign financial support are the financing sources.

**Cooperation:** Armenia cooperates with the World Bank, UN agencies, TACIS, WHO, OECD and others.

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## CHAPTER 9: PROTECTION OF THE ATMOSPHERE

**Decision-Making:** The Ministry of Nature Protection is responsible for management of the atmosphere protection. Since 1992, in the sphere of environmental protection, a number of legal documents have been adopted in Armenia, namely: Law on Atmospheric Air Protection (1994); Decree defining the state agencies responsible for implementation of various provisions of the Conventions (1998); Government decisions; elaboration of environmental standard acts for limitation of adverse impacts on the atmosphere; as well as for calculation of these impacts.

**Programs and Projects:** With the financial assistance of the Global Environmental Facility and support of the UNDP and UNEP the following projects are being implemented:

- “Armenia – Country Study on Climate Change”, top-up phase – 2001-2003;
- “Removing Barriers to Energy Efficiency in Municipal Heat and Hot Water Supply”, 1999 – 2003;
- Country Programme for Ozone Depleting Substances and Refrigeration Management Plan” – 2001-2002; and
- “Assistance to the Government of Armenia in Support of its Efforts to Promote and Support the Supply and Use of Cleaner Fuels” 2000-2001.

**Status:** The Government decisions on phasing out production, consumption and import of leaded petrol in Armenia came into force in the fourth quarter of 2001. Owing to these decisions, Armenia fulfilled its commitments under the “Pan-European Strategy on Phase Out Lead in Petrol” as well as the Section 9.15 of Agenda 21. To implement its obligation under the Montreal Protocol on Substances that Deplete the Ozone Layer the project “Country Program for Ozone Depleting Substances and Refrigeration Management Plan” is under development. The project is financed by GEF and implemented by UNEP and UNDP. National experts are to compile data on ozone depleting substances, currently in use in Armenia. The Law on Charges for Environmental Protection and Use of Natural Resources established charges for emission of harmful substances into the atmosphere from stationary sources. Currently, about 900 organizations, with more than 200 sources of emission into the atmosphere, are covered by state registration and norm setting of harmful emissions into the atmosphere. These include about 90% of the emissions from stationary sources in the country. These sources are controlled both by the state and the civil society. Monitoring of atmosphere pollution is carried out in six cities of Armenia. However, the number of substances and their completeness are insufficient. The income generated from the environmental fines is deposited into the state budget.

**Capacity-Building, Education, Training and Awareness-Raising:** Public awareness on the main issues of atmosphere protection is organized (publication of articles and brochures, seminars, presentations by mass media). Videos provided by international organizations were translated and widely screened. Numerous events, involving wide range of participants, are being held on the Ozone International Day. Information is provided to NGO’s and specialists. Support is provided to the students in form of practical activities for pre-thesis preparation as well as for the preparation of thesis itself. In a number of educational institutes, lectures are organized on atmosphere protection and climate change related issues.

Currently, capacity-building and strengthening activities are undergoing. The aim is to put Armenia’s participation on stable basis in UN Framework Convention on Climate Change. Scientific Articles “Armenia – Climate Change Problems” has been published. It contains studies carried out by Armenian scientists on different issues of climate change.

**Information:** National Statistics Service is compiling, developing and publishing data on emissions of harmful substances into the atmosphere and monitoring data of atmosphere pollution.

Information center with modern equipment, where climate change related issues are gathered, is established. Internet page of the Center is created. Web-site is [www.nature.am](http://www.nature.am).

**Research and Technologies:** Studies are organized in academic and research institutions and the Center for Climate Change Studies is established in the structure of Hydrometeorology. However, atmosphere protection specialists are not trained in educational institutes. The absence of specialized agencies/institutions to develop standard methodological acts and guidelines is also a challenge.

**Financing:** Above mentioned projects and activities are implemented with the support of both state budget and international organizations as well as due to bilateral cooperation.

**Cooperation:** Armenia has ratified United Nations Framework Convention on Climate Change in 1993 and UNECE Convention on Long-Range Transboundary Air Pollution in 1997. Armenia adopted the Pan-European Strategy to Phase Out Lead in Petrol in 1997. The Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol on Substances that Deplete the Ozone Layer was ratified in 1999.

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## CHAPTER 10: INTEGRATED APPROACH TO THE PLANNING AND MANAGEMENT OF LAND RESOURCES

**Decision-Making:** The state institutions responsible for the management, policy forming, planning and regulating in the field of land resources in Armenia are the ministries of Nature Protection, of Agriculture, of Urban Development, of Trade and Economic Development, and the Real Property Cadastre. The Ministry of Nature Protection is responsible for: the preparation of governmental decisions related to the adoption of community and regional land use schemes; changes of land categories; establishment of land use rules; control and monitoring of land; and ecological expertise of impact on land resources.

The Land Code adopted in June 2001 foresees further privatization of land and decentralization of land resources management. A new foreseen form of ownership – community land expects transfer of some liabilities on land use to local self-governance bodies.

**Programmes and projects:** All the state and thematic programs are elaborated taking into an account the interests of environmental protection and land resources rational use. The Ministry of Nature Protection is the responsible executor of state responsibilities, undertaken in the framework of UNCCD. A number of national plans are developed and partially implemented in the framework of desertification related international conventions. The Cabinet approves “National Action Plan to Combat Desertification” in 2002.

**Status:** 50 % of land in Armenia is subject to erosion; 60% for mudflow and landslide, A great amount is degraded. Application of computer technologies has shown that more than 60% of the land in the country is subject to desertification. The constraints for land resources protection are as follows: small size of land plots; the general socio-economic crisis; and restricted state budget.

**Capacity-Building, Education, Training and Awareness-Raising:** Because of the necessity of the educational and scientific basis for land protection, a number of educational, special and scientific courses are working out in Armenia. The higher and special education network provides training for specialists involved into the field. The state structures ensure information and public awareness on the issues of land protection and sustainable use via television and radio. Publishing and advertising activities are undertaken through the assistance of international institutions.

**Information:** Collection and analyses of data in the field of land protection and use are conducted by different ministries – Nature Protection, Agriculture and state committees (Real Property Cadastre, the National Statistical Service). A joint data bank on land resources management does not exist. The problem could be solved after a decision of the Government on sharing responsibilities between administrative structures. A process of development of SD indicators in the field of land use is underway.

The web page of the Ministry of Nature Protection is currently under construction.

**Research and Technologies:** Best international practices are studied in the following fields: pastures sustainable use; irrigation; recultivation of degraded lands; assembling; treatment; as well as disposal and use of urban and industrial wastes.

**Financing:** Funding comes from the state budget, international funds, non-governmental organizations and sponsors. Restricted state budget and absence of the extra-budgetary environmental funds (including those to combat desertification) are a serious impediment for the implementation of developed projects on land protection and rehabilitation.

**Cooperation:** Armenia has a positive experience of international cooperation with the Secretariats of nature protective conventions of UN, UNEP, GEF, FAO, UNSO and World Bank.

Armenia has elaborated a number of proposals to fight soil erosion and desertification, and has signed “Agreement on cooperation between the Governments of Armenia and Georgia in the field of environmental protection and

natural recourses”, and memorandum on “Cooperation in the field of mitigation of consequences of natural disasters and calamities, nature protection and healthcare” with Iran and Greece.

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## CHAPTER 11: COMBATING DEFORESTATION

**Decision-Making:** “Hayantar” - a state non-commercial organisation under the Ministry of Nature Protection is responsible for forest management. Hayantar, as it was in Soviet era, remains vertically integrated with the forest enterprises. Hayantar does not yet have its own capacity to carry out all functions prescribed by a new Forest Code (adopted 1994) including policy development, coordination, planning and budgeting, forest management and forest resource assessment. Proposals for institutional capacity strengthening need to be made in the context of institutional weaknesses and possible reforms.

**Programs and Projects:** As for the relevance of the PF proposals for action on national level, assessment is currently pending. IPF proposal implementation include Forest Resources Assessment project, financed by SIDA (1997-1998). A proposal on “Forest Certification in Armenia” was prepared in 1999 and submitted for financial assistance to UK FCO Environmental Project Fund. The main goal of the project is to develop a forest certification standard in Armenia. Jointly with the Ministries of Environment and Agriculture, FAO is currently implementing a Technical Cooperation Project in Armenia that has already yielded results in terms of providing, *inter alia*, an overall framework for programme development and indicating specific areas where donor assistance is required. The WB project, Natural resources management and poverty reduction, with the component on state forest management, is currently under implementation.

**Status:** Wide scale illegal cutting resulted in less than 10% of the territory being covered by forest, at altitudes of 500 to 2700 m above sea level, which are home for more than 200 species of trees and shrubs. All forests in Armenia are state-owned. The current protected areas formally make up one third of the total forest area. The current harsh economic situation has created a great demand for wood products. Large pre-urban areas have been denuded of forests, negatively affecting soil and water resources. It has been estimated that in each of the last six years at least 1,000,000 m<sup>3</sup> of wood has been illegally cut, and this has damaged the forests, as cuttings were done in an uncontrolled and disorderly manner. Rare species, both in flora and fauna, are under continuous danger. The state institutions responsible for forestry are weak, the regulatory system is poorly developed and there is a lack of forestry experts. The current situation concerning the management and conservation of forest resources is crucial, and do not correspondent to SD approach. Approximately 70,000 m<sup>3</sup> of timber is currently harvested in Armenia on official basis, of which about 20,000 m<sup>3</sup> are considered commercial cuttings, a harvest which satisfies only 10-14% of Armenian internal needs. Actual harvest including illegal felling, according to several estimates, is not less than 500,000 m<sup>3</sup> per year. Since the country produces a very high quality of beech and oak hardwood, foreign exchange could be earned through forest related products - in spite of the low self-sufficiency rate - if internal needs were satisfied with lower quality lumber leaving the possibility of using higher quality wood for production of export goods.

**Capacity-Building, Education, Training and Awareness-Raising:** High-level training in forestry is the responsibility of the Forestry Chair of the Faculty of Agriculture of the Armenian Agricultural Academy, which was founded in the year 1992.

**Information:** Criteria and indicators for FM currently used in country could be useful to assess progress towards Sustainable Forest Management (SFM) at the international level.

**Research and Technologies:** Research in forestry is carried out in the Forest Department of the Institute of Botany of the Academy of Sciences and in the Forest Research and Experimental Centre (Ministry of Nature Protection). Both institutions lack the minimum technical equipment, financing and transport to implement its research programme.

**Financing:** Forest management and protection activities are financed through the state budget and own funds.

**Cooperation:** Representatives of the country participated in numerous international meetings on forest issues. See also under **Programs and Projects**.

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## CHAPTER 12: MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT

**Decision-Making:** Following the decision of Government, the Ministry of Nature Protection is responsible for fulfillment of Republic obligations, which were taken in accordance with the UN Convention on Combating Desertification. Inter-Departmental Coordinating Commission to combat desertification has been established within the Ministry. It includes representatives from all stakeholders: ministries, departments, and scientific, social and non-governmental organizations.

**Programmes and Projects:** The National Action Plan to Combat Desertification in Armenia (NAP) was elaborated in 2002. NAP provides data on desertification factors and possible actions for softening and prevention of these factors. Various necessary arrangements to combat man-made and natural negative impact are listed, with regard the economic situation in the Armenia. Separate provisions of NAP are taken into account for the social and economic development program of the Armenia.

**Status:** The problem of desertification in Armenia and the fight against it are one of the top priority issues. Desertification of the banks of Lake Sevan, which resulted from the drastic reduction of the altitude of the water level, is only one example of the situation.

**Capacity-Building, Education, Training and Awareness-Raising:** Governmental structures together with non-governmental organizations through television, radio and seminars provide information on desertification process, and protection and rational use of lands. In the framework of the Combat Desertification program, different editions to demonstrate these problems were published in Armenia.

**Information:** The Ministry of Nature Protection together with other stakeholders is responsible of the gathering, accumulation and treatment of data on degraded lands. The data-base and computer cartographic materials on desertification processes are created. A process of development of SD indicators in the field of land use is underway.

**Research and Technologies:** The international experience is being studied in the sphere of: rational use of pasture; irrigation; re-cultivation of degraded lands; gathering, treatment, elimination and use of municipal and industrial wastes; technologies of their disposal; usage of biological and other nature friendly manure; as well as the means for plants and animals protection.

**Financing:** Limited financing comes through the state budget to combat desertification

**Cooperation:** Armenia has a notable experience of international cooperation in the area of combating desertification (with the UNCCD, UNEP, UNSO Secretariats).

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## **CHAPTER 13: MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT**

**Decision-Making:** The ministries of Nature Protection and of Regional Management, and local authorities are the main bodies responsible for the management of mountain ecosystems and mountain rural development.

**Programmes and Projects:** A number of programs and projects in this field are under implementation. Particularly conceptual are: the Government Program on High Mountains Habitats; projects on biodiversity conservation; and mountain forest management. See also under **Chapters 7, 10, 11, 12 and 15**.

**Status:** Recently, the protection and utilization of mountain ecosystems was a State monopoly, but since privatization of land resources the private sector is also expected to participate in this process. Armenia is a typical mountainous country with the characteristics of an arid mountain ecosystem. Over 90 per cent of Armenia's territory is over 1000 meters above sea level. Because of their diverse geological structure, mountain systems are very jagged and present a diverse landscape. An intensive anthropogenetic impact has led to the serious degradation of the mountain ecosystems and, as a result of this, poverty level has increased. In certain regions, the changes are irreversible. Taking into account dominant geo-ecological significance of the Republic's mountain systems for the South Caucasus region, the conservation and sustainable use of landscapes and biodiversity has regional importance. As initiative of the Government of Armenia the legal document (Caucasus Convention) on protection of Caucasus Mountain ecosystem is being prepared by the assistance of UNEP.

**Capacity-Building, Education, Training and Awareness-Raising:** See under **Chapters 7, 10, 11, 12, and 15**.

**Information:** Annual status reports of Government, local governance bodies and scientific institutions. Information is managed through workshops, round tables, and conferences.

**Research and Technologies:** No information available.

**Financing:** There is no financing allocated solely to the protection of mountain ecosystems. There is a small volume of resources allocated to individual programmes, but these resources are quite inadequate to resolve the problem.

**Cooperation:** Main areas of cooperation are with the Countries of South Caucasus.

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## CHAPTER 14: PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

**Decision-Making:** The Ministry of Agriculture is the executive governmental body responsible for the agriculture. The Ministry fulfils its functions through the central administrative apparatus and relevant structures and develops agricultural and food policy and implements the latter within its authority. About 350 thousand agricultural farms and trade organizations operate in the sector.

**Programmes and Projects:** Agricultural Sector Reform Program for 1998 – 2002:

- “Food Security Project”;
- “Programme on facilitation of privatization in agricultural sector of Armenia and Private Sector Support”;
- Project on “Rehabilitation of Irrigation”;
- “Programme on Individual and Private Cooperative Farms Property Insurance Program”;
- “Agricultural Sector Support”;
- “Agricultural Support Programme for North-West regions”; and
- “Agricultural Service” Project financed by the International Fund for Agricultural Development (IFAD).

FAO has assisted in the elaboration of the “Programme on Agricultural Stable Development Strategy”, which will be presented for the Government approval.

**Status:** The share of agricultural and food sector in GDP of the country is around 35%, where 30% represents agriculture. About 98% of gross product of agricultural sphere is being produced by private sector. In monetary equivalent it makes US\$ 625 million. Nowadays, the agricultural and food sector faces the following problems and difficulties:

- fragmentation and small size of rural farms, and at the same time, slow pace of farm augmentation (cooperatives, associations, and other incorporations) process;
- certain imperfection of legal infrastructure;
- lack of funds necessary for the sector development;
- necessity of reforms in seed and pedigree production development and veterinary service; and
- formation of agricultural products market, problems related to agricultural products processing, sale and export, etc.

**Capacity-Building, Education, Training and Awareness-Raising:** Presently, about 40% of all employment in Armenia refers to agricultural, including forest sector.

In agricultural and food sector, the process of training and education is being carried out by the Agricultural Academy, college operating under the Academy and 10 rural colleges. “Agrospyur”, 10 agricultural support centers in Marzes, “Agropress” and other organizations provide consulting and advisory services in agricultural sector. The mentioned organizations with the help of mass media ensure awareness of population about the processes taking place in agricultural sector.

**Information:** The Ministry of Agriculture conducts its activity based on the data obtained from the National Department of Statistics, as well as on the information received from Marzes and other.

**Research and Technologies:** Five scientific centers of the Ministry of Agriculture, Agricultural Economy and Organization Scientific-Research Institute, and Agricultural Academy of Armenia are primarily involved in the research on agriculture. 81 Doctors of Science and 321 Candidates of Science work in scientific-educational area. Steps are being undertaken in terms of new technology development and introduction.

**Financing:** Governmental support investments in agricultural sector in 1999-2001 amount to about US\$ 96 million, including funds invested by international organizations (credit programmes, grants, etc.). Investments of rural farms annually amount to around USD 150mln.

**Cooperation:** Bilateral and multilateral, as well as regional cooperation is established in agricultural sector, particularly with USA, Japan, Russian Federation, France, China, Netherlands, Greece, Syria, Bulgaria, Romania, Republic of Islamic Iran, Belarus, Ukraine, Egypt and many other states. Close cooperation is established with the European Committee "Food Security in Armenia" Project, UN, FAO, US Department of Agriculture, and other organizations. Armenia's full membership to the World Trade Organization is anticipated in 2002. Almost 30 international donor organizations providing significant support operate in Armenia.

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## **CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY**

**Decision-Making:** No information available.

**Programmes and Projects:** No information available.

**Status:** No information available.

**Capacity-Building, Education, Training and Awareness-Raising:** No information available.

**Information:** No information available.

**Research and Technologies:** No information available.

**Financing:** No information available.

**Cooperation:** No information available.

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## **CHAPTERS 16 AND 34: ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY AND TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY, COOPERATION AND CAPACITY-BUILDING**

**Decision-Making:** The governmental body responsible for policy building and decision making in the field of industry reconstruction, environmentally sound technologies management and transfer is the Ministry of Trade and Economic Development. The Ministry is also responsible for development and application of laws, regulations and governmental decisions in this field. The development of modern/environmentally sound technologies is stated in a number of codes and Governmental Resolutions.

**Programs and projects:** In connection with on-going reconstruction of the industry the problem of transfer/import of environmentally sound technologies is particularly actual. The national program in this field is under elaboration.

**Status:** Because of closure of most of the large plants, modern technologies are introduced in small (mostly private) enterprises. At the same time, the country has significant potential for development of modern/environmentally sound technologies.

**Capacity-Building, Education, Training and Awareness-Raising:** See **Chapter: Industry.**

**Information:** See **Chapter: Industry.**

**Research and Technologies:** See **Chapter: Industry.**

**Financing:** See **Chapter: Industry.**

**Cooperation:** See **Chapter: Industry.**

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**CHAPTER 17: PROTECTION OF THE OCEANS, ALL KINDS OF SEAS, INCLUDING ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES**

**Decision-Making:** No information available.

**Programmes and Projects:** No information available.

**Status:** No information available.

**Capacity-Building, Education, Training and Awareness-Raising:** No information available.

**Information:** No information available.

**Research and Technologies:** No information available.

**Financing:** No information available.

**Cooperation:** No information available.

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**CHAPTER 18: PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES:  
APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT,  
MANAGEMENT AND USE OF WATER RESOURCES**

**Decision-Making:** No information available.

**Programmes and Projects:** No information available.

**Status:** No information available.

**Capacity-Building, Education, Training and Awareness-Raising:** No information available.

**Information:** No information available.

**Research and Technologies:** No information available.

**Financing:** No information available.

**Cooperation:** No information available.

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## **CHAPTER 19: ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS**

**Decision-Making:** The Ministry of Nature Protection is responsible for chemicals' management. The Ministry of Nature Protection carries out the inventories as well as controls hazardous substances that are used, produced, and stored in the territory of Armenia. The Ministry of Nature Protection implements monitoring of hazardous substances in environmental media (air, water, and soil).

Armenia has signed the following international Conventions:

“Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade” (1998);

“Stockholm Convention on Persistent Organic Pollutants” (POPs) (2001); and

“Convention on the Transboundary Effects of Industrial Accidents” (1997).

The Government has designated a special body as point of contact for international obligations under the “Convention on the Transboundary Effects of Industrial Accidents” (2001). One of its functions is to issue “safety passports” to the enterprises potentially dangerous of industrial accidents. In 2002, the Government approved the “List of prohibited chemicals, biological substances, heavy metals and their compounds harmful impacted on the ecosystem of Lake Sevan.”

**Programmes and Projects:** The Ministry of Nature Protection has prepared the Project “Enabling activities to facilitate early action on the implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) in Armenia”. The project is funded by GEF. The objective of this “Enabling Activities” proposal is to develop and formulate a National Implementation Plan (NIP) and thereby strengthen national capacity and enhance knowledge and understanding on POPs amongst decision-makers, managers, the industry, and the public at large. By achieving this objective, the Republic of Armenia will meet the obligations of the Stockholm Convention on POPs and will be enabled to manage the elimination of POPs.

**Status:** Before economic decline in 1990, Armenia used to have highly developed chemical and ore-mining industry (e.g. “Nairit” rubber plant, copper-fusing plant in Kapan and copper-molybdenum factory in Kadjaran). About 5000 chemical substances were synthesized and used in Armenia. Some chemical plants contained chlorine and its compounds in technological scheme. Since 1970, use of different organochlorine pesticides including DDT, Heptachlor, Pentachlor, aldrin, dieldrin and etc., was prohibited in agriculture, but residues of HCH DDT and their metabolites are currently determined in the environmental media and biomedica.

Control and registration of dangerous chemicals and wastes produced in the enterprises of Republic of Armenia and inventory of enterprises producing these chemicals and being potentially subject to industrial accidents are carried out, aiming at protecting human health and environment as well as preventing industrial accidents. The legislative basis for environmentally sound management of chemicals in Armenia is on the stage of active formation. We intend to prepare the National “Law on Chemicals” and “National Profile for Sound Management of Chemicals.”

**Capacity-Building, Education, Training and Awareness-Raising:** The Ministry of Nature Protection is keeping the population informed about issues concerning environmentally sound management of toxic chemicals by means of television/radio programmes, brochures, and etc.

**Information:** No information available.

**Research and Technologies:** There are no available facilities in Armenia.

**Financing:** GEF has approved and funded the Project ‘Enabling activities to facilitate early action on the implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) in Armenia’.

**Cooperation:** Armenia is in active cooperation and exchange information with the following bodies and organizations: UNEP; UNEP/Chemicals; UN/ECE; as well with the secretariats of “Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade”, “Stockholm Convention on Persistent Organic Pollutants” (POPs), “Convention on the Transboundary Effects of Industrial Accidents” and Intergovernmental Forum of Chemical Safety (IFCS).

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## **CHAPTERS 20 TO 22: ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS, SOLID AND RADIOACTIVE WASTES**

**Decision-Making:** The Ministry of Nature Protection is the competent authority in the sphere of waste management, making state policy and strategy on wastes issues. The Ministry of Nature Protection carries out the inventories, implements control of hazardous and solid wastes for their generation, use, storage, treatment, recycling, reuse, transportation, recovery and disposal.

In 1995, the Government approved “The order of adjustment of hazardous waste import, export and transit over the territory of Armenia,” drafted on the basis of Basel Convention. In 2000, the Government adopted a decision through which import or export of all kinds of wastes without the special permission of the Ministry of Nature Protection and the Ministry of Industry and Trade are prohibited. Legislation in this field also includes “Law on Environmental Protection and Natural Resources Use Fees” (1998) and “Law on Environmental Protection Fees Rates” (2000). In 2001, by the Ministry of Nature Protection prepared the draft of “Law on wastes”.

**Programmes and Projects:** “National Hazardous Waste Management Plan for the Republic of Armenia” project and “Study Project for Toxic Waste Management” project were prepared for obtaining financial and technical support. Integrated project with UNIDO “Hazardous wastes disposal” had carried out the inventory of obsolete drugs, which are on the territory of Armenia.

**Status:** In spite of industrial decline of recent years, waste management issues keep their priority and importance. It is stipulated first by the absence of complete and adequate information on industrial waste generated in the country. There is lack of waste identification and separation system. There are not specialized facilities for industrial waste disposal. Significant part of industrial waste is dumped in municipal waste landfills without any treatment. About 85% of total volume of municipal solid waste consists of household wastes; the rest is non-hazardous industrial waste. At present, in Armenia, there are no enterprises for recycling and processing secondary raw materials in Armenia. There are neither specific facilities for treatment of hazardous wastes, nor an incinerator. In the field of radioactive wastes management Armenia follows the rules of the International Atomic Energy Agency.

**Capacity-Building, Education, Training and Awareness-Raising:** The Ministry of Nature Protection is keeping the population informed about issues concerning environmentally sound management of hazardous and solid wastes by means of television/radio programmes, brochures, and etc.

**Research and Technologies:** There is cooperation with Basel Convention Regional Training Center in Armenia.

**Financing:** Limited financing comes from the state budget.

**Cooperation:** Armenia has cooperation and exchange information with the Basel Convention Secretariat, UNEP, UNEP/Chemicals, and Intergovernmental Forum of Chemical Safety (IFCS) Secretariats. (Last update: July 2001).

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## CHAPTERS 24 TO 32: STRENGTHENING THE ROLE OF MAJOR GROUPS

**Women:** Decision-Making: the Ministries of Health and Social Security deal with a wide range of questions relating to women and maternity. Within the latter Ministry, there is a department dealing with family problems. The equality of rights of men and women is genuinely established by law in Armenia. It has been still further strengthened by the ratification of international agreements. Mechanisms are being established to promote the implementation and assess the impact of development and environment policies and programmes on women but no specialized institutions have yet been established. Status: There has been an increase in the proportion of women decision makers in Government from 2% in 1992 to 4.6% (1996) and in the National Assembly from 3.6% in 1992 to 6.3% in 1996. In local self-government organs the proportion was 10% in 1992. Capacity-Building, Education, Training and Awareness-Raising: Curricula and other educational material promoting gender-relevant knowledge are already being implemented. Cooperation: The Convention on the Elimination of All Forms of Discrimination Against Women was signed in 1989 and ratified in 1993.

**Children and youth:** No information available.

**Indigenous people:** No information available.

**Non-governmental organizations:** Status: NGOs will be involved in the consideration, formulation and evaluation of major questions relating to the establishment of State mechanisms under Agenda 21. Before being submitted to the National Assembly, draft decisions are submitted to NGOs for consideration. A dialogue is being promoted between philanthropic organizations and women's organization.

**Local authorities:** No information available.

**Workers and trade unions:** Decision-Making: The trade unions are involved in established governmental and non-governmental commissions with a view to the preparation of national reports. Since 1993, bipartite mechanisms have been in operation. Work is being done with a view to involving a third party, representing labor. Financing: The main difficulties result from the problem of financing translations. Cooperation: Workers participate to some extent in the discussion and implementation of the National Agenda 21. Relevant ILO Conventions will be ratified by the year 2000. Six ILO Conventions have already been ratified. Others are being reviewed. In accordance with its legislation, the Republic of Armenia is required to sign collective agreements. Legislation and regulations are being prepared to reduce occupational accidents and injuries. Work is continuing on the Labor Code.

**Business and industry:** Decision-Making: There are governmental policies encouraging reuse, recycling, and reduction of waste. Several enterprises of various sizes have adopted sustainable development policies.

**Scientific and technological community:** Programmes and Projects: Decisions for launching research programmes are made from the viewpoint of their expediency for the relevant spheres. Status: The Scientific community has already established ways in which to address the general public and to deal with sustainable development. There has been the establishment of foundations, grant-giving agencies, and international organizations that dedicate to the formulation of priority directions for the development of science. Financing: Funds have been allocated for supporting research on reconciling and ameliorating environment, public health, welfare and development of the society.

**Farmers:** Decision-Making: The Presidential Decree of 1996 has set up a profit tax holiday for organizations, which have paid debts for 1996 and invested in science. The basic policy for the present stage is to support programmes that yield profit. There is currently an active process of participation of farmers in design and implementation of development policies. Research and Technologies: The Government supports and promotes

sustainable farming practices and technology. Financing: Local donors tend invest in scientific research for agriculture on a long-term basis with a perspective of multiple effect.

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## **CHAPTER 33: FINANCIAL RESOURCES AND MECHANISMS**

This issue has been covered under the heading **Financing** in the various chapters of this Profile.

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## CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT

**Decision-Making:** The state body, responsible for scientific field development, is the Ministry of Education and Science. The supreme scientific center of Armenia is the National Academy of Sciences (NAS), which has a special status in the field of development and implementation of scientific policy, scientific management. The National Academy of Sciences has been an official scientific adviser of the Government; its suggestions are obliged for consideration by relevant state bodies.

According to the Law on Science and Scientific-Technical Activities adopted on December 5, 2000, science is declared as an extremely important factor for development of industry, national safety, culture and public progress and is sponsored by the Government.

**Programmes and Projects:** No information available.

**Status:** A notable progress has been observed in the sphere of active integration of national science to international scales. The most contributing factors of this are: preservation of high scientific potential in the country; presence of actively working international foundations; and availability of modern communication means, first of all Internet.

Research relating to environmental protection and sustainable development is being carried out in accordance with priorities to ensure the establishment of mechanisms for sustainable development. Among the prior research should be mentioned the following areas: the restoration and conservation of the sustainability of the ecosystem of Lake Sevan; the improvement of the legal basis for the utilization and administration of natural resources; the development of economic mechanisms for the utilization of natural resources; and the introduction of a system continuing environmental education.

Development of science and technology are complicated by the following main factors: lack of the concept of scientific and technological development; lack of relevant structures and acting economic mechanisms for practical application of results of the scientific developments; and weak legislation and irrelevance of adopted sub-law acts to the basic Law on Science and Scientific-Technological Activities.

**Capacity-Building, Education, Training, Awareness-Raising:** Armenia has sufficient human resources for replenishment of the scientific potential. Presence of big state higher schools and network of private universities contribute to preparation of many specialists in a wide spectrum of professions. The accepted bi-step system of higher education (baccalaureate, master's) allows selecting the scientifically most talented students who will advance their specialization in postgraduate school. In the past years, the taught knowledge tends to receive an environmental orientation. The government poorly manages the rising of public awareness. Work with population has been done by public organizations under support of international foundations.

**Information:** Official reports of the Government, Marzpetarans (administrative units in Armenia), databases of State Register and Analyzing, State Statistics Board, NGOs, and etc provide information. The governmental management of electronic information is highly inefficient. The main cause is absence of the national concept of information field development. Shortcomings are: lack of single system of information flows and of free access to institutional information resources; and poor development of national searching systems. The positive trends in development of this field are: i) governmental decision to prioritize information technologies in economic development of the country; and ii) attempts of some international organizations to solve the aspects of providing electronic information.

Limited information is available at the following web sites:

- [http://www.undp.am/areas/prog.html?prog\\_id=5](http://www.undp.am/areas/prog.html?prog_id=5)
- [www.armstat.am](http://www.armstat.am)
- [www.sci.am](http://www.sci.am)
- [www.epae.am](http://www.epae.am)

**Research and Technologies:** In modern society, the scheme “science → scientific applications” does not work and many scientific developments do not find the ways for practical implementation. Together with UNDP, ISTC and ADA (Armenian Development Agency), NAS RA has published “Hi-Tech Directory - Armenia 2XXX”, which provides information about more than 100 hi-tech developments available in the country. Fundamental studies concentrate mainly within NAS RA and branch scientific institutes. There work more than 5000 scientists, among them more than 500 doctors of sciences, and more than 2000 candidates of sciences. The main fields of research are physics, mathematics and technologies, as well as natural and humanitarian sciences.

**Financing:** Thematic financing has been the basic form of financial support of science. According to adopted Law on Scientific and Scientific-technological Activities, since 2002, science must obtain also basic and targeted financing. Galust Gulbenkyan Foundation, Armenian general Benevolent Union, and All Armenia “Hayastan” Fund have provided great assistance in scientific development.

**Cooperation:** NAS has signed the agreement on cooperation with Academies of Sciences and scientific centers of Russia, Hungary, China, India, Italy, Romania, Iran, USA, Ukraine, Belarus, Georgia, and UK. A number of international funds/organisations support scientific research in Armenia, namely: NATO, INTAS, Copernicus, ISTC, and etc.

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## **CHAPTER 36: PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING**

This issue has been covered under the heading **Capacity-Building, Education, Training and Awareness-Raising** in the various chapters of this Profile.

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**CHAPTER 37: NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR  
CAPACITY-BUILDING IN DEVELOPING COUNTRIES.**

This issue has been covered either under **Chapter 2** or under the heading **Cooperation** in the various chapters of this Profile.

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## **CHAPTER 38: INTERNATIONAL INSTITUTIONAL ARRANGEMENTS**

This issue deals mainly with activities undertaken by the UN system.

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## **CHAPTER 39: INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS**

This issue has been covered under **Cooperation** in the various chapters of this Profile.

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## **CHAPTER 40: INFORMATION FOR DECISION-MAKING**

This issue has been covered either under **Chapter 8** or under the heading **Decision-Making** in the various chapters of this Profile.

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## CHAPTER: INDUSTRY

**Decision-Making:** The industrial policy is being developed and implemented by the Ministry of Trade and Economic Development.

**Programmes and Projects:** The major sub-branches of Armenian industry of RA are: Jewellery and Precious/Semi-Precious Stone Processing; Light Industry; Information Technologies; Chemical Industry; Mining Industry; and Machinery. Given the geopolitical condition of Armenia the priority sectors are Jewellery and Precious/Semi-Precious Stone Processing; Light Industry; and Information Technologies, which are relatively less material resource and more labor demanding. Programmes are developed at general level of sectors development and for key enterprises as well.

**Status:** Currently, the Industry of RA is in its recovery stage. A steady growth of industrial output has been taking place over the recent years. However, there are still problems with investment promotion, enterprise restructuring and establishing business links. The legislative field relevant to the industry investments, operation and development is considerably improved.

**Capacity-Building, Education, Training and Awareness-Raising:** One of the key points of the general policy of educational institutions in RA is to prepare specialists to meet the current needs of Industry. This is accomplished by both the planned curriculum and the immediate participation and financing of concerned parties of the private sector. A comprehensive program of enhancing general computer literacy is being implemented. In collaboration with international organizations and using local potential as well, diverse training and seminar sessions are organized for a wide range of specialists. Information on educational and training programs is available through the local mass media and brochures.

**Information:** The main sources of information inflow are: the Internet; magazines and other periodicals of economic orientation; embassies; and international organizations. The dissemination of information is accomplished through seminars; workshops and publications. A new Information-Marketing Center is being established at the Ministry of Industry and Trade. The sources of information outflow are: the Internet, in which the industry of RA is well presented and, in addition, the Ministry of Industry and Trade develops its web site with comprehensive industry coverage; the Armenian Development Agency, which publishes brochures and booklets; as well as Armenian embassies and collaborator organizations. The Chamber of Commerce and Industry of RA plays an important role in information interchange between Armenia and the rest of the world.

**Research and Technologies:** All the sectors of industry in RA have their research-scientific institutions, which are engaged in research and development aimed at results relevant to the needs of corresponding sectors. The emphasis is given to high technologies, resource conservation and development of new directions.

**Financing:** The industry financing comes from direct investment (foreign and local) and loans available from local banking sector and international financial organizations. To promote the industry development there are a number of low rate financing schemes such as Lincy Foundation Loans, World Bank Loans, and etc.

**Cooperation:** There are numerous bilateral and multilateral (within CIS) agreements for industrial cooperation at Government level. In addition, the Armenian enterprises have a wide scope of collaboration with foreign diverse economic units.

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## CHAPTER: SUSTAINABLE TOURISM

**Decision-Making:** The Tourism Development Department of the Ministry of Trade and Economic Development is responsible for the development of tourism. The main responsibilities of the Department, in order to develop tourism sphere in Armenia, are: the elaboration of the necessary legislative base for tourism activities; creation and deepening cooperation in this field with other countries; assistance in promotion of Armenia as a tourism destination in the world; provision of necessary support for private sector in tourism sphere for development of their supply quality (maintaining the norm of equality among the private sector representatives); evaluation of new tourism destinations inside Armenia; and implementation of programs in order to provide deep involvement of rural population in tourism activities.

**Programs and Projects:** In order to minimize the amount of poverty in the provinces of Armenia, the Department started to implement the evaluated program assisting to creation of conditions for rural population's services involvement in existing tour packages inside Armenia.

For raising the quality of tourism services in Armenia, the implementation of the program on estimation, rehabilitation and recovery of tourism infrastructure have been started. In this aspect, the reevaluation of database of existing tourism attractions and infrastructure has been initiated. At the same time, the program of road signs renovation and different programs for some monuments as well as hotel services recovery are in the process of involvement by donor organizations in the list for financing.

**Status:** Armenia is rich of monuments, historical events, picturesque sides, resorts, as well as flora and fauna. During Soviet period, Armenia was considered as one of the most popular tourism destinations and the services of health recovery, cultural tourism, camping etc. were available. Maintaining the old traditions of hospitality and using the new opportunities, concerning with the creation of private sector, Armenia started to become a new interesting tourism destination for tourists all over the world. The amount of visitors is consistently rising. In this aspect, it became very important to develop tourism infrastructure, quality of provided services and staff's abilities employed in this sphere.

**Capacity-Building, Education, Training and Awareness-Raising:** The Organization of high-level trainings in tourism is the responsibility of Tourism Development Department. In order to raise the knowledge level of staff employed in tourism sphere, representing both state authorities and private sector, the Department has agreed with respective authorities of some other countries, where achievements in tourism sphere are successful, such as Greece and Cyprus in matter of organizing seminars for representatives of Armenia.

**Information:** The information about existing tour operators, provided tour products and hotel accommodation services is available from different web sites. A lot of information is disseminated through the media.

**Research and Technologies:** All activities concerning marketing and planning of tourism are the responsibility of the Department. There are no specialized institutions involved in researching of tourism development trends and marketing.

**Financing:** Main financing sources for tourism sphere in Armenia are the budgetary sources and assistance of foreign and internal donor organizations.

**Cooperation:** Armenia signed a number of agreements regulating cooperation in tourism sphere with many countries. At the same time, the collaboration directed to creation of common tour package with neighbor countries, such as Georgia, Russia or in the frameworks of Armenia-Iran-Greece trilateral cooperation and Silk Road project is considered as a prior direction.

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