

**Forest Policy and Institutional  
Change Analysis in Central Asian and  
Caucasus Countries**

*Regional Project*

**- ARMENIA -**

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## Abbreviations

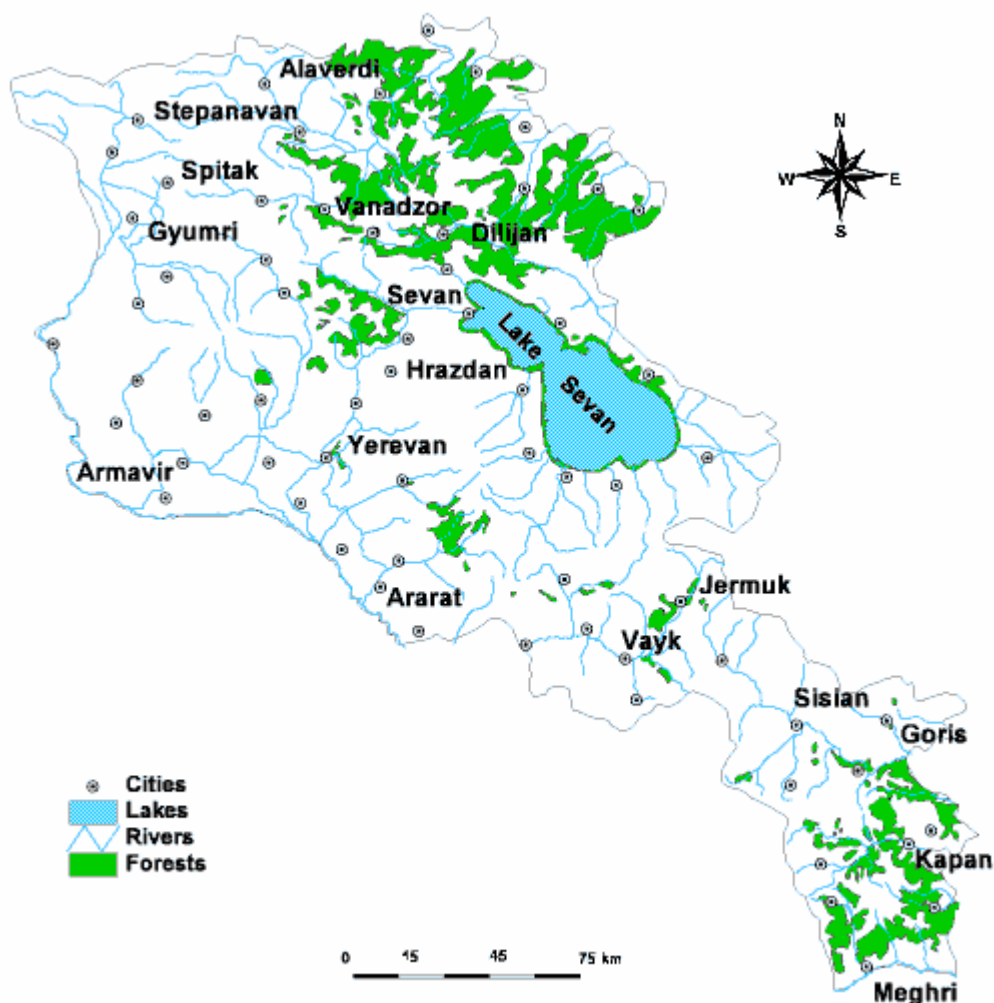
APSREP	Armenia-Public Sector Reform Programme
BMA	Bio-resources Management Agency
FAO	Food and Agriculture Organization of the UN
FE	Forest Enterprise
FISP	Forest Institutional Support Project
FREC	Forest Research-Experimental Centre
FSMC	Forest State Monitoring Center
GHG	Greenhouse Gas
HR	Human Resource
IPCC	Intergovernmental Panel on Climate change
MoA	Ministry of Agriculture
MoNP	Ministry of Nature Protection
NAS	National Academy of Sciences
NFP	National Forest Programme
NFPS	National Forest Policy and Strategy
NGO	Non-Governmental Organization
NSPA	Nature Specially Protected Areas
NTFP	Non Timber Forest Products
NRMPRP	Natural Resources Management and Poverty Reduction Project
PSRC	Public Sector Reform Commission
PRSP	Poverty Reduction Strategy Paper
RA	Republic of Armenia
SCJSC	State Close Joint Stock Company
SEI	State Environmental Inspectorate
SMAB	State Management Authorized Body
SNCO	State Non-Commercial Organization
SIDA	Swedish International Development Cooperation Agency
UNCBD	United Nations Convention on Biodiversity
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank

# 1. Introduction

## 1.1 Forests and Forestry

The role of the mountain forests is enormous in Armenia. They play a wide range of important environmental, social and economic functions, supporting sustainable development of the newly independent state. Although the forest cover of Armenia is rather low, the forests have a vital significance in people's daily life, providing them with necessary fuelwood, construction timber, a wide variety of forestry by products, such as berries, fruits, mushrooms, medical herbs etc. Fuelwood is traditional and still the important energy source for many rural communities to satisfy their needs for household heating and cooking. On the other hand mountain forests of the country are valuable source of timber, which need to be sustainably managed for the benefit of present and future generations.

*Figure 1 Forest Map of Armenia*

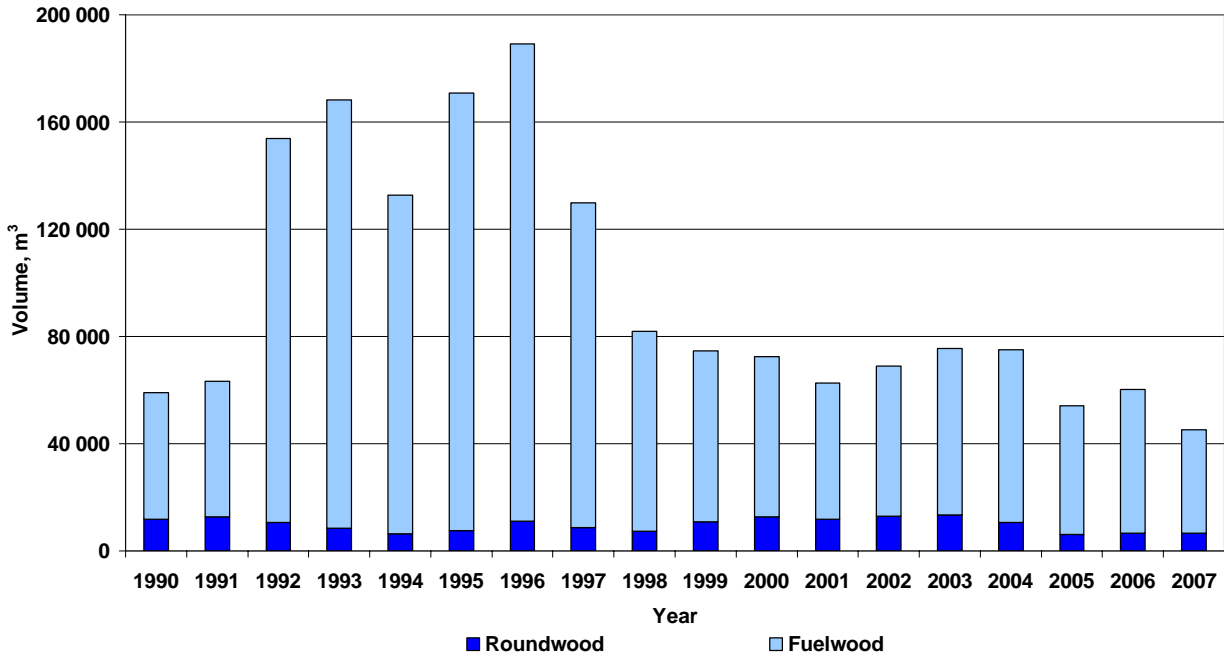


Beyond the listed obvious commodities mountain forests of Armenia offer a wide range of environmental benefits: serving as a habitat for rich biodiversity conservation, helping to protect and enrich soils, preventing land degradation, sustaining the quality and quantity of water resources, reducing the risks of torrents, landslides and other natural disasters. In addition, well managed forests can contribute to slow human-induced climate change, sequestering heat trapping carbon dioxide from the atmosphere and store it as a key constituent of the wood and the forest soils.

According to old manuscripts and mapping data, the forest cover of Armenia has been reduced nearly two times for the last 200-300 years, and unfortunately continues to decline again since 90's due to accelerated high anthropogenic pressure on forest resources.

Below are shown the official wood harvesting statistical data of Armenia. It demonstrates that the level of wood harvesting have not change much except for the period of 1992 -1997 years, which matched the period of the severe energy crises in the country, characterized with the high fuelwood demand. On the other hand, the illegal logging itself has become a serious and complex problem in Armenia started from early 90's. According to the World Bank survey<sup>1</sup> overall total production was estimated at the level of 847,000 m<sup>3</sup> in 2003 year, with officially recorded removals amounting to just 63,000 m<sup>3</sup>.

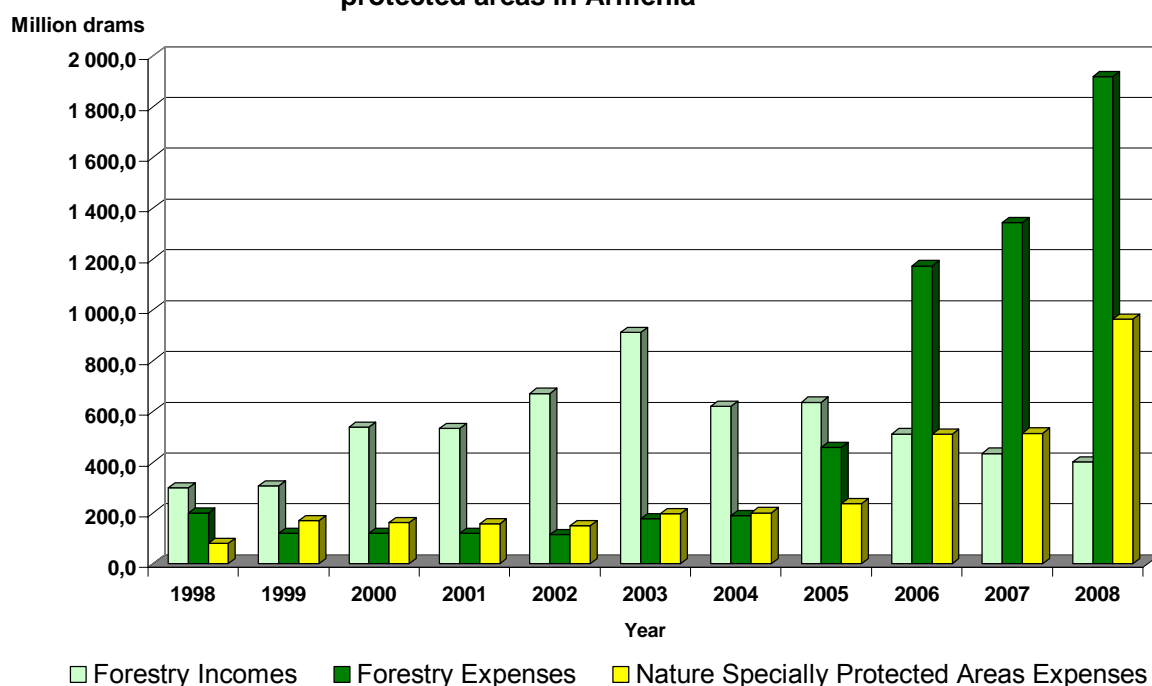
**Figure 2** Wood harvesting statistical data of Armenia



The forest sector expenditures and incomes are greatly variable (see figure 3). State budget financial allocations to forestry have significantly increased since 2005 year in Armenia, which in fact coincides with the period of forest institutional changes, in particular moving of “Hayantar” SNCO from the Ministry of Nature Protection into Ministry of Agriculture. It shows that the sector has gained better governmental attention and state financial support. Increased expenditures have been directed to advance the forest sector development mainly covering the following fields: improvement of forest guarding efficiency, expending the levels of forest reproduction and pests and disease control activities, as well as fostering forest management planning activities. However; the forest incomes have steadily declined since 2004 year, which do not contribute to the sector economic viability. For instance, forestry expenses<sup>2</sup> for 2007 year were equal to 1.34 billion AMD, from which 735 mln AMD were spend on forest guarding and wood protection measures, 402.2 mln AMD on forest restoration and finally 149.7 mln AMD were directed to forest management planning activities. Newly established State Forest Monitoring Center of the Ministry of Agriculture has required another 52.6 mln drams of expenses from the state budget in 2007 year. For comparison the forest incomes for the same year accounts for 434.5 mln drams. State budget allocations to nature specially protected areas have also increased during the last 10 years. According to figure 3, the forest incomes for the 1998 year were enough to cover both the forest expenses and the costs of the nature special protected areas; however the situation is greatly different for 2008 year.

(1) Mitchell A. Illegal Logging - Survey and Analyses, FISP project, Final draft, March 2004  
 (2) Report on expenses of the state budget of the Republic of Armenia for 2007 year with functional classification.

**Figure 3 Dynamics of state budget annual allocations on forestry and protected areas in Armenia**



Apart from state budget funding of the forest sector, lately there were large financial contributions from several international donor organizations, such as World Bank, GEF, SIDA, FAO etc. For instance, under the Natural Resources Management and Poverty Reduction project, it was spent another 2.6 billion AMD (including both credits and grants) during the 2006 -2007 years, which were mainly directed to following three components: i) Watershed Management, ii) Improved State Forest Management and iii) Protected Area Management. The project funds helped to renovate and furnish many Hayantar SNCO regional forestry offices, as well as Zikatar training center, purchase vehicles, development of management plans for Sevan and Dilijan National Parks etc. Within another international project “Food Production Growth” funded by the Government of Japan, it was possible to contribute another 1369.9 mln drams on reforestation and anti-torrents measures in Armenia during 2006-2007 years.

Armenia was among the 23 countries in West and Central Asia, involved in the Forestry Outlook Study for West and Central Asia (FOWECA) to examine the direction of development of forests and forestry. Later, the Steering Committee of the FAO National Forest Programme (NFP) Facility has approved the Partnership with Armenia, based on the country submitted Concept Note, during its January 2005 meeting. Under the three years partnership, the Facility aimed to help Armenia to advance its NFP process with a focus on the following 3 priorities: i) Developing the legal basis and regulatory framework of the forestry sector to make the revised Forestry Code operational through missing regulations and guidelines; ii) Supporting the development of practical education and training in the forestry sector; iii) Raising awareness of the public at large about forestry related issues in order to promote informed participation of stakeholders in developing adequate policies.

Recently FAO has supported the implementation of another project on “Reforestation and Afforestation” in Armenia for the period of 2009-2010 years, involving the following stakeholders: Ministry of Agriculture, Ministry of Nature Protection, WWF Armenia office, ATP NGO and Armenian State Agrarian University. The total cost of the project is equal to 432 000 \$US.

## *1.2 Changing role of forests and forestry and its implications on forest policies, legislation and institutions*

During the mid 1990's FAO was the first international organization supported the preparation of "*Armenian Forest Sector Development Strategy*", which was approved on May 27, 1996 by the Ministry of Nature Protection and Underground Resources RA. Unfortunately many provisions of the strategy have not been implemented, thus slowing down the forest sector development in the country.

Next stage of the forest policy environment advancing has launched with the adoption of the *National Forest Policy and Strategy* (NFPS) document by the Government of Armenia on September, 2004. It is seen as an important tool to facilitate the governance of the Armenian forests, being a national asset, and to make the interests of the forest sector consistent with other national policies, especially related to environment, rural development and agriculture. The NFPS document acknowledged that the illegal logging is a large and complex problem in Armenia and the measures undertaken by competent state institutions to mitigate illegal activities are still insufficient and did not address the wide range of problems, in spite of adopted *Illegal Logging Mitigation Action Plan* by the Government of Armenia in 2004 year.

The *National Forest Program* (NFP) of Armenia was approved by the Government on July, 2005, considering the legal, institutional, management, environmental, social, economic, science, capacity building and international cooperation aspects. The document covers 10-year-period and divided into short-term (2006-2008yy), mid-term (2008-2010yy) and long-term (2010-2015yy) measures.

*New Forest Code* of the Republic of Armenia was adopted on October, 2005, replacing the former one endorsed in 1994 year. It regulates relations connected with sustainable forest management: guarding, wood protection (pests and disease control), rehabilitation, afforestation and rational use of forests and forest lands of the Republic of Armenia, covering also forest inventory, monitoring and control aspects. To make newly adopted Forest code operational, development of relevant regulative framework is required. Although such process has started since 2005; however it is not fully completed yet.

The growing role of the *Private sector* is crucial not only for the economic point of view, but also for the social dimension through creation of new employment opportunities, alleviation of poverty, improvement of rural livelihoods etc. Rich biodiversity of the Armenian forests provides large potential for further development of timber and non-wood forest supply, fostering small and medium rural entrepreneurship. In this respect the definition of the Forest Code for Production forest is still only focuses on timber production, without considering Non Timber Forest Products.

On the other hand, currently there are registered over 360 wood processing companies in Armenia, providing employment for nearly three thousand people. For comparison, it is needed to mention that approximately only a thousand people are directly engaged in forestry. Hence, the sustainability of timber production in Armenia seems to be rather important for small and medium wood processing industry too. In the past wood processing industry was fairly well developed in the country; however it was mostly relied on raw materials imported from forest rich republics of the Soviet Union, mainly from Russia.

In the light of this changing role of the forests and forestry, the strengthening of public and private forest institutions can be achieved through the following: i) improvement and enforcement of the forest legal framework, ii) institutional reforms aiming to separate policy, regulative, management and control functions, and iii) participatory decision making process respecting and sharing forest stakeholders' rights and responsibilities. Mentioned measures will surely stimulate the forest sector further growth and prosperity, reducing also the risks of illegal practices. Effective coordination of all the forest related activities performed by the stakeholders, as well as continuous monitoring of

the progress aimed to achieve targets agreed by the NFP should be necessary, contributing to transparency and credibility of the sector.

### *1.3 Need for policy and institutional adaptation*

The forest policy and institutional framework may not remain unaffected within the country large scale transformation processes into market economy. Adaptation to new environment should be seen as a necessary tool to ensure sustainable development of the sector, including the period of economy in transition. There is also a need to change in mind-sets and the remnant theories applied previously, when Armenia was part of the Soviet Union. At present, the state forest management system seems to be insufficiently adapted to new challenges. In spite of large scale conceptual changes there is a need for much improvement at the operational forest management level.

Forest Inventory and Planning (lesoustroystvo) system, which is locally called “forest management planning” is designed for 10 years period to be implemented by the state forest management units (forest enterprises). Formerly, during the Soviet Union period, the forest sector was heavily subsidized by the state budget and forestry economic aspects were not considered as key. Nowadays such practice together with central forest planning may be not applicable for the forest sector good governance in line with market economy rules. In fact, development of completely new management planning approaches is crucial at different levels, which are highlighted in the NFP, including the following: i) Strategic forest planning (once in ten-year period); ii) Tactical forest planning (once in five-year period); iii) Operational forest planning (annually).

- Strategic forest planning at the national level needs to be properly implemented, which is mostly missing. In addition, many statistical forest data have not been sufficiently updated since 1993 year at the national level. Development of the Forest Management Plans at the forest management unit level has received much attention and financial support by both national and international sources lately. Nevertheless there is a need to improve the forest data quality and accuracy of such plans, which is mostly attributed to poor staff, lacking professional background and experience, as well as to imperfect guidelines and regulations. Better attention should be paid to forest economy viability and sustainability considerations, as well as broader stakeholder participation (including communities) in a decision making process to make such planning more efficient and realistic to ensure sustainable forest management.
- Tactical forest planning is a completely new concept in Armenia, proposed by the NFP. It was never implemented before even during the former Soviet Union period. The need for such planning is very urgent due to several reasons. First of all, taking into account the high illegal logging rates in the country, it is unrealistic to have very accurate planning scenarios for forest resources management for upcoming ten years period. Instead, Tactical forest planning will allow improving the state forest governance serving as a sufficient basis for effective operational management and its sustainability. It can also help to security the viability of the forestry practices and developing realistic targets for forest management performance in a short term perspective.
- Annual or operational forest planning is mainly done by both “Hayantar” SNCO for its regional 19 branches representing the Ministry of Agriculture of RA and Bio-resources Management Agency for nature special protected areas (national parks, reserves and reservation) within the Ministry of Nature Protection of RA. The main differences among the two mentioned broad institutions are the objectives of forest resource management. The ultimate goal of the latter is biodiversity conservation, ecotourism development and environmental sustainability, while the former is more focused on forest production, timber harvesting, including commercial operations. The NFP has outlined a number of areas, to improvement the forest economy efficiency, to mobilize significant internal financial resources, through improved forest management practices, however better commitment is needed to achieve those targets.



For the successful implementation of the National Forest Program the National Coordination Board (NCB) was envisaged, which should include the following main beneficiaries: Ministry of Agriculture, Ministry of Nature Protection, Ministry of Finances and Economics, Ministry of Territorial Management, forest scientific institutions and NGOs, international donor-organizations and others. The period for short term NFP measures has already run out, but the NCB has not been established yet, to ensure coordination of forest stakeholders and to monitor the NFP implementation progress. Coordination and monitoring of the NFP implementation is crucial and usually covers the following aspects:

- National Coordination Board implementation arrangements, their membership, performance, decisions and follow-up;
- Monitoring the human, financial and material resources inputs. This assessment of the quantity, quality and timeliness of resources provided will be achieved through a comparison between planned and actually delivered inputs, and of expenditures against budgets. The flow and use of inputs will also be considered.
- Monitoring the outputs - the achievements resulting from the use of the resources. Quality, quantity and timeliness of achievements is assessed, as well as the efficiency with which the resources are being used to produce outputs or attain results.
- Monitoring the impact - the progress made towards the achievement of goals and objectives is also essential. This should include assessing achievements of the national forest program's key physical targets and changes in the forest resource development situation.

In addition, annual review of the national forest program implementation is recommended to perform. Areas of action which have not received sufficient attention need be taken into account. This review can focus on the performance of the various partners in the program implementation, including governmental agencies, NGOs, the private sector and donor agencies when appropriated. Information on lessons learned need to be disseminated to stakeholders, enabling improve their performance.

The evaluation of the NFP short term (2006-2008 years) institutional arrangements and their status are shown below in table 1.

**Table 1: NFP short-term (2006-2008 years) institutional arrangements and their status**

Activity	Comments
NFP National Coordination Board	The Board has not been established yet.
State Forest Service	The service is not operational yet, the development of the respective law was initiated by the Ministry of Agriculture in 2007 year; however several improvements were required. It is currently on the Governmental agenda scheduled on September, 2009.
Forest management planning subdivision	Currently there is not such subdivision is functioning within Ministry of Agriculture RA.
Wood protection station (Pests & disease control)	The station has not been established yet. Its establishment is also related to Sate Forest Service functioning in Armenia.
Forest seed laboratory	No such entity is functioning yet.
Forest State Monitoring Center	Forest State Monitoring Center has been established in November, 2005 under the Ministry of Agriculture, which is indeed positive change.
Forest state cadastre and	No forest state cadastre and inventory system is functioning for the last 20

forest state inventory system	years. The respective forest regulation was adopted by the Government on February 2008.
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## Legal framework development

New Forest Code adopted in 2005 year has an objective to regulate the legal aspects dealing with forestry and forest land; however it will not be fully operation unless adoptions of the required forest regulations as well as the Law on State Forest Service. Analysis of the new Forest Code and the NFP, shows that the forest regulative framework still is rather underdeveloped (see Annex 3) and inconsistent. The application of the Law on State Forest Service is vital; since many provisions of the Forest Code of RA (2005) are directly refer to it. According to the logistic of the NFP Facility – Armenia Partnership after drafting the forest regulations by Hayantar, selected non state stakeholders, identified by the Multi-Stakeholder Steering Committee, had to carry out their public validation. Due account should be taken to received comments and suggestions to improve the draft regulations before submitting them to the Government or relevant ministries for endorsement. In practice, however, such arrangements were not always easy to implement, since it entails sharing part of the authorities and responsibilities by state forest institutions. Fostering further efficient mechanisms to facilitate the stakeholders’ involvement and the participatory decision making process at the local, regional and national levels would be an important step for participatory forest management in the country.

### *1.4 Objectives of the study*

The country case study is intended to provide the basic information required to assess and compare country experience and to identify the various options available to improve the functioning of public sector forestry agencies.

Objectives of the study include the following:

- Provide an in-depth assessment of functional and structural changes in the public sector forestry agencies, particularly focusing on the changes in the post 1990 period;
- Analyze the linkages between the above changes and the larger political, economic and institutional changes;
- Outline if and how the changes in public sector forestry agencies have enabled them to perform more effectively;
- Indicate the nature of changes required by the public forestry agencies to enhance their effectiveness and efficiency.

## 2. Policy Environment

Newly independent state country – Armenia is shifting from central soviet planning system to market economy, facing a number of challenges in different sectors, including forestry to adapt to new conditions. Under such circumstances, the forest policy and means may not remain unaffected. Recent institutional changes represent new approaches for the forest sector governance, strengthening also intersectoral cooperation. Those reforms need to embrace different levels of the institutions engaged in the forest sector, including public administration.

### 2.1 Public administration system reforms

The Public Sector Reform Commission (PSRC) was established on September 1999 by the Prime Minister of the republic of Armenia according to the decree N544 on "Primary activities of Public Administration System Reforms of RA" (decree N544 - 3.09.99.). PSRS is responsible for implementing public administration reforms in RA. The phases of the mentioned function include restructuring the ministries, departments, as well as territorial administration and local self-government bodies. The reforms are carried out in 3 directions:

1. Public administration system structural and functional reforms;
2. Establishment of civil service, [www.csc.am](http://www.csc.am);
3. Financial management reforms, [www.mfe.am](http://www.mfe.am)

In fact, all 3 directions are integrated into one unified public administration system with new structure and organization. The reforms in the above-mentioned areas may be broken down into the following two stages:

**Stage One (1999-2003)** - It was originally decided to include the entities under the central government and ministries in the management system of relevant ministries by giving them a status of agency, inspection, state non-commercial organization by not modifying the current structure of the government. This was supposed to allow ministers, in their capacity of Cabinet members, to concentrate upon the decision of strategic matters, as well as to ensure verticality in public governance and to lay down terms of reference for each member of government, to specify the range of those bodies where civil service was due to be introduced.

Subsequently, in accordance with the RA law on civil service, all of civil service job titles were to be described, classified and assessed by separating the political, discretionary and technical functions and setting apart the maintenance staff. Facilities should be created for smooth operations of civil service, civil servants re-training, their attestation and the introduction of a remuneration system. A newly formulated office of chief of staff was to be introduced in the public sector.

**Stage Two (2003-2008) Improvements** are planned in the public services management models and mechanisms. This stage had the key task of ensuring the transition to a more efficient system of management by streamlining the whole range of matters regarding the distribution of powers and duties within the public sector, the de-centralization of functions and their classification.

For the first stage of public sector reform implementation on the basis of legislation in 1999-2001 the Commission drafted and / or assisted in the preparation and the National Assembly adopted the following laws on: i) Public administration establishments; ii) State non-commercial organizations, iii) Civil service etc.

The purpose of Armenia-Public Sector Reform Programme is to improve the efficiency, effectiveness, accountability, transparency and responsiveness of public administration in Armenia. In order to achieve its key objectives APSREP has been working in close cooperation with the staff of three pilot ministries. These include RA Social Ministries of Labor & Social Issues, Health and Education and Science. APSREP also works with 2 pilot marzpetarans in Tavush and Gegharkunik. Civil Service Council and Public Administration Academy are other change leaders in the reforms undertaken by Armenia's Government and APSREP (More information available online: [www.gov.am](http://www.gov.am)).

## 2.2 Evolution of Forest Policies in the larger context

The first efforts to develop a forest policy environment were made during 1994 -1996 years, with the support of the FAO “Forestry Sector Development” project. “*A Strategy for the Development of the Armenian Forest Sector*” was prepared and endorsed by the Ministry of Nature Protection and Underground Resources RA on May 27, 1996.

Next improvement of the forest policy and strategy direction were undertaken within the scope of the Forest Institutional Support Project funded by SIDA, a subcomponent of the Natural Resources Management and Poverty Reduction World Bank project. New *National Forest Policy and Strategy* (NFPS) document was developed and adopted by the Government of Armenia in September, 2004<sup>3</sup>. The main goal of the NFPS is to ensure sustainable management of forests and forest lands, which can be defined as: “The stewardship and use of forests and forest lands in a way and at a rate, that maintains their biological diversity, productivity, regeneration capacity, vitality, and potential to fulfill, now and in the future, relevant ecological, economic and social functions, at a community, national and global levels, and that does not cause damage to other ecosystems”.

“The Government of Armenia will have to balance the environmental and society’s interests, establish conditions for the economic prosperity of the country, protecting ecological and social values of the forests”. The endorsed strategy provides directions of the national forest policy of Armenia, highlighting the need for legal and institutional reforms of the forest sector.

The former Forest Code of RA (1994) was slightly modified version of the Soviet Forest Code and the transition to a market economy, different forms of ownership and others were not reflected in the main forest legal document of the country. Started from the energy crisis of 90’s, the illegal logging has become one of the serious causes hampering forest development, driven by poverty and commercial gain. Independent estimates have revealed that illegal logging rates exceed legally harvested volumes several times<sup>4</sup> at that specific period. It is for that reason, *Illegal Logging Mitigation Action Plan* was envisaged to implement by the Governmental decision of Armenia on September, 2004<sup>5</sup>. The components suggested in the Action Plan include following: Increasing public awareness, Alleviating rural poverty, Community forestry programs, Alternative fuel supplies, Increasing supply of legitimate wood products, Restructuring forest institutions and capacity building, Improved monitoring and control and Forest Certification.

The *National Forest Program of RA*<sup>6</sup> adopted by the Government of Armenia July, 2005, had an objective to protect forest ecosystems, rehabilitate degraded forest ecosystems, use forest resources in a continuous and efficient manner and ensure sustainable forest management strategy, covering the following:

- Plan and implement activities aimed at sustainable management of forests and forest lands in line with the National Forest Policy and Strategy of RA;
- Promote the development of state, community and other types of ownership;
- Stimulate cooperation at national and international levels;
- Support the involvement of internal and external investments;
- Implement measures promoting sustainable forest management in compliance with international treaties of RA.

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<sup>2</sup>National Forest Policy and Strategy of RA, Governmental resolution N 38 dated 30 Sep, 2004

<sup>3</sup>Illegal Logging - Survey and Analyses, FISP project, Final draft, March 2004

<sup>4</sup> Action Plan for Mitigating Actions to help Address the Problems Associated with Illegal Logging, Governmental Resolution N 38, dated 30 Sep, 2004

<sup>5</sup>National Forest Programme of RA, Governmental resolution N 1232-N dated 21 July, 2005 year

## *2.3 Sectoral policies that have impacted forests and forestry*

**Poverty Reduction Strategy Paper (2003):** “The negative developments resulted in deep economic and social crisis in the 1990s, one of the most devastating consequences of which was widespread impoverishment of the population, income inequality and polarization of the society of appalling level. The existing poverty and inequality situation gives rise to a number of hazards and threats. The urgency to address these problems on the part of the society and government has necessitated elaboration and implementation of the Poverty Reduction Strategy Paper. With the objective to prevent the inherent threats and get the vast majority of population out of the existing situation, the PRSP pursued the objective to reduce poverty as a hindrance to economic, social and human development and progress of our country”. Environmental issues are manifested differently from the point of view of their impact on poverty of rural and urban population. The impact on rural population is largely conditioned by the fact that they are essentially dependent on natural resources. Thus, land and forest degradation has a direct impact on the levels of incomes of the rural population.

Degradation of forest resources. Volumes of legal and illegal tree cuttings for heating and industrial purposes have increased significantly. Nevertheless, there are no realistic estimations on the present volumes of forest resources, which is mainly the result of the poor forest inventory and monitoring system. Forest degradation is also caused by the use of forest areas as grazing land in some settlements, as a result of which the natural forest regeneration process is disrupted. From the viewpoint of poverty reduction strategy, the environmental policy is particularly related to:

- Improvement of the legal framework for environmental protection and nature use, development of concepts for the development of the sector, improvement of mechanisms for control of the implementation of adopted laws and decisions;
- Ensuring appropriate nature use payments for various forms of nature use and channeling these funds towards nature protection purposes;
- Creation of an environmental standards and norms system, development of environmental impact assessment system and improvement of control mechanisms;
- Strengthening the forest resources management system, attaching special importance to the introduction of modern inventory and control mechanisms.

At the same time, air pollution, as well as non regulated construction in parks and destruction of green areas has an indirect negative impact on the living standards of urban population. The urban poor, as a rule, live mainly in environmentally unfavorable areas of the city adjacent to industrial enterprises and industrial zones.

**Agricultural Sustainable Development Strategy (2004):** The level of participation of the Government in the agricultural sector was greatly reduced by the liberalization of the economy, privatization of land and other productive means, servicing infrastructures, sales and processing organizations. Based on the peculiarities of the country and taking into consideration the problems of food security an important role is given to the state assistance to the agricultural sector during the transition period. The implementation of the strategy will be supported by the Government in the following areas: formation of the regulatory framework in agro-food sector, provision of agricultural entities with favorable conditions for smooth operation and investments, development of infrastructures and promotion of food safety etc.

The directions of that policy and related implementation programmes are provided in the strategy document. At the same time the priorities of the agricultural sector are defined, which may serve as guidance for the targeted activities and cooperation for the state governance, local self-governing authorities, donors and entities. The strategy is consistent with the Government “Poverty Reduction Strategy” programme and ensures continuation of the agrarian reforms in the country.

**EU/Armenia Action Plan (2006):** The enlargement of the European Union on 1 May 2004 has brought a historical shift for the Union in political, geographic and economic terms, further reinforcing the political and economic interdependence between the EU and Armenia. The

European Union and Armenia are determined to make use of this occasion to enhance their relations and to promote stability, security and welfare. The approach is founded on partnership, joint ownership and differentiation.

The European Neighborhood Policy of the European Union sets ambitious objectives based on commitments to shared values and effective implementation of political, economic and institutional reforms. Armenia was invited to enter into intensified political, security, economic and cultural relations with the EU, enhanced regional and cross border co-operation. In particular, within the scope of the economic and social reform, poverty reduction and sustainable development, it is envisaged to enhance development of the forest industry (forest management, protection, maintenance, rehabilitation, balanced and sustainable use of forest resources).

In addition, Armenia is adhered to 17 **International Environmental Conventions** listed below:

- UN Convention on Biological Diversity;
- UN Framework Convention on Climate Change;
- UN Convention on Combat Desertification;
- Convention on Wetlands of International Importance Especially as Waterfowl Habitat
- UNECE Convention on Long-Range Trans-boundary Air Pollution;
- UNECE Convention on Environmental Impact Assessment in a Transboundary Context;
- UNECE Convention on Transboundary Effects of Industrial Accidents;
- UN Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal;
- Convention for the Protection of the Ozone Layer;
- UNECE Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters;
- Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade;
- UNECE Convention on the Protection and USE of Transboundary Watercourses and International Lakes;
- Stockholm Convention on Persistent Organic Pollutants;
- Convention on the Prohibition of Military or Any Hostile Use of Environmental Modification Techniques;
- Convention Concerning the Protection of the World Cultural and Natural Heritage
- European Landscape Convention;
- International Convention on Plant Protection.

#### *2.4 Key features of forest policies and how these have changed in the recent years reflecting the larger social and economic changes*

The Government of Armenia, adopting the National Forest Policy and Strategy document in 2004, aimed to highlight the following strategic objectives: i) Restoration of forest ecosystems; ii) Strengthening and improving of institutional capacities for sustainable forest management ; iii) The development of scientifically proven forest management plans (long-term and short-term); iv) The provision of the development of non-wood forest products use; v) The improvement of the legislative basis, including local methodologies, standards, indicators, etc together with the application of the best international knowledge and experience. To achieve the mentioned strategic objectives it has been recommended the development of the following: i) new Forest Code of the Republic of Armenia; ii) National Forest Program, which involves the activities and mechanisms of the National Forest Policy and Strategy (restructuring of forest management structures, improvement of legislative framework regulating the forest sector and others).

### 3. Forest Institutions: Development and Change

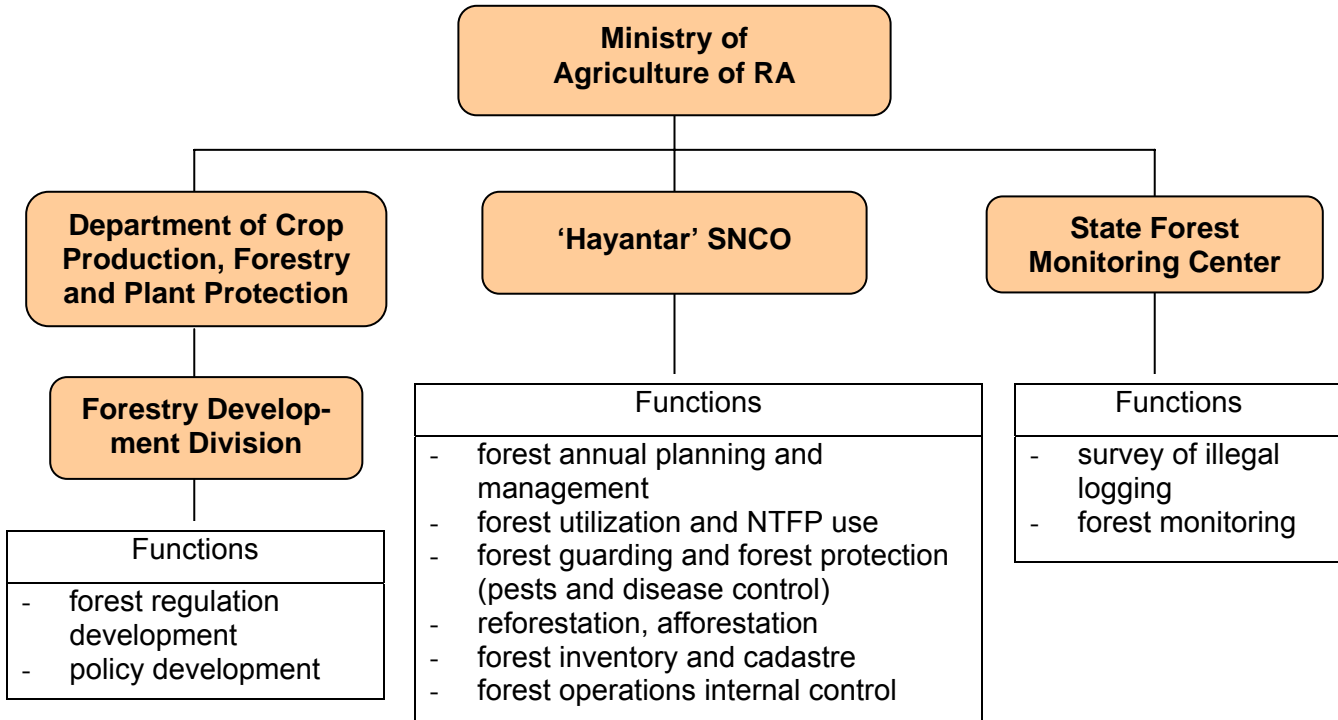
#### 3.1 Overall institutional framework

The public forest institutions are currently part of two ministries in Armenia: i) the Ministry of Agriculture RA and ii) the Ministry of Nature Protection RA.

**The Ministry of Agriculture of RA (MoA)** of RA has the following objectives: i) Development and implementation of the economical policies of the Government of the Republic of Armenia in the agricultural production sector; ii) Ensuring sustainable development of agriculture and increased efficiency of the agricultural processes through maximal use of the country agricultural potential based on unified scientific engineering policies; iii) Development and implementation of the basic principles, concepts and projects of agrarian and investment policies based on the complex analyses and corresponding estimations of the processes in the agricultural production sector; assistance to the market relationships formation processes and to the development of relevant infrastructures; participation in the development and implementation of food safety policies; and iv) Development and implementation of the state policies in the areas of preservation, protection, reproduction, and utilization of the forests in the Republic of Armenia.

MoA is a state management body authorized by the Government of RA in the field of guarding, protection, reproduction and use of state forests (RA Governmental decision N7-N, 15 January 2004), which implements its authorities through the structure shown below.

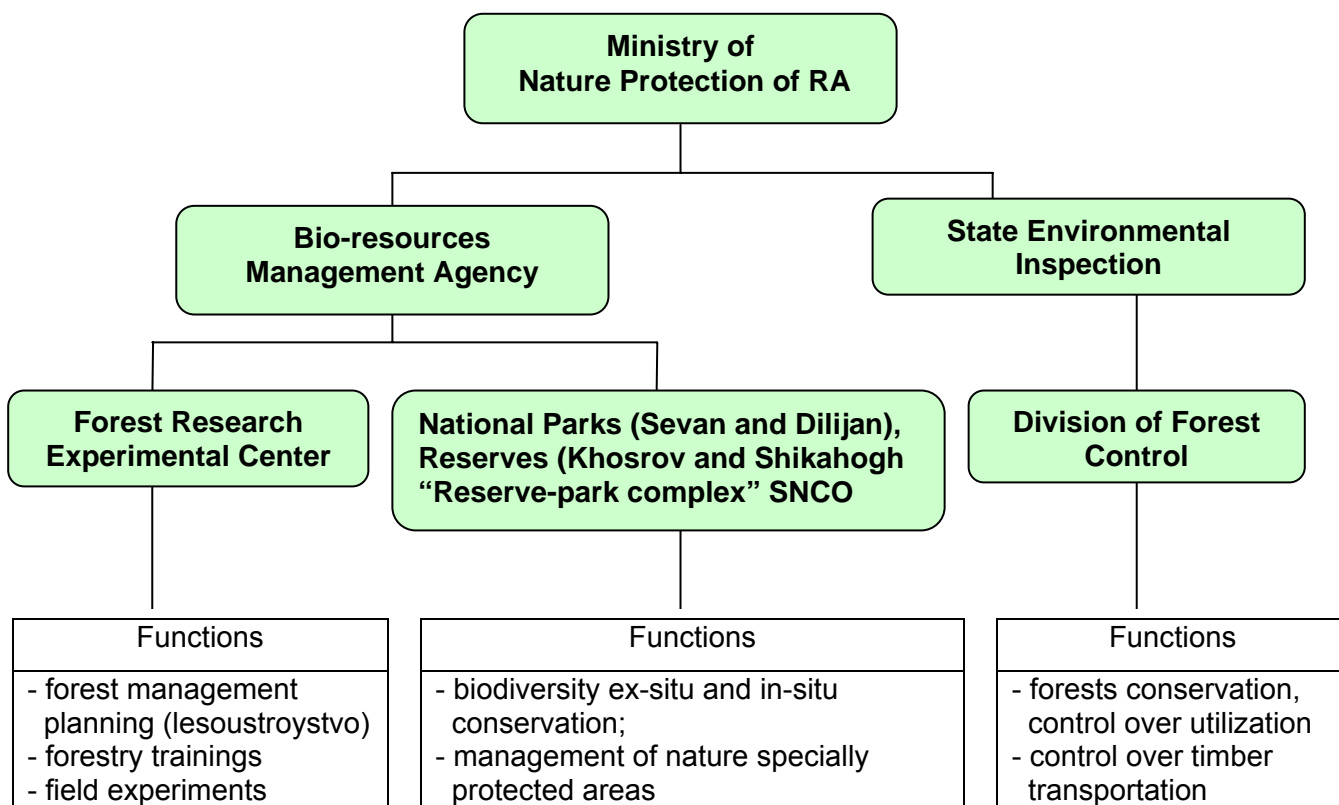
Figure 4: Structure of the Ministry of Agriculture of RA (focus on forestry)



The scope of functions of the Ministry of Agriculture of Armenia covers the following fields: a) Plant cultivation and plant protection; b) Agricultural processing and food safety; c) Soil utilization and melioration; d) Planning of agricultural and social development of rural areas; e) Stock breeding and pedigree activities; f) *Forestry*; g) Veterinary; h) Production engineering services for agriculture. For in depth forest institutional analyses of the MoA see Chapter 4.1.

**The Ministry of Nature Protection of RA (MoNP)** has overall responsibility for enforcing the state policy on biodiversity conservation, sustainable use and restoration, promoting environmental norms, developing principles of biodiversity ex-situ and in-situ conservation, as well as monitoring and control over the bio-recourses use.

Figure 5: Structure of the Ministry of Nature Protection of RA (focus on forestry)



For in depth forest institutional analyses of the MoNP see Chapter 4.1.

### 3.2 Evolution of Forest Institutions

During the last 20 years the main forest management body of Armenia - "Hayantar" (Armforest) has undergone numerous restructurings starting from State Forest Committee to "Hayantar" State Non Commercial Organization (SNCO) within the structure of the Ministry of Agriculture of RA. In order to better understand the current situation and the changes occurred during the last years, it is necessary to analyze the evolution of the public forest institution in the country from 1988 year.

The thriving time of the forest sector in Armenia matches with the period when State Forest Committee was functioning up to December 1988 year. It was also distinguished with massive afforestation and greenery activities aiming to increase the forest cover of the country. Annually around 5000 ha of new forest plantations were established, eventually leading to around 1500 ha of annual transfer into forest cover category. The infrastructure at that time was rather strong for the production of planting stock material, using over 600 ha of forest nurseries operated in different climatic regions of Armenia to satisfy the demand for high quality seedlings and saplings. The establishment and maintenance of such infrastructures had required huge investments, which were supplied centrally by the State Forest Committee of USSR.

The central structure of the State Forest Committee of Armenia has consisted of the following departments: 1) Forest Utilization, Forest and Wood Protection; 2) Forest Plantations and Forest Melioration; 3) Planning and Economy, as well as following divisions: a) Control; b) Mechanization and Material Technical Supply; c) Hunting and Reserves; d) Central Accounting and e) Common Tasks. There were 16 Forest Enterprises available at that time, two state reserves (Dilijan and Khosrov), one State Forest Nursery in Eghvard, Forest-Experimental and Wood Protection (pests and disease control) stations, Armforestproject organization (former branch of 'Soyuzgiproleskhoz' in ArmSSR) in Yerevan, 'Forest Machine' factory in Ijevan and Food canning factory, as well as firm shop 'Forest Goods' in Yerevan city.

In December 1988, the Council of Ministers of ArmSSR (decree № 646), has restructured the State Forest Committee of ArmSSR into 'Hayantar' Forest Production Unity (FPU). As an autonomous

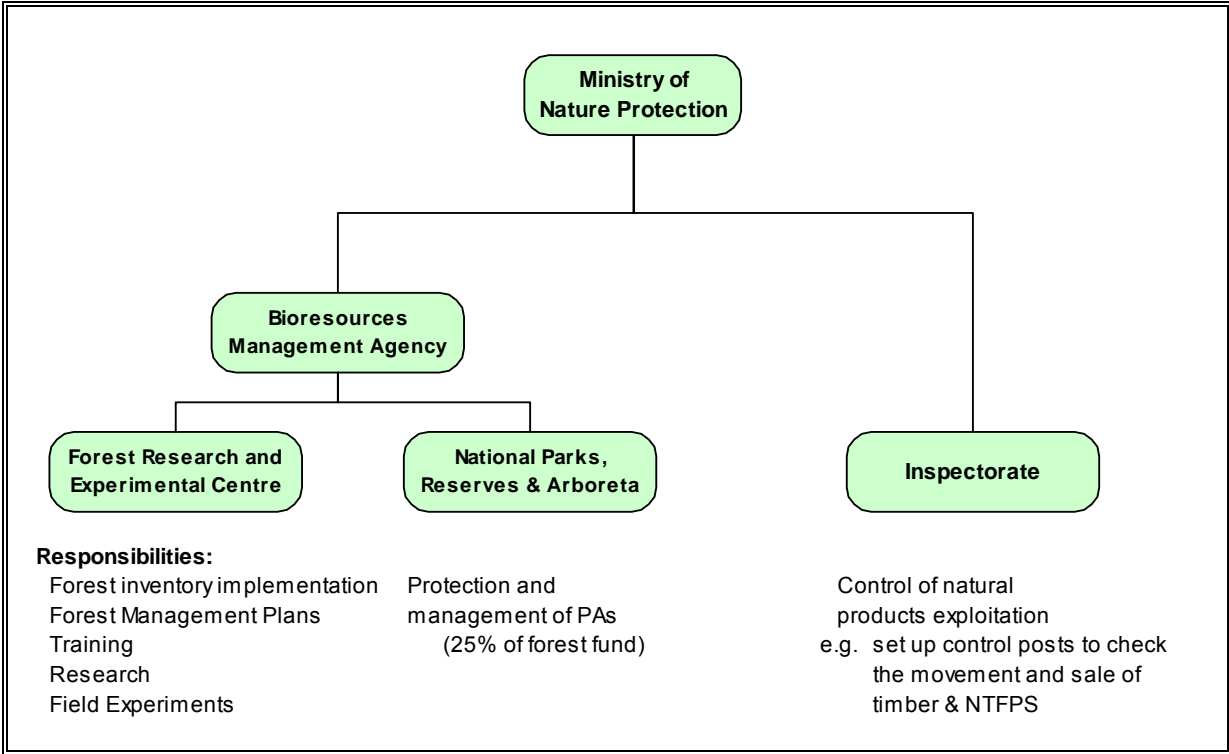


organization it continued to operate until August, 1992, when 'Hayantar' FPU was moved into structure of the Ministry of Agriculture of RA. It was also a period associated with severe energy crisis faced by the country during 1992-1994, which had very negative impact on forests and forestry, due to accelerated and uncontrolled tree felling by rural and urban population to satisfy their daily needs for cooking and heating.

Three years later in March, 1995 by the decree № 103 of the Prime Minister 'Hayantar' FPU has transferred to Ministry of Nature Protection and Underground Resources of RA. The same year by the order of the Ministry of Nature Protection and Underground Resources № 86, 'Hayantar' Production Unity State Forest Service was created and lasted nearly a year. In 1996 it was reorganized into "Hayantar" State Enterprise. Shortly after that in 1997 year the status of the "Hayantar" State Enterprise has changed again into "Hayantar" State Close Joint Stock Company (SCJSC) under the Ministry of Nature Protection of RA, which remained unaffected till 2002 year, when "Hayantar" SCJSC transformed into "Hayantar" State Non Commercial Organization (SNCO) (for more information see Annex 8 and 9).

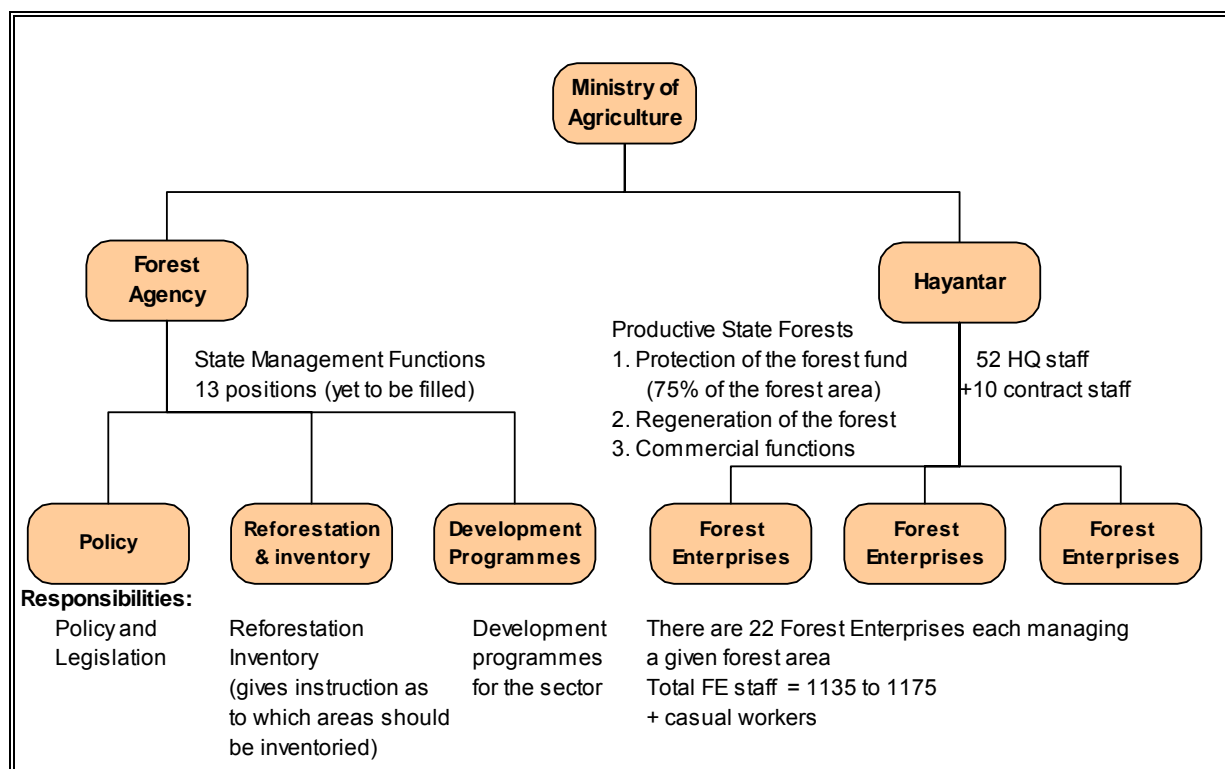
For the period from 1995 to 2004 year, the Ministry of Nature Protection (formerly Ministry of Nature Protection and Underground Resources) was the state institution responsible for the forest administration with a short exception in 2000 year. However at the beginning of 2004, the responsibility for the administration and management of forestry in Armenia were separated between the Ministry of Nature Protection (MoNP) and the Ministry of Agriculture (MoA). The institutional structures demonstrate below the organization charts of the respective two ministries immediately after the separation (the non forestry related functions have been excluded).

Figure 6: State forest institutions within the Ministry of Nature Protection<sup>3</sup>



The responsibility for the protected state forest remains with the Ministry of Nature Protection. The management of productive state forest land has been transferred to the Ministry of Agriculture.

Figure 7: State forest institutions within the Ministry of Agriculture<sup>3</sup>



Later according to the Governmental resolution N 101-N on 13 January, 2005 the structure of the Ministry of Agriculture has been changed. Instead of Forest Management Agency of the MoA, was the Department of Forestry was created. Nevertheless, shortly after such recent change the latter was transformed into department of Crop Production, Forestry and Plant Protection under the Ministry of Agriculture RA, which reflects the current situation (see figure 4).

### 3.3 Changes in their relative role during the last 10 years

Analyzing the functions of the key public forest institutions for the last 10 years, it becomes clear that all the forest areas were formerly managed by the Ministry of Nature Protection of RA through “Hayantar” SCJSC and the department of Nature Special Protected Areas. With the adoption of the new Forest Policy and Strategy document by the Government in 2004 year, the forest management function has transferred to the Ministry of Agriculture, while the forest control was vested to the Ministry of Nature Protection of RA.

Table 2: Functional analyses of governmental forest institutions in Armenia

Institution / Functions	Governmental Forest Institutions of RA	
	Ministry of Agriculture	Ministry of Nature Protection
<b>Policy</b>	<ul style="list-style-type: none"> <li>Responsible for the agricultural and forestry policy development and implementation</li> </ul>	<ul style="list-style-type: none"> <li>Responsible for the environmental policy development and implementation</li> </ul>
<b>Regulation</b>	<ul style="list-style-type: none"> <li>It operates based on its charter and the legal framework, including:               <ul style="list-style-type: none"> <li>- Forest Code</li> <li>- Forest Regulations,</li> <li>- Law on State Forest Service (still to be adopted)</li> </ul>               (See Annex 1)             </li> </ul>	<ul style="list-style-type: none"> <li>It operates based on its charter and the legal framework, including:               <ul style="list-style-type: none"> <li>- Law on Special Protected Areas,</li> <li>- Law on Nature Protection and Nature Use Fees,</li> <li>- Law on Flora and Fauna Damage Compensation Tariffs Caused by Environmental Violations</li> </ul> </li> </ul>

		- Law on Flora, Law on Fauna etc (See Annex 3)
<b>Management</b>	<ul style="list-style-type: none"> <li>• “Hayantar” SNCO is responsible for the state forest management, except forest lands included in nature specially protected areas.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Bio-resources Management Agency</i> is responsible for the Nature Special Protected Area management, including forest reserves, national parks, arboretums and reservations.</li> </ul>
<b>Control</b>	<ul style="list-style-type: none"> <li>• “Hayantar” SNCO is also responsible for the internal forest control over its managed forest lands.</li> <li>• <i>State Forest Monitoring Center SNCO</i> is responsible for the survey of illegal logging and forest monitoring.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>State Environmental Inspection</i> is responsible for the environmental, including forest control over the all forest lands.</li> </ul>

Started reforms of the public forest institutions need to be continued, in order to strengthen forest institutions and separate forest policy, regulation, control and management functions, which may be achieved through the following activities:

- Improvement of the forest regulative framework, including development of the Law on State Forest Service and other missing relevant forest regulations;
- Harmonization of the forestry (forest land) related provisions in different legal documents, dealing with land use, environment, rural development etc;
- Reform the state forest institutions to improve their efficiency,

The study of the relative role of the forest institutions shows that apart from governmental organizations engaged in forestry (i.e. Ministry of Agriculture, Ministry of Nature Protection) there is an increased interest of other stakeholders’ involvement, including NGOs and the civil society. There is also a need for strengthening the roles of forest communities and private sector especially small and medium entrepreneur representatives in the decision making process.

### *3.4 Interaction/ relationship between different institutions*

Following the separation of forest management and control functions between two ministries, it is important to study the interaction and relationship among different forest institutions. The structure of the Ministry of Agriculture of RA (see figure 4) demonstrates that the forest policy and regulative functions are rather weak, since the only relevant structural unit of the ministry consists of 3 persons (Division of Forestry Development) at present under the Department of Crop Production, Forestry and Plant Protection. It might be one of the reasons why the development of the forest regulative framework still have not been fully accomplished (see Annex 3), since adoption of the National Forest Program and the new Forest Code in 2005 year.

“Hayantar” SNCO, the largest state forest organization performs key functions related to forest management (forest guarding, pests and disease control, forest utilization, reforestation and afforestation, forest inventory, as well as supervision) and control over subordinate regional forest management units. In order to overcome heavy financial situation, large scale investments from the state budget and a number of international funds were utilized. Most of such funds were directed to restore central and regional forestry offices, to update forest management plans, to implement reforestation and afforestation activities etc.

The Forest State Monitoring Center (FSMC) was established having an aim to improve the forest monitoring system and to survey illegal logging, which would lead to increased transparency of the sector. Generally the new initiative needs to be considered as rather positive step forward. However the human staff and the facilities of the FSMC should be further strengthened to ensure proper work quality and credibility.

Bio-resources Management Agency (BMA) of the MoNP is responsible for the special protected area management including forest reserves, National Parks, reservations and dendroparks. Ecosystem approach is usually used for the management of the special protected areas, considering the forest as one of the living ecosystem components. Although in situ and ex-situ

biodiversity conservation is one of the main targets for the management of nature specially protected areas, however in the economic zones of the National Parks different forest operations are allowed, such as timber harvesting, reforestation, in contrast to reserve zone, where any forest operation is prohibited. On the other hand BMA is supervising the work of the Forest Experimental and Research Center (FREC), which is in charge for forest management planning (lesoustroystvo) not only for protected areas, but also for the production forest lands managed by “Hayantar” SNCO. It shows that the institutional structure have not been fully adapted after several years following the split of forest management and control functions between two relevant ministries.

State Environmental Inspection of the MoNP has a mandate for the environmental, including forest control. Disputes over the further separation of forestry and environmental control are very actual, which might reduce the available tension between the mentioned two ministries. Possibly it can be achieved through development of specific criteria suitable for the forest control, distinguishing them between typical forestry and environmental related ones. The latter has to focus more on forest biodiversity conservation, soil and water impact and other environmental considerations related to forest practices, while the control of the traditional forest practices should be undertaken by the envisaged State Forest Service, stated in the new Forest Code RA. However; development of the respective law is required.

## **4. Analysis of Selected Institutions**

### **4.1. State Forestry Administration**

Currently, the key state stakeholders in the forest sector belong to the domains of two respective ministries: the Ministry of Agriculture RA (MoA) and the Ministry of Nature Protection RA (MoNP).

**The Ministry of Agriculture** of the Republic of Armenia is a national agency for state governance functioning in the agricultural sector and operating towards the realization of the policies adopted by the Government of the Republic of Armenia in the spheres of agriculture and forestry.

The Ministry of Agriculture of RA (MoA) has firstly been responsible for the forest management during 1992-1995 years, when “Hayantar” Forest Production Unity (FPU), an autonomous organization, was inserted into structure of the MoA. The beginning of 1990’s was also characterized with severe energy crisis with the sharp increase of fuelwood consumption in the country not only by rural population, but also by many urban inhabitants. The period matched with the large scale forest felling, to satisfy the fuelwood demand for heating and cooking. Massive forest areas, as well as many agro-forestry plantings and even urban greenery areas, were affected by tree felling. Since 2004 till now, the state management authorized body in forest management has transferred to the Ministry of Agriculture of RA, while the forest control function is vested to Ministry of Nature Protection according to the Governmental decision in 2004.

At present key state forest institutions within the Ministry of Agriculture of Armenia are as follows:

- i) Department of Crop Production, Forestry and Plant Protection of MoA;
- ii) “Hayantar” SNCO; and
- iii) Forest State Monitoring Center SNCO.

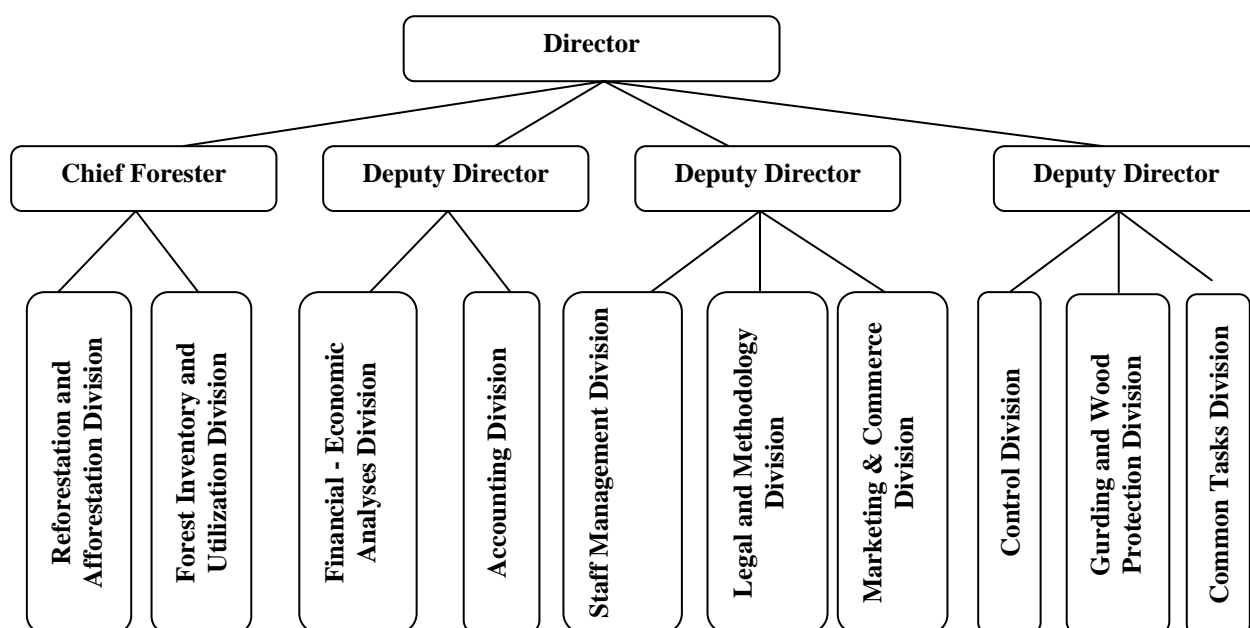
#### ***Department of Crop Production, Forestry and Plant Protection***

The Department has four Divisions: Horticulture Development, Crop Production Development, Forestry Development and Subsidization. Division of Forestry Development (3 staff) does not have its own Charter and operates under the Charter of the Ministry of Agriculture of the Republic of Armenia. Division is mainly engaged with the forest regulation framework development based on new Forest Code, 2005 and its enforcement. Other functions of the Forestry Development Division include advancing of the forest policy.

## **“Hayantar” SNCO**

“Hayantar” has gone through many restructuring processes. Initially (up to December 1988 year) it had a status of State Forest Committee, but by the decision of the Council of Ministers of ArmSSR it has been reorganized into “Hayantar” (Armforest) Forest Production Unity (FPU) autonomous organization under the Council of Ministers. Such status continued nearly 4 years up to 1992, then it was moved into the structure of the MoA. As a result of many restructuring processes at that time, Hayantar had lost several subordinate organizations (see Annex 9), which has continued during the next years, when it was already part of the Ministry of Nature Protection of RA. Among other important institutional changes it needs to mention the establishment of “Hayantar” State Forest Service during 1995-1996 years, which was soon transformed into “Hayantar” State Enterprise and shortly after that “Hayantar” State Close Joint Stock Company (SCJSC). The latter contained around 20 forest management units, with a status of legal entity. By the governmental decision № 388-N, dated 16 January 2003, the status of “Hayantar” is a State Non Commercial Organization (SNCO) and instead of former forest management units (forest enterprises), they are no longer operating as legal entities, but as a regional branches.

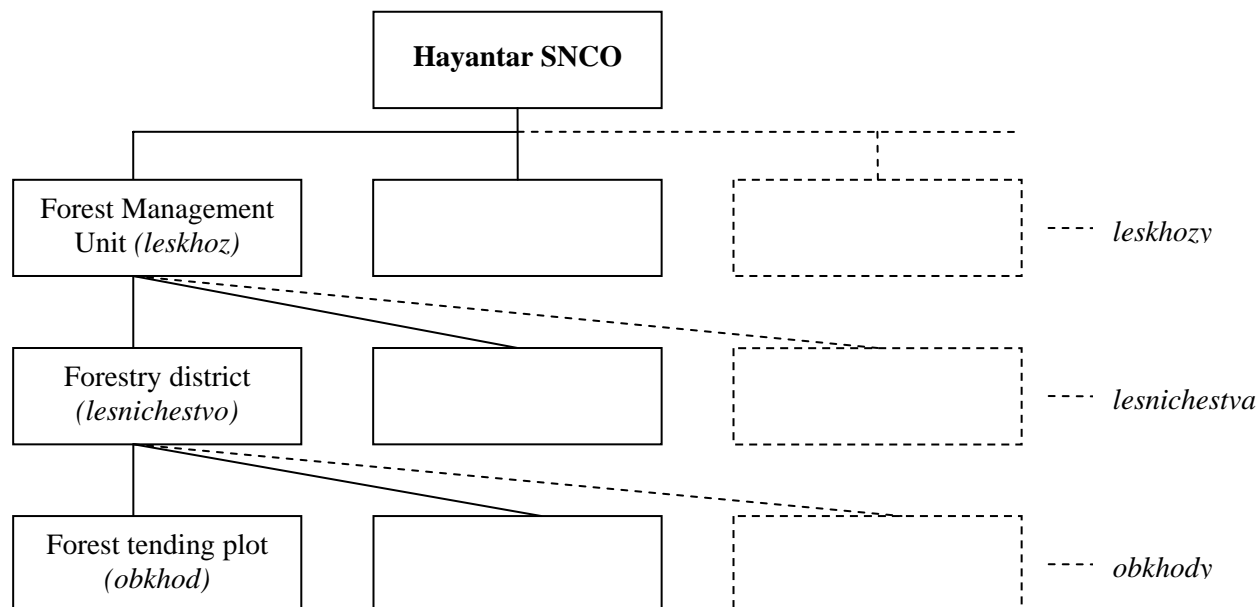
*Figure 8: Hayantar SNCO present central structure*



Currently, Hayantar is supervising 19 regional branches and responsible for implementation of the forest management plans in state forest lands, including in production forests. It employs forest central and regional staff, whose tasks include all aspects of forest management and control at the different levels. Because of heavy financial situation and most of the former forest enterprises became bankrupt. To cover the debts, equipment, constructions, buildings and furniture were sold by the court decisions. Gradually the situation is improving, thanks to gained Governmental attention. The forest expenditure provided by the state budget and international donors has increased significantly over the last several years.

Different analysis of the staff capacities revealed lack of forestry professionals, particularly in the sphere of management, inventory & cadastre and forest rehabilitation. From the total number of forest employees of Hayantar SNCO only 4% have professional forestry background. The situation has not improved much during the last years in spite of available university forest graduates. Measures to improve the forestry recruitment by public forest institutions in Armenia need to be ensured through transparent and competitive ways. Inclusion of the forest administration within the Civil Service would be an efficient step forward in this respect. For comparison, currently only 3 persons at the Division of the Forestry Development of the Department of Crop Production, Forestry and Plant Protection of MoA are considered as civil servants among all the forest staff, employed at different levels by the Ministry.

**Figure 9 Forest management levels of Hayantar**



Options for forest institutional restructuring in Armenia need to be approved at the highest governmental level. The establishment of the State Forest Service has envisaged by the Forest Code, which have to control the enforcement of the forest legislation, implementation of forest guarding, forest protection from pests and diseases, providing social guarantees to forest service employees, as well as performing other important functions listed by the code.

### **Forest State Monitoring Center SNCO**

The Forest State Monitoring Center has been operational for the last two years. According to its Charter, the objectives of the FSMC are: i) the implementation of the study with the aim of preventing illegal loggings, timber transportation, realization and other negative activities; ii) implementation of forests state monitoring.

FSMC central apparatus in Yerevan has two divisions: i) Analysis division, which compiles all data collected from the field and other sources and ii) External affairs division.

In the regions, the FSMC has three units, namely Central, Northern and Southern units. The total number of staff of the FSMC is 31, out of which 16 work in Yerevan and 15 in the marzes.

FSMC collects data and information from several sources, makes comparisons and presents the results to the State Board, which aims to improve the cooperation among different stakeholders. Understanding of the reasons for illegal logging is also important part of their activity. The state monitoring currently employs two methods:

1. Direct monitoring, which i) operates locally in the field, identifies illegal logging by unlabeled stumps and records them using a portable computer; ii) analyzes export and import statistics; iii) analyzes the timber market data; iv) examines the sector using the gap analysis.
2. Indirect monitoring, which operates through: i) the analysis of multi-date remote sensing imagery; and ii) the analysis of forest management plans.

The Forest State Monitoring Center has to be further strengthened to improve monitoring of illegal logging and the impact of management on forest resources qualitative and quantitative characteristics.

### **Ministry of Nature Protection RA**

In 1992 the State Nature Protection Committee has reorganized into Ministry of Nature and Environmental Protection of RA. Three years later when the new functions were added to ministry

related to underground resources and forest management it was restructured into Ministry of Nature Protection and Underground Resources of RA (see Annex 6). It was the main governmental institution responsible for forest management for the period of 1995-2004 years, with a short term exception in 2000 year, when there was an attempt to transfer forest management to newly restructured Ministry of Agriculture and Nature Use of RA.

The Ministry of Nature Protection of RA currently has two separate entities dealing with forestry – the Bio-resources Management Agency (BMA) and the State Environmental Inspectorate (SEI). MoNP through its State Environmental Inspectorate performs supervisory functions and applies liability measures in the fields of environmental protection, rational use and reproduction of natural resources, including forest.

### ***Bio-resources Management Agency***

Following the split of the State Forest Fund in 1997 year, within the Ministry of Nature Protection of RA it was organized Department of Nature Special Protected Areas, which became a separate Bio-resources Management Agency (BMA) operating under the MoNP in 2002 year. The BMA responsible for the management of the nature specially protected areas including: “Sevan” National Park, “Dilijan” National Park, “Khosrov Forest” State Reserve, “Shikahogh” State Reserve, Forest Research and Experimental Center and Reserve-Park Complex. It is also in charge of research, conservation, sustainable use and restoration of natural ecosystems (including forests), landscapes and biological diversity, as well as nature heritage.

The BMA supports the management and the formulation of the state forest conservation policy covering the following aspects:

- Developing normative acts on biodiversity conservation, restoration, sustainable use;
- Organization and implementation of flora and fauna diversity research;
- Implementation of measures on biodiversity conservation, restoration and sustainable use;
- Inventory, monitoring and maintaining a data bases on flora and fauna;
- Participation in ecosystems assessment, scientific justification and prognosis;
- Provision of licenses and agreements on the use of animal and plant species.

Special protected areas represent roughly 25% of Armenian forestry lands. BMA is the authorized body of state management of nature specially protected areas. Among them are listed Sevan National Park SNCO and Dilijan National Park SNCO, which have a) Reserve, b) Buffer, c) Recreational and d) Economic zones and are managed according to their management regimes, thus forest tending and sanitary cuttings can be carried out only in the economic and recreational zones of the national parks.

Total number of central staff of the BMA is 28, including 26 professional staff and 2 technical support staff, engaged in following four divisions: i) Flora Resources Management, ii) Fauna Resources Management, iii) Natural Specially Protected Areas and iv) Arboretum Management.

### ***Forest Research and Experimental Centre***

Forest Research and Experimental Center (FREC) has been established in 1998 as a State Joint-Stock Company under the MoNP and reorganized into State Non Commercial Organization in 2002. The Forest Research and Experimental Center SNCO, the unit under the Bio-resources Management Agency, deals with the forest resources inventory and planning (lesoustroystvo), forestry training, and forest field experiments.

The objective of FREC is development of the forest management plans, forest-ecological experimental studies. Zikatar training centre of the FREC located in Tavush marz is operational thanks to “Natural Resources Management and Poverty Reduction” WB Project investments.

### ***State Environmental Inspection***

State Environmental Inspectorate (SEI) established in 2002 is responsible for environmental control in the state forests and the nature special protected areas. It also performs inspections to

identify the environmental damages caused by forest operations. The Inspectorate carries out supervision in entities in the following areas (relevant to forest sector):

- *fauna and flora use and protection*: through enforcement of fauna and flora guarding, protection, use and reproduction requirements, the export and import of wild fauna and flora, conservation of Red Listed species, the use of genetically modified organisms, the wild animal hunting and fishing, protection of the forests from violations etc;
- *soil conservation*, through enforcement of environmental norms protecting soils from water and wind caused erosion, floods, pollution by wastes and chemicals, landslides and other soil deteriorating factors.

SEI central structure consists of 6 divisions, including Forest Control (15 staff) and Regional (Marz) Division (250 staff). Division of Forest Control performs a general inspection of each State Forest Enterprise of Hayantar once a year. Both the Forest Management Plan and its annual implementation work plan are the basis for the inspection. The Inspectorate visits and checks the forest harvesting, rehabilitation sites, grazing and hay-making sites, as well as detects illegal logging. In case of forest violations are found it can lead to punishment or even prosecution, depend on sort and size of the damage. Generally, the administrative fines are issued by SEI, but the criminal punishment, is issued by the court under Criminal Code.

**Forest Educational** programs initially had been launched in Armenia in 1930's, at former Armenian Agricultural Institute, which operates now as Armenian State Agrarian University. However, soon after establishment, the forestry programs have been interrupted for about 50 years. The forestry higher educational programs designed for 5 years have reopened in 1991 at the Armenian Agricultural Institute giving its first graduates in 1996 year. Since 2000 year forest sector specialists are trained in two specializations at the university: "Forestry and Gardening" and "Forest Engineering" on two-degree levels (Bachelor's Degree and Master's Degree) at the Armenian State Agrarian University (AAU). Lately the Vanadzor branch of the AAU, as well as Ijevan branch of Yerevan State University has also started to train specialists in forestry field.

AAU started cooperation with the Swedish Agricultural University (SLU) adopting the forest educational strategy, covering the following aspects: i) sharing available forestry experience; ii) development of forest educational system in Armenia through international cooperation; and iii) technical assistance in terms of mutual visits and knowledge sharing.

In case of Armenia, if forest practitioners and educational establishments work more closely, it would be for the mutual benefit to support the forest sector capacity building. Such cooperation would be very useful to identify the current needs and necessary qualification of the graduates, preparing them to be competitive in the labor market, but more importantly when actually be demanded by the public forest sector.

**Forest Science** was traditionally considered in Armenia within the scope of the National Academy of Sciences (NAS) of RA. The Institute of Botany of NAS was used to be in charge of forest scientific research in the country. Formerly there was a highly qualified Forestry department operating within the institute. Numerous forestry articles and books were published at that time. At present, however there is not much attention paid for forest science development in the country and in fact the state budget allocations for forest research have been totally interrupted for the last several years. As a result the Forestry department is not functioning any longer; human scientific capacities have also declined greatly due to change of generations. On the other hand the forest science development priorities have not been clarified yet, leading to some kind of "stagnation". The role of the science is to uphold the national initiatives on sustainable forest management and to advance the concept 'science for practitioners'. The forest science decline has largely affected development of innovative approaches related to sustainable forest management, as well as forest research activities related to country's international commitments, such as UNCBD, UNFCCC and UNCCD. The situation can be improved if better attention be paid to capacity building programs, in particular sustaining the formation of dedicated young generation of forest scientists.

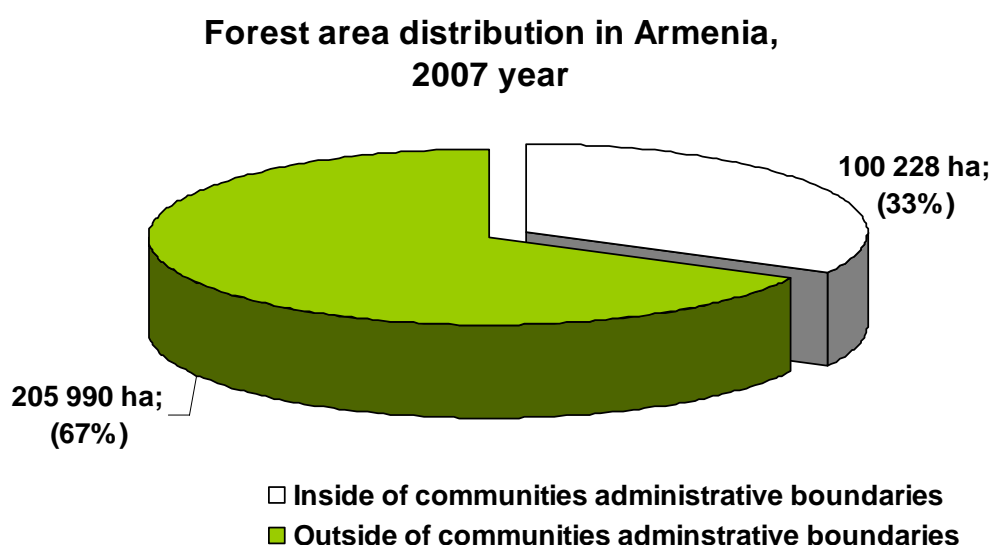


## 4.2 Community /Local Level Organizations

Communities and local level organizations face the closest interaction between the humans and the forests. They need to be considered as key forest stakeholders, recognizing their roles in the sphere of sustainable forest management. Adopted new Forest Code delegates a number of functions to communities. In particular, they have a competence for the possession, use, disposal of community forests, management of state forests given for community management, participation in the development of state programs and safeguard their implementation within their administrative territories.

A lot of communities are located in forest rich regions of Armenia, including large number of forest areas within their administrative boundaries. According to official cadastral data<sup>7</sup> around 33% of the forest areas of Forestry Land category are located inside of communities' administrative boundaries. However, there is need to mention, that the applied forest definition is relevant to Land Code classification, which contains both forest covered and non forest covered areas.

*Figure 10*



In addition, Land Code of RA defines also shrub land as a land use type among the Forest Land category, but there is not given any definition or reference to shrublands by the new Forest Code (2005), meanwhile the communities contain majority of such lands 82% (21 480ha) according to recent cadastral data of Armenia for 2007 year.

The ownership of all forest areas still are exclusively state-owned, including those lands located inside administrative limits of the communities. Through improvement of the forest resources planning, as well as operational forest management mechanisms, it can be possible to ensure not only community active participation, but also their direct involvement in the decision making process, to match state forest management objectives with the local community needs.

Underdeveloped forest regulative framework affects also the community forestry development. On the other hand, without strengthening of community forest institutions, it would be hard to achieve local support to national forest initiatives. Establishment of Forest Extension Service could contribute to overcome the forest informational shortage, making it available also for communities and private landholders, with particular interest in forestry.

Since most of the single communities have rather small proportions of forests or forest lands within their administrative boundaries, it might be helpful to establish regional community forest associations, which could provide professional advice or consultancy to communities and/or individuals interested in forestry.

<sup>7</sup> Land Balance of the Republic of Armenia by 01.07.2007 year, endorsed by the Government in 10.01.2008 by decree № 7-N.

The Clean Development Mechanisms (CDM) of the Kyoto Protocol for the Afforestation/Reforestation (A/R) projects may also serve as one of the international mechanisms supporting creation of new community and private forests in Armenia, generating environmental benefits of global significance through local carbon sequestration initiatives. According to local estimates undertaken within the scope of the TACIS regional project<sup>8</sup> in 2006 year, around a 1 000 ha of forest can be established applying Simplified Small Scale A/R CDM project methodology at that time. Lately, the limit of greenhouse gas annual removal level has been doubled (from 8 to 16 kilotons CO<sub>2</sub>), which in turn increase the afforestation and reforestation sites areas (2 000 ha and more) still eligible for small scale A/R projects. Finally, integrating climate adaptation considerations in the CDM A/R project development framework, it would be an efficient measure to combine forest mitigation and adaptation objectives<sup>9</sup> ensuring the sustainability of the planted forests under the changing environment, thus making investments more efficient.

Finally through strengthening cooperation among different forest stakeholders, including the public forest institutions, the local communities and the private sector, the implementation of the national forest policy and means will be better coordinated. It will contribute to improvement of the rural livelihood, integrated land use planning systems and better intersectoral collaboration.

### *4.3 Civil Society Organizations*

#### **Selected Non Governmental Organizations**

Although there is a fairly large number of environmentally oriented NGOs functioning in Armenia, the following are the active ones in the forest sector:

“EcoLur” Informational NGO has a mission to support and develop the eco journalism, increase the awareness of the public about the environmental, including forest problems, provide detail ecological information including officials, scientists, local community, business, support the “EcoLurNetWork in the “Centre – hot spots” interactive regime, provide the expert estimations concerning the environmental problems, organize media campaigns for nature and environment protection and involve youth in the processes concerning the ecological decisions for health environment protection, as well as guarantee the right of everybody on the access to ecological information. More information is available online at web site: [www.ecolur.org](http://www.ecolur.org)

“Armenia Tree Project” (ATP) Charitable Foundation NGO was founded in 1994 with the vision of securing Armenia’s future by protecting its environment and advancing its socio-economic development by mobilizing resources to fund reforestation, community tree planting, environmental education and advocacy, as well as rural development through job creation. ATP uses trees to improve the standard of living, promoting self-sufficiency and aiding those with fewest resources first. ATP’s tree planting and reforestation/afforestation projects are mostly supported by US based charities and individual donors, which assisted also the establishment of the backyard nursery programs and the forest nursery in the village of Margahovit in the Lori region. More information: [www.armeniatree.org](http://www.armeniatree.org)

World Wide Fund for Nature (WWF) Armenian Branch was established in 2006 year. The main goals of the Branch are representation of the Fund interests and to manage its activities in Armenia with regard to conservation of the natural environment and ecological processes. In particular: financing conservation activities and projects on conservation of nature, promotion of the awareness, development of the moral and financial support for the conservation of nature. WWF started to run its operations in the Caucasus in 1993 by opening the Caucasus Programme Office in Tbilisi, Georgia. WWF Caucasus Programme Office has started being active in Armenia since 2001. WWF Armenia has been registered as an official branch of WWF as of November 2006. More information: [www.panda.org/armenia](http://www.panda.org/armenia) and [www.panda.org](http://www.panda.org) web sites.

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<sup>8</sup> Artur Gevorgyan, Community Small Scale Afforestation/Reforestation CDM Project Development in Lori, Armenia. Technical Assistance to Armenia, Azerbaijan, Georgia and Moldova with respect to their Global Climate Change Commitments, TACIS regional project final seminar, Yerevan, 2006.

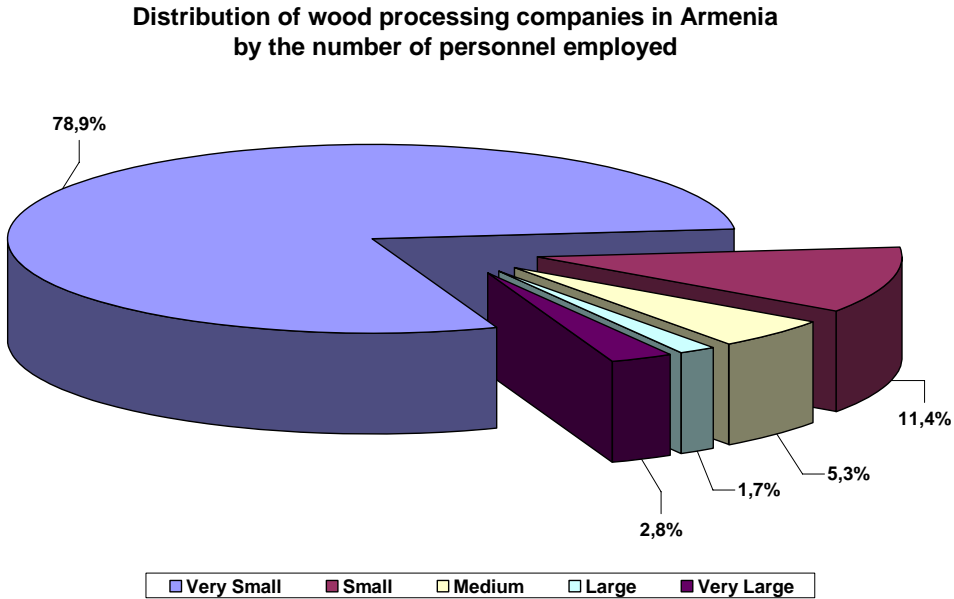
<sup>9</sup> Artur Gevorgyan, Integration of Climate Adaptation and Mitigation measures is Co-Beneficial to Forest Development, International Forest Adaptation Conference, 25-28 August 2008, Umea, Sweden, IUFRO/SLU/FAO. Available at: <http://www.forestadaptation2008.net/51746@122028/en/>

Environmental Public Advocacy Centre (EPAC) NGO was established in 1997 in Armenia under the project of “American Bar Association” “The legal initiative for Central and Eastern Europe”- ABA/CEELI. EPAC is the first non-governmental organization in Armenia the main objective of the activity of which is protection of public interests in the environmental sphere. The activities of dissemination of knowledge and information, as well as organization of various activities connected with the necessity of implementation of the norms of environmental law, formation of public opinion informing is one of the main tasks of EPAC. Besides, EPAC holds regular round tables, seminars to which representatives from the functioning environmental NGOs, local authorities, mass-media, governmental officials, deputies of relevant Commissions of the National Assembly and all those who have an interest in the discussed subject are invited. More information: [www.epac.am](http://www.epac.am)

**Private sector: Wood processing industry**

The private forest sector is not well developed in Armenia. Data related to wood processing industry are also mostly lacking. Wood materials used by private companies do not always have well documented sources of origin. According to State Registry data<sup>10</sup> currently 364 companies are operating in the field of wood processing, employing fairly large number of people. As shown in the figure 11 below, the most of the companies are either very small (79%) employing staff up to 5 persons or small 11.4% (staff 6 -10 persons). Medium size companies (staff 11-25 persons) comprise 5.3% of the total, while the large ones (staff 26-50 persons) have the share of 1.7% and the very large ones (staff 51 and more persons) nearly 3 %.

*Figure 11*



Taking into account the fact, that 2 857 people are engaged in wood processing industry, they also need to play active role in the sustainable utilization of wood resources. Private sector, especially the representatives of small and medium business generates local employment for rural communities, helps to increase incomes and alleviate poverty. The potential for NTFPs use and processing need to be better explored in different regions of the country, which will allow improving local socio-economic conditions, as well as multiple forest use approaches.

<sup>10</sup> Timber and wood processing industry State Registry data of Armenia. Available at: <http://www.iatp.am/economics/7000/c20.htm>

# 5. Summary and Conclusions

The findings of the study implemented under the scope of the FAO regional initiative, including the details on forest policy, legal and institutional changes taken place in Armenia over the past 20 years, have been presented and discussed during a round table meeting held on April 17, 2009 in Congress Hotel, Yerevan city with the involvement of the representatives of the main Armenian forest stakeholders, representing the Ministry of Agriculture RA, "Hayantar" SCNO, "State Forest monitoring Center" SNCO, academia, community, private sector and NGOs, as well as representatives of international organizations(see Annex 11),.

The round table participants recognized that the forest institutional capacities have generally declined since 1990 year. As a result Hayantar (Armforest) organization has lost many of its subordinate organizations, as well as has undergone a number of restructuring processes during the last 20 years, which were not always adapted to forest sector specific demands. In addition, for fairly large period of time forest inventory and planning (lesoustroystvo) system has been interrupted in the country, which also had a negative impact on forest resources planning and operational management aspects.

A number of positive changes have been highlighted at the meeting, however certain actions are still to be done, especially at the operational level to back up institutional reforms, presented in the table below.

**Table 3: Institutional reforms in Armenia**

What exists already	What is missing
<ul style="list-style-type: none"> <li>• Adoption of the <i>National Forest Policy and Strategy</i> document by the Government (2004)</li> <li>• Adoption of the <i>Illegal Logging Mitigation Action Plan</i> by the Government (2004)</li> <li>• <i>Separation of forest management and control functions</i> between the Ministry of Agriculture RA and Ministry of Nature Protection RA, according to Governmental decision (2004)</li> <li>• Establishment of Forest's Recovery and Development Fund</li> <li>• Adopted <i>National Forest Program of Armenia</i>, which encompasses the action plan up to 2015 year</li> <li>• Establishment of "State Forest Monitoring Center" SNCO, aimed to support forest monitoring and illegal logging survey.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>National Coordination Board</i> still needs to be established, for coordination and monitoring of National Forest Program implementation.</li> <li>• <i>State Forest Service</i> in Armenia, which should deal with forest guarding, as well as pests and disease control, forest economic activities are excluded.</li> <li>• Strengthening of <i>Forest Management Planning</i> capacities of the Ministry of Agriculture. Following the separation of functions between two ministries FREC has remained under the structure of Ministry of Nature Protection RA.</li> <li>• Establishment of <i>State Forest Inventory and Cadastre System</i>, which is missing for the last 20 years.</li> <li>• Establishment of <i>Forest Extension Service</i> envisaged by NFP under mid term measures (till 2010 year)</li> </ul>

It was part of the former arrangements, when the state forest administration used to combine forest management and controlling functions within the same institution. Based on best international experience, such kind of institutional structure is not efficient. Therefore, there is a need for separation of policy, regulation, control and management functions.

Gradual improvement in the forest sector has become visible since 2004 year with the adoption of the new forest policy and strategy document by the Government of Armenia, supported by the Natural Resources Management and Poverty Reduction (NRM/PR) WB project, co-funded by SIDA. It also served as bases for the further forest institutional and legal reforms. Separation of the forest management and control functions between the Ministry of Agriculture RA and the Ministry of

Nature Protection RA initiated by the Government in 2004 was one of the first steps in realization of adopted forest policy and strategy document. Nevertheless; it was mentioned by the participants, that there is a further need to separate forestry and environmental control aspects, through development of specific criteria suitable for forestry and environment. The latter could facilitate the establishment of State Forest Service in Armenia, which will be in charge of forest legal enforcement.

**Table 4: Legal reforms in Armenia**

What exists already	What is missing
<ul style="list-style-type: none"> <li>• New <i>Forest Code of RA</i>, adopted by the National parliament in 2005 year</li> <li>• A number of forest regulations adopted by the Government and relevant ministry, including:               <ul style="list-style-type: none"> <li>○ Forest management plans guidelines;</li> <li>○ State forest monitoring;</li> <li>○ Forest regeneration cuttings;</li> <li>○ Forest tending and sanitary cuttings;</li> <li>○ State forest cadastre, forest inventory and data distribution etc (Annex 1).</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Law on State Forest Service</li> <li>• Development of Forest Regulations, to make Forest Code operational, including by-laws related to following fields:               <ul style="list-style-type: none"> <li>○ Forest reproduction;</li> <li>○ Timber harvesting;</li> <li>○ Use of forests for cultural, recreational, scientific and other purposes;</li> <li>○ Compensation of damage caused to forestry;</li> <li>○ Pests and disease control;</li> <li>○ Forest fire safety rules etc (Annex 3).</li> </ul> </li> <li>• Improvement of <i>Forest Regulative Framework</i> to eliminate conflicts with other legal documents.</li> <li>• Better familiarization with international forest regulative knowledge and experience</li> </ul>

The stakeholders have mentioned during the discussion about imperfect forest legal framework, including underdevelopment and inconsistency of forest regulations, as well as low law enforcement. Representatives of the NGOs expressed also their concerns regarding the over-liberalization attempts in the forest sector under current conditions.

**Table 5: Information/ Education & Training/ Research reforms**

What exists already	What is missing
<ul style="list-style-type: none"> <li>• Application of modern remote sensing images in forest management planning and forest monitoring activities;</li> <li>• Gradual distribution of Geographic Information Systems (GIS) in forestry practices.</li> </ul>	<ul style="list-style-type: none"> <li>• Establishment of forest extension service;</li> <li>• National forest data have not been updated for rather long period of time;</li> <li>• Official web sites of state forest institutions;</li> <li>• Openness and credibility of forestry related information.</li> </ul>
<ul style="list-style-type: none"> <li>• Opening of forest educational programs run by Armenian State Agrarian University and its Vanadzor branch, as well as by Ijevan branch of Yerevan State University;</li> <li>• Establishment of forestry training center in Zikatar, supported by international donors;</li> <li>• Availability of international funds for forest training programs supported by NFP Facility and other donors.</li> </ul>	<ul style="list-style-type: none"> <li>• High quality educational forestry programs due to shortage of pedagogical staff in certain narrow specialization fields;</li> <li>• Scarcity of newly published forestry textbooks and other educational materials;</li> <li>• Lack of mechanisms to ensure forest graduates recruitment by the forest sector;</li> <li>• Continuous training programs for forest staff.</li> </ul>
<ul style="list-style-type: none"> <li>• Institute of Botany of the National Academy of Sciences, which was traditionally responsible for conducting forest research;</li> <li>• Forest Research and Experimental Center SNCO under the Ministry of Nature Protection.</li> </ul>	<ul style="list-style-type: none"> <li>• Forest science priorities, research programs and strategic development directions;</li> <li>• Understaffed forest scientific community;</li> <li>• Lack of innovative methods and advanced technologies in the forestry field;</li> <li>• Promotion of model forest network concept;</li> <li>• Inadequate forest research network and</li> </ul>

	international cooperation; • Scarcity of financial/technical resources for carrying out quality research.
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It is recognized by the participants that without complex measures, including further advancing of forest institutional structure, regulative framework and law enforcement measures, it would be difficult to achieve sustainable forest management in the country. Actions helping to minimize the corruption risks in state forest management need to be considered in different levels, while developing comprehensive forestry capacity building programs. Further institutional reforms need to pay more attention to improve human resource management and participatory decision making process in the forest sector, avoiding frequent changes of the forest staff, which do not contribute to sustainability of the team, as well as misuse of capable human resources. Strengthening of capacities of other forest stakeholders apart from state institutions, including local communities, NGOs and the small and medium private sector representatives interested in forestry can be an effective measure contributing to sustainable forest management practices in the country.

Finally, it is needed to increase the transparency, credibility and commitment to policy objectives and means adopted by the Government in all levels. Acknowledging that a lot of work has already been done to improved forest management practices in the country there is a still need to transform many of conceptual changes into operational level, ensuring forest economy viability and sustainability, environmental sound practices and wellbeing of people and the communities.

**Annex 1 List of published official documents speaking about economic, social and environmental roles of forests, forestry and the forestry administration**

Year	Document title and reference	Issuing authority	What is said about the role of forests/ forestry administration		Comments
8 Nov, 1992	Decree on Prevention of illegal tree felling and strengthening the protection of forest cover and greenery areas (NH-169)	President	Highlighted the role of forests for fuelwood needs	Improving forest protection, coordination of emergency fuelwood production	Period of energy crisis
1 Nov, 1994	Forest Code of RA	National Parliament	Forest classification: (i) social, (ii) protection and (iii) special protection.	State Forest Guarding Service was envisaged by the Code, but not implemented.	Most forest regulations were missing.
27 May, 1996	A Strategy of the Forest Sector Development of Armenia	Ministry of Nature Protection		Forest sector review and development issues and constrains	FAO/TCP project
28 Dec, 1998	Law on Nature Protection and Nature Utilization Payments	National Parliament			
25 July, 2002	Resolution on Establishment of State Nature Protection Inspection within the Ministry of Nature Protection of RA (N 1149-N)	Government		Environmental and forest control is envisaged	
9 Jan, 2003	Establishment of the Supporting Council for Prevention of Illegal Logging activities in RA (N 4-N)	Prime Minister		The Structure and the Charter of the Council are adopted to improve forest management	
10 June, 2004	Establishment of Republic of Armenia forest's recovery and development fund (N 891-N)	Government	Promotion of forest planting activities	Adopted the Charter of the Fund and the members of the Stewardship Council	
30 Sep, 2004	Action Plan for Mitigating Actions to help Address the Problems Associated with Illegal Logging (N 38)	Government		Needs for improvement of forest monitoring capacities	
30 Sep, 2004	National Forest Policy and Strategy of RA (N 38)	Government	SFM, Biodiversity conservation, poverty alleviation	Separation of state forest management and control functions	
21 July, 2005	National Forest Programme of RA (N 1232-N)	Government	Production, environmental and social roles of forests	Forest management, environmental and social aspects, legal, institutional issues, Coordination and monitoring of the NFP	
15 Sep, 2005	Defining the felling age of Forestry Species (N 1546-N)	Government	Separation of age classes for main forest species	Refer to NFP, Annex 3	
10 Aug, 2005	Forestry Management Plans Guidelines (N 130-N)	Ministry of Agriculture		Implementation of forest inventory and planning (lesoustroystvo)	Was adopted before new Forest code

(continuation Annex 1)

10 Oct, 2005	Forest Code of RA	National Parliament	Forest production function is highlighted	Envisaged Law on State Forest Service and a number of other regulations	
9 Nov, 2005	Resolution on Establishment of Monitoring Council to Coordinate the Actions on Combating of Illegal Logging, adoption of Charter and Personal Structure (N 1932-N)	Government		Improving the efficiency of illegal logging mitigation actions	
4 May, 2006	Regulation on Transferring the concession management of state forests to communities without tender (N 583-N)	Government		Refers to Article 54, Forest Code 2005	
22 June, 2006	Regulation on Tending and Sanitary Cuttings Implementation (N 897-N)	Government		Forest Code, 2005 (Article 24) directly refer to Sanitary cutting rules	
7 Sep, 2006	Regulation on Forest regeneration cuttings implementation (N 1412-N)	Government		There was a need to better adjust it to Forest Code, 2005	Revised in 2007
11 Sep, 2006	Decree on Forest land leasing contract sample (N 164-N)	Ministry of Agriculture		Refer to Article 55, Forest Code, 2005	
30 Nov, 2006	Regulation on State forests' concession management tender procedure (N 1793-N)	Government		Refer to Article 54, Forest Code, 2005	Supported by NFP Facility
25 Jan, 2007	Regulation on State Forest Monitoring (N 198-N)	Government		Refer to NFP, Annex 3	
24 May, 2007	Regulation on State forest and forest land utilization allocation (N 806-N)	Government		Refer to Article 32, Forest Code, 2005	
30 Aug, 2007	Regulation of activities not related to forestry and forest utilization in state forest lands (N 1045-N)	Government		Refer to Article 20, Forest Code, 2005	Supported by NFP Facility
8 Nov, 2007	Regulation of forest utilization and protection in Protective Forest Category (N 1316-N)	Government		Refer to Article 11, Forest Code, 2005	
11 Oct, 2007	Decree on data acquisition forms approved for state forest monitoring ( N 234-N)	Ministry of Agriculture			Supported by NFP Facility
29 Nov, 2007	Regulation on Forest regeneration cuttings implementation in production forests (N 1545-N)	Government		Based on Forest Code, 2005 requirements forest regeneration cuttings are allowed in production forest category only	
29 Nov, 2007	Regulation of forest utilization and protection in Production Forest Category (N 1545-N)	Government	The forest production role is highlighted	Refer to Article 13, Forest Code, 2005	Supported by NFP Facility
7 Feb, 2008	Regulation on Implementation of State Forest Cadastre, Forest Inventory and data distribution (N 133-N)	Government		Refer to Article 16, Forest Code, 2005	Supported by NFP Facility
14 Aug 2008	Regulation on Bordering and Military significance forests and forest lands utilization (N 907-N)	Government		Refer to Article 43, Forest Code, 2005	



## Annex 2 List of other sectors' official documents that have impacted forests and forestry

Year	Document title	Issuing authority	Possible impact on forestry	Comments
9 July, 1991	Resolution on Nature Protection Legal Principles adoption	Supreme Council	Environmental considerations, including forest protection	
14 Feb, 1994	Law on Land Tax	National Parliament	Defined land tax of forest fund lands (forestry and non-forestry lands)	Revised
20 Nov, 1995	Law on Environmental Impact Expertise	National Parliament	Forest regeneration and forest qualitative structure improvement	
5 May, 1998	Law on Urban Construction	National Parliament	Regulation of urban construction and forest land use change	
1999	Biodiversity Strategy and Action Plan of Armenia	Government	Biodiversity conservation, including forest	
23 Nov, 1999	Law on Flora	National Parliament	Regulates plant resources use and conservation, including the Red Listed species	
2000	Law on Fauna	National Parliament	Regulates fauna use and conservation, including the Red Listed species	
2 May, 2001	Land Code of RA	National Parliament	Regulation of forest land use types, ownership and tenure rights	
14 Dec, 2001	Law on Lake Sevan ecosystem restoration, maintenance, regeneration and utilization annual and comprehensive programs	National Parliament	Restoration of forest cover around the lakeshore	
5 May, 2002	Law on Local Self Governance (HO-337)	National Parliament	Role of the community in forest protection, fire suppression	
2002	National Action Program to Combat Desertification in Armenia	Government	Deforestation as a driver for land degradation	
8 May, 2003	Regulation on land allocation and urban construction of nature special protected area and forest fund lands (N 613-N)	Government	Procedures for forest and protected area land use change in case of urban construction	Revised and completed in 2005
18 Apr, 2003	Criminal Code of RA	National Parliament	Forest crimes (illegal logging, forest destruction etc.) punishments	
8 Aug, 2003	Poverty Reduction Strategy of Armenia (N 994-N)	Government	Land and forest degradation impact on rural poverty, Strengthening forest resources management system	

(continuation Annex 2)

17 May, 2004	Sustainable Agricultural Development Strategy of RA (N 682-N)	Government	Chapter 5 was mainly related to Forestry Development Strategy, but it was withdrawn later not to duplicate with NFPS document	Revised
4 June, 2004	Water Code of RA	National Parliament	Forest watershed management aspects	
11 Apr, 2005	Law on Environmental Oversight	National Parliament	Enforcement of environmental legislation in forest management	
20 May, 2005	Law on Seeds	National Parliament	Regulation of forest and decorative plant seed field	
20 May, 2005	Law on Agricultural Soils Melioration	National Parliament	Land reclamation for protection forest belts	
26 Nov, 2006	Law on Plant Quarantine and Plant Protection	National Parliament	Forest and wood products sanitary control and certification for the import and export purposes	
27 Nov, 2006	Law on Nature Special Protected Areas	National Parliament	Forest management under different conservation regimes in nature special protected areas	
2007	Law on Hunt and Hunting Management	National Parliament	Hunting in Forests and Forest Lands	
19 July, 2007	European Neighboring Policy Framework Rep. of Armenia – EU Action program priorities and activities for 2007 year (N 927-N)	Government	Rural poverty reduction and carrying out of sustainable development strategy, including forest development	

### Annex 3 List of laws and regulations still to be adopted based on Forest Code and NFP

Document title and reference	Reference	Issuing authority	Comments
1. Regulation on classification of forests by main significance	Forest Code (FC), Article 10	Government	Supported by NFP Facility
2. Law on State Forest Service	FC, Article 26	National Parliament	Drafted by MoA in 2007 year
3. Regulation on transforming young forest plantations into forest category	FC, Article 29	State Management Authorized Body (SMAB)	Supported by NFP Facility
4. Guidelines on afforestation and reforestation	FC, Article 30	SMAB	Supported by NFP Facility
5. Rules on forest seed and nursery maintenance	FC, Article 31	SMAB	Supported by NFP Facility
6. Regulation on timber harvesting in state and community forests	FC, Article 36	SMAB	Supported by NFP Facility
7. Regulation on secondary forest products harvesting in state and community forests	FC, Article 37	SMAB	Supported by NFP Facility
8. Regulation on non wood forest products utilization in state and community forest lands	FC, Article 38	SMAB	Supported by NFP Facility
9. Regulation on forest lands use for hunting needs, wildlife use and regeneration in protective, production and special significance state and community forests	FC, Article 39	Government	
10. The regulation on cultural, resorting, sport and tourism usage in state and community forests of protection and production significance	FC, Article 41	SMAB	Supported by NFP Facility
11. Regulation on forest utilization in recreational, resort, historical and scientific value, as well as sanitary protection zones of state and community forests	FC, Article 42	SMAB	
12. Regulation on state forests utilization, forest harvesting coupon or forest coupon special recording forms and their distribution	FC, Article 45	SMAB	
13. Determination of the cases of giving on lease state forests and forest lands without public biddings	FC, Article 48	Government	
14. Regulation on state forest fee minimum size	FC, Article 50	Government	
15. The methodology for calculation of timber volumes on stem in state forests	FC, Article 53	SMAB	
16. Forestry activities implementation sample contract form in state forests	FC, Article 55	SMAB	
17. Regulation on forest utilization fee rates for state forests	FC, Article 56	Government	Supported by NFP Facility
18. Regulation on estimation of the damage caused to forest land and forest	NFP, Annex 3		
19. Regulation on forest land use category change	NFP, Annex 3		
20. Forest fire safety rules	NFP, Annex 3		
21. Regulation on forest pests and disease control	NFP, Annex 3		
22. Regulation on Annual Allowable Cut norms calculation	NFP, Annex 3		
23. Regulation on community forest management	NFP, Annex 3		
24. Regulation on forest utilization licensing	NFP, Annex 3		
25. Regulation on Other Cutting implementation	NFP, Annex 3		
26. Regulation on restoration of low value tree species stands	NFP, Annex 3		

#### Annex 4 Types of divestment of public ownership of the forests

Year	Document	Issuing authority	Transfer of land ownership	Transfer of use-rights	Transfer of management functions	Other
2005	Forest Code of RA, 2005	National Parliament	Forest ownership: <ul style="list-style-type: none"> <li>• State</li> <li>• Community</li> <li>• Private</li> </ul>	<ul style="list-style-type: none"> <li>• Logging permits up to 1 year;</li> <li>• Concession agreement up to 10 years;</li> <li>• Lease contracts up to 60 years</li> </ul>	State Forest management; Concession forest management, Community Forest management	There is an opportunity of obtaining a free allocation of state forest lands for afforestation purposes, which can eventually lead to private forest ownership (Forest Code, Article 33), however the relevant regulations and mechanisms have not been fully developed yet, including: <ul style="list-style-type: none"> <li>▪ Afforestation and reforestation guidelines;</li> <li>▪ Regulation on transforming young forest plantations into forest category.</li> </ul>

#### Annex 5 Changes in the objectives of the forest resource management

Year of Changes	Document	Forest conservation	Increase of forest covered area	Timber production	Sustainable development	Poverty reduction	Other
27 May, 1996	Strategy of the Forest Sector Development of Armenia	Biodiversity conservation		Sustainable forest use			Recreation
8 Aug, 2003	Poverty Alleviation Strategy of Armenia			Illegal logging impact on forest degradation	Improved forest management	Role of forestry for poverty alleviation	
30 Sep, 2004	National Forest Policy and Strategy of RA	Forest biodiversity conservation		Increase of legitimate wood supply	Sustainable Forest management	Social economic aspects	Illegal logging, Corruption
21 July, 2005	National Forest Programme of RA	Forest biodiversity conservation	Optimization of forest cover	Sustainable forest production	UN conventions on CBD, CCD and FCCC	Social aspects	Forest science development, International cooperation
10 Oct, 2005	Forest Code of RA	Forest biodiversity conservation	Economic mechanisms to support afforestation	Highlighted forest production function			Forest ownership diversification

**Annex 6 Changes in the responsibilities for environmental issues at the country level**

Year of change	Institution responsible for Environmental conservation	Institution responsible for Protected areas	Institution responsible for recreation services	Institution responsible for wild-life management	Other (Environmental Inspection)
Until 1988	State Nature Protection Committee of ArmSSR	State Forest Committee of ArmSSR	State Forest Committee of ArmSSR	State Forest Committee of ArmSSR	
1989	State Nature Protection Committee of ArmSSR	“Hayantar” Forestry Production Unity	“Hayantar” Forestry Production Unity	“Hayantar” Forestry Production Unity	
1992	Ministry of Nature and Environmental Protection	Ministry of Agriculture of RA, ‘Hayantar’ Forestry Production Unity	Ministry of Agriculture of RA, ‘Hayantar’ Forestry Production Unity	Ministry of Agriculture of RA, ‘Hayantar’ Forestry Production Unity	
1995	Ministry of Nature Protection and Underground Resources	Ministry of Nature Protection and Underground Resources, ‘Hayantar’ Forestry Production Unity	Ministry of Nature Protection and Underground Resources, ‘Hayantar’ Forestry Production Unity	Ministry of Nature Protection and Underground Resources, ‘Hayantar’ Forestry Production Unity	
1996	Ministry of Nature Protection	Ministry of Nature Protection ‘Hayantar’ State Enterprise	Ministry of Nature Protection ‘Hayantar’ State Enterprise	Ministry of Nature Protection ‘Hayantar’ State Enterprise	
1997	Ministry of Nature Protection	Ministry of Nature Protection of RA, Department of Nature Specially Protected Areas	Ministry of Nature Protection of RA, Department of Nature Specially Protected Areas, Hayantar SCJSC	Ministry of Nature Protection of RA, Department of Nature Specially Protected Areas, Hayantar SCJSC	
2002	Ministry of Nature Protection	Ministry of Nature Protection, Bio-resources Management Agency	Ministry of Nature Protection, Bio-resources Management Agency and Hayantar SNCO	Ministry of Nature Protection, Bio-resources Management Agency and Hayantar SNCO	State Environmental Inspection of MoNP
2004	Ministry of Nature Protection	Ministry of Nature Protection, Bio-resources Management Agency	Ministry of Nature Protection Bio-resources Management Agency, Ministry of Agriculture Hayantar SNCO	Ministry of Nature Protection Bio-resources Management Agency, Ministry of Agriculture Hayantar SNCO	State Environmental Inspection of MoNP

**Annex 7 Key aspects of forest policy (as an indicator of changes in the recent years reflecting the larger social and economic changes)**

Aspects of forest policy	Year/ document	Main changes	objective	comments
Revision of the forestry legislation	2005, Forest Code of RA	Technical 'Forest' definition is adopted	Crown coverage 30%, Minimum area 0,1ha, Minimal width 10m	Minimum tree height threshold is missing; there is no clear distinction between the shrub land and the forest.
		Envisaging community and private forests	Divestment of ownership	Promotion of community and private forests
		Forest category of Production significance	Highlight timber production function	No specific criteria is set for production category forest
		Envisaged Law on State Forest Service	Clear separation of forest management and control functions and forest legal enforcement	Not developed yet
		Concession management of state forests	Improving state and community forest management	Up to 10 years period, formerly it was not envisaged at all
		Extending forest land leasing duration	Meeting long term forest management objectives	Up to 60 years, instead of former 10 years period
		A number of new forest regulations are envisaged, which are still under development	Make new Forest code, (2005) operational	Forest regulative framework need to be well developed and consistent.
Changes in the forest management mode (new management plans, CFM etc)	2005-2007	Development of new forest management plans for Artsvaberd, Ijevan, Sevkar, Chambarak, Gugark, Noyemberyan and Goris Forest Enterprises and Sevan National Park, Dilijan National Park and Khosrov State Forest Reserve	Updating of forest resources information and preparing plans for 10 years period	New management plans development has been financed by NRMPR WB project and state budget allocations. The community forest management development still should be supported legally and through institutional reforms.
Introduction of governance (participation, inter-sectorality, multilevel coordination, certification, policy evaluation etc)	2006	Pre-assessment of Zikatar forest (150ha) and Sevkar forest enterprise has been done based on FSC standard	To check the local forest management performance based on international FSC Principles & Criteria; Tool for mitigation of illegal logging.	Activities have been carried out by Woodmark Soil Association under the NRMPR WB project. The results highlight a number of correction actions to be taken to improve forest management and biodiversity conservation.

## Annex 8 Traceable changes in functions of forestry service

Year of Functions' transfer	Forest inventory (transferred to...)	Forest management/ planning (transferred to ...)	Timber harvesting (transferred to ...)	Timber processing (transferred to ...)	Training /research (transferred to ...)	new
1988	State Forest Committee of ArmSSR		State Forest Committee of ArmSSR	State Forest Committee of ArmSSR	Institute of Botany, National Academy of Sciences	
1988	'Hayantar' Forest Production Unity (FPU)		'Hayantar' FPU	'Hayantar' FPU		
1991						Launching new forestry specialities at the Armenian Agricultural Institute
1992	'Hayantar' FPU of Ministry of Agriculture		'Hayantar' FPU of Min. of Agriculture	'Hayantar' FPU of Min. of Agriculture		'Armforestproject' Institute of 'Hayantar' FPU
1995	'Hayantar' Production Unity State Forest Service of the MoNPUR		'Hayantar' Production Unity State Forest Service of the MoNPUR	'Hayantar' Production Unity State Forest Service of the MoNPUR		
1996	'Hayantar' State Enterprise, of MoNPUR		'Hayantar' State Enterprise, of MoNPUR	'Hayantar' State Enterprise, of MoNPUR		
1997	'Hayantar' SCJ-SC of MoNPUR		'Hayantar' SCJ-SC of MoNPUR	'Hayantar' SCJ-SC of MoNPUR		
1998		Forest Research and Experimental Center (FREC) of the MoNP			FREC of the MoNP	
2002		'Hayantar' SNCO of MoNP	'Hayantar' SNCO of MoNP			
2004			'Hayantar' SNCO of Ministry of Agriculture	'Hayantar' SNCO of Ministry of Agriculture		
2007						State Forest Monitoring Center SNCO of MoA

Abbreviations: MoA- Ministry of Agriculture of RA; MoNPUR -Ministry of Nature Protection and Underground Resources of RA; MoANU - Ministry of Agriculture and Nature Use of RA, MoNP- Ministry of Nature Protection of RA; SCJ-SC State Close Joint Stock Company, SNCO – State Non Commercial Company

## Annex 9 Changes in the structures of institutions (focus on forestry)

Year of status/ structure change	Part of Ministry of Agriculture RA	Part of Ministry of Nature Protection RA	Part of other ministry (name )	A state committee (name)	Independent agency (dates)	Ministry of forestry (dates)
1976 - 1988				State Forest Committee of ArmSSR		
1988 - 1992					'Hayantar' Forestry Production Unity	
1992 - 1995	'Hayantar' Forestry Production Unity of MoA					
1995 - 1996		'Hayantar' Production Unity State Forest Service of the MoNPUR <sup>2</sup>				
1996		'Hayantar' State Enterprise, of MoNPUR				
1997 Splitting of the State Forest Fund		'Hayantar' SCJ-SC; Department of Nature Special Protected Areas of MoNPUR				
2000	'Hayantar' SCJ-SC of MoANU	Department of Nature Protected Areas of MoNPUR				
2000 - 2002		'Hayantar' SCJ-SC; Department of Nature Special Protected Areas of MoNP				
2002 - 2004		'Hayantar' SCJ-SC; Bioresources Management Agency of MoNP				
2004 – currently	'Hayantar' SNCO of MoA	Bioresources Management Agency of MoNP				

Abbreviations: MoA- Ministry of Agriculture of RA; MoNPUR -Ministry of Nature Protection and Underground Resources of RA; MoANU - Ministry of Agriculture and Nature Use of RA, MoNP- Ministry of Nature Protection of RA; SCJ-SC State Close Joint Stock Company, SNCO – State Non Commercial Company



## Annex 10 Changes in the organi-gramme of the forestry administration

Year of change	Disappeared services	Reason why	Re-named/re-placed/reorganized services	Reason why	New services	Reason why
1988	State Forest Committee of ArmSSR	Decision of the Council of Ministers of ArmSSR	'Hayantar' Forestry Production Unity (FPU)			
1992	'Soyuzgiproleskhoz' Institute	Breakdown of USSR	'ArmForestProject' Institute of 'Hayantar' FPU			
1993	State Forest Nursery of Eghvard	Privitazation				
1993	'ArmForestProject' Institute of 'Hayantar' FPU	Termination of the organization				
1994	Wood Protection Station of 'Hayantar' FPU	Decision of 'Hayantar' PFU	Forest Experimental Station of 'Hayantar' FPU			
1998	Forest Experimental Station of 'Hayantar' FPU	Termination of the organization				
1998					Forest Research and Experimental Center SCJSC of the MoNP	Forest inventory and planning activities
2002					Bio-resources Management Agency of MoNP	Nature Special Protected Area Management
2002					Forest Management Agency of Ministry of Agriculture	
2005	Forest Management Agency of MoA	Reorganization of the structure	Forestry Department of MoA		State Forest Monitoring Center of MoA	Forest monitoring, illegal logging survey
2006	Forestry Department of MoA	Reorganization of the structure	Crop Production, Forestry and Plant Protection Department of MoA			

**Annex 11 List of round table meeting participants on 17 April, 2009**

#	Name	Surname	Organization	Position
1.	Karine	Grigoryan	Ministry of Agriculture RA	Head, Legal Department (Focal Point)
2.	Hayk	Haykyan	Ministry of Agriculture RA	Minister's Adviser
3.	Harutyun	Harutyunyan	Ministry of Agriculture RA, Department of Horticulture, Forestry and Plant Protection	Head, Forestry Development Division
4.	Artur	Petrosyan	Ministry of Agriculture RA, Department of Horticulture, Forestry and Plant Protection	Chief Specialist, Forestry Development Division
5.	Ruben	Petrosyan	"Hayantar" SNCO	Chief Forester (NFP Facility Focal Point)
6.	Atom	Grigoryan	"State Forest Monitoring Center" SNCO	Fist category specialist
7.	Stepan	Mkrtchyan	"State Forest Monitoring Center" SNCO	Fist category specialist
8.	Ayser	Ghazaryan	Armenian State Agrarian University	Forestry Lecturer
9.	Artur	Alaverdyan	Yerevan State University, Ijevan Branch	Head, Forestry Department
10.	Inga	Zarafyan	"Ecolur" Informational NGO	President
11.	Gayane	Nasoyan	FAO Office in Armenian	Representative
12.	Artur	Gevorgyan	"Forest Policy and Institutional Change Analyses in Central Asian and Caucasus Countries" FAO Regional project	National Consultant
13.	Aram	Ter-Zakaryan	UNDP "Adaptation to climate change Impacts in Mountain Forest Ecosystems of Armenia" project	Task Leader
14.	Lendrush	Bejanyan	Shamlugh Community	City Mayor
15.	Sergey	Khachatryan	"Yerevan Brandy Factory" CJSC	Head, Wood Supply Division
16.	Aida	Iskoyan	"Environmental Public Advocacy Center" NGO	President
17.	Karine	Danielyan	"Sustainable Development" NGO, UNEP National Coordinator	President
18.	Rusan	Arakelyan	Yerevan State University	Student

**Venue:** Congress Hotel, Combined Meeting Room, 1 Italia Street, Yerevan, Armenia