Draft Report

The National Coaching Workshop "Criteria and Indicators for Sustainable Forest Management for Armenia"

13th - 15th of September 2017

Yerevan, Armenia

Organized by the UNECE/FAO Forestry and Timber Section in partnership with "Hayantar" SNCO Ministry of Agriculture of the Republic of Armenia, and UNDP Armenia under the UNECE/FAO project "Accountability Systems for Sustainable Forest Management in the Caucasus and Central Asia", which is funded through the UN Development Account (UNDA)

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List of Abbreviations

ArmStat	National Statistical Service of the Republic of Armenia
CBD	Convention on Biological Diversity
C&I	Criteria and indicators
FAO	Food and Agriculture Organization of the United Nations
FMP	Forest management plans
GEF	Global Environment Facility
HCVFs	High conservation value forests
LSG	Local self-Government
MoA	Ministry of Agriculture
MoNP	Ministry of Nature Protection
MoTAD	Ministry of Territorial administration and development
NFP	National Forest Program
NWFP	Non wood forest products
PAs	Protected Areas
RA	Republic of Armenia
SFM	Sustainable Forest Management
SFMC	State Forest Monitoring Center" SNCO
SNCO	State Non-Commercial Organization
SPNAs	Specially protected nature areas
UNECE	United Nations Economic Commission for Europe

1. Introduction

This report gives an overview of the outcomes of the UNECE/FAO, UNDA National Coaching Workshop "Criteria and Indicators for Sustainable Forest Management for Armenia", which was held 13-15 September 2017 in Yerevan, Armenia.

This national coaching workshop is part of a UN Economic Commission for Europe (UNECE), Food and Agriculture Organization of the UN (FAO) and UN Development Account (UNDA) project designed to strengthen the national capacity of five countries in the Caucasus and Central Asia (Armenia, Georgia, Kazakhstan, Kyrgyzstan and Uzbekistan) to develop national criteria and indicators (C&I) for sustainable forest management (SFM).

The project builds upon existing processes and expertise in participating countries addressing country specific needs and priorities. The duration of the project is from June 2016 until December 2019. The project supports Armenia by facilitating a participatory multi-stakeholder process and holding workshops on the development of accountability systems with the participation of international and national experts.

The initiative is supported by Armenia's Ministry of Agriculture ''Hayantar'' State Non-Commercial Organization (SNCO), in particular because it involves a broad swath of society for more inclusive decision making on forests.

More than 35 experts (Annex 1: List of participants) from the RA Ministry of Agriculture, Ministry of Nature Protection, Ministry of Emergency Situations, State Statistical Service, Hayantar SNCO, State Forest Monitoring Center SNCO, academic institutions, regional government, as well as non-governmental organizations took part in the meeting. The workshop brought together experts from Armenia, Estonia and Georgia to discuss and formulate recommendations for the future work on Criteria and Indicators for Sustainable Forest Management in Armenia.

The objectives of the coaching workshop (Annex 2: Agenda of the workshop) were:

- to identify the status of national and international forest reporting;

- to analyse the needs, benefits and potential of criteria and indicators (C&I) development;

- to discuss and select national C&I for a preliminary set;

- to assess the process plan and the best approach for implementation.

The workshop languages were English and Armenian (with interpretation). It was organized with the support of UNDP Armenia. The participating experts worked three days with various presentations and group work exercises. The workshop was moderated by Mr. Vardan Melikyan.

Detailed information (program, presentations, news release, photographs) about the workshop is available at: https://www.unece.org/index.php?id=43759#/.

More information about the project can be found here: http://www.unece.org/forests/areas-of-work/capacity-building/unda2016-2019.html

1.1 Forest resources of Armenia

Forests have important anti-erosion, soil-protective, water-regulating, and climate-regulating functions. While these ecological functions are widely acknowledged, the economic and social functions of forests are less well understood in Armenia.

According to the state forest agency in Armenia "Hayantar" SNCO, forest cover in 2010 was 345,820 ha, which is about 11.2% of the total area (as it was in 1993).

Armenia has extremely limited forest resources, making it particularly vulnerable to over-harvesting. Armenia's mountain forests play a vital role in providing habitats for rare and endangered animal species.

There are more than 200 types of forest , 274 species of trees and bushes occur in Armenia's forest areas, out of which the main natural forest species include oriental beech (Fagus orientalis), Georgian oak (Quercus iberica), oriental oak (Quercus macranthera), Caucasian hornbeam (Carpinus caucasica) and pine (Pinus Sosnovski, Pinus kochiana). As a result of various natural and anthropogenic effects, the natural regeneration of valuable forest species of oak, beech and Caucasian pine is not sufficient and the stands with domination of *Taxus baccata, Corylus colurna* and other rare tree species have been drastically reduced; at present they occur in the form of islands and individual trees.

There is evidence that approximately 30 per cent of the land was originally covered by forests. The present distribution of forests in Armenia is not even: 62 per cent of the forest cover is found in the north and northeast (Lori and Tavush Marz), and 36 per cent in the south (Syunik Marz), while the central part of the country is almost treeless (2 per cent). All forests are state owned.

1.2 Forest governance in RA

The state forests of Armenia are mainly managed by the RA Ministry of Agriculture and the RA Ministry of Nature Protection, including the system of SPNAs, which includes mainly forest landscapes and up to 60-70% of the flora and fauna of the country. Some part of the forests (former kolkhoz-sovkhoz forests) is within the administrative borders of communities and at present, the activities on clarification of the borders and status of territories are underway.

The RA Ministry of Agriculture is the state management body authorized by the RA Government in the fields of forest protection, guarding, reproduction and use. About 75% of forest areas including 13 sanctuaries (out of total 27) is managed by "Hayantar" State Non-Commercial Organization (SNCO) and its 19 branches (Annex 3: "Hayantar" SNCO and its branches) – all under the Ministry of Agriculture.

State forest control is vested with the State Inspection under the RA Ministry of Nature Protection. About 25% of forest areas in the structure of SPNAs (Dilijan and Sevan National Parks, Khosrov Forest State Reserve, Zangezur Biosphere Complex including Arevik National Park and Shiahogh State Reserve as well as 7 state forest sanctuaries) are managed by the Bioresources Management Agency and respective subordinate SNCOs – all under the RA Ministry of Nature Protection.

1.3 Strategic framework

Over the recent decade some key documents for the RA forest sector have been developed such as the National Forest Policy and Strategy (2004), National Forest Program (2005), Illegal Loggings Action Plan (2005), State Forest Monitoring Program (2006), a number of by-laws and other documents.

The main strategic and legal documents related to the forests in Armenia include:

− National Forest Policy and Strategy of the RA (adopted in 2004);

− National Forest Program of the RA for 2005-2015 (2005);

− RA Forest Code (2005) along with a number of regulations amended and/or adopted later;

− RA Strategy and National Action Plan for 2016-2020 on Conservation, Protection, Reproduction and Use of Biological Diversity (2015);

− RA State Program and Strategy on Specially Protected Nature Areas (SPNA), their Conservation and Use (2014);

− RA Law on SPNAs (2006), the revised version is in the process of approval.

1.4 Environmental and socio-economic issues

Forests are among the most threatened ecosystems in Armenia. Valuable forest areas are lost due to overexploitation of forests, non-regulated loggings, grazing, hay-making, land occupation and other causes, changes in species composition and structure occur in the forests, the stands lose their capacity of natural regeneration and their productivity is reduced.

Due to the destruction of forest areas, the ecological balance of the environment is disturbed. In the logged areas and adjacent territories the processes of landslides, avalanches, mudflows, drying of springs and others are observed. The intensity of erosion and mudflows has increased; they cause damage to communities and areas of agricultural significance. In the result of overexploitation of forest ecosystems and grazing often the steppe-meadow vegetation types replace the high-value forest species.

The reduction of forest covered areas results in the fragmentation of areas of populations of plants and animals and loss of genetic diversity, increased carbon dioxide in the atmosphere and the ability of forest to absorb and accumulate carbon dioxide from the atmosphere is reduced. Instability of forest ecosystems affects the productivity of agricultural crops as well as the diversity of plant composition in hay-making areas and pastures.

As a result of various socio-economic circumstances and high demand for firewood, the total logging volumes still exceed the volumes of legal cuts. The accessibility of wood, high price of energetic resources, needs of socially insecure population and their low solvency contribute to that. Wood continues to be the main source of fuel for the population of forest adjacent communities. Collection of forest herbs and berries, hay-making and grazing are not clearly regulated.

The RA Governmental decision (1535-N, 27 October 2011) on free of charge provision of 8 m3 of residual fuel-wood annually to forest adjacent communities has had certain positive impact on prevention of illegal loggings. However, it is necessary to revise the issues on provision of the means of transportation, distance of allocated cutting areas, wood transportation and other related technical issues.

2. Overview of processes related to C&I of SFM in Armenia

During recent years, some activities have been implemented in Armenia, including the consideration of biodiversity, HCVFs and climate change issues as well as the introduction of forest management information systems, improvement of forest management planning and monitoring among others. These activities were an important start, nevertheless, they remained fragmented and insufficient.

Over the recent decade some key documents for the RA forest sector have been developed such as the National Forest Policy and Strategy (2004), National Forest Program (2005), Illegal Loggings Action Plan (2005), State Forest Monitoring Program (2006), a number of by-laws and other documents.

The main goal of the National Forest Policy of the Republic of Armenia is to ensure sustainable management of forests and forest areas. The RA National Forest Policy sets forth that forests are national wealth and should serve also to future generations through safeguarding sustainable management of forests and forest areas.

The objectives of the National Forest Program are to protect forest ecosystems, rehabilitate degraded forest ecosystems, continuous and effective use of forest resources and implementation of the policy on sustainable forest management. Important objectives of the program include activities on mitigation and prevention of illegal loggings, eradication of economic and social causes of illegal loggings, improvement of environment, institutional improvement, scientific-educational development and capacity building.

2.1 Gaps in forest policy

The state forest policy is not aimed at multipurpose forest use and ecosystem approaches in forest management. The services provided by ecosystems are not considered as alternative directions of forest management; respective programs on valuation and provision of ecosystem services as well as generation of financial flows have not been adopted and implemented. There are no provisions on ESs in the forestry sector policy and legislation documents.

The developments in the sector do not meet the requirements and guidelines of international conventions, in particular, in the fields of implementation of criteria for sustainable forest management (SFM), multipurpose forest use, revision of national legislation, land use schemes to apply the tools on protection and spatial planning of natural habitats, appropriate engagement of local population in decision-making and others (Aichi Biodiversity Targets, CBD Stragetic Plan 2011-2020).

A number of activities outlined in the NFP is still not implemented due to weak financial, human and technical capacities. Activities towards SFM have not been properly initiated in Armenia and socio-ecological functions of forest ecosystems were underestimated. Still there is lack of biodiversity researches, recognition of HCVFs, inclusion of ecosystem services and climate change issues in forest management planning, as well as publically available forest management information and FMP's data.

Since the adoption of the RA National Forest Policy and Strategy and the National Forest Program (2005) quite some changes and developments have happened at international and national levels concerning forests. There is a clear need to revise the main national framework documents to have the common ground for further coordinated activities in the forest sector of Armenia.

2.2 Forest management planning and its challenges

The planning of activities in forest enterprises is defined in respective management plans; however the FMPs have not been developed for all forest enterprises so far. FMPs include forest management measures for 10 years time. While most of the forest management plans have been approved in 2010 and are in use by 2020 (they were developed in 2006-2008), they have been prepared on the data since 2008, which shortened expiration date to 2018. From the 19 "Forestry" branches of Hayantar SNCO, 3 forest enterprises do not have forest management plans at all (and the management plans for "Ijevan Forestry" and "Sevkar Forestry" branches have expired in 2016).

The FMPs are mainly not aimed at multipurpose forest use, the use of non-wood forest products by local population is not regulated, related clear estimates and planned activities are not sufficient (except secondary forest use).

In the FMPs developed so far the areas of forests having high conservation value have not been defined, no special measures have been developed for ecotourism and functional zoning of the areas. There are no planned programs on safeguarding migration of animals, stock-taking of biological resources and defining the quotas for their use, running of hunting enterprises as well as sustainable use of non-wood forest products.

In the FMP integrated measures on safeguarding integrity of ecosystems and ecological processes as well as ecosystem services are not defined, clear quotas of use of natural resources (non-wood resources) and biological diversity are absent. Forest biodiversity monitoring and special scientific research on forests are not sufficient. There is no sufficient data on forest stock-taking, ongoing changes, diseases and pests, fire-fighting measures, possible impacts of climate change and other surveys.

There is a lack of coordination between the various state and non-state actors and population groups. In addition, there is not enough reliable FMP data available on the different sectors to support planning and decision-making processes.

2.3 The initiatives of development of national criteria and indicators for SFM

Many countries have already developed and started using national criteria and indicators for sustainable forest management, and Armenia joins those countries by developing its own.

During recent years, some activities have been implemented in Armenia, including the ones on consideration of biodiversity, HCVFs, ecosystem services and climate change issues as well as to introduce forest management information systems, improve forest management planning and forest monitoring and others.

At present the UNDP/GEF "Mainstreaming Sustainable Land and Forest management in North-Eastern Armenia" works on updating the management plans for 10 forest enterprises in Lori and Tavush Provinces. Among others, this work emphasizes biodiversity issues and high conservation value forests.

The GIZ IBiS Program works towards consideration of integrated biodiversity management in national policies/strategies and targeted practical activities to ensure sustainable management. One of the indicators of IBiS is to have pilot forest enterprises in Armenia with forest management based on the (national) principles for SFM.

2.4 Previous Regional inception workshop in Yerevan

("Criteria and Indicators for Sustainable Forest Management in the Caucasus and Central Asia", Yerevan, Armenia, 15 to 18 November 2016)

The workshop participants highlighted the fact that forests are among the most threatened ecosystems in Armenia, with degradation accelerating. Armenia is committed to achieving sustainability in forest management, and the three-day workshop helped to move things in the right direction.

At the regional inception workshop in Yerevan the following major gaps and challenges were formulated for Armenia:

In Armenia the forest inventory was incomplete and last undertaken 1993, the Country Analysis Task showed these gaps. Armenia also pointed out that the statistics about the private forest sector may be less precise than the ones of the national forest agency. The forest area is managed by two Ministries, the Ministry of Agriculture and the Ministry of Environment.

Rules and laws about illegal logging are not enforced in practise. As Armenia identified crucial gaps and successfully outlined their future aims and the barriers to achieve SFM in the country showed great potential to progress strongly within the 3-year period of the project.

Armenia	Current forest management:
Forest Area: 332.001 ha Growing Stock in forest: 40.67 (million m^3)	• Income from harvesting and selling wood • Hunting • 100% Public ownership Future forest management: • Increase income from harvesting and selling wood, but also marketing of non-wood forest products and ecotourism • Increase biodiversity and protected forest areas • Increase CO2 sequestration • Promote forest monitoring and training • Well educated forestry staff • Woodland sanitation Barriers: • Climate change, Forest health • Lack of proper forest monitoring to take actions • Lack of funding, Bureaucracy • Cutting licenses, Illegal logging

3. National Coaching Workshop

The next chapters will summarize presentations and group work exercises, as well as the outcomes of the national coaching workshop (https://www.unece.org/index.php?id=45759#/) on the topic "Criteria and Indicators for Sustainable Forest Management in the Caucasus and Central Asia".

3.1 Workshop Day 1, 13th September - Preliminaries, objectives, background to SFM C&I and setting the scene

Welcome and short opening remarks by the host country representative and UNECE/FAO
During the first morning session of the meeting, short opening remarks were made by the host country representative Mr. Ruben Petrosyan and Alicja Kacprzak UNECE/FAO, followed by a project overview from Theresa Loeffler UNECE/FAO. She presented the project, time frame, budget, examples of C&I processes, supporting materials for national C&I development, etc.

Participant introductions, workshop objectives, compiled needs assessment and rules and norms. Introducing the Guidelines for the training (Presentation - Vardan Melikyan)
The presentation of Vardan Melikyan (workshop facilitator/moderator) introduced objectives, purpose, methodology and general rules of the workshop. He proposed a method of participant introductions (two people introducing each other), rules and norms and guidelines for the coaching workshop. He provided key lessons and recommendations from the regional workshop that took place in Armenia in November 2016 and the process plan for development of national level C&I in Armenia (see Chapter 2.4). Upon completion of the presentation, an assessment of needs and priorities for sustainable forest management in Armenia was conducted.

Overview of the background, definitions, purpose, processes, benefits and challenges with C&I for SFM (Presentation - Mati Valgepea)

The representative of the Estonian Ministry of the Environment Mr. Mati Valgepea presented a brief overview of the historical and current background, pillars, definitions, purpose, processes, benefits and challenges related with C&I for SFM in Estoina. He also introduced complementarity of Qualitative and Quantitative indicators, their features and means of verification, the data flow pyramid and examples of C&I. It was highlighted that the best indicators should be Specific, Measurable, Achievable, Realistic and Time-bound (SMART).

Overview of Armenian forest sector, forest information systems, data available and gaps (Presentation - Ruben Petrosyan)
The Armenia Focal point of the project Mr. Ruben Petrosyan (Chief Forester, First Deputy Director of "Hayantar" SNCO, Ministry of Agriculture of the Republic of Armenia) introduced the overview of Armenian forests, current state of forestry sector in Armenia, dynamics of funding and reforestation activities, as well as forest data and information accessibility and sector gaps. It was noted that currently institutional developments and reforms are taking place in the forest sector and are aimed to increase the status of Hayantar. With regard to access to information, it was noted that GIZ supported the creation of National Forest Management Information System (NFMIS), which is currently under development. R. Petrosyan also highlighted the potential benefits of the National Criteria and Indicators for Sustainable Forest Management and recent forest fires in Armenia, noting that in 2017 more wood was burnt than the previous ten years taken together and he suggested creating firefighting groups. He also outlined further steps on improvement of FM Planning and reforestation activities.

Georgia's experience in developing and utilizing C&I for SFM (Presentation - Gigia Alexidze)
The national coordinator of the project in Georgia, Mr. Gigia Aleksidze, presented the experience of Georgia on the application of sustainable forestry management tools and indicators, the goals and priorities of the Georgian National Forest Concept and next steps on planning to use and visualize C&I for FSM through "Global Forest Watch" (GFW) System and the institutional setup of FLUIDS (Forest and Land Use Information and Decision Support Web-based Portal/Atlas).

Forestry problems and the concept of sustainable forest management, Armenia (Presentation - Gagik Amiryan)
Mr. Gagik Amiryan (the head "Armenian Green Cross" of Environmental non-governmental organization) presented Forestry problems and the concept of sustainable forest management in Armenia. The main problems were the decrease of forest area and loss of typical landscapes, reduction in the number of species and their stocks, decrease in carbon depositing properties of forests and the reduction of the protective stability of forests etc.. Particular attention was given to the issue of fast growing forest plantations that will allow combining the conservation of biodiversity with adequate provision of social and economic needs through the competent management of sites with intensive forestry with a combination of social and economic development and environmental sustainability. It was proposed to create Model forests and seed plantations, which are universal polygons for organizing and conducting scientific research and improving the forest management system.

Case study of national C&I development in Estonia (Presentation - Mati Valgepea)
The representative of Estonia Mr. Mati Valgepea (Leading specialist in forest statistics Department of Data Management) provided examples of SFM C&I processes and outcomes, lessons and recommendations from Estonia. He noted that Estonia has developed a number of guidelines and indicators for forest management, which can be an example for Armenia, in line with Armenia's requirements and degree of applicability. The main goal of SFM C&I process in Estonia was the (re-)

integration as independent state to international processes and important decisions were made to fill the gaps. There is no formally approved national set of C&I in Estonia and Pan-European C&I of SFM remained as main framework for reporting and international communication. The 2 most widely discussed indicators in Estonia are: minimum share of strictly protected forests and maximum sustainable cutting levels. Challenges, lessons and recommendations were provided in the presentation.

Exercises - Identification of relevant documents in Armenia for the development of C&I for SFM

Upon completion of the presentations, exercises of assessment of needs and priorities for sustainable forest management in Armenia were conducted (table 1).
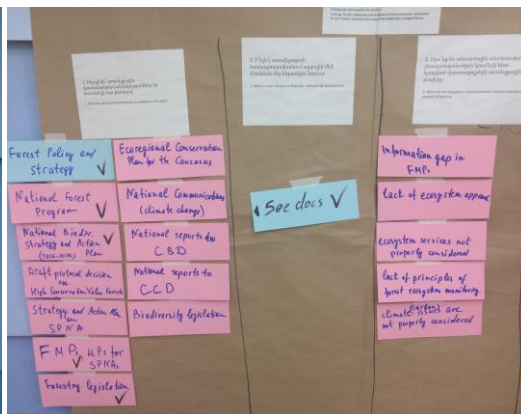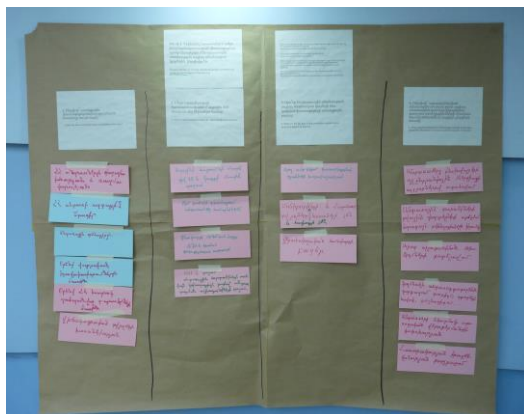
Group Exercise 1: Identification of relevant existing documents in Armenia on **socio economic** aspects of forestry (key documents, most relevant documents, key gaps in documentations and recommendations to fill gaps). The group's (Group members were Inga Zarafyan, Naira Mandalyan, Voskehat Grigoryan, Arusyak Siradeghayn, Aghavni Harutyunyan) recommendations were mainly addressed to forestry issues in general and not to the lack of documentation and access to data. The proposals were focused on reducing firewood consumption and increasing alternative energy sources, improvement of forest fire early warning system, development of ecotourism (bird, wildlife watching etc), awareness raising, use of NTFP etc..

Group Exercise 2: Identification of relevant existing documents in Armenia on **ecological aspects** of forestry – coverage, health, biodiversity, resilience etc. (key documents, most relevant documents, key gaps in documentations and recommendations to fill gaps).

The group (members - Siranush Galstyan, Karen Aghababyan, Hovik Sayadyan, Vladik Martirosyan, Artur Gevorgyan, Nazeli Vardanyan) listed the main strategic and legal documents (most appropriates are National Forest policy and program, forest code, NBSAP and FMPs) related to the forests in Armenia and highlighted lack of ecosystem approach, consideration of climate change and carbon circle, ecosystem services, forest degradation and deforestation rates. Recommendations were mainly addressed to improve gaps of forest information system (NFMIS), forest cadastre, FMPs and National Forest policy and program, PA management plans and biodiversity inventory, which are most appropriate for the development of national C&Is.

Exercise 1: Socio economic aspects   **Exercise 2:** Ecological aspects

Group Exercise 3: Identification of relevant existing documents in Armenia on **governance aspects** of forestry (key documents, most relevant documents, key gaps in documentations and

recommendations to fill gaps). The group (Group members were Aram Gabrielyan, Sergey Hayraperyan, Artur Alaverdyan, Samvel Gevorgyan, Armen Asryan) highlighted contradictions in legislation and weak sector coordination. The recommendations were mainly addressed to improve forest monitoring, data analyzes and the revision of legislation.

Table 1. Results of the group work - Identification of relevant documents in Armenia for the development of C&I for SFM

Questions	Group 1 Socio-economic aspects of forestry	Group 2 Ecological aspects of forestry	Group 3 Governance aspects of forestry
1. What key documents / Information is available on this topic?	- Forest policy and strategy, RA - National Forest Program, RA - Forest Code, RA - Law on administrative offenses - Law of special protected areas - Availability of statistical data	- Forest policy and strategy, RA - National Forest Program, RA - National Biodiversity Strategy and Action Plan (2016-2020) - FMP s and management plans for SPNAs - Forestry legislation - Draft protocol decision on High Conservation Value Forests (HCVF) - Strategy and Action Plan on SPNA - Ecoregional Conservation Plan for the Caucasus - National Communication (Climate Change) - National Report to CBD - National Report to CCD - Biodiversity legislation - Red Book of Armenia	- Constitution, RA - Civil Code, RA - Forest Code, RA - Soil Code - Water Code - Atmospheric Air Protection Code, RA
2. What is most relevant to feed into national C&I development ?	- The program against illegal loggings - Decision about provision of 8 cubic meters of fallen wood to the habitat near the forests - The order of minister of agriculture about timber harvesting procedure - 1045-N Decision of Government of RA	- Forest policy and strategy, RA - National Forest Program, RA - National biodiversity Strategy and Action - FMP - Forestry legislation	- Forest Code, RA - Law on Flora - Law on Fauna - Law of specially protected nature areas - Land Code

3. What are the key gaps in the documentation?	- The absence of Forest Management Plans in some forest enterprises - Inaccessibility of data - Gaps in the supervision system	- Information Gap in FMP - Lack of ecosystem approach - Lack of principles of forest ecosystem monitoring - Climate (carbon) issues - Deforestation rates - Forest degradation trends - Lack of national biodiversity monitoring system - Incomplete and not fully used forest information system	- Contradictions in legislation - Weak sector coordination
4. What recommendations to fill the gaps needed to develop adequate information?	- Reducing firewood consumption and increasing alternative energy sources - Creating of digital maps, using the innovating technologies - Improvement of forest fire early warning system - Use of NTFP - Development of ecotourism (bird, wildlife watching etc)	- improve gaps of forest information system (NFMIS) - Forest cadastre - To develop FMPs, National Forest policy and program, - biodiversity inventory	- To improve forest monitoring - Revision of legislation - Data analyzes

3.2 Workshop Day 2, 14th September, 2017 - Practical C&I skills development

Recap of the day 1: (by Hovik Sayadyan)

The Recap presentation conducted an assessment of the presentations from Estonia, Georgia and Armenia (including one from an NGO). Evaluation criteria were: relevance of process steps and methods, key important outcomes and limitations/gaps to C&I national context. All four presentations received high scores from the evaluation team members. In their comments jury members (Vladik Martirosyan, Naira Mandalyan, Artur Alaverdyan) highlighted the importance of revision of status of forest authorities, forest inventory and scientific researches, ecological aspects, nurseries extension, pest and fire management, support to natural regeneration and coppice management, establishment of fast growing forest plantations etc. The Georgian experience On Global Forest Watch was taken into consideration.

Group exercises were also briefly summarized (recommendations included in Table 1).

Introducing principles and practices of C&I development processes (Presentation of Vardan Melikyan)
Main presented topics: participatory approach (subjective and emotional) versus technical approach (clear, based on knowledge), multi-stakeholder processes (to generate ownership and trust, transparency and accountability, acceptance of the final product etc.), neutral facilitation (not to guide consultations) and others.

Role playing 'bottom up' national stakeholder engagement to define national priorities

This part of the workshop was aimed at identifying and bringing together analysis of different forest stakeholders to identify their priorities for forest sector performance. The facilitator explained the importance of having a set of priority indicators developed by multi-stakeholder groups via different exercises (group works). The participants were divided into four groups to work on different topics aimed at identification of priority indicators from the perspective of different stakeholder groups.

The 'bottom up' method of the selection of indicators aims to attract all stakeholders and development of indicators derive from national priorities, well-formulated, clear and measurable (indicators are 'from bottom to top). For this purpose, the participants were divided into 4 groups:

Group Exercise 1: Stakeholder identification and mapping (Ruben Petrosyan, Andranik Gulijanyan, Armen Gevorgyan, Siranush Galstyan)

The objective of the group was to identify relevant stakeholders of the development process of national C&I for SFM for Armenia and to map their dependency on the forest resources and outline the level of influence on forest management and on the decision-making process.

Important issues raised:
    a. definition and classification of stakeholders and here the developed criteria can help;
    b. polarization of the main groups of stakeholders, which means – those who depend on the forest resources do not have a power of decision making, while those who have power do not depend directly on the forest resources.
    2. The groups identified methods of stakeholders' involvement.

The group presented all relevant stakeholders (state and private sector, local and regional authorities, NGOs and scientific organizations) in accordance to their dependency on the forest resource and their level of influence on decision-making. Analysis of the 1st group showed that stakeholders with direct dependence on the forest lack leverage in decision-making and those with high level in decision-making have less dependence on the forests. Recommendations were addressed to decrease the dependence from forest resources and increase the role of local and regional authorities, NGOs and scientific organizations on decision-making process. For the engagement of stakeholders different methods were proposed such as public hearings, meetings, workshops, awareness raising and media tours, dissemination of brochures and video materials etc..

The group indicated importance of education, improving data exchange mechanisms and forest mapping standards, update of FMPs.
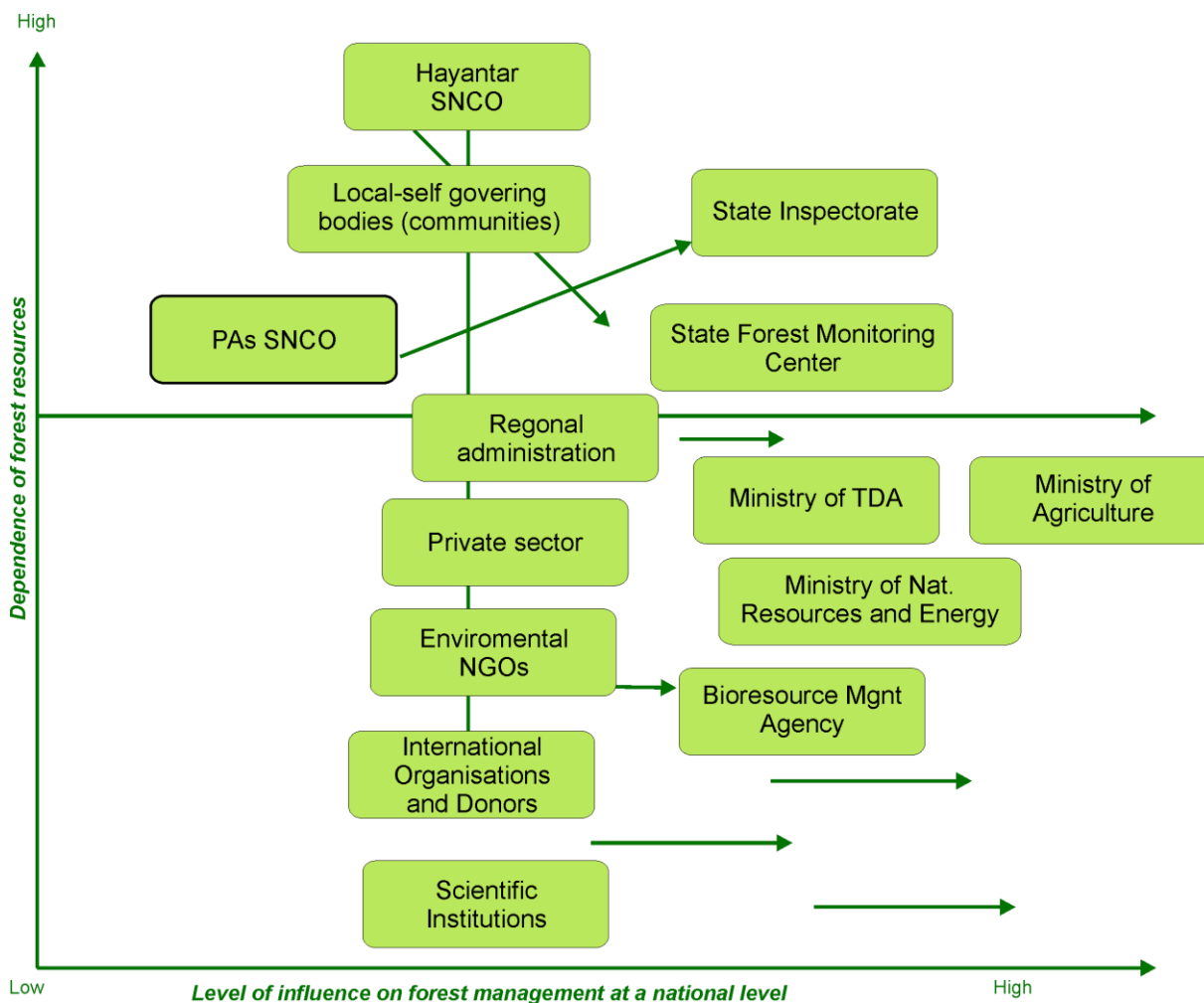
Group Exercise 2: Forest dependent Communities (Vladik Martirosyan, Evelyn Kamber, Arusyak Siradeghayn, Meri Sahakyan)

The task for the second group was the identification of the problems of communities, consequences and solutions, and the identification of respective indicators.

The 2nd group indicated the weakness of communities (poverty, lack of knowledge, status of forests) and importance of trainings organized for the population, increasing use of non-timber forest products, number of communities involved in forest management, poverty reduction, organization of middle professional forestry education, forest management plans, etc.. As indicators, the group recommended the improvement of the communities' socio economic situation, reduction of poverty, sustainable use of NTFP, and the number of communities involved in forest management, forest management plans and trainings.

The following issues emerged: Important roles of communities & lack of capacity (economic and poverty). The possible solution is the development of alternative fuel sources, ecotourism, and support to start-ups.
Discussed topics and comments are:
  a. The migration of people (can be an indicator)
  b. Forest management plans (are fine)
  c. Poverty reduction (is not clear)
  d. Number of communities involved (is not clear)
  e. Training of population (is not clear)
  f. Increase of usage of NTFP (doesn't mean decrease of use of timber).

Group Exercise 3: Perspectives of private sector forest enterprises (Karen Aghababyan, Naira Mandalyan, Gagik Amiryan, Samvel Gevorgyan, Artur Gevorgyan):

The third group had to perform a SWOT analysis from the point of view of the private sector of the forest sector and develop indicators reflecting the set priorities.

The SWOT analyze of Group 3 identified the lack of investments (private, subsidies, grants) by the private sector, high risks and the rate of bank credits. The main strengths are recreational potential, number of qualified personnel, existence of business plans and NTFPs. Opportunities are promotion of private investments, use of innovative technologies and local human resources and support to development of small and medium business enterprises. Threats are insufficient tax legislation and system of nature fees, lack of marketing, black economy, week law enforcement and non-regular forest management.

The group developed the following topics of indicators:
1. Production quality and quantity
2. Forest resources per unit
3. Number of employees
4. Number of qualified employees
5. Recreation activities, types, number and amount (volume)
6. Investments (private, subsidies, grants)
7. Biodiversity indicator groups.

Recommendations were improvement of the investment environment, anticorruption activities, and prevention of business risks, biodiversity inventory and monitoring.

Group Exercise 4: Strength, Weakness and Recommendation analysis in the context of state forestry / managers (Armen Asryan, Vahe Martirosyan, Aghavni Harutyunyan, Hovik Sayadyan)

The fourth group accomplished the Strength, Weakness and Recommendation analysis from the perspective of government foresters and developed respective indicators:

1. Number of forest specialists involved – the feasibility is questionable, suggested change – share of forest specialists in the number of staff
2. Organizing education is not clear and should be more specific
3. Forest resource base dynamics – is not clear. Suggested change – in accordance to the Forest Management Plans
4. Pest/fire/disease damaged area – should be clarified – percent or ha
5. Balance between different species in forest (composition) – depends on forest type and designated district
6. Technical base – is important for sustainable forest management but need to formulate it as an indicator
7. Moving of forests lower border and change of the species composition – suggestion is to include species dynamics
8. Inventoried area per annum – is fine
9. National Forest Monitoring Information System – need to receive a public access and this is very important

The group separated four types of forests - special purpose, protection, community and private. Concerning the strengths of the forest management form, the group has indicated institutions from the previous system and experience; partnership with the NGO; strengthening youth involvement; readiness to introduce modern technology; ecotourism development etc.. Particularly, the group noted the absence of long-term planning culture, planning and inventory of the Forest SPNAs; management shortcomings; lack of close cooperation and transparency with beneficiaries; Limited use of state-of-the-art technologies. The group proposed improving the education system, raising public awareness, developing vocational education, raising community and private sector involvement, setting up forest maps formats and standards, upgrading the FMPs. as an indicator proposed: forested areas are mapped and inventoried, organic carbon balances by types and regions recognized, biodiversity indicator groups, online access to forest information systems, dynamics of pests and diseases, diseases and forest fires, increasing the number of specialists in forestry, increase of the lower forest border and change of species composition, updating of material base, etc.

Following the group presentations, a question and answer ***fishbowl method*** was conducted to receive feedback and opinions on the developed indicators. During the discussion, the groups mentioned what their priorities are for Armenia. Then all the participants of the meeting assessed the proposed indicators by prioritization and according to the correct formulation of the audience

Reviewing international and regional Criteria and Indicator sets to select those that best match national priorities –a 'top down process', Exercise

The purpose of the method is to study the already-developed international indicators and to bring them into line with the country's priorities. For that purpose the participants of the meeting were

presented forestry management guides and indicators developed in different countries, based on which the indicators corresponding to Armenia could be developed.

The "top-down" process implies adaptation from international C&I. It describes assessment of international (or regional) C&I and adapting them to the national context. It means going through the sets of original C&Is and deciding whether they can be valid for the Armenia's conditions, also modifying them if needed.

3.3 Day 3, 15th September, 2017 - National C&I development

Recap of the day 2: (by Karen Aghababyan)

Vardan Melikyan presentation included:

1. Methodology – the reaction of audience – it is good and informative
2. The participatory approach is important and efficient from point of view of problem management
3. It is very important to keep the balance between technological solutions and participatory approach

Reflection on the bottom up/top down process - lessons and recommendations for C&I development process in Armenia

After summing up the previous day's performance Vardan Melikyan presented the results of the previous day's assessments, according to which the three priority drivers of sustainable forest management are:

1. Qualified personnel;
2. All forest covered areas are mapped and inventory is conducted ;
3. Availability of forest management plans.

Individual assessments of all indicators

Consolidated Indicators	Relevance / necessity and realism / practicality of this indicator Total score	Collective priority
Qualified personnel	137	1
All forest covered areas are mapped and inventory	119	2
Availability of forest management plans	116	3
Organic carbon balance according to forest types and regions	116	4
Trainings	113	5
Investments	112	6
Increment of NWFP	106	7
Indicator groups of biodiversity	104	8

Online availability of forest information system	**104**	**9**
Recreation activities and volumes	**103**	**10**
Number of communities involved into the forest management	**100**	**11**
The dynamics and peculiarities of pests, diseases and forest fires	**98**	**12**
Poverty reduction	**97**	**13**
Type and quantity of products	**91**	**14**
Organization of middle level professional forestry education	**89**	**15**
Increment of number of involved forest specialists in the forestry sector	**83**	**16**
Raising the lower layer of the forest and species changing	**83**	**17**
Number of workplace	**80**	**18**
Changing of forest resource component	**78**	**19**
Updatin of material and technical base	**76**	**20**
Existing resources on the forest area unit	**68**	**21**

Group work to develop both the tentative set for national C&I and the process steps and methods for C&I further development, testing and selection for Armenia

The meeting participants were again divided into four groups do develop indicators taking the identified priorities of day 2 into account and cross-checking with international indicator sets.

1. Forest and Ecology

2. Socio-economic benefits

3. Cross cutting legal, policy and institutional framework.

The 4th group revised and improved the process plan for the development of C&I for SFM in Armenia.

Group 1 - Forest and Ecology: Members - **Evelyn Camber, Vahe Martirosyan, Alla Alexanyan, Naira Mandalyan, Hovik Sayadyan** (group works presented by Hovik Sayadyan)

The group task was to develop indicators relevant to Armenia (based on regional criteria and indicators sets), to specify sources of information and percentage of the access to information.

Indicators covered: forest cover; biodiversity, forest health and protection functions. For the first indicator (forest cover) the group developed 11 indicators, which, according to the participants of the seminar, were numerous, and in Ruben Petrosyan's opinion there were lacking indicators for the protected forests (under the Ministry of Nature Protection). Indicators proposed for biodiversity were around 10, highlighting the diversity of species and the use of high value forests concept.

Criticism was voiced that "Diversity of Species" cannot be measured as an indicator. As a potential threat to biodiversity, Forest Fragmentation was presented as an indicator. There were about 6 indicators on forest health, and most important is the "forest resistance" to climate change and

forest fires. With regard to forest protection functions, around 5 indicators of forest protection, water protection functions, and water catchment management in forests were highlighted.

The group mentioned quite a few indicators, some of which include change of forested areas, forest fertility and reserves, carbon balance, natural and artificial forests, endemic species, forest pests, diseases and fires, forest fencing for climate change, forestation plans, and more. Ruben Petrosyan noticed that while mentioning the existence of management plans, it should be noted that the existence of management plans for specially protected areas as well as the "Environmental Monitoring and Information Center" SNCO should be mentioned as a body providing information on biodiversity.

The group has also highlighted the fragmentation of forests as the fragmentation hinders free animal

Group 1: Forest and Ecology - Results

A. Thematic element	B. Indicators	C. Means of verification / measurement.	D. Positive assumption about feasibility
1. FOREST AREA	1.1. Extent of forest and other wooded land	Hayantar SNCO	90%
	1.2. Extent and percentage of forest cover under comprehensive FM plans,	Forest Monitoring Center SNCO	
	1.3. Extent of forests committed to protection, special meaning and production		
	1.4 Increase or decrease of forest area, with the reason	FMPs each 10 years, Forest resources accounting-each 5 years	
	1.5 Area of forest and other wooded land, classified by forest type and by availability for wood supply, and share of forest and other wooded land in total land area		
	1.5. Forest ownership or tenure, extent of forest under each ownership category		
	1.6. Percentage of crown cover per forest district and forest enterprise		
	1.7. Growing stock in forest and other wooded land and its trends		
	1.8. Growing stock composition		
	1.9. Age structure and/or diameter distribution of forest and other wooded land		
	1.10. Carbon storage in forest ecosystems, according to forest type		

	and age class		
	1.11.Forest carbon balance and change per forest types		
2. BIODIVERSITY	2.1. Area of forest classified by number of tree species occurring	Hayantar SNCO	85%
	2.2. Extent of High conservation value forests	Forest Monitoring Center SNCO	
	2.3.Species diversity	Bio resources management agency (BMA)	
	2.3. Extent of natural and artificial regeneration in forests		
	2.4. Percentage of endemic species	Institute of Botany NAS Institute of Zoology NAS	
	2.5. Number of threatened forest species, classified according to IUCN National Red List categories in relation to total number of forest species		
	2.6. Fragmentation of forests	-FMPs each 10 years, Forest resources inventory -each 5 years	
	2.7.Extent of representation of forest types in conserved areas		
	2.8. Forest area within protected areas		
	2.9. Buffer zone management and connectivity of protected forest areas		
3. FOREST HEALTH	3.1. Chemical soil properties (pH, CEC, C/N, organic C, base saturation) on forest and other wooded land related to soil acidity and eutrophication, classified by main soil types	Hayantar SNCO Forest Monitoring Center SNCO Institute of Botany NAS	75%
	3.2. Forest area damaged by: forest fire, insects, pests, diseases, wood harvesting (forest health and vigor)	Institute of Zoology NAS Ministry of Emergency Situations	
	3.3. Threats to forests caused directly by human activities		
	3.4. Forest ecosystem degradation		
	3.5.Reforestation and afforestation	Armenian Tree Project (ATP)	
	3.6. Forest resilience and climate change adaptation		
4. PROTECTION	5.1. Area of forest and other wooded land designated to prevent soil	Hayantar SNCO Forest Monitoring Center	75%

FUNCTIONS	erosion, preserve water resources, maintain other protective functions, protect infrastructure and managed natural resources against natural hazards	SNCO
	5.2. Area and percent of forest whose designation or land management focus is the protection of soil or water resources	Institute of Zoology NAS
	5.3. Area of forest protect for water harvesting	
	5.4. Extent of forest cover in the watershed	

Group 2 - Socio-economic benefits: **Members - Vladik Martirosyan, Gagik Amiryan, Armen Asryan, Aghavni Harutyunyan** (presented by Armen Asryan)

From the economic perspective, the group pointed out the productivity index, the pure income of the forestry organizations, the stability of communities dependent on the forest, the use of wooden products, import and export, etc.

The group discussed the use, import and export of wooden products, as well as the question of whether the export will contribute to sustainable forest management. It was recommended that the wood exporting should be forbidden by law.

Group 2: Socio-economic indicators - Results

A. Thematic element	B. Indicators	C. Means of verification / measurement.	D. Positive assumption about feasibility
6.1 INCREMENT	6.1.1 Productivity index	Reporting, FMP, monitoring	100%
6.3 TRADE	6.3.1 Production, Consumption, Import and export of wood product	Financial reporting	100%
6.4 INCOME	6.4.2 Net revenue of forest enterprises	Financial reporting	100%
6.5 INVESTMENTS	6.5.1 Total public and private investments in forests and forestry	Budget lines, private investments (contracts, reporting)	100%
6.6 EMPLOYMENT	6.6.1 Number of persons employed and labor input in the forest sector, classified by gender and age group,	Corresponding reporting/docs	100%

		education and job characteristics		
		6.6.2 Capacity building of the workforce in forest management and forest industry		
			Qualifications. Trainings, ratio of qualified workforce	100%
6.7 SALARY	6.7.1 Average income of main (jobs) working groups	Financial reporting	100%
6.8 DEPENDENCE	6.8.1 Resilience of forest-dependent communities	Financial reporting	100%
	6.8.2 Areas and percent of forests used for subsistence purposes	Forest ticket. Contract	75%
6.9 SAFETY	6.9.1 Frequency of occupational accidents and occupational diseases in forestry	Reporting, Sick leaves, Registrations about accidents	100%
6.10 DEMAND	6.10.1 Consumption per head of wood and products derived from wood	Statistical reports	100%
	6.10.3 Total and per capita consumption of non-woof forest products	Statistical reports	100%
6.12 RECREATION	6.12.6 Area and percentage of forest which has been managed for public recreation and tourisms	Statistical reports	100%
6.14 TRADITIONAL KNOWLEDGE AND CULTURAL VALUES	6.14.5 forests reserved for specific cultural, research or educational purposes	Areas defined in maps based on the classification/reporting	100%
6.15 LOCAL COMMUNITIES	6.15.4 Educational and training gained by forest related communities	Reporting by educational and training providers and by communities	100%
6.17 CERTIFICATION	6.17.3 Domestic forest management certification	Reporting by respective organizations	100%

Group 3 - **Members - Cross cutting legal, policy and institutional framework - Aram Gabrielyan, Karen Aghababyan, Aram Gylkhasyan, Arusyak Siradeghyan, Meri Sahakyan** (the group's work presented Karen Aghababyan)

The third group presented a number of indicators, including the existence of a national forest program, availability of forestry specialists, availability of normative and legal acts supporting sustainable forest management, types and volumes of financing, public involvement in decision making, availability of new technologies, multi-year forest management availability of forest resources assessment system, etc. Opinions were: indicators are generally good, but they still need filtering and redesign.

Group 3: Cross cutting legal, policy and institutional framework – Results

A. Thematic element	B. Indicators	C. Means of verification / measurement.	D. Positive assumption about feasibility
7.1 NATIONAL FOREST PROGRAM	7.1.1 National forest programs and their equivalents	Official directory	90%
	7.1.2 Programmes, services and other resources supporting the sustainable management of forests	Official directory	90%
	7.1.3 National platform, stakeholders, permanent forest land use and reporting	Official directory	90%
	7.1.4 Integration of forest management into national planning forest management	Official directory	80%
7.2 FOREST MANAGEMENT PLAN	7.2.1 Number of new and updated standards and guidelines of forest management related to the ecologic subjects	Official directory	90%
	7.2 .2. Forest management plan and monitoring plan	Hayantar SNCO	90%
	Presence of Mechanisms for Management and Monitoring Planning	Hayantar SNCO, Forest monitoring center SNCO	90%
	7.2.4 Multiyear forest management plans in forest management units (FMUs)	Hayantar SNCO	90%
	7.2.5 Long-term projections, strategies and plans for production permanent forest estates (PFE) and protection PFE 2030-2050	Official directory	90%
	Share of relevant forestry specialists in terms of impact on decision making in the organizational structure	Armstat	90%
	Availability of effective tools for SFM	Hayantar SNCO, Forest monitoring center SNCO	90%
7.3 INSTITUTIONAL FRAMEWORK	7.3.3 Number of institutions responsible for management	ArmStat	90%

	forests and their effectiveness in the ball system		
	The number of institutions, supporting management forests and their effectiveness in the ball system	Official directory	90%
	7.3.4 The presence in professional organizations of professional and technical staff for implementation and support forest management	ArmStat	90%
7.4 LEGAL FRAMEWORK	7.4.1 Legislation and regulations supporting SFM легислатион анд регулатионс суппортинг СФМ	Official directory	90%
	Presence of a system of performance and reporting on international obligations	MONP	90%
	Evaluation of political activities and decisions for sustainable management forests by the citizens of the RA (by ball system)	ArmStat	90%
	Tracking the execution of laws, normative legal acts and management rules related to SFM and land use	ArmStat	90%
7.5 ECONOMIC TOOLS	7.5.2 Economic and financial framework and tools	Official directory	90%
	7.5.3 National, subnational and international public and private funding committed to SFM	Min fin	90%
	7.5.4 Mechanisms for the equitable sharing of the costs and benefits of forest management	Min fin. MONP	90%
	7.5.6 Taxation and other economic strategies that affect the sustainable management of forests	MONP	90%
	Effective, comprehensive, accessible, reliable, controlled portal for all stakeholders	ArmStat	90%
	Availability of a monitoring, reporting and verification (MRV) system in SFM	MONP	90%
	Number of developed implemented and transferred technologies in SFM and land use	MONP, State Committee on Science	90%
	Legislation on the distribution and	Official directory	90%

	distribution of powers between stakeholders		
7.8 INTEGRATION OF STAKEHOLDERS	7.8.2 Partnerships to support the sustainable management of forests (quantity)	MONP	90%
	Compliance with procedures for involving the public in the processes of developing politic, decision-making, operational management and protecting the rights of local people in SFM	ArmStat	90%
	7.8.6 Percentage of forest area which designed (programmed), managed and implemented by people participation	Hayantar SNCO, Forest monitoring center SNCO	90%
7.9 POLICY	7.9.1Policies supporting SFM	Official directory	90%
	7.9.2 Policies, laws and regulations for governing forests	Official directory	90%
	7.9.5 Policies, institutions and instruments to maintain and appropriately enhance forest resources and their contribution to global carbon cycles	Official directory	90%
7.10 OWNERSHIP	7.10.1 The existence of legislation on property issues in accordance with the Constitutional Right to Forests	Official directory	90%
	Presence of land and forest property certificates	Cadastre	90%
7.12 CONCESSION	7.12.1 Royalties (concessions) of local people in wood production industries	Min fin, Armstat	90%
	Systems for assessing the resources of forest products	Hayantar SNCO	90%
	Area and species composition of forests	Hayantar SNCO, Forest monitoring center SNCO	90%
	The amount of accumulated organic carbon as a result of forest management	MONP	90%
7.17 PROJECTS	7.17.1 Forestry project	State Committee on Science. Academy of Science RA	90%
	7.17.2 Forestry research project and percentage of coverage areas	State Committee on Science.	90%
	7.17.3 Availability on a regional basis, biennial reports on greenhouse gas inventories	Academy of Science RA MONP	90%
7.20 NEW TECHNOLOGY	7.20.1 Extension and usage of improved new technology	Min fin, MONP	90%

	7.20.2 Transfer and usage of suitable (environmentally sound) technologies	Min fin, MONP	90%

Presentation of tentative C&I frameworks and process plans for peer review against criteria such as relevance, feasibility etc (The indicators were presented by Hovik Sayadyan)

The first group performance evaluation jury members were Siranush Galstyan, Theresa Loeffler, Vladik Martirosyan and Karen Aghababyan.

The indicators developed by the second group were presented by Armen Asryan. The second group performance evaluation jury members were, Aram Gabrielyan, Alla Alexanian, Mati Valgepea and Karine Grigoryan.

The indicators developed by the third group were presented by Karen Aghababyan. The third group performance evaluation jury members were Ruben Petrosyan, Birgit Altmann, Mati Valgepea, and Alicja Kacprzak.

The assessment criteria were:

1. Relevance of C&I to national context and stakeholder priorities
2. Completeness, logic and coherence of C&I to principle/objective and goal and avoiding overlap between indicators
3. Clarity of indicator, rigorous and solid means of verification
4. Feasibility and cost effectiveness

The assessment of Group works

No	Relevance of C&I to national context and stakeholder priorities	Completeness, logic and coherence of C&I to principle /objective and goal and avoiding overlap between indicators	Clarity of indicator, rigorous and solid means of verification	Feasibility and cost effectiveness	Total score
Group 1	8	10	7	5	30
Group 2	8	8	7	8	31
Group 3	9	7	7	7	30
Total	25	25	21	20	

Wrap up and next steps (actions and support needs identified, workshop evaluation, closing remarks)

The 4th working group (members: Ruben Petrosyan, Andranik Ghulijanyan, Armen Gevorgyan, Karine Grigoryan, Siranush Galstyan) presented the draft process plan (2017-2019) for developing draft national C&I for SFM in Armenia.

The Coordination Team should be established to lead/facilitate the process of developing C&I for SFM in Armenia. It should have representatives of RA Ministry of Agriculture, Ministry of Nature Protection and other relevant ministries, State Statistical Service, local self-governing bodies, non-governmental and international organizations and others relevant specialists. The Coordination team should meet quarterly to discuss the status and upcoming activities.

Following this coaching training the following main steps are proposed for developing national C&I for SFM in Armenia for the period 2017 - 2019:

- Analysis of preliminary data obtained from the workshop and desk research;
- Regional experience-sharing seminar (planned to be supported by UNECE program, February 2018);
- Stakeholder consultations of pre-selected C&I at national and local (forested areas) levels;
- Study of the best practice through study tours to other relevant countries;
- Revision of C&I;
- Finalization of C&I and discussions with stakeholders (planned for 2019, methodological support from the UNECE);
- Summarizing results of public consultations and planning of the next steps.

The methods and tools used during this training will be used by the Coordination Team during the above mentioned planned activities. The further developed draft national C&I will be put into circulation via e-mail and other communications channels. Apart for the UNECE/FAO support envisaged for some of the proposed activities, additional methodological, technical and financial support will be needed. Engagement of highly qualified technical expertise (national and international) will be necessary for further development of the preselected set of national C&I to get nationally acceptable and feasible C&Is. Detailed Process Plan for 2017-2019 is presented in the table below.

The workshop evaluation session included filling in evaluation forms by the training participants.

After summarizing the results of the three-day meeting, National Coordinator of the program Ruben Petrosyan, UNECE/FAO representatives Alicja Kacprzak and Theresa Loeffler thanked the training participants for their enthusiasm and dedicated work during the event. It was stressed that the meeting was very useful in terms of familiarization with international sets of C&Is, the process of C&I development and examples, as well as multi-stakeholder processes and methods of participatory decision-making. It laid the foundation for further development of draft national C&I to contribute to SFM in Armenia.

Planning the process for C&I enhancement – framework for Armenia

C&I development phase	Activities and expected outcomes	Who should be involved	Time frame	Support needs
1. Establishment of the Coordination Team (CT) and planning the process for C&I enhancement team	1. Establishment of the Coordination Team	Potential members of the team - Ministry of Agriculture, Ministry of Nature Protection, Hayantar, NGOs, UNDP, FAO, GIZ, LSGBs, UNECE etc.	2017 Sept - Nov	-
	2. Training of the CT on participatory decision-making methods (Training materials on C&I development methods provided)	Training participants	13-15 Sept 2017	Organizational support (was provided) -
	3. CT meetings (quarterly)	CT	2017 - 2019	Organizational; coordination of the CT works
2. Conducting priority data gather and stakeholder engagement exercises at local, regional and national level	Conduction of national stakeholder meeting at national level	Hayantar, Regional Administrations, LSGBs, NGOs, scientific and educational institutions, private sector	13-15 Sept 2017	Methodological support from UNECE

C&I development phase	Activities and expected outcomes	Who should be involved	Time frame	Support needs
3. Analysis of preliminary data	Analysis of the preliminary selected C&I during the national stakeholder meeting and desk study	Coordination team, national and international experts	2017 Nov – 2018 March	Methodological support from UNECE, organizational, technical and financial support
5. Regional experience-sharing seminar	Discussion of mid-term results of the project with UNECE and participating countries (in Georgia)	UNECE, Armenia, Georgia, Kazakhstan, Kyrgyzstan, Uzbekistan	2018 February	UNECE
5. Stakeholder consultations	Conduction of consultations on pre-selected C&I at national and local levels	Hayantar, Regional Administrations, LSGBs, NGOs, scientific and educational institutions, private sector	2018 March - Nov	Methodological, technical and financial support
6. Study of best practices of other countries on use of C&I for SFM	Study tours to countries with the practical experience using C&I for SFM	Coordination team, national experts	2018 June – Sept	Methodological, technical and financial support
7. Revision of C&I for SFM	Review and update of C&I	Coordination team, national and international experts	2018 Nov –2019 March	Methodological, technical and financial support
8. Finalization of C&I and discussions with stakeholders	Conduction of public hearings on revised C&I at national and local levels	Ministries, Hayantar, educational and scientific institutions, NGOs, private sector, LSGBs, regional	2019 \first quarter	Methodological support from UNECE

C&I development phase	Activities and expected outcomes	Who should be involved	Time frame	Support needs
		administrations		
9. Summarizing and planning of next steps	1. Summarizing results of the public hearings	Coordination team, national experts	2019 first quarter	Technical and financial support
	2. Planing next steps	Coordination team	2019 \first quarter	-

Annex 1: List of participants - "National criteria and indicators for SFM - Armenia" UNECE/FAO, UNDA Workshop 13-15 September 2017 Yerevan, Armenia

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Annex 2: Agenda of the workshop, 13 - 15 September, 2017, Yerevan

	Wednesday the 13th of September	Thursday the 14th of September	Friday the 15th of September
M O R N I N G S E S S I O N	**Registration at 8.30.** **Start sharp at 9.00.** **I. Preliminaries, objectives, background to SFM C&I and setting the scene** 9.00 – 9.45 Welcome and short opening remarks by the host country representative and Alicja Kacprzak UNECE/FAO, followed by a project overview from Theresa Loeffler UNECE/FAO. 9.45-10.30. Participant introductions, workshop objectives, compiled needs assessment and rules and norms. Introducing the Guidelines for the training. *Presentation* Vardan Melikyan (Facilitator).	**Start sharp at 9.00.** 9.00 - 9.15 Recap of previous day. *Presentation by participants.* **II. Practical C&I skills development.** 9.15-10.30 Introducing principles and practice of C&I development processes. *Presentation.* Role playing a generic 'bottom up' multi-stakeholder process to develop priority indicators. *Presentation and Exercise.*	**Start sharp at 9.00.** 9.00 - 9.15 Recap of previous day. *Presentation by participants.* **III. National C&I development** 9.15-10.30 Reflection on the bottom up/top down process – lessons and recommendations for C&I development process in Armenia. *Presentation and Exercise.* Group work to develop both the tentative set for national C&I and the process steps and methods for C&I further development, testing and selection for Armenia. *Presentation and exercise.*
	Break 10.30-11.00	**Break 10.30 -11.00**	**Break 10.30 – 11.00**
	11.00-11.30 Overview of the background, definitions, purpose, processes, benefits and challenges with C&I for SFM. Mati Valgepea. *Presentation, Q&A.* 11.30-12.00. Overview of Armenian forests and forest sector, forest information systems, data available and gaps. Ruben Petrosyan. *Presentation, Q&A.*	11.00-12.30 Session 2.2 continues with a focus on good Criteria and Indicator definition.	11.00 – 12.30 Session 3.2 continues
	Lunch 12.30 to 13.30	**Lunch 12.30 – 13.30**	**Lunch 12.30-13.30**
A F T E R N O O N S E S S I O N	1.5 Georgia's experience in developing and utilizing C&I for SFM. Gigia Aleksidze. *Presentation, Q&A.* 1.6. Forestry problems and the concept of sustainable forest management, Armenia, Gagik Amiryan. *Presentation, Q&A.*	2.3 Reviewing international and regional Criteria and Indicator sets to select those that best match national priorities – a 'top down process' *Exercise.*	13.30 - 15.00 3.3 Presentation of tentative C&I frameworks and process plans for peer review against criteria such as relevance, feasibility etc. *Presentation with peer review exercise.*
	Break 15.00- 15.30	**Break 15.00-15.30**	**Break 15.00-15.30**
	Case study of national C&I development in Estonia. Mati Valgepea. *Presentation, Q&A.* Assessment of needs and priorities for C&I in Armenia. *Exercise.*	Session 2.3 continues.	3.4 Setting up/reviewing the national working group to take the process forward. *Exercise.* **IV. Wrap up and next steps** Next steps and support needs identified. Workshop evaluation. Closing remarks. *Presentation.*
	Close 17.30	**Close 17.30**	**Close 17.30**

Annex 3: "Hayantar" SNCO and its branches (Forest Enterprises)

"Hayantar" State Non-Commercial Organization (SNCO) with its 19 branches (Forest Enterprises) is responsible for state forest management and sustainable forest use. Branches of "Hayantar" SNCO are located in different regions of Armenia. There are 13 specially protected nature areas - Forest Sanctuaries (Sanctuaries, IUCN category IV) in the structure of some Forest Enterprises.

Forest Enterprises of "Hayantar" SNCO

Forest Enterprise	Total area ha	Forest Protected Areas (Sanctuaries), ha
Lori region of Armenia	**101,279,62**	**6,944**
Gougark	16,213,62	1,000 (Caucasian Rhododendron) 3,368 (Margahovit)
Dsegh	15,330	
Jiliza	15,292	
Lalvar	26,837	
Stepanavan	6,665	2,576 (Gyulagarak)
Tashir	6,860	
Yeghegnut	14,082	
Tavush region	**118,087**	
Artsvaberd	42,837	
Ijevan	25,512	13,912 (Ijevan, Arjatkhleni, Gandzakar-Upper Agdan)
Noyemberyan	29,254	
Sevkar	20,484	
Syunik region	**60,202,92**	
Syunik	16,530	1,850 (Goris)
Kapan	38,253	
Sisian	5,419.92	
Aragatsotn region	**10,848**	
Aragatsotn	10,848	
Shirak region	**4,737**	
Gyumry	4,737	
Vayots Dzor region	**15,046,7**	
Vayots Dzor	15,046.7	4,200 (Yeghegnadzor) 6,139 (Her-her Open Woodland) 3,865 (Jermuk)
Kotayk region	**23,213,87**	
Hrazdan	23,213.87	14,488 (Arzakan-Megradzor) 4 (Banks Pine)
Gegarkunik region	**9,022**	
Chambarak	9,022	5,728 (Getik)
Total "Hayantar" SNCO	**342, 437,11**	
Total Forest PAs		**20,856**