Report of the National Coaching Workshop "Criteria and Indicators for Sustainable Forest Management for Kyrgyzstan"

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Organized by the UNECE/FAO Forestry and Timber Section in partnership with the Division for specially Protected Natural Areas and Biodiversity of the Department for Forest Ecosystems and Specially Protected Natural Areas of the State Agency for Environment Protection and Forestry (SAEPF) of Kyrgyzstan 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

DGKR-The Decree of the Government of the Kyrgyz Republic

EC-Ecosystem services

GDP - Gross Domestic Product

GEF-Global Environment Facility

GKR- The Government of the Kyrgyz Republic

JFM - Joint forest management

LGB- Local government bodies

NAP-National Action Plan

NAS - National Academy of Sciences

NFI - National Forest Inventory

NLA- Normative legal acts

NWFP - Non-timber forest resources

PFM - Public Forest Management

SAEPF - State Agency for Environmental Protection and Forestry

SFF - State Forest Fund

SFM - Sustainable Forest Management

SPNT - Specially Protected Natural Territories

1. Introduction

This report gives an overview of the outcomes of the UNECE/FAO, UNDA National Coaching Workshop on "Criteria and Indicators for Sustainable Forest Management for Kyrgyzstan". The workshop was conducted in the frame of the UNECE/FAO, UNDA project «Accountability Systems for Sustainable Forest Management in the Caucasus and Central Asia». The workshop languages were English and Russian (with interpretation). It was organized with the kind support of UNDP Kyrgyzstan.

The workshop brought together 37 experts from different organizations to discuss, exchange experiences, map out the needs as well as to formulate recommendations for the future work on Criteria and Indicators for Sustainable Forest Management in Kyrgyzstan.

The workshop was opened by Mr. Bakyt Yrsaliev - Deputy Director of Department for the Development of Forest Ecosystems of the State Agency for Environmental Protection and Forestry under the Government of the Kyrgyz Republic.

The participating group of experts worked three days with various presentations and group work exercises on the topic "Criteria and Indicators for Sustainable Forest Management for Kyrgyzstan". The workshop was facilitated by Mr. Peter O'Hara and Mr. Vardan Melikyan.

More information (program, presentations, news release, photographs) about the workshop is available here: http://www.unece.org/index.php?id=45222#/

More information about the entire project (2016-2019) framing this workshop is available here: http://www.unece.org/forests/areas-of-work/capacity-building/unda2016-2019.html

1.1. Objectives

The objectives of the coaching workshop on "Criteria and Indicators for Sustainable Forest Management for Kyrgyzstan" were:

- to identify the status of national and international forest reporting in Kyrgyzstan;
- to analyse the needs, benefits and potential of criteria and indicators (C&I) development for Kyrgyzstan;
- to discuss and select national C&I for a preliminary set;
- to assess the process plan and the best approach for implementation.

1.2. Country Situation in Kyrgyzstan

Forest resources of Kyrgyzstan

Forests in Kyrgyzstan cover about 6% of the land area, according to the national forest inventory of 2010, which places Kyrgyzstan in the low forest cover country category. Yet their forests are of great socio-economic value to local people as they provide firewood for heating and cooking, and non-wood forest products like fruits and nuts, which are a source of income. Kyrgyzstan has a large concentration of wild-growing nut bearing forests, covering 631,000 ha. Other forest types are mainly spruce, juniper and riparian forests. However, Kyrgyzstan's forests are under pressure, mainly due to uncontrolled pasture, causing heavy overgrazing and desertification, and illegal logging for firewood.

Forests with an undisturbed structure consisting of woody, shrubby and ground cover tiers

regulate the drainage in the ecosystem and prevent erosion of the soil, particularly on mountain slopes. Under the canopy of undisturbed forest, the removal of solid particles from the soil surface is practically zero, while on slopes with a damaged ground cover, the soil demolition reaches 6 tons per hectare.

The forest influences the climate-forming factors of the environment: the formation of air masses in the lower layers of the atmosphere, humidity, air and soil temperature, wind regime, accumulation of precipitation and distribution of their fallout over the territory, forming the so-called mesoclimate.

In addition, at least half of the total species diversity of the country is concentrated in forests, which in aggregate ensures the favorable existence of forest ecosystems and contributes to the sustainable provision of forest ecosystem services. In addition, the forests of Kyrgyzstan play a large role in improving the welfare of the local population through the use of wood and non-wood forest products.

There is a Decree of the Government of the Kyrgyz Republic No. 48-r dated 19.02.2015, which approved the Matrix of indicators for monitoring and assessing the progress of the Kyrgyz Republic's transition to sustainable development. In which the following indicators are indicated:

For forest resources:

forest cover;

For biodiversity:

- number of individual species of animals and birds in the territory of specially protected natural areas;
- population of endangered species and protected species;
- share of the area of specially protected natural areas in the total area of the country.

These indicators do not fully reflect the social, economic and environmental aspects of sustainable forest management and the priorities for effective forest management. In this regard, further indicators need to be elaborated and adopted.

Gaps and Challenges for Kyrgyzstan

At the regional inception workshop in Yerevan, Armenia in November 2016 the following major gaps and challenges were formulated for Kyrgyzstan:

Social:

- To launch or complete the necessary reforms, there is often a lack of political support,
- Weak intersectoral cooperation (for example, forestry energy),
- To promote sustainable forest management (SFM), it is necessary to strengthen forest ownership,
- Collecting firewood and non-wood forest products is illegal, but important for the wellbeing of local people,
- Confusion in terminology and definitions related to forest.

Environmental:

- Uncontrolled grazing,
- Devastation by concessionaires,
- Erosion,
- Desertification, reduction of lakes and salinization,
- Necessity of planting forests and combating erosion.

Economic:

- Poor continuous financing of activities related to SFM,
- Weak visibility of the forest sector in the economy as a whole,
- Timber harvesting is unplanned, and value is not realized, while non-timber forest products are most important for improving the well-being of local people,
- Illegal logging,
- There is no forest industry, the added value of forest products is mostly absent,
- The picture changes if ecosystem services are included,
- Ecotourism is not developed, but is considered as a potential source for income generation.

The following recommendations were formulated for Kyrgyzstan:

- 1. Develop national criteria and indicators and integrate them into processes.
- 2. Invest in GIS-systems.
- 3. Forest products should be reflected in indicators.
- 4. To build on the national forest inventory that has been made,
- 5. Draw on the experience gained in case studies on C&I for juniper forests and walnut forests.

2. Overview of processes related to C&I of SFM, results and lessons learned

2.1. National Forest Inventory 2010

Specialists of the State Forest Management Agency of the State Agency for Environmental Protection and Forestry under the Government of the Kyrgyz Republic presented the National Forest Inventory (NFI) of Kyrgyzstan (Nadir Kozubaev, Deputy Director of the State Agency for Forest Hunting). In the presentation, the following issues were noted:

- Stages of national forest inventory of Kyrgyzstan;
- Training in the national forest inventory of Kyrgyzstan;
- Organization of field works;
- Results of NFI.

Results of NFI:

Developed and tested "Guidelines for the creation of a database of the National Assessment of Forest and Wood Resources of Kyrgyzstan".

The FAO / FRA database was created for the storage and management of field data of the National Forest Resources Assessment of Kyrgyzstan.

A group for the field data processing was organized and trained.

There is a network of permanent trial plots.

As a result of the NFI, forests were identified outside the SFF territory in which there was no control.

Forest cover of the Kyrgyz Republic by results National Forest Inventory of Kyrgyzstan

Nº	Areas	Republic (according to the NFI		SFF + (According t inven	o the forest	Outside SFF + SPNT (According to the forest inventory)	
		%	га	%	га	%	га
1	Batken	0,83	166,50	0,69	138,77	0,14	27,73
2	Osh	0,93	186,31	0,55	110,55	0,38	75,76
3	Jalal-Abad	1,90	380,25	1,62	324,80	0,28	55,45
4	Talas	0,33	61,01	0,16	28,06	0,16	32,95
5	Chui	0,22	44,53	0,15	30,96	0,07	13,57
6	Issyk-Kul	0,71	142,36	0,51	102,80	0,20	39,56
7	Naryn	0,68	135,60	0,52	103,62	0,16	31,98
	Total:	5,61	1116,56	4,22	839,56	1,39	277,0

Areas of tree and shrub vegetation of the Kyrgyz Republic

Nº	Areas	Woody vegetation					Shrub vegetation						
		(acco	oublic rding to e NFI	(Accor	F SPNT rding to forest ntory)	SI (Acco	de SFF + PNT rding to forest ntory)	(acco	oublic rding to e NFI	(Acco	+ SPNT rding to forest ntory)	+ S (Acc to the	ide SFF SPNT cording e forest ntory)
		%	he	%	he	%	he	%	he	%	he	%	he
1	Batken	0,61	122,33	0,5	100,06	0,111	22,26	0,22	44,17	0,19 4	38,70	0,0 27	5,47
2	Osh	0,53	105,08	0,315	63,00	0,21	42,08	0,41	81,23	0,23 8	47,55	0,1 68	33,68
3	Jalal-Abad	1,21	242,28	1,014	202,71	0,198	39,57	0,69	137,97	0,61 1	122,10	0,0 79	15,87
4	Talas	35,46	35,46	0,046	9,23	0,131	26,23	0,16	32,03	0,12 7	25,32	0,0 34	6,71
5	Chui	0,11	22,33	0,087	17,30	0,025	5,03	0,11	22,20	0,06 8	13,66	0,0 43	8,54

	Total:											0	
		3,39	677,25	2,50	499,33	0,89	177,92	2,23	445,79	1,73	346,72	0,5	99,08
										2		47	
7	Naryn	0,34	67,80	0,226	45,23	0,113	22,57	0,34	67,80	0,29	58,39	0,0	9,41
										5		97	
6	Issyk-Kul	0,41	81,97	0,309	61,80	0,101	20,17	0,30	60,40	0,20	41,01	0,0	19,39

2.2. Criteria and Indicators for Sustainable Forest Management in Walnut Forests

In the presentation "Sustainable management in the walnut forests of Kyrgyzstan" (Gulnaz Jalilova, presented by Seideyeva Suzanna), the results of research on the management of walnut forests in southern Kyrgyzstan, conducted in 2012, were presented. Studies, biophysical, socio-economic and political, took place on the territory of four forestry enterprises - Arstanbap, Kaba, Kara-Alma, Ortok with the organization of formal and informal meetings of experts with local stakeholders. Based on the results of this work, seven criteria and 45 indicators were developed.

Criteria:

- C1. Maintenance of forest ecosystems
- C2. Conservation of forest biodiversity
- C3. Strengthening the health and vitality of forests
- C4. Production functions of forests
- C5. Protective functions of forests
- C6. Socio-economic functions and conditions
- C7. Legal and Institutional Framework

The list of indicators can be seen in the publication: Jalilova, G., Khadka, C., Vacik, H. (2012): Developing criteria and indicators for evaluating sustainable forest management: A case study in Kyrgyzstan. Forest Policy and Economics 21 (2012) 32–43.

Conclusions from the study:

- The C&I development process helped support decision making in terms of increasing transparency, participation and balance of stakeholder forces
- A multi-criteria approach was useful in evaluating SFM strategies
- Involvement of local people in the decision-making process and stimulation of their participation in forest management is essential
- Political will and commitment are necessary to participate in multi-stakeholder processes
- Improvement of overall efficiency of forest management, especially socio-economic aspects
- The need to establish C&I at the national level, as well as the development of the C&I at the local level, particularly for the sustainable management of the walnut and juniper forests.

2.3. Criteria and Indicators for Sustainable Forest Management in Juniper Forests

In the presentation "Criteria and indicators of sustainable management of juniper forests in southern Kyrgyzstan" (Muslim Razhpayev), the results of work on the development of criteria and indicators in juniper forests were presented, definitions of criteria for indicators were given, and seven criteria were widely acknowledged all over the world and can be considered as a necessary structure for the development of indicators.

The seven main criteria:

- Area covered by forest and impact on the carbon cycle
- The state and sustainability of forest ecosystems, the capacity for natural regeneration
- Biodiversity of forest ecosystems
- Protective functions of forests
- Economic benefits from forests
- Social aspects of the forest
- Policy, planning and institutional structure

The list of indicators can be seen in the publication: Cornet, J.; Rajapbaev, M. (2004): Criteria and Indicators for Sustainable Management of Juniper Forests in South-Kyrgyzstan. Laboratoire de Politique Forestière de l'Ecole Nationale du Génie Rural, des Eaux et des Forêts (ENGREF), Nancy, France, 100 pp.

2.4. Forest Stewardship Council certification

The presentation on FSC certification (Mariam Mattila) disclosed the principles of FSC certification based on the implementation of the requirement of responsible forest management, biodiversity conservation, legal origin of timber, respect for the rights of indigenous peoples, local residents.

FSC certification is aimed at:

- Introduction of responsible forest management
- Allocation of products originating from responsibly managed forests from another
- Facilitating responsible consumer choice in favor of such products
- Promotion of an environmentally sensitive market

Certification in Kyrgyzstan has not yet been implemented, but there is great stakeholder interest, as this would allow non-timber forest products processors to enter the international market, although at present this is a relatively small amount of products.

Presentations by the seminar participants included comments:

According to the presentation of the NFI:

- there is a database in NFI that can be used, there is also data on the national report;
- good methodology at the level of the republic, a lot of fresh data on the volume, on rocks, on carbon storage. Outside the State forest fund (SFF) these are new forest areas and these figures will go into indicators;
- there are flaws, first of all this is the assessment of carbon, ecotourism issues, use of non-timber products. More than 2000 hectares of forests have been identified and the issue of forest management outside the SFF as not been resolved; The area of these forests was

identified during the last inventory and they are now deprived of management as they are outside the territory of the SFF.

According to the presentation on C&I development in the walnut-fruit forest areas:

- forest users are a large group, they are not fully reflected in the process to develop the C&I,
 it would be good to further take into account their opinion;
- the results of work on the development of C&I from this work in walnut forests was not used or implemented by the state;

On presentation about C&I development through FSC certification process:

 certification is a motivation for responsible management, an opportunity to enter the international market and a key mechanism for sustainable development.

2.5. Existing processes and documents relevant for C&I for SFM development in Kyrgyzstan

The participants of the seminar were divided into three groups to list all the existing sources of information relevant to SFM criteria and indicators in Kyrgyzstan, so that the process of developing a national set of C&I could build on and from past relevant work and experiences.

Group 1 - to identify all relevant documents on the socio-economic aspects of forestry, such as:

- security of forest ownership for the local population;
- conventional forest practices;
- local livelihoods supported by forestry with identification of uses and users;
- economic participation in formal and informal sectors of the economy.

Group 2 - identify all relevant documents on the environmental aspects of forestry, such as:

- scope, health, biodiversity and the sustainability of the forest ecosystem;
- information on the use of "green materials and energy" from sustainable forest management.

Group 3 - identify all relevant documents on management aspects of forestry, such as crosscutting forest management, policies, legislation, institutions, etc.

Results of the first group work

Questions	Group 1	Group 2	Group 3
	Socio-economic aspects of forestry	Ecological aspects of forestry	Management aspects of forestry
What key documents	- The concept of forestry development until 2025;	- Forest Code;	- Forest Code;
/ information is	- Forest Code of the Kyrgyz Republic;	- The Law on the plant world;	- The concept of forestry development until 2025;
available on this	- Land Code of the Kyrgyz Republic;	- Law on Environmental Protection;	- Provision on the provision of land for the rental of GLF;
topic?	- Law on Protected Areas;	- Priorities for biodiversity conservation;	- Documents of statistical reporting;
	- The Law on Hunting and Hunting;	- Materials of forest fund accounting;	- Priorities for biodiversity conservation;
	- Law on Ecological and Economic Development of	- National inventory;	- Instructions,
	Issyk-Kul Oblast;	- Red Book.	Regulations, methods, fees.
	- Provision on community management of forestry;		
	- Provision on the provision of land for the rental of		
	GLF;		
	- Dachshunds for timber at the root, rates of		
	payment for objects of flora and fauna.		
What is most	- Concept of development of the forestry sector up	- Norms, principles, provisions;	- Priorities for biodiversity conservation (Action Plan from
appropriate for	to 2015, criteria and indicators from the Concept;	- Statistical data;	2014 to 2024);
inclusion in the	- Law on Ecological and Economic Development of	- Activities, indicators;	- The concept of forestry development until 2025;
development of	Issyk-Kul Oblast;	- Species diversity of plants and animals.	- Documents of statistical reporting;
national C&I?	- Provision on community management of forestry;		- Instructions,
	- Provision on the provision of land for the rental of		Regulations, methods, fees.
	SFF.		
What are the key gaps	- the lack of a NAP for the implementation of the	- Lack of accounting for ecosystem services,	- In the position on leasing restrictions on land categories;
in the	Concept;	accounts;	- Pricing (no criteria);
documentation?	- lack of a mechanism and motivation for the	- lack of tools for biodiversity assessment;	- lack of marketing of products;
	development of private forestry;	- indicators do not correspond to activities;	- there is no certification of the forest product management
	- prohibition of capital construction on the lands of	- data on forests outside the GLF are not	system;
	the SFF;	available;	- Lack of accounting for forest products;
	- Forest and Land Codes-delimitation of categories	- lack of socio-economic issues;	- there is no accounting for natural capital, the flow of
	of land;	- Absence of data on carbon sequestration;	ecosystem services;
	- Absence of carbon absorption documentation;	- information on NWFP is not provided.	- there are no criteria for effective forest management;

	- lack of inventory of soils, water resources.		- low level of image as an industry;
			- contribution to GDP 0.05%;
			- development of forest products business;
			- protection of the rights of forest users.
What are the	- review and analysis of NLA;	- a new version of the Forest Code;	- Revision of the current forest policy;
recommendations for	- development of models for obtaining reliable	- supplement priorities;	- Short-term and long-term program for the development of
filling the gaps	information on the use of forest resources;	- rates of grazing and related rules;	the forestry sector;
needed to develop	- Development and enhancement of the national	- training of all stakeholders;	- Integrated forest management (with a special view on the
the necessary	forest inventory	- Carbon inventory;	maintenance and enhancement of biological diversity).
information?	- Inventory of forest products and distribution of	- include NWFP;	
	results;	- Quantity included in the Red Lists;	
	- conducting scientific research to complement the	-improve monitoring of Red Lists species.	
	NFI to determine the stocks of all resources;		
	-improve monitoring of Red Lists species.		

3. Techniques for the development of C&I for SFM

The facilitator provided an overview of best practice methods to facilitate the participatory development of national C&I. The methods were applied in a simulated role play exercise with participants divided to play roles as four stakeholder groups. Note that some participants were assigned to their own stakeholder group, others were 'stepping into the shoes' of the role of a different stakeholder group. :

- **Group 1-** National C&I development working group;
- **Group 2** Rural Forest communities;
- **Group 3-** Private forest sector representatives;
- **Group 4-** Government foresters' representatives..

3.1. Role-play

The role play had a dual purpose, primarily it was an opportunity for participants to familiarize themselves with tools for stakeholder engagement that could be used in the C&I development process as well as appreciate the importance of engaging different forest stakeholders with their own specific interests. The second purpose was to generate information that would also contribute to either the process plan for C&I development or help generate ideas for the C&I themselves. .

Results of group work

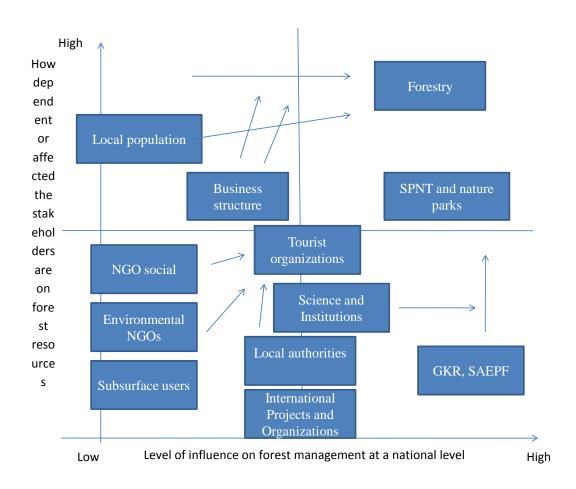
Group 1. National Working Group
Stakeholder identification and mapping

List the stakeholders	Why should they be involved in the development of national	Practical ideas of their involvement (for example, is there their representatives here, the use of the
	C&I	participative method
Forest users (tenants)	Users of forest products	Seminars and meetings
SPNT and nature parks	Responsible for resources	General meetings, trainings
Local authority	Welfare of the population	Individual meetings and interviews
Local population	Users of forest products	Resettlement of residents
	(recreation, health)	
Tourist	Users of forest resources and	Through the media, questionnaires
Organization	ecosystem services	
Environmental NGOs	Public control, capacity building	Questionnaires
Business structures	Users of forest resources	Media, questionnaires
(processing enterprises)		
Social NGOs	Welfare of the population	Questionnaires

Subsurface users	Users of mineral resources	Questionnaires
International Projects	Financing, international	Meetings, partner sites
(FAO, GIZ, UNECE &	experience	
others)		
Leshozes, forest areas	Responsible for resources	General meetings, trainings
GKR, SAEPF	Policy, Legislation and Governance	General meetings and trainings
Science and Institutions	Scientific background on management and training	Seminars and trainings

Graph of the degree of interest and influence of various stakeholders

Participants in Group 1 determined the degree of interest and the degree of influence of all identified stakeholders, depending on which their place on the chart was determined.



Group 2.

Conducting a problem analysis of the Forest Sector from the perspective of forest dependent communities

Problems	Causes	Ways to solve problems
Limited rights of forest users	Inadequacy of NLA for forest use	Improvement of NLA
Unequal distribution of forest resources	Formal carrying out of	Improvement of NLA
among forest users	competitions	
Incompetence of managers and	Wrong selection of personnel, low	Correct selection of personnel,
employees of leshozes	wages, low prestige of the	increase of motivation
	profession of forester	
In solving the problems of tenants, there is	Absence of a joint management	Involvement of all stakeholders
no joint action of the leshozes, LG and	mechanism	in JFM
tenants		
When providing land plots for subsoil use,	There are no sociological studies,	Conduct interviews with local
the interests of the local population are	poor information	residents, questionnaires
not taken into account		
Lack of pasture resources	Absence of rules for grazing in the	Development of rules for
	territory of the State Forest Fund	grazing livestock in the
		territory of the SFF
Conflicts between forest users	Limited Forest Resources	
Illegal buildings on the territory of the SFF	LG does not have the opportunity	
	to allocate land for building houses	
The lack of transparency in the	Inaccessibility of information	Creating an Accessible
distribution of forest resources, the state		Database
of forest resources		
No deductions from income from forest	Lack of accounting for income from	Legalization of income from
use in the social and pension funds	forest management	forest management
Low level of tenant knowledge	Lack of advisory service	Establishment of an advisory
		service

Group 3.Private Sector
Strengths, Weakness, Opportunities and Threats (SWOT)-analysis from the perspective of forest enterprises in the forest sector

INTERNAL- in the day to day product en	•	EXTERNAL – in the enabling environment e.g. government policies, market, supply etc.		
Strengths	Weakness	Opportunities	Threats	
Kennels (Planting stock)	There is no technology, a weak material and technical base Lack of finance	The lease is allowed (DGKR No. 482)	The risk of selling grown plants (There may be a lack of demand)	
Woodworking shops		Development of shared lands for the creation of forest plantations	The lack of timber, a decrease in the volume of processing products	
Processing of forest products (walnut-fruit)	Small volume of wood harvesting	Subsidizing or preferential lending to the private sector	Lack of harvest, forest pests	
	Frequent checks by	Certification of forest		

government bodies	products	
Recommend	lations	
It is necessary: - Subsidizing or preferential lending to the private sector; - streamlining of checks by state bodies.	Practical recommendations and eliminating risks: - increase in leased space o - control of forest pests.	

Group 4. Forester

<u>Strengths, Weakness, Recommendations Analysis of different forest management from the perspective of government foresters</u>

Recommendations from the exercise in order of priority from the point of view of the public forester	What are simple and clear indicators for measuring progress towards these decisions
Development + involvement + learning C&I, theory +	Work with all stakeholders, approval of C&I
information	
Application + C&I practice, certification	Preparation for certification + certification? itself
	(NWFP, ES, plantation)
Development, practice of ecosystem services	Allocating sites for ecosystem services (SPNT, national
	parks, etc.)
Plantations of fast-growing species	Allocating and subsidizing land for plantations (planting
	material, taxes)
Forest management plans based on C&I	Development and approval of C&I, training (assistance -
	local NGOs + donors + state)

3.2. Critical review of role-playing game, C&I process and relevance for use in Kyrgyzstan

Individual assessments of all indicators

The following list is a complete list of indicators preliminary developed during the WS based on identified national priorities. Each participant gave his assessment of each indicator on a five-point system (5 being the best), their estimates were summed up and the total score was calculated.

Consolidated Indicators	Relevance / necessity and realism / practicality of this indicator Total score	Collective priority
Area of leased plots;	112	1
- increase in leased space on		
preferential terms		
Establishment of an advisory service	104	2
at the local level		
Plantations of fast-growing species;		
Allocating and subsidizing land for	102	3
plantations (landing land, taxes)		
Revision of the forest management	100	4
system		
Development + involvement +	99	5

learning COL theory , information.		
learning C&I, theory + information;		
Work with all stakeholders,		
approval of C&I		
Establishment of an advisory service		
at the local level		
Application and practice of C&I		
	97	6
Creation of a systematized	94	7
accessible database		
Adoption of the Law regulating the		
verification of the private sector	93	8
The share of forests infected with	93	8
diseases and insects by forest pests;		
Fighting forest pests		
Improvement of NLA for forest use	92	10
Subsidizing or preferential lending		
to the private sector;		
The volume of capital investments		
and expenditures for forestry,	91	11
production of wood and non-wood		
products		
Development, practice of ecosystem		
services;		
Allocating sites for ecosystem	85	12
services (SPNT, national parks, etc.)		
Transfer of economic functions;		
The introduction of the JFM	85	12
Forest management plans based on		
C&I	76	14
Development and approval of C&I,		
training (assistance - local NGOs +		
donors + state)		

10 national priority recommendations from the evaluation for Kyrgyzstan:

- 1. The increase in leased space on preferential terms
- 2. Establishment of an advisory service at the local level
- 3. Allocating and subsidizing land for afforestation of non-forest land (planting material, taxes)
- 4. Revision of the forest management system
- 5. Participative work with all stakeholders, approval of the C&I
- 6. Application and practice of C&I
- 7. Certification
- 8. Create a systematized accessible database (For people)
- 9. Improvement of NLA

10. Adoption of the Law regulating the verification of the private sector, pest management

11. The volume of capital investments and expenditures for forestry, production of wood and non-timber products

Recommendations of workshop participants on the results of presentations and group work:

Strengths of the stages of the process and the methods used, and which ones will be useful for the development of national C&I

- internationally recognized and applied method for NFI;
- to develop a mechanism for the introduction of C&I as a normative document??;
- applying a modern method of laying tracts and trial plots;
- bookmark the tracks on the grid;
- there is an experience of adaptation of C&I at the national level in Kyrgyzstan;
- the relationship between the indicators;
- Inventory, questionnaires;
- the need for change of what?.

The key most important results of the workshop that can be used in the development of national C&I

- forest resources statistics;
- new data on the forest area and other parameters (on the territory of the SFF, outside the SFF);
- Carbon data at the national and oblast levels for the ecosystems;
- there are already available criteria that can be used;
- availability of data and information;
- certification of production and products is intended;
- different uses of the forest are depicted;
- ecosystem services to be acknowledged;
- work with the local population on the importance of juniper and walnut forests.

What are the key limitations / gaps and recommendations for their overcoming

- statistics on forest resources were obtained only at national level and oblasts level;
- the wording of the criteria is not adapted at the national level;
- application of new technologies to increase forest areas;
- certification of forest management.

4. Development of a preliminary set of indicators

4.1. Indicators chosen for Kyrgyzstan

The following indicators were chosen from a wide shopping list that can be found in the "Guidelines for the development of national criteria and indicators set". The shopping list includes indicators from the Montreal Process, the Low Forest Cover Country Process, the Forest Resource Assessment, the International Tropical Timber Organization, the Forest Europe Process. The shopping list is grouped after the 7 thematic elements of SFM (UNFF, 2007).

Group 1. Forests and ecology

A. Thematic element	B. Indicators	C. Means of verification / measurement.	D. Positive assumption about feasibility:
1. Extend of	1.1.5 Increased forest area due to low forest	Report of SAEPF and L / X,	1,2.3.4-
forest	cover in the Republic	Website, materials of inventory	more 75%
resource	1.3.1 Multi-purpose forests	of forest inventory. FIR.	
	1.1.7 Forest and other wooded land		
	1.8.2 Forest inventory, stocks of wood and		
	non-wood forest products and the possibility of their exploitation		
	1.10.1 Carbon stock in the forest and other	5. For the future.	
	forest and non-forest lands (needed in the	S. F. G. Circ Tatal C.	
	future)		5-0%
	·		
2. Biological	2.1.1 The area of forests and other wooded	Report of SAEPF and L / X,	From 1 до 14-
diversity	lands.	Website, materials of inventory	more 75%
	2.2.2 Species diversity, forest cultures and	of forest inventory. FIR.	
	natural renewal.		
	2.4.4 Distribution of species.	Data of statistical reporting.	
	2.7.2 Status of efforts to preserve species	Academy of Sciences.	
	diversity. 2.7.8 Genetic diversity of seed forestation.	Data from project studies.	
	2.9.3 Forest species that are endangered by		
	disappearance.		
	2.10.2 The area and proportion of forests in		
	specially protected natural areas by types of		
	forest, growth classes or stages of sex.		
	2.10.3 Conservation of bio-diversity.		
	2.10.4 Area of forests within the protected territories.		
	2.10.9 Protected and protected forest land.		
	2.10.6 Protection and ecosystem services.		
	2.10.7 Forest extend in protected areas.		

	2.10.7 Area of forest ecosystems to be		
	protected.		
	2.10.10 Consolidation of the buffer zones and		
	the coherence of the protected forests.		
2. Forest	3.1.1 Forest condition	Report of SAEPF and L / X,	1,2-more 75%
health and	3.5.3 Reforestation	Website, materials of inventory	
vitality	3.5.4 Afforestation	of forest inventory. FIR.	
	3.6.2 Forest Resilience and Adaptation to	3. For the future	
	Climate Change		

Group 2.Social and Economic Benefits

			D. Positive
A. Thematic	D. Indicators	C. Means of verification	assumption
element	B. Indicators	/ measurement.	about
			feasibility:
4. Productive	4.2.4 The actual allowable harvesting of wood	Forest inventory	30% - NWFP
functions of	and non-wood products in natural forests	materials, Forest	100 %
forest resource		management plans	
	4.3.1 Fuel wood harvesting	Actual consumption,	100%
		data from consumers	
	4.3.3 Total biomass of vegetation	Statistical data, NFI	100%
	4.4.3 Cost of forest products and ecosystem	Statistics, international	100%
	services within the country	programs	
	4.6.3 Cost and quantity of non-timber products	Information from local	50%
		residents, the market.	
	Increase in the volume of industrial plantations	State bodies, local	50%
		authorities	
	4.6.5 Annual volume of harvesting of non-timber	Statistics, government	72%
	forest resources	agencies, local people	
		Government bodies	
	4.7.1 Number and cost of paid services in the		80%
	forest fund		
6. Socio-	6.1.2 Potential and efficiency of forest products	Local business	60%
economic	processing	structures, local	
functions.		residents	
	6.2. Contribution of forestry to the country's GDP	Statistics, business	100%
		structures	
	6.3.1 The need for the import and export of	Customs, industrial	80%
	forest products	sector, private sector	
	6.4.1 Capital turnover in the forest sector	Statistical data, business	100%
		structures, tax service	
	6.5.2 Number and quality of investment in the	International programs,	100%
	forest sector	state bodies	
	6.6.5 Employment in the forest sector of the	Statistical data	100%
	country		
	6.7.2 Level of income in the forest sector	Fiscal bodies	100%
	6.8.1 Sustainable development of forest	Local Development	100%

dependent communities	Programs	
6.9.1 Ensuring safe forest management	Trade unions	100%
6.12.7 Area of forests used for recreation and	Government agencies,	100%
tourism development	NGOs, tourism	
	associations	
6.14.3 The use of traditional knowledge in joint	Local NGO communities	100
forest management		
6.15.5 Improving the socio-economic status of	Local development plans	50%
forest-related communities		
6.16.1 Volume of processed forest products	Statistical data	70%
6.17.1 Compliance with international forest	FSI others	100
management standards		

Group 3. Cross-cutting legal policy and institutional frameworks (qualitative indicators)

A. Thematic element	B. Indicators	C. Means of verification / measurement.	D. Positive assumption about feasibility:
7. Legal, policy and institutional framework	olicy and and their equivalents forest sector (Accounting for forest resources, forest inventory, Report 10LX,		80%
		4. Technical conditions (computer, internet, communication, etc.)	30%
		5. Financial conditions (seminars, trainings,	20%
		etc.)	90%
			20%
			Average:
			48%
	7.2 .2. Forest management plan and monitoring	1 Information on the development of the forest sector (forest users, PFM, etc.) 2. Experts (republican, oblast levels, leshozes)	50%
		Knowledge Technical specifications (computer,	50%
		internet, communication	60%
			90%
			20%
			Average:
			54%
	7.3.1. Organizational structure	1. Information (management scheme of the	90%
		forest sector at all levels)	
		2. Analysis and evaluation (methods,	

	guidelines, etc.)	_
		50%
	3. Experts (republican, oblast levels,	50%
	leshozes) 4. Knowledge	
	_	60%
	5. Specifications6. Financial conditions	60%
	6. Financial conditions	700/
		70%
		90%
		20%
		Average:
	4.5	63%
7.4.5. Implementation of laws	1 Information (information on the	20%
at various levels and the	implementation of laws, problems, etc.)	
possibility of assessing	2. Monitoring, analysis and evaluation	
	(methods, approaches, etc.)	2004
	3. Experts (republican, oblast levels,	20%
	leshozes)	
	4. Knowledge	
	5. Specifications	
	6. Financial conditions	20%
		2004
		20%
		90%
		20%
		Average:
		32%
7.5.2. Economic and financial	1 Information (forestry economics, frames,	20%
framework and tools	tools)	
	2 Analysis and evaluation (methods,	2004
	guidelines)	20%
	3. Development of economic and financial	
	framework	100/
	4. Development of economic and financial	10%
	instruments	
	5. Experts (republican, oblast levels,	100/
	leshozes)	10%
	6. Knowledge	
	7. Specifications	2004
	8. Financial conditions	30%
		200/
		30%
		90%
		20%
7.6.4. Accordibility of favorat	1 Information (the good of the good of	Average: 29%
7.6.4. Accessibility of forest-	1. Information (the need of the population)	20%
related data for the population	2. Experts	200/
	3. Knowledge	20%
	4. Specifications	10%
	5. Financial conditions (creation of a	90%
	database, training of the population	20%

			Average: 32%
7.7.2. Moi	nitoring, assessment	1. Information	20%
and repor	ting on the process in	2. Development of guidelines	10%
achieving	sustainable forest	3. Experts	
managem	ent	4. Knowledge	20%
		5. Specifications	30%
		6. Financial conditions (creation of a	90%
		database, training of the population)	20%
			Average: 32%
7.0.0 Day	elopment of	1. Information	600/
7.8.8. Dev	elopinent of	1. IIIIOIIIIatioii	60%
	on with the local	2. Experts	60%
cooperation	·		
cooperation	on with the local n in the development	2. Experts	60%
cooperation population of policies	on with the local n in the development	2. Experts3. Knowledge	60% 50%
cooperation population of policies implemen	on with the local n in the development s for the	2. Experts3. Knowledge4. Specifications	60% 50% 90%

4.2. Evaluation of the indicators after relevance, feasibility, etc. by participants

- Data on carbon stocks and changes in Kyrgyzstan is in the NFI;
- More clearly formulate criteria and particularly indicators. Indicators should not be like "events";
- Need to specify units of measurement;
- There are no indicators on the creation of fast growing rock stockpiles plantation species, even though establishing fast growing plantations was expressed as a priority in the role play.;
- C&I do not fully cover priorities identified during the multi-stakeholder role play., thus additional indicators of national importance have to be developed;
- The realism of data collection from local residents and the market, as well as economic efficiency, is questionable;
- In the presentation on C&I for cross-cutting legal policy and institutional frameworks the
 confidence level on the feasibility of many of the indicators is very low, it is suggested to
 go back at look at these indicators and see if they can be changed into something with a
 higher chance of being practically feasible to implement;
- There are proposed indicators which are difficult to measure in Kyrgyzstansome are a little confused with the criteria

5. Next Steps and Identification of Support Needs - Preliminary process plan for further development

dev	ase in an effective project velopment process	Activities and Results	Who should be involved?	The timeframe (it should be until the second half of 2019)	Identify any support needs for the project (see the slide support project that should be considered)
1.	Conducting training to coordinate process planning to improve C&I	Training material Training seminar	SAEPF, NAS, National Statistics Committee, experts and NGOs	March 2017	Financial support Consultation of experts
2.	Establishment of a working group	Working group established	SAEPF, NAS, National Statistics Committee, experts and NGOs, forest users, leshozes	May2017	
3.	Development of a methodology adapted to national conditions for the definition of criteria and indicators.	Analysis of materials based on the results of the first Training Seminar; Review of other sources of information, study of the experience of other countries	National Consultant, National Coordinator, Working Group	2017g. (First half) Advisory mission	Consultation of experts
4.	The collection of priority data with stakeholders is carried out at the national level	 Data collection on the developed methodology Analysis of the national reports submitted by the GEF, FAO, etc. 	Working group, stakeholders, National consultant	2017 (first half)	
5.	Sharing of experiences and exchange with other project countries	Participation in the 2 nd regional workshop and presentation of results and tentative C&I set	Delegation from Kyrgyzstan	2018, first half (Tbilisi, Georgia)	Travel support
6.	Analyzing data, gaps - determining what are priorities for the development of CIs - both in the process and potential topics.	The national seminar, At local level seminars	Working group, stakeholders, national consultant	September-October 2017	Financial support

7. Contribution to the publication	Written detailed description of	National consultant	2019, first half	
on national C&I for Central Asia	the situation in Kyrgyzstan and			
and the Caucasus	the results of the project			
8. Sharing of experiences and	Participation in the final regional	Delegation from Kyrgyzstan	2019, second half	Travel support
exchange with other project	workshop and presentation of			
countries	results for Kyrgyzstan			

5.1. Workshop Agenda

	Wednesday the 15 th of March	Thursday the 16 th of March	Friday the 17 th of March
M O R N I N G S E S S I	Registration at 8.30. Start sharp at 9.00. 1. Preliminaries, objectives, background to SFM C&I. 9.00 – 9.45 1.1 Welcome and short opening remarks by Bakyt Yrsaliev, Deputy Department Director, and Roman Michalak UNECE/FAO, followed by a project overview from Theresa Loeffler UNECE/FAO 9.45-10.30. 1.2 Participant introductions, workshop objectives, compiled needs assessment and rules and norms. Presentation Peter O'Hara/Vardan Melikyan (Facilitators)	Start sharp at 9.00. 9.00 - 9.15 Recap of previous day. Presentation by participants. 3. Skills development on SFM C&I 9.15-10.30 3.1 Outlining international best practice, process and tool box of methods for national C&I development (e.g. Analytical Hierarchy Process), Peter O'Hara (Facilitator). Poster presentation and practical demonstrations. 90 minutes.	Start sharp at 9.00. 9.00 - 9.15 Recap of previous day. Presentation by participants. 4. Developing the tentative set of Criteria and Indicators and process for Kyrgyzstan 9.15-10.30 4.1 Group work to develop both the broad tentative framework for C&I and the process steps and methods for C&I further development, testing and selection for Kyrgyzstan. Exercise.
ON	11.00-11.30 1.3 Overview of the generic evolution, purpose and definitions of C&I for SFM. Introduction/overview of available resources on C&I for SFM. Stefanie Linser, presentation, Q&A.	Break 10.30 -11.00 11.00-11.30 3.2 Multi-stakeholder role play of step by step practical C&I development process using a hypothetical example to work through developing, testing and selecting C&I. Exercise.	11.00 – 12.30 4.2 Group work continued.
	11.30 -12.30 1.4 Individual visioning of SFM in Kyrgyzstan and potential role of C&I in helping achieve it. <i>Exercise</i> .	Lunch 12.30 – 13.30	Lunch 12.30-13.30
	2. Review of SFM C&I related	3.2 Role play continued. Exercise.	13.30 - 15.00
A F T E R N O O N S L	processes, outcomes and lessons learned in Kyrgyzstan. 2.1 Presentation on the processes, outcomes and lessons learned with regards to Kyrgyz experience with C&I for SFM in Walnut forests, Juniper Forests and Kyrgyz involvement in the Near East process. Siuzanna Seideeva, Zhenish Ashirbekov, Muslim Radjapbaev, Mariam Matila . Presentation.		4.3 Presentation of tentative C&I frameworks and process plans for peer review against criteria such as relevance, feasibility etc. Presentation with peer review exercise.
E S	Break 15.00- 15.30	Break 15.00-15.30	Break 15.00-15.30
S I O N	2.2 Strengths, weaknesses and recommendations analysis of the existing processes and outcomes of C&I for SFM in Kyrgyzstan, needs, gaps and priorities for national C&I to help achieve vision for SFM. <i>Exercise</i> .	3.3. Critical reflection on the role play, C&I process and outcome lessons of relevance to application in Kyrgyzstan <i>Exercise</i> .	 4.4 Setting up a national working group to take the process forward. Exercise. 5. 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

5.2. List of Participants

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