"THE INTEGRATED FOREST ECOSYSTEM MANAGEMENT PROJECT IN THE KYRGYZ REPUBLIC" (IFEMP)

CONSULTING SERVICES

NATIONAL FOREST INVENTORY EXECUTION AND CAPACITY BUILDING

Contract № KG/IFEMP/QCBS/NFI/01/2018

REPORT №2
ON FIELD WORK CONTROL NFI#2

Duration: 26.07. - 25.10.2020

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ON FIELD WORK CONTROL NFI #2

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State Agency for environmental protection and forestry

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ACRONYMS

DBH	Diameter at breast height (1.3 m)
DFED	Department of forest ecosystem development
LU	Forest management planning (Lesoustroistvo)
GIS	Geographic Information System
IFEMP	Integrated Forest Ecosystem Management Project
Leskhoz	State Forest Enterprise
NFI	National Forest Inventory
NFI#1	1^{st} National Forest Inventory of the Kyrgyz Republic
NFI#2	2^{nd} National Forest Inventory of the Kyrgyz Republic
SAEPF	State Agency for Environmental Protection and Forestry
GU KLOU	State enterprise «Kyrgyzlesokhotustroystvo»
TTFI	Technical Team for Forest Inventory
QA	Quality assurance
QC	Quality control
SP	Sample pot

1 GENERAL CONCEPTS FOR FIELD WORK CONTROL

Continuous supervision and monitoring of NFI#2 field operations is important for ensuring the quality of data on field assessments and measurements. This is important for ensuring the quality of data for the data processing and analysis process.

Control of the field work is carried in two ways:

- **Hot control** - control of field work during measurements directly by field teams. At the same time, a member of the control team closely monitors the process of making measurements by the field team and conducts training and data correction;
- **Cold control** - this control method involves re-measuring the sample areas that have already been assessed by field teams and the data is stored in the server. On the part of the control team, the assessed sample areas are selectively selected and re-assessed, and the data is compared.

During the first month, only hot controls were performed, since planned control requires data from field operations and is checked by the Database team.

Table 1: Planned distribution of field work control between hot and cold inspections.

Number of the supervision and control team	The number of field teams, under the supervision	Number of controlled tracts		Total
		Hot controls	Cold controls	
1	3	21	12	33
2	3	21	12	33
3	3	21	12	33
4	3	21	12	33
Всего	**12**	**84**	**48**	**132 (≙ 10%) ***
* additional control is possible, depending on the performance of work by field groups				

The control teams should control between 8-10 % of the total number of NFI #2 tracts. The minimum number of tracts to check is 100 tracts and the maximum number of tracts to check is 132.

The selection of tracts for monitoring (hot and cold controls) is based on the following criteria:

- balanced distribution among all field groups;
- coverage of all strata and regions;
- erroneous field data that should be rechecked.

The above-stated information is obtained from the Technical guideline for data quality assurance, pages 8 and 11 (Annex 2)

Supervision & Control teams

UNIQUE-CAREC forestry experts and TTFI members represent the core of the Supervision & Control teams. The Supervision & Control teams consist of 5 UNIQUE-CAREC experts, 2 experts from

GU KLOU, and 1 expert from the DFED under the SAEPF. Each Supervision & Control team is responsible for the supervision of the 3 field groups, quality control of the respective field groups and the data provided by them. Table 2 shows the key composition of the Supervision & Control teams.

Table 2: Composition of the Supervision & Control teams.

No.	Name	Organization	Position	Training in the framework of NFI #2
1	Alexander Gradel	UNIQUE	International coordinator	Organized and conducted online and field trainings together with UNIQUE experts
2	Kuban Matraimov	CAREC	National coordinator	Organized and conducted online and field trainings together with UNIQUE experts
3	Emil Ibraev	CAREC	Supervisor and controller	Participated in online training and conducted field trainings together with UNIQUE-CAREC experts
4	Keneshbek Usenov	CAREC	Supervisor and controller	Participated in online training and conducted field trainings together with UNIQUE-CAREC experts
5	Kaparbek Bekmyrzaev	CAREC	Supervisor and controller	Participated in online training and conducted field trainings together with UNIQUE-CAREC experts
6	Zhenish Ashyrbekov	GU KLOU	Member of TTFI and controlling person	Participated in online training and conducted field trainings together with UNIQUE-CAREC experts
7	Mairambek Taabaldiev	GU KLOU	Member of TTFI and controlling person	Participated in a field training on the territory of the forest Institute with UNIQUE-CAREC experts and passed the introductory theoretical course NFI 2
8	N.T. Dovletov	GU KLOU	Member of TTFI and controlling person	2 days during online training (29.04-09.05). Also participated in the meetings of the TTFI

According to the order of SAEPF, the following people will also take part in the control work:

- S. Chukumbaev – Director of GU «Kyrgyzlesoukhotustroystvo»
- Marta Barkybaeva – Head of GIS and Database department of GU «Kyrgyzlesoukhotustroystvo»
- Muslim Rajapbaev - Institute of biology, NAS KR

2 CONTROL OF THE FIELD WORK OF NFI#2

2.1 Work package

According to the Implementation Plan and Technical guidelines for data quality assurance, field teams work according to the developed work packages (monthly or two-months work volumes, map data and GIS data of tracts).

Field work began on June 22, 2020 in parallel in all regions of the Republic. 12 field teams were organized, which are distributed in the following areas with 2-month norms for work (table 3). According to the decision of the TTFI working session (10 August) and given the larger volume of field work and a late start to work , 2 new field teams were organized (table 3).

Table 3. Scope of work of field teams

Team leader	Region and district	Number of tracts	Required working days	Duration of work
Kubat Jamankulov	Jalal-Abad region (Chatkal and Toktogul districts),Talas region	81	137	22.06-23.10
Azamat Konkuev	Issyk-Kul region (Aksuu and Djeti-Oguz districts)	93	180	25.06-20.11
Kairat Kuliev	Jalal-Abad region (Bazar Korgon and Nooken districts)	113	251	25.06-25.11
Akmat Nuraliev	Jalal-Abad region (Aksy district)	107	224	25.06-20.11
Kuban Ibraimov	Jalal-Abad region (Ala-Buka and Aksy districts)	130	278	25.06-25.11
Ramis Anarbek Uulu	Jalal-Abad region (Suzak district)	122	241	25.06-25.11
SM. Jarkynbaev	Osh region (Kara-Kulja and Uzgen districts)	124	236	22.06-25.11
Bakai Uchkurtkaev	Batken region (Kadamjai and Batken districts), Osh region (Alai and Chon Alai districts)	66	124	22.06-23.10
Nurgazy Aliev	Chui region (all district)	94	180	25.06-25.11
Bakhtiyar Soltonkulov	Issyk-Kul region (Tyup and Issyk-Kul districts)	85	169	25.06- 25.11
Bolot Asanakunov	Naryn region (At-Bashy and Naryn districts)	94	162	25.06- 25.11
Maksat Andashbaev	Naryn region (Jumgal and Aktalinski districts), Issyk-Kul region (Ton district)	85	139	25.06-25.10
Kanat Moldobaev	Issyl-Kul region (Djeti-Oguz district)	34	76	26.09 – 25.11
Rustam Kozubaev	Batken region (Leylek district), Osh region (Nookat, Kara-Suu and Aravan districts)	31	72	26.09 – 25.11
	TOTAL	1259	2469	

2.2 The Supervision & Control Team's responsibility over field teams

Supervision & Control teams are organized for training and quality control of field data and 3 field teams are distributed to each control team:

Table 4. Distribution of field teams among the Supervisors & Controllers.

No	Supervision & Control	Organization	Controlled teams
1	Kuban Matraimov	CAREC	Bolot Asanakunov, Azamat Konkuev, Bachtiyar Soltonkulov, Kanat Moldobaev
2	Emil Ibraev	CAREC Expert	Kuban Ibraimov, Akmat Nuraliev, Kairat Kuliev
3	Keneshbek Usenov	CAREC Expert	SM. Jarkynbaev, Bakai Uchkurtkaev, Ramis Anarbek uulu, Rustam Kozubaev
4	Kaparbek Bekmyrzaev	CAREC Expert	Kubat Jamankulov, Nurgazy Aliev, Maksat Andashbaev
5	Alexander Gradel	UNIQUE	Participates in various control groups and working with the Database team General management for quality assurance
6	Jenysh Ashyrbekov	GU KLOU	Participates in various field work control groups
7	Nurdin Dovletov	GU KLOU	Participates in various field work control groups
8	Mairambek Taabaldiev	GU KLOU	Participates in various field work control groups

Each member of the Supervision & Control team works with the Database team to analyze field data, identify errors, and make decisions.

The Database team is responsible for preparing work packages (work maps and sample plots data), verifying field data, and processing and analyzing verified and corrected data.

Table 5: Connection between Supervision & Control and data base team.

№	Supervision & Control	Database group	Field teams
1	Kuban Matraimov	Eric Jeentaev	Bolot Asanakunov, Azamat Konkuev, Bachtiyar Soltonkulov, Kanat Moldobaev
2	Emil Ibraev	Rahat Januzakova	Kuban Ibraimov, Akmat Nuraliev, Kairat Kuliev
3	Keneshbek Usenov	Alexander Zubovich (Alfiya)	SM. Jarkynbaev, Bakai Uchkurtkaev, Ramis Anarbek uulu, Rustam Kozubaev

4	Kaparbek Bekmyrzaev	Kunduz Damirbekova	Kubat Jamankulov, Nurgazy Aliev, Maksat Andashbaev

Control teams travel together with field teams, constantly conduct training during the assessment of sample plots, if necessary, immediately correct errors of field teams.

3 FIELD TEAM CONTROL RESULTS

Field work began on June 22 and the first groups left under the leadership of Mr. Zhamankulov, Mr. Zharkynbayev and Mr. Uchkurtkayev. The remaining 9 groups left on June 25 this year. The scope of field work is provided to field teams on a two-month basis (work packages). The first work package was completed in August and the field teams are currently working on the second and third Work packages (until October 25). The interim result of field work on October 25 is as follows:

Table 6: Completed fieldwork of field teams during the first three months (according to database).

Teams (Team leader)	Region and district	Assessed tracts	Sample plots
Kubat Jamankulov	Jalal-Abad region (Toktogul district), Talas region (all region)	58	99
Azamat Konkuev	Issyk-Kul region (Aksuu and Djeti-Oguz districts)	79	151
Kairat Kuliev	Jalal-Abad region (Bazar Korgon district)	65	151
Akmat Nuraliev	Jalal-Abad region (Aksy district)	79	167
Kuban Ibraimov	Jalal-Abad region (Ala-Buka and Aksy districts)	52	107
Ramis Anarbek Uulu	Jalal-Abad region (Suzak district)	90	191
SM. Jarkynbaev	Osh region (Kara-Kulja and Uzgen districts)	73	136
Bakai Uchkurtkaev	Batken region (Batken district), Osh region (Alai and Chon Alai districts)	40	70
Nurgazy Aliev	Chui region (Chui, Alamedin and Sokuluk districts)	75	143
Bakhtiyar Soltonkulov	Issyk-Kul region (Tyup and Issyk-Kul districts)	67	125
Bolot Asanakunov	Naryn region (At-Bashy and Naryn districts)	70	126
Maksat Andashbaev	Naryn region (Ak-Talinski, Toguz-Torouski districts), Issyk-Kul region (Ton district)	65	113
Kanat Moldobaev	Issyk-Kul region (Ton and Djeti-Oguz districts)	20	44
Rustam Kozubaev		0	0
TOTAL		**833**	**1623**

Some tracts or single sample plots listed as forest tracts are actually inaccessible for various reasons:

- Due to proximity to state borders;
- Natural inaccessibility (damaged roads, location of the sample plot on rocks/cliffs, big rivers). Such tracts are examined again using satellite images. Control groups check their inaccessibility in the field and then come to a decision.

Figure 1: Control teams together with field teams

Main results of the Supervision & Control

Based on the results of Supervision & Control teams, quality protocols are filled out, and to date, several field four S&C control campaigns have been finished:

- The first trip of the control teams (A. Gradel, K. Bekmyrzaev, E. Ibraev and K.Usenov) was carried out jointly with field teams, meetings were organized with district administrations and with the Directors of leskhoses and national parks (reserves). The trip took place from 22.06 to 05.07. Kuban Matraimov and Jenish Ashyrbekov were unable to participate due to a Coronavirus infection.
- During the second trip of the S&C teams, also members of TTFI, and the leaders of GU KLOU participated: S. Chukubaev, N. Davlatov, J. Ashirbekov, M. Taabaldiev ; the dates of travel : 14.07-24.07.

- The third trip was held with the participation of UNIQUE-CAREC experts, TTFI and GU KLOU managers: S.Chukubaev, M. Taabaldiev and J. Ashirbekov. The trip was from 09.07 to 20.09.
- Additionally, Kubat Zhamankulov's team was checked two times for inaccessible tracts and sample plots, who showed a lot of "inaccessible sample plots" in their reports. Inspections on this issue were carried out between 05.09. and 10.09.2020 (Chatkal district) and between 10.10. and 13.10.2020 (Talas region).
- The fourth trip was conducted with the participation of UNIQUE-CAREC experts, TTFI and the heads of GU KLOU (N. Dovletov, M. Taabaldiev and J. Ashyrbekov) between 13.10 to 23.10.

The results of each team differ individually, some teams have mastered the NFI #2 method very well and there are almost no problems when assessing sample plots. Some teams had difficulties at the initial stage and made mistakes: Akmat Nuraliev's team, Saifidinmalik Zharkynbayev's team.

K. Zhamankulov's team (team no.1) differed by the fact that the report showed a large number of inaccessible tracts (43 sample plots). According to the expert opinions of UNIQUE-CAREC and control checks, some tracts are indeed inaccessible, but some tracts (sample plots) were found to be accessible. Based on the results of the inspection, team leader K. Zhamankulov confirmed that he will visit the accessible tracts again and assess the sample plots.

Each field team was evaluated with regard to their assessment of the following indicators:

- Navigation to the SP and finding the center of the SP (NFI #1, FMP and NFI #2);
- General data of the sample plot, description of the sample plot;
- Reference points ;
- //// and resistance ;
- Ground cover ;
- Shrubs and regeneration ;
- Assessment of live trees, data on stumps, data on dead trees (fallen and standing): height, diameter, growth, age, trunk length, quality of stumps and dead trees;
- Collection, assessment and transportation of bore core samples.

These indicators are evaluated on a 3-point system (1-error, correction required, 2-satisfactory, 3-very good).

The main results of the field team verification are shown in Table 7, where the following explanations are available:

Type of control: hot control, cold control. Rating: 1=not accepted (not acc.); 2 -, 3 =accepted (acc.);

Abbreviations: AG = Alexander Gradel; KM= Kuban Matraimov; KU= Keneshbek Usenov; EI= Emil Ibraev; KB= Kaparbek Bekmyrzaev; JA=J. Ashyrbekov; SCh= S. Chukumbayev; MT=M. Taabaldiev; KD= Kunduz Damirbekova; MB=M. Barlybaeva.

Table 7: Main results of the field team controls (quality of work on the sample plots). Tracts that were controlled in the frame of Supervision & Control team trainings are not listed yet.

Tablet #	Team Leader name_eng	S&C trip /cam-paign	Number of Con-trol (per group)	Type of control	Data	Result	Track №	sample plot №	Controlled by
1	Kubat Jamanku-lov	1	1	hot control	25.06.2020	acc.	6171	1	KB
2	Azamat Konkuev		1	hot control	01.07.2020	acc.	1233	1;2	AG; EI
3	Kairat Kuliev								
4	Akmataaly Nu-raliev		1	hot control	07-08.07.20	acc.	5127	2; 3	EI
5	Kuban Ibraimov		1	hot control	06.07.2020	acc.	8800	1; 2; 3	EI
6	Ramis Anarbek uulu		1	hot control	29,30.06.2020	acc.	5538	3; 1; 2	KU
7	Malik Jarkynbaev		1	hot control	25.06.2020	acc.	5381	1; 2	KU
8	Bakai Uchkurt-kaev		1	hot control	24.06.2020	acc.	7542	2; 1	KU
9	Nurgazy Aliev		1	hot control	04.07.2020	acc.	3070 1048	3 3; 2	KB
10	Baktiyar Soltonk-ulov		1	hot control	28.06.2020	acc.	1126	1; 2	AG; EI
11	Bolot Asa-nakunov		1	hot control	29.06.2020	acc.	8055	2; 3	KB
12	Maksat Andash-baev		1	hot control	02.07.2020	acc.	4524	1	KB
1	Kubat Jamanku-lov	2	2	hot control	17.07.2020	acc.	6079	1; 2; 3	MT; AG
2	Azamat Konkuev		2	hot control	17-18.07.20	acc.	8460	2; 3; 4	JA; KM
3	Kairat Kuliev		1	hot control	19.07.2020	acc.	5148	1; 2; 3	KB
	Kairat Kuliev		2	hot control	18.07.2020	acc.	5463	3	KB
4	Akmataaly Nu-raliev		2	hot control	16.07.2020	acc.	5429	1	KB
5	Kuban Ibraimov								
6	Ramis Anarbek uulu		2	hot control	19.07.2020	acc.	5518	1; 2; 3	KU
7	Malik Jarkynbaev		2	hot control	18.07.2020	acc.	5362	2	KU
	Malik Jarkynbaev		3	hot control	22.07.2020	acc.	7859	2	KU
8	Bakai Uchkurt-kaev		2	hot control	17.07.2020	acc.	7955	2	KU

9	Nurgazy Aliev		2	hot control	15.07.2020	acc.	3233	1; 3	AG; MT
10	Baktiyar Soltonkulov		2	hot control	29.06.2020	acc.	1126	3	EI; AG
	Baktiyar Soltonkulov		3	hot control	15-16.07.20	acc.	3168 1222	1 1; 2	JA; KM
11	Bolot Asanakunov		2	hot control	13.07.2020	acc.	2893	1; 3	SCh; KB
12	Maksat Andashbaev		2	hot control	11.07.2020	acc.	2481	1	SCh; KB
1	Kubat Jamankulov	3а	3	cold control	06.09.20	not acc.	6198	2	KB; EI
1	Kubat Jamankulov		4	cold control	07.09.2020	not acc.	8427	4	KB; EI
	Kubat Jamankulov	3б	4	hot control	13.09.2021	acc.	5761	3	KB; KD
2	Azamat Konkuev		3	hot control	15.09.2020	acc.	3464	1; 2	KM; Sch
3	Kairat Kuliev		3	cold control / hot control	18.09.2020	acc.	5495	1	EI
4	Akmataaly Nuraliev		3	cold control	15.09.2020	acc.	5393	2; 3	EI
5	Kuban Ibraimov		2	cold control	14.09.2020	acc.	8855	3	EI
5	Kuban Ibraimov		3	hot control	14.09.2020	acc.	8425	4	EI
6	Ramis Anarbek uulu		3	cold control	16.09.2020	acc.	5540	2	KU; JA
7	Malik Jarkynbaev								
8	Bakai Uchkurtkaev		3	hot control	11.09.2020	acc.	4990	2	KU; JA
9	Nurgazy Aliev		3	hot control	16.09.2020	acc.	8699	1	KB; KD
10	Baktiyar Soltonkulov								
11	Bolot Asanakunov		3	hot control	20.09.2020	acc.	2451	1	KM
12	Maksat Andashbaev		3	cold control	20.09.2020	acc.	2617	2	KB; KD
1	Kubat Jamankulov		5	cold control	14.09.2020	acc.	7357	3	KB; KD
2	Azamat Konkuev		4	cold control	16.09.2020	acc.	3355	1; 2	KM; SCh
3	Kairat Kuliev								
4	Akmataaly Nuraliev		4	hot control	16.09.2020	acc.	8533	2; 3; 4	EI
5	Kuban Ibraimov								

6	Ramis Anarbek uulu		4	hot control	17.09.2020	acc.	0471	2	KU; JA
7	Malik Jarkynbaev		4	hot control	14.09.2020	acc.	5374	1	KU; JA
7	Malik Jarkynbaev		5	cold control	15.09.2020	acc.	5692	2	KU; JA
8	Bakai Uchkurt-kaev								
9	Nurgazy Aliev		4	cold control	15.09.2020	acc.	8081	1	KB; KD
10	Baktiyar Soltonk-ulov		4	hot control	18.09.2020	acc.	3146	1; 3	KM; SCh
10	Baktiyar Soltonk-ulov		5	cold control	19.09.2020	acc.	3442	1; 3	KM; SCh
11	Bolot Asa-nakunov								
12	Maksat Andash-baev								
1	Kubat Jamanku-lov	4a							
2	Azamat Konkuev		5	cold control	13.10.20	acc.	3577	3	EI; MB
2	Kairat Kuliev		4	cold control	18.10.20	acc.	5160	1; 2	KM; JA
3	Kairat Kuliev		5	cold control	19.10.20	acc.	5475	1; 2	KM; JA
4	Akmataaly Nu-raliev		5	cold control	17.10.20	acc.	8533	2; 3; 4	KM; JA
4	Kuban Ibraimov		3	cold control	15.10.20	acc.	0219	1; 2	KM; JA
5	Kuban Ibraimov		4	cold control	16.10.20	acc.	0157	1; 2; 3	KM; JA
6	Ramis Anarbek uulu		5	cold control	16.10.21	acc.	5250	3	KB; MT
7	Malik Jarkynbaev		6	cold control	18.10.20	acc.	5659	2	KB; MT
8	Bakai Uchkurt-kaev		4	cold control	20.10.20	acc.	7441	3	KB; MT
9	Nurgazy Aliev								
10	Baktiyar Soltonk-ulov		6	cold control	19.10.19	acc.	3167	2	EI; MB
	Baktiyar Soltonk-ulov		7	cold control	20.10.20	acc.	3112	1	EI; MB
11	Bolot Asa-nakunov								
12	Maksat Andash-baev								
14	Rustam Kozu-baev		1	hot control	22.10.20	acc.	7447	1	KB
15	Kanat Moldobaev		1	hot control	15.10.20	acc.	3897	1	EI; MB
	Kanat Moldobaev		2	cold control	14.10.20	acc.	3900	2	EI; MB

Table 8: Main results of field teams controls (inaccessible tracts and sample plots).

№	Team leader Name	Unavailable tracts	Unavailable Sample plots
1	K. Jamankulov	28	43
2	A. Konkuev	4	5
3	K. Kuliev	8	12
4	A.Nuraliev	12	16
5	K.Ibraimov	7	9
6	R.Anarbek uulu	0	0
7	SM.Jarkynbaev	3	4
8	B.Uchkurtkaev	16	28
9	N.Aliev	7	9
10	B.Soltonkulov	5	7
11	B.Asanakunov	8	10
12	M.Andashbaev	9	14
13	K.Moldobaev	1	2
14	R.Kozubaev	0	0
TOTAL		**108**	**159**

Initially, the accessibility of tracts and sample plots was determined theoretically (using satellite images and topographic maps) when preparing working maps. But the final decision on accessibility and the actual condition of the sample plots were made by field teams. However, one of the tasks of the control teams is to check the teams that showed a large number of inaccessible sample plots. The accessibility y of "inaccessible sample plots" was checked, and measures were taken to field team No. 1 (Zhamankulov Kubat), which mistakenly identified unaccessibility.






Figure 2: Support for field teams from the side of Supervisors.

4 CURRENT STATUS OF FIELD WORK

As of October 25, according to the dashboard the number of assessed tracts in the Database is 833 or 1623 sample plots, including the main indicators:

- **Number of trees measured: 10929 PCs;**
- **Number of measured stumps: 1071 PCs;**
- **Number of dead trees: 581 pieces;**

*** Number of age and growth cores – 3442 samples.**

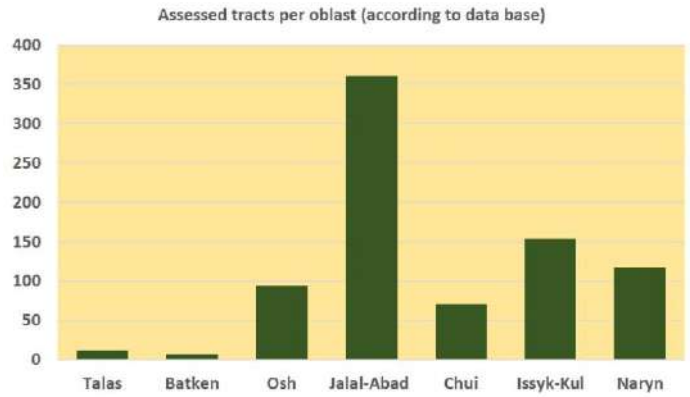

Figure 3: Number of assessed tracts by region (oblast).

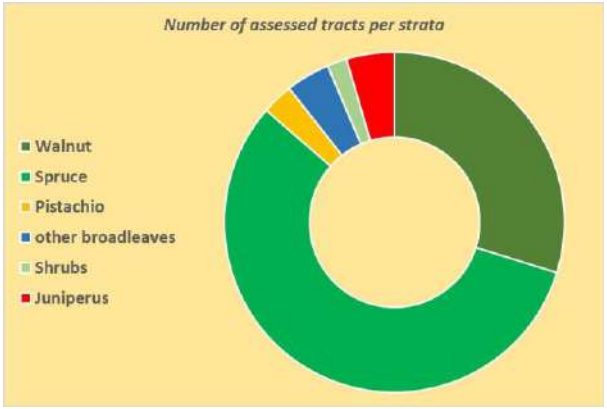

Figure 4: Number of assessed tracts by strata.

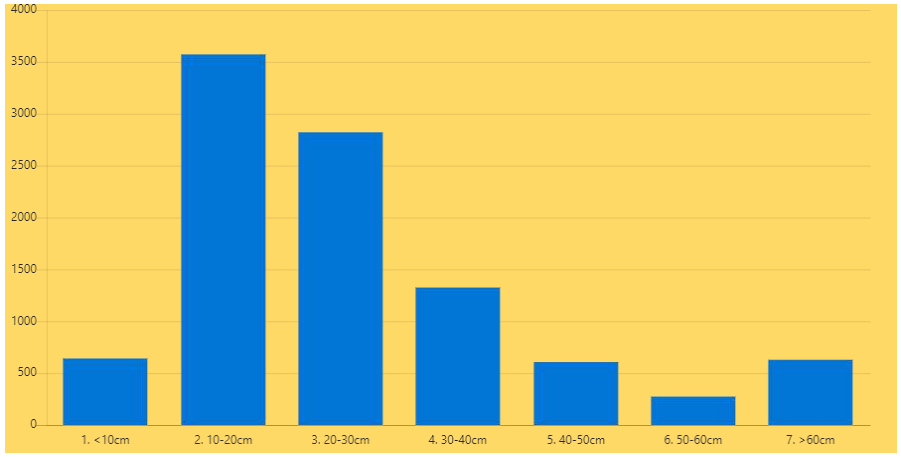

Figure 5 : Distribution of trees by diameter classes (development stage)

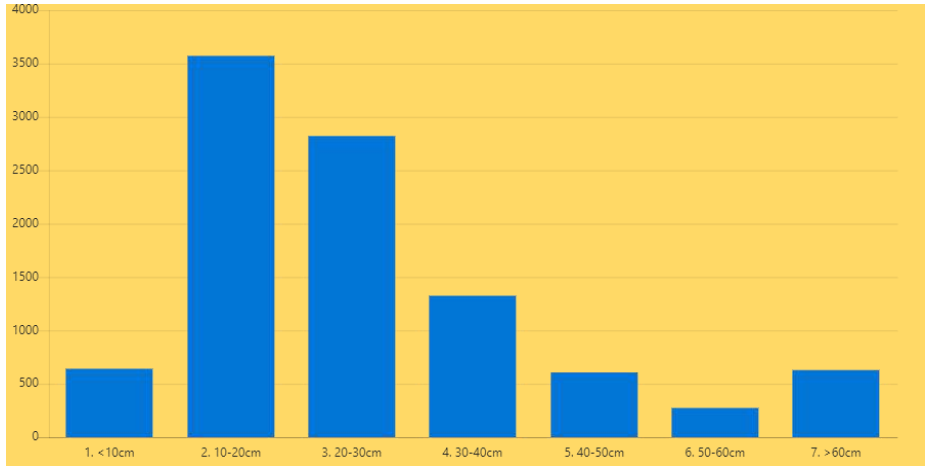

Figure 6: Distribution of sample plots by slope steepness

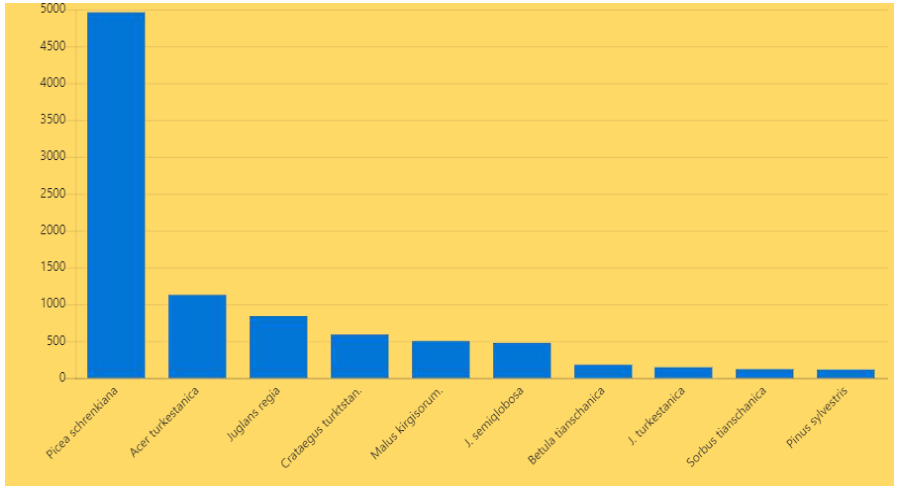

Figure 7: Number of measured tree species

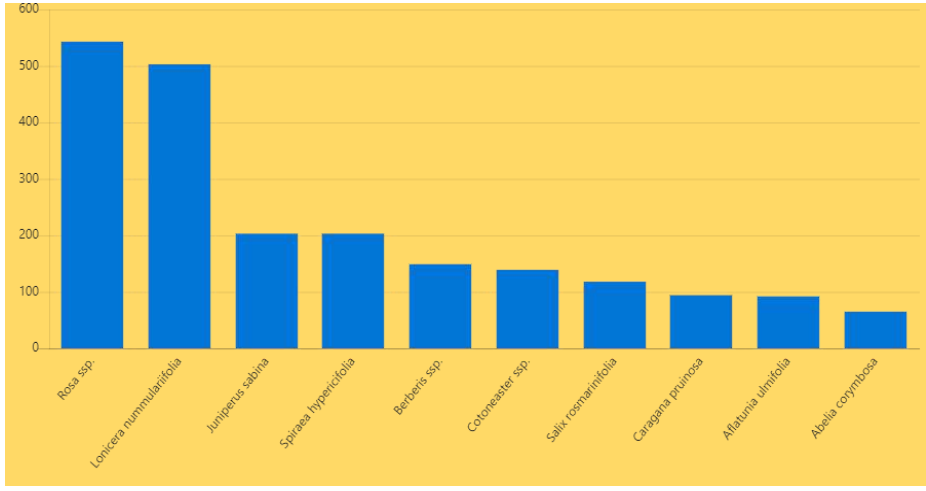

Figure 8: Number of measured shrub species

5 IDENTIFIED SHORTCOMINGS OF FIELD WORK AND SOLUTIONS

The S&C teams detected some general mistakes and problems of the field teams. These inaccuracies may affect the quality of work:

- Teams do not always conduct field work in accordance with the NFI#2 manual, and do not study enough the existing field work guidelines and the daily work procedures manual.
  - *The S&C teams provide constant consultations and training in the forest during the establishment of sample plots.*
- Insufficient compliance with the rules and regulations of field work stated in the manual on daily working procedures.
  - *The control team constantly demands compliance with the requirements when sample plots are assessed.*
- Assessment of trees, stumps, and dead trees within sample plots: some groups have different numbering for trees, stumps, and dead trees.
  - *The control teams gave clear recommendations on the general numbering within the sample plots.*
- Definition of stumps and standing dead trees: there are stumps with a height of more than 1.5 meters in the forest, but they are considered as stumps and not as standing dead trees.
  - *If there is no crown of trees, the trunk is cut down, then this applies to stumps. Such exceptional information is indicated in the comment section during measurements.*

6 AGE- AND INCREMENT CORES AND THEIR STORAGE

In the course of fieldwork on each sample plot with trees, the average age and growth by species is determined. Field teams extract increment cores by using increment borers which are transported to the SIKFHIP office via the Control teams. From the transferred core samples, a small database of these cores is compiled in the office, which reflects the number of age and incremental cores along the tracts (sample areas), by teams, tree species, regions.
Table 9 provides an overview of the cores that were received by the project office from the field teams up to 25 October. So far, not all teams have fully sent their cores to Bishkek. According to the NFI Database field teams have so far collected 3442 age and incremental cores. Until now about 2420 cores were brought to the project office.

Table 9. Information on cores from the sample plots.

№	Руководитель группы	Кол-во трактов (с которых были собраны керны)	Кол-во кернов (в офисе)	Кол-во кернов (Базе данных)
1.	Жаманкулов К.	4	13	51
2.	Конкуев А.	53	265	476
3.	Кулиев К.	71	472	378
4.	Нуралиев А.	8	19	355
5.	Ибраимов К.	13	79	135
6.	Анарбек уулу Р.	86	503	536
7.	Жаркынбаев С.М.	41	261	227
8.	Учкурткаев Бакай	8	74	112
9.	Алиев Н.	27	188	147
10.	Солтонкулов Б.	24	152	299
11.	Асанакунов Б.	33	241	304
12.	Андашбаев М.	22	153	251
13.	Молдобаев К.	0	0	171
Всего			**2420**	**3442**

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