



“THE INTEGRATED FOREST ECOSYSTEM MANAGEMENT PROJECT IN THE KYRGYZ
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CONSULTING SERVICES

NATIONAL FOREST INVENTORY EXECUTION AND CAPACITY BUILDING

Contract № KG/IFEMP/QCBS/NFI/01/2018

REPORT №3 ON FIELD WORK CONTROL NFI#2

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REPORT № 3 ON FIELD WORK CONTROL NFI #2

Client:

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
SPA	Specially Protected Area
Leskhoz	State Forest Enterprise
NP	National Park
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
Bcero	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, 3 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). In total, 14 field groups worked on the field work of Research Laboratory No. 2.

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	66	137	22.06-23.10
Azamat Konkuev	Issyk-Kul region (Aksuu and Djети-Oguz districts)	89	180	25.06-20.11
Kairat Kuliev	Jalal-Abad region (Bazar Korgon and Nooken districts)	111	251	25.06-25.11
Akmat Nuraliev	Jalal-Abad region (Aksy district)	103	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)	121	241	25.06-25.11
SM. Jarkynbaev	Osh region (Kara-Kulja and Uzgen districts)	89	236	22.06-25.11
Bakai Uchkurtkaev	Batken region (Kadamjai and Batken districts), Osh region (Alai and Chon Alai districts)	65	124	22.06-23.10
Nurgazy Aliev	Chui region (all district)	93	180	25.06-25.11
Bakhtiyar Soltonkulov	Issyk-Kul region (Tyup and Issyk-Kul districts)	89	169	25.06- 25.11
Bolat Asanakunov	Naryn region (At-Bashy and Naryn districts)	93	162	25.06- 25.11
Maksat Andashbaev	Naryn region (Jungal and Aktalinski districts), Issyk-Kul region (Ton district)	132	139	25.06-25.10
Kanat Moldobaev	Issyk-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	1246	2464	

The initial number of tracts was 1248. However, during the compilation of the last work packages it became clear that two tracts are very remote and hardly accessible. Therefore, 1246 tracts

were distributed. The planning for 2021, which will be discussed with the client may include also some redistribution of tracts. The overall final number will be at least 1248.

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 An-dashbaev
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.

No	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 at the end of December 2020 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	98
Azamat Konkuev	Issyk-Kul region (Aksuu and Djети-Oguz districts)	89	151
Kairat Kuliev	Jalal-Abad region (Bazar Korgon district)	111	151
Akmat Nuraliev	Jalal-Abad region (Aksy district)	99	167
Kuban Ibrahimov	Jalal-Abad region (Ala-Buka and Aksy districts)	127	107
Ramis Anarbek Uulu	Jalal-Abad region (Suzak district)	121	191
SM. Jarkynbaev	Osh region (Kara-Kulja and Uzgen districts)	89	136
Bakai Uchkurtkaev	Batken region (Batken district), Osh region (Alai and Chon Alai districts)	54	70
Nurgazy Aliev	Chui region (Chui, Alamedin and Sokuluk districts)	86	143
Bakhtiyar Soltonkulov	Issyk-Kul region (Tyup and Issyk-Kul districts)	89	125
Bolot Asanakunov	Naryn region (At-Bashy and Naryn districts)	85	126
Maksat Andashbaev	Naryn region (Ak-Talinski, Toguz-Torouski districts), Issyk-Kul region (Ton district)	117	113
Kanat Moldobaev	Issyk-Kul region (Ton and Djети-Oguz districts)	34	44
Rustam Kozubaev		31	0
TOTAL		1190	2352

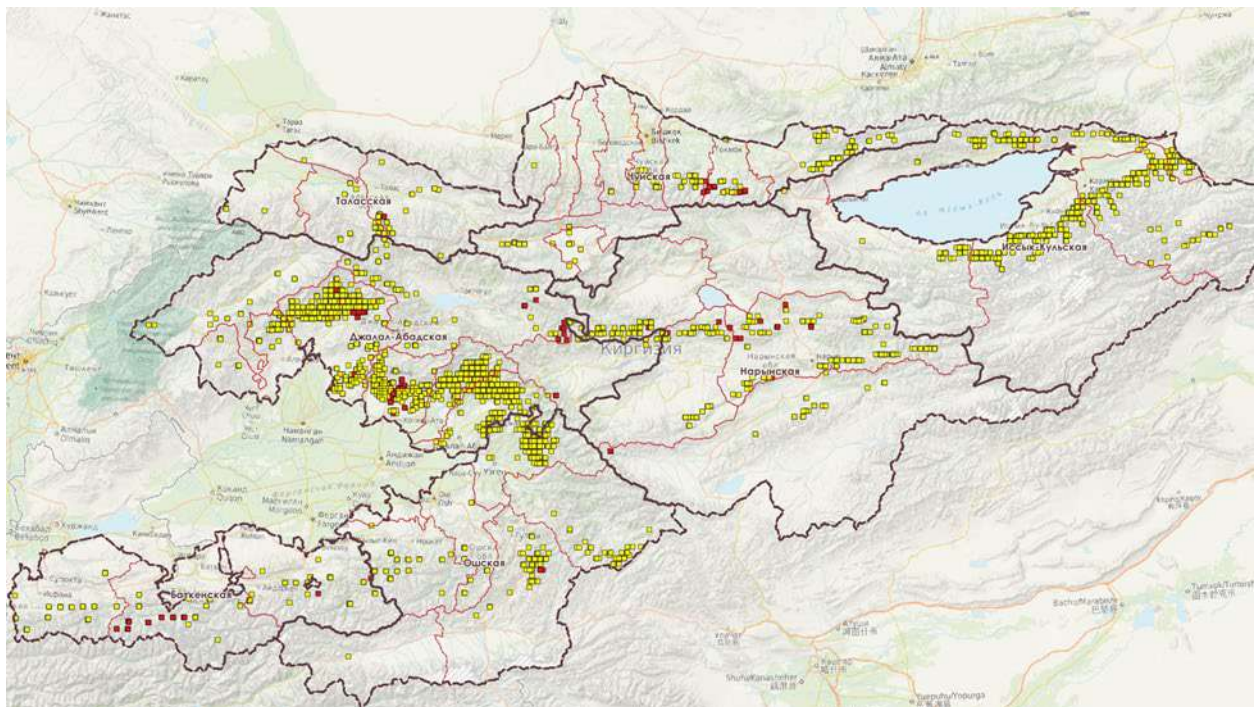


Fig. 1. Map of tracts of the NFI#2 ": Field work - completed (yellow) and unfinished tracts (red).

According to the results of field work in 2020, 1190 tracts (2352 sample plots) were established, which is 95% of the planned volume of field work. Due to weather conditions, in the fall of this year, 58 tracts were not completed, which will be laid in the spring of 2021 in two groups.

Out of 1190 tracts, 134 tracts (221 sample plots) were identified inaccessible, which will be checked again in office conditions using satellite images and data from field teams. Based on the results of the recheck, the final decisions on them will be made: to visit some of the "accessible tracts" in 2021.

Inaccessible tracts (sample plots), indicated as "forested", are actually inaccessible for various reasons:

- Due to the proximity to the borders of other states;
- Natural inaccessibility (destroyed roads, the location of the BCP over rocks, on very steep slopes, a big river obstruction).



Fig. 2. Examples of inaccessible plots.

Table 7 shows the results of the database analysis where inaccessible tracts were identified by the field teams.

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. Before the start of field work in 2021, inaccessible tracts will also be analyzed by groups: Kozubaev Rustam (group 14), Uchkurtkaev Bakai (group 8). The following table shows the results of the database analysis where inaccessible tracts were identified by the field teams.

Table 7. Results of analysis of inaccessible tracts of the field teams.

Field groups	Total number of tracts for field groups	Number of inaccessible tracts	Number of inaccessible sample plots
Kubat Jamankulov	66	14	21
Azamat Konkuev	89	4	6
Kairat Kuliev	111	11	14
Akmat Nuraliev	102	19	25
Kuban Ibraimov	130	10	12
Ramis Anarbek uulu	121	3	4
Malik Jarkynbaev	89	3	4
Bakai Uchkurtkaev	65	20	35
Nurgazy Aliev	93	11	17

Bachtiyar Soltonkulov	89	8	13
Bolot Asanakunov	93	11	13
Maksat Andashbaev	132	25	41
Kanat Moldobekov	34	1	2
Rustam Kozubaev	31	9	14
Total:	1246	134	221

The controls of the fieldwork were carried out in most cases jointly with the specialists of the State Institution GUKLOU, TTFI and UNIQUE-CAREC experts. This collaboration guaranteed quality control and eliminated potential differences with regard to the evaluation and the results. At the end of 2020, 94 tracts were surveyed by the control groups, the work of all field groups in all types of forests was covered.



Fig. 3. Control groups 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, six 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 5th trip took place with the participation of experts from UNIQUE-CAREC, TKIL and the heads of GUKLOU: Dovletov N., Taabaldiev M. Date of the trip: 04.11 to 18.11. •
- The 6th trip took place with the participation of the National Coordinator of the IFEM project Kozubaeva N.O., TTFI and heads of GUKLOU: Chukumbaev S.Zh., Barkybaeva M., Taabaldiev M., UNIQUE-CAREC experts; from 27.11 to 04.12.





Fig. 4. Field control: Some impressions.

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. 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 8: 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.

Number	Team (Tablet #)	Team Leader name_eng	S&C trip /cam-	Number of Con-	Type of control	Data	Result	Track №	sample plot №	Controlled by
1	1	Kubat Jaman-kulov	1	1	hot control	25.06.2020	accepted	6171	1	KB
2	2	Azamat Kon-kuev	1	1	hot control	01.07.2020	accepted	1233	1	AG; EI
3	2	Azamat Kon-kuev	1	2	hot control	01.07.2020	accepted	1233	2	AG; EI
4	4	Akmataaly Nuraliev	1	1	hot control	07-08.07.2020	accepted	5127	2; 3	EI
5	5	Kuban Ibraimov	1	1	hot control	06.07.2020	accepted	8800	1; 2; 3	EI
6	6	Ramis Anarbek uulu	1	1	hot control	29-30.06.2020	accepted	5538	3; 1; 2	KU
7	7	Malik Jarkyn-baev	1	1	hot control	25.06.2020	accepted	5381	1; 2	KU
8	8	Bakai Uch-kurtkaev	1	1	hot control	24.06.2020	accepted	7542	2; 1	KU
9	9	Nurgazy Aliev	1	1	hot control	04.07.2020	accepted	3070 1048	3 3; 2	KB
10	10	Baktiyar Sol-tonkulov	1	1	hot control	28.06.2020	accepted	1126	1; 2	AG; EI
11	11	Bolot Asana-kunov	1	1	hot control	29.06.2020	accepted	8055	2; 3	KB
12	12	Maksat An-dashbaev	1	1	hot control	02.07.2020	accepted	4524	1	KB
13	1	Kubat Jaman-kulov	2	2	hot control	17.07.2020	accepted	6079	1; 2; 3	MT; AG
14	2	Azamat Kon-kuev	2	3	hot control	17-18.07.2020	accepted	8460	2; 3; 4	JA; KM
15	3	Kairat Kuliev	2	1	hot control	19.07.2020	accepted	5148	1; 2; 3	KB
16		Kairat Kuliev	2	2	hot control	18.07.2020	accepted	5463	3	KB
17	4	Akmataaly Nuraliev	2	2	hot control	16.07.2020	accepted	5429	1	KB
18	6	Ramis Anarbek uulu	2	2	hot control	19.07.2020	accepted	5518	1; 2; 3	KU
19	7	Malik Jarkyn-baev	2	2	hot control	18.07.2020	accepted	5362	2	KU
20	7	Malik Jarkyn-baev	2	3	hot control	22.07.2020	accepted	7859	2	KU
21	8	Bakai Uch-kurtkaev	2	2	hot control	17.07.2020	accepted	7955	2	KU

22	9	Nurgazy Aliev	2	2	hot control	15.07.2020	accepted	3233	1; 3	AG; MT
23	10	Baktiyar Soltonkulov	2	2	hot control	29.06.2020	accepted	1126	3	EI; AG
24	10	Baktiyar Soltonkulov	2	3	hot control	15-16.07.2020	accepted	3168 1222	1 1; 2	JA; KM
25	11	Bolot Asanahunov	2	2	hot control	13.07.2020	accepted	2893	1; 3	SCh; KB
26	12	Maksat Andashbaev	2	2	hot control	11.07.2020	accepted	2481	1	SCh; KB
27	9	Nurgazy Aliev	S&C	3	cold control	21.08.2020	accepted	8498	1;2	KB; AG;EI;KB;KD
28	1	Kubat Jamankulov	3a	3	cold control	06.09.2020	not accepted	6198	2	KB; EI
29	1	Kubat Jamankulov	3a	4	cold control	07.09.2020	not accepted	8427	4	KB; EI
30	1	Kubat Jamankulov	3a	5	cold control	08.09.2020	not accepted	6000	1	KB; EI
31	1	Kubat Jamankulov	36	6	hot control	13.09.2020	accepted	5761	3	KB; KD
32	2	Azamat Konkuev	36	4	hot control	15.09.2020	accepted	3464	1; 2	KM; Sch
33	3	Kairat Kuliev	36	3	cold control / hot control	18.09.2020	accepted	5495	1	EI
34	4	Akmataaly Nuraliev	36	3	cold control	15.09.2020	accepted	5393	2; 3	EI
35	5	Kuban Ibrahimov	36	2	cold control	14.09.2020	accepted	8855	3	EI
36	5	Kuban Ibrahimov	36	3	hot control	14.09.2020	accepted	8425	4	EI
37	6	Ramis Anarbek uulu	36	3	cold control	16.09.2020	accepted	5540	2	KU; JA
38	8	Bakai Uchkurtkaev	36	3	hot control	11.09.2020	accepted	4990	2	KU; JA
39	9	Nurgazy Aliev	36	4	hot control	16.09.2020	accepted	8699	1	KB; KD
40	12	Maksat Andashbaev	36	3	cold control	20.09.2020	accepted	2617	2	KB; KD
41	1	Kubat Jamankulov	36	7	cold control	14.09.2020	accepted	7357	3	KB; KD
42	2	Azamat Konkuev	36	5	cold control	16.09.2020	accepted	3355	1; 2	KM; SCh
43	3	Kairat Kuliev	36	4	hot control	18.09.2020	accepted	5190	1,3	EI
44	4	Akmataaly Nuraliev	36	4	hot control	16.09.2020	accepted	8533	2; 3; 4	EI

45	6	Ramis Anarbek uulu	36	4	hot control	17.09.2020	accepted	0471	2	KU; JA
46	7	Malik Jarkynbaev	36	4	hot control	14.09.2020	accepted	5374	1	KU; JA
47	7	Malik Jarkynbaev	36	5	cold control	15.09.2020	accepted	5692	2	KU; JA
48	9	Nurgazy Aliev	36	5	cold control	15.09.2020	accepted	8081	1	KB; KD
49	10	Baktiyar Soltonkulov	36	4	hot control	18.09.2020	accepted	3146	1; 3	KM; SCh
50	10	Baktiyar Soltonkulov	36	5	cold control	19.09.2020	accepted	3442	1; 3	KM; SCh
51	11	Bolot Asanakunov	36	4	hot control	20.09.2020	accepted	4490	1	KM
52	2	Azamat Konkuev	4a	6	cold control	13.10.2020	accepted	3577	3	EI; MB
53	3	Kairat Kuliev	4a	5	cold control	18.10.2020	accepted	5160	1; 2	KM; JA
54	3	Kairat Kuliev	4a	6	cold control	19.10.2020	accepted	5475	1; 2	KM; JA
55	4	Akmataaly Nuraliev	4a	5	cold control	17.10.2020	accepted	8533	2; 3; 4	KM; JA
56	5	Kuban Ibraimov	4a	4	cold control	15.10.2020	accepted	0219	1; 2	KM; JA
57	5	Kuban Ibraimov	4a	5	cold control	16.10.2020	accepted	0157	1; 2; 3	KM; JA
58	6	Ramis Anarbek uulu	4a	5	cold control	16.10.2020	accepted	5250	3	KB; MT
59	7	Malik Jarkynbaev	4a	6	cold control	18.10.2020	accepted	5659	2	KB; MT
60	8	Bakai Uchkurtkaev	4a	4	cold control	20.10.2020	accepted	7441	3	KB; MT
61	10	Baktiyar Soltonkulov	4a	6	cold control	19.10.2020	accepted	3167	2	EI; MB
62		Baktiyar Soltonkulov	4a	7	cold control	20.10.2020	accepted	3112	1	EI; MB
63	14	Rustam Kozubaev	4a	1	hot control	22.10.2020	accepted	7447	1	KB
64	13	Kanat Moldobaev	4a	1	hot control	15.10.2020	accepted	3897	1	EI; MB
65	13	Kanat Moldobaev	4a	2	cold control	14.10.2020	accepted	3900	2	EI; MB
66	1	Kubat Jamankulov	4b	8	cold control	12.10.2020	accepted	3574 1492	1 1; 2; 3	
67	1	Kubat Jamankulov	4b	9	cold control	25.10.2020	accepted	8207	1; 2; 3; 4	KU; ND

68	3	Kairat Kuliev	5	7	cold control	01.12.20	accepted	5515	2	KM; EI
69	4	Akmataaly Nuraliev	5	6	hot control	10.11.2020	accepted	8422	4; 2; 3	EI
70	4	Akmataaly Nuraliev	5	7	cold control	11.11.2020	accepted	7393	1	EI
71	4	Akmataaly Nuraliev	5	8	cold control	8.11.2020	accepted	5097	1	EI, AG
72	4	Akmataaly Nuraliev	5	9	cold control	8.11.2020	accepted	5399	1	EI, AG
73	5	Kuban Ibraimov	5	6	cold control	30.11.2020	not accepted	0322	1	KM; EI
74	5	Kuban Ibraimov	5	7	cold control	30.11.2020	not accepted	0323	3	KM; EI
75	5	Kuban Ibraimov	5	8	cold control	30.11.2020	not accepted	0324	3	KM; EI
76	5	Kuban Ibraimov	6	9	cold control	29.11.2020	accepted	0214	1	KM; EI
77	5	Kuban Ibraimov	5	10	cold control	28.11.2020	accepted	0134	2	KM; EI
78	12	Maksat Andashbaev	5	4	hot control	8.11.2020	accepted	0614	1	KB
79	12	Maksat Andashbaev	5	5	hot control	8.11.2020	accepted	0569	3	KB
80	12	Maksat Andashbaev	5	6	hot control	10.11.2020	accepted	0403	2	KB
81	12	Maksat Andashbaev	5	7	hot control	10.11.2020	accepted	8602	3	KB
82	12	Maksat Andashbaev	5	8	hot control	11.11.2020	accepted	0330	3	KB
83	12	Maksat Andashbaev	5	9	hot control	11.11.2020	accepted	0404	1	KB
84	12	Maksat Andashbaev	5	10	hot control	13.11.2020	accepted	0442	3	KB
85	14	Rustam Kozubaev	5	2	hot control	9.11.2020	accepted	7548	1	KU, TM
86	14	Rustam Kozubaev	5	3	cold control	28.11.2020	accepted	0886	3	KU;MT; MB
87	14	Rustam Kozubaev	5	4	cold control	01.12.2020	accepted	7461	3	KU;MT; MB
88	14	Rustam Kozubaev	5	5	cold control	03.12.2020	accepted	7934	1	KU;MT; MB
89	8	Bakai Uchkurtkaev	5	5	cold control	10.11.2020	accepted	7550	2	KU, TM
90	8	Bakai Uchkurtkaev	5	6	cold control	10.11.2020	accepted	7550	3	KU, TM
91	7	Malik Jarkynbaev	5	7	cold control	12.11.2020	accepted	5681	1	KU, TM
92	6	Ramis Anarbek uulu	5	6	cold control	15.11.2020	accepted	5273	2	KU, TM

93	6	Ramis Anarbek uulu	5	7	cold control	29.11.2020	accepted	0861	3	KU;MT; MB
94	14	Rustam Kozubaev	5	6	cold control	02.11.2020	accepted	7581 7624	1; 2 2	KU
95	14	Rustam Kozubaev	5	7	cold control	18.11.2020	accepted	8145 7601	1; 2; 3 3	KU
96	14	Rustam Kozubaev	5	8	cold control	11.11.2020	accepted	7506	1	KU



Figure 5: Support for field teams from the side of Supervisors.

4 CURRENT STATUS OF FIELD WORK

As of December 25th, according to the dashboard the number of assessed tracts in the Database is 1190 or 2352 sample plots, including the main indicators:

- **Number of trees measured: 13576;**
- **Number of measured stumps: 1283;**
- **Number of dead trees: 651;**
- * **Number of age and growth cores – 4401 collected samples.**

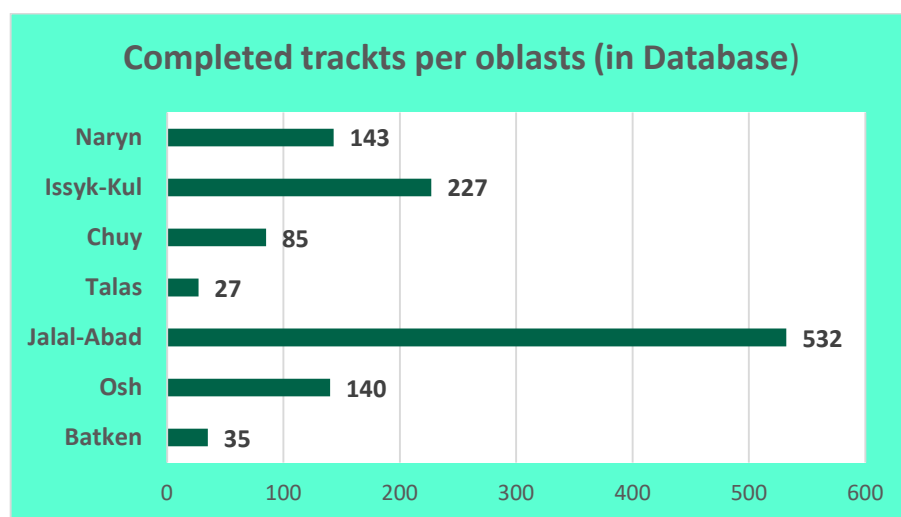


Figure 6: Number of assessed tracts by region (oblast).

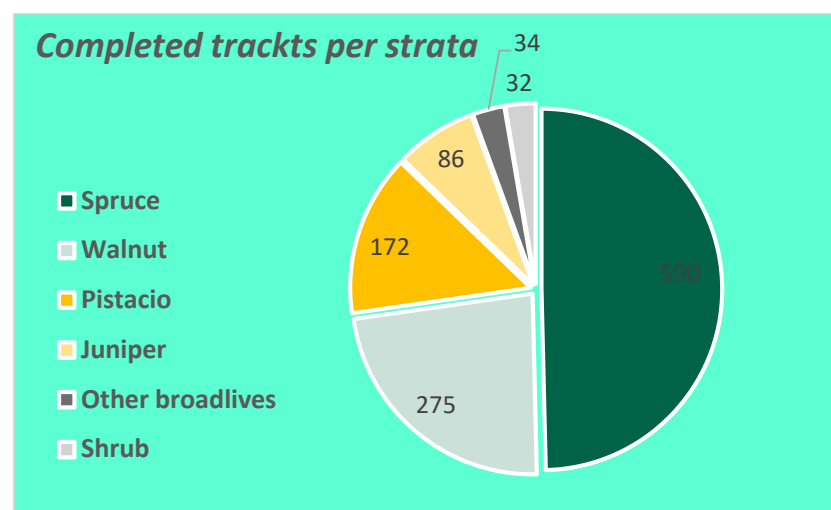


Figure 7: Number of assessed tracts by strata.

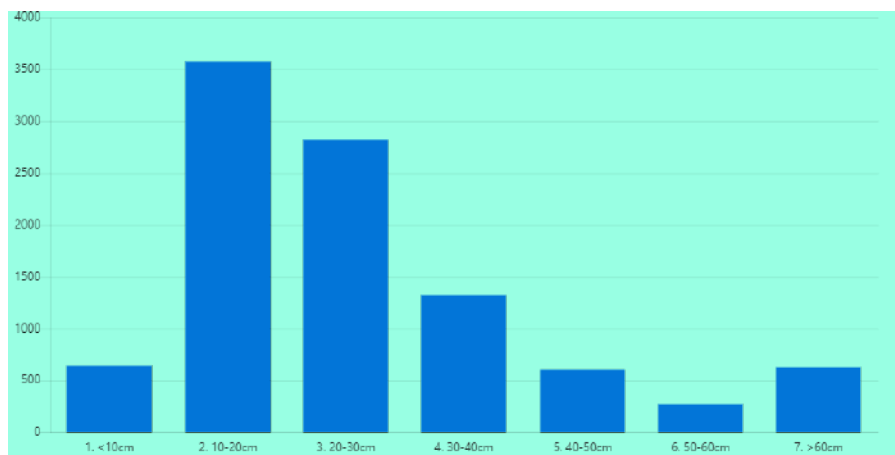


Figure 8: Distribution of trees by diameter classes (development stage)

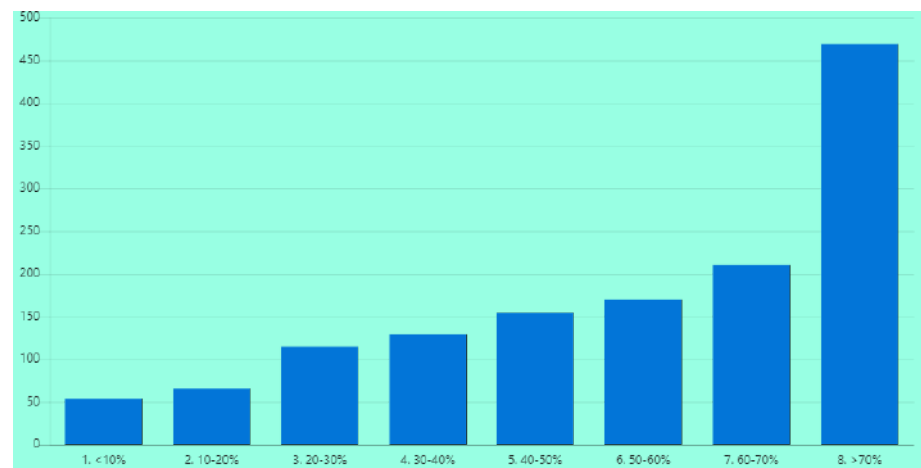


Figure 9: Distribution of sample plots by slope steepness

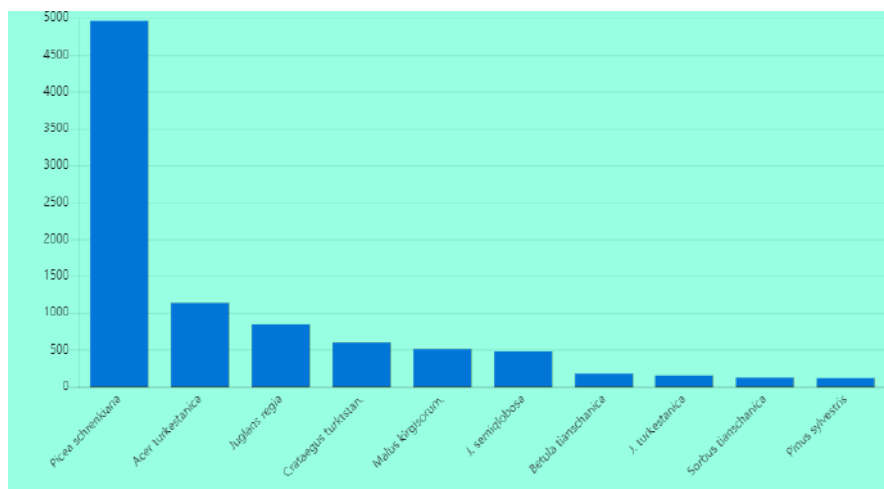


Figure 10: Number of measured tree species

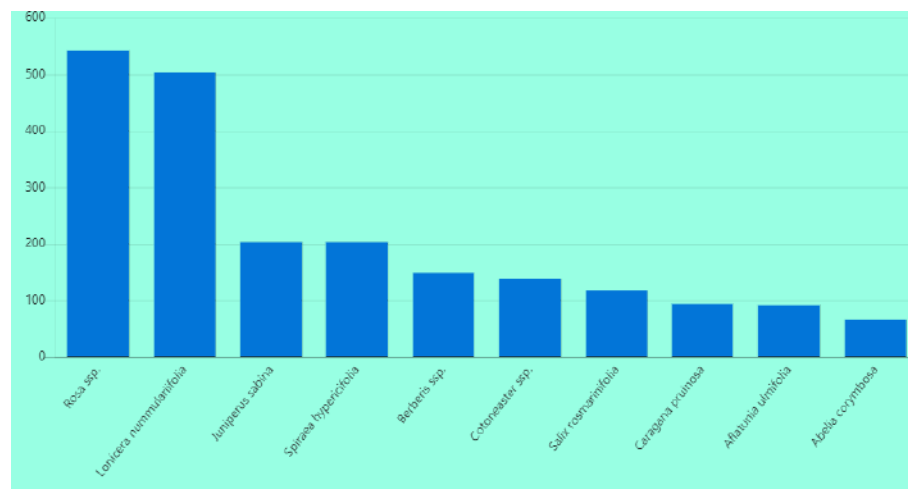


Figure 11: Number of measured shrub species

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 object 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 from their field work up to December 25th. According to the NFI Database the field teams collected about 4401 age and incremental cores, but 4844 cores were so far registered in the office.

Table 9. Information on cores from the sample plots.

№	Team leader	Number of tracts	Number of cores (in office)	Number of cores (in data base)
1.	Kubat Jamankulov	17	55	69
2.	Azamat Konkuev	62	555	556
3.	Kairat Kuliev	95	605	587
4.	Akmat Nuraliev	73	467	392
5.	Kuban Ibraimov	66	307	225
6.	Ramis Anarbek Uulu	83	584	575
7.	SM. Jarkynbaev	63	402	251
8.	Bakai Uchkurtkaev	10	80	117
9.	Nurgazy Aliev	42	269	173
10.	Bakhtiyar Soltonkulov	51	411	419
11.	Bolot Asanakunov	50	367	344
12.	Maksat Andashbaev	52	373	297
13.	Kanat Moldobaev	31	294	299
14.	Rustam Kozubaev	20	99	97
Total			4844	4 401

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