

CONTENTS



Climate change in Mongolia



Current Status of the Forestry Sector

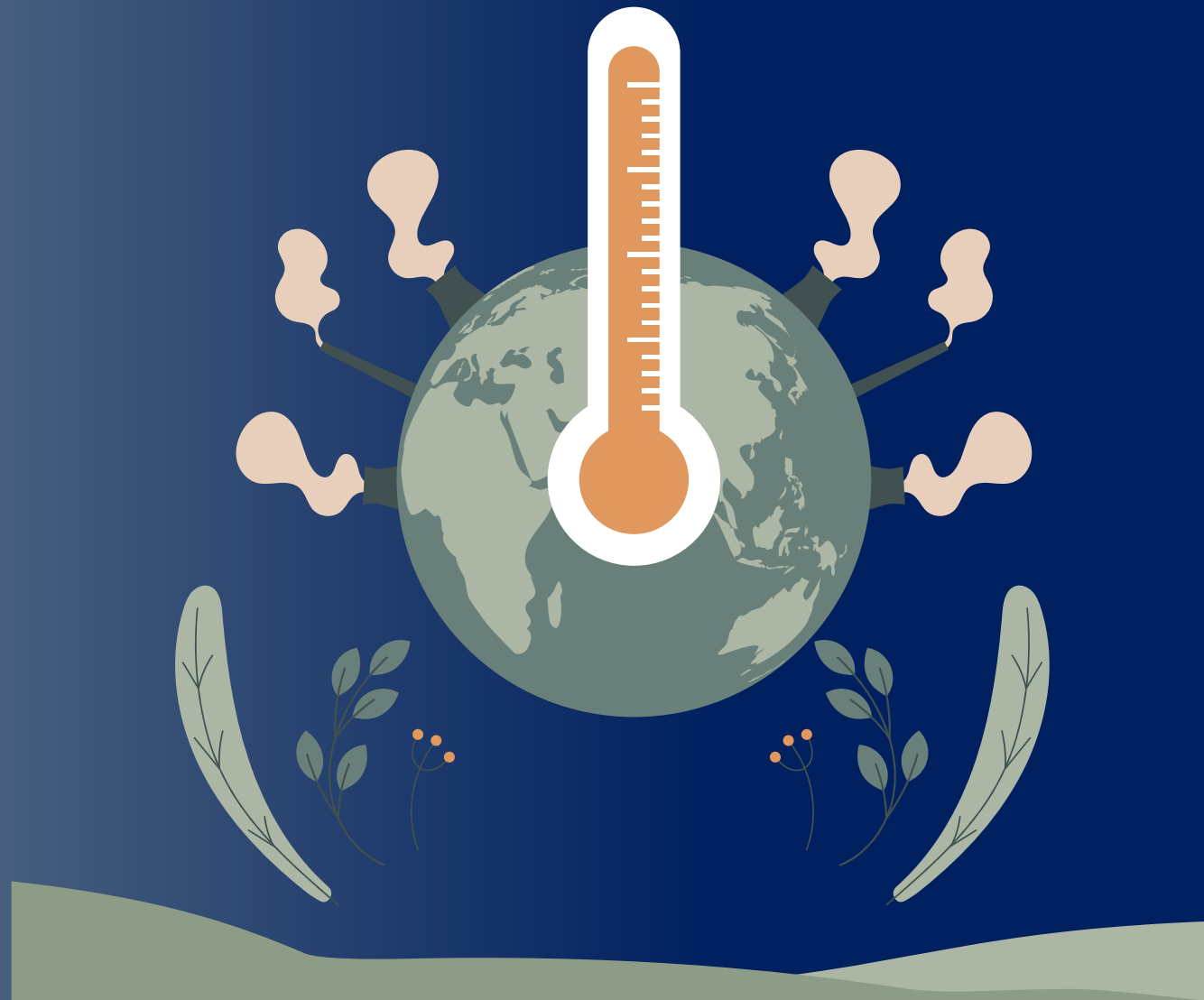


GHG emissions and GHG removals in the forestry sector



NDC 3.0 Target updates (Draft)

Climate change in MONGOLIA



CLIMATE CHANGE

1940-2021:

Air temperature **2.5°C** ↑

Total annual precipitation

7.3% ↓

2023 Amount of precipitation 251.2 mm

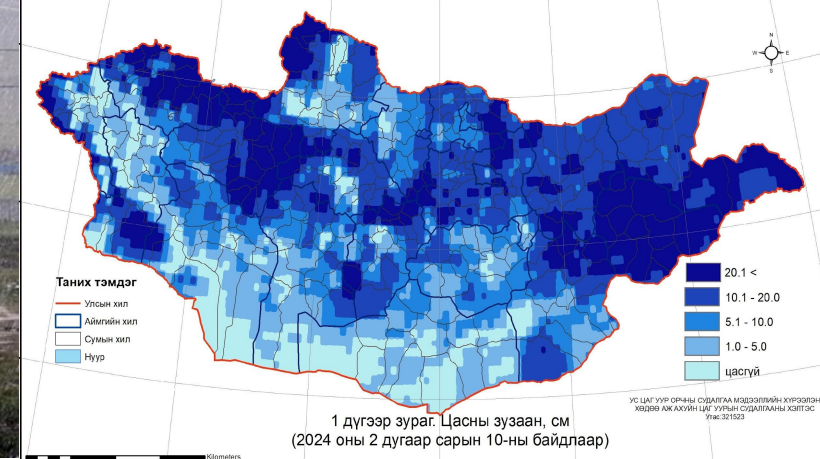
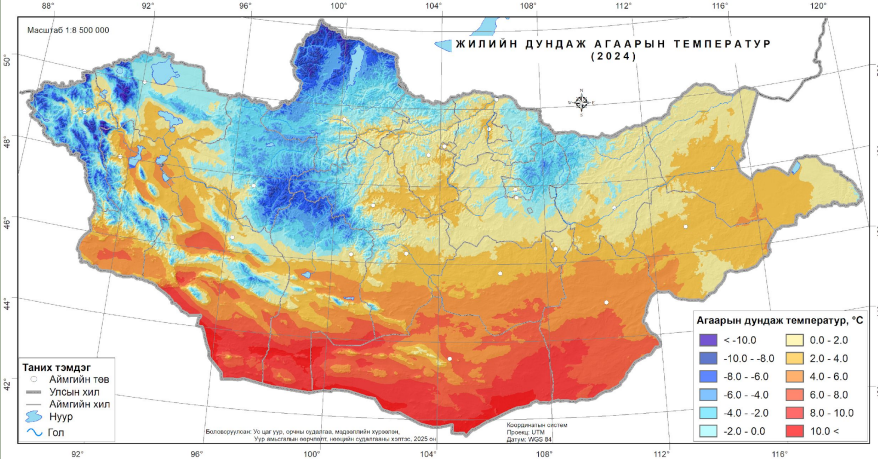
MAX 558.9 mm
MIN 36.4 mm

Meteorology-related disasters

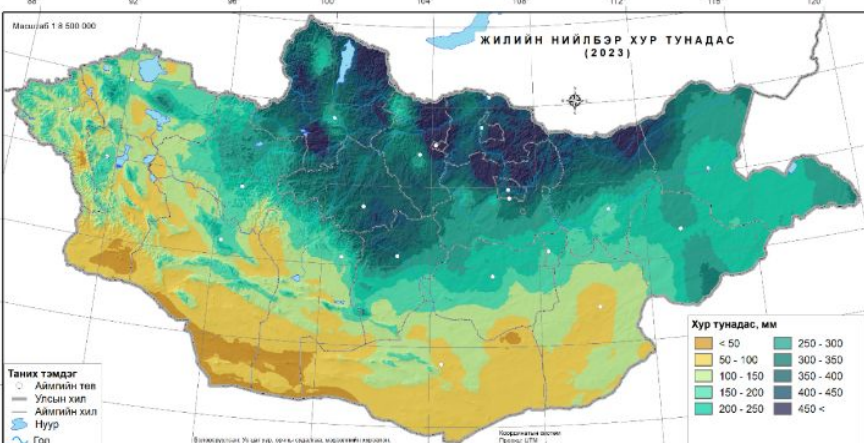
2 ↑

Snow depth increases:

MAX 60 см
MIN 1-5 см



Source: IRIMHE



WATER RESOURCE



Water resource: 564.8 км³



Surface water: 98%



Lake 500.0 км³



River 34.6 км³



Glaciers 19.4 км³



Underground water
10.8 км³

Surface water (2021):

Rivers	Springs	Lakes	Spa
6356	13222	6356	584
Drained			
116	381	180	5

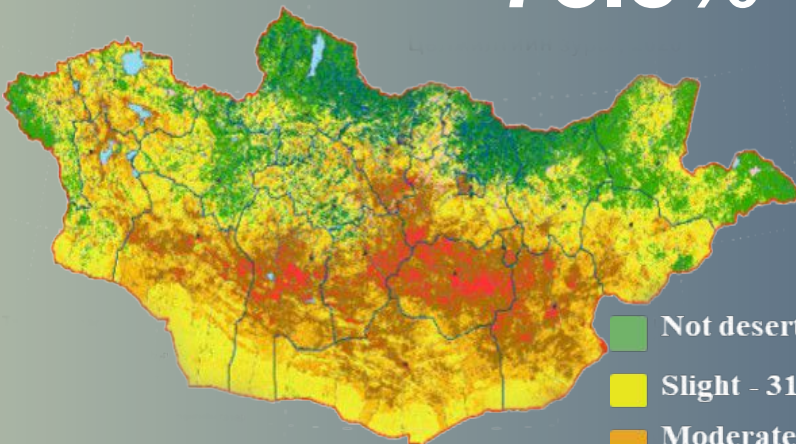


DESERTIFICATION AND LAND DEGRADATION

76.9%

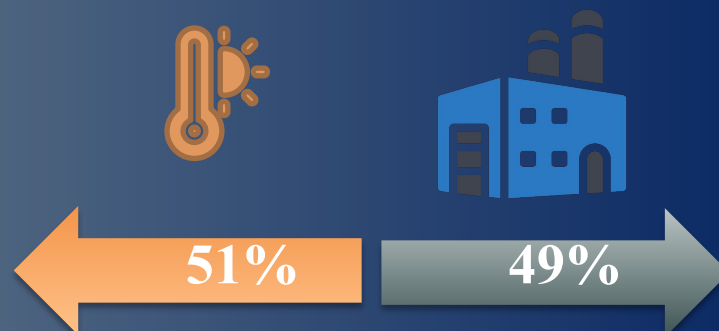
Factors contributing to degradation

- Climate change
- Dryness
- Drought, floods, strong winds, storms, sand drifts
- Earthquake
-



- Not desertified - 23.1%
- Slight - 31.5%
- Moderate - 22.1%
- Severe - 18.6%
- Very severe - 4.7%

A total of 120.3 million hectares were desertified.



Natural factors:

Human factors:

- Animal husbandry
- Farming
- Mining
- Urbanization-infrastructure

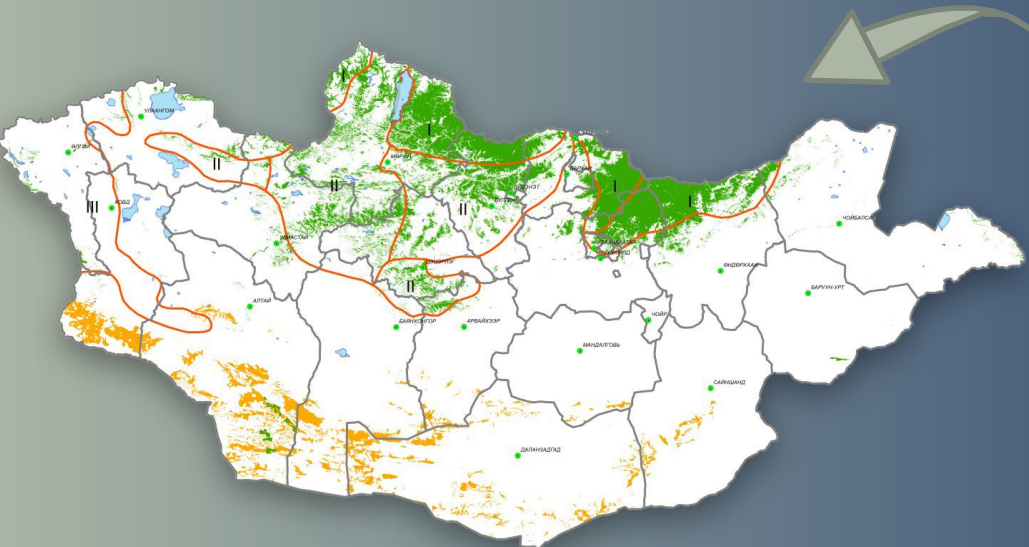


**AFFORESTATION AND
REFORESTATION
(Forest sector)**



The background features a stylized landscape with rolling green hills, several wind turbines, and various trees. The sky is a deep blue with a few white clouds. The overall theme is environmental sustainability and the role of the forest sector.

FOREST RESOURCE



Forest covered area: 8.45%

Forest fund: 19,103.2 thousand ha

Boreal forest: 74.6%
Saxaul forest: 25.3%





FOREST RESOURCE

Siberian Larch
79.3%

Cedar
8.9%

Birch
6.0%

Siberian pine
5.0%

Spruce
0.2%

Siberian fir
0.01%

Aspen
0.17%

Poplar
0.05%

Willow
0.3%

Elm
0.01%

Saxaul, poplar
0.14%



FOREST DEGRADATION



FOREST DEGRADATION:

- Forest fire
- Forest pests
- Illegal logging



“BILLION TREES” NATIONAL MOVEMENT (2021-2030)



Result	Target Level				
	Baseline level	2024	2025	2030	2050
Forest covered area%	7.9% (2019)	8.6%	8.7%	9.0%	10.5%



GOOD PRACTICE – AFFORESTATION/REFORESTATION

“Billion Trees”
national
movement

2024 year
107,4 million
planted trees

BOREAL FOREST AREA

Selenge province,
Altanbulag soum



STEPPE AREA

Tuv province,
Bayantsogt soum



GOBI AREA

Umnugovi province,
Bayandalai soum




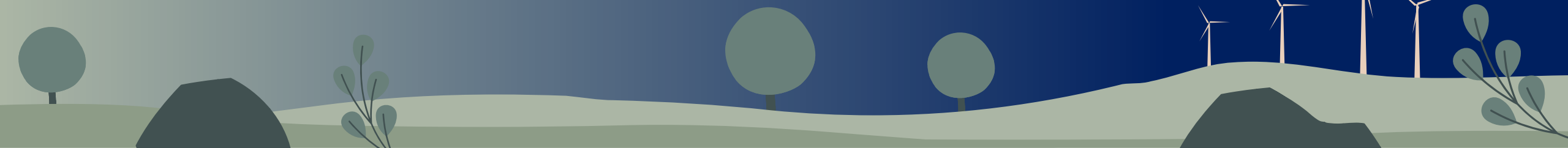
NDC 3.0 TARGETS





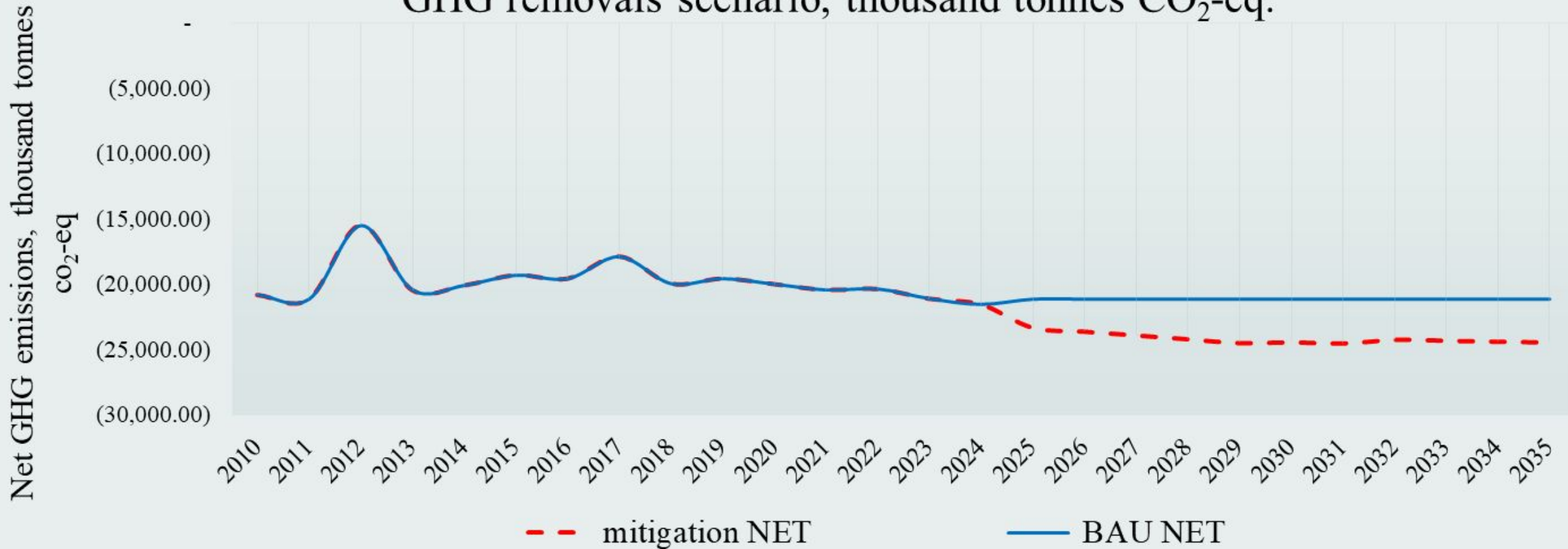
Measures to reduce GHG emissions and increase GHG removals in the forestry sector

1. **Enhancing afforestation, reforestation, and ecological restoration efforts.**
 - **By promoting natural regeneration, reforestation, and increasing forest cover, the forest area is projected to grow to 9% by 2030 and 9.1% by 2035.**
 2. **Reducing forest degradation**
 - **Enhance forest fire prevention measures to limit the average area affected by fires to 30% by 2030 and 90% by 2035.**
- 



NDC 3.0 TARGET

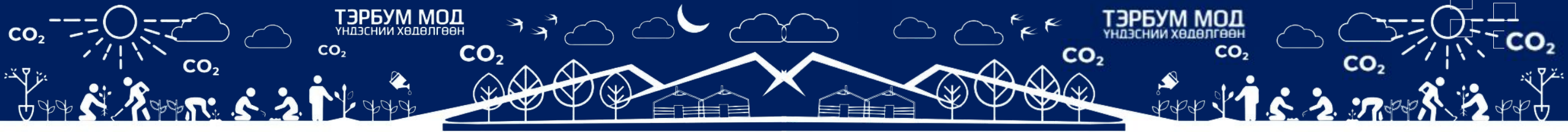
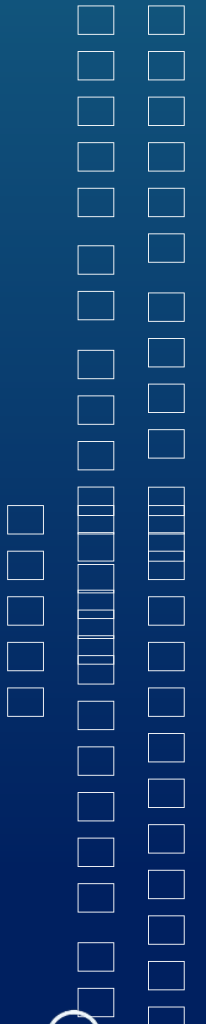
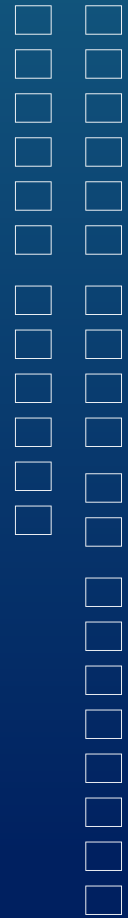
Comparison of baseline scenario and enhancement of GHG removals scenario, thousand tonnes CO₂-eq.



TARGETS FOR REDUCING DEFORESTATION AND FOREST DEGRADATION AND INCREASING FOREST PRODUCTIVITY /thousands of tons of CO₂-eq./

	2010	2015	2020	2025	2030	2035
Baseline scenario	-20,775.70	-19,275.67	-19,956.93	-21,106.16	-21,106.16	-21,106.16
Removals enhancement scenario (unconditional)	-20,775.70	-19,275.67	-19,956.93	-23,274.78	-24,378.79	-24,391.37
Increase in Forest removals	-	-	-	-	-3,272.64	-3,285.21
Conserved removals through reducing forest degradation.	-	-	-	-	-332.35	-427.30
Growth-related removals are preserved through focused afforestation efforts and natural regeneration.	-	-	-	-	-2,940.29	-2,857.91
Increase in Forest removals, %	-	-	-	-	15.5%	15.6%

Implementation of the 'Billion Trees' National Movement





NATIONAL MOVEMENT PLAN

01

National Movement Implementation Strategy and Action Plan

FULFILLMENT OF PROMISED BY PROVINCES

02

The fulfillment of the promises made by the provinces to implement the national movement by signing an agreement

PERFORMANCE OF MINING COMPANIES

03

Implementation of the National Movement by enterprises that have signed a responsibility agreement

FINANCING OF THE NATIONAL MOVEMENT

04

Overview of costs incurred in implementing the national movement

POSITIVE CHANGES

05

Positive changes brought about by the implementation of the national movement

GOOD EXAMPLE

06

Good practices in successfully implementing national movements

“State Administrative Authority in Charge of Forestry”

Forestry law



State Great Khural of
Mongolia

2022.06.03

Government Resolution



2022.07.05 №272

The Ministry of Environment and Tourism of Mongolia



In accordance with the amendment to the “Forestry law” in June 2022, the Government of Mongolia, by Resolution No. 272 dated July 5, 2022, established the National Forest Agency as a government implementing body. The “Strategic Program for Operational Activities and the Organizational Restructuring of the Forest Agency” was approved by Order No. A/418 of the Minister of Environment and Tourism dated October 13, 2022. In line with the approved structure, the agency currently operates with 38 staff positions.

2021

2022

2023

2024

2025



Decree No. 58 of the **President of Mongolia** dated October 4, 2021, “On Providing Guidance to the Government”

Resolution No. 350 of the **Government of Mongolia** dated November 17, 2021, “On Certain Measures to Be Taken and Implemented Regarding the ‘Billion Trees’ National Movement”



Resolution No. 272 of the **Government of Mongolia** dated July 5, 2022, “On the Establishment of the **Government Implementing Agency – Forest Agency**”



Resolution No. 01 of the **National Council on Climate**, chaired by the **Deputy Prime Minister of Mongolia**, dated March 14, 2023, “On Approving the Strategy and Implementation Action Plan of the ‘Billion Trees’ National Movement”



Since the launch of the “**Billion Trees**” national movement, a total of **82.9 million** trees have been planted directly and through compensation methods, with proper care and protection measures being carried out.



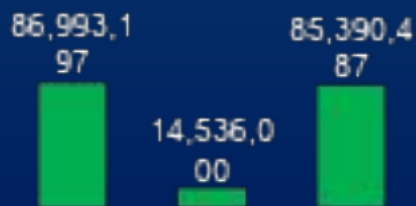
Since the launch of the “**Billion Trees**” national movement, a total of **114.8 million** trees have been planted directly and through compensation methods, with proper care and protection measures being carried out.

“ТЭРБУМ МОД” ҮНДЭСНИЙ ХӨДӨЛГӨӨН – ТӨЛӨВЛӨЛТ, ҮЕ ШАТУУД



Хотын ой

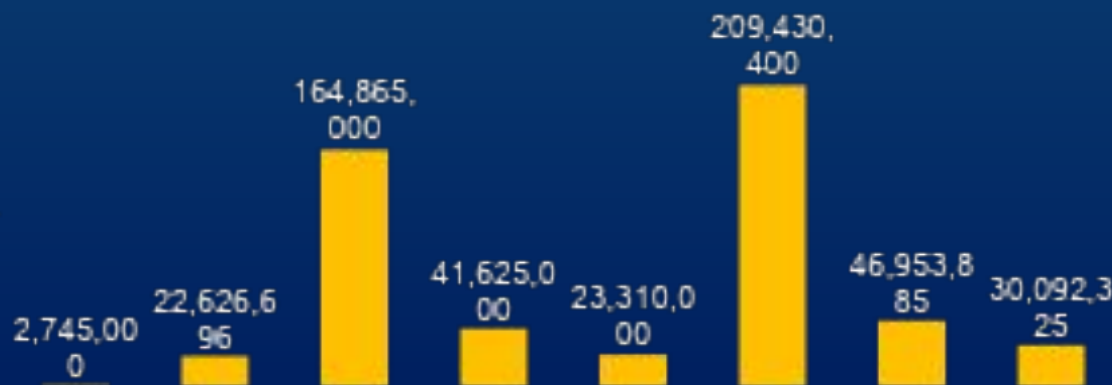
186,919,
684



Нийтийн
Тусгай
Хязгаарлагдмал

Цөлжилт газрын доройтлыг бууруулах

541,648,
306

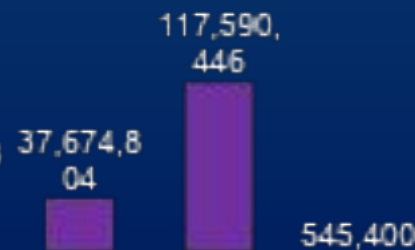


Баян бүрд
Тариалангийн талбай
Том голын
Голын татам

Булаг, шанд, хөв цөөрөм
Авто зам
Төмөр зам
Ногоон дэд бүтэц

Хүнсний хангамж

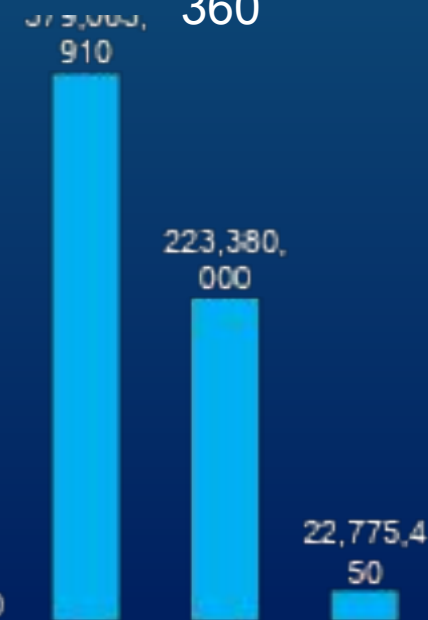
155,810,
650



Жимсний аж
ахуй
Аж ахуйн үйлдвэр
Заг - Эм

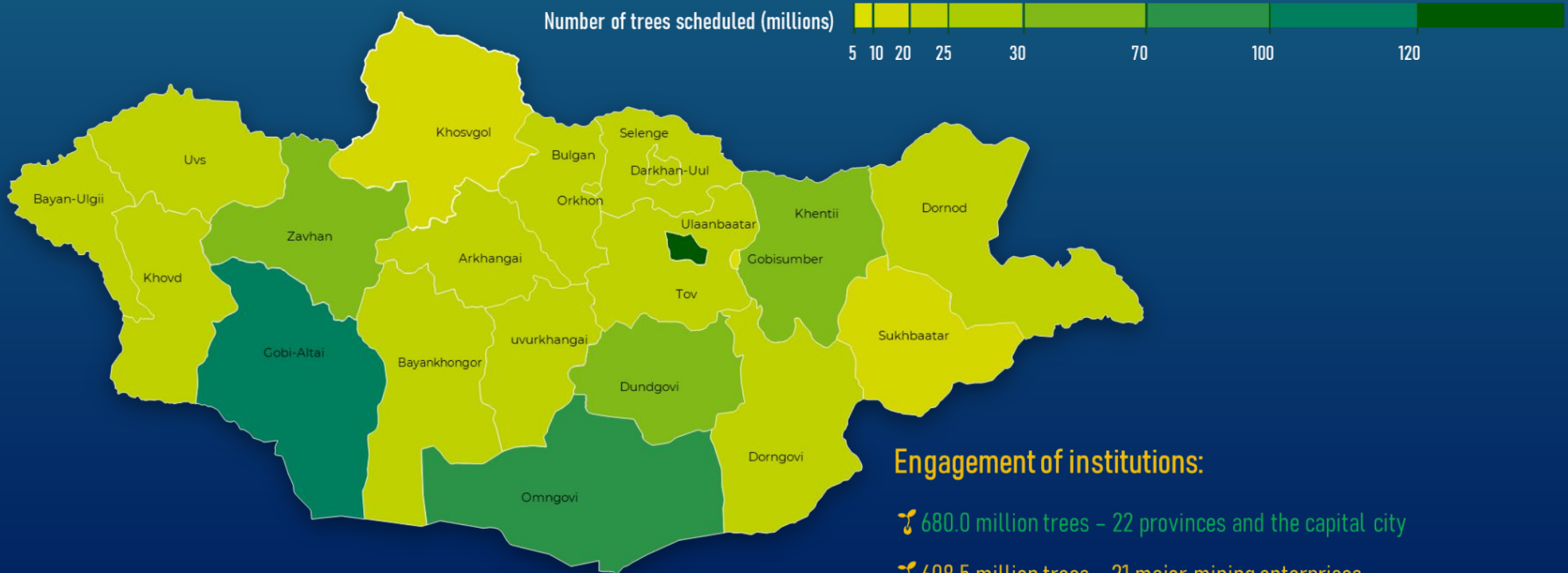
Доройтсон ой

625,221,
360



Доройтсон ой
Заган ой
Байгалийн сэргэн
ургалт

“Billion Trees” National Movement – Planning and Phases



Engagement of institutions:

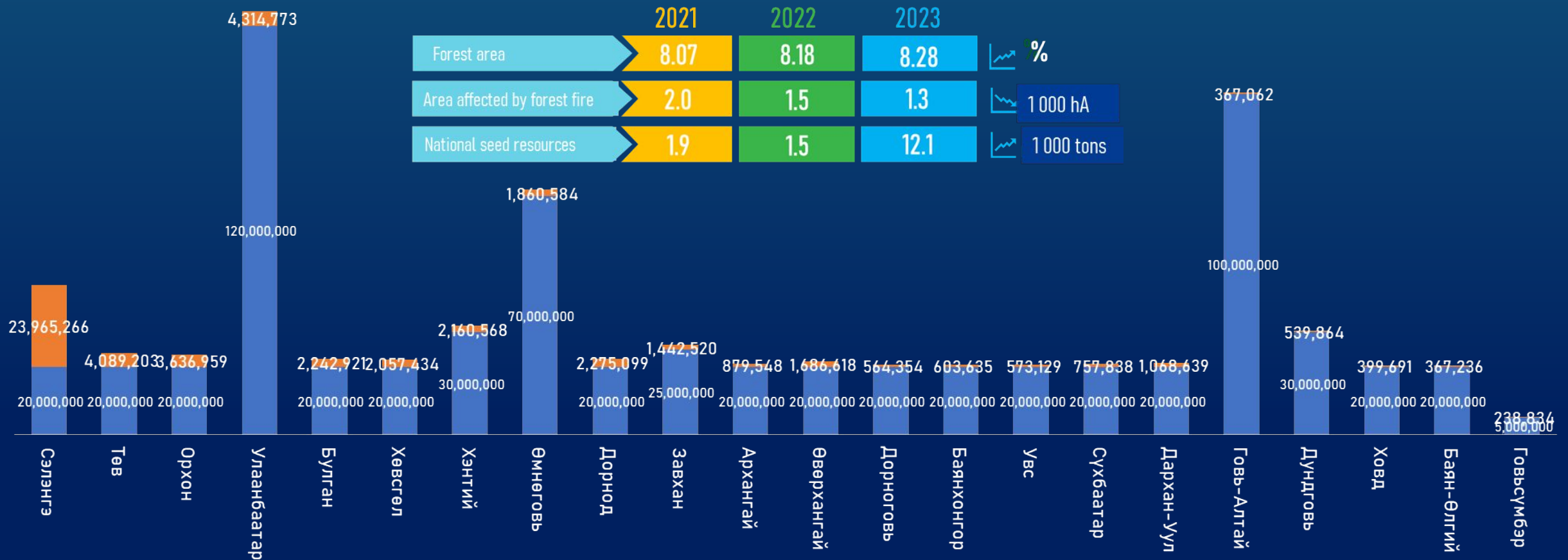
- 🌳 680.0 million trees – 22 provinces and the capital city
- 🌳 608.5 million trees – 21 major mining enterprises
- 🌳 162.1 million trees – Government institutions
- 🌳 88.6 million trees – 17 banking and financial institutions, associations

“One Billion Trees” National Movement – Implementation: Provinces and Capital City



Since the implementation of the movement in Selenge Province, 23.9 million trees have been planted, with appropriate care and protection measures carried out. Compared to the planned number of trees, the implementation rate stands at 100%.

Since the launch of the national “Billions Trees” campaign, 114.8 million trees have been planted and are being properly maintained and protected. The implementation rate is 11.4%



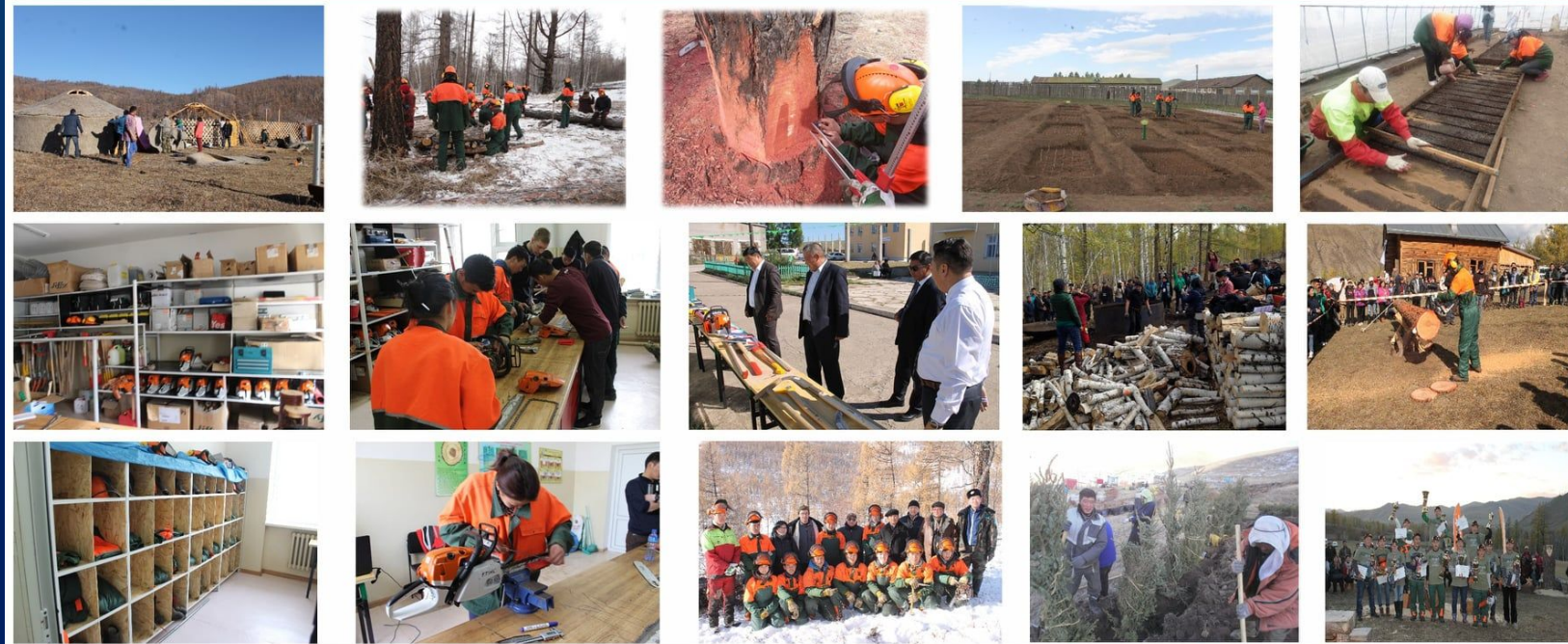
As of 2023, a total of 266 students are studying nationwide to obtain higher education in forestry-related professions. In the 2022–2023 academic year, 77 new students enrolled in this field, and 32 students graduated.

In the current academic year, vocational training and educational institutions have 528 trainees studying as forest maintenance and utilization workers, 37 trainees as forest management workers, 52 trainees as forest cooperative workers, and 11 trainees as forest technicians. In the 2022–2023 academic year, 32 trainees enrolled in the forest technician program, and 20 trainees graduated as reforestation workers.



СУРГАЛТЫН ҮЙЛ АЖИЛЛАГАА ЯВУУЛЖ БУЙ МЭРГЭЖИЛ

ОЙЖУУЛАГЧ



МЭРГЭЖЛИЙН СУРГАЛТ
ҮЙЛДВЭРЛЭЛИЙН ТӨВ

Алсын хараа:
Мэргэжлийн өндөр мэдлэг,
ур чадвартай байгаль орчны
салбарын баялаг бүтээгчдийг
бэлтгэдэг Үндэсний тэргүүлэх
сургууль болно.

Тарина
Арчилна
Ургуулна

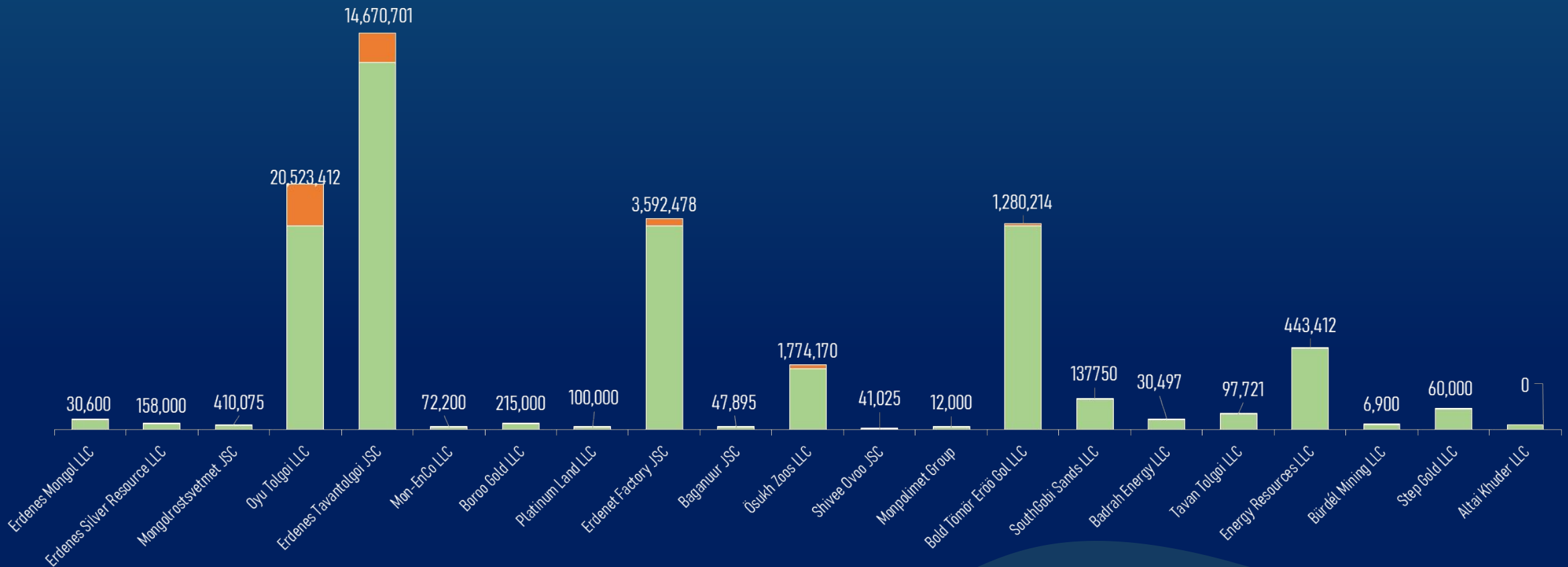


The 'One Billion Trees' National Movement – Implementation – Mining Enterprises"



Oyu Tolgoi LLC and Erdenes Tavan Tolgoi LLC are implementing responsibility agreements by not only planting trees but also making necessary investments in the forestry sector. They are operating in a manner that offsets their expenses with the trees they have planted.

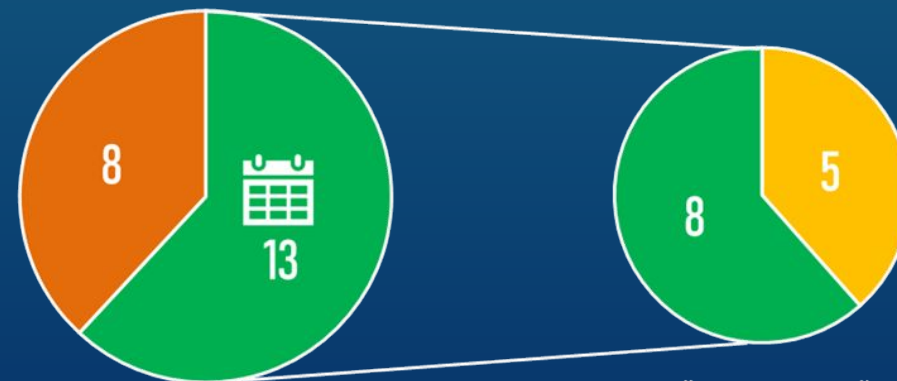
Since the launch of the "Billion Trees" national movement, a total of 32.1 million trees have been planted directly and through compensation methods, with proper care and protection measures being carried out. When comparing the number of trees planted to the tree-planting plan, the implementation rate stands at 5.27 percent.



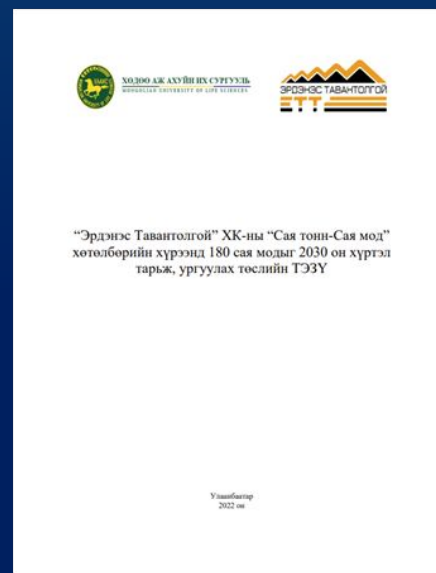
The 'One Billion Trees' National Movement – Implementation – Mining Enterprises"



№	Names of the enterprises that signed the Memorandum of Understanding	Tree-Planting Commitment	Whether a plan has been developed through 2030	
			Plan	Budget
1	"Эрдэнэс таван толгой" ХК	180,000,000	1	2,091,000,000,000.00
2	"Оюу толгой" ХХК	100,000,000	1	-
3	"Болдтөмөр Ерөө Гол" ХХК	100,000,000	1	-
4	"Эрдэнэт үйлдвэр" ТӨҮГ	100,000,000	1	-
5	"Энержи ресурс" ХХК	40,000,000	1	702,622,616,000.00
6	"Өсөх зоос" ХХК	30,000,000	-	-
7	"Саусгоби сэндс" ХХК	15,000,000	1	59,900,000,000.00
8	"Степ голд" ХХК	10,000,000	-	50,000,000,000.00
9	"Таван толгой" ХХК	6,000,000	-	-
10	"Бадрах энерги" ХХК	5,000,000	1	-
11	"Эрдэнэс Монгол" ХХК	5,000,000	-	-
12	"Бороо гоулд" ХХК	3,000,000	1	2,000,000,000.00
13	"Эрдэнэс силвер ресурс" ХХК	3,000,000	-	-
14	"Бүрдэл майнинг" ХХК	2,500,000	-	-
15	"Алтайн хүдэр" ХХК	2,500,000	-	-
16	"Монголросцветмет" ТӨҮГ	2,000,000	1	9,273,000,000.00
17	"Монполимет групп"	1,000,000	1	-
18	"Багануур" ХК	1,000,000	-	-
19	"МоЭнко" ХХК	1,000,000.00	1	9,500,000,000.00
20	"Платинум ланд" ХХК	1,000,000.00	1	-
21	"Шивээ овоо" ХК	500,000.00	1	5,000,000,000.00
ДҮН		608,500,000	13	2,929,295,616,000.00



■ Төлөвлөгөө боловсруулсан ■ Төлөвлөгөө байхгүй ■ Төсвийн тооцоолол хийгээгүй ■ Төсвийн тооцоолол хийсэн

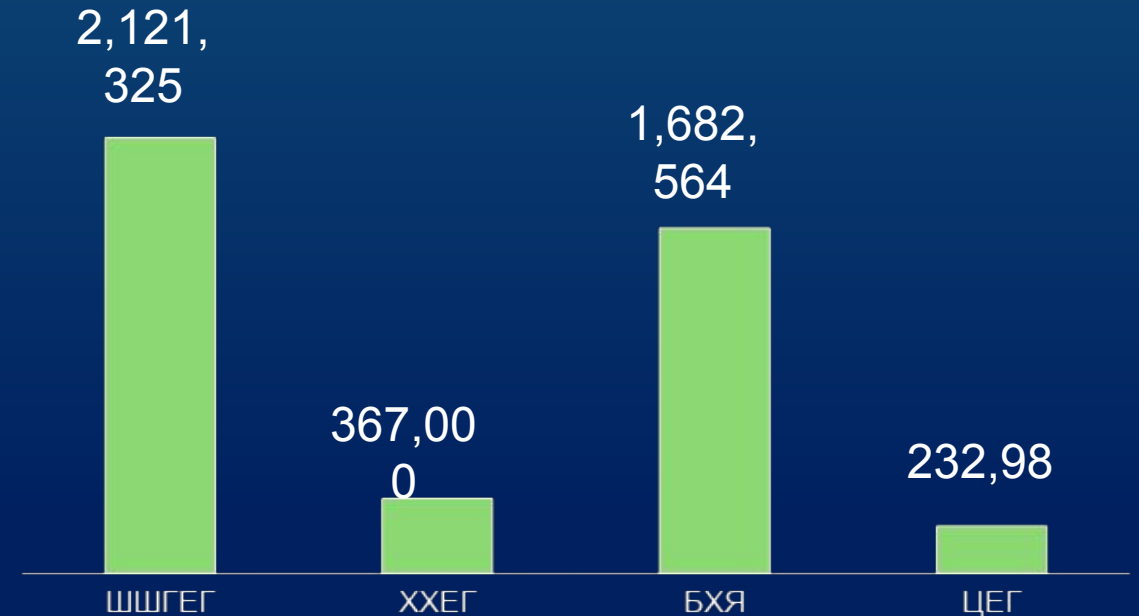


Of the 21 organizations that received certification, **13 (61.9%)** have developed and approved action plans to be implemented through 2030 under the memorandum of understanding, and 8 of these organizations have prepared the necessary budget estimates for implementation. The remaining **8 organizations (38.1%)** have no specific programs or plans in place and instead determine their activities based on the conditions and opportunities of each year.

IMPLEMENTATION OF THE NATIONAL “ONE BILLION TREES” MOVEMENT – GOVERNMENT AGENCIES



Since the launch of the national “One Billion Trees” movement, a total of 4.4 million trees have been planted through both direct planting and offset planting methods, with the necessary care and protection activities being carried out. When comparing the planting plan with the actual number of trees planted, the implementation rate stands at 2.72 percent.



Within the framework of the national “One Billion Trees” movement, work is underway to establish a “Wildland Firefighting Center” in Khyalganat village, Khangal soum, Bulgan Province, under the General Emergency Management Agency.

Contents

Purpose of the Presentation

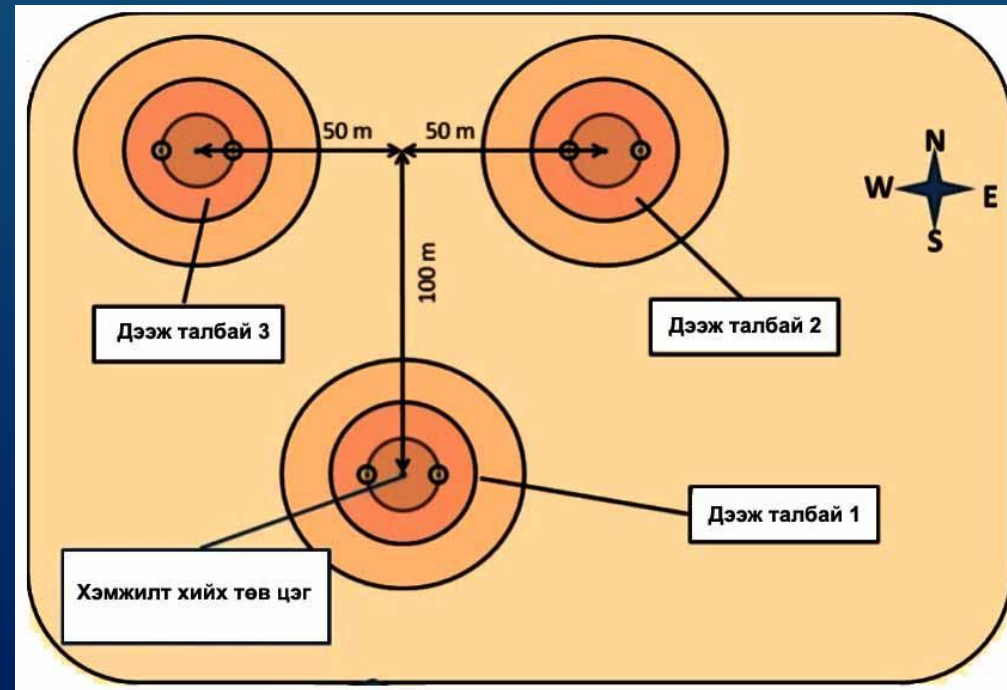
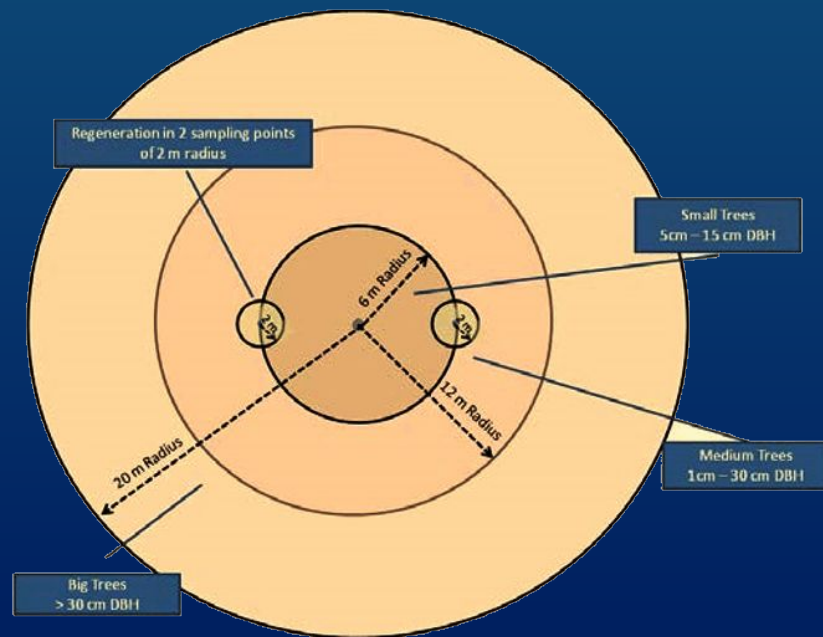
- 1. Implementation of the NFI (National Forest Inventory)**
- 2. Methodology – sample plot design and measurements**
- 3. Results**
- 4. Forest site conditions**
- 5. Key forest indicators External factors (fire, logging, harmful insects, livestock grazing)**

WITHIN THE FRAMEWORK OF FIELD MEASUREMENTS, INVENTORY, AND PRIMARY DATA COLLECTION RESEARCH WORK



№	Тендерийн багцын нэр	Цэгийн тоо	Дээж талбайн тоо	Тендерийн гүйцэтгэгч
1	Баян-Өлгий, Увс, Завхан, Ховд, Говь-Алтай аймгийн шилмүүст, навчит ойн санд /Багц-1/	693	2079	"Грандфорест"ХХК
2	Хөвсгөл аймгийн Цэцэрлэг, Баянзүрх, Цагаан-Уул, Арбулаг, Алаг-Эрдэнэ, Бүрэнтогтох сумдын ойн санд /Багц-2/	318	954	"Ойнтаксац"ХХК
3	Хөвсгөл аймгийн Цагааннуур, Улаан-Уул, Ренчинлхүмбэ сумдын ойн санд /Багц-3/	536	1608	"Денс форист"ХХК
4	Хөвсгөл аймгийн Ханх, Цагаан-Үүр, Чандмань-Өндөр сумдын ойн санд /Багц-4/	450	1350	"ОХСТ"ХХК
5	Хөвсгөл аймгийн Эрдэнэбулган, Түнэл, тариалан, Их-Уул, Тосонцэнгэл, Рашаант, Төмөрбулаг, Шинэ-Идэр, Галт, Жаргалант сумдын ойн санд /Багц-5/	297	891	"ОХСТ"ХХК
6	Архангай, Өвөрхангай, Баянхонгор аймгийн шилмүүст ба навчит ойн санд /Багц-6/	342	1026	"Нью грийн форест" ХХК
7	Булган, Орхон аймгийн ойн санд /Багц-7/	446	1338	"Цэвэр Ой"ХХК
8	Сэлэнгэ, Дархан-Уул аймгийн ойн санд /Багц-8/	526	1578	"Тайгын шинэс" ХХК
9	Төв аймаг, Улаанбаатар хотын ногоон бүсийн ойн санд /Багц-9	308	924	"Ойн хайгуул"ХХК
10	Хэнтий, Дорнод аймгийн ойн санд /Багц-10/	295	885	"Монголын ой судлалын нийгэмлэг"ТББ

Permanent Monitoring Sample Plots Design and Clustering



Result

Collected Data

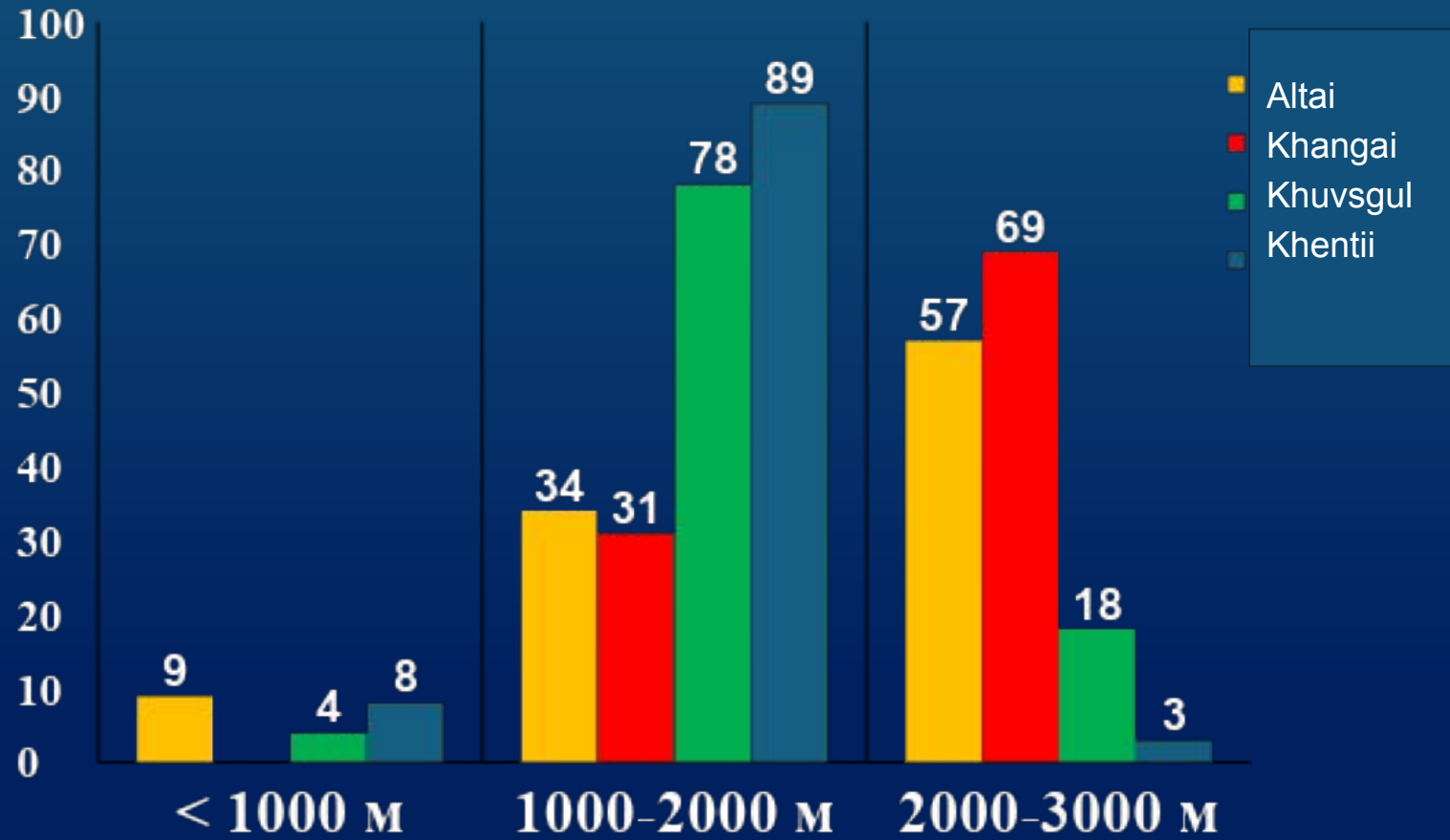
Total of 4.211 sample plots	1586 ha (0,02% of the total forest area)
DBH Measurement	251 890 trees
Tree Height Measurement	67 956 trees
Measurement of stump	8 456 stump
Measurement of fallen trees	25 544 trees
Natural Regeneration	166 830 young trees
Tree Ring Sample	6 300 core of trees
Soil sample	630 sample
Moss Layer Sample	630 sample

4,000,000 records in the MS Access database

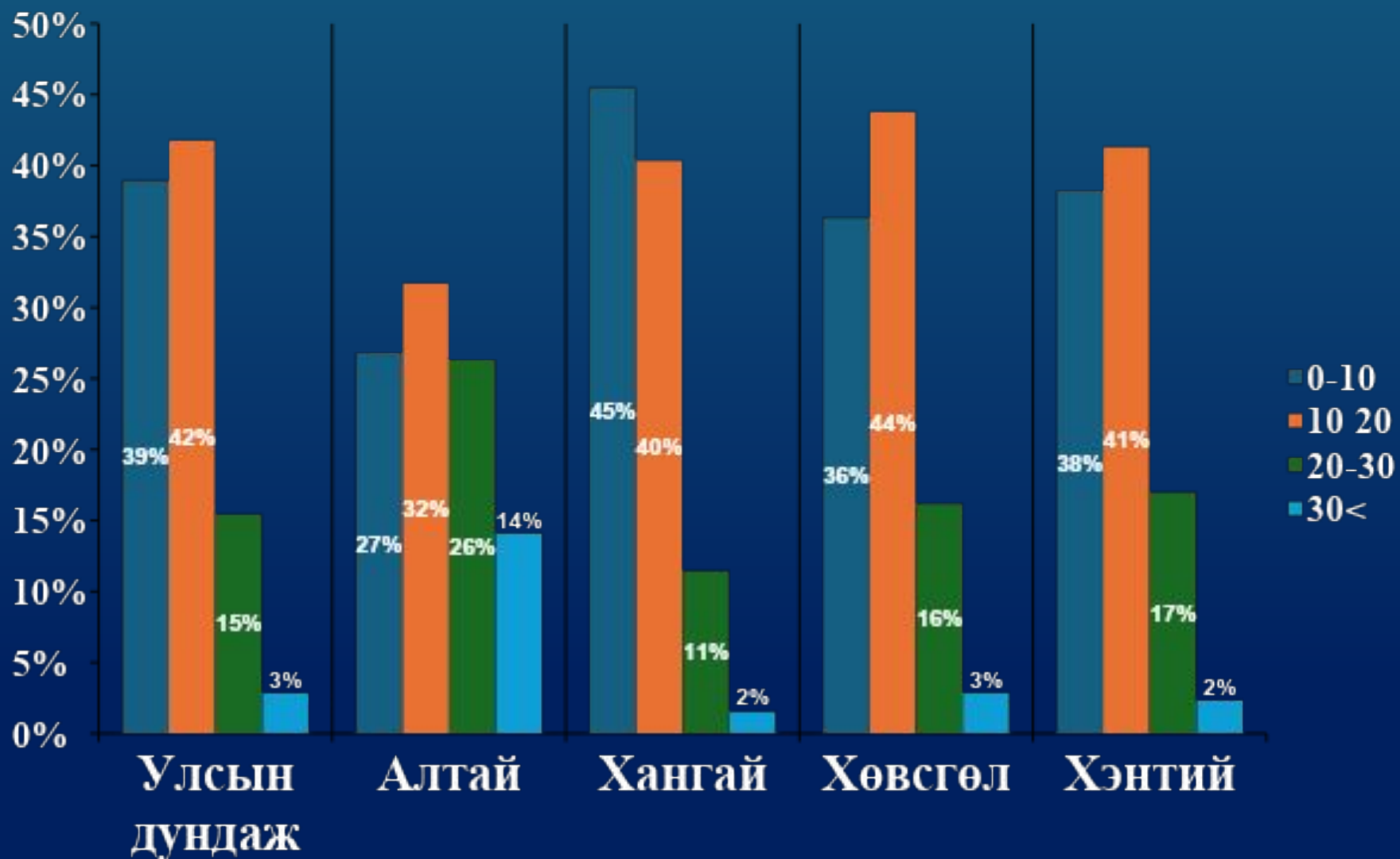
Evaluation of Forest Growth Conditions

- Elevation
- Slope Aspect
- Slope
- Soil Texture
- Soil Depth
- Organic Layer Thickness
- Organic Layer Moisture Content

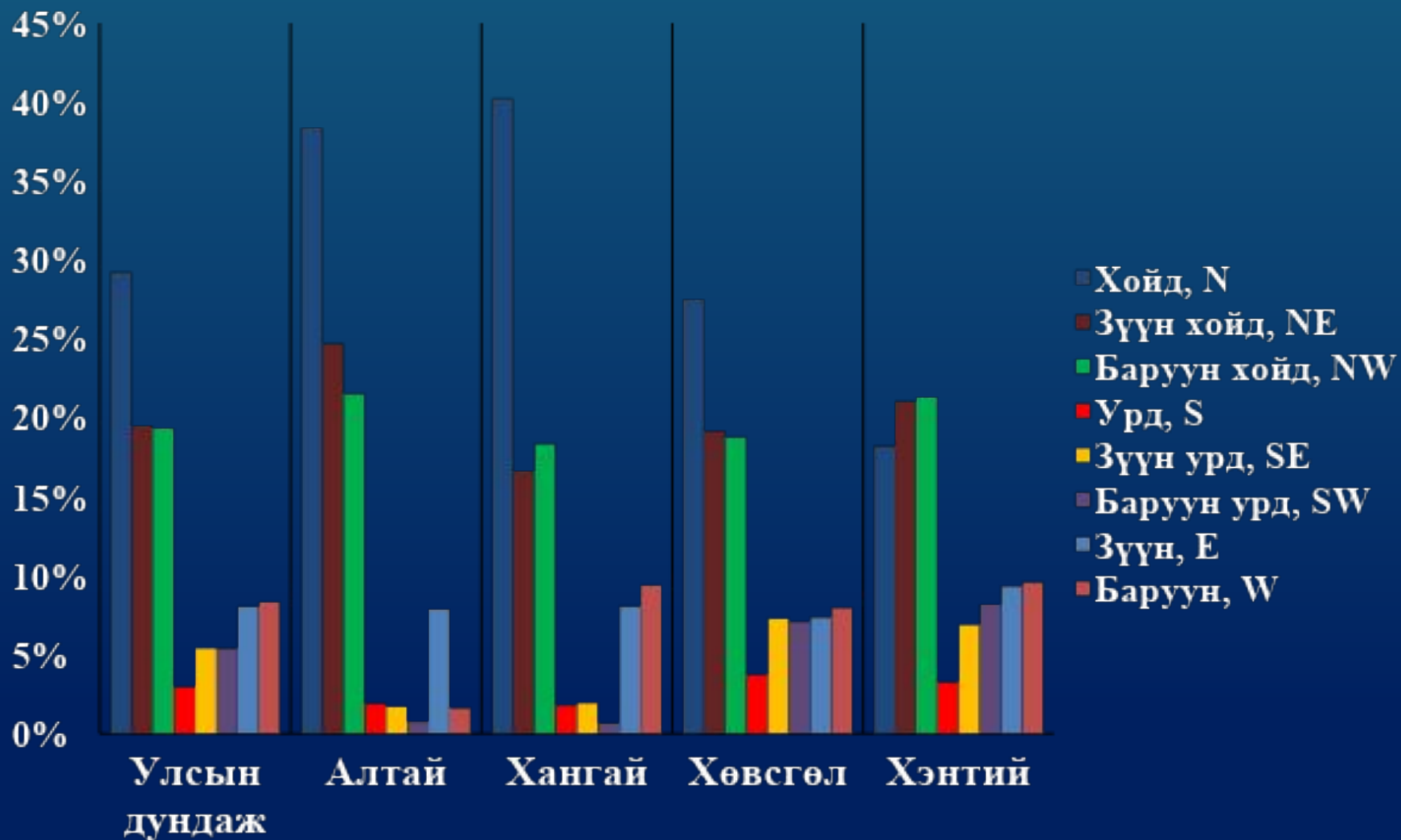
Evaluation of Elevation in Forest Zones



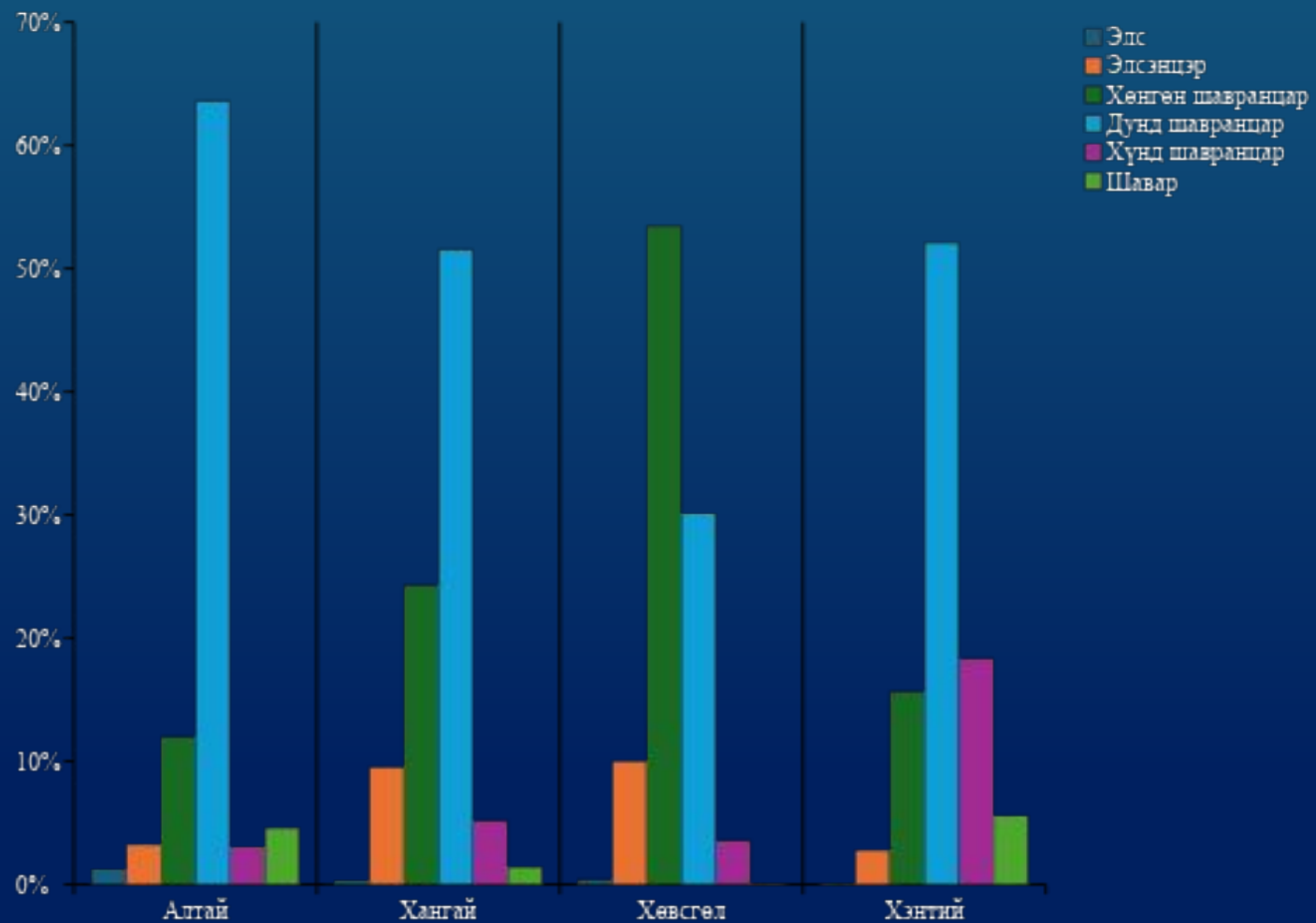
Assessment of Slope in Forest Zones



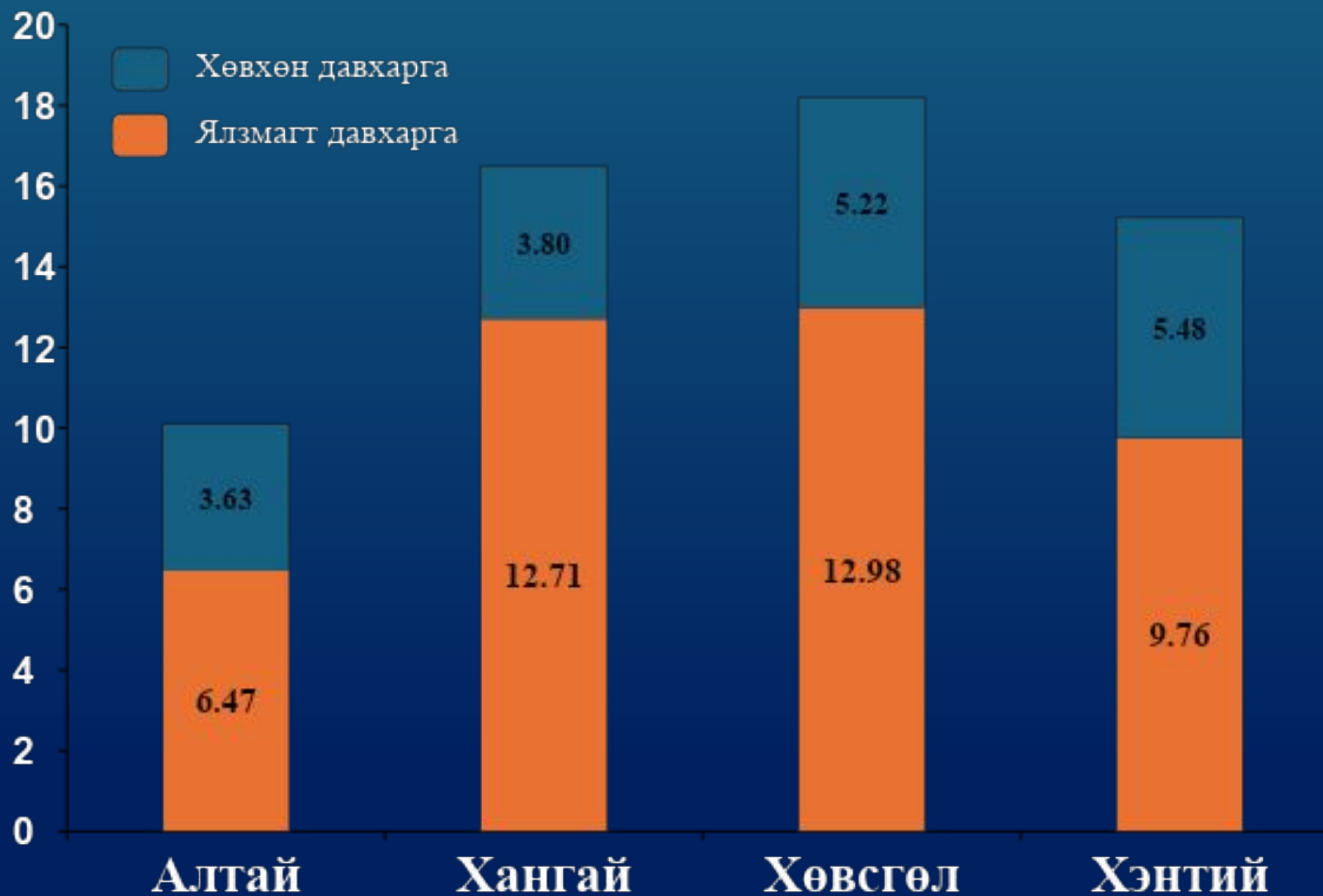
Evaluation of Slope Direction of Forest Zones



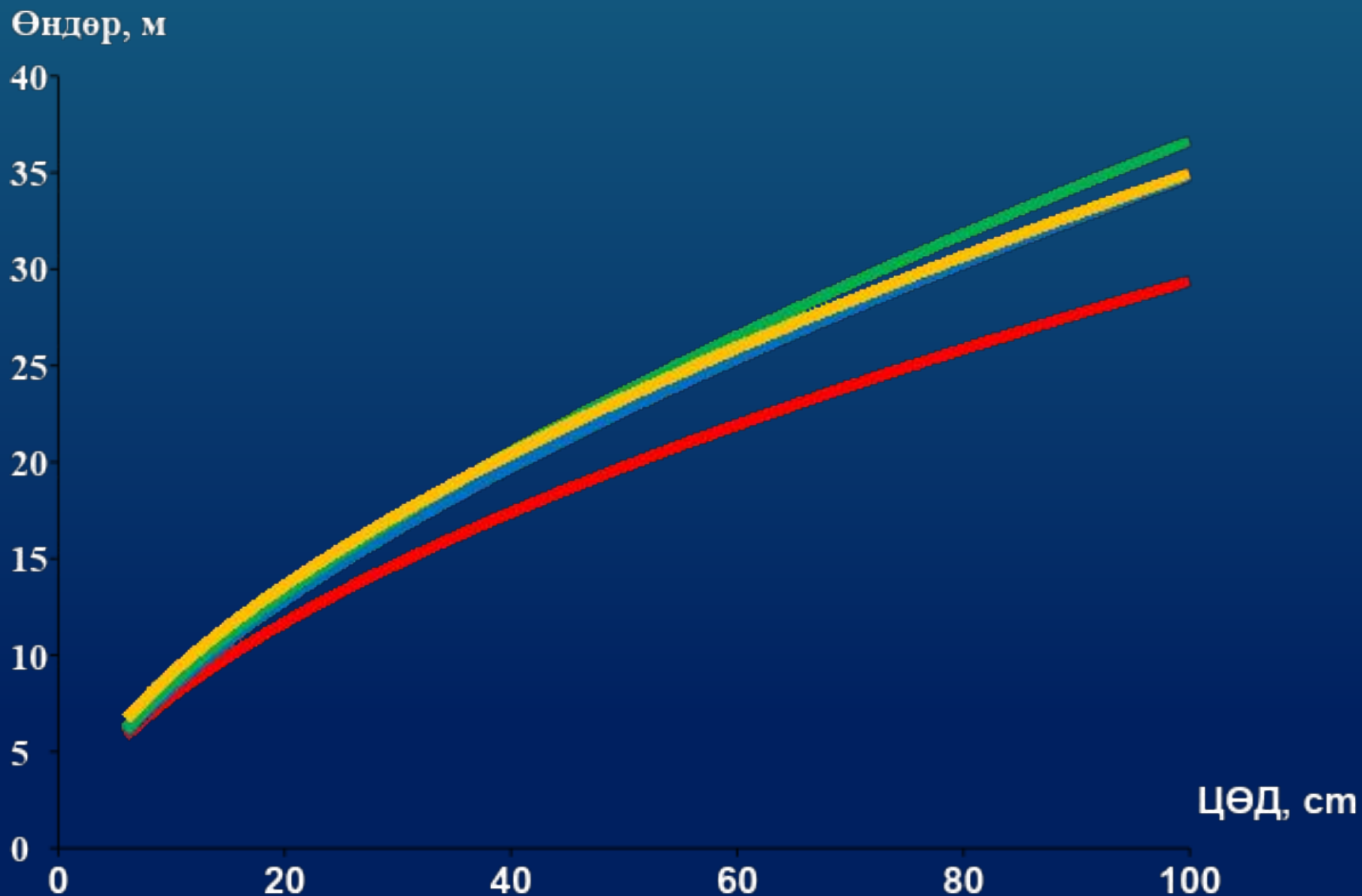
Soil Texture



Evaluation of the Moss and Humus Layers in Forest Zones

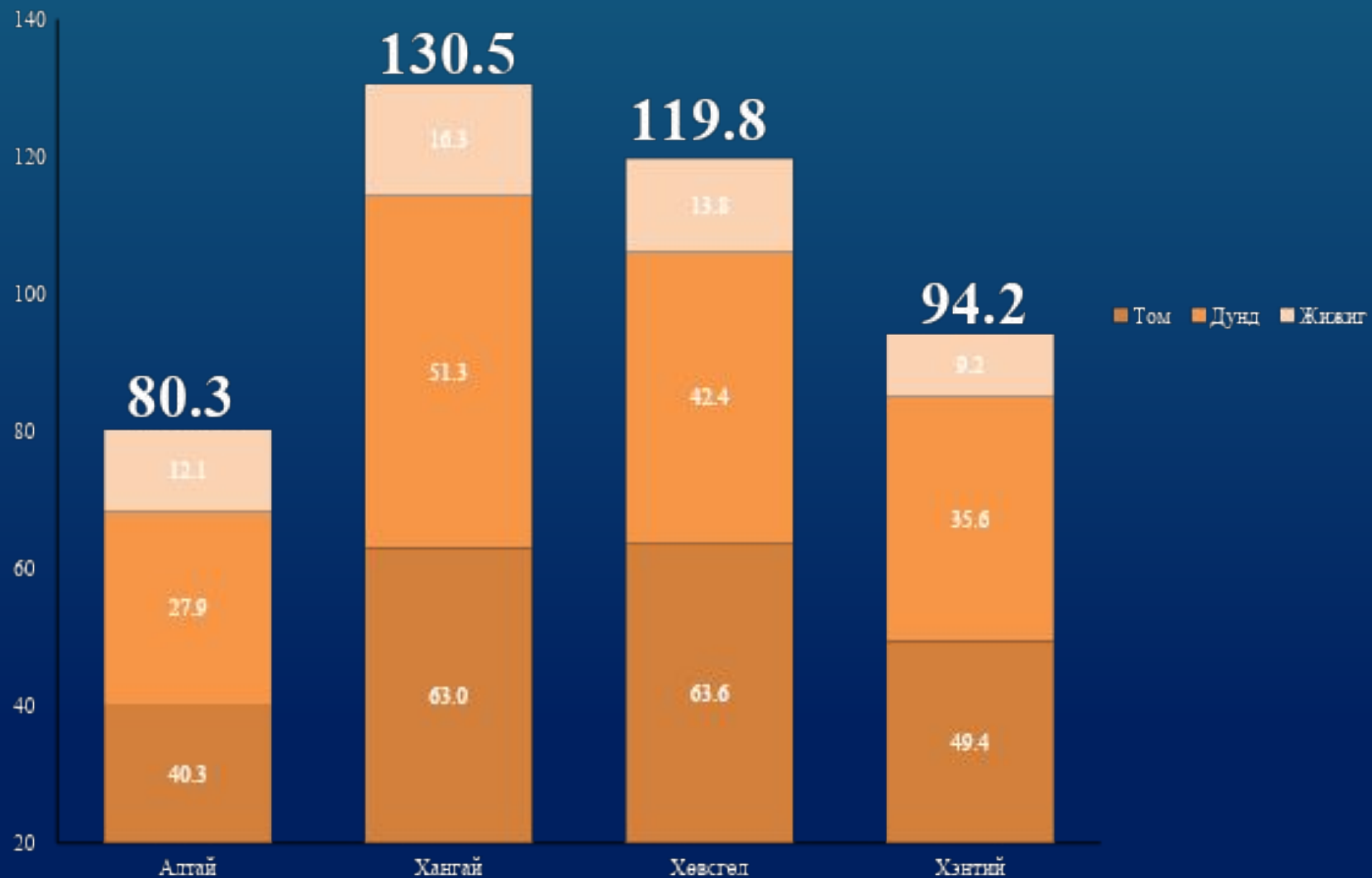


Relationship between Larch Tree Height and DBH

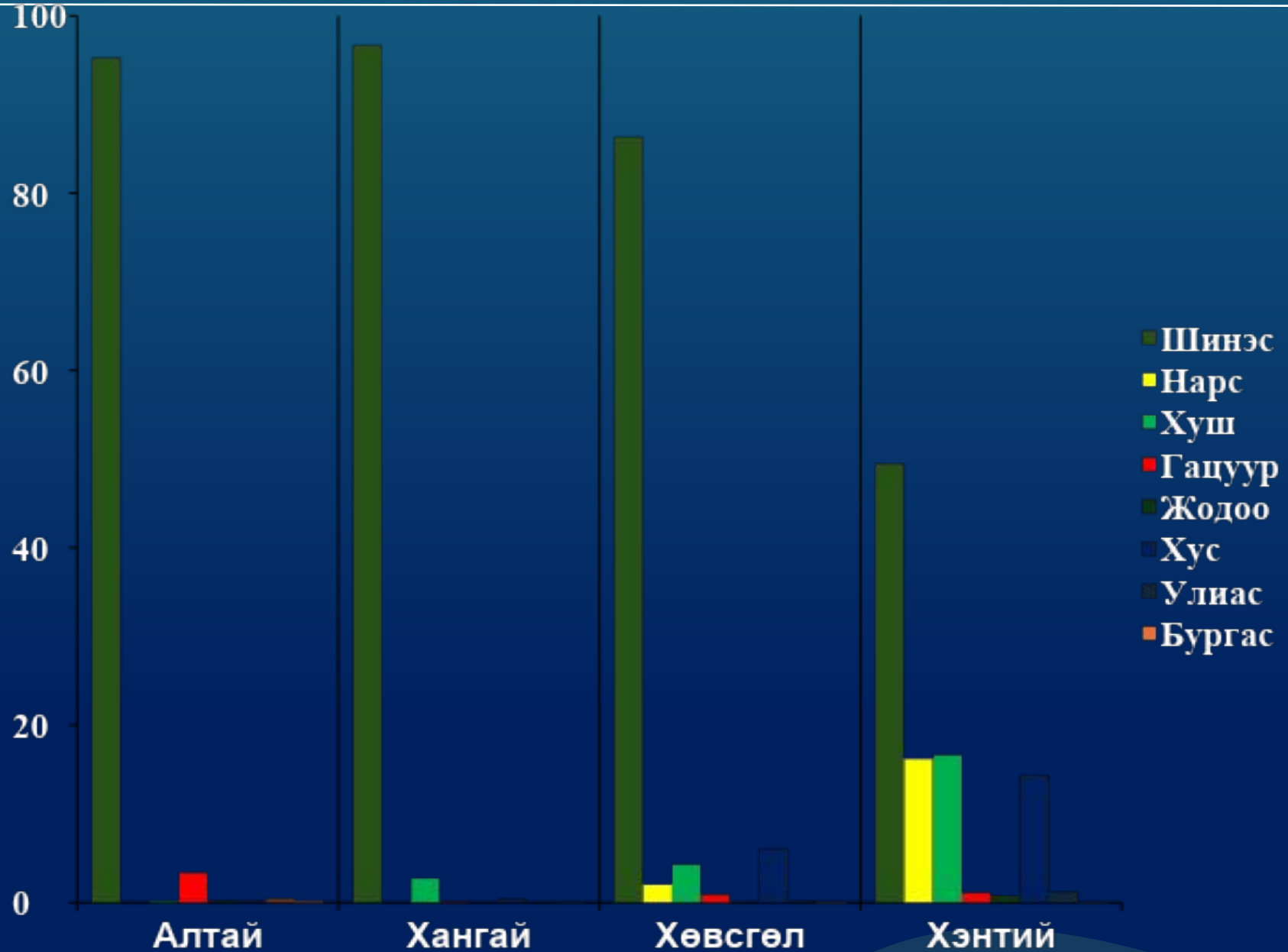


- Growing Stock
- Tree Species Composition of the Forest
- Deadwood Stock
- Natural Regeneration
- Age Class of Forest Resources
- Forest Density / Stand Density
- Forest Health

Growing Stock



Tree Species Composition of the Forest



	Altai	Khangai	Khuvsgul	Khentii
Forest Area, million ha	0.324	2.249	4.826	2.291
Growing Stock, million m ³	26.0	293.6	578.3	215.9
Standing Deadwood Stock, million m ³	3.9	46.9	82.6	39.1
Lying Deadwood Stock, million m ³	1.2	64.7	122.9	59.5
Utilizable Stock in Protected Areas, million m ³	8.9	12.6	107.3	70.4
Utilizable Stock in Production Areas, million m ³	3.7	166.2	188.2	41.4

	Ургаа нөөц, сая шоо метр	Босоо хатсан нөөц, сая шоо метр	Унангийн нөөц, сая шоо метр
Nationwide	1 114	172	248

Thank you for your
attention

