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Content

- Development of Mongolian Information Technology
 - Information Infrastructure of MAS
 - Information Resource Development
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- Digital Archiving
 - Domestic and Foreign Cooperation

Development of Mongolian Information Technology

About Mongolia

Total area: 604,247 sq mi (1,566,000 sq km)

Population (2015 est.): 3,086,918 (growth rate: 1.4%);
density per sq km: 4.97

Capital: Ulaanbaatar, 1,804,200

Mongolia is divided into 21 aimags (provinces)

Literacy: more 90%

ICT development of Mongolia

The Information and Communication Technology development of Mongolia has advanced rapidly for the last seven years.

- The telecommunications network of over **thirteen thousand** km of fiber optic cable covers all of Ulaanbaatar city, and connects **all aimag** centers and **~300 soum** centers.
 - The number of mobile phone subscribers has reached over **2.3 millions**.
 - **Internet** is widely used in all sectors of economic and social development of Mongolia.
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Internet Backbone Connection

Currently 3 main operators provide wholesale internet connection services

Railcom (Subsidiary of Mongolian Railway)

Gemnet

Mobicom

Mongolian Internet Exchange (MIX)

Uses Cisco Nexus Switch

Runs BGP for peering

Connection interfaces are 1G, 10G Ethernet

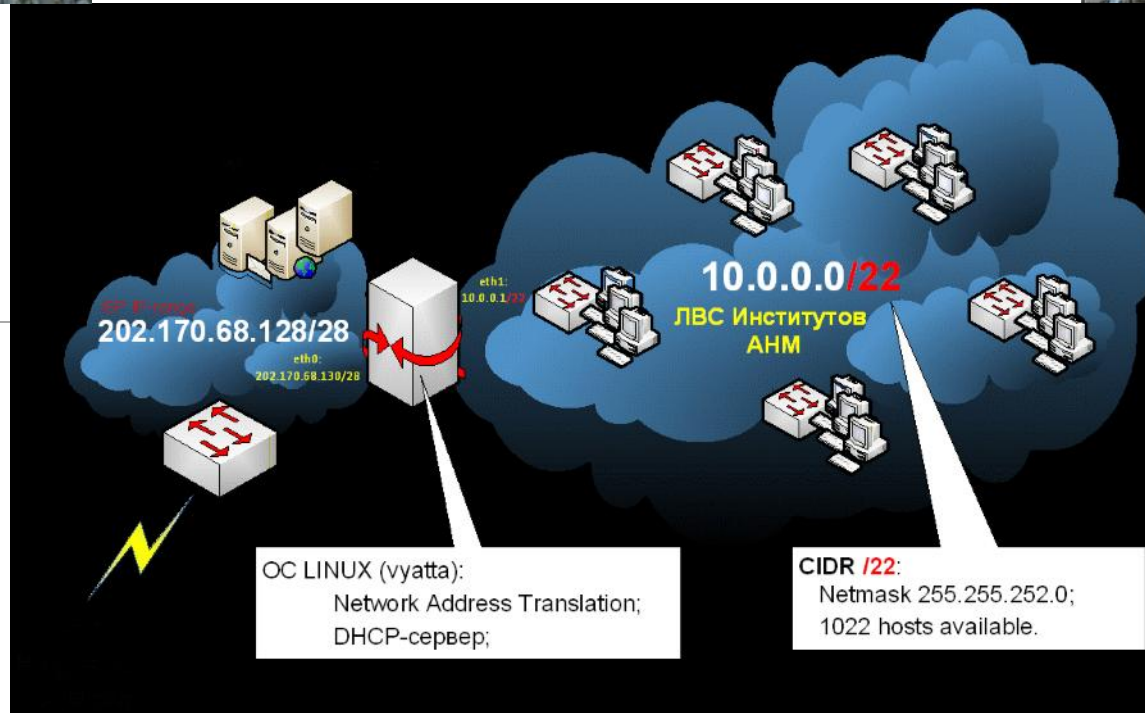
Total outside connection bandwidth is 12 Gbps

Information Infrastructure of MAS

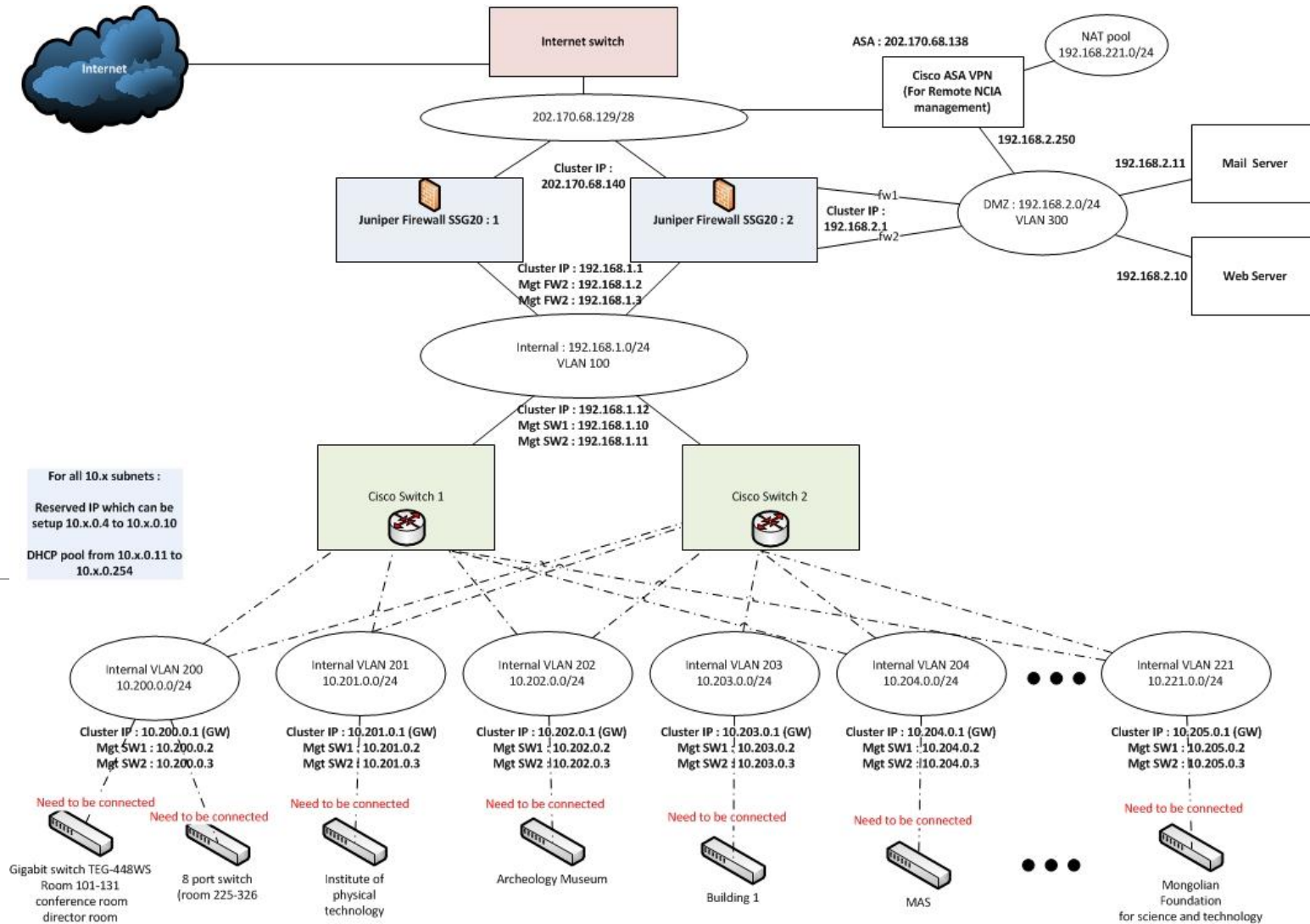
Introduction of MAS

- The MAS has 8 research institutes and centers which are located in 6 different places within up to 17 km.
 - Institute of Physics & Technology department of informatics has been providing Internet service of the MAS since 1996. Over 800 end users are connected to the current local network (speed of 70 Mbps, Fiber optical backbone, Mass storage capacity 50 terabyte, HDD 600x20Gb)
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The existing telecommunications infrastructure of MAS



Computer Network of MAS

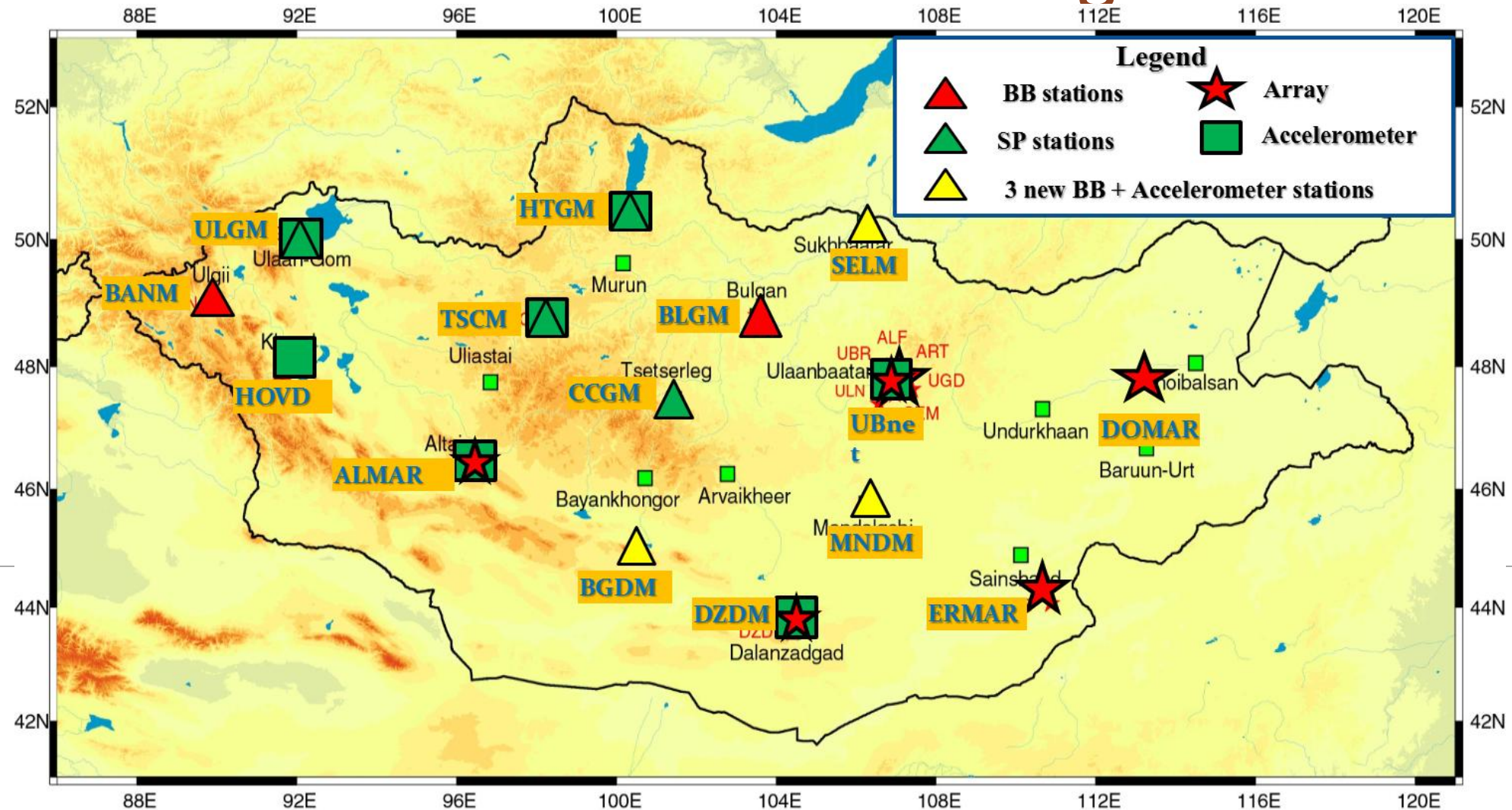


Information Resource Development

Network of seismological stations

Using the network of seismological stations covering Mongolia's territory, the Academy of Sciences does research and processing.

The seismic station network of Mongolian territory

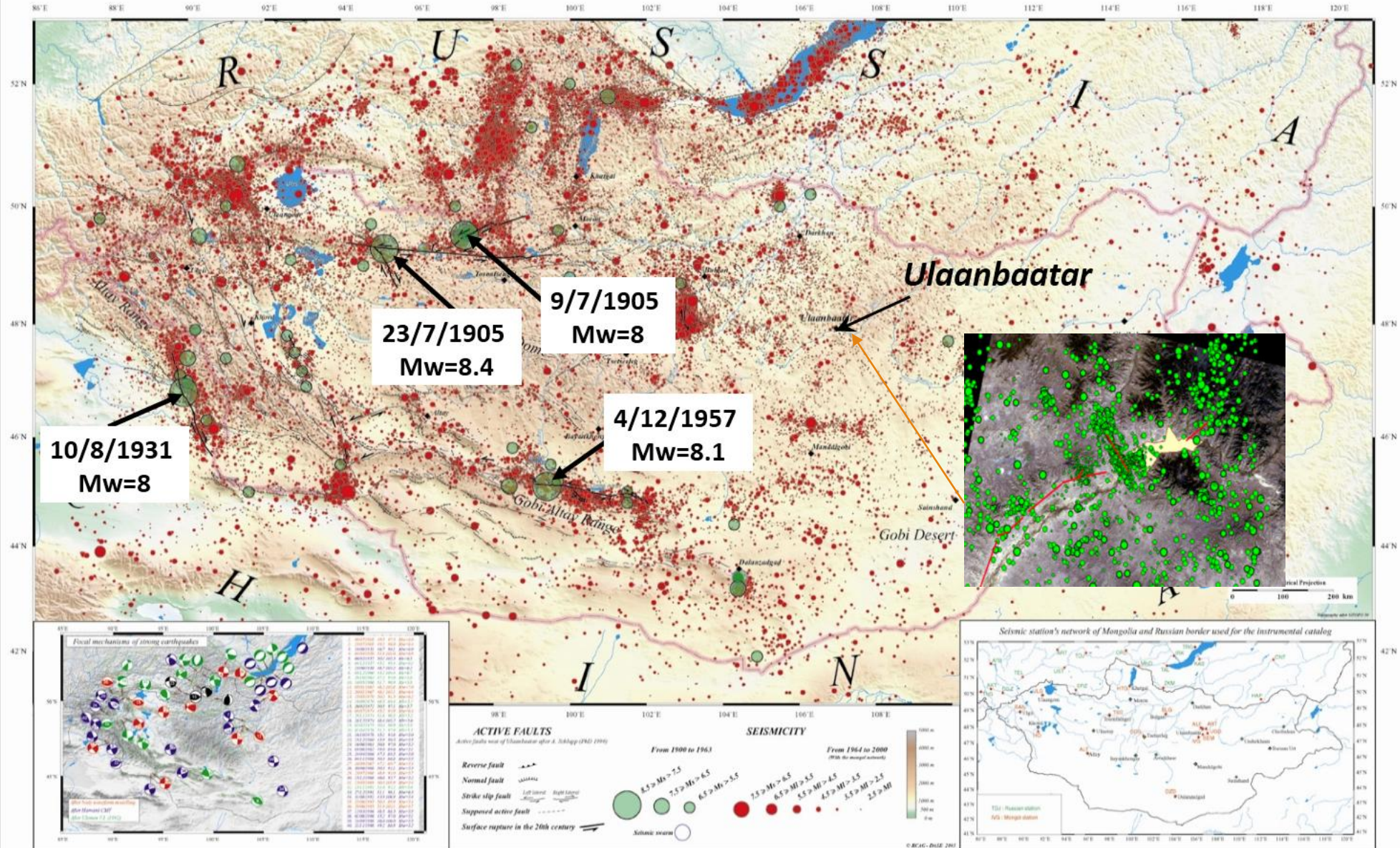


THE NETWORK CONSIST: 6-MINI ARRAY; 9 -BROADBAND ; 11 ACCELEROMETER; GPS – 9; ТИЛТМЕТР – 6; 12 - ACCELEROMETER FOR EARLY WARNING SYSTEM; ULAANBAATAR NETWORK -25 SEISMIC STATION

ONE CENTURY OF SEISMICITY IN MONGOLIA (1900 - 2000)

Coordinators: Dr. Dugarmaa T. (head of Department Seismology- RCAG) and Dr. Schlupp A. (Researcher - DASE)

Authors: Adiya M., Ankhsitseg D., Baasanbat Ts., Bayar G., Bayarsaikhan Ch., Erdenezul D., Mangunsuren D., Munkhsaikhan A., Munkhuu D., Narantsetseg R., Odenbaatar Ch., Selenge L., Dr. Tsemler R., Ulziiat M., Urtnasan Kh. and in collaboration with DASE since 1994 and its scientific (DASE/LDG) and technical (DASE/TMG) teams



Research Organizations of Mongolia

In Mongolia, research work is carried out in the following institutions:

- Mongolian Academy of Sciences
 - National University of Mongolia
 - University of Science and Technology
 - University of Health
 - University of Education
 - University of Agriculture
 - Academy of Agricultural Science
 - Academy of Medical Science
-

Information Resources of MAS

Unlike different universities in Mongolia, the institutes and centers of the MAS have much information about

- History,
 - Archaeology,
 - Paleontology,
 - Geography,
 - Botany and Biology,
 - Natural resources,
 - Language and literature of Mongolia
-

which has been collected due to the research activities and field investigation performed for many years.

There are about 10,000 scientific base documents,

catalog including description of 7,800 species of insects,
catalog of habitat description of 9,000 insects,
-- 4,000 stuff models of 4,000 birds.

Mongolian state fund and private herbarium collections possess 75,000 perennial, 3,500 vegetation species of swamp areas, 10,000 weed plants, 10,000 moss plants and 2,500 fungus species.

~600 traditional songs and other folklore, ~300 art works, 20 sculptures and more than 40 kinds of instruments.

Database of Mongolian Flora

1. Database of Mongolian flora

(currently to belong to the 134 families, 683 genus and about 3100 species of the vascular plants)

2. Database of Herbarium (UBA) of the institute of Botany, MAS

- Database of collections of Algae (4500 sheets)
 - Database of collections of Fungi (4000 sheets)
 - Database of collections of Lichens (14500 sheets)
 - Database of collections of Mosses (19500 sheets)
-
- Database of collections of Vascular plants (81000 sheets)
 - Database of Seed collections (1220 examples)

Total: 123500 specimens collections in Herbarium (UBA)

Mongolia's Endemic Plants

In Mongolia there are approximately 600 species of endemic and semi endemic plants.



Spatial data created by Institutes related with geology and geography (2005-2012)

- Institute of geology (22 units)

1. Soil Map of Mongolia scale, 1:1 500 000, 2006
 2. Natural zones map of Mongolia, Scale 1:1500000, 2006
 3. Geomorphology of Tuul, Kharaa and Yuroo river basins scale, 1:500000, 2007
 4. Land scape of Tuul, Kharaa, Yuroo river basin, Scale 1:500000, 2007
 5. Landscape appropriate zoning of Tuul, Kharaa, Yuroo river basin, Scale 1:500000, 2007
 6. Hydrological network of Tuul, Kharaa and Yuroo river basins, scale 1:500000, 2007
 7. Permafrost distribution map of Ulaanbaatar city scale, 1:100000, 2006-2007
 8. Big scale map of geomorphology, landscape, engineer-geomorphology of Baidrag, Tui, Ongi and Taats river basins, Scale 1:200000, 2010
-
9. Social development evaluation of Baidrag, Tui, Ongi and Taats river basins, Scale 1:1000000
 10. Pasture use map of Hovsgol Zavkhan, Gobi-Altai, Khovd, Arkhangai, Bulgan, Selenge, Govisumber, Orkhon, Darkhan-Uul, Sukhbaatar, Dornogovi, Khentii

...Continue

11. National soil quality assessment map of Mongolia, Scale 1: 2 500 000, 2010
 12. Landscape patterns of Gobi-Sumber, Dorno-Gobi, Dund-Gobi, Scale 1:500000 2011
 13. Infrastructure development of Gobi region provinces, Scale 1:500000, 2011
 14. Population of Gobi region provinces, Scale1:500000, 2011
 15. Growth and reduction in livestock numbers of Gobi region provinces, Scale 1:500000, 2011
 16. The soil cover of Ulaanbaatar city, Scale 1:50000, 2011
 17. Geomorphological map of central region, Scale 1:500000, 2012
 18. Landscape map of Central region, Scale1:500000, 2012
 19. Landscape usage map of the of Central Region, Scale 1:500000, 2012
 20. Population change of central region, Scale 1:500000, 2012
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21. Urban health service capacity of central region, Scale 1:500000, 2012
 22. Urban educational service potentials in central region, Scale 1:500000, 2012

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- Institute of Geo-ecology (8 units)

1. Desertification map of Mongolia, Scale 1:2000000, 2007
 2. Land use map showing the current state of Bayan and Bayantal soums, 1:100000, 2010
 3. Soil type and texture map, Scale 1:100000, 2010
 4. Pasture degradation map, Scale 1:100000, 2010
 5. Geomorphological map of Darkhan Uul and Orkhon soums, Scale 1:200000, 2010
 6. Vegetation map of Darkhan Uul and Orkhon soums, Scale 1:200000, 2010
 7. Soil map of Darkhan Uul and Orkhon soums, Scale 1:200000, 2010
 8. Landscape planning map of Darkhan Uul, Orkhon soum, Scale 1:200000, 2010
-

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- **Institute of Geology and Mineral Resources (8 units)**

1. Mesozoic and Cenozoic tectonic map of Mongolia, Scale 1:1000000, 2010
 2. Mesozoic-Cenozoic mineral map of Mongolia, Scale 1:1000000, 2010
 3. Geological map of river region Scale 1:100000, 2010
 4. Geological map of Zamiin Uud district, Scale 1:100000, 2011
 5. Geological map of Khutag mountain region
 6. Geological map of Erdene district in Tuul River basin, Scale 1:100000, 2011
 7. Geological map of southwestern part of Eren davaa terrain, Scale 1:100000
 8. Set of geological map of Zamiin uud, khutag mountain, Mirror mountain, Scale 1:200000, 2012
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Digital Archiving

Digital Archives

The Mongolian people had a rich long history of writing culture and a specific technology of printing books and sutras. Today, the monuments of script that have been traditionally preserved for us the petroglyph birch-bark paper printed sutras to unique art works by craftsmen embroiderers are being kept in the National Library, Gandan Tegchinlen monastery, the Institute of Language and Literature of the Academy of Sciences and museums.

Books and manuscripts are on the verge of destruction as the paper dries out and burns due to malpractice of preservation procedures such as desiccation and humidity and numerous mechanic damage.

Therefore, restoration of the Mongolian cultural heritage and creation of its digital archives require the use of delicate technology and introduction of advanced methods.

There are 6889 Tibetan manuscripts stored in the collection of institute of language and literature.

	номын нэр	Ботийн дугаар	Хуудасны тоо	Хэмжээ /см/	Үнэлгээ /тоглог/
0017	Rje btzun sgrol mas rjes su bzung ba'l smon lam byang chub 'jug sgo zhes bya ba bzhugs so, .		1	21x8	100
0018	Lhag pa'l smon lam bzhugs so, .		6	22x7,5	500
0019	'phags pa bzang po spyod pa'l smon lam gyi rgyal po zhes bya ba bzhugs so, .		15	19x7	1000
0024	Rje rin po che la gsol ba 'debs pa'l smon tsig bsam pa lhun gyis 'grub pa zhes bya ba bzhugs so, .		11	22x7	1000
0025	Tse rabs kun tu tsul khirms nam dag bsrung nus pa'l smon tsig bzhugs so, .		3	20x7	500
0027	Ma ni'l 'don thabs bzhugs so, .		8	18x6,5	1000
0044	Bka' drin gsol 'debs bzhugs so, .		16/дугуу/	18x7,5	500
0047	'phags pa gser 'od dam pa'l bsangs mchod bzhugs so, .		11	21x8	1000
0053	geig tu bral gyi zin bris zhes bya ba bzhugs so, .			20,6x10	500
0054	yongs 'dzin ye shes rgyal mtsan gyis mdzad pa blo sbyong chen mo'i btus ming, .		5	52x9	2000
0055	'jam dbyangs dmar ser gyi bsnyen sgrubs bya tsul blo gros kunda bzhad pa'i dga' ston zhes bya ba bzhugs so, .		9	42x8	2000
0056	las nam par 'byed pa'i mdo sogs dang tse mtha'i mdo'i don bsdus nas bkod pa bzhugs so, .		14	62x12	2000
0057	skyabs 'gro'i khrid yig bzhugs so, .		12	62x9	2000
0058	khyab bdag 'khor lo'i mgon po ngag dbang blo bzang rgya mtso dpal bzang po'i 'khrungs rabs gsol 'debs bzhugs, .		3	38x8	1000
0059	sh'ak btzun blo bzang 'phrin las kyi, ngag mams phyogs su bsgrigs pa las, bsangs chog rin chen phreng ba dang, bsangs dang gsol mchod la sogs bzhugs, .		24	53x10	2000
0060	rta mgirn gsang sgrub kyi chos skor las, tses beu sogs kyi skabs su nye bar mkho ba slo bar ston gyi gsol 'debs bsam pa lhun 'grub mar grags pa bzhugs, .		3	53x10	2000



Collection of traditional songs and other folklore



HAND WRITTEN REPORTS OF FIELD STUDY - 450

EPICS - 109

LEGENDS - 345

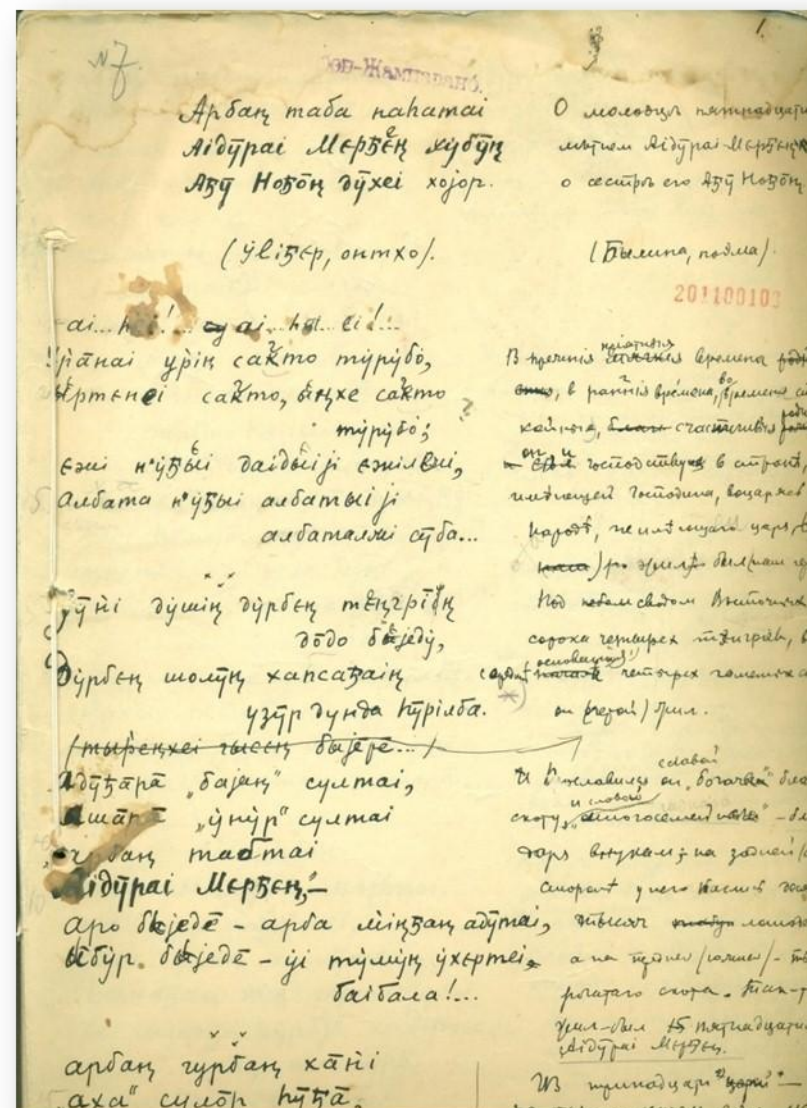
FAIRY TALES - 1352

SONGS - 1165

BENEDICTIONS - 166

PRAISE SONGS - 147

MONOLOGUES AND RECOLLECTIONS - 116



1150 sutras stored in the Clear script have been digitalized.
This is the biggest Clear Script collection in the world.





This is the painting (Tanga) of Ochirvan Buddha who protects all Mongols. Chinggis han is believed to be his spirit.

This document was dated ??? There is a hypothesis that this painting might have been created under Bogdo khan's decree in around 1911 after Mongolia was liberated from the Manchu oppression.

Dated in 1894 (122)



All over Mongolia charity contributions from the Tibetan temples and monasteries were collected every year, and the contributors were granted with so called “Badar temdeg” papers/credentials. Those papers have been kept in individual families from generation to generation.

Dated in 1874(142)



Domestic and Foreign Cooperation

Domestic and Foreign cooperation

- Mongolian first comprehensive online dictionary
- Academia Sinica, Taiwan
- Chinese Culture University
- Tamkang University

“The Innovative Application of Multi-Spectral Technology for Culture Heritage”



МЭДЭЭ

ТОЛЬ ▾

Кирил ▾

Хайх үг ...



+ Үг нэмэх

Номын ёсыг мэдвэр номхон томоотой боддог, төрийн ёсыг мэдвэр төрөв төвишин боддог



А Б В Г Д Е Ё Ж З И Й К Л М Н О Ө П Р С Т У Ү Ф Х Ц Ч Ш Щ Ъ Ы Э Ю Я



Өргөн хэрэглээний үг ▾



Явцуу хэрэглээний үг ▾



Аман зохиол ▾



Нэр томьёо ▾

Их хайсан үг



Жиргээ





Thank you for your attention

