



Annex B – Detailed overview of SGSSU structure and operational descriptions of the State Owned Enterprises and Academic Institutions

Departments within the SGSSU

Department of Geological Control

Main function is to monitor the licences (permits) to ensure that the permit holder is meeting the terms and conditions; after inspection require improvement violations; in extreme situations they can revoke the permit. Most staff are mining engineers and geologists.

Division of Finances and Economy

Responsible for managing finances and budgets of SOEs. They collect the different annual budgetary proposals for mining exploration from the various SOEs and companies of Nadra Ukrayny for the proposed activities.

The proposal of annual mining exploration activities is initially set by the Division of Geology of SGSSU and approved by the Board of SGSSU. The SOEs compete for the activities through a bidding process, after which about 1 in 10 proposals receive funding. The bidding procedure is regulated.

Division of Legal Affairs

Has responsibility for drafting regulations and setting standards and legal rights, i.e. clarifying current legislation, pursuing cases in court, both prosecuting and defending the State interests (400 cases / year), maintaining the document archive of legal papers and providing relevant information on the web site. They have an interest in revising the current mining law. The Division has three sections:

- A. Development of regulations
- B. Legal rights
- C. Proceedings and disputes against SGSSU

Division of Geology

Most of their work is administrative in nature, such as preparing work programmes for the OUs and SOEs, receiving reports from mining companies (according to special formula) and providing statistical and production data. All reports are delivered to GeoInform. It has three divisions:

- hydrogeology
- mineral resources
- oil and gas

Division of Subsurface Management

This unit is responsible of mining permits auctions and tenders. They are working in the liberalization of the whole process. Their remit covers minerals and oil and gas, with work on 100 to 150 permits per year.

They collect fees for exploration permits and exploitation royalties. The fees of exploitation permits depend on the amount of reserves declared by the holder of the permit. In the case of exploration permits, fees are related to the cost of the geological information available plus the services provided by GeoInform and the administrative costs of emitting the permit.

In Ukraine it is not possible to sell or transfer mining permits.

Department of Administration

Their role includes:

- Personnel management, including to a limited extent of the SOEs
- Public relations including web page
- Annual reporting for the Council of Ministers on SGSSU public relations.
- IT infrastructure
- Cooperating with other public organisations, including consulting other geological stakeholders
- Administration records archives (registry function)

The State Owned Enterprises under SGSSU

GeoInform of Ukraine

GeoInform is in charge of the SGSSU data systems. They are running the storage of all kind of reports, maps and data generated by the states companies involved in resources exploration, geological mapping, hydrogeological and geotechnical studies . They have to deliver such information to GeoInform, including maps and graphics. About 60.000 reports are stored at the rate of 400-430 per year. Only 30% is scanned, but they are not available on a web portal and there are no plans to store them in a documentation management system. Raw data, maps or graphics are not extracted and processed to maintain specific databases (i.e. stratigraphic columns, samples, etc.). Thus, there is no way to build specific queries on such reports.

Theoretically information is available for free. But companies have to pay for data necessary to obtain a mine license. Another income of money are contracts with companies with special needs of data process. Through several years, the number of requests from companies is constant but Government's budget is decreasing. At the date of the interview, the annual budget has not been allocated. The main complaint is the lack of resources.

Spatial databases are served under a web portal (<http://www.geoinf.kiev.ua>) including a link to the OneGeology project. GeoInform runs the map service delivering the 1:1M geological map of Ukraine. The layout of a point map of mine cadastre is served covering the national territory. Only a brief abstract of the information of the licensed sites is available. They take part in the process of licensing, and they can report on the geological materials included in the claim area.

GeoInform itself does not participate in European projects, but is the de facto representative under the SGSSU umbrella.

Ukrainian State Geological Research Institute

UkrSGRI was established in 1957 to handle oil and gas geology and geophysics. Now they operate much like a national geological survey. Continuous state budget cuts have reduced their operational capacity significantly, but they continue to address the need for up to date national geological mapping, with most of the country covered by 1:200,000 scale and areas of particular interest, 1:50,000.

They also have an interest in developing their hydrogeological activities and groundwater monitoring however funding issues often interrupt these actions. Due to the reduction in State funding, they now rely more and more on private contracts, mainly involving monitoring.

Ukrainian Geological Company

The Ukrainian Geological Company was formerly the Northern Geological Survey and is still primarily focussed on the northern regions of the country. They have both a 'functioning department' (their headquarters) and 'expedition departments' (regional offices spread across 10 regions). They serve both State and private contracts, the latter complimenting their public financing which is dependent on bidding for State funds.

They have had some involvement in European projects, such as GEMAS, and are also involved in ecological projects such as a geochemical investigation of the Chernobyl area ordered by the Ministry of Emergencies. They are one of the few SOEs that actually publish geological maps of Ukraine, the other being UkrSGRI and are probably one of the closest SOEs to resemble a fully functioning geological survey.

Geolkontrol

Geolkontrol consists of a number of units based in different locations around Ukraine:

1. State organization "Donetsk territorial inspection of state geological control over the conduct of work on the geological study and use of mineral resources" - Donetsk
2. State Organization "Southern territorial inspection of State geological control on works for geological study and use of subsurface" - Dnipropetrovsk
3. State Organization "Central territorial inspection of State geological control on works for geological study and use of subsurface" - Kyiv
4. State Organization "Western territorial inspection of State geological control on works for geological study and use of subsurface" - Lviv
5. State Organization "North-east territorial inspection of State geological control on works for geological study and use of subsurface" - Poltava
6. State Organization "Chornomorska territorial inspection of State geological control on works for geological study and use of subsurface" – lost in Crimea.

Donetskgeologiya

The State Regional Geological Enterprise "Donetskgeologiya" is working in the wide sphere of the state geological survey: regional geological and hydrogeological mapping, thematic research works related with minerals, monitoring of geological processes, maintaining of state water cadastre, tectonic maps, monitoring of groundwater etc. The "Donetskgeologiya" is actually the regional branch of the State Geological Survey responsible for the Donbas region. The enterprise is highly specialised in coal prospecting and is developing CBM and shale gas investigations.

However, there are some activities (as listed in the SGSSU Annual Plan of 2014) e.g. drilling of production wells for drinking groundwater, or exploration of mineral resources, that possibly compete with the private sector. Nevertheless these works were funded from the State budget. Besides that, it was explained during the meeting with the Director of the Enterprise, that the "Donetskgeologiya" is carrying out all possible contracts from both private and State customers, although he believes the taxation system is off-putting for many potential investors (royalties come from ground usage rather than extracted product). They maintain good relations with other State Owned Enterprises and collaborate when necessary.

Pivdenukrgeologiya

Presented at SGSSU headquarters by Dr. Mykola V.Foshchii, the enterprise operates mainly in the south area of Ukraine. Therefore we did not have the chance to visit the enterprise facilities in situ. Pivdenukrgeologiya's team made the effort to make a PowerPoint presentation labelled in English.

They claim to have experience (65 years) mainly on mineral exploration as well as on geological cartography, geological hazards, quarries and geological engineering and even

hydrogeological cartography. It seems that they are real data generators on different fields. More than 20 geological maps are drafted by them. They maintain the hydrogeological database of the south region. So theoretically they provide the source hydrogeological data to UkrSGRI in order to map the 1:500,000 hydrogeological unit maps. They evaluate mineral deposits under international standards.

Pivdenukrgeologiya is one of the few companies that can demonstrate international experience. They carried out some projects in Latin America. As with other companies, they have their own laboratories to support the described activities

Staff is about 480 people and Dr. Foshchii is heading the company for 18 years. They claim to have a skilled team.

The overall impression is good. They are working as a geological consulting constrained geographically in a region.

Ukrgeofizyka

Ukrgeofizyka claim they are behind all discoveries of oil and gas in Ukraine and thus the enterprise is a very important one for exploration in Ukraine. The questionnaire, which shows a lot of geological activities, does not seem to reflect the SGSSU Work Programme 2014 we received afterwards, nor the presentation during the meeting. Most of the specialized projects were providing technical solutions in the field of engineering and water supply.

1400 persons are employed by Ukrgeofizyka and this is a very large organization. We will recommend an internal study of the future demand for geophysical services and the possibility to reduce the size of the enterprise.

The lack of cooperation with geological units became quite clear under the interview and a closer cooperation with other units under SGSSU is recommended either through an organisational reform or through localisation close to other units within SGSSU.

Ukrgeofizyka is a professionally strong unit, especially in seismology. The unit should have a good future both within Ukraine and internationally.

Kirovgeologiya

In its original role it focused solely on radioactive minerals and soviet radioactive shielding. Since 1991, their role expanded to gold, rare earths and minerals of scientific importance. They have an advanced research lab in Kiev with strong capabilities in ICT and a healthy research budget. They own much of their own equipment (four drilling rigs capable of up to 1.5km depth, land geophysical equipment, magnetic resonance). While mostly State-financed, their revenue from private sources is reducing. Most of their data is held internally and does not go to GeoInform's archives, as it is deemed classified.

One issue raised during discussions was the lack in the ability to process radioactive materials in Ukraine, which they would like to be able to do themselves but for now they must send their samples to Russia.

Skhid RSE - Eastern State Regional Geological Enterprise – Poltava

In 2014 this entity has been moved to Poltava from Lugansk, due to the occupation of the territory by separatists. Roughly 70% of the staff remained in the occupied region and are thus no longer involved in the enterprise, whilst almost all significant assets were lost when relocating. No actual information on current enterprise activities is available.

According to the SGSSU Annual Plan of 2014, Skhid RSE had run 16 projects funded from the State budget, of which the subject matter was very similar to those performed by the State Regional Geological Enterprise "Donetskgeologiya". Their main focus and expertise was on the near-surface resource base of Lugansk (coal, small open pit and shallow mines).

Skhid RSE could operate as a branch of the regional geological survey after the territorial integrity of Ukraine is re-established.

Prychornomorske

Based on Odessa, their main operation area is the Black Sea. They are specialized in marine geology focused on oil and gas exploration. Prychornomorske's main client is SGSSU. They carried out 1:200,000 marine geological maps based on geological, geochemical and seismic data. But they do not have new contracts from Government sources.

The Director outlined the need of contracts outside SGSSU. Their main client was Russia (prior to the current conflict) and they have worked with Israel as well. They are now in conversations with some oil companies but legal issues and conflicts in the Crimea area are barriers to go further. They are representing Ukraine in EMODNET EU project and their hope is to maintain such role in further projects.

Prychornomorske describe some of their weakness:

- They are cheap but outdated: most modern vessel equipment date from 1982. They have had to reduce their offshore operations in recent years.
- Staff are mostly from the Soviet-era generations. There are no young geoscientists.
- They are capable of carrying out scientific research but there is no budget for that.

Prychornomorske is a clear example of a weak situation inherited from Soviet times. A good point is that they expressed some ideas/needs about how to improve the situation.

Burshtyn Ukrainy

We did not have the opportunity to meet with any representatives of Burshtyn Ukrainy but their main area of activity is mining and processing of amber with further sale of jewellery and art and decorative items both through the network of its own shops and on a contractual basis.

Pivdenekogeotsentr

Lost in Crimea annexation by the Russian Federation.

State Commission of Ukraine on Mineral Reserves – Kyiv

The Commission, with its permanent staff of 31 people, provides a service for evaluation and approval of mineral reserves reported to it by entities carrying out geological exploration projects. The Commission evaluates different aspects of the exploration works: geology, models of deposits, evaluation of quantity and quality of resources, environmental assessments. Depending on the type of report they are assessing, the Commission can sign on relevant experts.

Such evaluation and approval of reports is absolutely necessary if the State undertakes further development of mining projects. In the case of auctions, approved reserves are also more representative and attractive for potential investors.

However, in the case of private investments into mining, potential investors enrol the Commission to carry out the competent assessment in order to secure their investments. In western mining practice such assessments are carried out by private consultants.

The State Commission's important role is setting rules and standards of classification of mineral deposits and reserves. The Ukraine, through the active role of the Commission, has adopted the United Nations Framework Classification for Fossil Energy and Mineral Reserves and Resources (UNFC).

State Commission on Expertise of Geological Projects and Budgets – Kyiv

The questionnaire shows that Geolekspertyza is involved in many fields of activity, whilst their role in the Ukrainian government and society is somewhat unclear. In particular their role in the licensing system is questionable. There could be a possible conflict of interest between their role of consultant for the company applying for a license and their audit activity for SGSSU.

The main task for the enterprise seems to be consultations, mainly for the mineral, oil and gas industry.

The work of the Geolekspertyza, is mainly outside the core activity of a geological survey, as defined by the members of EGS. We will recommend SGSSU to consider a different form of organization of Geolekspertyza, outside the geological survey.

National Joint-Stock Company "Nadra Ukrainy"

The initial idea of forming Nadra Ukrayny, a joint-stock company with many subsidiaries which is 100% owned by the State, was to carry out geological activities that are in the interest of the State while having enough independence from State bureaucracy to generate their own revenue and become self-sustaining. Initially this system worked well and even just two years ago they were generating ten times more funding from their own activities. Recently however the company has become weaker, with many specialised staff leaving and not being replaced, thus creating a disproportionate amount of administrative staff. Some units under Nadra Ukrayny are now operating at minimal capacity or part-time.

The Academic & Research Institutions

Institute of Geological Sciences of the Ukrainian National Academy of Sciences (UNAS)

IGS carries out applied and basic geology. The Deputy Director of this Institute, Mykola Evdoshchuk, with whom the 1st Mission group met, is a former manager in the SGSSU and explained his proposal of what the SGSSU should be doing, which is summarized in Annex [...]. Among some overarching suggestions, he noted that the age gap of staff is a clear disadvantage to the SGSSU and that he felt it would be in the best interests of the SGSSU to separate permitting from its key responsibilities.

Institute of Geology, Kyiv Taras Shevchenko National University

This Institute has a staff of 50 professors. Iryna Bezrodna, Deputy Director on Geosciences, thinks that the SGSSU has a great potential, in particular in creating good, easily accessible databases, and promoting collaboration. They would very much like to participate in SGSSU projects, particularly in EU Horizon2020 projects.

Institute of Geophysics UNAS

Victor Omelchenko, Chief of the Division of Regional Geophysics, explained that the IG holds the national seismic network of Ukraine, with their own local equipment and USA acquired equipment. They have a good relation with the SOE Ukrgeofizyka, with which they have a joint centre. They have European collaboration in EU networks and projects. They also produce Citation Index publications. The staff of about 360 people is young and active.