Improvement of Solid Domestic Waste Management in the Oblast of Donetsk

Report:
Environment Inspection
Analysis of the existing situation
Proposals for improve-ment

A. Objectives

A.1. Context

After some months of work of the Tacis Programme, we can resume the current situation to some facts:

- between 50% and 80% of household waste are collected;
- between 30% and 50% of the waste fees are really paid in time;
- 120 landfills are officially used but only 7 are passportized;
- the composition of waste shows a large majority of organic waste and some % (for the moment) of recyclable waste;
- the economics recovery will raise the life level, the consummation habits will change, the packaging waste will have an exponential growth;
- the public opinion is expecting some progress in the matter.

Local and European experts of the Programme agree to the principle that nothing can seriously be done without a restoration of a basic sound situation that can be resumed as:

- 100 % SHW collected and 100 % SHW fees collected
- 100 % SHW disposed in legal landfills if not in sanitary landfills
- a strong environment inspection able to control and to enforce this objectives.

A.2. Inspection enhancement

The Inspection Enhancement is one of the main tasks of the Tacis Programme. By experience, nobody is ready to expense money in environment protection: what should be the profit? Environment is a common interest, both for humanity and future generations. The structures in charge of the common interest are, in democratic regimes, the public bodies. They decide laws and regulations in aim to preserve and to improve environment quality because it has been proved that environment factors are public health factors. In aim to apply these environment laws and regulations, a police power is necessary. It's the main role of Environment Inspection.

A.2.1 Information

But a balance must always be found between environment protection and economical activities. Our societies are characterized by a high level of economical exchanges, both domestic and international. The life level of the citizens depends of this economical sphere. So there's often a dilemma between the impact upon environment of a facility and the economical weight of this facility. Regulations cannot preview all the cases. There's always a margin for interpretation. In such a case, the Inspector has to decide. So we can chain on

the theory of the decision. What is a good decision? How to take a good decision?

A decision depends of two factors:

- the human factor as skill, competency, decision making ability, ...
- the information factor as the quality of the available information at the moment the decision has to be taken: fresh and updated, complete, sufficient, understandable, ...

Each time, there's a decision space constituted by a time scale and a field of constraints. A decision is an arbitration between a lot of arguments, facts, wishes, constraints. It must be taken at the good time, neither too soon, nor too late. A good decision optimizes the compromise for all the parts involved in the decision while respecting the constraints.

And for a long time, it has been proved that the quality of the decision lays on the quality of the information available for the one who has to take the decision.

So a main sub-objective for inspection enhancement is the improvement of the information system the Inspectors have at their disposal.

A.2.2 Competencies

Who has to take a decision must be able to manage the necessary information.

An information can only take a signification if the person can integrate the information in the scope of his knowledge. To know that there's 50 ppm of lead in a water is without any interest if I don't know what are the regulation limits.

To know what information is necessary depends of the experience of the person. The noticing that a lot of fishes are died in the river implies to be able to built scenarios of pollution and to decide what parameters must be analyzed.

So a second sub-objective for inspection enhancement is to develop the knowledge and the experience of the Inspectors.

A.2.3 Means

Decisions must be taken in time. We can use the image of the fire: the first minute, a glass of water is enough, the second minute a bucket of water is enough, the third minute you have only your tears. It's the same for the pollution facts. Sooner they are noticed, analyzed, understood, decided, the easier they are remedied.

In this matter, the success depends of the means to access to the situations, to the information, to the responsible people.

So the third sub-objective for inspection enhancement is to endow it with the necessary means.

B. Audit of existing

B.1. Methodology

We met M. ABOUSIAROV, Head of the Inspection, on 13/06/03. We discussed of the objectives of the audit of inspection.

We have visited the inspections of:

Place	Date
ARTIOMOVSK	19/06/03
CHARTIORSK	18/06/03
DOBROPOLYE	17/06/03
DONETSK	14/03/03
IENAKIEVO	18/07/03
KONSTANTINOVKA	23/06/03
KRAMATORSK	24/06/03
KRASNOARMEISK	23/06/03
MAKIEEVKA	18/06/03
MARINKA	25/06/03
MARIOUPOL	20/06/03
TELMANOVO	25/06/03
VOLODARSKOIE	20/06/03

The department of Environment Inspection provided a list of the Inspectors with their age and education profile.

We lean on the audit report on Environment Laboratories written by Jean OCHSENBEIN in 07-08/2003, and, generally, on the interviews and reports of the experts of the programme.

We lean on the Final Report “BEST PRACTICES CONCERNING TRAINING AND QUALIFICATION FOR ENVIRONMENTAL INSPECTORS” adopted by the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL Network) on 18/03/03. The members of IMPEL Network are the environmental authorities of EU Member States and the European Commission.

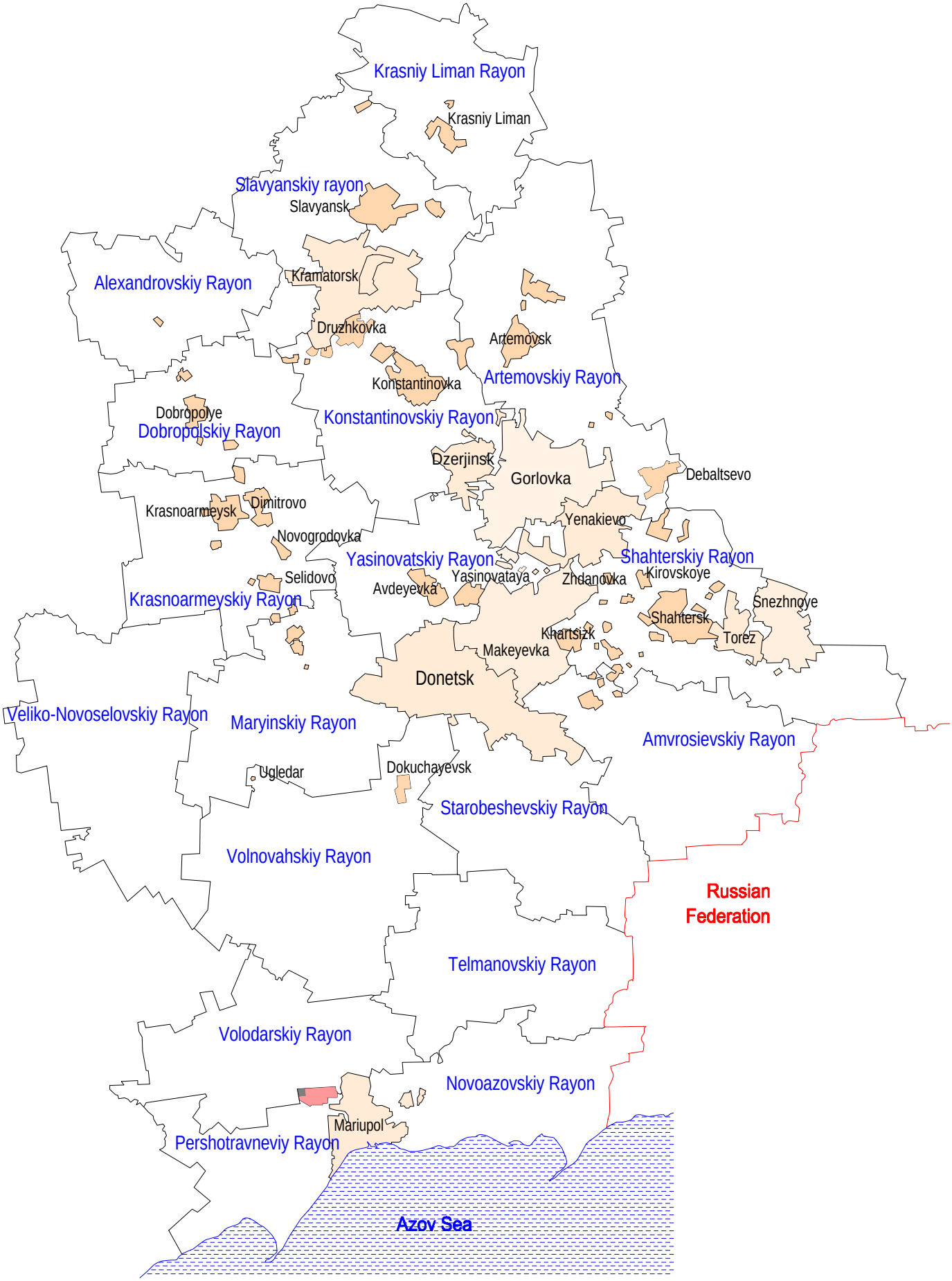
B.2. General Situation

B.2.1 Repartition

B.2.1.1 Geographical repartition

The Environment Inspection for the territory of the Oblast of Donetsk is organized in 14 Inspectorates and a central service in the premises of the House of Nature:

Inspectorate	Territory	N Personnel	Laboratory
Artem Regional State Ecological Inspection	Artemovsk, Debaltsevo, Artemovskiy rayon	5	
Gorlovka Regional State Ecological Inspection	Gorlovka, Dzerzhinsk	9	
Central Donetsk Regional State Ecological Inspection	Donetsk, Yasinovataya, Avdeyevka, Yasinovatskiy rayon	7	
North-Western Regional State Ecological Inspection	Dobropolye, Dobropolskiy and Alexandrovskiy rayons	4	
Yenakievo Regional State Ecological Inspection	Yenakievo, Kirovskoye, Zhdanovka	7	Y
Torets Regional State Ecological Inspection	Konstantinovka, Druzhkovka and Konstantinovskiy rayon	10	Y
Krasnoarmeysk Regional State Ecological Inspection	Krasnoarmeysk, Selidovo, Novogrodovka, Dimitrovo, Krasnoarmeyskiy rayon	5	
Priazovsk Regional State Ecological Inspection	Mariupol, Novoazovskiy and Pershotravneviy rayons	17	Y
Northern Donetsk Regional State Ecological Inspection	Kramatorsk, Slavyansk, Krasniy Liman and Slavyanskiy rayon	15	Y
Eastern Regional State Ecological Inspection	Torez, Snezhnoye, Chartersk, Shahterskiy and Amvrosievskiy rayons	6	
Makeyevka Regional State Ecological Inspection	Makeyevka, Khartsizk	7	
Volnovaha Regional State Ecological Inspection	Volnovahskiy, Volodarskiy rayons, Dokuchayevsk	3	
Western Regional State Ecological Inspection	Maryinskiy, Veliko-Novoselovskiy rayons, Ugledar	3	
Kalmius Regional State Inspection	Telmanovskiy and Starobeshevskiy rayons	3	
Waste Management Control and Industrial Safety Department		9	Y
TOTAL		110	



Administrative Map

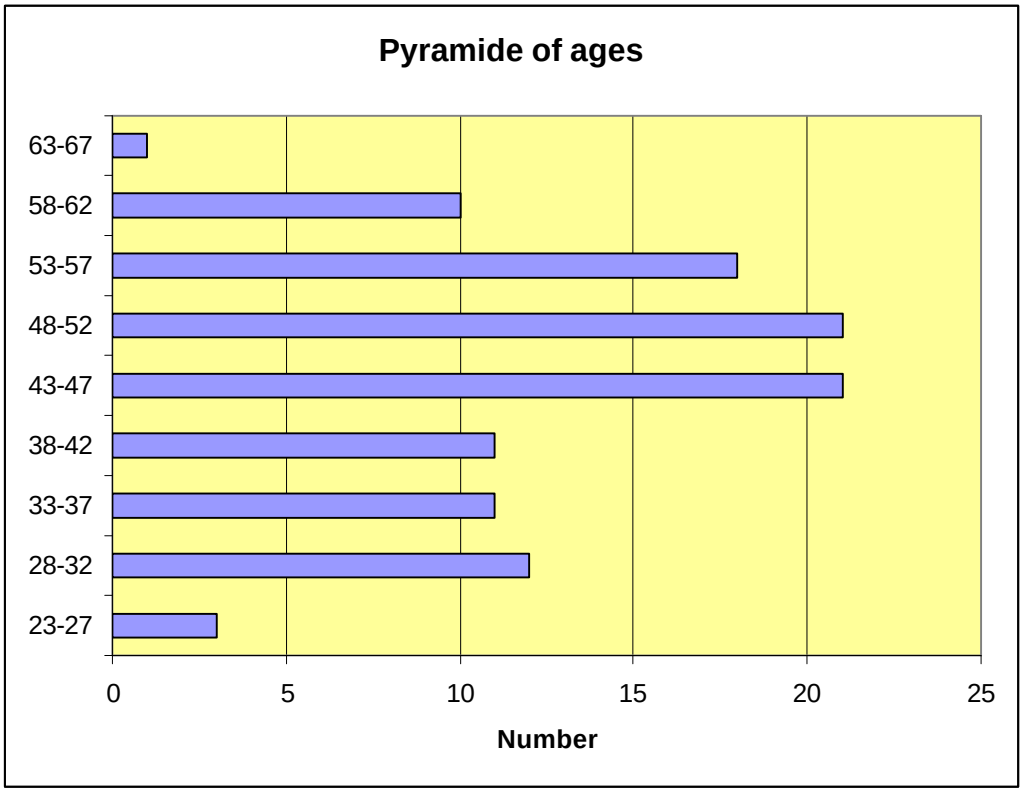
Existing Inspectorates

The most often, the Inspectorate is shared between a central office, generally in the main town of the area, and one or more offices in small towns, with usually one inspector. This organization seems to be due to a lack of transportation means. The concerned inspector lives in the same small city and has to control the facilities of this small city or of this rayon.

B.2.1.2 Personnel

It must be noticed that these 110 inspectors are shared in 70 women and 40 men, but 1 woman is Chief of the Inspection for 14 men.

The average age of the members of the Inspection is 42.



It must be noticed that more than half of the personnel is between 43 and 57. The youngest slices are insufficient to replace these slice of ages in the following fifteen years. Several questions are to be asked:

- Is the profession enough attractive for young graduates?
- Is it wished to reduce the number of inspectors ?

All the personnel has generally a high level education in various domains as it is shown in the following table:

Education	**N**
Chemist, Chemical engineer	31
Ecology	10
Mechanical Engineer	9
Agriculture, Agronomist	7
Technologist	7

Biologist, Botanist	6
Construction, building	6
Mine, Mining Engineer	6
Medical studies, Sanitary inspection	5
Forestry	5
Metallurgy	3
Geologist	2
Electrical Engineer	2
Economist	2
Heating Engineer	2
Meteorology	2
Other	8

It must be noticed that 7 inspectors have had a second training in ecology by the Institute Of Human Resources Professional Development And Retraining Of The Ministry Of Ecology And Natural Resources Of Ukraine. Particularly, it's the case of 6 Chiefs of Inspection.

B.3. Means

The following part synthesizes the interviews led in the Inspectorates.

B.3.1 Premises

The most often, the premises used by inspectorates are rented. They belong to the municipality or the district.

It must be highlighted that the Inspectorate is supposed to control the municipalities and the districts as they are in charge of the waste collection and disposal. They have also to assist them for the nature protection programming and the waste management. At least, the penalties and claims resulting of the Inspectorate's work are going for a part to the local budget. A particular attention must be paid in aim to avoid any ambiguity in the relationships between the Inspectorates and the local authorities.

B.3.2 Telecommunications

It's good to have a phone line and the money to pay the invoices! The Inspectorates are under-equipped in modern telecommunications. A fax machine is rare. A modem is exceptional. A mobile phone is a privilege (we have seen 1).

In a period when everybody is becoming conscious of the value of the information and when its volume is increasing (because environment is a new field of knowledge, a new field of regulation), inspectors have the feeling to walk among a mine field without any map. How to be sure to dispose of the updated regulation ? How to be sure to know the best solutions ? How this problem has been solved by a colleague ?

To fight against pollution is a fireman's job. The first minute, it's easy to control the situation. Three days later, there are tons of died fishes in the river.

In this field, the speediness of the information is a success key. Decisions have to be taken immediately in consultation with other administrations.

B.3.3 Transportation

Usually, the damages on environment do not appear at the door of the Inspectorate but more often in the middle of the nature. Inspectorates may have 3000 km² and hundreds facilities under control. Unfortunately, the current state of the Inspectorates is that they are unable to have enough cars, in good order, with a budget for the gasoline and with a budget for spare parts and maintenance.

B.3.4 Computers

An Inspectorate with 3 inspectors, able to produce 85 audit reports a year, without any computer, neither telecommunications nor car, it's a performance. Some seem to be stayed 50 years ago: good shoes and a walk stick, paper and pen. They are missing carrier pigeons to send their reports !

It's clear that if an inspector needs to spoil his time in begging a car, begging 20 l of gasoline, begging paper and pen, typing his report on an old mechanical typewriter, begging for photocopies, it's difficult to produce more than one report a week.

B.3.5 Laboratories

Laboratories are equipped for major components analysis. It corresponds to the first age of environment control. In air are searched CO, SO_2, NO_x. In water are searched pH, DBO_5, DCO, dissolved oxygen. The scale is % or 10^{-3}. Today, the knowledge of environment impact and more and more health impact is applied in regulations fixing limits in 10^{-6} if not 10^{-9}, and even 10^{-12} (dioxins) and concerning a larger field of components. For example, the WHO recommendations for drinkable water fix limits for about 1200 components. Even if the central laboratory of the Department of Ecology in Donetsk is improving its equipment, even if the laboratory of Marioupol has a gas chromatograph (without spare parts and without supplies), the existing network of laboratories cannot target the requirements of the regulation.

It must be added that the relationships between the Inspectorates and the laboratories are not satisfying. The organization is conceived for a routine program of monitoring. There are working programs established by Inspectorates, others by laboratories, the whole approved by the Department of Ecology and it could be easily the same programs from year to year. Nothing is organized for the needs of the audit or the emergency situations. Pollution is an accident. It not foreseen in the annual program! When an inspector notices something during an audit, he needs immediately analysis. If the law says that 3 analysis must be done in a given period for the prosecutor, it must be feasible.

B.3.6 Supplies

There's no budget for that. So the only solution is to beg to the municipality or to the enterprises, a ream of paper, pens, staples, folders, ... The price these supplies should cost may be compared to the wasted time in this begging activity without of the shame of the inspectors.

B.4. Missions

The missions of the inspection are wide.

B.4.1 Permitting

The Inspection has to examine the permitting folders of the facilities subjected to. It has also to examine the passports for pollution emissions.

B.4.2 Control of the facilities

All facilities authorized by the administration and having to pay pollution fees are to be controlled. Air emissions, in water dumping, waste, have to be controlled. Fluxes have to be calculated in aim to control that the limits of the passports are respected.

But it doesn't concern only industry. We have seen that there are problems with waste facilities, with quarries, with agriculture. Forest exploitation has never been cited.

B.4.3 Environment monitoring

The good state of the environment has to be controlled by monitoring programs, sampling, analysis.

B.4.4 Complaints instruction

Inhabitants can complain of pollution or troubles. It can be to the Inspection, to the Security Service, to the Prosecutor, to the Mayor, to the Governor, to the Deputy. The Inspection has to examine the complaints, to lead inquiries, audits, controls, and to report to the authorities.

B.4.5 Reports

The Inspection has to establish periodic reports, to update a lot of statistics.

B.4.6 Advice to authorities

The Inspection has a role beside local authorities about environment management as they are in charge of operational waste management and physical planning.

B.4.7 Relationships with other administrations

The most often cited are the Prosecutor office, the Security Service and the Department of Sanitary Epidemiology.

C. Recommendations

C.1. The risk of "bakchisation"

C.1.1 Bakchich

In Ottoman Empire, the "bakchich" was the normal remuneration of the officials. For each act, there was a tariff and the citizens had to pay the official to do his job. By itself, it's not a bad system of public financing. The application was very strict toward the officials who didn't apply the tariffs. It survives in modern countries as in France if we consider that the notary is a public officer whose all acts are fixed by a tariff and paid by the user. It can be a good solution for countries in economical transition if it can be really controlled.

Some inspectorates are in such a material situation that they have to ask from the enterprises they have to control the means to do these controls! One said: "*I have to beg from the enterprise a ream of paper to write my report. What is my position if I have to put a fine?*".

C.1.2 A sidereal lack of means

When the inspector decides to control a facility, he has to beg for a car, to beg for 20 l of gasoline, and often, it takes him 2 or 3 days to organize his transportation. If he suspects a pollution, he has to take samples of water or of waste, with the plastic bottles he can find on place (!). He has to find a solution to send these samples to the laboratory. He can consult only the documentation he has in his own office. He has sometimes only an old typewriter to type his report. And so, and so...

The inspectors say their salary is paid by the State. But for all the rest (premises renting, electricity, heating, phone, supplies, maintenance and repairs, gasoline) they have to cope! In some cases, municipalities have understood all the interest to have a good inspection at their disposal and they do a real effort to finance the necessary means. But in the other cases, it may be a temptation for inspectors to organize the incoming they need to do their job. It's not a question of corruption: they want only to do their job and they have no other solution to get the necessary money.

C.1.3 Budget aspects

The money of the State Budget can only pay the salaries. The only one possibility to survive is by the commercial activities. The law authorizes Inspection to sell to enterprises laboratory analysis and consultations. There's also the assistance of industrial laboratories aiming accreditation. These activities are supposed to pay for electricity, telephone, laboratory products, car fuel. But it's not a normal situation: this service of the State should be decently treated by the State.

Before 1996, the Ecological Fund was abundant and not strictly controlled, so it was possible to invest in the development of the Inspection. Nowadays it depends of the initiative spirit of local authorities.

The work of the inspection results in fines and penalties. Firstly the level of the fines is ridiculous: it was said a maximum of 85 UAH whatever is the size of the company[1]. Secondly, the money goes to the local authorities and not to the state budget.

It was said too that the ecological charges (for natural resources use, for environment pollution, for waste disposal) are shared as 20% for local budget, 50% for regional budget, 30% for state budget.

C.1.4 Recommendations

The inspection has an important role to play. Its action can generate financial resources by fines and penalties. In parallel, the fees for natural resources use and pollution emissions can taken into account.

The tariff of fines and penalties must be resized according to the damages and to the size of the company. For example, it can be defined in percentage of the global income of the company.

An economical study must be done (but it out of the scope of the present Tacis Programme) in aim to set a balance of the cost of the inspection (in normal working conditions) and the product of fines and penalties. As a conclusion of such a study, the question of the sharing of the fines and penalties between state budget (paying inspection) and local budgets (victims of pollution) could be debated.

At least, the inspection is involved in a vicious circle. The lack of means forbids to control facilities and to put fines and penalties. The lack of fines and penalties forbids to allow the necessary means. This vicious circle needs to be broken. A special effort should be done in aim to improve the efficiency of the inspection by an endowment of the missing means.

C.2. Standard equipment

The main missions of the inspection are:

- to go as soon as possible on the site of an accident of pollution;
- to synchronize the decisions in case of an accident of pollution;
- to control on site as often as possible the facilities of its territory of competency;
- to apply the regulations as soon they are edited;
- to report to the hierarchy;
- to report to the prosecutor and to participate in the case procedures;
- to write and argue reports;
- to fill a lot of statistical forms.

[1] CODE OF UKRAINE ON ADMINISTRATIVE VIOLATIONS N° 8073-X as of 07/12/1984 : maximum penalty from 85 to 255 UAH depending the case (agriculture land, forestry, ...)

Seeing the time wasted by the lack of means, we can recommend the following objectives:

- 1 computer for each inspector;
- phones, fax and mobile phones in each inspectorate;
- internet access in each inspectorate;
- 1 car (in good state) for 2 inspectors;
- supplies budget;
- management of the information: systematic diffusion of new or updated regulations, access to a pollution database, ...

C.3. Laboratories

C.3.1 Organization

The control of the facilities is set on the control of the pollution emissions. This control is done with the help of the 5 laboratories relevant to the State Inspection of Environment of the Donetsk Oblast. Without to come back on the lack of means of these laboratories, we have to examine this situation in the perspective of a next future.

The existing equipment of these laboratories is sized for % or ‰ investigations using chemical reagents dosage methods. Nowadays, regulations and investigations for pollutions require ppm (part per million) if not ppb (part per billion) analysis. The corresponding equipments are not available in the laboratories of the inspection, if not some of them in the Central Laboratory in the House of Nature. The needed investment for one laboratory is about 500 000 € and it cannot be reasonable to invest such an amount in each of the 5 laboratories.

Five laboratories disseminated among the territory of the Oblast answer to the needing to dispose of analysis means immediately when the inspector comes back to his office after a control. It's understandable for the 5 inspectorates equipped with a laboratory. For the 9 other inspectorates, they have to send the samples to these laboratories. It was said that these laboratories have their own work plan and often the samples have to wait for some days. This situation seems to be inherited from the past. The preliminary question is: how to do in aim the samples should be tomorrow in a laboratory? There's a lot of solutions. In fact, it's a problem of logistics. Nowadays it exists a lot of taxis and parcel transport companies able to guarantee a good service and a good price for the transportation of samples to a laboratory within the territory of the Oblast.

C.3.2 Standards

An analysis result may be use in front the Court for a complaint. This put the question of the recognition of the results of the analysis, and consequently, the recognition of the methods used for these analysis. The existing laboratories use Ukrainian standards, describing the methods in accordance with their equipment. The analysis with modern laboratory equipments are described in

international standards (ISO), European standards (CEN) or national standards. In fact, the manufacturers of these equipments are less and less numerous and they operate on the world market. So they push to the adoption of international standards facilitating their sales all over the world.

For the moment, these international standards are not recognized by the Ukrainian office of standardisation. This question must be answered preliminarily to any investment in laboratory equipment.

C.3.3 EU practice

The usual practice in EU is that the control analysis are paid by the controlled company. It's done by private laboratories recognized by an accreditation (ISO 17025) and/or an agreement by the Ministry of Environment. The usual organization is 3 levels:

1. private laboratories (and even internal laboratories) make control analysis;
2. the regional administration has its own laboratory whose role is to make counter-expertises: a sample may be shared in two parts and the administration verifies by itself the results provided by the 1st level laboratory;
3. the national administration has its own referee laboratory, that can be a research centre or the scientific establishment of the Ministry; often this laboratory is in charge of the development or the validation of new analysis methods.

The counter-analysis and the refereeing are also paid by the company.

C.3.4 Recommendations

The question of the recognition of the international analysis standards by the Ukrainian administration must be debated by the Ministry of Ecology and quickly answered.

We recommend to concentrate the investments on the central laboratory in Donetsk. It may be something like 500 000 € spread on some years. In parallel, it's necessary to implement a quality management satisfying the requirements of the ISO 17025 standard.

If the 3 level policy is adopted, an effort can be done in aim to help to the creation of a private laboratory, as 1st level laboratory.

A transportation network must be organized (perhaps by the private laboratory) able to carry and deliver the next day any sample to the laboratory (Donetsk Central Laboratory or private laboratory).

C.4. Policy of training

C.4.1 Situation

The scope of the missions of the inspection is very large. It implies a large scope of skills and competencies from the inspectors. Moreover, Ukraine knows a fast change in economics recovery and in environment management

and so it's necessary to decide an inspectors training policy in aim to accompany this fast evolution.

And other side of this question is the recruitment and the education of new inspectors. Seeing the age pyramid, new inspectors must be recruited in the next 10 years. They will have an higher first education in a given speciality. They will have to be trained to the job of inspector.

Moreover, in a lot of countries it exists 2 environment inspections: one is in charge of the classified facilities, other is in charge of environment monitoring. The reason is that it's two different scopes of competencies. About classified facilities, the job is the instruction of permitting files and the control of the facilities. It is the control of the pollution emitting sources. The rules are well known: identified sources, limits of emission for defined chemicals components. About environment monitoring, it is permanently an unknown field: a pollution disaster is noticed and it's an inquiry job to understand what happened, how some effects combined, and so. Here, the inspectorates are in charge of all the environment controls and it may be asked how, in some cases, to gather all that skills with 2 inspectors.

When we look at the higher first educations of the inspectors, we find a lot of branches: chemistry, health, agriculture, forestry, mechanics, ... This situation reflects only the wide scope of competencies required for environment understanding and protection. More and more often, the understanding of an environment problem is a team's job, several scopes of skills being required to collect and to organize the information.

C.4.2 Study tour in France

During the study tour in France in 2003 September, the trainees had discussions with their colleagues of France. The equivalent of the Ukrainian State Inspection is in France the DRIRE (Regional Directorate for Industry, Research and Environment). The organization is the same: a central office in the regional capital and subdivisions in the main industrial cities or areas.

The skills policy of the DRIRE is based on the principle that each inspector must be a good generalist and an expert in one domain. A particular effort is made in training. Each French inspector has on average 15 days of training a year. The Ministry has its own training centre in Paris (CFDE: French Centre of Documentation about Environment) whose teachers are DRIRE inspectors or scientists or experts. Occasionally, the research centre of the Ministry (INERIS: National Institute of Environment and Industrial Risks) organizes training sessions on important new subjects: when the regulation about environment and health has been published in 2000, 1200 inspectors had a 3 days session in INERIS (by groups of about 80 inspectors).

Inspectors are encouraged to develop their own expertise domain. They can ask to be sent in congress or seminars concerning their domain. They participate in specific networks with the specialists of the Ministry, INERIS, ADEME, universities and engineer schools. They can be asked for lessons.

The team's job organization is day to day lived in the subdivisions or in the DRIRE. As usual, 80% of the problems can be solved by any generalist. The other problems require a deeper study and the inspector in charge of the

problem can easily ask an help from his colleagues experts on particular points.

At least, new inspectors have a special training programme of about 3 months spread during their first year in the DRIRE.

C.4.3 Recommendations

We propose to decide a training policy for the inspection. It can be inspired by the French organization, applying the principle that each one is both a generalist and an expert.

Once this policy decided, yearly objectives must be decided. A training management is necessary: for each inspector, the administration must list the training history and negotiate each year the yearly programme of the inspector, with written objectives of skills development.

C.5. Others

C.5.1 Information Management

C.5.1.1 Why ?

Environment is a new knowledge field. The science is considering this field only for some decades but we can notice an acceleration of the development of the knowledge. It is faster and faster applied in new regulations. As environment doesn't know borders, these developments are systematically international.

It allows a better understanding of the pollution problems. The question is how to diffuse this information in aim to improve the skill of the inspectors. It was said that for some inspectorates, the documentation updating consists in photocopying what they can find the 3 or 4 times a year they come in the Department of Ecology in Donetsk.

C.5.1.2 Documentation and information

Konstantinovka inspectorate created an environment library in aim to put at public disposal a documentation fund about environment. The Tacis Programme is gathering a lot of international reports and publications that will be let at the disposal of the Department of Ecology. All this can help to satisfy the needing of documentation in aim to allow the inspectors, and generally all members of the Department of Ecology, and why not professionals, to access to a fundamental knowledge about environment.

But in parallel, each one must be informed in real time of the news about environment: regulation, service information, new technologies, environment business news, accidents, ...

So documentation and information are 2 dimensions of the knowledge development.

C.5.1.3 Management of the information

Up bottom

Somebody must be put in charge of the management of the information. This one will have to centralize the incoming documents and to decide which ones are to be sent to the inspectors. The ways to send the documents are various: post mail, e-mails, fax. These ways can be chosen case by case according to the urgency degree of the information.

A documentation fund must be managed as a library: catalogue with summary on the content (in Russian), classification, storage, in/out procedures.

Bottom up

The Tacis Programme will launch a household waste management database and a landfill database. These databases will be associated in a GIS (Geographical Information System). They will be filled by the inspectors. Further, this GIS may include other databases as companies registration, housing statistics. The reports of inspectors may also constitute a useful source of information. Even if the means are still missing for any implementation, it should be good to start to prepare the organization of the information in aim to create a network between inspectorates and the Department of Ecology.

C.5.2 Missing competencies

During the audit it has been often said that the inspectors were missing a good legal assistance. They participate in the case procedures led by the prosecutor and they have not enough the helpful from the legal service of the regional Department of Ecology. It seems that this legal service does not include enough lawyers in aim to answer all the questions from the inspectorates.

C.5.3 Resizing of Inspectorates

It can be easily understood that the implementation of 14 inspectorates has been decided at an era when transportation means were insufficient. But we can call back that these transportation means are also failing to go on site from the inspectorate offices. It can also be asked why to keep so close inspectorates like Donetsk and Makeevka.

Simultaneously the definition of the necessary means, a reflection about inspectorates resizing can be led. It involves to take into account the problem of the residency of the relevant inspectors and the complementarity of the skills of the inspectors within each new inspectorate. This resizing consideration must take into account the logistics criteria as a radius definition of a distance or of a time of car transportation to any point of the inspectorate territory as in the following example.

Resizing of Inspectorates

Annexes:
Minutes of Audit Meetings
List of Inspectors

Regional Inspection

Participants

ABOUSIAROV Igor Nikolaïevitch Deputy Head of State Ecological Department
FICHAUX Philippe
BORODAI Galina
BOGDANOVA Marianna

Date : 13/06/03 17 h 00

Equipment for landfills audit

The Program includes a main component about Inspection enhancement and training, specifically about landfills controlling.
After some visits on landfills, we propose to provide a good equipment for landfills audit, instead of 13 light equipments as defined in the inception report. This equipment includes:

- 1 multi-gas analyzer,
- 1 depth metering unit,
- 1 GPS.

Mr ABOUSIAROV answers he prefers to share a good well suited equipment instead of 13 weak use equipments. He agrees with our proposal.

Inspection audit

Mr FICHAUX explains that in aim to prepare the training program for inspectors, he needs to make his own opinion about the local inspectorates, the inspectors, their working conditions, their education level. So he proposes to visit all the local inspectorates within the Donetsk Oblast.
Mr ABOUSIAROV agrees with our program of audit of local inspectorates.

Discussion

Proposals from Mr ABOUSIAROV

Professionalism

Concerning the waste sector, the inspectors use a basic handbook. They benefit of a permanent put at level.
Concerning local inspectorates, we have few inspectors so local manpower is insufficient. They are not enough trained. They have to apply too many regulation texts.

Training program

This program must be tightened to the local legislation. But we need to benefit of the accumulated experience in Europe.

State inspection in Kiev

I will ask they send us a specialist in aim to review the ministerial requirements for environmental audit.

My objective is to improve the efficiency of the Inspection concerning its main task: controlling environmental impact. It needs means, training, and reforms. So the advices and the proposals from the Tacis Program will be welcome.

Mr FICHAUX proposes his reports and conclusions will be reviewed with Mr ABOUSIAROV.

Inspection de Donetsk

Participants

PARPARA Cyril Nikolaiévitch	Chef de l'Inspection de la circonscription de Donetsk
FICHAUX Philippe	
KNOP Reinhard	
BORODAI Galina	
BOGDANOVA Marianne	

Circonscription

La circonscription de l'Inspection de Donetsk comporte

- la ville et le district de Donetsk,
- la ville et le district de Iassinovataïa,
- la ville de Adeevka.

Les principales industries sont les mines dont 12 en activité en ville et 10 fermées.
Il y a plus de 300 entreprises dont 200 à Donetsk.

L'Inspection a des bureaux à Donetsk et à Iassinovataïa ;
L'Inspection dispose d'1 ordinateur.
L'Inspection dispose d'une seule voiture (Lada Niva).
L'Inspection dispose d'un analyseur de gaz d'échappement.

L'effectif de l'Inspection est de 8 personnes :

- 6 Inspecteurs d'état pour Donetsk
- 1 Inspecteur d'état pour Iassinovataïa
- 1 Chef
- 1 Secrétaire

Missions

Contrôle des installations polluantes

L'Inspection n'a pas de juriste. Les autorisations d'exploitation sont délivrées par le DERN. Les dossiers sont au DERN.

Rejets atmosphériques

Cela concerne les émissions fixes. Il y a un planning des contrôles. L'Inspection calcule les flux massiques des émissions et les compare aux autorisations.

Rejets d'eaux usées

Les eaux de surface sont classées en différentes catégories de qualité des eaux naturelles. Des teneurs limites des rejets sont associées à ces catégories. Pour chaque installation sont définies des teneurs maxi et des volumes maxi. Les contrôles portent d'abord sur le respect des teneurs limites. En cas de non respect, on calcule les flux massiques correspondants. À partir de là il y a une recherche des causes et la fixation d'une amende qui va au budget de l'État.

Actuellement ce contrôle est un peu plus compliqué car les flux sont discontinus à cause de la mauvaise activité des entreprises.

Les entreprises disposent de laboratoire d'autocontrôle dont les résultats sont transmis à l'Inspection.

Décharges

On procède à un contrôle visuel.
Quelquefois, on contrôle les eaux souterraines en pratiquant un forage et en prélevant des échantillons dans la nappe. À Kramatorsk, l'Inspection s'est un tout petit peu approché de ce problème.

Problèmes majeurs

Les entreprises effectuent des prélèvements importants dans la ressource en eau sans que l'impact en soit évalué.
Le total des rejets industriels du secteur est de 7 à 8 Millions de m^3 par an.
Enfin, le problème majeur est celui des déchets industriels.
Si on applique la législation en vigueur, toutes les entreprises devraient être fermées.

Inspection de Kramatorsk

Participants

BIRUKOV Vladimir Ivanovitch
FICHAUX Philippe
KNOP Reinhard
BORODAI Galina
BOGDANOVA Marianne

Contexte

M Vladimir Ivanovitch BIRUKOV était présent ce jour dans le bureau de Mme BORODAI. Nous avons profité de l'opportunité pour une présentation de son activité.

Circonscription

La circonscription de l'inspection de Kramatorsk comporte :

- la ville de Kramatorsk,
- la ville et le district de Slavianska, incluant la ville de Slavianogorsk,
- la ville et le district de Krasniyliman.

La ville de Slavianogorsk est connue pour la présence d'un très ancien monastère. Elle est au cœur du Parc Naturel National.

L'Inspection a des bureaux à Kramatrosk, Slavianska et Kraniyliman.
L'Inspection dispose d'1 ordinateur à Kramatorsk qui est au laboratoire pour éditer les rapports d'analyse, 1 ordinateur à Slavianska et 1 ordinateur à Krasniliyman. Les ordinateurs sont loués à des usines.
L'Inspection dispose d'une seule voiture (Tavria !!!) très ancienne et maintenue à bout de bras.

L'effectif de l'Inspection est de 15 personnes :

- 7 au laboratoire
- 2 Inspecteurs d'état pour Kramatorsk
- 2 Inspecteurs d'état pour Slavianska
- 2 Inspecteurs d'état pour Krasniyliman
- 1 Chef
- 1 Adjoint

Le laboratoire est un laboratoire d'analyses chimiques. Il contrôle l'air et l'eau. Il ne contrôle pas les déchets ni les sols pour lesquels il ne dispose ni d'appareillage ni de méthodes.

Le DERN[1] assure directement les salaires et les frais de fonctionnement. Il n'y a pas de budget d'investissement.

Missions

Contrôle des installations polluantes

L'Inspection n'a pas de juriste. Les autorisations d'exploitation sont délivrées par le DERN. Les dossiers sont au DERN.

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Cela concerne les émissions fixes. Il y a un planning des contrôles. L'Inspection calcule les flux massiques des émissions et les compare aux autorisations.

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Les entreprises disposent de laboratoire d'autocontrôle dont les résultats sont transmis à l'Inspection.

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Les entreprises effectuent des prélèvements importants dans la ressource en eau sans que l'impact en soit évalué.
Le total des rejets industriels du secteur est de 7 à 8 Millions de m^3 par an.
Enfin, le problème majeur est celui des déchets industriels.

1 Département de l'Écologie et des Ressources Naturelles

Si on applique la législation en vigueur, toutes les entreprises devraient être fermées.

Inspectorate of Dobropolye

Participants

STRELNIKOV Vladimir Anatolyevitch	Head of North-Western Regional Inspectorate
FICHAUX Philippe	
BORODAI Galina	
LYSAK Sveta	

Presentation of the Inspectorate

Zone

The Inspectorate covers the territories of the City of Dobropolye, the district of Dobropolye and the district of Alexandrovka.

People and means

The Inspectorate gathers 4 inspectors, as:
x Vladimir Anatolyevitch, 50 years, Engineer Geologist + diploma of Ecology (Moscow),

x Deputy Head in Alexandrovka, in charge of this district, 45 years, educated in agricultural mechanisation,

x 2 inspectors in Dobropolye, one for the city, the other for the district, one, 50 years educated in Technical School of Construction, the other, 21 years, diploma of Ecology

The Inspectorate has no secretary.
The Inspectorate rents 2 rooms and a parking place in the Municipality building and an office in Alexandrovka. In Dobropolye, the Inspectorate uses and old PC (486 233 MHz), a scanner and a laser printer. There's a fax modem but out of order. In Alexandrovka, the inspecteur has a typewriter.
The Inspectorate has a car for its travel, VAZ 2129.

Discussion

Inspection Audits

The Inspectorate establishes a working plan agreed with the DoE (Department of Ecology).
There are 2 categories of audits: preliminary and joint. Joint audits are done with the DoE and the Department of Land Resources of Kramatorsk.

Prosecutor office

There are 3 prosecutor offices: 1 in Alexandrovka, 1 in Dobropolye and 1 regional in Kramatorsk.

Controlled facilities are responsible for dangerous objects. The Inspectorate may put administrative penalties. But claims must be calculated with the prosecutor.

Main facilities

The Inspectorate controls once a year mines (but not underground works), Vodokanal, clay quarries, coking plants. Otherwise they control landfills, food and agricultural plants.
There are 8 national parks in Alexandrovka and 5 in Dobropolye.
Mines constitute a particular case. The city is build upon a mining field and it has been noticed 7 m of mining subsidence. In 1968 mining complexes has been created with specific Mining Inspections, with larger means that the Inspectorate.

Procedure

The Inspectorate forewarns the Direction.
In aim to prepare the audit, the Inspectorate uses questionnaires from the State Department (chiefly for the inexperienced inspectors): standard forms and methodological instructions. The inspector puts basic questions and asks the documents as permits. He looks for visible pollutions.
A main aspect is the question of the sampling and the analysis of emissions and environmental middles (atmosphere, waters).
There are 5 laboratories:

- Slaviansk Inspectorate Laboratory (5 of the 14 inspectorates has their own laboratory),
- Coal Industry Laboratory,
- Vodokanal Laboratory,
- DSE (Department of Sanitary Epidemiology) Laboratory,
- DoE Laboratory in Donetsk.

The Inspectorate has in charge the coordination of the results of these analysis concerning each facility. These laboratories decide their planning of analysis, approved by the control organisms (as DoE, DSE). The Inspectorate has its own audit planning.
It cannot be clearly answered who manages the planning of the control activity. It seems each one concerned (Inspectorate, laboratories) establishes independently its own planning, automatically approved by a lot of departments, well fixed for a year, and that the main objective is to accomplish the planning.

Inspectorate of Chartersk

Participants

KHOROSHAYEV Sergey Anatolyevich	Head of Inspection
NICKOLAYENKO Lubov Grigoryevna	Chief Specialist
FICHAUX Philippe	
BORODAI Galina	
LYSAK Sveta	

Presentation of the Inspectorate

Zone

The Inspectorate covers the territories of the City of Torez, Snejnoye, Chartersk, and the districts of Chartersk and Amvrosievska.

People and means

The Inspectorate gathers 5 inspectors, as 1 per city or district. The territory of the Inspectorate is about 10% of the Oblast, with a border with Russia.
The premises are rented. The furniture is 14 years old (creation of the Inspectorate).
The Inspectorate uses and 2 PC owned (with 1 modem) and 1 PC rented.
The Inspectorate has 3 cars for its travels, (1 Lada Niva, 1 Jigouli 5).
The Inspectorate has not its own laboratory.

Discussion

Organization

The Head of Inspection has a meeting each week with each inspector. He takes a car and visit them. He's in contact with them each day by phone (5 a day) because there are plenty of problems requiring immediate solution. They feel to be firemen of environment.
Each week there are requirements from the prosecutor (1 prosecutor in each town + 1 Donetsk Regional Prosecutor), the Donetsk Administration and the State Security. The State Security includes a department of ecology.
The Inspectorate takes part in numerous Municipal Commissions: land resources, emergency, budget resources, roads, unauthorized dumpsites, scrap metals.
From time to time there are requests from the Tax Office for joined audit.
The Inspectorate is in charge of the preparation of the protocols for violation of the regulation, the calculation of claims, the preparation of the decisions, the preparation of the materials for the prosecutor's office. The State Security orders to the Inspectorate to check cases: somebody informs them and they order the Inspectorate. This department has been established 1 or 2 years ago in aim to prevent emergency situations.

Industry

There's a lot of industrial companies. The main industries are:

- Mines (1 with awards for the quality of anthracite)
- Donbass Cement
- Quarries
- Electrotechnical plant of Torez (electrical equipment for mines)
- Torez Alloys (ferrous metallurgy)
- Chartersk stone process plant (granite)
- Snejnoye: machine construction plant (subsidiary of Tokmakov)
- Snejnoye: chemical machine construction
- Agricultural enterprises

The Inspectorate visits companies for consultations as how to obtain permits, how to limit waste, statistical reports, calculation of the charges for pollutions.
The main polluters are the coal companies. Mines are getting closed and near 50% companies are getting closed:

- Torez: 12 cies /8 yet closed
- Chartersk: 3 are to be closed
- Snejnoye: 4 are to be closed

The programs for closure are done and authorized but there's no money. In parallel, some studies about mining waste deposits have been done. Inspections established claims for improper location of waste.
Concerning closure studies, specialized organisations are accredited for the design documentation for mine closure (relevant to Coal Institute) as the Ukrainian Centre for Technical Ecology (Donetsk), but they are not very strong in this domain. During the expertise, we have to ask a lot of clarifications, complements and so.

SHWM

Landfills

At the moment, Snejnoye is working on the passportization of the landfill; Chartersk is in the draft project for the design of a new landfill. Naturally, there's a lot of unauthorized landfills.
Landfills are under control of the Department of Public Utilities Services. What kind of control can we do ? for the moment, it's only a visual control. We register all the dumpsites and require the Dept of Utilities to close them, but the President of this Commission is the deputy mayor. Closing dumpsites supposes their liquidation: to remove the waste toward a landfill. The financing must come from the local budget but it's insufficient.

Collection

There's no specialized collection utilities; they exist but are empty shells.
It's a huge problem. Ecological charges for environment pollution caused by waste disposal go to local budget (20%), regional budget (50%), republic budget (30%). We can use these 20% to buy specialized vehicles for waste collection but it's too low (48 000 UAH really paid in Chartersk in 2002 for 660 000 UAH calculated) to do anything.
In Snejnoye closing mines procured trucks. Companies don't work at 100% so the ecological problems increase. In such cases, the Court decides compensations, so came the trucks.
Previous years, there was 1 company for waste collection and disposal. Now it's so complicated that nobody's responsible.

Training needs

How these kind of problems are solved in France ?
Co-disposal of industrial waste: what to think ?
How to control landfills ?

Inspectorate of Makeyevka

Participants

KOSTYUCHENKO Anatoliy Ivanovich Head of Inspection
FICHAUX Philippe
BORODAI Galina
LYSAK Sveta

Presentation of the Inspectorate

Zone

The Inspectorate covers the territories of the Cities of Makeyevka, Khartsizk and Ilovaïsk.

People and means

The Inspectorate gathers 7 inspectors, 1 is located in Khartsizk.
The Inspectorate owns 2 PC and 1 photocopier. The Inspectorate has 1 car for its travels (Tavria).
The Inspectorate has not its own laboratory.

Discussion

Organization

Means

The lack of means is a pity. The Inspection has to ask from the companies it is suppose to control paper, pens, gasoline, and so. The inspectors feel themselves as beggars. They suffer shame.
The State budget pays the salaries that are very low: 125 UAH/m for a beginner up to 210 UAH/m. Sometimes, we have consultations and with this money we can pay electricity, heating. For the rest, we have to provide by ourselves.

Laboratory

The Inspectorate use the central laboratory of Donetsk. The samples are taken by the laboratory. The system is not very reactive. Each institutional control unit establishes its own program for its own laboratory, agreed by Inspection and approved by the Department of Ecology. In parallel, a general program is established by the Department of Ecology, theoretically in consultation with Inspection.
For units without laboratory, we depend of the availability of the laboratory. We ask and they come when they want. So it's impossible to manage any emergency situation.

Industry

The main facilities are:
x Mines: 10 in Makeievka, 1 in Khartsizk, 1 in Ilovaïsk

- 3 coal enrichment factories (Makeievka)
- 2 coke and chemical plants
- Metallurgical plant
- Pipe production plant
- Ropes production plant
- 1 power plant
- lot of industries <100 people

The main problem is the pollution, assessed to 240 t/km² ! as industrial waste, there's 14 active mine waste sites, whose 7 are permanently burning.
The Inspectorate tries to control air emissions. The companies develop environment programs and we insist on gas cleaning. There's an obligation to make a program, but what's about the implementation ? The law says the companies must develop programs in aim to decrease the volume of emissions and waste. A majority of companies have a such program. The city is preparing a program for 2005. The programs of the big companies have to be approved by the Inspection and should be a component of the City program, which has to be approved by the City Council, then by the Department of Ecology. It's a lot of programs but without any obligation for implementation !
An other problem is the wastewater from mines that amount 97 millions m³/y. This water is highly mineralized. It is treated with fluorine and then rejected in the natural middle. It exists a technology of demineralization but for a lot of $.

SHWM

Landfills

The landfills officially used are:

- 1 in Makeievka,
- 2 in Khartsizk,
- 1 in Ilovaïsk (new)

The landfills are currently burning. But what to do? Last week the Inspection put a penalty to the company operating at Makeievka at the maximum: 85 UAH.

Collection

There's no selective collection. There's no proper collection service in private sector.
In fact, there's a lack of culture about solid household waste. The cost is 1-2 UAH/person/month.

Projects

There's a necessity to create national park areas and to develop the plantation of trees. A landscape park near the river Gruskaïa is in program, with a conservation area.
When a new company is created and build premises, a lot of trees are cut. The wish is that an obligation of plantation of 3 trees for each one cut should be done.

Training needs

Incineration plants because there's a project in Makeievka
Foreign practices in Solid Waste Management
Recycling

Inspectorate of Artemovsk

Participants

POLOZNYUK Anatoliy Grigoryevich	Head of Inspection
FICHAUX Philippe	
BORODAI Galina	
LYSAK Sveta	

Presentation of the Inspectorate

Zone

The Inspectorate covers the territories of the Cities of Artemovsk and Debaltsevo, and the District of Artemovsk.

People and means

The Inspectorate gathers 5 inspectors and it's not enough. 1 is located in Debaltsevo.
The Inspectorate owns 4 PC, 1 gas analyzer Draeger, 1 field water analyzer (pH, conductivity). The Inspectorate has 2 cars for its travels (1 Volga 30 years, 1 Tavria 5 years).
The Inspectorate rents 3 rooms from the Ministry of Geology (Donbass Makchelic), and 1 room in Debaltsevo from the railway company.
The Inspectorate has not its own laboratory.

Discussion

Organization

Means

The situation is not satisfying but positive.
The Inspectorate is missing control and analysis means for the control of water and soil pollutions. The O_2 cell of the Draeger breaks often and is very expensive. The Inspectorate misses a good car and Internet connection.

Laboratory

The Inspectorate use the laboratory of the Gornovka Inspection and internal companies laboratories and professional laboratories.

Control

In 2002, the fines amounted 5 000 UAH in penalties and 8 000 UAH in claims. But claims are very often blocked by the prosecutor because the documents are not properly prepared. The regulation is that 3 analysis are to be done in a very short period. With the lack of means, the more often we can do only one in the legal period.
The Ministry knows the drawbacks in the technique we use.

The Inspectorate cooperates quite well with the Security Service. There's an usual exchange of services and direct contacts.

Industry

The main facilities are:

- 1 power plant
- transport companies
- Mines: salt mines
- Construction materials
- Metallurgy
- Machine construction
- Food processing (meat)
- Clothes confection
- agriculture

86 facilities are controlled once a year, the power plant 4 times a year, the transport companies twice a year.

SHWM

Landfills

We register all dumpsites and we control all operations.
For the Artemovsk District, a landfill is under construction in Svetlodarsk. It must be a sanitary landfill. It's built by the City Council but there's no operator.
In Tchassov Iar, there's a design project for a landfill.
For Artemovsk, there's 1 landfill. The Mayor is in favour of the construction of a sorting plant.
In Soledar, there's 1 landfill.
In Seversk, there's 1 landfill.
The main objective of the Inspection is that only Solid Household Waste should be put in these landfills and no industrial neither toxic waste.
3 sites are accumulating toxic waste from metallurgy. In each case, a company is responsible. In Artemovsk, a ferrous metal processing activity causes problems. They are responsible of operations, maintenance, monitoring, control, but without real means.

Inspectorate of Marioupol

Participants

KAPKANETS Vitaliy Anatolyevich	Deputy Head of Inspection
RODINA Vera Vasilyevna	Head Of The Analytical Control Department
FICHAUX Philippe	
BORODAI Galina	
LYSAK Sveta	

Presentation of the Inspectorate

Zone

The Inspectorate covers the territories of the City of Marioupol and the Districts of Novoazovsk, and Mangouch.

People and means

The Inspectorate gathers 6 inspectors in Marioupol, 1 in Novoazovsk, and 1 in Mangouch. In fact, 2 are vacant. Inspectors are specialized by fields: 2 in industrial emissions in atmosphere, 1 in companies polluting the water resource, 2 in enforcement of legislation in waste issues (SHW and industrial), 1 in enforcement of legislation in biological resources, 1 Head, 1 deputy.
The Inspectorate has 3 PC (1996-2000). The Inspectorate has 1 car, out of order.
The Inspectorate rents the premises (built in 1870) from the Municipality.
The Inspectorate has its own laboratory.

Discussion

Organization

Means

The Department of Ecology pays the rent of the room, the electricity, the heating.
An allocation from the City Budget is in negotiation. Penalties and claims go to the City Budget but the priority is the reconstruction of the public utilities.
This Inspectorate is the biggest of the Oblast. Problems accumulate. We have the money for (peanuts) salaries. We provide services on a commercial base, as consultations and analysis, but we have problems to recover the payment.

Laboratory

The laboratory is a department of the Inspectorate. It controls air emissions from the companies, ambient air, surface water. It is accredited for measurements in environment.

The equipment is not sufficient. It cannot cover all the range. It's parted in 2 groups: waste water control and sources of air emission.
For waste water, the laboratory is accredited for 26 constituents: salt, nitrogen components, organics, metals (Cu, Fe), phenols, surface active matters (detersives), heavy metals. The laboratory disposes of a u-visible spectrometer but not of an atomic absorption.
For ambient air emission, the main pollutants measured are: particles, SO_2, NO_x, NH_4, CO, but not benzols. Emissions are calculated in tons because the norms are in fluxes.
About landfill impact, there's no control of soils because there's no equipment neither no specialists. In case of emergency, samples of soils are sent to the laboratory of the Department of Ecology.
The staff includes 1 Head, 2 specialists for waste water and 2 specialists for air emissions.
The laboratory owns a gas chromatograph. It's a Swiss equipment, given within the frame of a World Bank Project of 1998-99. It's not homologated in Ukraine. The detector is a FID (hydrocarbons detection and metering) breaks often and costs 40 000 UAH. The main problem is that the self certification requires calibration solutions, with a limited life length and that cost a lot.
The laboratory has a mobile gas analyzer, certified.
For the picking of samples, there's normative documents. For analytical controls, there's documents from GOSSTANDARD.
For the interpretation of the results, the data obtained are compared with the norms established by the companies in accordance with the recommendations of the Ministry of Ecology (proposed for the permits or passports), in accordance with the State standards, based on impact study.

Projects

The situation is quite sad. There's 2 key issues.

The new legislation is not implemented in a due order.
The authorities are responsible for waste but poorly financed by the State, so the laws are not executed. The waste data collection is poorly organized by the Inspection. It exists statistics and reports but data are not quite reliable. The information comes from the polluters who have to pay and Inspection has too limited capacities to control this information. The Inspectorate began to create an Excel database. In the City of Marioupol, there's more than 500 companies but only 100 are registered.
A lack of an objective database
It's needed a toxic waste database even if it exists an official report about toxic waste.

Inspectorate of Volnovakha

Participants

YERMOSH Roman Vladimirovich	Head of Inspection
BELICK Nadezhda Petrovna	Chief Specialist – State Inspector
FICHAUX Philippe	
BORODAI Galina	
LYSAK Sveta	

Presentation of the Inspectorate

Zone

The Inspectorate covers the territories of the City of Dokoutchayevsk and the Districts of Volnovakha and Volodarskoïe.

People and means

The Inspectorate gathers 3 inspectors.
The Inspectorate has no PC. The Inspectorate has 1 car, a VAZ9 of 1991 out of order.
The Inspectorate rents 1 room from the Municipality.
The Inspectorate has not its own laboratory.

Discussion

Organization

Means

The Department of Ecology pays the rent of the room, the electricity, the phone.
Penalties go to the local budget.
The Inspectorate works with different prosecutor's offices: Volnovakha, Dokoutchayevsk, Volodarskoïe, Marioupol Inter-district Environment prosecutor office, railways prosecutor office.
The Head of Inspection has a meeting with Department of Ecology once a month.
The priority is to get a car, specifically in aim to fight against poachers.
The identification of unauthorized landfills is the competency of the Militia.

Laboratory

The Inspectorate use the laboratory of the Department of Ecology of Donetsk which do the sampling. It takes 1 or 2 weeks to get the results which are sent by post or we take when passing at the Department of Ecology (once a week, travel by train).

Control

Facilities are to be controlled twice a year. Our working plan is 97 audits a year. But we realize less because the lack of means. For the travel, we must ask the help from the National Park Administration.

Industry

The main facilities are:

- Metallurgy ferrous and non ferrous (special alloys)
- Extraction of construction materials: granite, kaolin, dolomite
- Refractory plant (Lafarge Ukraine)

SHWM

Landfills

The situation is unsatisfying with a lot of unauthorized dumpsites.
The landfills officially used are:

- Volnovakha: 1 authorized landfill
- Dokoutchayevsk: 1 unauthorized landfill
- Volodarskoïe: 1 landfill in construction

For industrial waste, the most often, it's recycling because there's a big demand for scrap metal. 2 metallurgy plants are storing waste on their own territory. There's 1 site of hazardous waste (chemical and metallurgical plant). In Dokoutchayevsk the accumulated volume is 600 Mt coming from the enrichment of minerals.

Collection

We need recycling issues. There's no centralized collection for cardboard, glass, ... Concerning scrap metal, all is collected and sorted.

Projects

It's to build a warehouse for poisonous stuffs. Special containers should be kept in safe conditions for 50 years. It could be a pilot solution. The aim is to collect all pesticides from the region and to put them in safe conditions. It belongs to the City Council of the village of Blagodatnoïe. It's controlled by different agriculture companies. The warehouse is under construction.

Inspectorate of Konstantinovka

Participants

MECHKO Nikolaï Alexandrovitch	Head of Inspectorate
FICHAUX Philippe	
BORODAI Galina	
LYSAK Sveta	

Presentation of the Inspectorate

Zone

The Inspectorate covers the territories of the City of Konstantinovka, the City of Drouchkovka and the district of Konstantinovka.

People and means

The Inspectorate of Konstantinovka seems like a phenomenon regarding the 15 inspectorates of the Donetsk Oblast.

The premises of the Inspectorate are a block of buildings in a little park. These very old buildings have been a crèche for hospitalised children, then have been occupied by the Army. They were neglected when M. MECHKO obtained to get them. They have been fully renewed by the inspectors and the help of the Administration of the City of Konstantinovka (financing and workforce). One building houses the Inspectorate and the laboratory, one other houses a library and a museum. A third is actually rented by a dentist.

The Inspectorate gathers 9 inspectors.

The laboratory has been recently created. Three specialists (chemical analysis) has been recruited, completed by a person in charge of the data processing and the reports.

The Inspectorate has its disposal 4 cars, whose one is equipped as a mobile laboratory, PCs, photocopier, fax.

Discussion

Industry

There were 23 big industrial companies, among them:

- 3 glass factories
- 1 chemical state plant (acids and minerals)
- 1 metal building plant (furnaces building)
- 1 calibrating workshop

x 1 metallurgical plant that has been the main polluter of Ukraine for Zinc and Lead

There's a lot of little small enterprises, but working at a reduced capacity, so the level of pollution is lightly decreasing.

Industrial Waste

There is an industrial waste landfill of 45 ha. From 1965 to 2002, 3 228 000 t has been landfilled. It's near to be full. It's in a bad state, so it has been decided to close it. For today, the established documents are an estimation of the impact on environment and the topography. Step by step, measures in aim to improve will be taken but it will need a lot of money.
The landfill is built on clay but near the river where the leachates converge.
There are recycling prospects: metals as iron, lead.

Solid Household Waste

There a SHW landfill between Konstantinovka and Drouchkovka. It's near to be full. A design project has been established for an extension. At the moment, there's only financing from the Regional Ecological Fund and the Municipal Ecological Fund. This project includes measures to improve the impact on environment.
On the landfill there's a light recycling activity by homeless people. A warehouse has been built on the landfill where sorted materials are paid.
In the district of Konstantinovka, we have the same problem as the rest of the Oblast concerning the SHW collecting.
We are studying techniques for collecting and sorting SHW, like in OLCHETSK (Oblast of Lugansk), with a huge park of collecting trucks allowing to get value to all materials of the SHW.

Agriculture

The district of Konstantinovka is an agricultural district, with agricultural industries.
For the animal waste, we are working on a plan in aim of composting this waste.
Concerning pesticides, the problem is with prohibited or outdated ones. They are stored in the agricultural enterprises, that are in the course of restructuring (division in small units <49 employed people), so nobody can today control this storage. Fortunately, they didn't have during last years the means for buying and storing new pesticides.

Inspection functioning

The money of the State Budget can only pay the salaries. The only one possibility to survive is by the commercial activities. The law authorizes Inspection to sell to enterprises laboratory analysis and consultations. There's also the assistance of industrial laboratories aiming accreditation.
These activities are supposed to pay for electricity, telephone, laboratory products, car fuel. But it's not a normal situation: this service of the State

should be decently treated by the State. Last year we've been able to spare 14 000 UAH but it only stay today 3 000 UAH.

Concerning the investments we've been able to do, we have been aided by our Deputy to State Parliament, M. KOMAR, formerly Head of the Administration of the District of Konstantinovka. With his help, we have obtained our equipments. I have met the four last Ministry of Ecology. We have had financing from the Regional Ecological Fund. We have had grants from companies. We have had to convince the Governor and the President of the Parliament of the Oblast.

Kramatorsk project

We took part in 2 or 3 meetings in Kramatorsk, bringing together all concerned parts. This project is worth for it's more and more expensive for landfilling SHW in the three concerned cities. For example, the landfill of Drouchkovka is near the highway but near the Krivistovisk river. The Mayor of Drouchkovka started a site research but without any success. So it's well to start this recycling project.
We need a good SHW collecting and a good transportation. We need trucks with a bigger capacity because the fuel consumption by carried ton is too big with existing trucks whose capacity is only 2-3 tons.

Public inquiry

It's the role of mass media to explain projects to the people. We must "clean" before to launch a new project: we must communicate, demonstrate.
Within the expertise procedure framework, the project bearer studies the impact on environment of the project. Citizens are invited to participate in the debate on the base of what has been published in the press (public expertise). The commissions of local elected discuss with the public, before to debate inside themselves.
It's not clear how to link public, elected and mass media to take the advice of non specialists about a project.

Inspectorate of Krasnoarmensk

Participants

KOLOMIETS Vitaly Nikolaïévitch	Head of Inspectorate
FICHAUX Philippe	
BORODAI Galina	
LYSAK Sveta	

Presentation of the Inspectorate

Zone

The Inspectorate covers the territories of the Cities of Krasnoarmensk, Dimitrov, Selidovo, Novogrodovka and the district of Krasnoarmensk.

People and means

The Inspectorate gathers 5 inspectors: 3 in Krasnoarmensk, 1 in Dimitrov and 1 in Selidovo.

The inspectorate rents 3 rooms from the City council of Krasnoarmensk, 1 room from Vodokanal in Dimitrov and 1 from Department of Technical Communication in Selidovo. The rent are directly paid by the DoE (Department of Ecology).

The Inspectorate has its disposal 1 car, 8 years old (VAZ 6), without budget neither for spare parts nor for fuel, and 2 gas analyser but out of order. There's an old PC in Krasnoarmensk and 1 old PC in Dimitrov. There's no fax and the phone is often out of order.

Discussion

Industry

The main polluters are:
- 13 existing coal mines
- 1 coal enrichment factory
- 35 slag heaps

There's a lot of small industries, in course of restructuring, as public utilities, metallurgy, machine building, food industry (ice cream, meat, milk), transport companies.

About coal mines, 2 (independent) are profitable, the others, gathered within an association, are near the bankruptcy. It says the importance of the human factor. One of the two independent was near bankruptcy when a new director has been called. In some months, he made of it one of the most profitable.

The main difficulty is there's not enough financing in companies for environment. Our legislation is ambiguous, with a lot of inconsistencies, and legislative norms that are the same for big companies and small business.
For example, a company pays charge for Natural Resources use and for environment pollution. This money should be affected to Natural Resources recovery but it goes to the local budget. It could be a millions UAH amount within the territory of the Inspectorate. Otherwise, pollution fines are not well suited to the companies: a coal mine with a millions UAH income will pay for pollution a 98 UAH fine, the same amount as a small business enterprise should pay.

We work with 5 prosecutor's offices: 3 local prosecutors, the Interregional prosecutor in Donetsk and the Railway Transportation prosecutor. If we're able to identify the main cases, in fact, we can only follow the prosecutors.
We have rare requests from the State Security.

Laboratories

The Inspectorate uses the laboratory of the Department of Ecology in Donetsk. But we have often problems of delay: they have their own schedule and are often overloaded.
There's an institutional laboratory working on a commercial base, depending of the Coal Association in Krasnoarmensk.
The companies have not their own equipment for controlling their pollution. They use external laboratories.

Solid Household Waste Management

Concerning SHW Management, the public utilities are financially autonomous but they depend of local subsidies. Their own budget is insignificant. We audited public utilities: they are crushed by salaries debts.
The rate of SHW collecting is so:

Krasnoarmensk, municipal sector	100 %
Krasnoarmensk, private sector	50 %
Dimitrov, private sector	100 %
Selidovo, private sector	50 %

Concerning Dimitrov, it is an other case of the human factor. The Director is quite a star, known as far as Kiev. With the same means as others, he got 100 % of private sector SHW collecting.

Among the territory, we have 30 ha for 4 authorized landfills. There's no design documentation and we try to get the passportization documentation. The laboratory of landfill control is not implemented, so we can do only a visual examination. We are developing prescriptions to implement control systems on landfills. Otherwise, we have plenty of wild dumpsites.

Inspection functioning

We are under a double subordination: the DoE (Department of Ecology) and the local authorities (City Council). Our salaries are paid by the DoE but all others means are provided by local authorities.
We receive a lot of requirements for penalties but it results in unpaid fines. Before 1996, the Ecological Fund was abundant and not strictly controlled, so it was possible to invest in the development of the Inspection. Nowadays it depends of the initiative spirit of local authorities.

We have not enough time to meet and work with the population. Local government bodies have not specialists in ecology, so they delegate to our inspection all relevant questions.

The education of the inspectors is so:

Krasnoarmensk	Head	Scientific agronomist + ecology manager
	Deputy	Agriculture academy (computation)
	Inspector	Engineer in forestry
Dimitrov	Inspector	Mine engineer
Selidovo	Inspector	Hydrometeorologist

We get from the DoE a consulting assistance, a methodological assistance but no material assistance. I go to the DoE about once a month.

We need more legal assistance but there's a big turnover among law experts of the DoE. We need to enhance our legal and judicial skills. 2/3 of judicial proceedings fail because we miss control techniques and technologies. The laboratory is overbooked and decides itself of its own priorities. We have not special forces to face emergencies. We miss an own equipment.

We have a poor methodological assistance: often companies know about news (internet) before us and ask us questions before we are informed.

An other problem is this of the quasi-bankruptcy of the enterprises. What can they do for environment protection in this state? And yet, the human factor is of the greatest importance. Two examples:

- the mine of Krasnoarmensk was near the bankruptcy and a new director, M. Pasternak, made of it one of the best enterprises of Ukraine;
- comparing 2 public enterprises, the budget of Krasnoarmensk is better than this of Dimitrov but the local utility of Dimitrov is better than this of Krasnoarmensk. We made an audit of the landfill of Dimitrov and it is exemplary. They sign 200 protocols each month with the employed. The number of paying inhabitants is increasing.

Inspectorate of Marinka

Participants

SHULICKA Dmitriy Nickolayevich Head of Inspectorate
FICHAUX Philippe

RIBCHINSKY Roman

Presentation of the Inspectorate

Zone

The Inspectorate covers the territories of the City of Ougledar and the Districts of Marinka and Velikaïa Novocelka.

People and means

The Inspectorate gathers 3 inspectors: 2 in Marinka, 1 in Velikaïa Novocelka.

Discussion

Industry

The main facilities are:
x Refractory bricks facility (in Krasnogorovka) using 300 000 t industrial waste and exporting; generating 1 Mt/y ash

x 2 coal mines (1 closed in Marinka); there's 40 coal mines around Marinka but they are not in the area of the Inspectorate

x 1 power plant (Kourakhovo) generating 32 000 t/y ash, recycled in cement; but it stays 2 slag heaps of ash of 15 Mt each

Tries have been done 10 years ago in aim to recycle theses ashes in a concrete panels plant but unsuccessfully. Now the plant is closed for bankruptcy.
The storage area should be extended but it needs 2-3 millions UAH.
The companies are delayed for the payment of the pollution fees. The power station is 5 years delayed. It cannot pay because it cannot increase the price of the electricity for political reasons. Since 2000, it gives a partial payment.

Laboratory

The Inspectorate uses the laboratory of the Department of Ecology.
Concerning the ash storage area, there are piezometers with periodic analysis of self control (agreed laboratory) and controlled by the laboratory of the Department of Ecology.

Solid Household Waste Management

Landfills

There's a legal landfill in Ougledar but it's full and it needs 1 million UAH for an extension.
There's a project in Kourakhovo on going for ecological expertise. 738 000 UAH have been allocated for the 1st instalment by the pollution fees of the power plant. The construction must start in July.
There's a lot of wild dumpsites of domestic waste. We list them. They appear and disappear. We put fines to the local authorities.

Collection

8000 t/y are collected and are disposed in the legal landfill. But 226 000 m^3 are accumulated and there's a problem of transportation.
The number of inhabitants is:

Marinka District	90500
Krasnogorovka	16700
Kourakhovo	20000
Marinka	10700
rural	31000
TOTAL	168900

The quantity collected and legally landfilled corresponds only to 45 000 inhabitants. The home burning is a current habit. In Ougledar, the situation is good because the Mayor is concerned with for 10 years and allocates a budget of 100 000 UAH.
Industrial waste go to Donetsk.

Agriculture

A big problem is that one of the pesticides. In Marinka, there's 63 tons outdated pesticides and 47 tons in Navazelka. The empty packaging of pesticides is accumulated in the warehouses.
The used quantity of pesticides has been divided by 10 since 1990. Formerly, the production had to be disposed and sometimes pesticides were free of charge! Now they became expensive so their use is now exceptional.
There's a lot of little private farms. They use manure and compost. The pesticides must have a sanitary passport from the Sanitary Epidemiological Station. In the storage, there's some cases of robbery.
There's not a lot of recognized cases of water resource pollution. There's no monitoring and pesticides are not systematically searched in water resource analysis. The laboratory of Pieski (Department of Sanitary Epidemiology) is supposed to search soils pollution. In fact, it works only on a commercial basis and do nothing on that.

Inspectorate of Telmanovo

Participants

VOYEVODENKO Alexander Timofeyevich Head of Inspectorate
FICHAUX Philippe

RIBCHINSKY Roman

Presentation of the Inspectorate

Zone

The Inspectorate covers the territories of the Districts of Telmanovo and Starobechevo.

People and means

The Inspectorate gathers 3 inspectors: 2 in Telmanovo, 1 in Starobechevo.
The Inspectorate has its disposal 1 car (Zaporojets) and no PC (only an old typewriter in Telmanovo, nothing in Starobechevo). The Inspectorate has an allocation of 90 l/m gasoline for the car. The room is rented from the State Forest Department.

Discussion

Organisation

The Inspectorate has good relationships with the administration of the districts. They made recommendations to fill the Questionnaire. They work together on the Regional Nature Protection Programme 2001-2005.
The Inspectorate is busy with the quarries: documents for the use of land, design maps, permits, waste, preliminary project of recultivation.
If there's a real technical help from the Department of Ecology, the situation of the Inspectorate is pitiful. It's not a lack of means, it's no means at all and the salaries are street cleaners salaries.

Industry

The main facilities are:
x Quarries:

- A granite quarry is operated by an Italian company (5 varieties of granite)
- 5 quarries in Starobechevo
- 2 quarries in Telmanovo
- 1 new on going of creation

- 2 closed

x 1 power plant (Starobechevo)

The Inspectorate is in charge of a very rural area. In Telmanovo District, there's 35 000 inhabitants for 134 000 ha, whose agricultural 96 000 ha, in Starobechevo District, there's 32 000 inhabitants for 150 000 ha. But with the crisis, the cattle felt of 80 %.

Laboratory

The Inspectorate uses the laboratory of the Inspectorate of Marioupol.

Solid Household Waste Management

Landfills

The Inspectorate works on the legalisation of existing landfills: 22 whose 14 legal. It makes a census and research the land owners.
But for the closure files, the duration of the administrative instruction is too long.

Collection

There are 2 public utilities for the waste collection, one is recent, the second works on a contractual base with the villages. The containers are only placed near monuments. In the private sector, the use is the wild burning. There's not a lot of wild dumpsites.

Agriculture

In Telmanovo, there's 14 tons outdated pesticides and 17 tons in Starobechevo. The private farmers are using the old stock of the former collective farms.
It should be necessary to create a regional laboratory in aim to inventory and control these stocks.

Nature protection

The Inspectorate has to control and to prevent. The most current infringements are the oil spreading (wild car oil change) and the waste.
The Inspectorate has launched a programme for the protection of fishes during the reproduction period. 90% of the ponds are private (in fact rented for 25 years). The Inspectorate monitors the fauna: registration and following of the game and the birds. The hunting and fishing associations control too. There are poachers so the Inspectorate co-operate with the Militia for control operations.
At least, for some time, an invasion of grasshoppers has been noticed.

Inspectorate of Yenakievo

Participants

BOURTCHEV Valery Nikolaïévitch	Head of Inspectorate
OTCHINIKOVA Nadejda	Director of the House of Ecology
FICHAUX Philippe	
BORODAI Galina	
BOGDANOVA Marianna	

Presentation of the Inspectorate

Zone

The Inspectorate covers the territories of the cities of Yenakievo, Kirovskoye, and Zhdanovka.

People and means

The Inspectorate gathers 8 persons: 3 inspectors, and 5 in the laboratory including 1 head of the laboratory and 2 for water analysis and 2 for air analysis.
Two years ago, the Municipality decided to create the House of Ecology in the premises we are. We share the same objectives within the domain of ecology. The Director of the House of Ecology and myself are leading the same works. Mrs OTCHINIKOVA has been deputy head of the inspection for 1989, before she took in charge the House of Ecology.
The Municipality equipped us with computers and other equipments. We have 2 computers and we can use all other computers in the House. The premises are at our disposal free of charge. We have a Lada 1200 car bought by the Executive Committee of the City. The laboratory has been equipped by the Municipality. Everything has been officially transferred to the Inspectorate's ownership.

Discussion

Industry

We have within our territory:
- Metallurgy
- Building
- Coal mines: 10 whose 4 are closed, 1 on going to closure, 2 to be closed
- 4 former sovkhozes of vegetables production

Laboratories

The Inspectorate uses its own for air and water analysis. Waste cannot be analysed because the missing of skilled personal.

Solid Household Waste Management

Landfilling

4 landfills are used:

- 1 central municipal in Yenakievo
- 3 in villages around: Iounokommounarovsk, Karlo Marxovo, Obligorsk

There's a project of landfill in Djanovka, studied by the Institute of Technical Ecology of Donetsk.

Collection

We are missing trucks in aim to be able to collect all domestic waste. In 2003 were bought 2 trucks and 100 containers thanks to Ecological Fund.
The private sector generates and uses wild dumpsites. The GEK use private companies, establishing contracts with the inhabitants. The rate of fee recovery is about 40%.

Other

During 8 years, it has been tried to launch the project of a waste treatment plant, based upon that 50% of waste is organic and could produce alcohol by fermentation.

Inspection functioning

We have very good relationships with the Deputy KOURSAKOV. He helped us a lot to get the means we have.
We work with the prosecutors of Donetsk (regional), Yenakievo, Kirovsky, Djanovka.
We have a project of a computerized library. In the city, there are 3 technical schools and 50 secondary schools. The High Schools are subsidiaries of the University of Donetsk. Everywhere ecology courses are taught but it's missing documentation.
Within the territory, we discovered unique places with rare species, and even extinct species.

REGIONAL STATE ECOLOGICAL INSPECTION

Artem Regional State Ecological Inspection (Artemovsk, Debaltsevo, Artemovskiy rayon)

POLOZNYUK Anatoliy Grigoryevich	Chief Inspection – Senior State Inspector	Higher Education Donetsk State Medical Institute Sanitary Inspector	1950
GALICH Yelena Nickolayevna	Deputy Chief Inspection – State Inspector	Higher Education Ukrainian Correspondence Polytechnic Institute Chemical Engineer	1962
FEDOROVA Irina Igorevna	Chief Specialist – State Inspector	Higher Education Kharkov Institute Of Railway Transport Engineering Carriage-Building And Carriage Economy	1962
TOKARSKAYA Lyudmila Lvovna	Leading Expert – State Inspector	Higher Education Dnepropetrovsk Chemical-Engineering Institute Chemical Engineer	1949
CONTARYOVA Natalya Vladimirovna	Leading Expert - State Inspector	Higher Education Novocherkassk Land-Reclamation Engineering Institute Forestry Engineer	1963

Gorlovka Regional State Ecological Inspection (Gorlovka, Dzerzhinsk)

LITVINENKO Vladimir Grigoryevich	Chief Inspection – Senior State Inspector	Higher Education Donetsk State Medical Institute Sanitary Inspector Institute Of Human Resources Professional Development And Retraining Of The Ministry Of Ecology And Natural Resources Of Ukraine Ecologist	1952
KRINICHNIY Vladimir Pavlovich	Chief Specialist – State Inspector	Higher Education Donetsk Polytechnic Institute Motorised Transport And Motorised Transport Economy	1958
SEVERIN Valentina Andreyevna	Chief Specialist – State Inspector	Higher Education Dnepropetrovsk University Chemist	1959
YEVSYUKOVA Stepaniya Romanovna	Chief Specialist – State Inspector	Higher Education Lvov University Geologist	1951

SAMOLYUK-TELEZHIN-SKAYA Tatyana Zinovyevna	Chief Specialist – State Inspector	Voronezh University Soil Scientist	1965
ZATOKOVA Nina Ivanovna	Leading Expert – State Inspector	Higher Education Ukrainian Correspondence Polytechnic Institute Technologist	1948
LUSCHAYEVA Natalya Vasilyevna	Leading Expert – State Inspector	Secondary Technical Education Gorlovka Housing Technical School Heating Engineer	1967
YEFREMOVA Lyudmila Alexeyevna	Leading Expert – State Inspector	Secondary Technical Education Slavyansk Chemical-Engineering Technical School Chemist - Technician	1952
MALYUSHENKO Alexander Ivanovich	Leading Expert – State Inspector	Secondary Education Vocational School ? 7 (Gorlovka) Electrician	1957
Central Donetsk Regional State Ecological Inspection (Donetsk, Yasinovataya, Avdeyevka, Yasinovatskiy rayon)			
GORBATENKOVA Lyudmila Vladimirovna	Chief Specialist – State Inspector	Ukrainian institute of water industry engineering hydraulic engineer Institute Of Human Resources Professional Development And Retraining Of The Ministry Of Ecology And Natural Resources Of Ukraine Ecologist	1958
CHEBOTKOVA Lyudmila Gennadyevna	Chief Specialist – State Inspector	Higher Education Donetsk State University Chemist	1951
MIKHEYEV Alexander Victorovich	Chief Specialist – State Inspector	Kommunarsk Mining And Smelting Institute Electrical Engineer	1957
PARPARA Sergey Nickolayevich	Acting Chief Regional State Inspection	Higher Education Donetsk State Medical Institute Sanitary Inspector	1960
GARBUZOVA Olga Petrovna	Leading Expert – State Inspector	Higher Education Donetsk State University Biologist-Botanist	1949
GALICHEVA Victoria Stepanova	First Category Specialist	Secondary Education Donetsk School Of Radio Engineering Typist-Stenographer	1970
MANZHULA Tatyana Yuryevna	Leading Expert – State Inspector	Higher Education Donetsk State University Chemical Engineer	1978

North-Western Regional State Ecological Inspection (Dobropolye, Dobropolskiy and Alexandrovskiy rayons)			
STRELNIKOV Vladimir Anatolyevich	Chief Inspection – Senior State Inspector	Higher Education Donetsk Polytechnic Institute Mining Engineer	1952
SOSULEV Alexander Dmitriyevich	Deputy Chief Inspection – State Inspector	Melitopol Institute Of Agricultural Mechanization Mechanical Engineer	1954
YERASHOVA Natalya Alexandrovna	Leading Expert	Higher Education Donetsk Technical University Economist-Manager	1980
DANILOVA Zoya Yuryevna	Leading Expert	Secondary Technical Education Perm Building Technical School Building Technician	1952
Yenakievo Regional State Ecological Inspection (Yenakievo, Kirovskoye, Zhdanovka)			
BURTZEV Valeriy Nickolayevich	Chief Inspection – Senior State Inspector	Moscow Institute Of Steel And Alloys Planning Engineer Institute Of Human Resources Professional Development And Retraining Of The Ministry Of Ecology And Natural Resources Of Ukraine Ecologist	1951
BELYAYEVA Yelena Petrovna	Chief Specialist – State Inspector	Higher Education Saint-Petersburg Academy Of Forestry Engineering Garden And Park Construction Engineer	1964
VOYTENKO Lyudmila Vitalyevna	Chief Specialist – State Inspector	Higher Education Ukrainian Correspondence Polytechnic Institute Chemical Engineer.	1960
PETROVA Natalya Vladimirovna	Leading Expert	Higher Education Donetsk Technical University Engineer-Ecologist	1980
GORELOVA Tatyana Vicktorovna	Chief Specialist – State Inspector	Higher Education Donetsk Technical University Chemical Engineer	1972

KRAVCHENKO Yelena Nickolayevna	Leading Expert	Higher Education Donetsk Technical University Mining Engineer - Ecologist	1979
TANASOVA Svetlana Mikhaylovna	Leading Expert – State Inspector	Donbass Mining And Smelting Institute Process Planner - Ecologist	1976
Torets Regional State Ecological Inspection Konstantinovka, Druzhkovka and Konstantinovskiy rayon)			
MESHKO Nickolay Alexandrovich	Chief Inspection – Senior State Inspector	Higher Education Kishenev State Medical Institute Sanitary Inspector	1952
SHVALYOVA Yelena Alexandrovna	Deputy Chief Inspection – State Inspector	Kramatorsk industrial institute mechanical engineer	1960
ZAGORSKIY Eduard Nickolayevich	Driver	Higher Education ? ? ? ? . Process Engineer	1965
LUTSENKO Ludmila Anatolyevna	Leading Expert	Higher Education Ukrainian Correspondence Polytechnic Institute Chemical Engineer.	1959
MIROSHNICHENKO Svetlana Vasilyevna	Chief Specialist – State Inspector	Makeyevka Construction Engineering Institute Construction Engineer - Process Planner	1966
KOVALYOVA Natalya Dmitriyevna	Leading Expert – State Inspector	Specialized Secondary Education Konstantinovka Industrial Technical School Technician - Process Engineer Institute Of Human Resources Professional Development And Retraining Of The Ministry Of Ecology And Natural Resources Of Ukraine Ecologist	1954
LEONOVA Nadezhda Vasilyevna	Head Of Department - State Inspector	Higher Education Ukrainian Correspondence Polytechnic Institute Chemical Engineer	1960
VASILYEV Vicktor Grigoryevich	Chief Specialist	Kharkiv Automobile And Road Institute Chemical Engineer - Mechanic	1962

SHYTICKOVA Tatyana Vicktorovna	Leading Expert – State Inspector	Higher Education Ukrainian Correspondence Polytechnic Institute Chemical Engineer	1960
CHUMACHENKO Tatyana Vladimirovna	Leading Expert	Higher Education Ukrainian Correspondence Polytechnic Institute Chemical Engineer.	1968
Krasnoarmeysk Regional State Ecological Inspection (Krasnoarmeysk, Selidovo, Novogrodovka, Dimitrovo, Krasnoarmeyskiy rayon)			
KOLOMIYETS Vitaliy Nickolayevich	Chief Inspection – Senior State Inspector	Dnepropetrovsk Agricultural Institute Agronomist Institute Of Human Resources Professional Development And Retraining Of The Ministry Of Ecology And Natural Resources Of Ukraine Ecologist	1953
NAZARENKO Vicktor Grigoryevich	Deputy Chief Inspection – State Inspector	Ukrainian Academy Of Agriculture Economist - Mathematician	1946
KHATSKO Anna Petrovna	Chief Specialist – State Inspector	Odessa Institute Of Hydrometeorology Engineer - Meteorologist	1958
TITOVA Natalya Ivanovna	Leading Expert – State Inspector	Voronezh Forestry Engineering Institute Forestry Engineer	1961
SYROVATCHENKO Vicktoria Alexeyevna		Higher Education Donetsk Technical University Mining Engineer	1970
Priazovsk Regional State Ecological Inspection (Mariupol, Novoazovskiy and Pershotravneviy rayons)			
NAGAY Yevgeniy Ivanovich	Chief Specialist	Zhdanov Metallurgical Institute Mechanical Engineer	1947
KARAPIRA Nickolay Petrovich	Chief Inspection – Senior State Inspector	Mariupol Metallurgical Institute Mechanical Engineer	1964
KAPKANETS Vitaliy Anatolyevich	Deputy Chief Inspection	Higher Education Poltava Higher Military College Of Communication Engineer Of Communication Facilities Operation	1960
LITVINOVA Victoriya Nickolayevna	Leading Expert	Mariupol Metallurgical Institute Metallurgical Engineer	1971
VOLIN Emma Nickolayevna	Chief Specialist – State Inspector	Tyumen Industrial Institute Chemical Engineer	1949

IGNATOVA Yelena Nickolayevna	Leading Expert	Leningrad Technological Institute Processing Engineer	1967
IGNATYEVA Sofiya Illyinichna	Chief Specialist – State Inspector	Jambulaysk Technological Institute Chemical Engineer	1952
KOTLYAROV Nickolay Yakovlevich	Chief Specialist	Voroshilovograd Agricultural Institute Agronomist	1947
DEREVYANKO Galina Victorovna	Leading Expert	Donetsk Polytechnic Institute Chemical Engineer	1964
KORNIYENKO Yelena Ivanovna	First Category Specialist	Priazovsk Technical University Industrial Heat-And-Power Engineer	1974
ALDAKIMOVA Natalya Ivanovna	Leading Expert – State Inspector	Secondary Technical Education Mariupol Mechanical Metallurgical Technical School Technician-Operator	1956
PILIPENKO Vickor Stepanovich	Chief Specialist	Zhdanov Metallurgical Institute Metallurgical Engineer	1958
BULYGINA Tatyana Alexandrovna	First Category Specialist	Specialized Secondary Education Industrial Technical School ? 25 Of Berdyansk House Painter, Plasterer, Tiler	1973
RODINA Vera Vasilyevna	Head Of The Analytical Control Department – State Inspector	Zhdanov Metallurgical Institute Metallurgical Engineer	1949
PIRCH Irina Vasilyevna	Chief Specialist – State Inspector	Dnepropetrovsk Chemical-Engineering Institute Chemical Engineer	1955
ZHIZHERA Zhanna Leonidovna	Correspondence Secretary	Specialized Secondary Education vocational school ? 10 correspondence secretary	1974
UNIYAT Yelena Borisovna	Chief Specialist – State Inspector	Donetsk Polytechnic Institute Chemical Engineer	1960
Northern Donetsk Regional State Ecological Inspection (Kramatorsk, Slavyansk, Krasniy Liman and Slavyanskiy rayon)			
BIRYUKOV Vladimir Ivanovich	Chief inspection – senior state inspector	Kramatorsk Industrial Institute Mechanical Engineer	1942
BENYUKH Vladimir Pavlovich	Deputy Chief Inspection – State Inspector	Kharkov Agricultural Institute Agronomist	1955
LESOVOY Andrey Borisovich	Chief specialist – state inspector	Donetsk State University Biologist	1965
FESENKO Vladimir Petrovich	Chief Specialist – State Inspector	Kharkov Agricultural University Agronomist	1974
BABARTSEVA Olga Sergeyevna	Chief Specialist – State Inspector	Odessa Hydrological Institute Engineer – Meteorologist	1951

Pryadka Olga Vicktorovna	Leading Expert	Kharkov Engineering Teacher's Training Institute Chemical Engineer	1966
TOROPOVA Olga Ivanovna	Leading Expert	Kharkov Polytechnic Institute Chemical Engineer	1950
SHULEPOVA Anna Gennadyevna	Leading Expert	Belgorod Technological Academy Of Building Engineer-Ecologist	1973
KOSHELEV Nickolay Nickolayevich	Leading Expert	Specialized Secondary Education Dyatkovsk Industrial Technical School Technician - Processing Engineer	1953
GRANOVSKAYA Lyudmila Alexandrovna	Chief Specialist – State Inspector	Higher Education Ukrainian Correspondence Polytechnic Institute Chemical Engineer	1959
KIRICHENKO Larisa Anatolyevna	Leading Expert – State Inspector	Donetsk State University Biologist, Chemist	1968
LEVCHUK Oksana Vladimirovna	Leading Expert	Specialized Secondary Education Slavyansk Mechanochemical Technical School Technician -Ecologist	1980
SELYAMIYEVA Rita Vitalyevna	Leading Expert – State Inspector	Moscow Chemical-Engineering Institute Processing Engineer	1961
KURAKSIN Pavel Anatolyevich	Leading Expert – State Inspector	Specialized Secondary Education Mechanochemical Technical School Technician -Ecologist	1978
NARIZHNA Irina Vasilyevna	Leading Expert – State Inspector	Kharkov Engineering Teacher's Training Institute Chemical Engineer	1967
Eastern Regional State Ecological Inspection (Torez, Snezhnoye, Shahtersk, Shahterskiy and Amvrosievskiy rayons)			
KHOROSHAYEV Sergey Anatolyevich	Chief Inspection – Senior State Inspector	Krivoy Rog Ore Mining Institute Mining Engineer – Preparatory Institute Of Human Resources Professional Development And Retraining Of The Ministry Of Ecology And Natural Resources Of Ukraine Ecologist	1958
SYTNICKOVA Larisa Leonidovna	Deputy Chief Inspection – State Inspector	Leningrad Technological Institute Chemical Engineer	1959
ANTOKHIN Andrey Yuryevich	Probationer	Kherson Agricultural University Agronomist	1978
NICKOLAYENKO Lubov Grigoryevna	Chief Specialist – State Inspector	Donetsk Polytechnic Institute Chemical Engineer	1957
VERESCHAGIN Igor Mikhaylovich	Chief Specialist – State Inspector	Incomplete Higher Education Velickoandolskiy Forestry Technical School	1971

		Forestry Technician	
YUDINA Valeriya Petrovna	Leading Expert – State Inspector	Kyev technological institute of food industry Chemical Engineer	1958
Makeyevka Regional State Ecological Inspection (Makeyevka, Khartsizk)			
SALIYEV Valeriy Nickolayevich	Chief Inspection – Senior State Inspector	Makeyevka Construction Engineering Institute Construction Engineer	1945
KOSTYUCHENKO Anatoliy Ivanovich	Leading Expert	Dnepropetrovsk Institute Of Mines Mining Engineer	1949
Zmarada Anatolyevna	Leading Expert	Donetsk University Chemical Engineer	1975
KUMURZHY Yelena Vladimirovna	Chief Specialist	Donbass Academy Of Building And Architecture Ecologist	1978
DMITRIYEVA Nina Vladimirovna	Chief Specialist – State Inspector	Novocherkassk Land-Reclamation Engineering Institute Reclamation Engineer	1958
SHULGINA Irina Anatolyevna	Chief Specialist	Makeyevka Construction Engineering Institute Construction Engineer	1965
GOLUBEVA Olga Vladimirovna	Leading Expert – State Inspector	Donetsk Polytechnic Institute Mining Engineer – Preparatory	1959
Volnovaha Regional State Ecological Inspection (Volnovahskiy, Volodarskiy rayons, Dokuchayevsk)			
YERMOSH Roman Vladimirovich	Chief Inspection – Senior State Inspector	Higher Education Donetsk State Medical Institute Sanitary Inspector Institute Of Human Resources Professional Development And Retraining Of The Ministry Of Ecology And Natural Resources Of Ukraine Ecologist	1962
BELICK Nadezhda Petrovna	Chief Specialist – State Inspector	Voronezh Forestry Engineering Institute Forestry Engineer	1960
MENDRIN Oleg Yulyevich	Chief Specialist	Melitopol Institute Of Agricultural Mechanization Mechanical Engineer	1957

Western Regional State Ecological Inspection (Maryinskiy, Veliko-Novoselovskiy rayons, Ugledar)			
SHULICKA Dmitriy Nickolayevich	Chief Inspection – Senior State Inspector	Voroshilovograd Agricultural Institute Mechanical Engineer	1952
LARINA Nadezhda Anatolyevna	Chief Specialist	Donetsk State University Biologist, Chemist	1956
JERIKH Sergey Georgiyevich	State Inspector	Academy Of Agriculture Mechanical Engineer	1975
Kalmius Regional State Inspection (Telmanovskiy and Starobeshevskiy rayons)			
VOYEVODENKO Alexander Timofeyevich	Chief Kalmius Regional State Inspection	Voroshilovograd Agricultural Institute Mechanical Engineer	1950
KARPENKO Vickor Fedorovich	Chief Specialist	Higher Education Novocherkassk Land-Reclamation Engineering Institute Forestry Engineer	1946
ANGELIN Sergey Anatolyevich	Chief Specialist	Lugansk Agricultural Institute Agronomist	1974
Waste Management Control and Industrial Safety Department			
KOZYR Alexander Alexeyevich	Head Of The Department	Kaspiysk Higher Naval Academy In The Name Of S.M.Kirov Chemical Engineer	1961
NAGLENKO Tatyana Stanislavovna	Deputy Head Of The Department – State Inspector	Donetsk State University Chemist, Teacher	1964
LAVRINENKO Galina Marlenovna	Chief Specialist	Donetsk Polytechnic Institute Chemical Engineer	1961
SYTNICK Liliya Alexandrovna	Chief Specialist	Donetsk Polytechnic Institute Chemical Engineer	1960
TRISKIBA Sergey Dmitriyevich	Leading Expert	Donetsk State University Biologist	1964
LIMANOVSKAYA Nellya Nickolayevna	Chief Specialist	Donetsk State University Physicist	1952
MIROSHNICHENKO Yuliya Alexandrovna	Leading Expert	Donetsk State Technical University Engineer - Ecologist	1977
TOMKO Larisa Mikhaylovna	Chief Specialist	Higher Education Donetsk State Technical University Chemical Engineer	1960
SCHEGLOVA Bronislava Valeriyanovna	Chief Specialist	Donetsk State University Biologist	1955
MANZHULA Andrey Valeryevich	Leading Expert	Higher Education Donetsk State Technical University Engineer -ecologist	1976

KATYALEVSKAYA Natalya Gennadyevna	Leading Expert	Higher Education Donetsk State Technical University Ecologist	1979
POPOV Alexander Alexeyevich	Leading Expert	Donetsk State University Ecologist	1979