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**‘Prospective Case Studies:
Country Reports on the Cooperative Investigation’**

ROMANIA

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I. Background

Current national situation of RWM governance

Despite in Romania nuclear research activities were started in early 50s, the nuclear power is very young. The first Nuclear Power Plant was designed, in '80s, to operate with 5 units of 700 MWe each. The project was systematically delayed. In 1996 Cernavoda Unit 1 started the commercial operation and the second reactor, Unit2, from 2007. In 2008, the nuclear energy represents about 18% of the total electricity produced in Romania. For Unit 3 and Unit 4 a political and technical decision for the continuation of the work exists.

Therefore, a relative low amount of radioactive wastes was produced. However, some problems already exist in Romania, mainly related to historical radioactive waste released by nuclear industry and research.

Although the radioactive waste (RW) problem is not critical in Romania [1], in the next future important changes are expected, mainly caused by spent fuel accumulation in Cernavoda and the society trends. Nowadays, in Romania, the public acceptance is based on a relatively low level of information and participation [1]. We appreciate RW problem should be critical in 5-10years.

The RWM governance was based on the classical approach (technical and political decision), but the European influence at the level of all stakeholders gradually introduces changes in order to improve the interaction with general public. Participation in COWAM2, CIP and in GMF activities has contributed to the increase of the knowledge in RWM aspects involving public participation in DMP.

The current state of RWM is connected mainly with the following aspects:

- decision for LILW repository site;
- decision for historical wastes (Baita Bihor repository).

In 2003 National Agency for Radioactive Wastes (ANDRAD) was founded. According to its tasks (stipulated by the Law 320/2003) ANDRAD has developed **"The National Strategy on Medium and Long Term Management of Spent Nuclear Fuel and Radioactive Waste, Including the Disposal and the Decommissioning of Nuclear and Radiological Facilities"**. The decision for LILW is on progress based on the technical investigations of Saligny site and evolution of the public acceptance.

Types of waste considered

According to Romanian Law no.111/1996 [2], radioactive wastes (RW) are "those materials resulting from nuclear activities for which no use is foreseen, and which contain or are contaminated with radio nuclides in concentration above the exception limits".

Radioactive waste in Romania results mainly from four types of activity:

- (1) nuclear electricity generation, including back-end nuclear fuel cycle activities and decommissioning
- (2) the operation of research reactors

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(3) the use of radiation and radioactive material in medicine, agriculture, industry and research

(4) processing of material containing natural radionuclides

The most important sources of radioactive waste are the following:

1. NPP Cernavoda spent nuclear fuel;
2. NPP Cernavoda operational waste;
3. NPP Cernavoda decommissioning waste;
4. TRIGA - MTR spent fuel (HEU returned in the origin country, LEU to be managed in Romania);
5. TRIGA-MTR operational waste;
6. TRIGA-MTR decommissioning waste;
7. PIEL spent fuel fragments;
8. VVR-S RR spent fuel (HEU to be returned in the origin country, LEU to be managed in Romania);
9. VVR-S RR decommissioning waste;
10. Institutional radioactive waste;
11. Disused sealed radioactive sources;
12. Uranium mining and milling waste.

The criteria used for radioactive waste classification in Romania are listed below.

Waste classes	Radionuclide content	Alpha - Radionuclide concentrations	Thermal power	Disposal option
LILW-SL	- mainly beta and gamma short lived radionuclides (T1/2 < 30 years) - low concentrations of alpha emitting long lived radionuclides (T1/2 > 20 years)	< 4 kBq/g	< 2 kW/m ³	near surface disposal
LILW-LL	- mainly alpha emitting long lived radionuclides (T1/2 > 20 years) - low concentrations of beta and gamma emitting short-lived radionuclides (T1/2 < 30 years)	> 4 kBq/g	< 2 kW/m ³	deep geological formations
	- mainly beta and gamma emitting short-lived radionuclides	> 4 kBq/g	> 2 kW/m ³	deep geological

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HLW	(T1/2 < 30 years) - significant quantities of alpha-emitting long-lived radionuclides (T1/2 > 20 years)			formations
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At present, from the point of view of the decision making process and public concern, the waste of particular interest is LIL waste arising from the operation of the Cernavoda NPP and its disposal in a near-surface repository near the NPP site.

Based on the CIP debates another relevant issue consists of the temporary storage (50 years) of spent fuel in dry storage on the NPP’s site (DICA repository). An important public and, also, NGO concern exists.

Therefore CIP process approaches LILW management and dry storage of spent fuel in Cernavoda NPP. The issue of historical RW was only marginal discussed.

The current stage of the decision-making process

Two important political decisions are included in the National Strategy for Nuclear Development: (1) no reprocessing in Romania; (2) no import for RW;

From the point of view of technical decisions the investigations recommend a LILW-SL near surface repository in the Dobrogea region. One site is extensively investigated and seems to be appropriate for disposal.

The first part of the investigation started in 1992 didn’t suppose the involvement of the public. After 2004, mainly by COWAM2 and GMF activities, the representatives of public (ONG, local authorities) and nuclear industry representatives established a systematic dialog.

However, according to the Romania legislation, the involving of the public in the DMP is foreseen only in the last stage, namely in the formulation of observations at the document “Environmental Impact Study”.

The site is close to NPP Cernavoda, in the “safety zone” of 1 km around the Unit 1, on a land in the property of the Saligny Municipality. The general characteristics of this option are:

- Saligny, in the exclusion zone of the Cernavoda nuclear power plant
- Area’s owners: the Local Council and private owners
- Area of the repository: about 25 ha
- Design of the repository: surface repository with multiple engineered barriers, similar to L’Aube (France), El Cabril (Spain)
- Destination: operational wastes of the Cernavoda Nuclear Power Plant (4 units with an operating time of 40 years);
- Capacity: about 47.000 m³

In February 2008 ANDRAD obtained a partial license from CNCAN for the location of the Saligny repository. The Local Council has allowed further technical investigations on this site.

Expected steps in the near future

From the point of view of repository the following steps are needed:

- producing the document “Safety Report”;
- releasing the approval for the sitting (“Certificate of Urbanism”) by the Local Council;
- achievement of the technical project.

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The main institutions and actors in the Romanian Radioactive Waste Management

Nuclear industry		
SC "Nuclearelectrica S.A."	national company for Nuclear Power Production	Subsidiaries: (1) "CNE-Prod" Cernavoda (NPP Unit 1 , Unit2), (2) "Nuclear Fuel Plant" (FCN) Pitesti
"Autonomous Company for Nuclear Activities"	national company for nuclear research support and services	Subsidiaries: (1) Institute for Nuclear Research Pitesti (SCN) (2) Subsidiary for Heavy Water production (3) Subsidiary for Nuclear Objectives and Engineering
"National Uranium Company S.A."	National company for mining activities	Subsidiaries: (1) "Feldioara Subsidiary" (Uranium Milling Plant), (2) "Bihor Subsidiary" (uranium mines), (3) "Banat Subsidiary" (uranium mines), (4) "Neamt Subsidiary" (uranium mines).
IFIN-HH (National Institute for Physics and Nuclear Engineering -Horia Hulubei)	research reactor VVR, under decommissioning and National LIL Waste Repository Baita-Bihor owner	
ICPMRR SA, Institute for Research and Design for Radioactive and Rare Metals	nuclear facilities for research	
Ministry of Economy	National administrative structure incorporating nuclear industry, ANDRAD and Nuclear Agency	
ANDRAD	National Agency for Radioactive Wastes	
Nuclear Agency		
Monitoring organizations		
Ministry of Environment		
CNCAN	Regulatory Body	Subordinated directly to prime-minister
Cernavoda Local Council and Cernavoda Mayor	Elected representatives of citizens	
Saligny Local Council and Saligny Mayor	Elected representatives of citizens	
NSOs		
AGIA Cernavoda (Association Thinker in Action)	Local NGO	
UP Cernavoda (Union of Retired Persons)	Local NGO	
SIDO Cernavoda (Society for Human Rights)	Local subsidiary of an international NGO	
Mare Nostrum Constanta	Regional NGO	
ARIN Braila (Nature Lovers	National NGO	

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Association)		
Terra Milenium III Bucuresti	National NGO	
ADAPT Cernavoda	Local NGO	

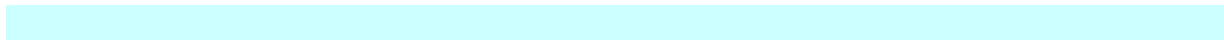
Composition of the National Stakeholder Group

Romanian Group of Stakeholders in RWM is structured as:

- (1) representative of nuclear industry
 - Ministry of Economy (national structure incorporating the nuclear industry);
 - SNN NuclearElectrica SA (NPP owner);
 - CNE Cernavoda (NPP operator);
 - Nuclear Agency (management of the Nuclear National Programme);
 - ANDRAD (national agency responsible with RWM);
- (2) regulatory body
 - CNCAN
- (3) local elected structures
 - Cernavoda Local Council
 - Cernavoda Mayor
 - Saligny Mayor
- (4) local NGOs
 - AGIA Cernavoda
 - SIDO Cernavoda
 - UP Cernavoda
 - ADAPT Cernavoda
 - Mare Nostrum Constanta
- (6) national NGOs
 - ARIN Braila
 - Terra Milenium Bucharest III (only observer statute)

The Chair person: Mariana Mircea-Cernavoda Mayor

National facilitator: INR Pitesti



II. Process and methodology

Preparing and establishing of NSG Romania

Preparatory meeting (January 2007) had the role to explain the purpose, objectives, proposed methodology, proposed structures, support, etc. Participants: local councils, mayors, representative of NGOs, ANDRAD and NPP.

Contacting the main actors in RW issue in Romania and inviting them to adhere at NSG inside Cowam in Practice schema.

Memorandum of Agreement, in English version and Romanian (translated by INR) was sent to the actors.

The first meeting of Romanian NSG took place at 2007 June 1st with the following participants:

	Participant	Organization
1.	Claire Mays	Symlog
2.	Daniela Diaconu	SCN Pitesti
3.	Iosif Constantin Bilegan	Agentia Nucleara
4.	Mircea Ionescu	Ministerul Economiei si Finantelor
5.	Ioana Polizu	Primaria Saligny
6.	Andrian Mihei	Parlamentul Romaniei
7.	Lucian Goicea	CNCAN
8.	Cornelia Virtopeanu	CNCAN
9.	Daniela Raducea	CNE PROD –Cernavoda
10.	Gabriel Tatulescu	Primaria Saligny
11.	Gheorghe Hansa	Primaria Cernavoda
12.	Vicor Circiumarescu	Uniunea Pensionarilor
13.	Valentin Teodorescu	AGIA
14.	Anton Anghelescu	AGIA
15.	Horea Mocanu	AGIA
16.	Mariana Mircea	Consilul Local Cernavoda
17.	Cosmin Barzan	Mare Nostrum
18.	Ionut Dan	ADAPT
19.	Stela Diaconu	ANDRAD
20.	Ioana Ciuta	Terra Millennium III

In June 2007 the NSG include the following stakeholders: Cernavoda Local Council, Saligny Local Council, ANDRAD, Nuclear Agency, CNCAN, Ministry of Economy, CNE-PROD (NPP operator), AGIA, UP, ADAPT.

During the time the following organisations became NSG members: SNN NuclearElectrica SA, SIDO, Mare Nostrum, and ARIN. Also, Terra Milenium III was recognized as observer in RWM process.

List of investigations

The first meeting declared in consensus the interest for the discussion of the following issues:

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- (1) Local Committee for Cernavoda-Saligny area (statute, composition, financing and functioning);
 (2) Enlarging the information for public related to RW
 (3) Technical and legislative aspects of the RW management (RWM).
 Other issues appeared later as of interest from majority of the participants:
 (4) Local development needs and nuclear development in Cernavoda area.
 (5) Environmental and health monitoring near the nuclear facilities
 (6) Public involvement in DMP
 (7) Community benefits from hosting nuclear facilities

Due to the fact that, based on democratic decision, in the final part of each meeting one or more themes was planned for the next meeting, some changes appeared in the initial planning. In the section III we’ll discuss the main themes of interest as follows:

- Theme 1: Local Committee (LC) for Cernavoda Zone
- Theme 2: Public Involvement in Decision Making Process (DMP)
- Theme 3: Health and Environment Monitoring around Nuclear Installations
- Theme 4: Social Aspects and Local Development
- Theme 5: Benefits for RW Host Community

Table 1. Overview of NSG Meetings and Seminars

Meeting	Topic	Date	Location
CIP Seminar 1	Introduction of the project.	17 th February 2007	Cernavoda, Local Council
NSG Meeting 1	Definition of the research topics	1 st June 2007	Cernavoda, Local Council
NSG Meeting 2	(1) DMP - Stepwise Decision Making for LILW; (2) Statute of Local Committee “Cernavoda Zone”	25 th January 2008	Cernavoda, NPP Conference Hall
CIP Seminar 2	Practical Aspects for LC Functioning	03 rd March 2008	Saligny
NSG Meeting 3	(1) Progress of LC Construction (2) LC Involvement in Health Monitoring (3) Social Aspects and Development Needs	September 12, 2008	Cernavoda, NPP Conference Hall
CIP Seminar 3	Health Impact Assessment and Long Term Environmental Surveillance	9 th January 2009	Cernavoda, Local Council
NSG Meeting 4	Public Health Monitoring and Environment Surveillance around Nuclear Facilities	6 th February 2009	Pitesti-Mioveni, Institute for Nuclear Research
NSG Meeting 5	(1) Nuclear Facilities Hosting Community’s Benefits (2) EU Guidelines	June 18-19 2009	Cernavoda, NPP Conference Hall Constanta, Ibis Hotel

In Table 1 some details about the meetings are presented. NSG meetings are the regular meetings with the participation of all stakeholder members, whereas CIP seminars are meetings with a reduced participation based on the specific interests. For example only representative of Cernavoda and Saligny communities, ANDRAD and national facilitator participated in CIP Seminar 2 in order to discuss practical aspects of starting LC functioning.

Methodology

The agenda of the next NSG meeting was agreed at the end of each meeting according to the questions raised both by national organizations and local stakeholders.

Invitations announcing the objectives of each meeting and preliminary agenda have been sent to all NSG members in order to inform and receive their feedback for an improved structure and content of the meeting.

Translated documents of the MTF expert's presentations have been provided during the meetings (when possible) at the beginning of the sessions. After NSG2, translations of the expert's presentations were sent to the local stakeholders before the meeting, by e-mail, in order to focalize the questions and discussions on the main topics. Also, hard copies of the presentations were available in the meeting rooms before the sessions.

After each meeting written minutes resuming the presentations, discussions and decisions established during the meeting have been elaborated. The minutes were written both in Romanian and English and were distributed to all participants.

Three additionally seminars have been organized in order to discuss problems with a short deadline (as the measures for the LC formation, health and environmental surveillance).

An e-group was created as discussion forum in order to maintain a good communication and to continue the discussion started in the NSG meetings.

This communication way was used mainly for document dissemination and to discuss the minute's versions, preliminary agenda, and point of view regarding LC progress.

Discussion between NF and representative of each stakeholder was dedicated especially to LC formation and functioning.

In order to assess the quality of the process evaluation activities based on success criteria questionnaires were performed at the end of each NSG meeting. Each participant filled up the questionnaire "Criteria of Success". Also, there were two questionnaire dedicated to the evaluation of CIP global process and continuation of the process beyond end of CIP, used at the end of NSG5 meeting.

In Table2 the participation of different organizations in the process is presented. A fairly good continuity of the participation, at the organizational level, exists for the NGOs, local institutions, national organizations (ANDRAD, CNCAN, Nuclear Agency). However, some organizations hadn't a good continuity at the level of their representatives in NSG meetings.

In Figure 1 the number of participants per each meeting is presented.

Table 2. Participation in the NSG Meetings and Seminars

	Meeting							
	S 1	NSG 1	NSG 2	S 2	NSG 3	S 3	NSG 4	NSG 5
Stakeholders:								
<i>Ministry of Economy</i>	-	X	-	-	-	-	-	-
<i>SNN Nuclear Electrica SA</i>	-	-	-	-	X	-	X	X
<i>CNE Cernavoda</i>	X	X	X	-	X	-	X	X
<i>Nuclear Agency</i>	X	X	X	-	-	-	-	X
<i>ANDRAD</i>	X	X	X	X	X	-	X	X
<i>CNCAN</i>	X	X	X	-	X	-	X	X
<i>Cernavoda Local Council</i>	X	X	X	X	X	X	X	X
<i>Cernavoda Mayor</i>	X	X	X	-	X	X	-	X
<i>Saligny Mayor</i>	X	X	X	X	X	X	X	X
<i>AGIA Cernavoda</i>	X	X	X	X	X	X	X	X
<i>SIDO Cernavoda</i>	X	-	X	X	X	X	X	-
<i>UP Cernavoda</i>	X	X	X	X	X	X	X	X
<i>ADAPT Cernavoda</i>	X	X	-	-	-	X	-	-
<i>Mare Nostrum Constanta</i>	X	X	-	-	-	X	X	-
<i>ARIN Braila</i>	-	-	X	-	X	-	-	-
<i>Terra Milenium III Bucharest</i>	-	X	-	-	-	-	X	-
MTF Team	X	X	X	-	X	X	X	X
NF	X	X	X	X	X	X	X	X
Others:						-		
<i>Romanian Parliament</i>	-	X	-	-	-	-	-	-
<i>Institute for Public Health - Bucharest</i>	-	-	-	-	-	-	X	-
<i>National Agency for Environmental Protection</i>	-	-	-	-	-	-	X	-
<i>Nuclear Montaj Bucharest</i>	-	-	-	-	-	-	-	X

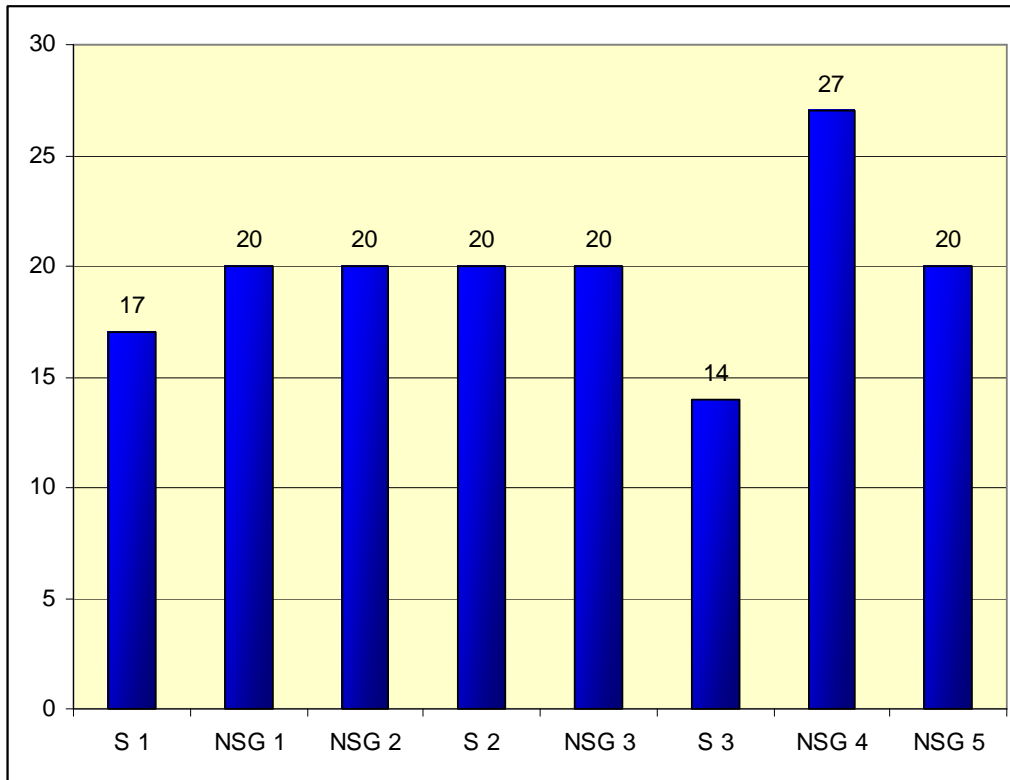


Fig. 1 Number of participants per meeting

In order to support the cooperative investigations for each theme a preliminary list of question was developed and disseminated to the participants (usually before the meeting/seminar). Some illustrative questions are presented below:

Theme: Health monitoring and environmental surveillance around nuclear facilities

1. Which would be the reasons for the initiation of a health monitoring program in the Cernavoda – Saligny area (history, statistics, facts, fears, etc.)?
2. Is it appropriate to perform this program in the next few years?
3. What is the most appropriate reference level to compare the investigation results?
4. What technical aspects should be included in this program (investigation area, group of population included in the program, entire population versus sample of population, types of analysis and diseases selected, program duration, etc.)
5. Who should pay for it?
6. What institutions should be responsible for its implementation and development?
7. What methods could insure the transparency and correctness of the investigation?
8. How do you see local community involvement in the collection, dissemination and preservation of the information resulting from the health monitoring program?

Theme: Progress in the Local Committee Formation and Functioning

1. Is there a real will in the community (local authorities, NGOs, public) for the construction and functioning of a Local Committee in the Cernavoda – Saligny area?
2. Taking into account the differences between the interests of the two communities regarding radioactive waste management, do you consider beneficial to create two distinct LCs?
3. In this context, could a third, joint Cernavoda-Saligny LC, having as purpose information and environmental&health monitoring, be useful and efficient?
4. What is the earliest reasonable deadline for the commencement of the LC (s) activity? The latest permissible deadline?
5. What efforts are you disposed to make in order to contribute to the LC construction?

Theme: Development perspectives in Cernavoda-Saligny area

1. What is the local perception related to the enlargement of nuclear activities in this area?
2. What are the main actors involved in the decision related to the Cernavoda-Saligny development?
3. What do national governmental authorities expect from the local communities?
4. What are the expectations of local communities from the nuclear authorities for the next future?
5. How you may describe the actual social and economic situation in Cernavoda and Saligny?
6. What are the development needs from the public's perspective?
7. What are the ways for national authorities to stimulate or support the local development expected by the public?

Theme: Benefits for Nuclear Facilities Hosting Communities

1. What are the components of the Social Programme for Cernavoda and Saligny, implemented by nuclear industry?
2. Are all components real benefits or may be considered as investment requirements?
3. Compensations or benefits?
4. Compensation what for? Affected communities?
5. What are legal context and which actors should be involved?
6. What steps for building a compensations/benefits legal framework in Romania do you expected?
7. What kind of benefits/compensation do you consider appropriate for Cernavoda/Saligny?
8. Level of compensations?
9. Who should be responsible for the management of the financial compensations?

Short Description of Cernavoda and Saligny

(demographics, economy structure, development needs, etc.)

Cernavoda

Cernavoda is a town with approximately 20.000 inhabitants, placed on Danube river at the confluence with the Danube-Black Sea channel. The total surface of the town is 4669 ha, with 670 ha in the residential area.

The economy of the town is strongly dependent on the nuclear industry. Two CANDU units, each of 700 MWe are in operation. The NPP site is placed in the Southern part of the town, at the border with Saligny village.

The construction of the NPP lead to an increase of the population from 13.763 (in 1978) to 19.890 (in 2005) and also to the development of the town (construction of a new bridge over the channel, high-schools, hospital, schools, house heating system, etc.).

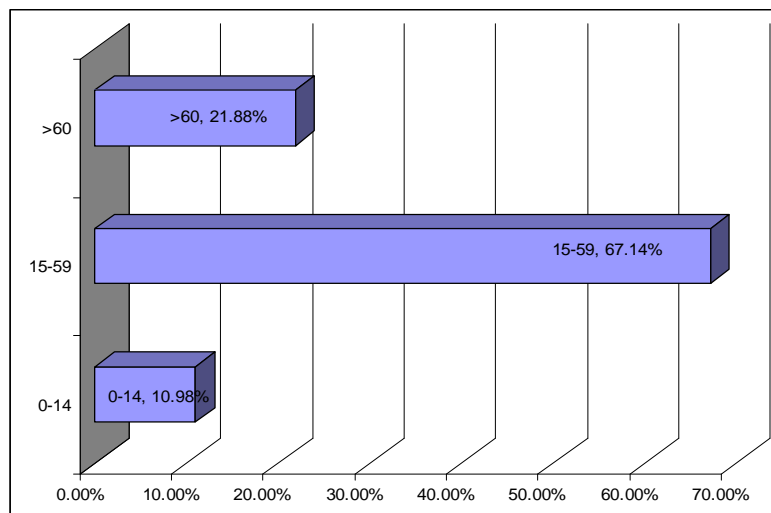


Fig. 2 Structure of the population by age

The structure of the population by age is presented in Figure 2: 21.88% over 60 years old, 67.14% between 15 and 59, and 10.98% under 14 years old.

The active population counts 7528 persons (about 40.80%, data from 2002 census). In 2002 86.78% of the active population are employed and 13.22% unemployed workers. The unemployment level was over the regional one (8.7% in Constanta county in 2002). After 2002, mainly due to the investment in the construction sector the unemployment was reduced, but the rate of decreasing is lower than at regional level. The trends are determined by the important influence of the NPP on the work market.

From the point of view of the education level for the population between 15 and 59 years old, the structure is described in Figure 3.

The town has a relatively good transport infrastructure (38,5 km modernized roads, connection on the national road DN22C, high-way to Bucharest, harbor on Danube, railway connection). The education infrastructure consists of 4 schools and 2 high-schools.

The heating is supplied for about 50% of the town by the NPP. However, the town needs important investment in: modernization of the sewage system and waste water plant, modernization of the street, construction of the by-pass, extending of the heating system, introducing of the public transport system, modernization of the hospital, etc.)

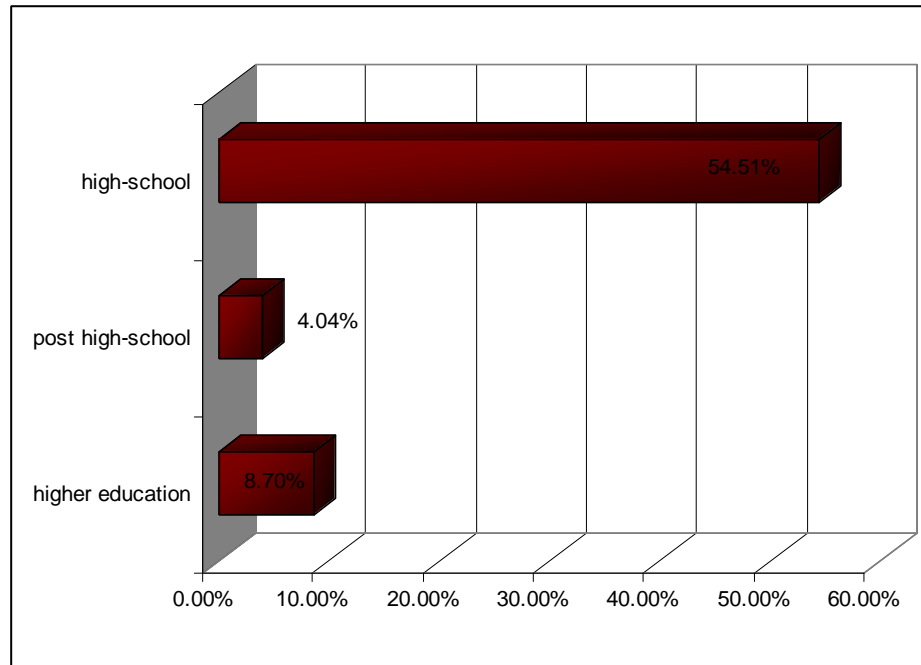


Fig. 3 Structure by education



Anghel Saligny

The **Anghel Saligny** village is bordered to the West by the city of Cernavoda, to the South by the Danube-Black Sea Canal, to the North by the Seimeni village, to the East by the village Mircea Voda.

The village area has a number of 2350 inhabitants, placed in 3 villages: Facla, Saligny and Stefan cel Mare. The structure by age is the following: 422 people under 18 years old, 1454 people between 19-61 years old, 474 people over 62 years old.

The number of active persons is 1454, of which 700 employees, 100 unemployed and a total of 654 people are without job (without being in a period of unemployment). In terms of jobs, most employees are employed at the nuclear power plant and in constructions.

The number of people in agriculture is very low. The agricultural land is poor, being also affected by drought. The general appearance is a limestone plain covered with thick deposits of loess. The total area of the village is 3049 ha, of which 35,035 square meters inhabitant area, 3135 ha agricultural area (2987 ha arable). The inside-outside structure of the land is: 322 ha of inside land, 3290 ha of outside land. The number of animals is 5600.

The development of the village is low and the situation of the economy and population is characterized by poorness and stagnation.

The nuclear power is located right at the limit of separation between Cernavoda and Saligny, on the territory of Cernavoda town. A part of the NPP exclusion zone is on the territory of Saligny. In this part, the site for LILW national repository is proposed.

The hopes of the local authorities to develop the village and local economy are mainly connected with the LILW investment.

The village needs: water supply, sludge and waste water system, roads construction and modernization, natural gas supply system, heating, school and hospital modernization etc.

I. Cooperative Investigation: main results

Theme 1: Local Committee (LC) for Cernavoda Zone

Objectives:

- (O1) To understand foreign experience in construction, functioning, funding, etc. of LCs
- (O2) To select the approach to create a LC in Cernavoda-Saligny area and to discuss to the elements of the Statute
- (O3) To identify the way to work properly (composition, logistics, funds, evaluation procedure etc.)

Presentations:

Three topics were presented by MTF Experts:

- NSG2, 25th January 2008: Case Study- Local Commissions for Information (and National Association of CLIs) *by Serge Gadbois*
- NSG3, 12th September 2008: The local partnership approach to the sitting of a LILW repository in Belgium, *by Gaston Meskens*
- NSG3, 12th September 2008: French legislation on Local Committees, *by Ludivine Gilli*

Specificity of Romanian situation was presented in:

- NSG2, 25th January 2008: Local Committee "Cernavoda Zone" – brief presentation of the LC proposal, *by Mariana Mircea*
- NSG3, 12th September 2008: The current situation of the proposed Local Committee. Progress in creating the CL zone Cernavoda, *by Mariana Mircea*

The main conclusions of the presentations, investigations and discussions:

Serge Gadbois, from MTF, in "*Case Study: Local Commissions for Information (and National Association of CLIs)*" presented historical and context aspects of CLI formation. Created in 1981 at each nuclear site, CLI raised similar questions as: who guarantees that the studies are valid, what expertise could they have? Since then, these questions are continuously raised. The plurality is other important question and a democratic participation in a LC is obligatory. At local level, the players know very well the local aspects. But each level has its own view, its own dimension and the local players must adapt them.

Gaston Meskens, from MTF, in "*The local partnership approach to the sitting of a LILW repository in Belgium*" high lightening the history of involvement of local communities in Belgium, the creation of the partnerships STOLA and MONA, the establishment of PALOFF partnership, and their funding. The existence of two LCs, MONA and STOLA, took advantage of a better perceptions of direct representation. The existence of a single LC could generate the risk to perceive the decision taken as above the individual or group interests.

However, the existence of a CL provides more strength in the fight against the authorities. The existence of two partnerships, STOLA and MONA, led to a heavily, competitive process. Regarding the case of Cernavoda-Saligny, it can start by answering the question "how should we organize ourselves to make good decisions or it can start by setting up a LC and then discussing to take the right decisions and this can be done more easily than in the previous situation. It is necessary to discuss without passion. A successful referendum must be preceded by a debate on the issues that request the answer YES or NO, but long-time debate could lead to the loss of the nuances and to the feeling of non-representation. He recommended the creation of a single LC which should start to work.

Ludivine Gilli, from MTF, in "*French legislation on Local Committees around nuclear facilities*" explained the historical context and the legal provisions regarding the creation, composition, mission, their power and financial aspects. These LC are mandatory consulted for any public project submitted to a public enquiry. They could be associations having a legal status or could act alongside the General Council, without legal status. The LCs are financed only for the projects developed from State and Local subventions, percentages from the nuclear facilities taxes, donations.

In NSG2, *Mariana Mircea* gave her presentation on the "*Draft-proposal of the Local Committee "Cernavoda Zone"*". The statute proposed is based on herself experience, on STOLA partnership and on the Roadmap elaborated in COWAM 2. The first draft of Local Committee includes a list of stakeholders, which can be completed, the access of any person interested in this process being unrestricted. The role of the LC, already discussed and agreed at the 1st NGS meeting, consists in:

- the increase of the local voice
- continuous dialogue between the actors involved in the radioactive waste management
- creation of an integrated vision of the local perspective
- debate of the technical program of LIL waste disposal based on presentations easy to be understood by common people
- decrease of the stressed situations and relationships.

The major mission of the LC will consist in information – debates – influence of the decision making process. The LC functioning will be insured by a Steering Committee of 11 members led by a President elected for three months. Working Groups centred on environment and local development, legislation, and public information will carry out the LC activity. As regarding the budget, since the LC is not proposed as a legal entity body, it will receive the amount requested for functioning from ANDRAD and SNN.

In NSG3, *Mariana Mircea* presented "*The current situation of the proposed Local Committee. Progress in creating the LC Cernavoda Zone*" showing that in the period September-November 2007 work started for a LC construction supported by the fact that the Administrative Council of SNN (whose member was) agreed to allocate funds for this structure. In 2007, former Mayor of Cernavoda made that this understanding can not be put into practice. ANDRAD requested to sign a partnership agreement with the LC by which to finance some activities based on projects. Only AGIA signed the proposal for partnership with ANDRAD. The current form of the Information Committee meets Cernavoda Municipality, Saligny Municipality and Agia. Cernavoda LC will represent local authorities, NGOs, the public and will allow access of citizens, and aims to be the representative of civil

society in the area CNE Cernavoda. Saligny and Cernavoda Mayors are agreeing to provide the logistics necessary for the LC functioning and the main partners of Information LC (SNN and ANRDAD) are agreeing to provide the funds from their budget allocations for relations with the public. There are funds provided in the budgets for 2008 of SNN and ANDRAD to finance actions for information and public involvement that should be spent. The two local communities agree to work together to support their common interests. In relation with ANDRAD, appreciated as good until now, Mariana mentioned the following: leaflets in cooperation with mayors, the public debates, the inclusion of the funds for LC activities in the SNN and ANDRAD budgets, documentation for the monitoring of health. Cernavoda Mayor requests discussions with SNN for the financing of the LC, three public debates on the future construction of nuclear facilities, to obtain compensation after the model of other countries. Cernavoda Mayor will submit a letter to SNN on the construction of Units 3 and 4. Mariana Mircea indicates that mayors can not take the decision alone and can not give consent for future facilities without consulting the public. In conclusion, Mariana Mircea believes that by the end of 2008, the LC will work, at least with the active stakeholders.

Cernavoda town Mayor considers that it is necessary to have in Romania as in the other European countries, a law for public debate and a scheme with stages and procedures for successful DMP, since recently he remarked a “crisis” and great deficiencies regarding the involvement of local community and Local Committee for Information. It speaks about the Green Peace meeting from November 2007, which was, in his view, an aggression addressed to the Cernavoda Community. Green Peace said that pregnant women and children should leave Cernavoda town because NPP emissions jeopardize their health. The scientists in Radioprotection struggled in their laboratories; they did not agree on their results and came out in mass media worrying the public without any reason. But they realized they were wrong and stepped back in shame. The Local Community answered in stead promptly and thus the negative consequences were fortunately stopped. This showed the lack of communication between authorities and laboratories (scientists). The debate in the mass media came back in the room, where authorities and scientists had to answer to the public. The major deficiency was the lack of a common voice of the Local Committee for Information, which did not speak. He considers that the national authorities (ANDRAD, CNCAN, AN, INR) should insure the continuity of their links with community, with local people, independent on the opinion of the Local Committee for Information. Regarding the Local Committee “Cernavoda Zone” he considers that it should keep the link with the national institutions and should be better structured.

Representative of the Cernavoda Local Council reminded that it was a previous proposal for a LC issued by Cernavoda Municipality, SNN and representatives of local community as ADAPT, AGIA, SIDO, UP. They signed a protocol for public information and consultancy, but until the end of 2007 not too many meetings have been held. Regarding the new proposal for a Local Committee, the Cernavoda Municipality thinks that *it must be a legal entity*. This will not delay its creation, the process being no longer than 3 weeks. A legal status will insure a higher credibility, a more clear voice and a better administration of its budget. She considers that the organization of the LC “Cernavoda Zone” could be improved during future meetings.

Representative of AGIA made an observation regarding the Protocol between local stakeholders. AGIA did not sign this Protocol because only Cernavoda Local Administration and SNN have established its provisions. According to this Protocol, the NGOs were having only a consultative role and were not able to change its provisions.

The Mayor of Saligny said that the new LC proposal represents a new framework. He will discuss it in the Saligny Local Council. He agrees that the Local Committee "Cernavoda Zone" should have a legal status and considers that the number of its members is important for the future outcomes of this LC. He will not accept decisions, which were not communicated before to the Saligny Municipality and he wants to see a clear commitment regarding the LC proposal from all stakeholders.

Representative of ANDRAD considered that a LC is a useful partner for ANDRAD if it really represents and reflects the people interest. In her view, for ANDRAD the LC could be a communication channel with the citizens. ANDRAD will analyse and will propose a protocol for its cooperation with the LC. The budget of ANDRAD for this year (2008) foresees a fund as a support for the LC activity but a legal procedure to access it must be established. LC should not include nuclear institutions. If the LC defines the information request, ANDRAD and SNN will provide it on their own expenses. So, she thinks it is more adequate to have a partnership between ANDRAD and this LC.

Representative of ARIN remarked the disproportion of the members composing the LC and the lack of clear information on the fund allocation. The small number of members will make difficult the vote process. A voting procedure should be also defined. The mission and the composition of the LC should be improved. She believes that the classified character of some documents will limit the access to information.

President of NSG hopes all these declarations and good intentions will become facts until the end of this year, and that all people involved in this project will have the wisdom to make real steps towards democracy.

Serge Gadbois, from MTF, considered that this LC could have a double target: the NPP and the repository and a double role: to vote and to inform. In France, Local Commissions for Information do not decide, their role is only to organize and not to decide. But there are also the Belgian partnerships that discussed projects and made selection. These partnerships studied the operator proposals, made evaluations, worked together and made recommendations, but it was the Municipal Council that took the final decision. He pointed out that the balance between participants is an important aspect.

Representative of CNCAN said that Regulatory Body could be observer in the process. CNCAN is interested in a fair decision making process and does not favour any part in this process.

Representative of Cernavoda NPP appreciated that the collaboration Protocol proposed by SNN is a step forward. It foresees communication activities and AGIA participated in some of them. These activities favoured a reciprocal learning. At Cernavoda level, there are many joint activities and SNN provided technical information to the questions raised by local organizations and local people.

Representative of Local Council Cernavoda concluded that it is important to decide in the very next future on the status of the new LC. Each organization should clearly express their position regarding its creation and legal status.

In the final part of NSG2 concluding after the discussions on the LC "Cernavoda Zone":

- ANDRAD and SNN appreciated that a LC is important to structure the local voice, but they do not find appropriate their participation as members in the LC;

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- ANDRAD and SNN intend to sign *Protocols for collaboration* with the LC and to *support some of its activities*; special funds have been already allocated in this regards
- Cernavoda and Saligny Municipalities sustain the creation of the LC "Cernavoda Zone" *as a legal entity*
- A meeting of all stakeholders involved in the LC construction will be organized at Cernavoda on March 14, 2008 in order to better define the mission and the role of the LC as well as to detail the decisional aspects.

Due to the rejection of the first proposal of the LC Statute rejection (NPP and ANDRAD rejected this proposal since each organization's statute doesn't allow such a participation) in March 14, 2008 a Seminar (S2) was hosted by Saligny mayor and it was dedicated exclusively to the LC formation. The representatives of Cernavoda and Saligny communities (local councils, NGOs) were present and also representatives of NF and ANDRAD.

The main decisions obtained at the end of the meeting were:

- (1) Consensus on the need of a LC in RWM in Cernavoda-Saligny area
- (2) ANDRAD proposed to support part of the LC activities, mainly those for public information. based on a Protocol (expected to be signed in May 2008);
- (3) the meetings of LC will be hosted by House of Culture from Saligny and/or Cernavoda ;
- (4) a preliminary plan of information activities was agreed between ANDRAD and local communities.

After the local elections (June 2008) the initiator of LC for Cernavoda Zone, Mariana Mircea became the new Mayor of Cernavoda. Gabriel Tatulescu was re-elected Mayor of Saligny. In September 2008 NF observed no significant progress in the LC functioning, clearer there is an ad-hoc activity based on NGOs and without a legal status and a coherent plan. Therefore, in the starting of NSG3 (September 2008), NF underline the importance of the LC in RWM process and dialogue construction.

Marian Constantin (from NF) presented "*Progress Report on the Romanian Stakeholder Group activity; Preparing the contribution to the Prospective Report*", an analysis on the current state of the activity of Romanian the Stakeholder Group. He tried to find the motivations for delays in the effective functioning of a Local Committee in Cernavoda area and he presented the expected contribution of the Romanian participants regarding the elaboration of CIP documents / reports.

Mariana Mircea, NSG president, considered the feedback made on the activity of local organizations was too severe and that the NGOs worked in a systematic way in difficult conditions (without funding and without support from SNN and NPP). Mrs. Mariana Mircea also indicated that the involvement of young people is important and that the team that formed after winning the elections is made up of enthusiastic and efficient young people.

Representative of AGIA said that the involvement of young people is not visible because they fear the repercussions that such activity they would have from their employer.

Representative of ANDRAD considered NF wants to press ahead formation of a Local Committee (LC) and things do not seem to be "ripe" for this process.

Mariana Mircea, in reply, said that the formation of a LC can not be delayed in the conditions in which Units 3 and 4, and LILW repository will be built soon.

Mayor of Saligny is in agreement with the formation of a LC, but following the steps needed. LC usefulness is viewed in the light of the fact that in its absence, when a decision is taken, there will be pressure on the Local Council, linked to the short time making a decision and its importance. Mayor of Saligny considered that right now there is too little discussion between the nuclear industry, ANDRAD and the population about the intentions of developing nuclear area Cernavoda-Saligny.

Theme 2: Public Involvement in Decision Making Process (DMP)

Objectives:

- (O1) To introduce methods and tools for decision making process in RWM;
- (O2) To understand the role of the public in DMP and the mechanism to enhance the democratic process in RWM;
- (O3) To identify the specificity of the Romanian RWM case and to define the main steps for a DMP
- (O4) To enhance the DMP abilities of the local community representatives

Presentations:

Three topics were presented by MTF Experts' in 25th January 2008:

- Stepwise Decision Making for LILW Management: A Model European Process by *Claire Mays*
- A step-wise participatory decision process for chemical waste: the Regional Observatory for Industrial Waste from Midi-Pyrénées (ORDIMIP) by *Stephane Baude*
- The local partnership approach to the siting of a LILW repository in Belgium by *Gaston Meskens*

Specificity of RWM and DMP in Romania were presented in:

- Current stage in the decision making process in Romania by *M. Constantin*
- Current status of the Saligny near-surface repository by *O. Niculae, G. Gherghe, V. Andrei, A. Petrescu, S. Diaconu*
- Progrese in activitatea Grupului Roman al Stakeholderilor by *M. Constantin*
- Defining the RWM connected to Cernavoda and Saligny by *Daniela Diaconu*
- DMP Exercise: Problem definition, Steps, Prospective DMP by *Marin Constantin*

The main conclusions of the presentations, investigations and discussions:

Claire Mays, from MTF, considers that there are many opinions that should be expressed in Romania as well as in other countries in the world. In „*Stepwise Decision Making for LILW Management: a Model European Process*” she presented the stepwise DMP emphasising the

difficulties both in technical decisions and society's decisions. The process covers long time, many generations and should be designed such as it could be assessed, reviewed after each step and if necessary, a one step back up should be possible. The ideal decision making process is a spiral concept starting with the problem definition, followed by research and assessment, concretized through management actions and then monitored and evaluated. The plan of the process should be flexible in order to let the possibility to adjust it according to the learnt lessons. Almost in each country it was necessary to make explicit the public involvement in the DMP for RWM. Claire presented in details the DMP scheme used in Slovenia and UK, pointing out the processes, objectives, participants, actions and decision makers at each stage. Claire emphasised that there are also difficulties to define a plan able to accommodate the agreement on the decision sequence, rules for a good balance between steps back and the necessity to finalize the project, allocation of enough time for the stakeholders. Claire underlined also the necessity to built platforms and tools for the local level participation, and the local and national government commitment to respect the public position. She also emphasised the role of the leader of this process since a "driver" must exist in order to keep the process moving.

Serge Gadbois, from MTF, in "*Case Study: Local Commissions for Information (and National Association of CLIs)*" presented historical and context aspects of CLI formation. The plurality is other important question and a democratic participation in a LC is obligatory. At local level, the players know very well the local aspects. But each level has its own view, its own dimension and the local players must adapt them. Therefore the DMP is complex and dynamic and involves a great effort of self-organization of local players. The support from national level is crucial in terms of legality, funds and trust.

Stephane Baude, from MTF, in "*A step-wise participatory decision process for chemical waste: the Regional Observatory for Industrial Waste from Midi-Pyrénées (ORDIMIP)*" presented the sitting process for the disposal of the chemical waste with high toxicity degree at Midi – Pyrénées. He explained the context and the problem: according to the law acting at that time (1992) regarding the industrial waste management, each region had to have a plan for their elimination - a plan coordinated by the Prefect of the region, and gave details on the ORDIMIP process. This process covered two levels: the local and the regional ones, each of them having their own consultations instruments (Consultative Commission at regional level and Local Commissions for Information and Monitoring (CLIS) at each disposal site involved in the process). The main objectives of ORDIMIP were to define a concept for the chemical waste repository answering the technical, economical, social and ecological requirements, and informing the population. It was an independent organization but not a place for decision. The process covered three stages, corresponding to the levels involved (national, regional and local) and Stephane detailed the steps of each stage, covering the creation of ORDIMIP and respectively CLI de Graulhet, their composition, objectives, activities, evolution and articulation between them. The entire process was based on plurality and balance and contributed to the final purpose - the regional centre for chemical waste.

Marian Constantin, from NF, presented the current DMP occurring in Romania in order to provide the background information for a practical exercise in the Romanian Stakeholder Group having as result the improvement of local contribution to the current DMP. The presentation started with nuclear culture aspects in Romania. After 1989 we've learnt that public must be consulted. Public consultation for the Unit 1 and 2 of Cernavoda NPP was done without a major public participation. Regarding the RWM, Marian showed that

ANDRAD comes on an historical situation already existing. ANRDAD has some deadlines that let it enough time for its projects, but there is also an optimum period of time for implement them. ANDRAD’s strategies foresee the public involvement in the decisions regarding waste disposal. The presentation identifies aspects regarding the decisional process from the point of view nuclear operators (ANDRAD, NPP) as well as from the local communities point of view, applied to the LILW management, according to the stepwise DMP process proposed by Claire (problem definition, policy formulation, management action and monitoring and evaluation). Starting from the UK model and the particularities of the Romanian case, Marian proposes a plan as a starting point for the discussions with the members of the Romanian Stakeholders Group.

The proposed DMP exercise consists of the identification of the steps, need for investigations, possible ways for the evolution process, need for analysis support etc. for the sitting process of the national LILW repository in the Dobrogea region (including Cernavoda-Saligny area). Clearer the definition of the problem is: *“Is Cernavoda Area appropriate for a LILW Repository site (including silent public voice)?”*

The process include four steps:

- (A) problem definition;
- (B) preparatory phase: What is the knowledge related to the Problem?
- (C) knowledge strategy: Capturing the Needed Knowledge;
- (D) RW repository discussion: Difficulties, Solutions, Interests ;
- (E) negotiation: Harmonize the Interests

In Figure 4 a sketch of the approach is presented.

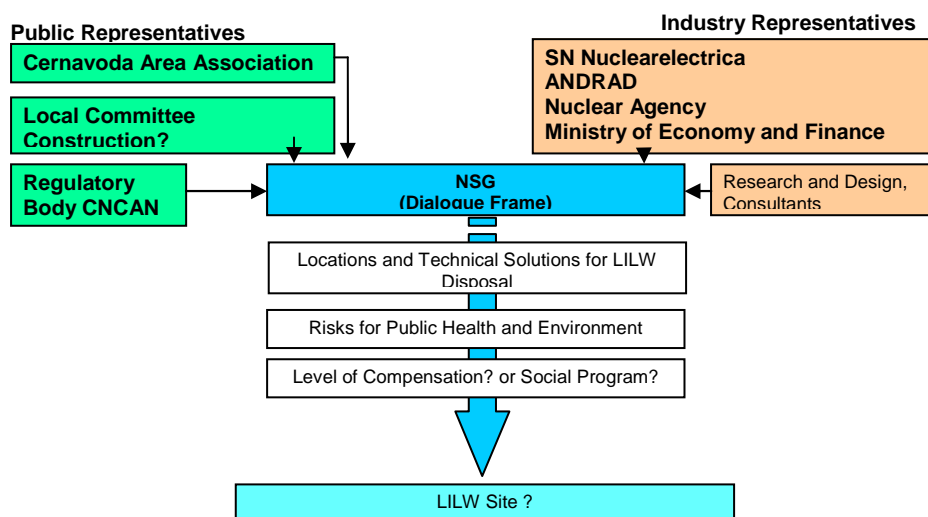


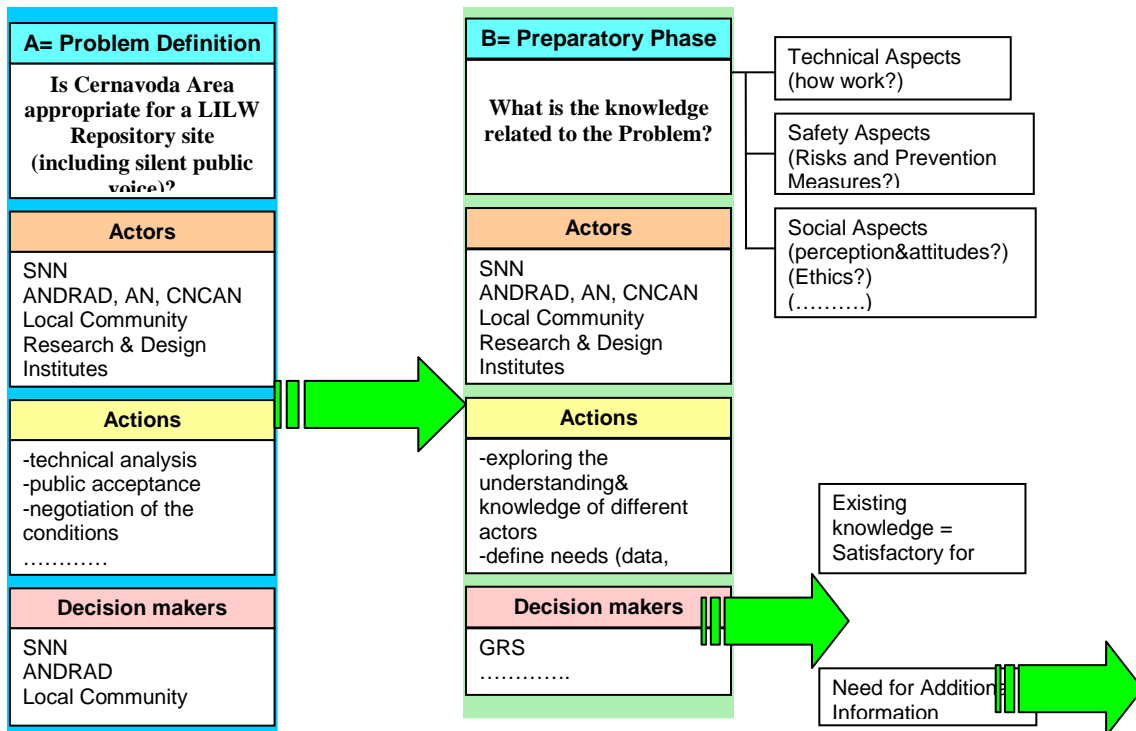
Fig. 4 LILW Sitting DMP

Two perspectives were analyzed, from the point of view of nuclear industry and, respectively, of the local community. The formulation of nuclear industry compared with the formulation of local communities is presented in Table 3. The different steps of the process are identified in Fig. 5.

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Table 3. LILW Sitting DMP- Formulation by Nuclear Industry and Local Community

	Nuclear Industry's Formulation	Local Communities' Formulation
Problem definition:	Is Cernavoda Area appropriate for a LILW Repository site (including public acceptance)?	Is Cernavoda Area appropriate for a LILW Repository site (including silent public voice)?
Policy formulation:	Convincing local voices the site is appropriate, the risks are very low, the advantages are important;	Obtain the maximum benefit from LILW project; Reducing the possible dangers;
Management action:	Lobby for Site; Discussion with local authorities; Public debates;	Compensation Low Definition; Negotiation about the level of compensation; Dialogue and negotiations with NPP and ANDRAD;
Monitoring and evaluation	Effect in acceptance; Real progress in legal actions for the LILW Project;	Progress in compensation low; Public Acceptance Investigation.



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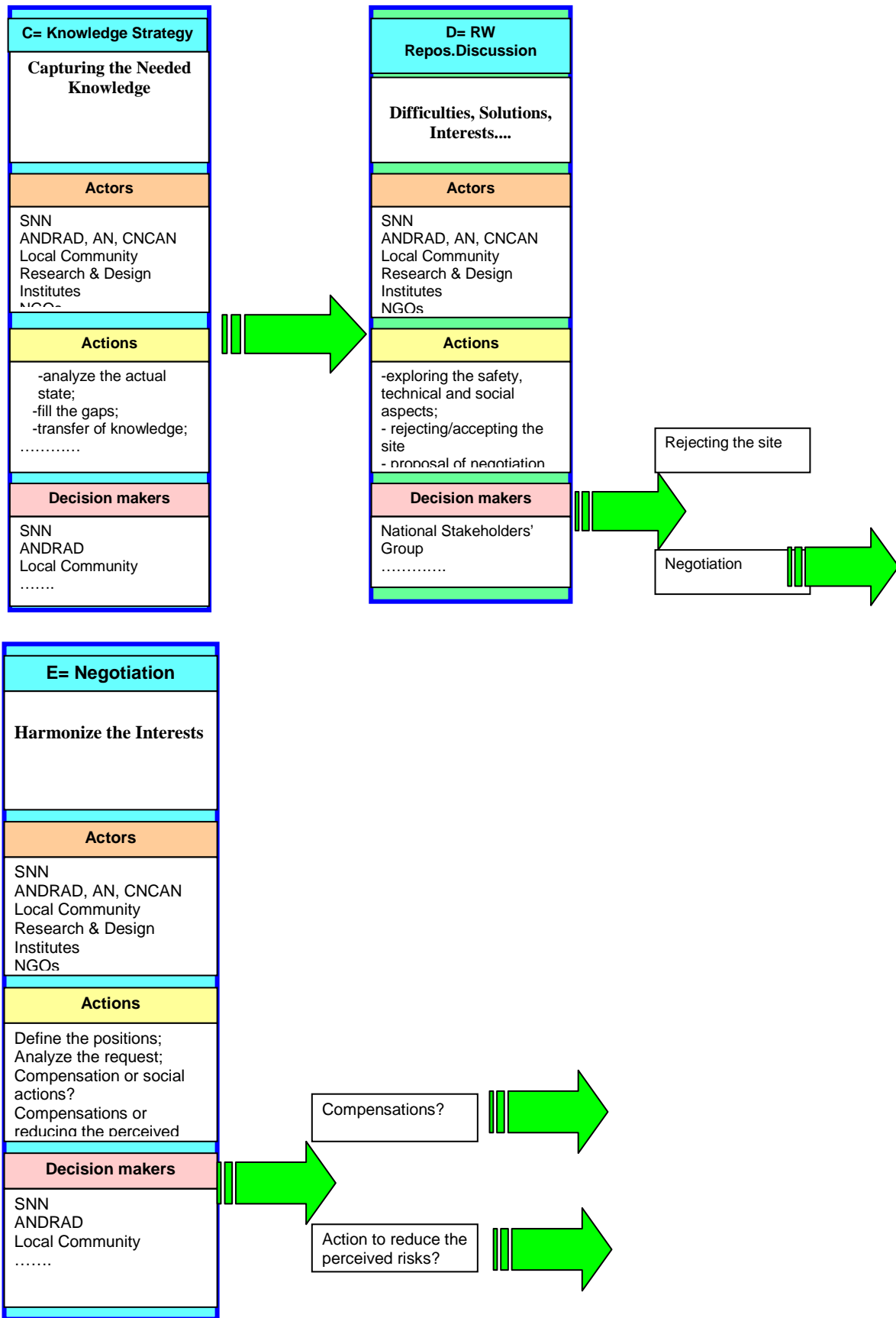


Fig. 5 Sketch of DMP

Cernavoda town Mayor considers that it is necessary to have in Romania as in the other European countries, a law for public debate and a scheme with stages and procedures for successful DMP. What should be done in the future? It should work for continuity and perseverance in the implementation of the plan proposed by Marian Constantin (see DMP). This plan can be applied and its objectives could be achieved. It is more difficult to influence the community. He considers that the national authorities (ANDRAD, CNCAN, AN, INR) should insure the continuity of their links with community. He wishes to have a larger participation including surrounding municipalities (Saligny, Seimeni, Aliman, Rahova), but to exclude the TVs representatives.

Saligny village Mayor said that compensations and social programs should be negotiated by free, open and honest discussions, which shall decrease the distrust. People from Saligny are concerned by the safety of the environment in which they are living. He knows that CNCAN (the Romanian regulatory body) will decide if the repository will be built at Saligny or not. But could they trust the CNCAN competence?

Representative of ARIN considers that CNCAN is a very well known institution in Romania acting from long time and it is independent. However, the political influence should be not neglected. She appreciates the young staff of CNCAN.

Representative of CNCAN informed that Regulatory Body is assisted by IAEA experts in the process of sitting. Recently an IAEA mission concluded its evaluation of the technical documentation and formulated remarks and recommendations.

Saligny village Mayor explains that he has no specialists to judge the correctitude of CNCAN's decisions, and he must take a very important decision involving the present and the future of the people living in Saligny, the approval for the future site of LILW.

Representative of ARIN, sceptical, affirms that everything is in fact a political command.

Representative of AGIA agrees on the political influence. AGIA's law-proposal on compensation for the limited use of the land, sent to all institutional organizations able to support it, lost already one year due to political groups. He has a good opinion on the CNCAN competence. The previous activity of CNCAN, based on a very professional training of the staff and a procedures-based evaluation guaranteed the nuclear safety and quality in Romania. The permanent IAEA assistance makes CNCAN work and decisions even more trustful. Speaking about the people distrust, he considered that SNN (National Society "Nuclearelectrica") is the main responsible and could improve this situation by ordering a study on the state of the people health. The Information Centre from Cernavoda organized by SNN is not an efficient information solution since to understand all information delivered by this centre, a certain technical background is necessary and not everybody has it. Regarding the activity of the NSG, he considers that the problems should be discussed step by step. The scheme proposed by Marian is good, it is interesting, and could be completed adding the NGOs as decision makers. A clear distinction must be made between administration and community.

Marian Constantin (NF) underlines that a Local Committee can ask for independent expertise.

Representative of CNCAN underlines also the idea of the independent experts. CNCAN also asks their opinion when necessary.

Representative of Saligny concluded that he does not contest the CNCAN professionalism.

Mariana Mircea, NSG president, appreciated the plan proposed for the decision making process, based on the UK model and considers that it should be closely followed up. But for the Romanian case, meaning the sitting process of LILW repository, the key problem is the time. We are already in the stage E and it is impossible to recover the steps C and D. The Local Committee for Information was created, in rush, for the public information and consultation. The actors in the stage E have been very well identified in the scheme. The decision makers are the key factors. Those that insure the success of the public participation are the NGOs; they are also stakeholders, involved factors, but they cannot make decisions. Actually, the key factors are the Ministry of Economy and Finances, ANDRAD or SNN, CNCAN, the municipalities of Cernavoda and Saligny. In order to make a real progress, the NGOs must be consulted. But the NGOs have no articulations to intervene in the DMP. Speaking about the citizens' concerns, she considers that it is not about distrust in CNCAN, but about a lack of a clear presentation of the RW problem. They feel something happens but they cannot understand what they should do.

Representative of ANDRAD partially agrees *Mariana's* position on the DMP, but she said it is not true that the decision regarding the LILW repository at the Saligny site was already made. If the result of CNCAN evaluation for the disposal on this site will be negative, the sitting process will be restarted from the beginning. ANDRAD is ready to provide any information regarding LIL repository requested by the public and NGOs. Up to present, already ANDRAD made already 5-6 presentations on the radioactive waste management in Romania and on the decision scheme, which is very complex.

Theme 3: Health and Environment Monitoring around Nuclear Installations

Objectives:

- (O1) To exchange experience of other countries in monitoring;
- (O2) To understand the role of the public and LC in health and environmental monitoring;
- (O3) To present the monitoring activities performed by different Romanian organization (National Agency for Environment, Institute for Public Health, Nuclearelectrica-NPP owner)
- (O4) To investigate the specificity of the Cernavoda area case
- (O5) To discuss the public perception and the needs related to health and environmental protection
- (O5) To identify the actions and the actors in order to improve health and environmental monitoring

Presentations:

a) MTF Experts' Presentations:

- Monitoring the impact of nuclear facilities: experience of French local commissions by *Serge Gadbois*
- Long term environmental surveillance by *Ludivine GILLI, Cynthia REAUD, Thierry SCHNEIDER*
- Health impact assessment concerning nuclear installations: Feedback experience by *Ludivine GILLI, Cynthia REAUD, Thierry SCHNEIDER*

b) Romanian authorities' and industry's presentation

- The health of the population in the neighborhood of nuclear objectives by *Cristina May, Alexandra Cucu, Institute of Public Health, Bucharest*
- Radioactivity Monitoring for Environment by *Elena SIMION, National Agency for Environmental Protection*
- The Impact of Cernavoda NPP Normal Operation on the Environment by *E. Bobric, I. Popescu, V. Simionov, Health Physics Department, Cernavoda NPP*

c) Needs of local representatives:

- The Proposal of the Local Community for Improving the Monitorization Programmes of Environmental and Population's Health by *Elena Rotaru, Cernavoda community*

The main conclusions of the presentations, investigations and discussions:

The theme was discussed in NSG3 (September 2008), S3 (January 2009) and NSG4 (February 2009). The theme appeared both as a **direct interest** of the public related to the concernment of Cernavoda inhabitants about the influence of NPP (by radioactive releasing) on the health and a **indirect interest** related to the compensation issue;

In NSG3 *Serge Gadoids*, MTF expert, presented examples of environmental and health monitoring around the nuclear facilities of La Hague, North Cotentin and Grad entitled: *"Monitoring the impact of nuclear facilities from a local perspective: the experience of French Local Commissions"*. This historical approach reported steps taken by local commissions and their motivation to launch the existing epidemiological studies and set up a register of cancer to determine any possible correlation between the existence of nuclear activities and health problems in the population. The presentation highlighted the way in which local Commissions of Information (CLI) were involved in the monitoring activities and implementation of the register, as well as matters relating to material and human effort involved in these programs. The presentation emphasized the difficulty to find a straight forward answer to questions about the health impact. In this respect, Local Commissions try to develop a better understanding of the mechanisms, processes and paths which lead from releases to a possible pollution, and a possible health impact.

Representative of AGIA requested inviting personalities from the Ministry of Health or the Department of Health Constanta to hear and learn about methods used in Europe. He also criticized the Environmental Impact Study done for the Units 3 and 4, in which graphics are displayed only with the radiation for areas with the highest exposure in the country (Calarasi district). He asked if in Romania have been done studies on public health in the area of nuclear objectives and if so, desired to be made public these results.

Representative of ANDRAD proposed that, for the next meeting, the MTF expert address health monitoring around a LILW disposal site, similar to LILW Saligny repository because the cases presented by Serge are related to the NPP and reprocessing plant. Regarding the press statements saying that Saligny repository implementation is imminent, ANDRAD indicates that right now there are just studies. Regarding the monitoring of health, Stela stated that during the Meeting of the Romanian Society of Radiation Protection held in Galati, 9-11 September 2008 the paper *"Report on National Program on health around nuclear facilities"* was presented. The program was started in 1999 and performs comparisons with the average health status in the country. The investigated parameters are the mortality due to the cancer

and cancer incidence induced by solid tumors, leukemia and lymphoma. In Cernavoda area in a state of health larger than the national average has been reported. ANDRAD intends to make the necessary arrangements for this report to be presented in detail in the public debates in the area Cernavoda-Saligny. But the following questions remains to be answered: does the presence of a LILW repository bring something besides the existence of the CNE in the area? Further investigations are indeed needed?

Representative of medical workers from Saligny Village, indicates that physicians annually transmit data on the cancer morbidity situation but she does not know if they are centralized in a database or register. Measures to prevent cancer and illness and on the cancer consequences consisting in some previous changes that should be known are needed.

Representative of ANDRAD indicates that from this reason, the monitoring of health should be doubled by a program of environmental monitoring.

Representative of medical workers considered that focus on cancer exclusively could hide other effects of radiations. In this sense he noticed an increased number of anomalies of the teeth and jaw in very serious forms caused by changes in the embryo stage that could be a result of irradiation. In his opinion the Dentistry Association should conduct studies on teeth.

On the other hand Constanta Department of Health knows too little about radioactive waste and the potential LILW repository at Saligny.

Representative of UP asks if there is another alternative in case Saligny LILW does not receive license for construction.

Representative of ANDRAD answered in case if the Saligny site will be technically inadequate, ANDRAD will switch to another site investigation. At present, the undergoing activities consist in: remedial drilling, experiments to improve the bearing capacity of the loess, assembling a network of sensors for the monitoring of the unsaturated zone hydrogeology and a meteo-station.

Representative of UP considered that a delay in repository construction could generate problems for the storage of waste at NPP.

Representative of AGIA expressed his distrust in national institutions and regional health authorities, in local and national authorities in the nuclear field and he would like to have the possibility of performing independent surveys by an agency from abroad.

Representative of Cernavoda NPP says that if distrust exists, then studies supported by international funds can be done; but the indications on the cancer cases are provided by doctors.

Serge Gadbois indicates that in France these programs have been carried out by expert organizations, NGOs and universities, sometimes including foreign experts to strengthen the trust. But there have been also cases in which studies were made by specialized public organizations.

Representative of AGIA said that "we are asked to be confident, but we received nothing! For example, our (AGIA) compensation law is already at the fifth revision. Money coming from compensation could be given to the hospital to ensure health of the population. There is no cardiologist in the hospital. AGIA is working in a project for making a cartoon, an information material for local television to inform the population about the dangerous waste generated by the NPP. We have concerns, but we ask in turn (compensations)".

In the second part of the presentation *Serge Gadbois* has pointed that health and environment monitoring should be investigated together. Serge presented a list of topics that could be prepared by the Methodological Task Force (MTF) and could be of interest for Romanian Stakeholders, such as information on the health and environmental surveillance systems operating in France around similar disposal to the prospective site in Saligny (LLW), actions undertaken by Local Commissions along the Loire Valley, to follow the impact of nuclear facilities on the environment, the role of local actors in monitoring, how to ensure the relevance and transparency in these programs in present and future.

Daniela Diaconu (from NF) ask participants if would be appropriate to initiate a program for health monitoring parallel to the national one or the existing system should be only completed. Another proposal was to continue discussions on the health and environmental monitoring program and to invite the authors of the report indicated by Stela in the future meetings, if the partners consider it is useful.

Representative of Cernavoda NPP indicates that there are other parallel activities, independent, such as surveillance of the environment around the NPP.

Mrs. Claire Mays, MTF expert, estimated that it is a very complex situation. Local situation is defined by differing parameters, roles, styles of thinking, behavior, relationships, according to the different stakeholders. For this reason we cannot simplify things and demand that all act according to a single logic. In particular we cannot all have the same temporal perspective. Governmental authorities work to short deadlines within a bureaucratic process and in this perspective it is normal that they set 1-5 years for a study. However, finding answers to some questions asked by the LC, in particular about long-term health impacts, will require decades. We cannot unify the perception, but the demand for more transparency is normal. Demand for more transparency does not mean necessary distrust but the eagerness to improve things. In this moment, the role of local communities is not fixed yet. LC has an important role in increasing transparency.

Representative of Cernavoda NPP recalls that it was about three things: health, environment and money. Money is look through the financial compensation. But how much is an mSv (miliSievert - unit dose absorbed by a person)? Could the financial compensation be directly correlated to the radiological risk?

Serge Gadbois consider that it is a question which has been discussed for a long time in Europe. The following answer could be made: why to receive compensation if there is no risk? Does bartering risks and money help the community in managing its future? In the case of radioactive waste management funding is rather seen as a sign of solidarity with the communities that host a radioactive waste repository and as a solution to their vulnerability. Funding should support the community in its autonomous development and in its capacity to remain vigilant and to gain control over its future.

Representative of Cernavoda NPP said that according to IAEA documents, there is no risk compensation by offsetting amounts of money.

Gaston Meskens, MTF expert indicates that there is a formula to calculate the compensation, but it is only an ethical issue.

Representative of AGIA has an opposite opinion. In the AGIA law-project, there is a relationship to calculate the compensation and a method of sharing them, for example resolving critical local issues, such as the Hospital staff in Cernavoda. He recommends SNN to read the projects proposed by local NGOs.

Representative of medical workers considers compensations as a means by which the life standard (quality) of a person can increase, preventing the negative effects of previously generated situations.

Thierry Schneider, CIP expert from CEPN France, presented “*Health impact assessment concerning nuclear installations: Feedback experience*” centred on the instruments available for the measurement of the health evolution around a nuclear facility and results achieved in the France in different studies. Thierry described the main instruments available: cancer registry, epidemiological study and risk assessment, describing their objectives, expected results of each instrument, their relevance, limits and benefits. The presentation was illustrated with examples for each instrument: the cancer registry in Manche county, epidemiological studies and risk assessment undertaken by North Cotentin Radioecological Group following an excess of leukemia around La Hague reprocessing plant. Thierry explained the contexts generating these studies, the organization of each process and the main outcomes. The cancer registry is a useful instrument but irrelevant since it does not lead to clear conclusions. Based on its data, no connections with nuclear installations could be established. The epidemiological study looking to the maladies frequency and distribution is an instrument important in the exploration of the hypothesis of diseases source, but also irrelevant, since conclusions are not possible due to the poor statistics available. The risk assessment is subjected to large uncertainties especially connected to source term definition. It gives figures but these could be irrelevant.

Representative of ANDRAD underlines that the epidemiological and risk assessment studies presented by Thierry have been done for La Hague, an area with many nuclear facilities (reprocessing plant, nuclear power plant), quite different from Cernavoda and Saligny case.

Cyntia Reaud, CIP expert from CEPN France, presented the first part of “*Long term environmental surveillance*” reflecting the French experience for LIL waste disposal monitoring around the Centre de l’Aube. The presentation gave insights on the repository systems, the regulatory elements requested for safety, the surveillance plan developed and applied by the operator (ANDRA) and some results obtained by independent laboratories and by ANDRA itself. A special focus was given to the public information process consisting in reports to the competent authorities and civil society produced by the operator (ANDRA) such as annual public reports, reports released soon after incidents or accidents, and information about discharges sent to Local Liaison Committee.

Ludivine Gilli, CIP expert from CEPN France, continued the presentation on environmental monitoring around a LIL waste repository with the feedback experience of Local Liaison Committee of Soulaïnes’ action, consisting in an independent environmental monitoring project undertaken by Soulaïnes’ LLC in cooperation with a Lyceum. The origin of this process started in 2004 when people began to be concerned by a change in the legislation related to the liquid discharges in environment. It evolved in 2006 with the people concerns on the potential impact of the LIL repository on the local products (wood, champagne) that determined the LLC to pay an independent environmental impact study in order to produce independent observations but not to formulate conclusions. The process involved an independent expert, but also ANDRA participation. This cooperative process was a positive experience bringing a better understanding of the environmental issues and of the radioactive level in the zone. The presentation ended with few elements that could be address by the Romanian stakeholders in order to define a monitoring plan in Cernavoda-Saligny zone such

as the involvement of the local actors in the design of the monitoring program, their access to information and independent experts.

Cristina May and Alexandra Cucu, from Institute of Public Health, Bucharest in “*The health of the population in the neighborhood of nuclear objectives*” described the national situation for health of the population located in the neighborhood of nuclear power sites, based mainly on the study of the neoplasm’s’ frequency. The main result consists of a database construction containing the evolution of the health of population located in the neighborhood of NPP.

IPHB presented the methodology for data collecting and processing. The main of the work are:

- the standard rate of general mortality in Cernavoda area is less than the average of the country (about 75% of the averaged value);
- similar results for the standard rate of mortality through solid neoplasm and standard rate of neoplasm incidence in Cernavoda area;
- comparing the leukemia incidence in Cernavoda and other nuclear sites (Bechet-near Kozloduy-Bulgaria NPP, Pitesti-research facilities and Feldioara-plant for fuel powder) the results are similar, excepting Feldioara where the incidence are greater;

Similar with the French presentation IPHB cannot conclude that a correlation between incidence of cancer and presence of the nuclear facilities may be proof in this stage. At the same time the extending and refining of the investigations based on national funds is compulsory needed to maintain the continuity of the process.

Elena SIMION, from National Agency for Environmental Protection, in „*Radioactivity Monitoring for Environment*” presented the methodological aspects and results of the surveillance in the Cernavoda. The main results are compared with the surveillance of Kozloduy area (Bulgarian NPP, placed on the border with Romania). The investigations have included: atmospheric aerosols, atmospheric total depositions, surface water, groundwater, rainfall water, drinking water, vegetation, soil. The results are presented per each month of the year for some of the important radionuclides. All the results show values under the specifications imposed by national rules. The surveillance and analysis methodologies are based on international procedures and standards. The presentation outlined the national structure of the monitoring network at national level, with a special focus on the Cernavoda zone. From 88 automatised stations existing in Romania, 32 are placed around Crenavoda NPP and 17 around the Koslodui NPP. Water and air samples are analyzed in the 37 laboratories around Romania working 24 hours/day. The Agency runs two major programs: a standard program for measurements of the environment at the same time in all locations; and a program following the antropic modifications in time. The results of the monitoring program showed that the radioactivity measured around Cernavoda, as well as in other towns as Slobozia, Calarasi, and Constanta are in the natural background limits. The gamma spectrometry data did not show gamma emissions from the NPP. The radionuclides found in environmental samples (Cs 137 or K-40) are from Chernobyl accident. The H-3 measurements in rain off and surface waters (collected at Seimeni, Saligny, Cernavoda-Dam and release location) are below the accepted limit in the drinking water (100Bq/l). The dose rate measured around Koslodui ranges between 90 and 110 mSv/hour, a normal value.

E. Bobric, from Health Physics Department, Cernavoda NPP, shows in the presentation “*The Impact of Cernavoda NPP Normal Operation on the Environment*” that an important activity

in the environment surveillance is made by NPP operator- CNE Cernavoda. The presentation was focused on tritium measurement: tritium concentration in environmental samples around Cernavoda NPP (air, water, drinking water, food samples).

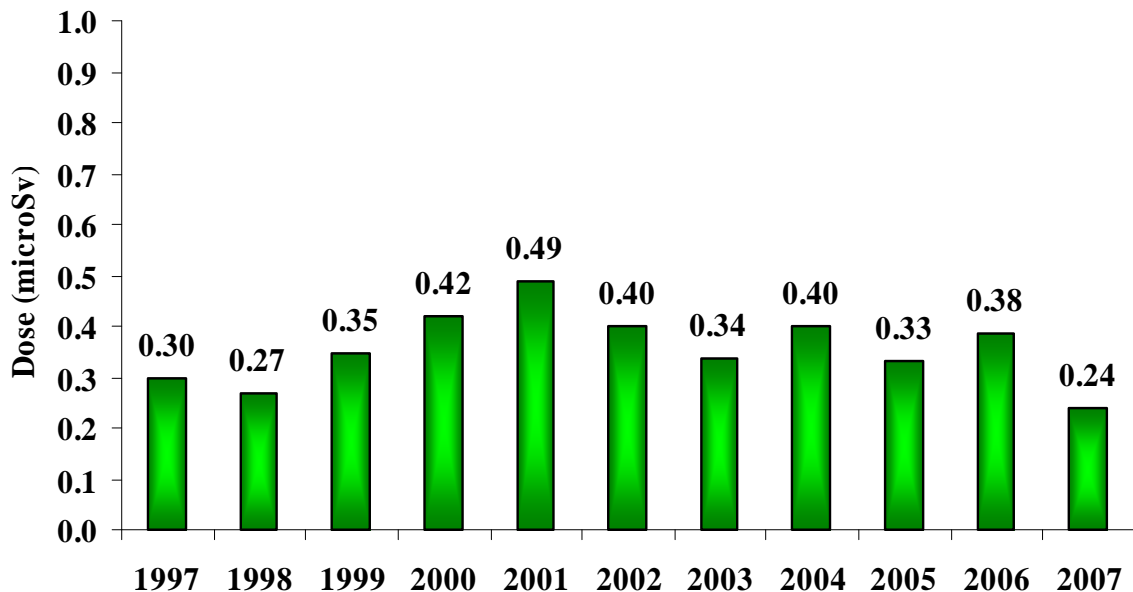


Fig. 6 Tritium doses for Cernavoda people estimated using measured tritium activity in environmental samples

More than 12 years of experience in CANDU operation at Cernavoda NPP have shown that tritium is mainly released as tritiated water in gaseous and liquid effluents and has the most important contribution to public and professional exposure. Tritium doses for critical group due to Cernavoda plant airborne emissions between 1996 and 2007 were less than 10 μ Sv/year. Tritium doses for Cernavoda people estimated using measured tritium activity in environmental samples (Figure 6) are with one order of magnitude lower than dose values for critical group members.

The environmental monitoring program covers a large area surrounding the NPP and a large spectrum of samples. But it is not easy to collect systematically some types of samples from the local farmers (milk, chickens, and vegetables) or fish. Tritium doses for Cernavoda people estimated using measured tritium activity in environmental samples are one order of magnitude lower than dose values for the critical group members (children and elders). The monitoring system is continuously measuring the I-129 and the radioactive particles, H-3 and C-14. The NPP releases Bulletins to the Local Authorities from Cernavoda and Saligny, to AGIA and briefs in local TV news.

Elena Rotaru, from Cernavoda community, presented “*The Proposal of the Local Community for Improving the Monitorization Programmes of Environmental and Population’s Health*”. The presentation included the main public opinions related to health monitoring and environmental surveillance as follows:

- spent fuel storage (dry storage on 50 year), NPP and future LILW repository are seen as certain risk factors for public health and for environment;
- the most part of the perceived or existing diseases in Cernavoda town, including the high ratio of cases of tuberculosis, are consequences of the

radiations; even the mental diseases are consequences of the fear/anxiety produced by the presence of daily risks;

- the health system (hospitals, physicians, medical equipment, etc.) is characterized as poor and without future; the attractiveness of medical jobs in Cernavoda is perceived as very low;
- until now, the complete set of analysis needed for discovering a severe dysfunction can not be provided by local medical system, some of those analysis being sent to laboratories in other counties, with the consequence of delaying the diagnosis;
- only few private medical laboratories exists in Cernavoda and these provide a limited type of analysis
- the required compensations are seen as an useful mean to finance the health system in order to improve the existing situation;
- the representatives of local NGOs expressed the lack of trust in regional and national structures of health/medical system and also in nuclear authorities; they want independent parallel studies in order to compare the official results with independent ones;
- related to the future LILW Saligny repository the NGOs representatives see the fact as a desired concentration of the risks in the same area in order to not disturb other communities; in that sense, the Cernavoda area population is seen as a “given up” community;
- it is very important to know the determinant factors for diseases with a major impact on the population’s health and to perform an early diagnose on the basis of the improvement of the investigation and monitoring capabilities;
- extending the usual monitoring around the nuclear facilities (cancer and leukaemia) to other diseases with a major impact on the health, like: tuberculosis, diabetes, endocrinological diseases, and other diseases that are directly caused by the presence of radiations;

Local community of Cernavoda has formulated a proposal for improving the population’s health by increasing the population’s access at services of preventive medical assistance consisting of:

- definition of a complete set of analysis for early detecting of certain diseases induced by external factors (radiation, effluents) or internal (risk stress)
- obtaining the financial support to cover the cost of the analysis (by NPP or nuclear authorities)
- identification of the most performing laboratories from Constanta County that should be contracted by Cernavoda
- defining the program for health monitoring: statistical group, type of analysis, implementation methods, experts to discuss the results, evaluation methods, feedback
- achieving a high operational standard for the hospital through: acquisition of new equipments and hiring specialized personnel, setting up an appropriate management and new laboratories for cardiology, endocrinology, rheumatology, ophthalmology, etc.
- involving of the family practicers in the existing population's health monitoring program; acquisition of computers, equipments and software for the dispensary

- performing periodical comparison of the monitoring results for the people around the nuclear sites and regular results from other regions of the country.
- periodical comparison of the environmental characteristics of nuclear sites and similar non-nuclear regions of the country

On the other hand local community proposes to introduce activities of information connected with health monitoring:

- education of the population – performed with the support of the local administration and the medical personnel – to adopt a ‘healthy life style’, having the purpose to reduce the frequency of risk factors related to the actual dominant diseases;
- systematic information, counseling and clinico-biological screening for early discovering of oncological, cardiological and neurological dysfunctions and other diseases connected with reproductive system and mental health, as a function of risk factors;
- Institute of Public Health will provide useful information based on the reports and the studies performed on the population inside a region with a radius of 30 km around the NPP, carried out for the diseases caused by radiation and for the complementary dysfunctions, during 1984-1994 and 1994-2007 (after the starting of Units 1 and 2), and also the influence of the C-14 and H-3 emissions;

Concluding the meeting, it was established that the Institute for Public Health will collaborate with the Cernavoda community in order to perform microcellular investigations. The funds must be supplied by authorities. The details will be discussed between the two parts in the next future.

Theme 4: Social Aspects and Local Development

Objectives:

(O1) To identify local needs for development and to try to prioritize them

(O2) To explore the possible approaches to support the local development including involvement of nuclear industry

Presentations:

- “Social aspects of the local communities Cernavoda and Saligny (present aspects and future perspectives)” by *Gabriel Tatulescu, Mayor of Saligny*

- "Social Aspects for Cernavoda: present and future" by *Mariana Mircea, Mayor of Cernavoda*

The main conclusions of the presentations, investigations and discussions:

Mariana Mircea, Mayor of Cernavoda, in "*Social Aspects for Cernavoda: present and future*". Reveals that the main problems of the city are: economic activities linked solely by the NPP, increased unemployment, above the average county (reported figures are unrealistic), the low level of income, the low level of health services, lack of parks and public

gardens, poorly developed infrastructure. Infrastructure requirements are related primarily to: heating system and, sewerage extension, the electrification of new neighborhoods. The funds needed for these projects exceed 50 millions euro. Claims for compensation are justified by the situation in city development and its social condition (many citizens are socially assisted). Development requirements are: infrastructure development mentioned above, improvement of health services and education (establishment of a University with a research center in energy as in Slovenia), leisure time, the protection of cultural heritage, creation of an industrial park to create new jobs, houses building. Cernavoda mayor requests support from the national nuclear authorities for the house heating and the other projects, getting financial compensation, support for information (considered more important than compensations). In the end, she reminds the compensations received by important towns hosting wind energy plants on their territory.

Gabriel Tatulescu, mayor of Saligny, presented the "*Social issues specific to Saligny Village: present and future*" in which he mentioned the progress of some infrastructures projects and those needed in the next period. The urgent development needs formulated in the strategy of local development are: water supply system, sewerage and waste water system, heating. The main problem is similar with Cernavoda one: the funding. Therefore the local authorities formulate the need of lobbying from the nuclear authorities in order to obtain grants. Supplementary, among the community wishes there and those to get electricity at the producer price and heat to a low cost. He estimated that authorities in the nuclear field are not represented in the NSG meetings by representatives with power of decision.

Representative of SNN had announced that the money required for the functioning of the LC will be consumed by the end of the year. Regarding Mariana's request for extension of public gardens and parks, it is compulsory need to identify the location for forestation.

Representative of ANDRAD welcomes the idea to require lobbying for infrastructure projects from nuclear authorities.

The main conclusions of the theme are:

- the development needs are clearly formulated by the local authorities, including the estimated budget;
- the needs are relevant and very important both for quality of life and to stimulate the development of local economy;
- the needs are urgent and may not be sustained by local public funds; national and/or European funds are needed;
- a strong support from nuclear industry and national nuclear authorities is needed in order, minimal by lobby, to open appropriate themes in national project competitions;
- the nuclear industry cannot fund the local development, except the measures contained in the Social Programme;
- the NPP contribute indirectly to the Social Programme implementation since the responsibility is at the governmental level;

Theme 5: Benefits for RW Host Community

Objectives:

- (O1) To obtain relevant information about the benefits/compensations system used in other countries;
- (O2) To identify the specificity of the Romanian Case and the possible approaches;

Presentations:

MTF Experts' Presentations:

- A review of community benefits, by *Phil Richardson – Galson Sciences UK*
- Belgian approaches for community benefits for LILW disposal, by *Gaston Meskens – SCK-CEN, Belgium*

The main conclusions of the presentations, investigations and discussions:

Although the theme was systematically discussed in NSG5 (June 2009) it appeared as a red thread in all the meeting. Generally it was a central point for the discussions, the representatives of the local communities introducing frequently the issues in their speeches, questions or answers.

Phil Richardson, from MTF, in “*A review of community benefits*”, presented the principles and the types of community benefits with examples from different countries from Europe, USA, Canada, Republic of Korea (cash incentives, social benefits, empowerment measures, and involvement support packages). The cash incentives may be grouped as: (1) lump sums (payments made directly to the affected community); (2) annual payments (regular, throughout agreed period); (3) expert support packages (allows access to external views); (4) tax revenue: to compensate for perceived impacts; (5) trust fund: to support future generations if problems arise; (6) profit sharing (allows a feeling of local control if privately operated). Generally the funds are used for creating local expertise, performing studies, and support for DMP or for local development. Phil apprised that a great amount of money injected in a community may create a splitting effect.

Social benefit' measures are intended to diminish indirect effects such as the decreasing of the agriculture production, land values etc. and they may be: (1) employment (must not be seen to target poorer areas); (2) infrastructure improvements (to offset real or perceived impacts); (3) property value protection (compensation for demonstrable decreases in value); (4) integrated development projects (long term support); (5) relocation of developer (vote of confidence in the safety of the facility plus economic benefits); (5) discounts (tangible compensation for a national service). The reducing of the electricity price may be a solution for Saligny and Cernavoda.

The community empowerment' measures are: (1) local involvement in DMP (opportunity to influence the details of the project); (2) capacity building (allows community to learn about the issues); (3) development of a local partnership to oversee project (allows a sense of local ownership and control).

Involvement support packages are less frequently used. For example in Belgium for LLW approximately 250,000€/yr was available to support the partnership during the initial feasibility work, followed by 125,000/yr following agreement to site a facility (subject to current review). In Canada, for ILW, consultants, reviewers and experts can be hired as part of €23 million of available support over the next 35 years.

Finally Phil presented a SWOT analyse for the benefits with detailed aspects for each type and component.

Gaston Meskens, from MTF, in “*Belgian approaches for community benefits for LILW disposal*” presented the compensation aspects for communities from Belgium. Gaston affirmed that the involvement of the stakeholder in DMP is a right, not a benefit. The compensation for risks should be added to the right to participate, therefore the costs of participation does not represent compensations. The concept of compensation is more appropriate for nuclear field than the benefit term since the compensations are legitimated by the existing risks. The presentations are focused on the historical aspects of partnerships formation and functioning in Belgium (Mona, Stola and Palloff) connected with the compensation idea. Even that in the site selection process Dessel was preferred as the solution, the community of Dessel affirmed the determination to involve Mol community in the DMP and, also, to share the resulted compensation. However, some divergences connected with the extending of the affected zone and with the management exist. On the other hand, the compensations are ethically justified, but the risk quantifying process is difficult to be applied. Compensation cannot be seen as a back-hander, because the communities receiving national wastes receive the drawbacks produced by whole society. It is difficult to estimate the level of the compensation due to the: processes complexity, hypothesis and predictions’ complexity, uncertainty of the causal relationship, difficulty in comparing risks and benefits. To identify the beneficiary of the compensations geographical factors (affected region) and temporal factors (present generation decides the level of compensations received before the generation of a risk) should take into account. The definition of the sustainable development may be the basis for the compensation principle. This principle need some flexibility and allows different compensation approaches.

Representative of AGIA asked who was responsible in Belgium to obtain compensation.

Gaston Meskens indicates that in Belgium there are indications for the creation of Waste Fund established on the principle "polluter pays". There is not yet stipulated money for local development, but there is discussion between the agency and waste polluter to increase it. Communities are interested in receiving direct this money because these funds could be managed more efficiently and on longer term. A very important fact is that there is an agreement between the partners on the need of the fund for socio-economic development.

Claire Mays remembers the model of Sweden, where the fund is established by paying a percentage of a KWh of energy produced. Local communities have made a petition to fund independent studies from this fund.

Representative of AGIA prefers the Slovenian model of compensation. Local NGOs and local authorities want an appropriate level of compensations in order to sustain the local

development needs. Unfortunately in the NSG meetings decision-makers of nuclear authorities (SNN, ME, ANDRAD, CNCAN, NPP) are not present (these organizations prefer to be represented by middle-management persons). Another important aspect is connected with the delay in formation and functioning of LC. Without a functional LC the progress in compensation problem will be difficult.

Claire Mays said that affected community is not defined by an administrative territory, but as a group of communities placed in the influence region of a nuclear facility. Therefore the compensations are intended to such a group of communities.

Representative of AGIA asked the representative of SNN NuclearElectrica about the amount of taxes paid to the local community for NPP operation and intermediate spent fuel facility operation, but the representative cannot answer. Also, he asked Nuclear Agency about the lack of feedback at the proposal of Compensation Law addressed by AGIA to nuclear authorities.

Representative of Nuclear Agency said that she is not mandated for an answer to this question.

Mariana Mircea, mayor of Cernavoda, affirmed that the nuclear industry and nuclear authorities does not recognize the rights of the local community. As mayor she fights to promote the idea of rights recognizing. Two ways are used: the compensation requests and certificate of urbanism for Unit 3 and Unit 4. The actual legislation is favorable for nuclear industry since NPP does not pay taxes for the occupied land. Request of compensation is justified by the low development of the Cernavoda town compared with the high technical level of the NPP investment. There are income discrepancies between NPP employees and the other inhabitants of the town. The minimum amount of funds to cover the needed local development are around 100 mil. Euro. This amount is equivalent with the town budget for 50 years. Therefore, we have an delay of 50 years in the development and we need compensations. Other municipalities (such as Medgidia, Corbu) receive compensations from other industries (wind energy for example). Cernavoda Local Council have discussed and approved a resolution for a risk tax paid by NPP to the community. Unfortunately the resolution is in the discussion of justice by the action of NPP. In this way the chances for a dialogue has been drastically reduced. The presence of the top-managers is compulsory needed in NSG debates in order to understand and prepare a correct decision.

Representative of AGIA considered that the presence of the important decisions will be very useful to disseminate the situation of other European countries. He is convinced that the fear to use terms as "risk" and "compensation" is a social stereotypy. The "social programme" mentioned frequently a great achievement of the NPP is only a set of measures needed for the investment itself (the bridge assures a second evacuation way; the hospital is compulsory needed for emergency situation; the high school is needed for human resources preparing). The hospital suffers unfortunately from the point of view of human resources and equipment. The town has a building not a hospital.

President of ANDRAD affirmed that the discussion of the compensation problem is justified and useful.

Mayor of Cernavoda wanted to stress her determination to refuse the signing documents for a future development of nuclear industry in Cernavoda before the obtaining of a solution for the compensation problem.

Mayor of Saligny presented a different opinion of Saligny community. The population in Saligny wants a local development based on a "social programme" or other benefits. The local community does not oppose to the realization of the technical investigations for completing the site characterization. If CNCAN will issue a license for the repository considering the site is appropriate, the Local Council will ask for agreement the entire community (either local referendum, or a list of signatures). Involvement of the public in decision is extremely important. Local Council can not solely assume the responsibility for some very long term actions. For the purpose of public involvement in DMP a properly information programme is needed.

In this expected process some difficulties are obvious:

- the educational level of population;
- the low degree of interest for the nuclear field, emphasized by the level of poverty;
- the lack of funds to support appropriately the information;
- the low degree of attractiveness of public meetings (low participation)
- the difficulties in the message, making it appropriate for the existent educational level
- the existence of prejudice, including a lack of trust in authorities

Representative of SNN believes that the improving of the public involvement in DMP together with the participation of the politicians in the debates (such as NSG) is very important. The politicians may influence the needed legislative construction. He proposed to invite ROMATOM (the group of nuclear industry organizations) as a member of NSG in order to make appropriate lobby in the political zone. The financial efforts to continue the activities of NSG beyond the end of CIP projects may be supported by ROMATOM.

President of ANDRAD affirmed that ANDRAD will find the appropriate solutions for geological repository of the spent fuel from Cernavoda U1 and U2 and also for the future units U3, U4. At the same time ANDRAD will perform activities dedicated to the preparation of the decommissioning of nuclear facilities and he is convinced that the owner/operator of the facilities should be deeply involved in the decommissioning processes. The starting up of the national fund for RW had a significant delay and the government must to find additional resources in order to cover the correct management of the produced RW.

Mayor of Saligny expressed his intention to negotiate the approval of the RW repository site on the territory of Saligny village. In this process the partners will be the Government (as owner of the investment) and local community. A large consultation e.g. based on a referendum is expected in order to release the approval of the Urbanism Certificate.

Representative of CNE Cernavoda appreciated that the representativity of the local community need to be improved by the participation of the representatives of businessman and young people. The NGOs participation is good, but they represent only some segments of the community.

Representative of AGIA mentioned that the representativity is better than in the public meetings organized by CNE Cernavoda for the purpose of public information and consultation, for example in the debate related to U3 and U4 investment approval.

Representative of Nuclearmontaj considered the NSG experience as important for all participants. NSG meetings are not appropriate frameworks for negotiation process. In order to obtain compensations legislative initiatives should be started. These initiatives should be actions of the local communities. The experience obtained in CIP and COWAM2 may be used as a base for the dialogue process and for technical document for the legislative initiatives. About compensation problem the main problem is not the determination of the nuclear industry, but the lack of a legal basis for compensation in Romania. Who pays, how, etc.? The functioning of a LC will be crucial for legislative initiative and for the progress of the dialogue.

The main arguments in order to obtain compensations are:

- for Cernavoda community: the presence of the risks induced by the NPP and DICA (Intermediate Spent Fuel Repository) operation;
- for Saligny community: the operation of the future LILW repository;

Evaluation of the process

The evaluation was based on questionnaire investigations. The main results for the final evaluation are presented bellow. In Figures 7 to 12 the appreciations of the participants about the gains given by CIP process for their organizations.

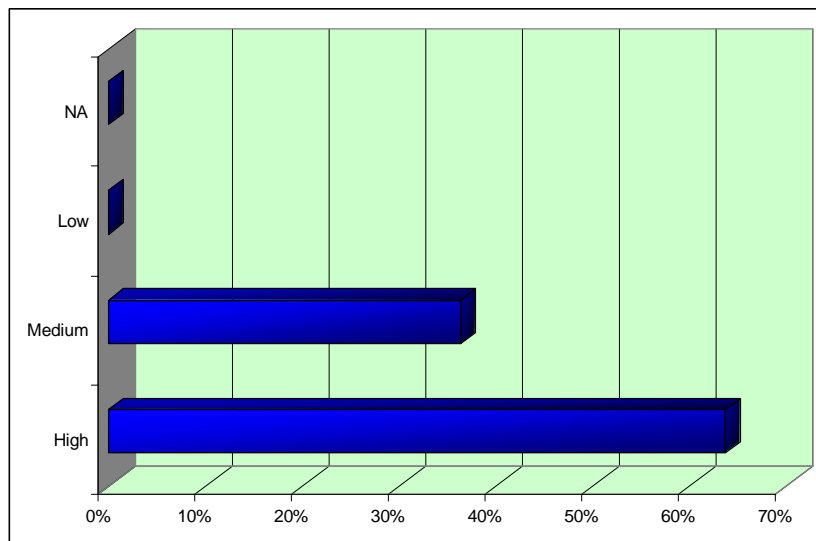


Fig. 7 CIP process as “an information support”

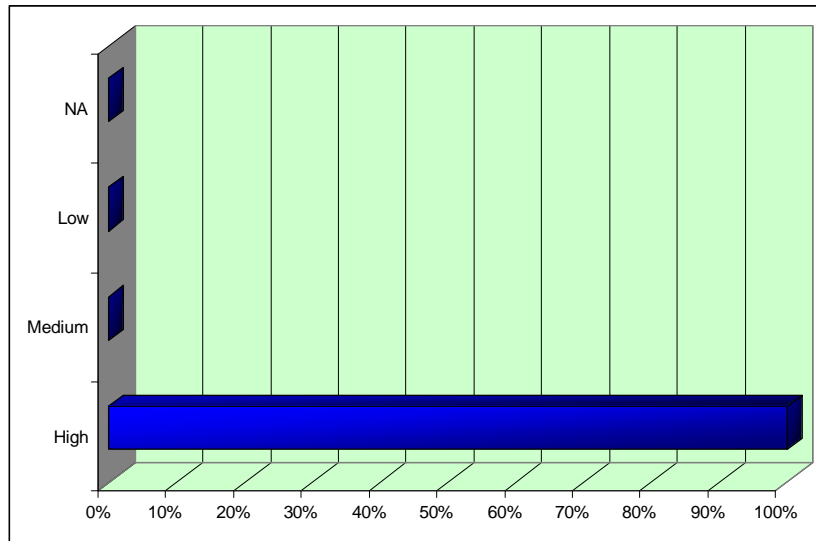


Fig. 8 CIP process as “an exchange of experiences”

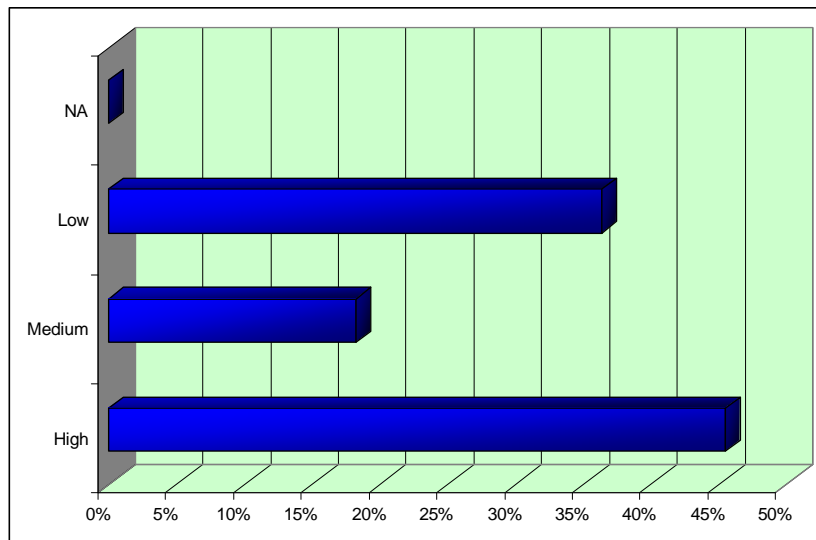


Fig. 9 CIP process as “methodological support”

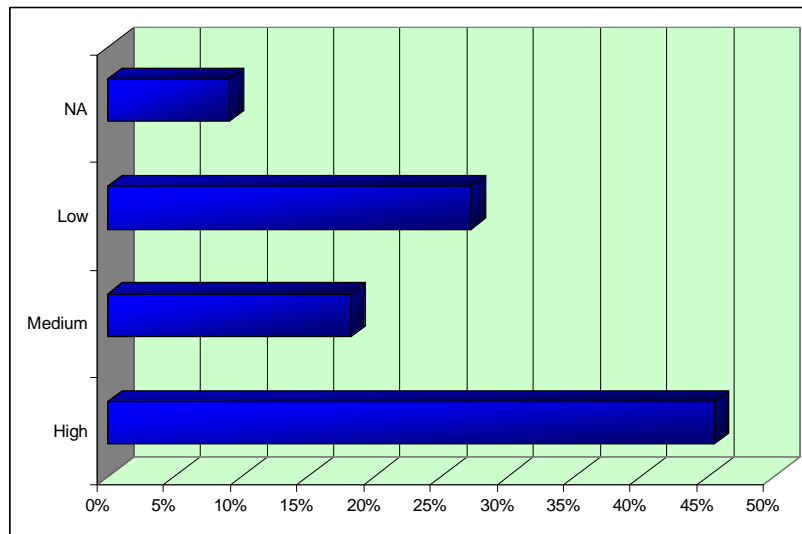


Fig. 10 CIP process as “organizing support”

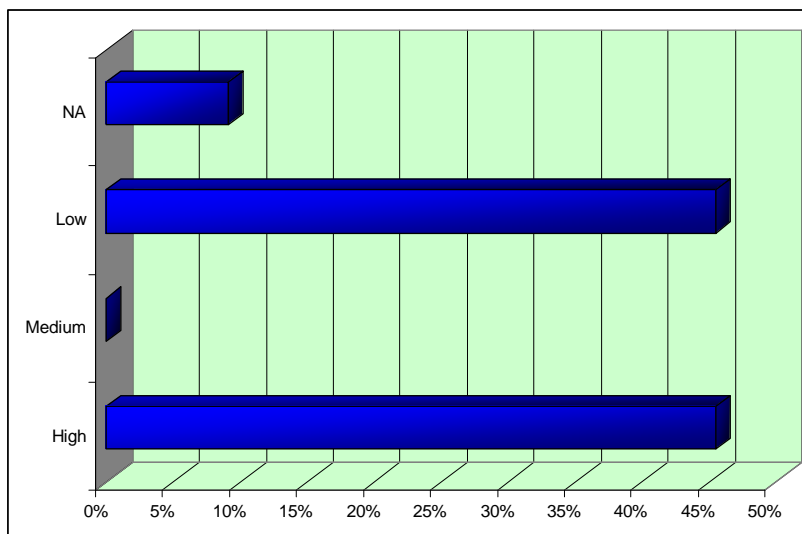


Fig. 11 CIP process as “construction of a functional group”

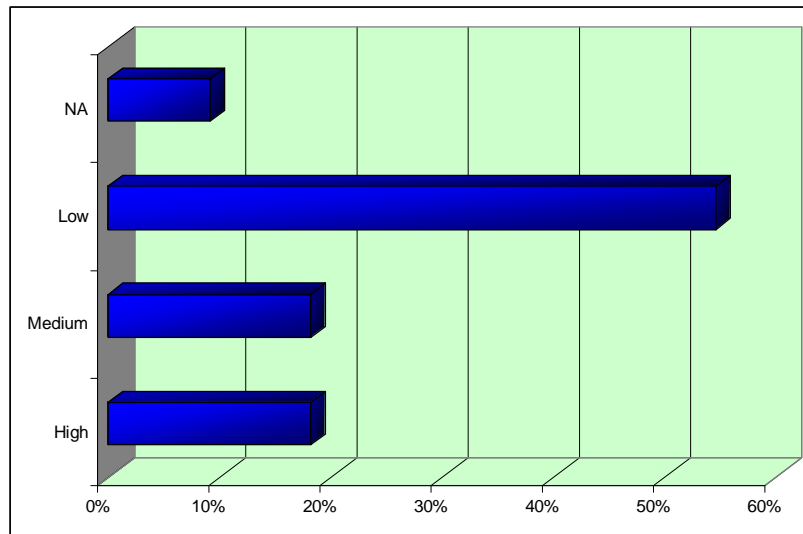


Fig. 12 CIP process as “a tool to influence DMP in Romania”

In the opinion of the participants, CIP acted more as an “exchange of experience” and “information support” than ‘a tool to influence DMP in Romania’. At the same time majority of the participants appreciated the methodological support given by CIP process and also the support to organize the dialog in a democratic forum.

In the Figures 13 to 16 the appreciations of the participants about the main themes of investigations are presented.

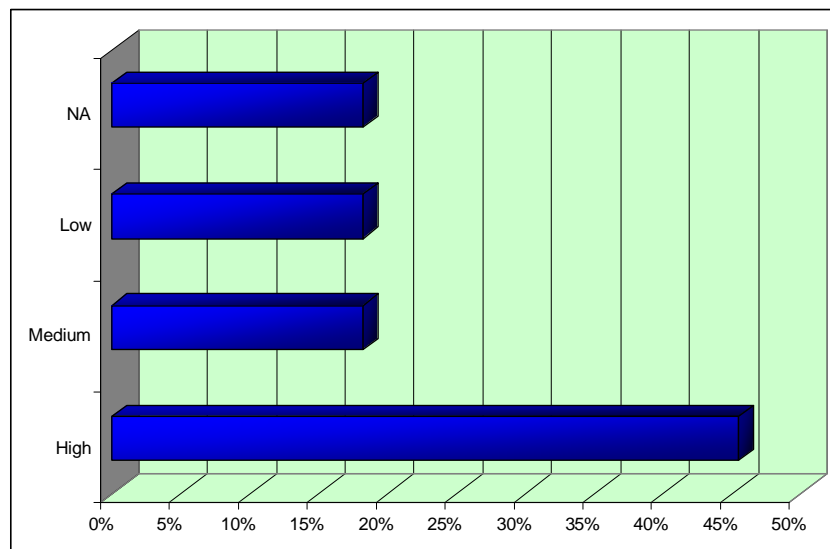


Fig. 13 Interst for Theme 1 (LC)

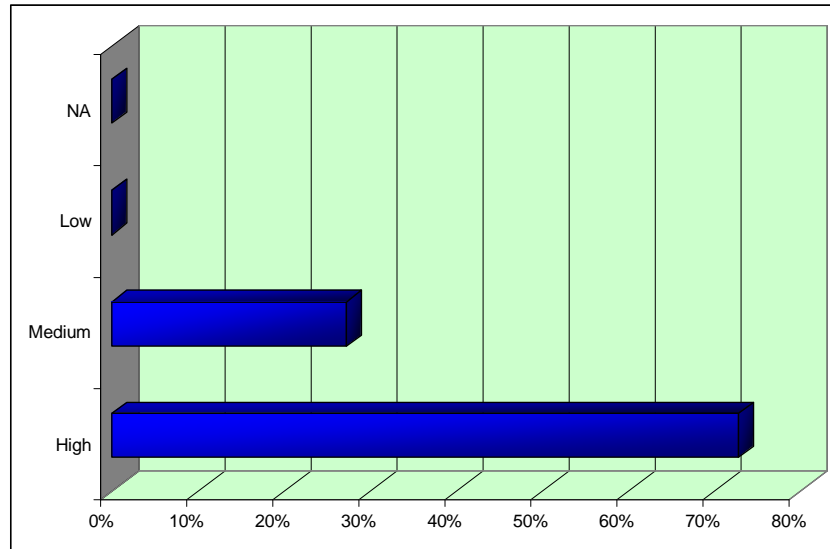


Fig. 14 Interst for Theme 2 (DMP)

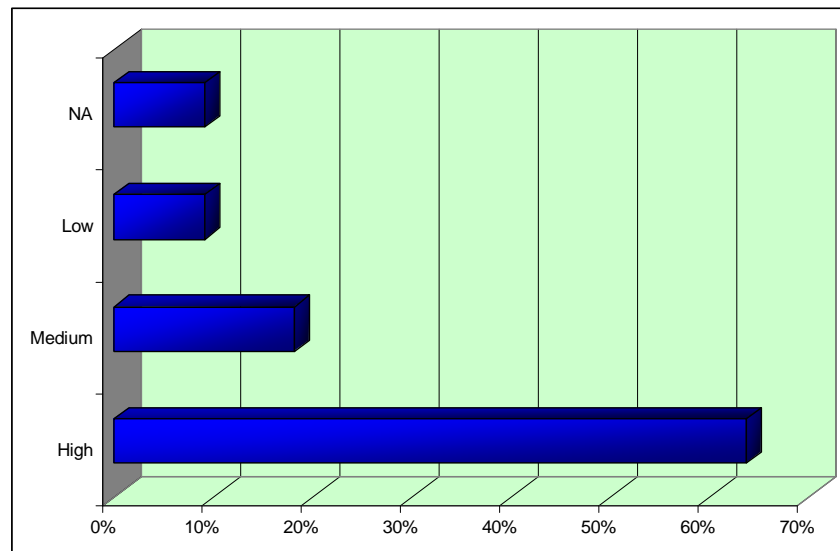


Fig. 15 Interst for Theme 3 (Health and Environment)

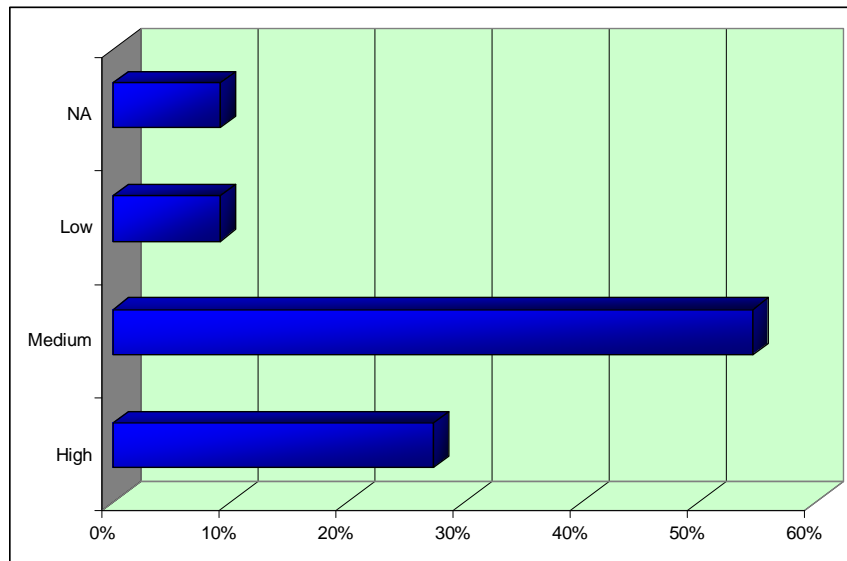


Fig. 16 Interst for Theme 4 (Local Development)

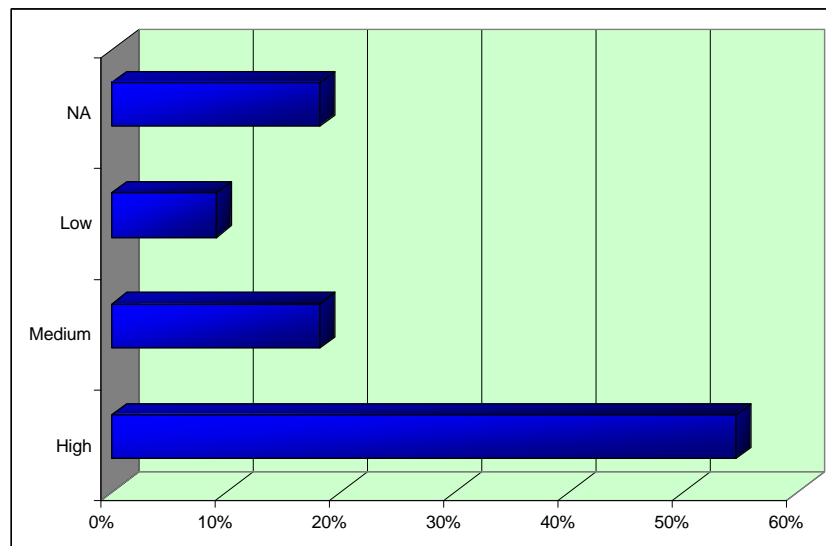


Fig. 17 Interst for Theme 5 (Benefits/Compensations)

The effectivity of some the following barriers in the evolution of the process are investigated:

- (B1) low involvement of the public;
- (B2) late involvement of the public;
- (B3) the lack of the legislative framework for Local Committee;
- (B4) the involvement of public is not desired by the nuclear authorities;
- (B5) the insufficient practice of democratic dialogue;
- (B6) the lack of a set of methods appropriate for specific case of Romania;
- (B7) the low level of acquaintance with the DMP methods and tools;
- (B8) the public don't trust in nuclear authorities/institutions;

- (B9) nuclear authorities/institutions don't trust in public;
- (B10) the lack of efforts to harmonize the interest of the communities with the interests of the authorities

The results are presented in Figure 18. It may be seen that, according to the opinion of the participants in NSG5 meeting, the most effective barriers are the:

- lack of trust in nuclear authorities (B8);
- the insufficient practice of democratic dialogue in Romania (B5);
- the lack of the legislative framework for Local Committee (B3);
- late involvement of the public in DMP (B2).

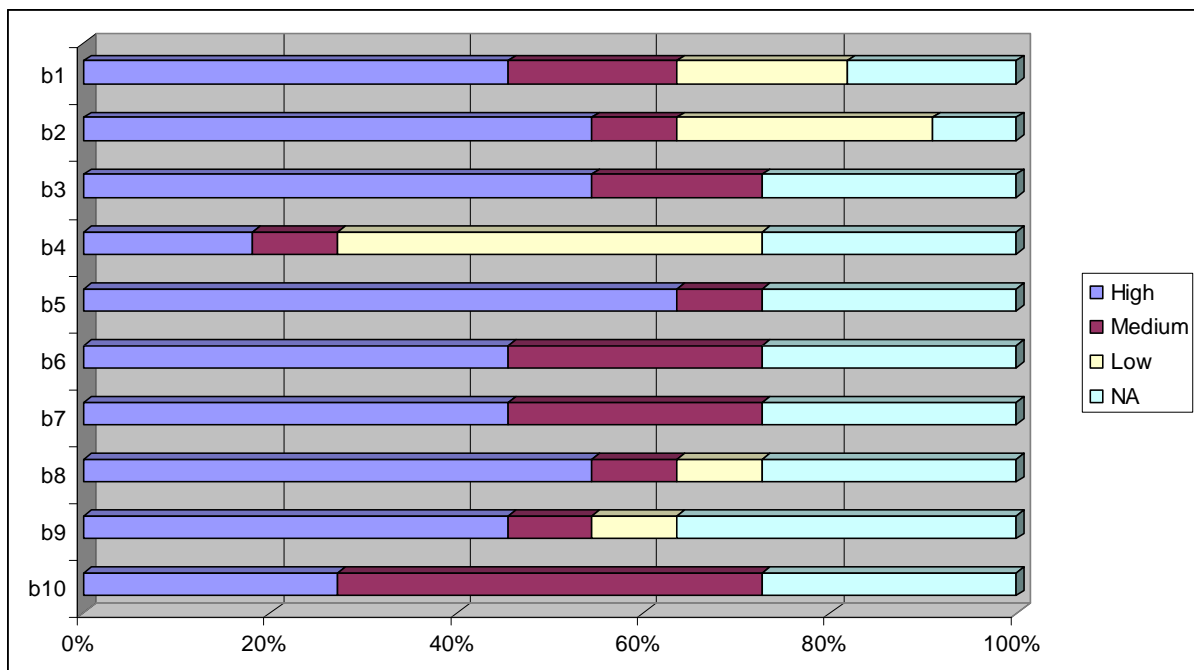


Fig. 18 Effectivity of some barriers

In Figure 19 the opinion of the participants related to the contribution of CIP to a better relationship between nuclear authorities and public representatives is presented.

In Figure 20 the results related to the expectation for the continuation of the process, in any form, are presented.

In the opinion of the participants, the main factors that may influence the continuation of the process are the following:

- obtaining financial resources;
- involvement of the local authorities (local councils);
- involvement of the nuclear industry and nuclear authorities;
- NGOs growing-up;
- Effectivity of the democratic dialogue.

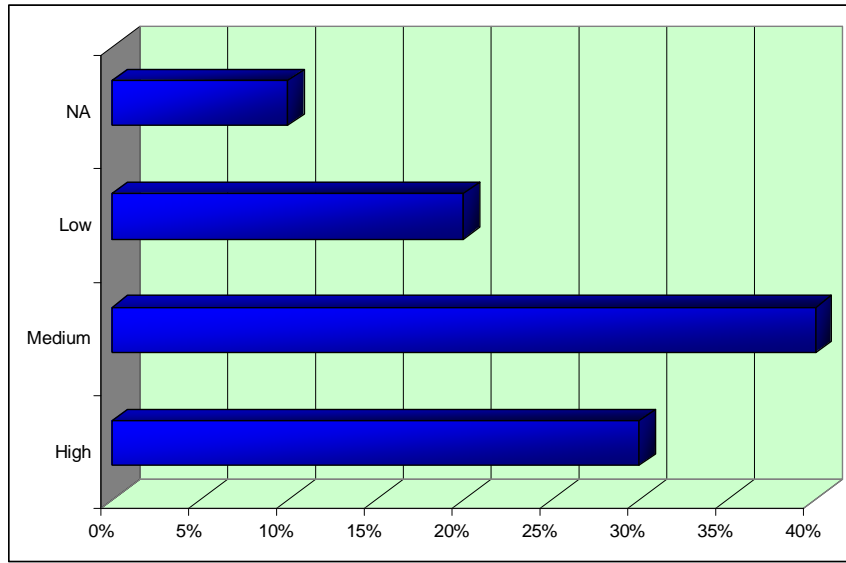


Fig. 19 Contribution of the process to the improvement of a better relationship between main partners

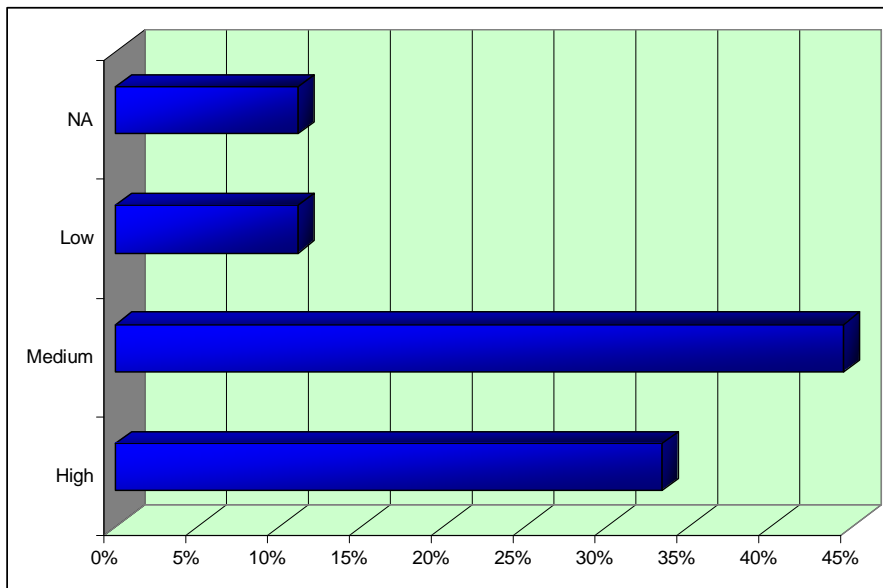


Fig. 20 Expectation for chances for the continuation of the process

III. Conclusions and perspectives

(C1) National Stakeholder Group in Romania construction and functioning is connected only with CIP support on methodological, financial and organizational aspects. The importance of the dialogue framework created by NSG is recognized by all the public representatives, nuclear industry and nuclear organizations. They recognize the role played by the all stakeholders in the RWM and they appreciate the position of moderator of the NF. The support from MTF was appreciated as very good and very useful for all the participants. The presentations were focused on the themes of interest and gave relevant examples and information. The questions and answers allowed a good transfer of knowledge from different countries and different experiences. The participation of MTF experts in the debates offered a balanced approach to maintain the dialogue on the correct way.

(C2) One of the key points identified by the NSG was the LC functioning. Some efforts were performed in order to change the 'ad-hoc' status of the LC to a statutory working. The first approach consisted of a composition including representatives of NGOs, local councils from the "Cernavoda zone" and representatives of ANDRAD and CNE (NPP operator). The presence of ANDRAD and CNE is seen as the main source of funding and support for the decision implementation. A proposal of Statute was discussed in the NSG and other meetings, but the progress was stopped by the impossibility of ANDRAD and CNE to be member of the LC due to their own organizational statutes. Therefore, a great difficulty appeared in the opinion of the initiators since the funding and decision support was absent. Moreover, the representatives of the local communities didn't expect to solve organizatory aspects such as rent an office, covering the minimal expenses such as phone, fax, electricity etc. Due to the discussion in a dedicated seminar, organized in Saligny by the NF, a temporary solution was given by the support for office from Saligny mayor and House of Culture Cernavoda. An important conclusion of the seminar was to write a new Statute of LC, based on the representativity of Cernavoda and Saligny communities, without ANDRAD and CNE. The main objective of the LC should be to inform public about nuclear issues. The funding should be covered partially by ANDRAD (who declared the possibility to finance, based on a Protocol signing). Unfortunately, the LC progress in forming and functioning was very slow. In NSG3 meeting NF tried to find the motivations of the delay such as: the threshold energy for LC was not reached, the political issues (local elections) put the LC initiative in a 'big shadow', and the determination for a LC for information is clearly smaller than for a LC to negotiate the compensations. Moreover, in the last year the main action of the representative of Cernavoda community was to define the local tax for risk (defined per inhabitant exposed at nuclear risks) This tax started difficult discussion and tended to radicalize the position of SNN, CNE and Cernavoda mayor. The task for risk is perceived as a political instrument for local power. However, NF constated an increasing of the democratic dialogue between the main partners. The process developed in the framework of CIP contributed significantly to the awareness of the nuclear authorities, nuclear industry and public for the importance of an LC. If at the beginning of the process the nuclear authorities and nuclear industry had attitudes of tolerance about the idea of LC at the end they agree a LC formation with a clear statute in order have a legitimate partner in DMP.

(C3) The themes of major interest for the representatives of the local communities were "Health Monitoring and Environment Surveillance" and "Nuclear Facilities Hosting Community's Benefits". Both are connected with the compensation issue, seen mainly as financial incentives. In the opinion of local communities' representatives the monitoring and surveillance are proofs of the presence of the risk and of the harms. Therefore, the nuclear industry must pay compensations. The evolution of the incidence of some diseases including tuberculosis is seen as a consequence of the operation of the NPP and spent fuel storage (dry storage on 50 year). Even the increasing of mental diseases, in Cernavoda, is seen by the NGOs as an effect of the high stress produced by awareness of living under a daily risk. The results presented by the Institute for Public Health, National Agency for Environmental Protection and Department of Health Physics of Cernavoda NPP are contested by NGOs representatives, mainly in the methodological aspects and the reference for comparison. This action is a consequence of the discrepancies between the results presented by the national institutions and own convictions about the current situation in Cernavoda. Another fact is that the results cannot be used as arguments for the compensation requirements. Spent fuel storage, NPP and future LILW repository are seen, by the representatives of public, as certain risk factors for public health and for environment

On the other hand the situation of the health system (hospitals, physicians, medical equipment, etc.) is characterized as poor and without future; the attractiveness of medical is perceived as very low. The required compensations are seen as an useful mean to finance the health system in order to improve the existing situation.

The representatives of local NGOs expressed the lack of trust in regional and national structures of health/medical system and also in nuclear authorities; they want independent parallel studies in order to compare the official results with independent ones;

Related to the future LILW Saligny repository the NGOs representatives see the fact as a desired concentration of the risks in the same area in order to not disturb other communities; in that sense, the Cernavoda area population is seen as a "given up" community.

Based on these, local community of Cernavoda has formulated a proposal for improving the population's health by increasing the population's access at services of preventive medical assistance, including a set of clear measures. In the final of NSG4 it was established that the Institute for Public Health will collaborate with the Cernavoda community in order to perform microcellular investigations. The funds must be supplied by authorities. The details will be discussed between the two parts in the next future.

(C4) Compensation is seen as a response to the limitation of the land use (reducing the market for local products) and to the difficulties of the local economy. The model of compensation agreed by the local community from Cernavoda is the Slovenian model (annually cash incentives). Due to the absence of a legal framework of compensations in Romania, the local council of Cernavoda decided to introduce a local tax paid by the polluters for the existing risk. The tax is calculated as it should cover the local development needs. The action of the tax is blocked by the NPP owner through the official contestation at Court. Despite of Cernavoda approach, Saligny community want to obtain support for local development in any form.

The "social programme" implemented only in Cernavoda (Saligny was not included in the programme) during the last 15 years supported some investment in the town: a new bridge over Danube-Black Sea channel, an hospital, a high school building, heating system for houses, etc. At the beginning of CIP process, the programme was seen very different by the nuclear industry and local community of Cernavoda. Nuclear industry was convinced they

pay a lot for the local development, while local community representatives affirmed that all actions are compulsory needed for the NPP investment. During the process the nuclear industry became more flexible and they change the idea 'we already paid for that' in 'we agree with local community needs, but there is no legal framework for compensations'.

On the other hand the local community representatives understood the necessity of a stepwise approach in the compensation issue in Romania. Thus, they need efforts of structuring in a LC or other statutory organization and to develop a clear programme with measures and deadlines.

(C5) In order to obtain an increased efficiency of the legislative framework creation (for LC, compensations, etc.) an involvement of the political factors is recommended both by nuclear and public representatives. However the most important fact consists of the playing role of the initiators of the laws, and the initiative must be of the local representative (LC). The politicians should be convinced there is a problem in the nuclear field consisting of RWM. The problem has solutions but the implementation of a solution need efforts, funds and acceptance. Generally, NSG expressed that the development of nuclear power is strongly dependent of the fulfilment of sustainable development requirements and the RWM determinately influences this fulfilment.

(C6) The involvement of the public in DMP process is only in a beginning phase. The information of the public exists, but has some weak points such as the low interest of the public, the complexity of the fields compared with the public education, limited obligations included in the legal framework, etc. The role of the LC in the information process was recognized as crucial by all the NSG members. Based on the actual Romanian legislation, the involvement of public in DMP is limited to the consulting in the phase of the environmental impact study approval. The procedure for consultation consists of internet publication of the documents and public debates. Also, the public may formulate only observations on the documents and the authorities are obliged to answer these questions/observations.

(C7) The local development needs are important both for Cernavoda and Saligny. It is clear that these needs cannot be covered by local funds and also it is difficult for nuclear industry to finance rapidly such investments. On the other hand the 'social programme' is implemented by the government from different funds and it was statuated in the Nuclear National Programme. A legal basis for compensation or for local development or more exactly to finance directly by NPP is needed.

The needs appear more stringent in Saligny community that in Cernavoda, but the voice of the public is more powerful in Cernavoda.

Expectations and continuation of the process

Mr. Gabriel Tatulescu, Mayor of Saligny village, recognizes the importance of the continuation of the activities started by COWAM2, continued in the framework of CIP and formally stated in NSG.

On the other hand it is very important to reinforce the local dialogue in order to increase the access of common people to information and to stimulate the 'appetite' for information, taking into account that nuclear issues are usually difficult to be understood and some pre-judgment exist.

From the public representatives' attitudes during discussions, after CIP ending it will be very useful to maintain an open and democratic framework of dialogue, a 'round table' with equal partners.

The debates organized, 'when is necessary' by nuclear industry and authorities suffer from the following drawbacks:

- inequality of the actors (representatives of the nuclear are considered experts and public is generally a simple receiver)
- non-systematically (non-periodicity)

Therefore the continuation of NSG activity is seen as crucial for the democracy in nuclear decisions and for the public involvement in DMP.

The activities should cover:

- reciprocal information about needs, requirements, activities, and interests;
- technical information about intention of development in nuclear field;
- support for public information (financial, methodology and logistics)
- debate about current issues;

How NSG may continue?

There are some barriers to be avoided in order to continue the functioning of NSG and improving its activity:

- financial support – reduced possibilities of the municipalities, especially Saligny community may introduce a strong dependence on the financing organization; in this case the direct funds expected from ANDRAD and NPP owner (SNN) are not the best way;
- the low level of trust in the results of the dialogue, especially from the authorities part;
- the strong accent on compensation issue introduced by Cernavoda community;

On the other hand a national mediator (national facilitator, NF) and, if possible, funding administrator is compulsory needed in order to guarantee the equality in dialog, the representatives of all stakeholders, and to balance the different interests.

Our proposal consists of "NF should be elected by the NSG" from a reduced number of organizations that are recognized as enough neutral. The mandate of NF will be clear and limited in time.

Taking into account the necessity of methods, tools and experience in this construction the international cooperation is of special interest. The NF will collect the requirements for collaboration and will perform all activities to facilitate the collaboration with institutes or international organizations.

In the NSG5 meeting representative of SNN proposed to involve ROMATOM (nuclear industry organizations group) in the process with the aim to support a part of the financial

expenses and to play a lobby role in the political field. The discussion with ROMATOM is in progress.

On the other hand a reserve solution exists if ROMATOM will reject the proposal. Some national nuclear events may support as round tables or workshops NSG meetings. At the end of the 2009, international symposium on nuclear energy (organized by AREN- national association of nuclear workers) will host an round table with the theme "Aarhus Convention in nuclear – Aspects of implementation in Romania". All NSG members are invited to participate, free of charge in the Symposium and to discuss in the framework of the round table. For the next year, in May, Institute for Nuclear Research Pitesti (NF in CIP) will organize a dedicated event during "Nuclear 2010- International Conference on Sustainable Development through Nuclear Research and Education".

References

[1] **M.Constantin** –“Radioactive Waste Management - Romanian Case Study”, First Seminar of COWAM2, Berlin, July 2004

[2] Romanian Law no.111/1996, Monitorul Oficial, No. 324, 1996

ABBREVIATIONS

ADAPT - Romanian NGO "Association for Youngs' Rights"
AGIA – Romanian NGO "Association Thinker in Action"
AN – Romanian Nuclear Agency
ANDRAD - National Agency for Radioactive Wastes
ARIN - Romanian NGO "Nature Lovers Association"
CNCAN (in Romanian abbreviation) – Romanian Regulatory Body
COWAM2 – Community Waste Management, FP6 Project
CIP – Cowam in Practice
CLI – Local Committee for Information (French abbreviation)
CNE – Cernavoda NPP: Unit 1 , Unit2
DICA (in Romanian abbreviation) – spent fuel dry storage (temporary use, aprox. 50 years)
DMP – decision making process
GMF – organization of municipalities hosting nuclear facilities
HEU - fuel with high enrichment uranium (>20%)
HLW –high level wastes
IFIN-HH - National Institute for Physics and Nuclear Engineering -Horia Hulubei
INR – Institute for Nuclear Research
IPHB – Institute for Public Health Bucharest
LC – Local Committee
LEU - fuel with low enrichment uranium (<20%)
LILW – low and intermediate level wastes
MN - Romanian NGO "Mare Nostrum"
ME – Ministry of Economy
MTF – Methodological Task Force
NF – National Facilitator
NPP – Nuclear Power Plant
NSG – National Stakeholder Group
NGO – non-governmental organization
ORDIMIP - Regional Observatory for Industrial Waste from Midi-Pyrénées
PIEL – post-irradiation examination laboratory
ROMATOM – Romanian group of nuclear industry organizations
RW – radioactive wastes
RWM - radioactive waste management
SIDO - Romanian NGO "Society for Human Rights"
TRIGA-MTR – research reactor for testing material, TRIGA
VVR-SRR – research reactor type VVR
UP - Romanian NGO "Union of Retired Persons"