MOLDOVA SOCIAL INVESTMENT FUND II

M I S

MANAGEMENT AND MONITORING INFORMATION SYSTEM

USER'S MANUAL

Chisinau, 2004

MSIF MOLDOVA SOCIAL INVESTMENT FUND

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1. MIS structure and destination

This chapter includes a description of MP cycle, problem statement, structure of the MIS system from the point of view of their relation to other modules.

1.1. MIS Cycle

Information system in use in MSIF is meant to reflect the activity of its staff and is in close connection with the cycle of microprojects. The detailed short description of the microprojects cycle is given in MSIF Operational Manual. Present chapter includes only a short description of microprojects cycle with the purpose to make the reader familiar with the operational principles of this system.

Thus the microprojects cycle includes the following stages:

- Promotion of MSIF ideas in the rural area of the country;
- Identification of microprojects proposals forwarded by communities;
- Appraisal of proposals;
- Approval of proposals and collection of community contributions;
- Contract conclusion: bidding process and signing contracts regarding the execution of certain works;
- Supervision over the construction works and hand-over of rehabilitated construction sites;
- Supervision of rehabilitated objects after the hand-over moment with the purpose to ensure their sustainability.

Below there is a short description of all these stages.

1.1.1. MSIF promotion

It is carried out at two levels: (i) national and (ii) local levels.

Promotion campaign at the national level envisages also implementation of awareness programs. The latter presuppose dissemination of information and delivery of public consulting at different levels of society. The methods used for the accomplishment of these programs are: dissemination of information via mass media channels, conduct of theoretical and practical seminars, round table talks, etc.

Promotion campaign at the local level. During this stage, visits are carried out by the Director of the Institutional Support Department, who makes visits to the local county authorities and informs them about promotion activity carried out by MSIF. After this, seminars for beneficiaries are carried out in all districts of the Republic.

Participants to these seminars are: (i) mayors; local NGOs; (iii) other organizations located at the community level; (IV) interested private contractors and other beneficiaries.

Next, the promotion team makes visits to all communes in that particular county with the purpose to carry out a rapid, small mini-evaluation of needs and capacities of every village and to also inform the population about MSIF. The promotion experts help the communities to organize their General Assembly. In larger villages, where the population number exceeds 2000 inhabitants, MSIF requests that meetings of representatives of population be organized. The issues discussed at these meetings are the following:

i. A priority microproject for this particular community is discussed and selected through voting (the meeting of village representatives discusses and selects at least two microprojects);

ii. The General Assembly decides the amount and the form of community contribution;

iii. The General Assembly elects the Implementation Agency (IA), which assumes responsibility, on behalf of the community, for the implementation of the microproject.

1.1.2. Identification of the microproject

MSIF accepts applications for the financing of microprojects, provided three mechanisms and resources are being applied, namely:

1. Microprojects have been identified, prepared and submitted for consideration only in case that there exists a cooperation between MSIF and community or organizations located in that particular village;

2. Identification of microprojects, their preparation and submission for consideration by the community or an organization located in that community was done with an insignificant participation of MSIF in the process. Microprojects prepared without participation of MSIF are also possible;

3. Microprojects may also be submitted for consideration by NGOs or other organizations located in that particular village.

Proposals are submitted to the MP Department within MSIF. A clerk within MP Department registers the submitted proposal and data are entered into the MIS data base. Each microproject is given a code within MIS, which further constitutes the identification number of that particular microproject.

1.1.3. Appraisal of the microproject

Director of the Microprojects Department bears responsibility for the selection of proposal for appraisal and establishing the priorities. He assigns an engineer

responsible for the appraisal of a microproject. The tasks of this engineer will be the following:

- To study the microproject proposal and submitted documents;
- To evaluate the microproject in conformity to set preliminary criteria;
- To collect as many dada as possible from the available sources

Should the proposal comply with the preliminary criteria, the director will submit this proposal to the Executive Committee for preliminary approval and for the permission to forward the project to the appraisal stage. Once approved, the microproject is evaluated based on appraisal criteria. The engineer responsible for the microproject makes a visit to the village in order to confirm feasibility of the proposal. For this purpose he carries out discussions with the implementation agency, with involved local power administration bodies and members of the beneficiary community. The engineer confirms that the data included in the proposal are consistent with the real situation. He also confirms that the proposal indeed represents a priority of that community.

Appraisal of a microproject includes two stages. During the first stage the microproject is evaluated based on the following criteria: social, institutional, environmental, economic, technical feasibility and the need for additional studies. The engineer submits a preliminary appraisal report and makes recommendations regarding necessary engineering investigations and technical drawings for the complete appraisal of the microproject. This report, together with recommendations made by the director of the Microprojects Department (MP) is further approved by the Executive Committee (EC) and the microproject is forwarded to the second appraisal stage. In case that no additional investigations are necessary, the microproject can be forwarded to the second appraisal stage based on a written decree of the Executive Director.

Once the technical appraisal is ready, the engineer proceeds to prepare the Balance of Payments and submits it to the Economist responsible with the budget development. This is done with the use of MIS data base. The engineer submits a completed appraisal report, along with the recommendations made by the director of the MP Department, illustrating the execution possibility of the microproject and its correspondence to appraisal criteria developed by MSIF. Estimated budget and the Balance of Payment for works, technical drawings, together with permits and reports of consultants are annexed to the appraisal report.

1.1.4. Approval of the microproject

Prepared microproject is submitted to the EC to receive an approval for implementation. In cases when the estimated budget of a MP exceeds the established amount, the MP is approved by the National Council or by the World Bank. The EC may take three different decisions in connection with the microproject:

i. The microproject may be approved, provided that the MP is approved by the EC. In this case the Executive Director requests "No Objections" from the World Bank (for those microprojects with a cost exceeding $50 000) for the financing of the microproject;

ii. The microproject may be conditionally approved. This happens in cases when the EC has recommendations to modify the design of the microproject in order that it fits better to the priorities of a community or priorities of the local power administration bodies. Recommendations may also be made with the purpose to avoid an adverse impact. Director of the MP Department, after having consulted the ENGINEER, informs the implementation agency about the necessary amendments to the design of the project. When an agreement is reached with the applicant the director approves the proposed project;

iii. The microproject is rejected. In case that the EC rejects a microproject, the event is mentioned in the minutes of the EC meeting and the reasons of rejection are being described. A letter stating the rejection of the proposal is sent to the respective community. The community, however, is not disqualified and can submit other applications for microprojects.

Once a microproject is approved, the next step is to sign a Frame Agreement with the Implementation Agency. After signing the Frame Agreement the IA is given one month period of time to collect the investment of the community. The contractor may be engaged only after these funds are transferred on a special account of MSIF. Another condition is that the investment, in its labor and in kind forms, needs to be accepted by MSIF.

1.1.5. Contract signing

Once the engineer responsible for the microproject confirms the fact that the community has managed to collect the community investment, both cash and in kind (goods and labour), the microproject enters into contract signing stage. Procurement experts get involved at this stage. The necessary documents are prepared and the Implementation Agency is assisted to publish the bidding announcements. At the same time bidding documents packets are being prepared, which are distributed by the IA and MSIF. When the deadline indicated in the announcement is over, the community holds the tender, during which the envelopes of the applicants are being open. MSIF assists communities to verify the bidding estimates, the compliance of documents to MSIF requirements and the correctness of calculations as proposed by the bidders. Usually the company, which proposed the smallest costs is considered the winner. This, however, on condition that the costs are realist and all documents meet the MSIF requirements.

When less than three companies took part into the tender, or when conditions to hold tenders have been violated, the results of the tender are annulled and a new tender is being announced. The winner is announce via an official letter and is invited to sign the contract stipulating execution of the construction works.

In parallel to contract signing envisaging accomplishment of construction works a local inspector is appointed, entitled to do supervision of the quality of works. After signing the contracts the procurement officer submits the microproject to the MP Department for the implementation of construction works.

1.1.6. Follow Up

Once the contracts have been signed the Director of MP Departments takes the microproject documents from the Procurement expert. He assigns an engineer responsible for the implementation of the microproject and sets the date of start of the works. Meanwhile, the engineer hands over to the contractor the plot to be site of construction works and the collected in kind contribution. The engineer will make regular visits to this object after the start of works and will verify the quality and quantity of performed works. He will sign acts confirming performance of completed works.

The engineer is supposed to submit to the accounting unit, on a regular basis, acts confirming completed works, signed by responsible persons. After completion of works the engineer sets up a committee to do acceptance of works for that particular object. The committee is supposed to verify the quality, the quantity of works and their compliance with the norms and Law in force. The engineer writes out a report stating the unfinished works (if any), draws up the documents for the 5% fee deduction envisaged for the quality guaranty and verifies whether the local inspector was paid for the performed work. Next the project becomes subject of guaranty compliance supervision and social supervision.

1.1.7. Guarantee follow up and sustainability of an object

After completion, an object becomes subject to social supervision, during which the technical quality of construction works is verified as well as the sustainability of the object. The guarantee period usually lasts 6-12 months, depending on the type of the microproject. Once the guarantee term expires, the contractor is paid back the last 5% withdrawn as guarantee, provided no quality problems have been found.

MSIF carries out a supervision of an object for a period of two years after the hand-over. Along with the supervision of the object MSIF carries out activities to ensure sustainability of the project. Mechanisms ensuring sustainability differ, depending on the needs of the community and its organization capacity. Whenever possible existent organizations or programs are being involved. In all microprojects the members of the community are trained in issues how to consolidate capacities in order to safeguard sustainability of the microproject.

1.2. Stating a problem and MIS goals

MIS systems follows the aim to computerize the microprojects recording system as well as of all operations connected with the activity of MSIF staff as described in the Operational Manual. MIS makes possible a computerized preparation of all documents necessary in the microprojects management. The MSIF microprojects cycle is taken as concept basis of MIS system. The cycle is detailed to a level ensuring an efficient monitoring of works and the decision making in case of necessity. The detailed cycle of microprojects is illustrated in Figure 1.2.1. Detailed description of stages is given in Table 1.2.1.

Monitoring indices envisaged to be used by MSIF might be divided into two categories: monitoring indices of each microproject and performance indices of the MSIF executive office.

Data used within MIS for monitoring of each microproject separately during the entire cycle of the microproject are described in details in the Operational Manual.

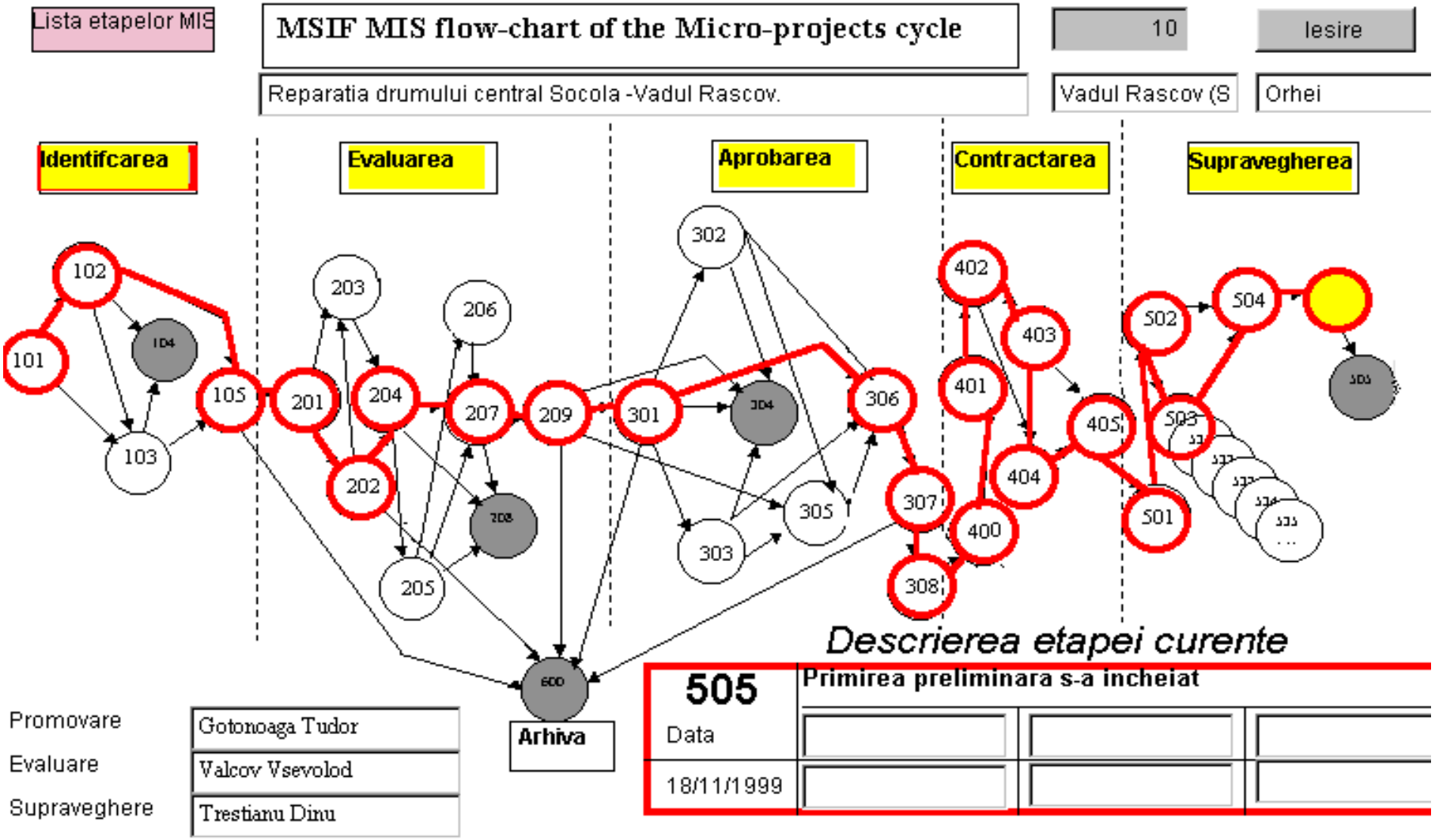


Figure 1.2.1. Flow-chart of microproject cycle

Table 1.2.1. List of the microprojects cycle stages within MIS system

100	**Identification**
101	Registration of the proposal
102	Entering description of the proposal
103	Return of the proposal for preparation of documents
104	Rejection of the proposal during the identification stage
105	MP is ready for implementation
200	**Appraisal**
201	Was approved by the EX during first stage of appraisal
202	Second stage of appraisal carried out
203	Preparation of documents by the IA in conformity to MSIF requirements
204	MP is approved during the second stage of appraisal
205	Signing the contract for design works
206	Design of the technical documents is completed
207	Calculation of the balance of payment is over
208	MP has been rejected during the appraisal stage
209	MP is ready for approval
300	**Approval**
301	Approved by the Executive Committee
302	Approved by the Coordination Committee
303	Approved by the donors (WB)
304	Rejected during the APROVAL stage
305	Approved with the condition that modifications are done to it
306	IA is invited to sign the agreement
307	The MSIF-IA contract is signed; start of contribution collection
308	Contribution from IA is received
400	**Contract signing**
401	Announcement of the tender
402	Tender is over; contract signing is being expected
403	Contract is signed (IA-Contractor), document preparation completed
404	IA signs a contract with the Supervisor
405	Contracting is over
500	**Supervision**
501	The official decision to start construction is being expected
502	Implementation starts
503	Starts the receipt of acts stating completion of certain works
504	Preliminary acceptance started
531	Acceptance Act No 1 is signed
532	Acceptance Act No 2 is signed
533	Acceptance Act No … is signed
505	Preliminary acceptance is over
506	MP is fully accepted
600	**Delivery for Archive Storage**
700	**Rejected proposals**

1.3. MIS structure

MIS structure is illustrated in Figure 1.3.1. As seen in the Figure the MIS includes the following main modules:

- Distribution of financial resources
- MSIF microprojects portfolio
- Promotion
- Education and training
- Appraisal and approval
- Unit price data base (complex prices)
- Microprojects budget
- Contracting
- Supervision of microprojects
- Supervision
- Sustainability
- Link with the accounting systems
- Monitoring system
- Plan of actions
- Decisions of the Executive Committee
- Distribution of workloads
- Records of business trips
- Administration system
- Audit system
- MSIF electronic library

Below a short description of functions of each MIS module is given.

1.3.1. Distribution of financial resources

The Module is aimed to ensure a proportional distribution of financial resources. Distribution is done proportionally to the number of population in the rural area of each county. Newly received grant sources or some other financial resources are also distributed among counties. A report also exists, which supervises the rules of resources distribution. MSIF managers use this module to make decisions regarding continuity of activities in a number of counties.

1.3.2. MSIF Microprojects portfolio

Microprojects portfolio is a database with information regarding each microproject proposal. The module includes also a set of programs enabling data entering and data processing related to this proposal, starting from the moment of registration of the proposal and up to the moment of sustainability supervision, which lasts two years more after the object hand over. A number of other reports are included here, which contain information for different presentation levels. For

example they include detailed data related to each separate proposal, data related to the total number of proposals, the graphic presentation of the project implementation process, etc.

1.3.3. Promotion module

The module includes the necessary instruments to carry out records regarding promotion activities, namely the promotion visits, main characteristics of visited villages, data regarding General Assemblies and referendums, proposals discussed by communities.

1.3.4. Education and training

The module includes the recording instruments, planning and monitoring of the training process at different levels. Data are kept for all types of training, either within MSIF or on the field, inside the Republic of abroad as well as training of MSIF staff members or beneficiaries of microprojects. Based on entered data monitoring and planning of the training process is done and activity reports are being prepared.

1.3.5. Appraisal and approval

This is a complex module, which includes instruments of appraisal and supervision of the appraisal process as well as instruments used in the community contribution collection and all other activities up to the moment of contract signing. The technical drawing design process is also part of this module, as is the employment of experts to carry out expertise and remuneration of the employed persons.

1.3.6. Data base of unity prices

A database has been created and is maintained in MSIF including unit costs for all positions (construction materials, works, equipment, and instruments) inputs usually necessary for the implementation of the microproject. The engineers collect data on a monthly basis from random suppliers and contractors regarding costs of most frequently used positions. The unit price database is based on updated data collected from real offers submitted by potential contractors.

MIS uses unit prices to calculate the complex prices for works most frequently requested. The database is used to carry out appraisal and monitoring, where it serves as an instrument evaluating the microproject budget, whenever procurement is done via direct contracting.

MSIF updates on a regular basis these database as part of the cost control system in order to ensure the fact that implementation of microprojects meets the transparency criteria. Unit costs are classified depending on the region. Three price area are used within MSIF.

1.3.7. Microprojects budget

The microprojects budget sub-system is an instrument for appraisal and development of the estimated budget. It includes the following: (i) the Unit price data base, which stores data regarding prices for main resources; and Composed materials data base, which stores information regarding composition of complex materials. **The microprojects budget sub-system** calculates the estimated budget of the microproject based on data from the sub-system of complex prices and data from the estimated Balance of payment.

1.3.8. Contract signing

The module includes instruments enabling the following: tender announcement, appraisal of offers submitted during tenders and the winner establishment. Contracts are signed with the Construction Company and with the local inspector entitled to carry out supervision of works on site. MIS permits printing out all needed documents for that: bidding documents, analysis, and supervision of microprojects during contracting stage.

A particular aspect of this module is that, additionally to the above-mentioned operations, it has also the possibility to cover procurements, which are not closely linked with microprojects and within MIS fall into the "general contracts" category.

1.3.9. Supervision of microprojects

The module supplies all necessary data to MSIF personnel enabling them to carry out physical and financial monitoring and control over the microproject implementation. This module helps to carry out supervision of a certain microproject and it warns the accounting office whenever time comes to pay out the contractor and the local inspector. It also draws attention to the need to collect the advance payment made to the contractor. Possibilities facilitating introduction of changes to the balance of payment are envisaged. It also has got graphical possibilities to carry out supervision of conditions of works and compare them with plans envisaged by the contractor.

Auxiliary database concerning Inspectors, Contractors, Implementation Agencies, NGOs and MSIF personnel are also developed and maintained in the condition as worked out during previous stages. Thus, they can be utilized during supervision stage.

1.3.10. Sustainability module

The module permits planning and recording of activities envisaged for maintenance of rehabilitated objects after their hand-over. Data regarding activity reports and regarding performance activities as well as data concerning state of disbursement of resources budgeted in sustainability maintenance funds are entered into this module. The module permits a more efficient planning of the big number of activities foreseen for implementation on the construction sites and it signals any delays in work completion.

1.3.11. Link with accounting systems

This module is meant to ensure MIS interaction with accounting systems. There is a more detailed description of this module in chapter 1.4.

1.3.12. Monitoring system

The module is meant to facilitate supervision of MSIF project by the superior level officials. Supervision is based on MSIF Log Frame for activities. A set of performance indicators, reflecting the work quality, has been developed and approved for MSIF activity. The decision concerning quality of the activity is made based on a comparison of indicators' magnitudes with planned values. The indicators' values are obtained in a computerized way based on data entered during MIS utilization.

Also part of this module is a set of reports showing the results of implementation of the microprojects cycle at the national level. Based on these reports MSIF managers make decisions regarding the need to make certain changes, or modifications in regarding activities.

1.3.13. Planing Module

This module includes instruments enabling development of Action Plans at MSIF level and departments. It's also possible to get data indicating the implementation status of certain activities. Whenever there is a delay in the implementation of certain activities, the signal will be communicated to persons responsible for the supervision of these works.

1.3.14. Decisions of the Executive Committee

The module permits data entering and data storage regarding decisions made by the Executive Committee of MSIF. In case of necessity the module allows development of a certain item in the plan, which might be monitored by the Planing Module. A report regarding fulfillment of undertaken decisions will be made with regard to this kind of decisions.

1.3.15. Work load module

The module follows the task to coordinate the actions made by personnel from all departments with the computerized MSIF systems. For example MSIF system may generate data to an engineer indicating that contribution collection terms expired for a certain microproject. The engineer is supposed to undertake the requested measures adequate for this case and to report about fulfillment of this particular activity. Should there be a delay, information concerning such delay will be submitted to a superior body. The same principle is applied for an interaction between workers, or between planing module and workers.

1.3.16. Data concerning Business trips

A separate module incorporates data regarding planned business trips, their fulfillment and payments made by the accounting office in this respect. With the assistance of this module one can keep records regarding the number of used cars and regarding frequency of visits to certain microprojects.

1.3.17. Administration system

This module is meant to assist the MIS system manager. It has got the necessary instruments to do the general configuration of the system. Also there exist possibilities to introduce operation access to certain MIS modules, it permits to modify the password and has also got other possibilities.

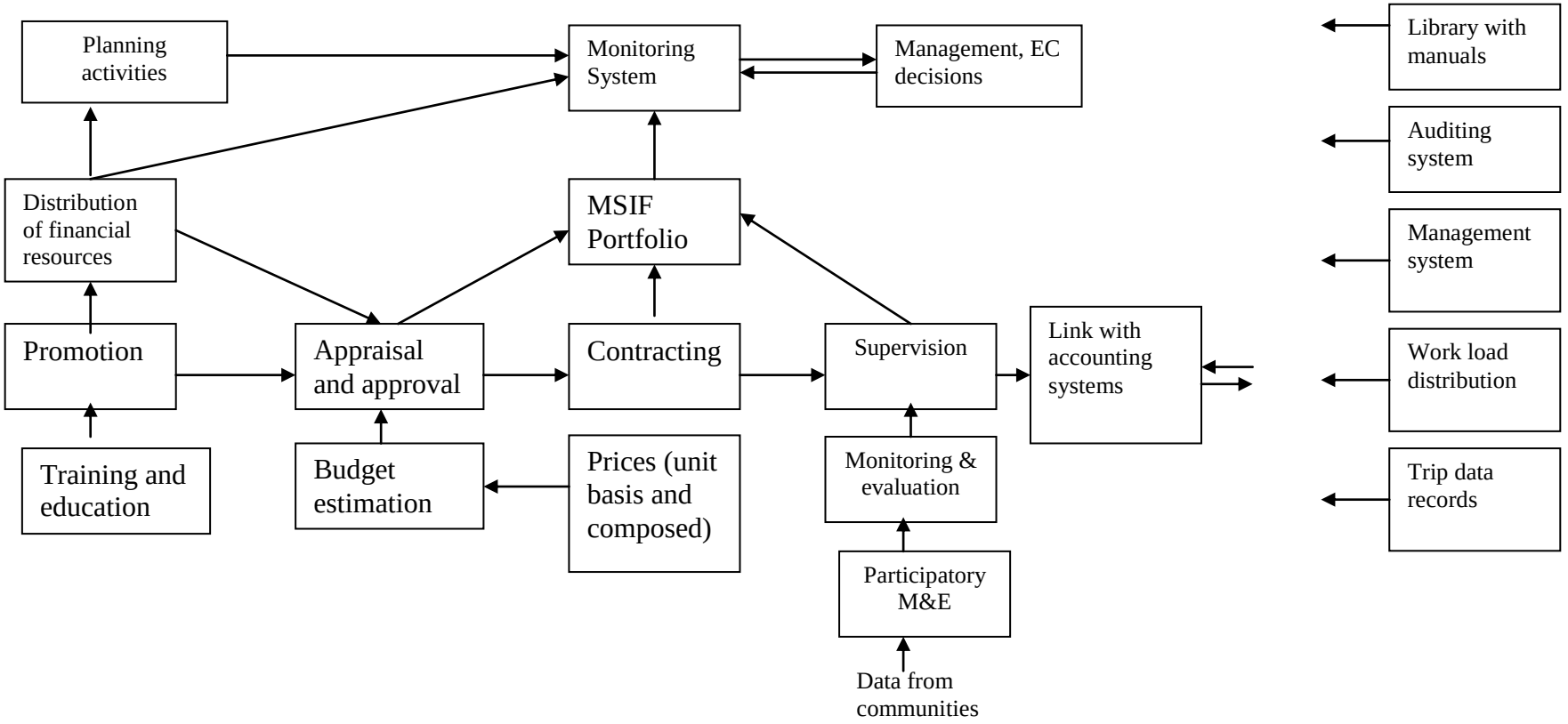
1.3.18. Audit system

This module allows doing auditing of most important MIS data. Audit here stands for a registration of all changes made to certain values, including showing their old and new magnitudes, the date, hour, second and author of such a modification. This enables to track the authors of modifications to the most important data. Usually these are financial data, calendar data when projects are forwarded from one stage to another and all electronic signatures.

1.3.19. The electronic library

The electronic library is a module including all manuals developed within MSIF, the operational manuals, decisions made by the Executive Committee and other important documents. All MIS users have got access to read these materials. However, only separate persons have got access to do modification to these documents.

Figure 1.3.1. MIS system structure



1.4. MIS link with other modules

Based on MSIF 1 experience 2 data systems have been developed each of them on different platforms

1. Management and monitoring information system of Microprojects – MP MIS;

2. Accounting system – 1C.

Figure 1.4.1 illustrates the link between these three systems. This is a fully integrated system and each bit of information is entered only once. Both systems are able to read data of each other.

MIS incorporates the latest information regarding all implementation details concerning microprojects and business trips. It permits to generate partly PMR reports required by the World Bank.

IC Accounting includes data concerning all financial transactions and accounting records in conformity to requirements of the Law in force in the Republic of Moldova and peculiarity of activities carried out by MSIF2. It permits to generate all necessary reports according with the World Bank requirements (PMR)

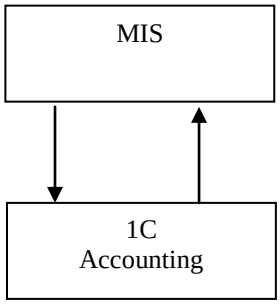


Figure 1.4.1. Interaction between MSIF systems

The following data are transferred **from MIS into 1C**:

- Main data concerning microprojects proposals;

- Data concerning contractors;

- Data concerning already signed contracts;

- Data regarding payments in advance distributed to contractors;

- Data concerning payment documents: documents stating completion of works, payment of the quality guarantee, payment for the design works, payment of salaries to local inspectors, other payments;

- Data regarding payment of placed announcements.

2. General information on the MIS system use

2.1. General purpose followed by the system utilization

The main purpose followed by the utilization of this system is entering data regarding MSIF activity and implemented microprojects and the automatic verification of data correctness. Entered data are saved in a structured way, allowing their processing and analysis as well as an automatic development of working reports and monitoring reports concerning MSIF activity. Based on these data the annual and half-annual reports are being prepared, as well as brief data release for the needs of the Government. The interaction between MSIF employees with the accounting office is ensured in an automatic way through an electronic submission of payment requests for completed works. Data processing within the system is much more rapid, and additionally to this, all the others may also use data entered by a certain employee.

2.2. Access to work with the system

In order to work with the system each user will receive a special access from the Manager of the system. All users will be included in a list with the system users' names and will receive a password from the system Manager. A user will also be attached to a certain users' category. The system envisages different users' categories, each category being entitled to get access to work in certain programs. The user's code is always engaged during the work carried out by a user within the system.

2.3. Access to work programs and auditing

Depending on the class a user belongs to, the MIS system gives that particular user certain rights to work with a number of modules or to carry out certain operations. For example, users from the PLAN DEVELOPER class have the right to work with balances, but they haven't got the right to approve payment documents. In their turn users from the ACCOUNTANTS class have the right to approve the payment documents but can not work to develop plans, etc.

Whenever a user hasn't got an access to a certain program that he things he should, that user will request access to that program from the Administrator or will request the relevant explanations.

Additionally to restrictions imposed regarding work with a certain programs, the system also envisages tracking down all modifications made to most important data, which is called auditing. This procedure is applied with respect to all financial data and all electronic signatures in the form of approvals or records as well as to other data, which, based on experience, turned out to need such an auditing. At the moment of modification of the audited information, the system records the time, the character of that modification and the author making it. Users are aware about the existence of auditing procedure, so that they are conscious about their personal responsibility in making changes within this system.

Another way ensuring information security is blocking the most important data. Once the data are entered into the system, controlled and assessed as correct one,

the entitled user does "recording" of information. This fact forbids further modification of this data and that for a period of time until with the help of the system Administrator the record and consequences are cancelled.

2.4. Access to the system

In order to get access to the system the user proceeds to click on the icon containing "MIS" inscription on the computer desk. This causes the appearance of a window proposing to select the user's name from the lists and requests the password. Should the system indicate that the password is a wrong, then the user will check correctness of the name selection and will again use the password. Most frequently met mistakes are:

- The user forgot to change the user's name in this respective window;

- The user forgot to change the working register and select the adequate alphabet (for example the password is introduced with English letters, but the user is having the Russian letters program in use);

- The user forgot to change the position of NumLock and CapsLock buttons.

2.5. The system maim menu

If the password is a correct one the user gets access to the system and immediately the main working menu is made available. Below, accessories incorporated into this menu are listed.

2.5.1. Microprojects. This is considered main accessory because it covers main MSIF activities. The accessory lists all stages of the microproject cycle and actions linked with them. The "Microproject" definition stands for both types of microprojects: microprojects designated for rehabilitation of social infrastructure and the ones designated for de-institutionalization of children.

2.5.2. Monitoring. This compartment includes information regarding all MSIF activity reports, electronic library with last version of MSIF manuals, and other general information.

2.5.3. Accounting. The accessory contains all screens necessary for the activity of accountants within MSIF. One should notice here that additionally to this accessory accounting personnel has also access to all MIS accessories concerning approval of payments.

2.5.4. Recreations. This accessory is in the process of being developed and will include data for non-smokers only, due to the fact that the smokers spend their recreation differently.

2.5.5. The Administrator. The accessory contains all necessary instruments for the development of the system configuration and issuing permits to users. The accessory

is far too boring for other users and that's why they don't have access to this accessory,

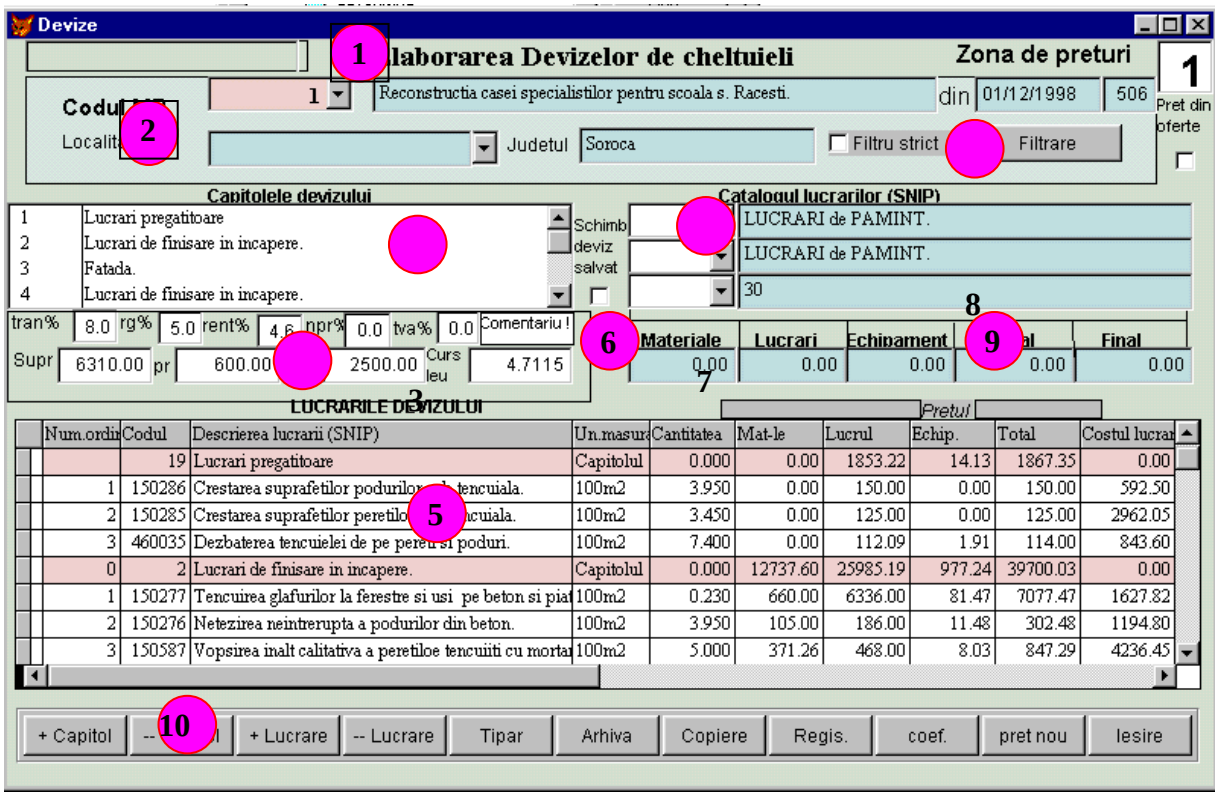
2.5.6. Exit. This accessory ensures a correct exit from the MIS system after the close of all files. It is necessary to stress here the fact that all users are obliged to exit from the system via this accessory, before shutting the computer down, thus avoiding to lose the information.

2.5.7. FOXPRO. This accessory is designated to fulfill the FOXPRO interactive works and only the Administrator has got access to it.

2.5.8. Edit. This accessory has got all standard instruments necessary to edit the texts. Users that have used these instruments within other programs (for example MS Word) will be able to easily use them within present program.

2.6. Example of a working screen

MIS screens are in their majority standard ones and they are very similar one to another, as far as working principles are concerned. That is why, in order to make easier further explanation of screen use, will proceed to study in details a typical



example of a screen.. The screens shown below may be used by analogy to other and not much explanation is necessary for that.

Figure 2.6.1. An example of a screen in MIS.

Below there follows a detailed description of all peculiarities of this screen. Each peculiarity is highlighted with a pink circle and it is given a number. In order to make enumeration easier, the number of the circle coincides with the number of the compartment from 2.6*.

2.6.1. Title. Circle under No 1 indicates to the title of the screen. Each screen in the top part has got a title, shortly describing the main function of this screen. In the example above a screen designated for the development of activities for each microproject.

2.6.2. Microprojects. Window 2 gives the short description of selected microproject. Thus it indicates the number, name of the county and settlement there, type of the project and date of its registration. The number of the microproject (the code) is selected from the list hidden by the number of the microproject (the button with a triangle located near code 1 of the microproject).

The stage the microproject is going through at present it is also indicated. For example microproject 1 is going through stage 506. Thus we learn the following from Table 1 of compartment 1: the stage is "final acceptance of the project", what means that the microproject is over and that the guarantee period is over. In order to extract all these details from MIS it is necessary that we double click on the right button of the mouse on the box with the number of the stage (506). In order to see the entire story of this microproject (the picture in Figure 1.1.1.) it is necessary to double click on the left button of the mouse being within the same number of the stage.

In order to see the entire history of the microproject it is necessary to double click on the box with the number of the stage (506 in our case). A screen with the graphical presentation of the microproject cycle and the route covered by the project so far shows up. An example of such a history is shown in Figure 1.2.1.

In order to rapidly find a microproject based on the name of a settlement the hidden list of settlements (the button with a triangle located on the left side with the word "Judetul" on it). Once the list is here it is easier to find the necessary settlement, by only typing the first two to three letters of the name of a settlement.

In order to have less names of microprojects in a list of microprojects one could engage the strict filter (the left box with the words "strict filter" is engaged). It brings about the bird inside the box, meaning that the filter is actuated. After that the list of microprojects will include only microprojects at this particular stage (506) or the ones that are switching to this stage (505).

There exists another way to decrease the number of microprojects from the entire list. A filter is being created with the accessory Filter, the detailed description of which is given in compartment 2.6.8.

2.6.3. Lists. **I**n data processing in many cases it is necessary to select out one single option from a list with alternative options. In this case lists of the type circled under number three are used. The list can be bigger than the one shown on the screen and in order to move it up or down buttons from the right of the list are used. In our example

the list is used for rapid search of data from the bill of quantities. The list includes all chapters of the bill of quantity. For example, if we click with left button of the mouse along the line under number 4 "Final works in a building", then information from chapter 4 will immediately show up in the works related to a bill of quantities (marked with circle 5).

2.6.4. Textboxes. Textboxes are another type of data entering possibilities, which make possible introduction of a numerical information, calendar data, etc. In our example we have textboxes for entering amounts of money and interest rate magnitudes.

2.6.5. Grids. A **grid** represents a set of columns and rows, which allow storage or editing of organized multitudes of numbers and text. In our example the grid is used to store and process a balance of expenditures. Each line of the grid includes data regarding a certain work from the bill of quantities. Each column includes data regarding all works within a bill of quantities with the same characteristics. For example, the column with the name "Description of works contains all names of works included in the bill of quantities.

2.6.6. Checkboxes. Checkboxes have only two positions (on-off) and are used to indicate a status of a process. In the present example the checkbox with the name "Schimb. Deviz salvat" which represents a box displaced on top of circle 6 is used to protect the bills of quantities from accidental changes. When a bill of quantities is registered no more changes are possible. In order to avoid accidental changes, once entered into a registered bill of quantities data will not be able to be changed, until the above mentioned checkbox is engaged.

2.6.7. Hidden lists. Lists studied above in 2.6.3. need a rather large space, what is not always convenient. Hidden, type 7, lists are used instead of them, which show up only when button with the black triangle on it, referring to this respective list, is engaged. In our case the hidden lists are used to rapidly find a certain work, necessary for this particular bill of quantities, from a big list of possible works (SNIP).

2.6.8. Filters. **I**n many cases filters are used in order to diminish the number of accessible lines. In our case the filter is used to diminish the number of microprojects from the total list of microprojects proposals. Filtering is done in conformity to certain criteria. When we press the button with "Filter" inscription on it a new window will open as shown in Figure 2.6.2.

Figure 2.6.2. Filtering microprojects within MIS system

Microprojects may be selected based on two words contained in their name (one or another) as well as based on county name, settlement name or their type. In the example given in the Figure all schools from Chisinau municipality are selected, the ones containing in their name the word "centre". In order to save the selected filter and to engage it, the "Save" button is pressed. To cancel the filter and obtain access to all microprojects the button with the inscription "toate MP" (all MP) is engaged. Return to the previous screen is done via the button "iesire" (exit).

2.6.9. Textboxes Denial. In order to avoid data recording in certain text boxes, but still allow the user to see its content, editing of texts is forbidden. As can be seen, these boxes have different colors compared with the ordinary ones. In majority cases, these boxes are blue or gray within MIS system. Attempt to record data into a denied box produces a warning sound, which doesn't cause any change to the content of the text.

2.6.10. The Radio buttons Set. In the bottom part of the screen usually the radio buttons are displaced. They allow access to all other instruments necessary to work within this program, for which however, there is not enough space in this particular window. For example, if we engage the "Tipar" (Print) button, the printing accessory for this program will show up on the screen. The exit from the screen is always done via the Exit button, which usually is displaced to the right of the button desk.

In the compartments below, only the general use of instruments will be described, presuming that the user is already familiar with the described instruments.

2.7. Data Entering, storage and processing.

Each user is responsible to enter data regarding a narrow segment of activity, which has to deal only with several working screens. However, data entered by a person will be used in future by other persons for different other purposes. This imposes a big responsibility of each user for the quality and correctness of entered data. For example, if the procurement expert makes a single mistake in data entering with respect to a contractor and this mistake is a figure in the banking account, it might happen that once in the accounting department, the data can be used to automatically produce payment documents. Thus, money may be transferred to a nonexistent account, or even worse, money may be transferred to a wrong account. Or, another example, it might be that the supervision expert accepted the hand-over of an object but forgot to enter this data into MIS system. In this case this object will show up in all MSIF reporting documents as an object under implementation, fact which will be not in line with the reality.

In this context, it is necessary that each user remember the need to enter data in time with regard to the sector he is responsible for (in an obligatory way). In case that error data was entered or, on the contrary, data was not entered, persons responsible to make these entries will be contacted in order to remind them the need to enter data.

Every morning the Administrator of MIS system makes a copy of the system. This is a requirement to be observed as a back up for those cases when some useful

data are lost, data that might be linked with substantial efforts to recover. The Administrator, having such a copy, may help to recover the important data.

There are cases when the user signs a document with his electronic signature (he registers it or approves it) and later it turns out that the document contains errors. In these cases the user will contact the Director of the respective department and inform him about the need to cancel the electronic signature. Cancellation of simple signatures, like transfer of the microproject to another stage, can be done by the Director of the Department with the use of stage cancellation accessory (it will described in compartment …). Other cancellations, connected with a transfer of money by the accounting office, can be annulled only by the system Administrator, after persons that might had received the electronic messages had been informed in advance.

2.8. Standard multifunctional programs

MIS system envisages a number of working programs with a very similar interface, so it is not necessary to describe this interface every time for each separate program. In order to further simplify the description we shall study these standard programs separately.

2.8.1. Registration of stages of the microproject cycle

This accessory has the goal to produce an electronic signature confirming that a certain microproject passed through a certain stage of the microproject cycle (see Table 1.1.). Figure 2.8.1. illustrates the typical screen of this accessory.

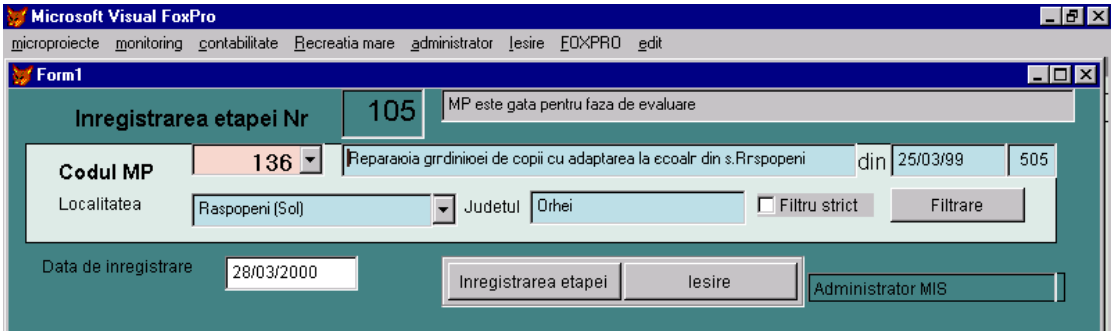


Figure 2.8.1. The screen showing registration of stages

It can be seen from the Figure that the program offers the possibility to select a microproject (in conformity to procedure described in 2.6.2.). On the top part of the screen it is indicated the stage of the microproject is switching to. In our case intended transfer is stage 105. There is a text box in the bottom part of the screen, which allows data entering relevant to the stage to which the transfer has been made. Clicking the "Inregistrarea etapei" button ("Registration of the stage") brings about the electronic signature and is a sign that the present microproject is at this stage.

One should note that before performing the electronic signature the MIS system will verify whether transfer of the microproject to this stage is feasible from the stage the microproject is at present. In the case illustrated in the Figure above the

electronic signature will not be engaged because the microproject is at stage 505 (it is in its preliminary "hand-over" stage) and due to this circumstance the microproject may not go to the next stage 105.

Another important remark is the necessity to sign as soon as possible the transfer of microprojects to this respective stage, once the transfer occurred. A delay may cause a distortion of the system report data and this has a negative impact on the quality of work carried out by the MIS user. Although the system allows signing the microprojects one or two months later or even one year later, the fact, however, is registered by the auditing program and may be checked by managers any time.

If a user has signed in a wrong way a transfer to a stage, the Director of this respective Department may cancel this signature. It is to remember, however, that only one consecutive stage may be cancelled.

Similar screens (Figure 2.8.1.) are used to register all MIS stages either by this particular screen, or within other screens, depending on the complexity of the stage.

2.8.2. Standard report confirming fulfillment of a stage

Many stages out of the list of all possible stage (Table 1.1) are rather simple and may require that only the registration of the stage be done within the system, as shown in section 2.8.1. Another type of stage are more complex and additionally to registration may also require entering a limited set of data and of a report regarding the development of the implementation process at that stage. The interface, which is similar for all stages of this type, is used in case of such stages. For example, the work screen shown in Figure 2.8.2. refers to stage 103 and it says "Proposal is returned back to document preparation stage".

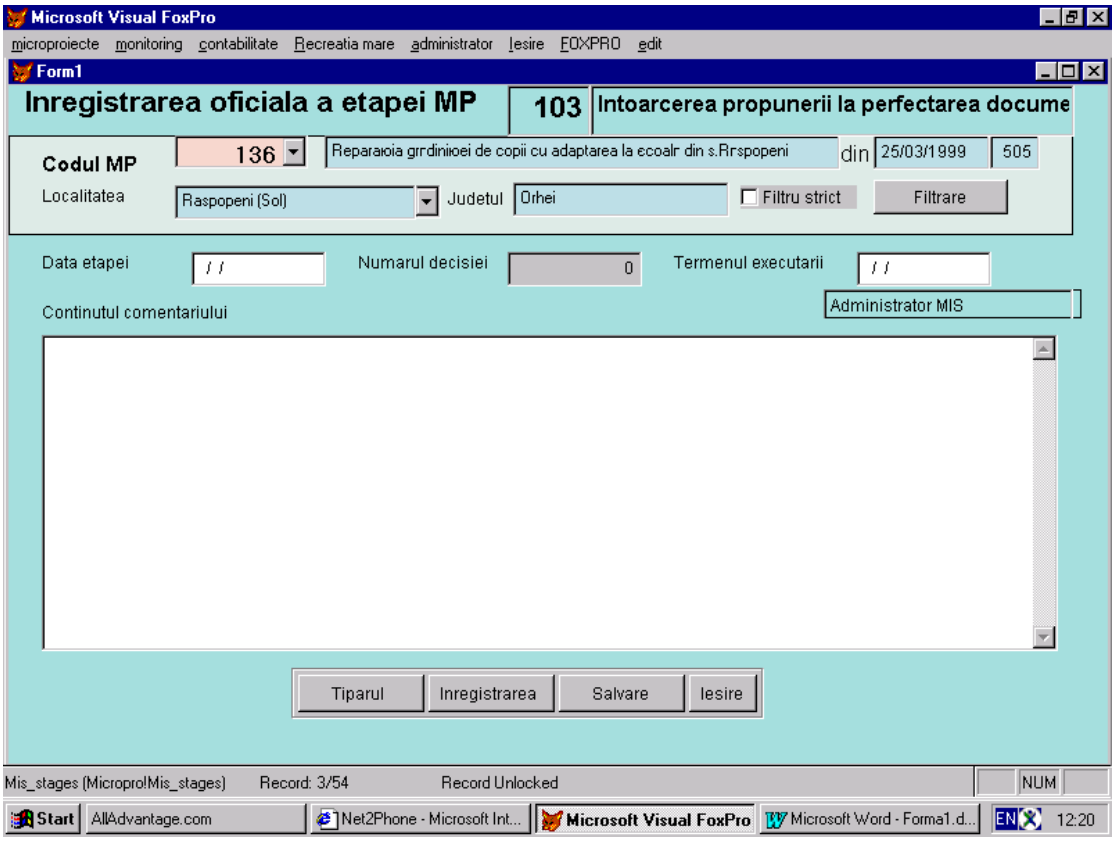


Figure 2.8.2. Example of a screen with a standard stage of the microproject

In this case it is necessary to indicate when the proposal returned back to document preparation (the date of that stage), and terms allowed for the documents to be prepared (fulfillment terms). During certain stages the decision of the Executive Committee (number of the decision) is required. In stage 103 this requirement doesn't show up because a decision is not required. Also a description is made (a report) of all requirements towards the document preparation (the content of the comment). During other stages this comment includes the activity report. By clicking the "Tiparul" (Print) button a print out of all these data is obtained in the form of a letter or a report.

Pressing the "Inregistrarea" (Registration) button will engage the registration program of the stage described in 2.8.1. The "Salvare" (Save) button is not obligatory and should be used only in cases when a report with many pages is written, thing that practically doesn't happen.

These kinds of screens, or similar ones, have been developed for the following stages of the microproject:

103 Proposal goes back for the documents preparation
104 Proposal is rejected at the stage of identification
201 It is approved by the Executive Committee at the 1st appraisal stage
202 1st appraisal stage is over
203 Documents preparation is done by the IA in conformity to MSIF

requirements

204 The proposal has gone through second appraisal stage and has been approved
208 The microproject has been rejected during the appraisal stage
301 MP is approved by the Executive Committee
302 MP is approved by the Coordination Committee
303 MP was approved by donors (WB)
304 Rejected during the APPROVAL stage
305 Approved on condition that modifications are done to it
306 IA is invited to sign the agreement
307 The MSIF- IA contract is signed and contribution collection has started
504 Preliminary acceptance procedure started
505 Preliminary acceptance procedure is over
506 MP has been fully accepted

2.8.3. Codifiers

The coders (classifiers) are called tables including a list of a set of elements belonging to a well determined area, each element from this list having a number in that particular list which is called – code. For example, there is codifier of counties in Moldova, which includes the list of counties with their respective codes: Baltsi is under number 1, Cahul is under number 2, etc. The classifiers are widely used in information systems because they permit an analysis of information with a purpose of better work. Additionally to a code and name, other indices, characteristic for this element, may be included in the codifier. In the example below (Figure 2.8.3.) a screen is shown which allows to work with the county codifier. Except the code and the name there are also boxes for other text categories:

- the number of villages in a county,
- the number of rural population,
- financial resources allocated to that particular county,
- the date when MSIF started its activity in this particular county,
- and the date when the first proposal for a microproject has been submitted.

The buttons in the lower part of the screen make possible processing and use of data from the codifier. Thus, the data may be shown in a list, new codes may be added, the existent data may be corrected, prints out could be made, deletes, etc.

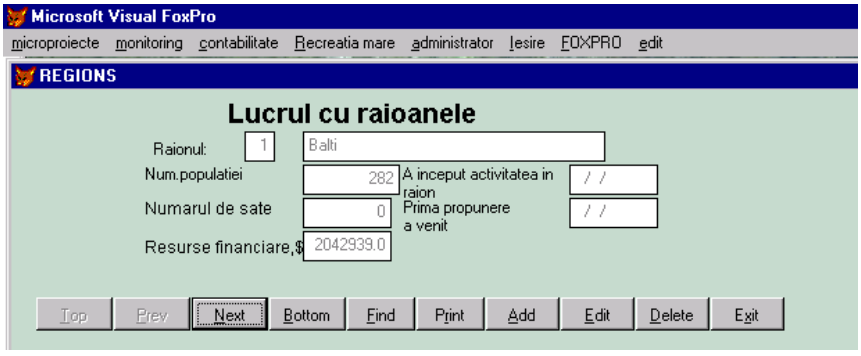


Figure 2.8.3. Example of a codifier highlighted on a screen

It is important to mention that modification of these codifiers is the responsibility of specially trained people and should not be done by every user. Whenever necessity arises to modify them it is necessary to obtain consulting from the Administrator of the system.

The following codifiers exist within MIS:

- Materials and equipment
- Monitoring activities
- Sustainability indices (benchmarks)
- The microproject cycle
- Microproject design types
- Types of contracts signed by MSIF
- Range of Marks used to assess a monitored activity
- Geographical level selected for the implementation of a certain activity
- Types of possible plans in MSIF planning of activities and also of its associates
- Types of payments made with the assistance of MIS/1c
- Types of procurements
- MSIF financing sources
- Types of activities aimed to ensure sustainability
- Types of target groups covered by MSIF activity
- Trainers carrying out training in different ways
- Types of training delivered by MSIF
- Measurements units used in the balance of payments
- List of currencies allowed for use during MSIF activity
- Types of seminars held in conformity to MSIF topics
- Lists of complex works SNIP
- List of Implementation Agencies
- List of the counties in the Republic
- List of settlements
- Stages indicating the microproject cycle (see Table 1.2.1.)
- List of MIS users
- Types of MSIF users

Other standard screens are worked for procurement (see section 3.4.3.) and for payments made to physical entities (see section 3.5.7.).

3. Using MIS in Microproject cycle

Within MIS system the microprojects cycle is totally automatic. In order to get access to the microprojects cycle one should select the Microprojects accessory from the main menu. A menu with the following programs is incorporated into this menu:

Promotion
Identification
Appraisal
Approval
Contract signing
Follow -Up
Sustainability

These programs denote the stages of the microproject cycle, which will be subject of our detailed study in the present section.

3.1. Promotion

Promotion section is designed to ensure computerized support to the activity developed by the promotion team. This section is a little bit different from the other ones through its interface and activities covered here are not linked to concrete microproject proposals. Opening the promotion accessory the user sees the following picture (Figure 3.1.1.).

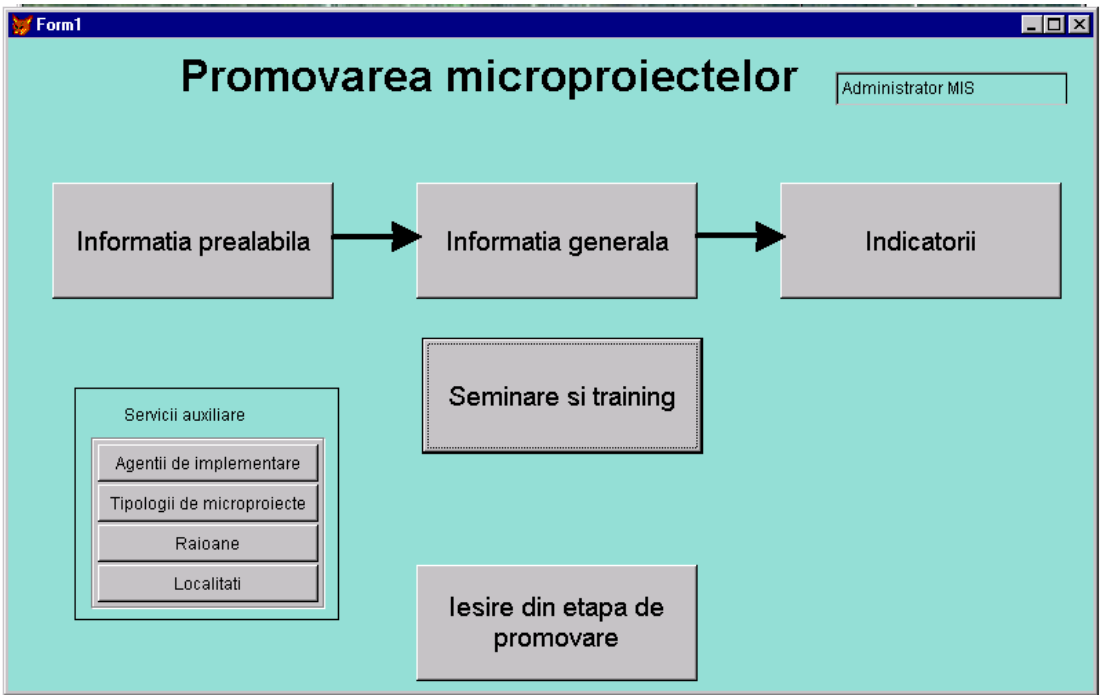


Figure 3.1.1. General picture of the promotion stage

3.1.1. Additional properties

There is a set of radio buttons in the left side of the screen, their destination being to ensure additional properties during main stages. The first button engages the working screen of the Implementation Agencies within MIS system. The second one refers to the codifier of microproject types and the third one refers to the codifier of regions and the last one, the fourth, is the codifier of settlements. These codifiers may be studied and used by each user involved in the promotion stage. However, only one single person may make corrections to this program. The detailed work with the codifiers is described in section 2.8.3.

3.1.2. Preliminary information

MIS system produces the following screen when button "Informatie prealabila" (Preliminary information) is clicked (Figure 3.1.2.).

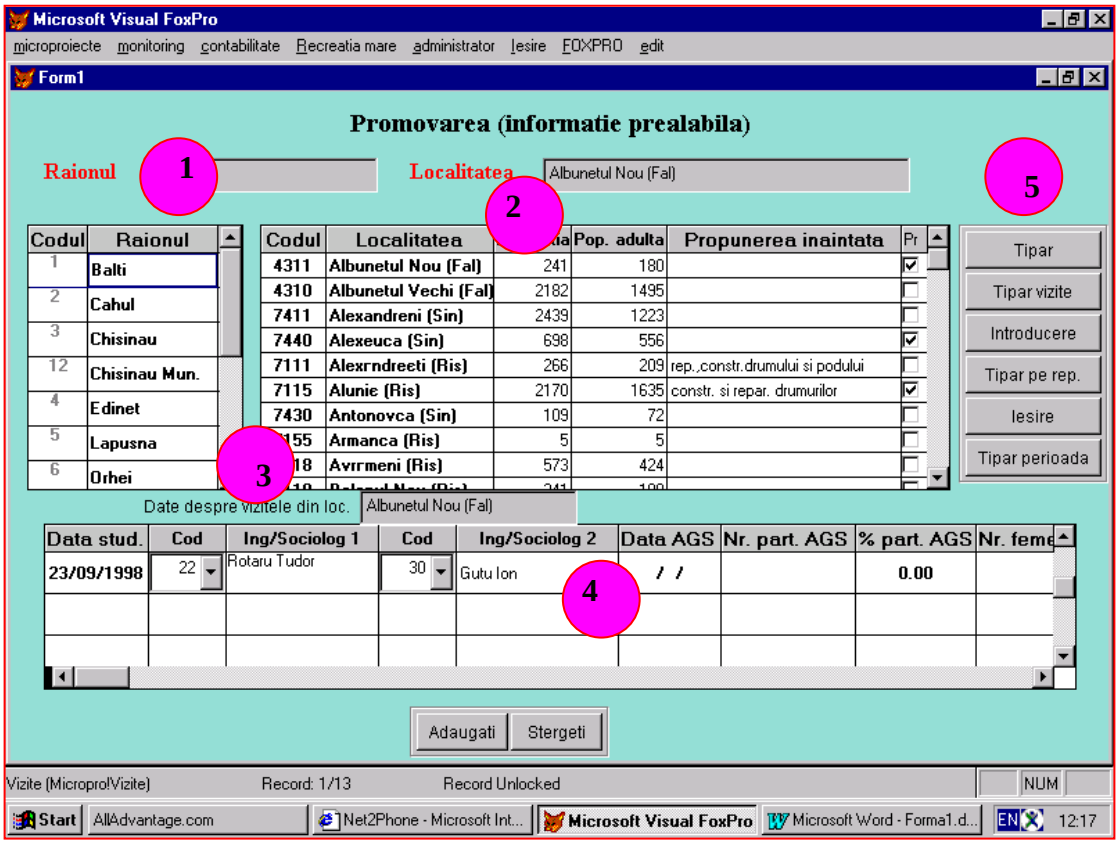


Figure 3.1.2. Data entry regarding promotion information

List 1 from the screen indicates all counties. In order to work with villages in a particular county it is necessary to click on the name of the county in this list. Then villages located in this county appear in window 2 arranged in an alphabet order fact meant to ensure an easier access to the necessary village. Also data indicating the total number of population and the adult population is contained in this list to be able to

compare these data during General Assembly. Whenever a certain community submits to MSIF a microproject proposal MIS indicates them immediately in the right part of the list 2along with the name of this particular microproject.

When the purpose is to work with data regarding a certain settlement one should click with the mouse on the name of this settlement in list 2. In this case in the top part of the screen the name of the county and of the needed settlement appears and between the list No 1 and grid 3 the name of the settlement appears.

Information with reference to all activities carried out in this particular village is entered in grid 3. In order to add a new activity button “Adaugati” (Add) from the set of button 4 is pressed. To delete an activity button “Stergeti” (Delete) from this set is pressed. One should draw attention to the fact that the number of indices in the grid is much bigger then the one shown on the screen. In view of this, it is necessary to click on the top part of the grid, on its margin, or to move the button from the bottom part whenever it is necessary to have access to the rest indices.

The button set 5 contains necessary instruments to do printing out and to exit from the program.

3.1.3. Entering data regarding poverty

The picture below appears when button “Indicatorii” (Indicators) from the general screen of promotion is pressed (Figure 3.1.3.).

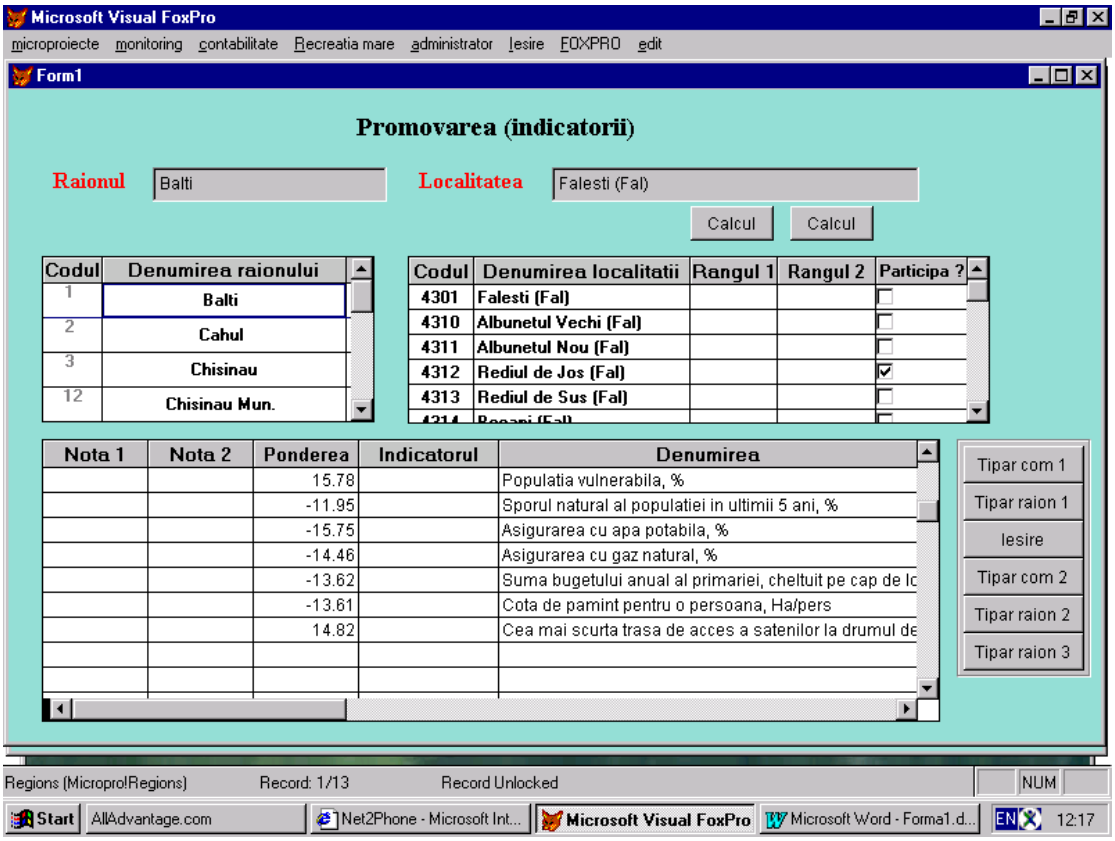


Figure 3.1.3. The stage envisaging entering poverty data

With the help of this accessory poverty indices of a certain village are entered. Based on these indices the poverty rating and assessment magnitude within the county is computed. One should click on the name of the county and settlement in the lists on the top part of the screen to select the needed settlement. At this moment information containing characteristics of this particular village appear in the grid below. Characteristics may be entered or modified. In order to compute the poverty rating button "Saracie" from the top part of the screen is pressed. The set of buttons in the right part of the screen serves to do printing and to exit from the system.

3.1.4. General information

This program contains general information, already processed, which was entered in the previous screen (Figure 3.1.4.).

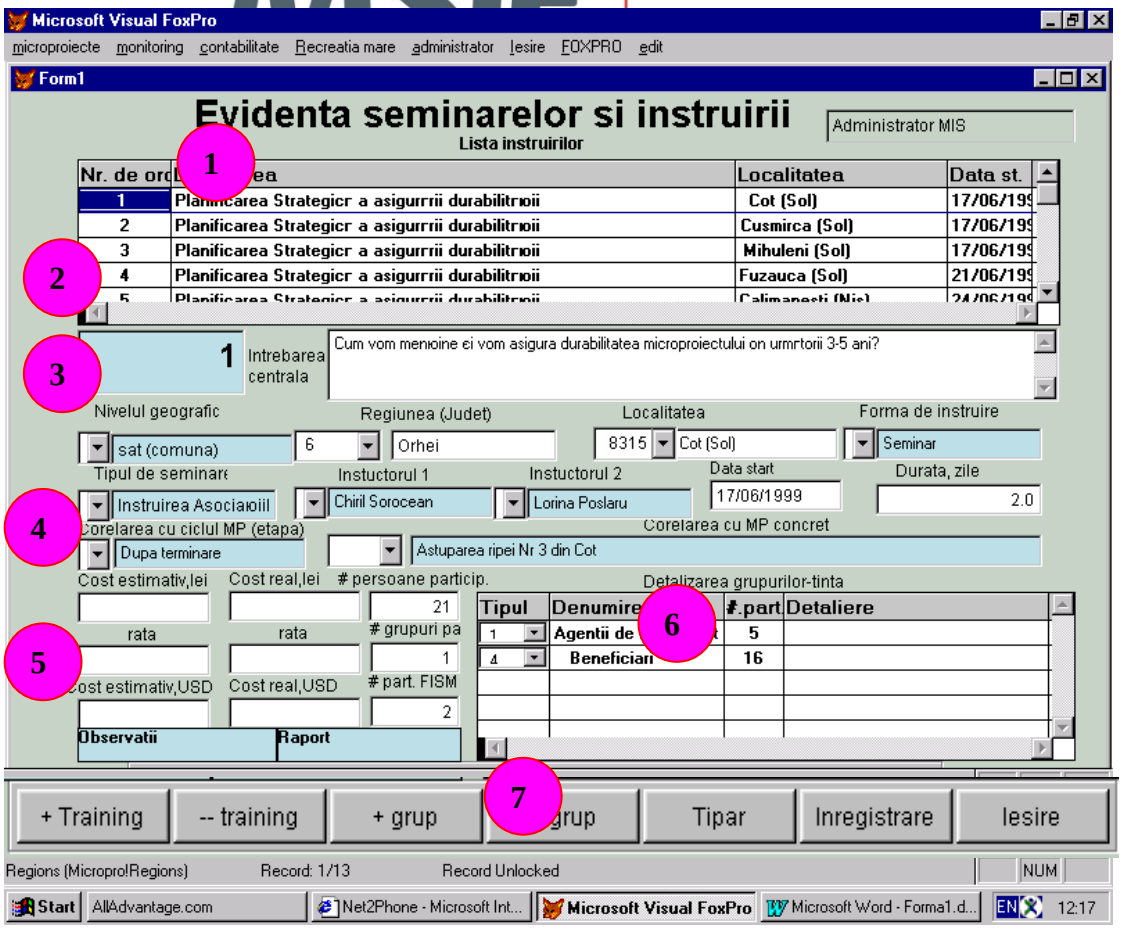


Figure 3.1.4. General information screen with information concerning poverty rating in a community

The set of buttons includes only the printing out function of the rating data and exit from the program.

3.1.5. Training module

To work with the training program one should click button “Seminare si treninguri” (Seminars and training) on the general promotion screen (Figure 3.1.1.). The system will produce the following screen (Figure 3.1.5.).

Figure 3.1.5. The screen dedicated to work with all training activities

All forms of training are processed with the assistance of this screen, not only the ones related to promotion or other stages of microprojects. List 1 enumerates all training seminars held within MSIF. In order to switch to a certain seminar the number of the seminar is clicked on (column 1). In this case in the bottom part of the screen the detailed information about this seminar or training appears. In order to find training activities in a quick way, it is possible to arrange them according the number (column 1), name (column 2), name of the settlement (column 3) and date of the event (column 4). In order to change the arrangement order of training activities one needs to click on the name of this respective column. In order to switch to needed training

activity the respective number is being pressed. Let's call the training activity illustrated on the screen **active training** (only to the extent that we work with it now).

In order to engage another training activity, button "training" out of the set of buttons 7 is pressed with the purpose to close the active training at this particular moment. A number of controls are carried out before closing down. Thus, training activities marked as registered ones shall not be liquidated. In circle 2 area general information concerning the active training is contained: the number of the active training activity and the main topic of training.

In circle 3 area information concerning main characteristics of training is located. They are:

- *Geographical level* – village level, county level, abroad, etc
- *County* – when training is done at the county level or lower
- *Settlement* – when training is carried out in villages in Moldova, one is supposed to also pick out the code from the settlement list. The code is not indicated in case when training is done abroad
- Form of *training* – the respective form is selected out of the codifier: is it a seminar, a round table talk, etc.
- *Type of seminar* – MSIF has worked a number of standard seminars for certain target groups. In case of these seminars the type is also indicated
- *Trainers* – are picked out from the approved list
- *Launching date* of the seminar and duration (how many days;; it might be even less than a day)
- *Link with the microprojects cycle* – is done when training is linked to a certain microproject
- *Number of the microproject* is indicated in connection with which training is being carried out. Here one should mention that in order to quickly find the number of the microproject it is necessary that first the settlement name is entered and its respective code. Then MIS will indicate only microprojects submitted by this settlement.

It needs to be pointed out that in order to include a new type of seminar, new trainers, etc. it is enough to press the right button of the mouse after placing the mouse on the box with the respective information.

Around circle 4 information regarding following issues is contained:

- *Estimated cost* of the active training, shown in lei; below the dollar exchange rate so that calculations be done in dollars;
- *Real cost* of active training, with the respective rate;
- The *dollar cost is computed automatically*;
- *Number of participants* to this seminar; only audience is included;
- *Number of participating groups* to training – includes participant categories classified in conformity to MSIF codifier;
- *Number of participants representing MSIF*.

There are two hidden pages linked to button 5 (for better use of the screen space) and they refer to:

Notes – Clicking on this button engages the page with general conclusions and short comments;
Report - Clicking on this button engages the page (or pages) necessary for the report drafting.

Printing out of these reports is done with the use of "Tipar" (Print) button from the set of buttons 7.

Target groups grid (circle 6) includes detailed information regarding main characteristics of participants to the seminars or training activities. In the example shown on the picture 5 persons from the Implementation Agency attended the seminar and 16 other beneficiaries. Selection of group category is done in column 1 of the grid, engaging the hidden list. In order to add or to liquidate a target group from this grid the "+grup" and respectively the "- grup" buttons, located in the button set 7 are used.

Finally, the last unclear button remained so far is the "Inregistrare" (Registration) button. Once data regarding active training were entirely entered into the computer and obviously training did indeed take place, the training is registered. Registration is an electronic signature with the help of which the user confirms that entered data is correct, full and training did take place. Starting with this moment the information may not be modified or liquidated and training appears in the list of held seminars. At the same time the color changes from white to brown in the training list (circle 1).

Another possible position linked to this training is "Anulata" (cancelled), which is carried out with the same button. The training colour in this case becomes blue.

3.2. Identification

In order to get access to appraisal stage it is necessary to go, via the main menu, to the MICROPROJECTS programme, and from there to IDENTIFICATION programme. In this case MIS produces the following screen (Figure 3.2.1.).

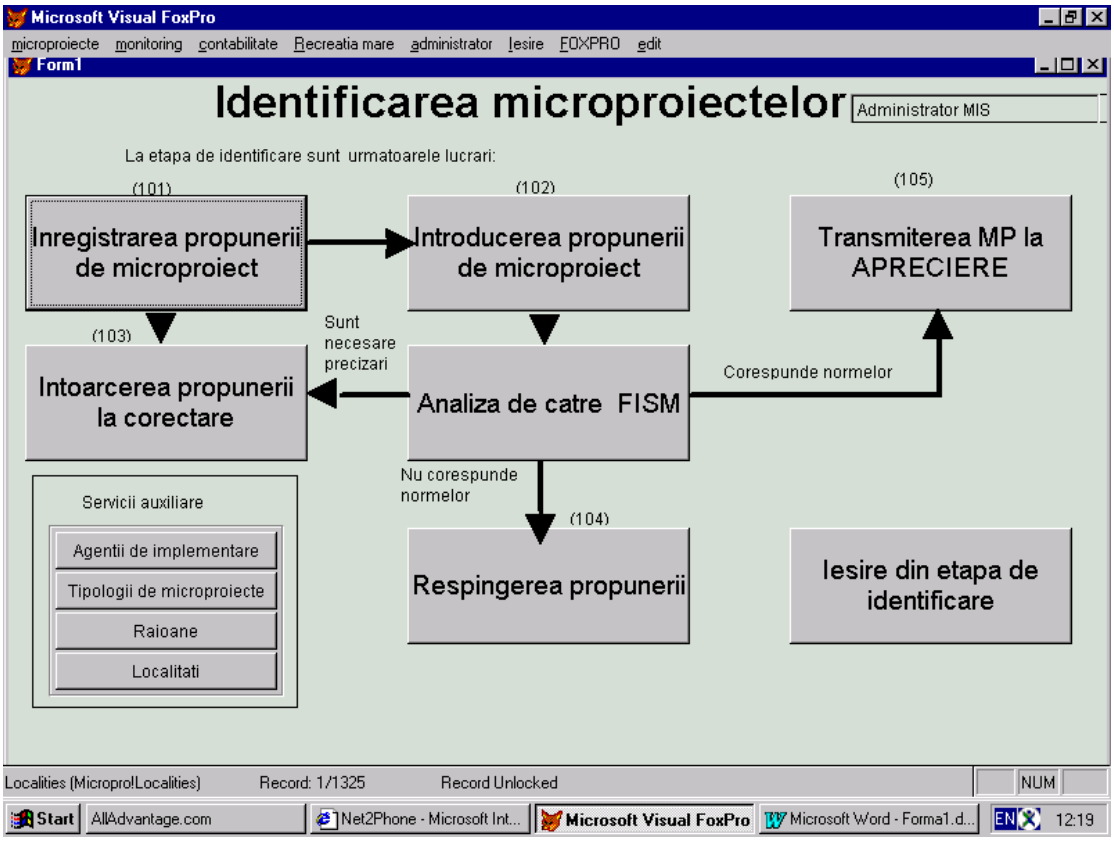


Figure 3.2.1. General form of the identification stage

In the bottom part of the screen, at left there are several additional services, which are not party of the microproject cycle, but are necessary for the work with microprojects. These are codifiers including information about the created Implementation Agencies, the social types of microprojects, list of regions and settlements.

Below a description of the microprojects identification stage components is given. In conformity to a microproject cycles which are the following:

100	Identification
101	Registration of the proposal
102	Entering description of the proposal
103	Proposal is returned back for the preparation of documents
104	Proposal is rejected during identification stage
105	The MP is ready for the appraisal stage

Below there is a description of each stage. Arrows on the Identification screen indicate the possibility to transfer a microproject from one stage to another.

3.2.1. Stage 101. Registration of the proposal

When button "Inregistrarea propunerii de microproject" (Registration of the microproject proposal) is pressed on the general screen, then the MIS system produces the following screen (Figure 3.2.2.)

Figure 3.2.2. Screen indicating entering microprojects proposals

This screen includes only the most important information necessary for the registration of a microproject proposal submitted from a village. As can be seen on the screen, information about the name of the settlement forwarding a microproject proposal is being entered during this registration along with a short description of the microporject (in Romanian and in English), the name of the county and name of the settlement, the social type of the microproject and the construction type, date when the General Assembly was held and date of registration (when the proposal has been submitted to MSIF).

Also the component the microproject belongs to is shown. Majority of microprojects belongs to component 1 "Rehabilitation of the social rural infrastructure". In order to
In order to select the second component "Deinstitutionalization of children within the risk group" one should include code "2" into the component box.

In order to introduce a new microproject proposal the "Cod nou +" (New code) button is pressed. After that the respective data are entered. These data may be modified and updated. The proposal may be liquidated by pressing button "Lichidare –" (Liquidation).

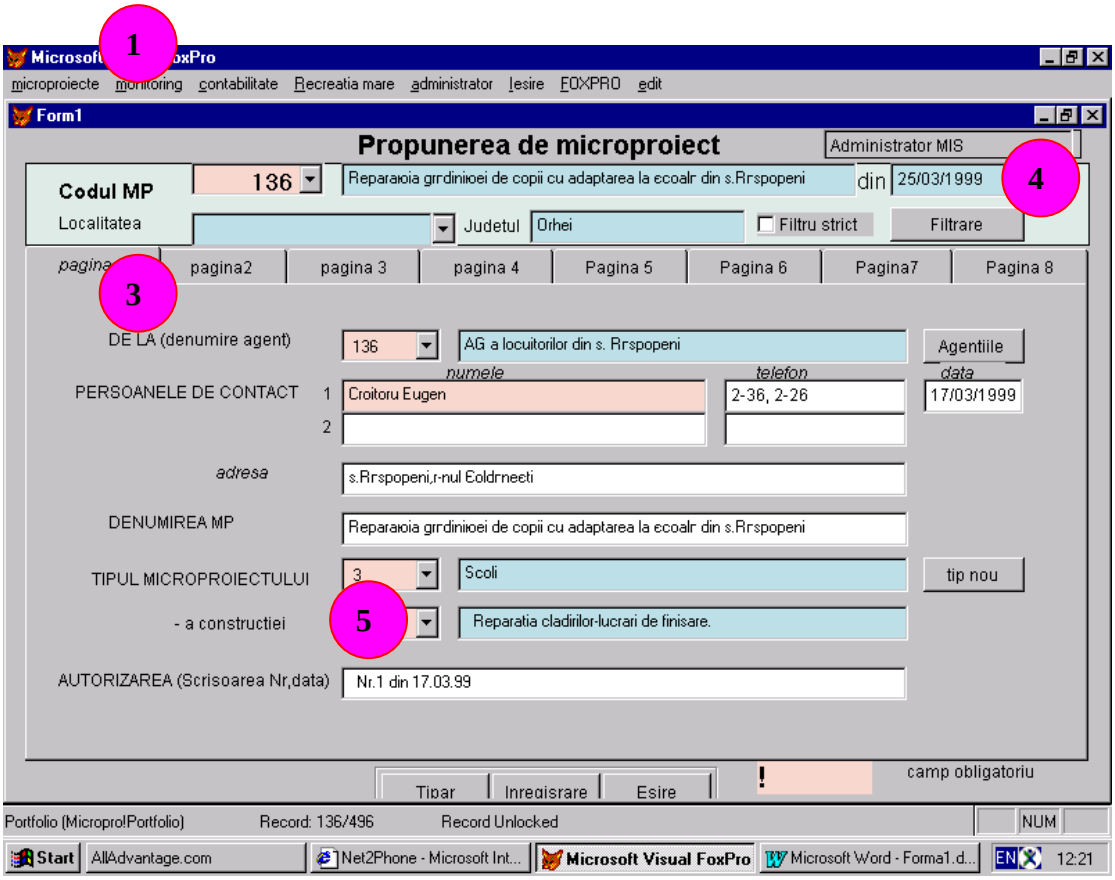
Once the correct data entering is over information is registered. The user needs to electronically sign the fact that the data is totally correct. At the moment of signing

the microproject switches to stage 101 and information is disseminated to other accounting systems. Information on the screen may not be modified or liquidated.

The button "Lista documentelor" allows access to the screen with the list of documents submitted by the Implementation Agency. The "Information" button allows printing out information regarding the microprojects.

3.2.2. Stage 102. Entering data in connection with the proposal

During this stage the user enters detailed information into the computer. The



view of the screen is shown in Figure 3.2.3.

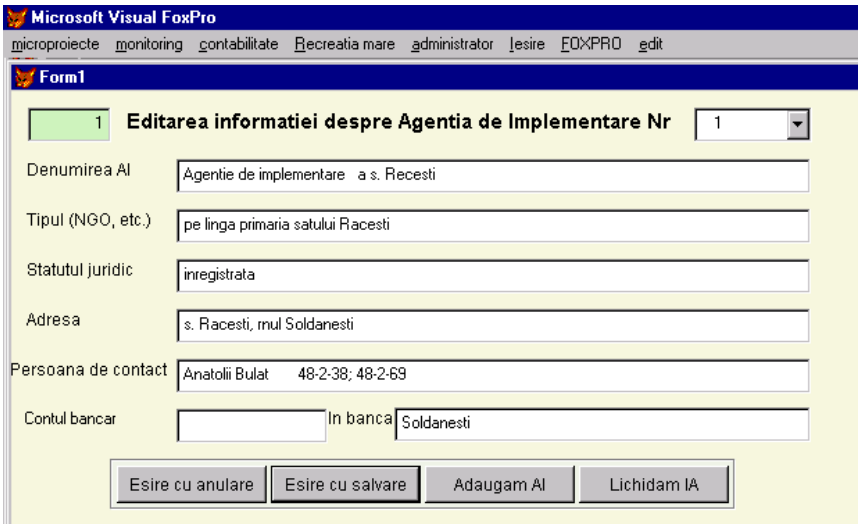
Figure 3.2.3 Entering a microproject proposal

In order to select a microproject with the purpose to introduce or modify the information the instrument in the upper part of the screen (circle 1) can be used. It allows to do selection based on the code (registration number), alphabet or filter. Details regarding use of this instrument are given in compartment 2.6.2.

In order to place more information on the same screen, the information is placed in a book form – in pages. One should press the number of a page (see circle 2) to reach a certain page. For example in the picture above only page 1 is shown. Each

page contains a certain information. In the example on page 1 there is general information about the settlement and about the Implementation Agency (circle 3).

In order to make changes in codifiers one should actuate them pressing the respective button. For example, by pressing button "Agentiile" (circle 4) one can open



the screen allowing modification of information in connection with the Implementation Agency. The screen is shown in Figure 3.2.4.

Figure 3.2.4. The screen showing processing of information concerning the Implementation Agencies

It can be seen clearly what kind of information is selected for each Implementation Agency.

After entering information concerning the microproject proposal, the user registers stage 102, to confirm the entering event.

Next, the MIS user can switch to the analysis of the microproject proposal. It can be verified whether the proposal corresponds to the preliminary requirements, whether all necessary documents were submitted and whether the submitted documents correspond to MSIF requirements. Three possible decisions may be taken depending on this analysis. They are the following:

- Should documents need further preparation, the proposal is returned back to the village for improvement (Stage 103);
- Should the proposal not meet the preliminary criteria, this proposal is rejected based on a decision of the Executive Committee (stage 104);
- If all documents are in order and the proposal meets the preliminary criteria, then the MIS user confirms the fact that this proposal is ready to go to appraisal (stage 105).

3.2.3. Proposal return for further improvement

When certain documents are drawn up in an incorrect way, or when certain documents are absent, the microproject proposal will be forwarded to this programme. Stage 103 is used in such a case. The view of the screen for such a case is shown in Figure 2.8.2.

This program requests that the date when the microprojects are returned for further improvement is entered. Also all comments concerning the documents are indicated and the deadline date when the improved documents are to be returned. Next the letter addressed to the Implementation Agency may be typed and registration of the stage is made.

When the Implementation Agency submits the improved documents the proposal is transferred to stage 105 (ready for appraisal).

3.2.4. Rejection of the proposal

A proposal is rejected when it obviously does not meet the preliminary MSIF criteria. Only the Executive Committee is entitled to make a decision rejecting the proposal. Any proposal, before being rejected, needs to be registered in the MSIF portfolio.

In order to register the rejected proposal, stage 104 is used, the screen of which is similar to the one shown in Figure 2.8.2. Date when decision was made is entered, the number of the decision and reasons brought forward for making such a decision are being entered. Next the letter addressed to the community is typed. The letter contains this information concerning the decision. The rejection event is registered.

3.2.5. The proposal is ready to go to the appraisal stage

During this stage the user confirms the fact that the proposal is ready to be considered by the Executive Committee in view of its further processing or rejection. The screen for this stage is similar to the one shown in Figure 2.8.1. It includes only the electronic signature and the date of the stage.

Once registration of stage 105 is over the microproject identification stage is considered over and the switch to appraisal stage is made. In order to exit from the identification screen one should press the button at the right of the screen with the inscription “esire”(Exit).

2.1. Appraisal

Appraisal stage foresees computerised assistance to all MSIF actions from the appraisal of microprojects up to the approval and implementation of the microproject. Following the aim to ensure the commodity of automation the appraisal stage has been divided into the following sub-stages:

200	**Appraisal**
201	Microproject was approved by the EC to be forwarded to the first appraisal stage
202	First stage of appraisal completed
203	Preparation of documents by the Implementation Agency in conformity to MSIF requirements
204	Microproject was approved to go to the second appraisal stage
205	Design contract has been signed
206	Design of technical documents is over
207	Estimation of the balance sheet is over
208	The MP is rejected at the appraisal period
209	The MP is ready for implementation

In order to get access to the appraisal stage one needs to go from the main menu to the MICROPROJECTS accessory and from there to APPRAISAL. In this case the user will see the following screen (Figure 3.3.1.).

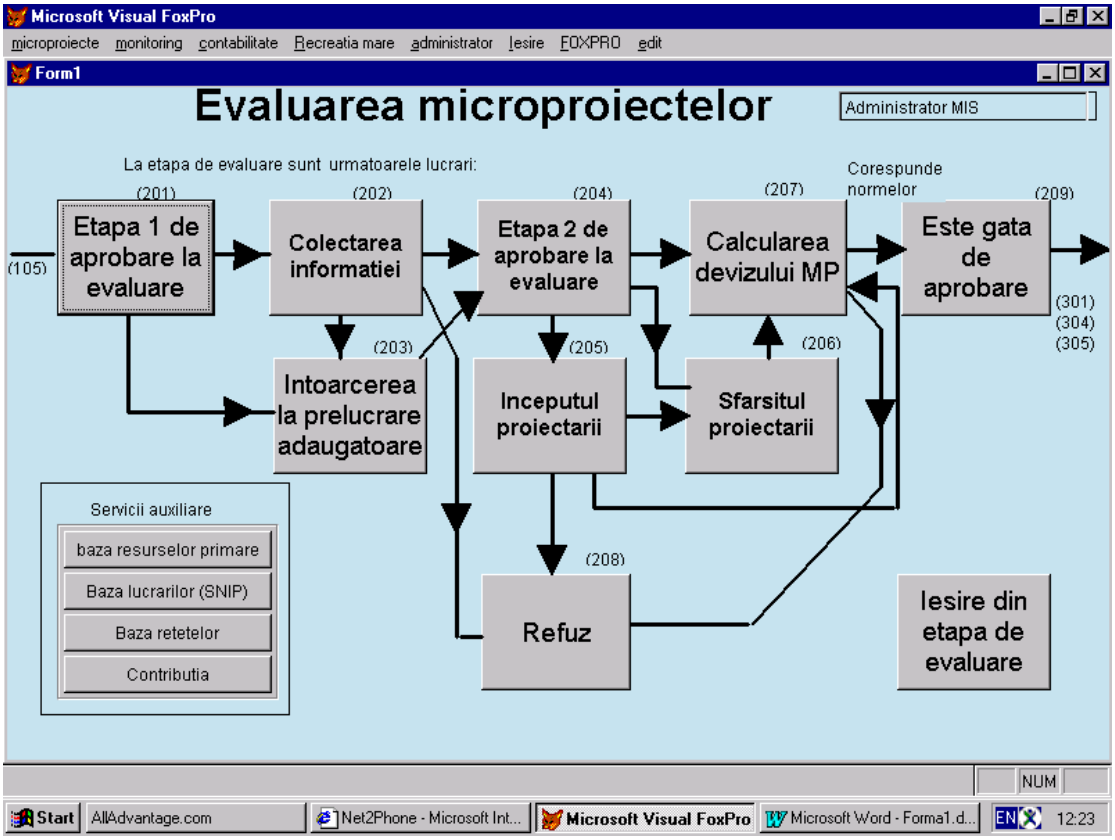


Figure 3.3.1. The main screen of the appraisal stage

As shown on the picture this screen contains the graphical presentation of stages and the possible transfer of projects from one stage to another.

In the bottom part of the screen, at left, there is a set of auxiliary instruments, which allows carrying out work with the codifiers of primary resources (material and equipment), the complex SNIP works and complex works networks. With the assistance of these instruments the cost of complex works is calculated based on the cost of materials. The screen with the contribution from the communities is separated, so that the engineers, who have not a direct access to the screen with the balance sheet, still can see the contribution of the communities.

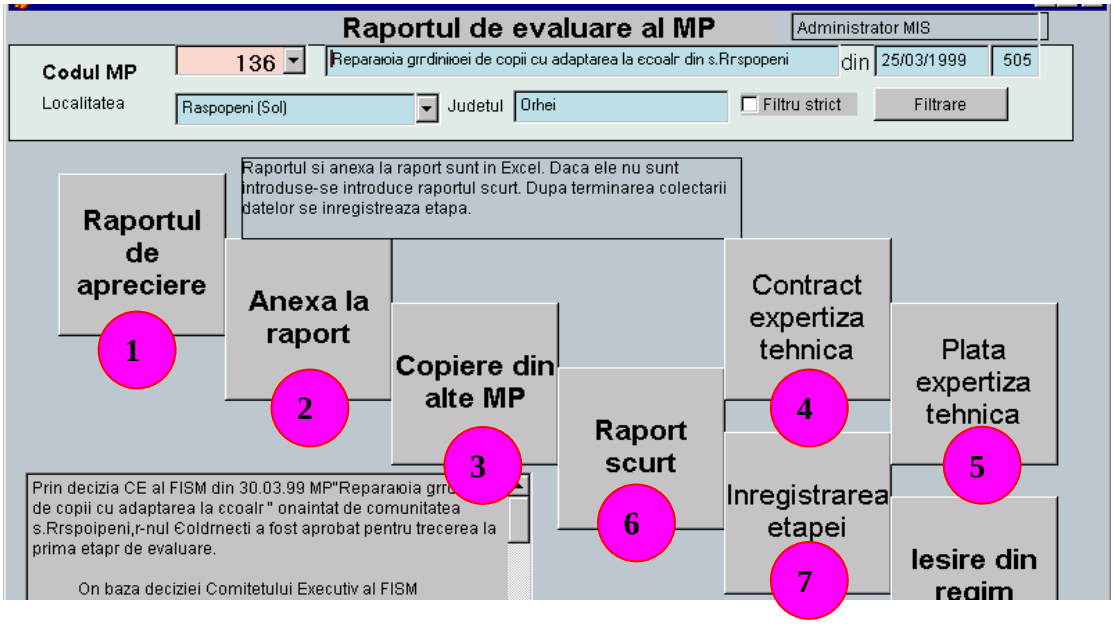
On the button part of the screen at right the exit button from the appraisal stage is located.

Below the detailed description of each sub-stage of a microproject during appraisal is given in the way it is used within MIS.

3.3.1. Approval to the first appraisal stage

Appraisal includes two stages. During the first stage the engineer makes field visits, makes himself familiar with all necessary details concerning the social, institutional and technical aspects of the microproject. He also holds discussions with

the community representative. Based on collected information he makes a report. In



case of necessity the proposal is refused. Should the proposal meet all MSIF criteria, it goes to the second appraisal stage, which presupposes design of the technical documents (in case of necessity) and development of the cost budget. After this the proposal is ready to go to implementation.

At stage 301 it is confirmed that the Executive Committee studied this proposal and decided that it goes to the first appraisal stage. The screen for this stage is shown in Figure 2.8.2. The entered information here includes the date when approval is made and the number of the decision as well as comments made by members of the Executive Committee along with the resume of this decision. Next the stage is registered.

3.3.2. Data collection concerning the microproject during the 1st appraisal stage

During this stage information is collected concerning all aspects of the microproject. Due to the fact that the range of instruments necessary for this case is a diverse one it is necessary to divide this screen into several screens. Thus, when 202 button is pressed MIS produces the next screen (Figure 3.3.2.) which, actually is a menu with appraisal instruments at stage 1. Below a description of each accessory is given.

Figure 3.3.2. Screen for the collection of information during the 1st stage of appraisal

3.3.2.1. The appraisal report. Access to this report is obtained by pressing button 1 (circle 1). This report contains detailed information about the microproject. This report represents an Excel file including three pages. The example shown in Annex 1 contains an Appraisal Report. The main information from this Excel file is automatically transferred to MIS data base for further use in reports and analysis.

Page 1 contains information about *stage 1 of appraisal.* The following information is entered into this page:

- Short description of the project
- Exclusive appraisal criteria
- Original needs for the rehabilitation of this project
- Description of the microproject works
- Program for the improvement of delivered services
- Ensuring the sustainability
- Social appraisal
- Institutional appraisal
- Appraisal of environment

Page 2 contains information regarding *stage 2 of appraisal.*

- Exclusive requirements for the legalisation of the project
- Cost analysis
- Analysis of the community investment
- Labour investment
- Aspects regarding participation of the community in procurement and supervision of the MP implementation
- Feasibility of the microproject
- Technical assistance delivered to the community.

Page 3 constitutes the *File concerning the impact on the environment*. It includes the following:

- Impact on the soil
- Impact on the water
- Impact on the air
- Impact on the flora and fauna
- Aesthetics of the landscape
- Health of population
- Human habitat.

3.3.2.2. Annex to the Appraisal Report. (Circle 2). Specific information for this type of microprojects is contained in this Annex. A special Annex has been worked out in Excel programme for each type of microprojects.
Annex to the Appraisal Report is given in Annex 2 to the present Manual. This Annex includes information concerning the following:

- General technical information

- Present status of the object
- The object functioning and maintenance
- Maintenance costs of the object
- Technical appraisal
- Analysis of specific needs.

3.3.2.3. Copying from other microprojects files (Circle 3). This accessory was introduced with the purpose to accelerate the process of data entry. The accessory allows copying the following information from other microprojects in the present microproject:

- An appraisal Report (in Excel)
- An Annex to the Appraisal Report (in Excel)
- A text of a report made by an engineer (in Word).

In order to make the copy the engineer finds a microproject containing similar information to the one necessary for the present microproject and copies it with the assistance of this accessory after having made changes of different data. Attention needs to be paid by users to the fact that an engineer may forget to delete the old information (due to unexpected calls or other reasons). Wrong entered information causes a much bigger damage than lack of information.

3.3.2.4. Signing technical expertise contract (Circle 4). In some cases microprojects deserve consulting of some experts in this respective construction area. The appraisal engineer addresses procurement officer the request to engage an expert in this subject. Procurement specialists enter into this program and make an entry about signing of the contract. This program screen is a standard one for contracts (See compartment 3.4.3.).

3.3.2.5. Payment for the technical expertise (Circle 5). Once the engineer received all requested information, he proceeds to use this accessory to register the payment request for the fulfilled work. At the moment of registration of the payment request, the accounting office receives the requests, verifies and approves it. This accessory screen is standard for all payments made by the physical entities (See compartment 3.5.7.).

3.3.2.6. Short report (Circle 6). This accessory allows entering the most important information regarding this microproject proposal, should such information be a necessary one for utilisation. This can be done even in those cases when the microproject did no go through the respective stages. Once the information about the microproject is entered during the respective stages, the information undergoes an automatic correction. Entered information in this programme is used to print out the short report. This report includes three pages containing the following data:

Page 1 – Social appraisal. Contains information regarding the composition of the population in the community, composition of direct beneficiaries, preliminary data regarding the cost proposed by the community.

Page 2 – Economic Appraisal. Contains information about the cost structure of this particular microproject, the structure of the community investment, the Leu exchange rate, other data.

Page 3 – MSIF data concerning the microproject. This programme contains a comment to the microproject, made by the director of the MP Department, entered with the purpose to ensure necessary explanations in cases when a microproject has got some peculiarities or problems. This comment appears in the report regarding MSIF portfolio. Also in this programme data are entered regarding the date when the comment was made, this helping to track old comments which are out of time.

Page 3 also contains data regarding experts responsible for the microproject during promotion, appraisal and supervision stages of the microproject. This data entry is obligatory, and makes possible to automatically address information concerning errors or problems faced by a certain expert.

3.3.2.7. Registration of 202 stage. An engineer responsible for a microproject, after having made on site visits and having developed the appraisal report for stage 1, proceeds to register this stage. Using the electronic signature the engineer confirms that the information concerning stage 1 is authentic and corresponds to the reality and that the microproject may switch to the second appraisal stage. The registration screen is the standard one for such procedures (See section 2.8.1.).

After the registration of the microproject during stage 202, it can switch to 204 (stage 2 of appraisal), or, should stage 1 indicate that the microproject don't correspond to MSIF criteria, it is rejected (stage 208) based on a decision of the Executive Committee. In cases when the engineer is not able to collect all information due to the fact that the community didn't bring all necessary documents, then the microproject is transferred to stage 203, studied below.

3.3.3.Return of the proposal to the Implementation Agency for document preparation in conformity to MSIF requirements. (Stage 203). This programme serves to register a microproject when the community showed substantial delays in the preparation of documents. For example, this stage may be used in cases when the following situations were stated during the engineer's field visit:

- the object envisaged to be rehabilitated is not on the mayoralty's balance sheet;
- a community pretending having the design for the system subject of rehabilitation, has not submitted it;
- the necessary documents were not prepared during a long period of time.

The screen for stage 203 is standard for simple stages (see section 2.8.2.). Also in this screen the letter to the community is entered, indicating the problems that need to be solved in set terms.

A microproject will be in stage 203 up to moment when the community meets all MSIF requirements. When the requirements are met the engineer develops the appraisal report and transfers the microproject to stage 202 (it is ready to go to the second appraisal stage). Should the community not meet the set requirement for a

long period of time, the microproject is transferred to the Executive Committee with the proposal to consider the possible archive storage or to reject it.

3.3.4. Approval of the microproject for the second appraisal stage. *(Stage 204)* When a microproject has successfully passed the first appraisal stage and is at stage 202, then it goes to the second stage of appraisal (204). If no additional expenditures are required for the second appraisal stage (for the technical specifications, expertise, etc.) then it is transferred to the second stage based on the decision of the MSIF Executive Director. Should expenditures of this kind be envisaged, the microproject is forwarded to the Executive Committee for consideration. In these cases the number of the decision made by the Executive Committee is shown in this programme screen.

The screen for this programme is a standard one (See section 2.8.2.). In the comments regarding this screen it is described how the microproject was transferred to the second appraisal stage, what activities are envisage during this stage, the necessity of design is assessed, etc.

After being registered in 204 the microproject may be forwarded to the design stage (205) or to the development of the bill of quantities (207).

3.3.5. Start of design works. (*Stage 205)* It is the procurement expert who transfers the microproject to this stage. The procurement expert will automatically receive the information regarding the need to start procurement works, provided that the microproject has been registered at stage 204 with the indication of the decision of the Executive Committee. When dealing with such microprojects the procurement expert is expected to clarify the essence of necessary services (design, expertise, consulting regarding environment, etc.) then proceeds to find the necessary persons or companies and signs the necessary contracts. After this the microproject is registered at stage 205, this being a sign that the design project (or consulting) has started. This screen of this programme is standard for contract signing accessories (see section 3.4.3.).

The microproject may be transferred further to stage 206.

3.3.6. End of design works. *(Stage 206).* When the design works are over the engineer goes to accessory 206 to fulfil the payment request for works carried out by the consultant or the Design Company. After this he registers stage 206, meaning that the design is over. At the moment of registration the accounting office receives the payment request, which is verified and approved by the accountant. The screen of this accessory is a standard one for payment accessories to physical persons (see section 3.5.7.).

Microproject may be forwarded to the development of cost estimates (stage 207).

3.3.7. Development of cost estimates (stage 207).

This is one of the most complex stages and one of the biggest in terms of description. In order to easier explain the used screens it is proposed to shortly study the principles to be followed in the development of the bill of quantities.

3.3.7.1. Main definitions. The bill of quantities constitutes a list of works as listed in the catalogues of works SNIP. Each SNIP work, called further in the text works, is a set of materials, labour (works) and equipment applied with the final goal to fulfil a logically complete function. Example of a work may be:

60001 Laying the preparation concrete layer M-75

Each work has got a unique **code**, which includes 2 parts: the works **chapter** – two symbols and the **number** inside the chapter – 4 symbols. In the example above the work has got number 1 within chapter 6. There are about 48 chapters dealing with construction works.

Every SNIP work is characterised by **quantity** (or **amount** of works) and **price per unit**. The quantity of each work is measured in certain unit measures. In the example above the work 60001 is measured in cubic meters. The quantity of the work is measured by the engineer or is indicated in the project by the designers.

The price of works frequently differs and that is why it is necessary to calculate prices every week. At the moment of the bill of quantities it is verified whether the price is an actual one. Should it be the other way the price is recalculated.

Every SNIP work has got several prices, depending on the location of the microproject in a certain **zone of prices**. MIS is foreseen for a work with three zones of prices. In practice, however, only two are in use.

Every **bill of quantities** includes **SNIP works**, grouped per **chapters**.

3.3.7.2. Algorithm for development of bill of quantities. Depending on the complexity and character of the object, first the structure of the bill of quantities is developed by establishing the number of chapters to be included in the bill of quantities. The chapters are developed in such a way, so that they contain a set of reasonably finished works. Examples of this kind of works could be: Renovation of the school wall; construction of the toilet of the school, etc. Also chapters are selected in such a way so that the number of works is not too big. Should there be more than 40-50 works, the chapter looses its reasonable structure and becomes difficult for understanding. On the other hand chapters with too few works will lead to an excessive number of chapters.

Each work has got a price per volume unit. The price may be calculated in two ways.

a) Price calculated based on recipes. In case of each SNIP work a recipe of simple works is developed. It stipulates the set of materials, works (labour) and equipment (machinery), each of them having a quantity and a price per unit for simple works. In order to calculate the price of SNIP work the price for each component of the recipe is indicated, while the price of SNIP work is computed depending on the amount and prices of materials, labour and equipment.

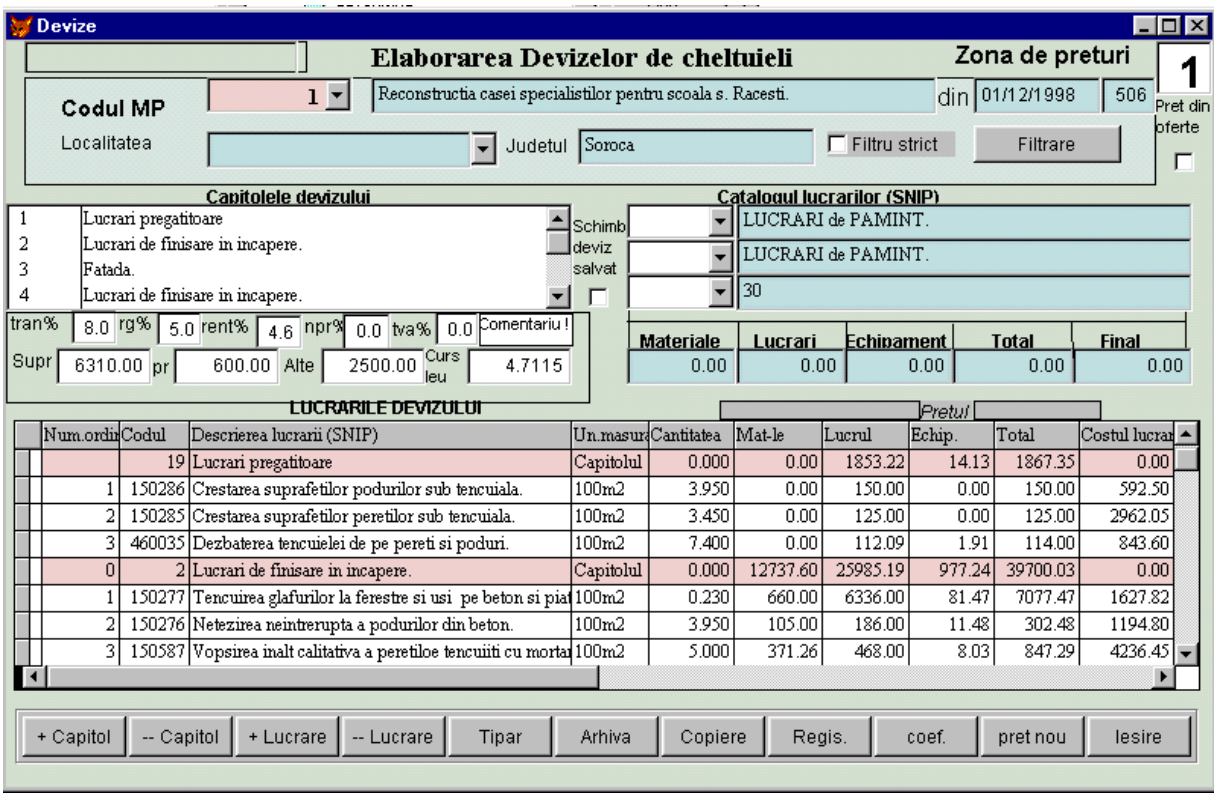
b)The price calculated based on previous tender results. Since the beginning of MSIF activity a rather substantial data based has been store by MIS regarding tenders. Numerous companies participated in these tenders, each of them setting their own price. Thus, an average price can be set based on prices proposed by the companies. In order to avoid committing mistakes, the maximum and minimum values may be excluded from the computerisation. Also the dates when tenders were held may be of use, this helping to exclude too old prices.

In case of this microproject, first the **price zone** has been established. After calculation of the price per unit for works (or updated) the list of works for every chapter is being selected from the list of SNIP works, indicating the quantity (volume) of each work. Should a particular work be different in a specific way from the standard works listed in SNIP, a number of coefficients may be used to modify the weight (price) separately per material, labour or equipment. Taking into consideration these coefficients a new price per unit is being computed, different from the one available in the data base regarding SNIP works.

Separately shown primary resources: only materials, only equipment or only labour may also be considered works to be included in a bill of quantities, additionally to the standard SNIP ones. Complex works may also be used, which actually is a set of SNIP works united together. It is reasonable to save fragments that appear in the bill of quantities very frequent and do it in the form of complex works. A respective network is automatically worked out for every complex work. A complex work may be modified within a bill of quantities stage, or within the recipe development stage.

Several bills of quantities can be worked out for each microproject. It is also possible to save certain versions of the bill of quantities in the so called archive of **bills of quantities.**

Based on developed bill of quantities the budget of the microproject is being developed. In the bill of quantities it is also necessary to indicate how many works does the contribution of the community contain and in what amount (total amount).



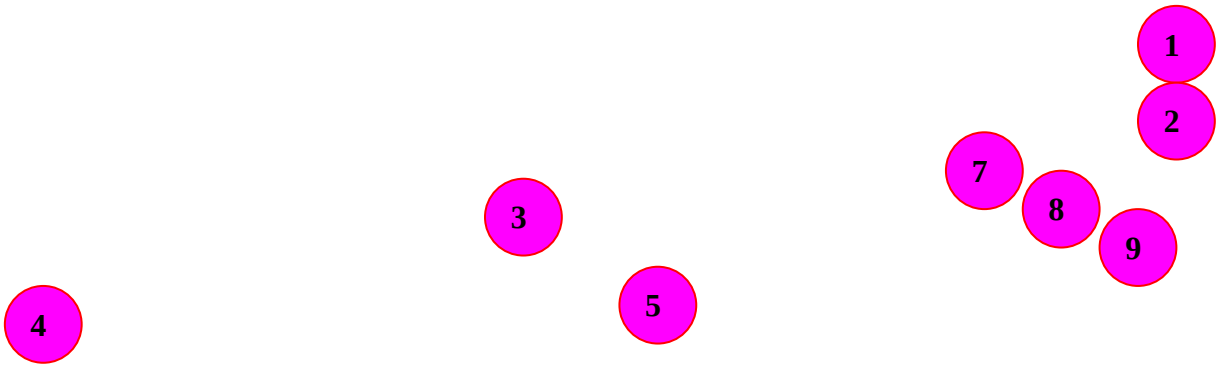
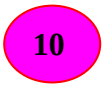


Figure 3.3.3. Screen for the development of the microproject bill of quantities.

3.3.7.3. Preparatory actions before proceeding to the development of the bill of quantities.



In order to start development of a **bill of quantities**, one should select the respective microproject from the portfolio with the assistance of the microproject menu located in the top part of the screen. See the detailed selection procedure in section 2.6.1.

Next the price zone is selected (it is marked in Figure 3.3.3. with circle 1) and prices to be used in the bill of quantities under development are indicated (circle 2). Should prices calculated based on networks be used in the bill of quantities, then in the "Pret din oferete" (Price selected from offers), which is indicated by circle 2, to the right, nothing is indicated. Should prices computed based on offers included in the previous tenders, then one should actuate this respective box with the left button of the mouse.

Once these actions are over the screen is ready to start the development of the bill of quantities.

It might be that works have been already carried out with this bill of quantities, but development of the bill of quantities needs to go on. In this case it is necessary to select the code of this respective microproject and the bill of quantities of the microproject will appear on the screen.

In case that amendments need to be done to a bill of quantities which has been already registered, first, it is necessary to cancel protection against accidental modifications. This is achieved with the assistance of the box "Schimb. Deviz salvat" (Change of saved bill), which is located on top of circle 5. This will allow to proceed to editing of the bill of quantities. Necessity to make modifications may occur in the following cases:

- Before approval of the microproject by the Executive Committee, when the amount of works is modified;
- Before the end of contribution collection, whenever the structure of contribution collected by community changed;
- Before announcement of the tender, should a period of time longer than 3 months had elapsed since the approval of the microproject, or should an abrupt change of prices took place.

3.3.7.4. Development of the bill of quantities

Development of a bill of quantities starts with the structure defining. An estimator sets up a list of chapters to be included into the bill of quantities. In order **to add a chapter** to the bill of quantities button "+ capitol" (+ chapter) from the set of buttons 10 is used. In order to liquidate a chapter, button "—capitol" is used. After having added the chapter in the grid "Lucrarile devizului" (works connected to the bill of quantities) (Circle 6), a new line appears, orange in colour. The name of the chapter is introduced in this line in the "Descrierea lucrarii" (Description of the work) column. After having been introduced the name appears in the list "Capitolele devizului" (Chapters of the bill of quantities) (Circle 3). List 3 serves both as an informative list and as an instrument facilitating **a rapid movement within the bill of quantities**. Should we press a name of a chapter in list 3, in grid 6 the beginning of selected chapter will appear.

Once all names of chapters have been entered, development of each separate chapter starts and SNIP works are added. The following is carried out in respect to each work:

- It is indicated **in what part of the bill of quantities the work is going to be added**. The cursor is positioned on the line under which the work is to be added;
- **To add a new line** for a certain work button "+lucrare" (+work) out of the set of works buttons 10 is pressed;
- **To liquidate a line standing for a work** button "—lucrare" (--work) out of the set of buttons 10 is pressed;
- The **SNIP work is selected from the work catalogue**. It is possible to do this in different ways: a) the code of work from the "Codul" column is typed (for cases when the estimator saved these codes or has got a similar bill of quantities, already containing these works); the type of work is selected from the chapter list of the SNIP catalogue (Hidden list 7) then a concrete work from this chapter (Hidden list 8); the name of the material or equipment from the primary resources list is typed (Hidden list 9). At this moment in columns of grid 6 prices to materials, labour and equipment for selected work appear. Also in the column "Data pret" the date when the price of the work was computed. This column is situated to the right of the "costul lucrarii" (cost of work) and is not seen in a normal way. In order to see it the bottom part of the grid window is pressed.

- In column "Cantitatea" (Quantity) **the amount of selected work** is entered. In response to that the cost for the selected work appears in the column "Costul lucrarilor" (Cost of works). In order to establish the total cost of the bill of

quantities, one should press a text box to the right of circle 5. As a result re-computing of the separate cost per materials, work, equipment and of total cost takes place. This data are useful for finalization of the bill of quantities, when, after every new work, it is necessary to see whether the project fits within foreseen costs.

- **Complexity coefficient** of materials, of labor and equipment in a SNIP work is modified. In order to have access to these coefficients the button "coef." from the set of buttons 10 is pressed. Actuating of this button brings about these respective coefficients in columns "Materials", "works", "equipment", which replace the prices. When a new work is added these coefficients are equal to 1. Increase or decrease of these coefficients leads to an increase or decrease of the cost of the work. To go back from the coefficient program to the price program it is enough to press the same button.

Additionally to processing of a separate work it is also possible to do processing of a group of works, like the ones indicated below:

- By pressing the button "Copiere" from the set of buttons 10 (see section 3.3.7.5) it is possible to copy out from other bills of quantities a bill of quantity or a chapter;
- By pressing the right button of the mouse (see section 3.3.7.6.) it is possible to re-arrange the works in a chapter according their number, to copy out or to liquidate certain blocks of information from this bill of quantities;
- By pressing the button "Pret nou" (New price) from the set of buttons 10 it is possible to do re-computing of prices in one row or in one chapter.

Once all chapters of the bill of quantities are typed the general data referring to the microproject budget are entered (the set of boxes between circles 4 and 5). Data referring to transportation, maintenance and efficiency expenditures are entered as well as contingency expenditures and VAT (as percentage to the total cost for constructions). Data referring to the cost of supervision of works (payment of the local supervisor) are entered in amounts of (lei), which do not exceed 2.5% from the cost of construction works, design expenditures and other expenditures. The rate of exchange at the date of the bill of quantities registration is shown as well. This rate of exchange may be changed when a substantial period of time elapses since the date when the bill of quantities was computed up to the date of the tender, if the necessity arise.

3.3.7.5. Copying out parts of a bill of quantities

Button "Copiere" (Copy) from the set of buttons 10 is used to copy out parts of the bill of quantities. The working screen of this programme is shown in Figure 3.3.4. Four ways can be used to copy out parts of the bill.

Copy of a bill of quantities existent in the portfolio can be done by pressing the button "Copiere deviz" from the set of buttons 8. To copy out the bill of quantities in this microproject it is necessary to preliminary introduce in text box 1 the code of the microproject with a finalised bill of quantities that needs to be copied. Before copying it is necessary to liquidate present bill of quantities and a warning should be done in this connection.

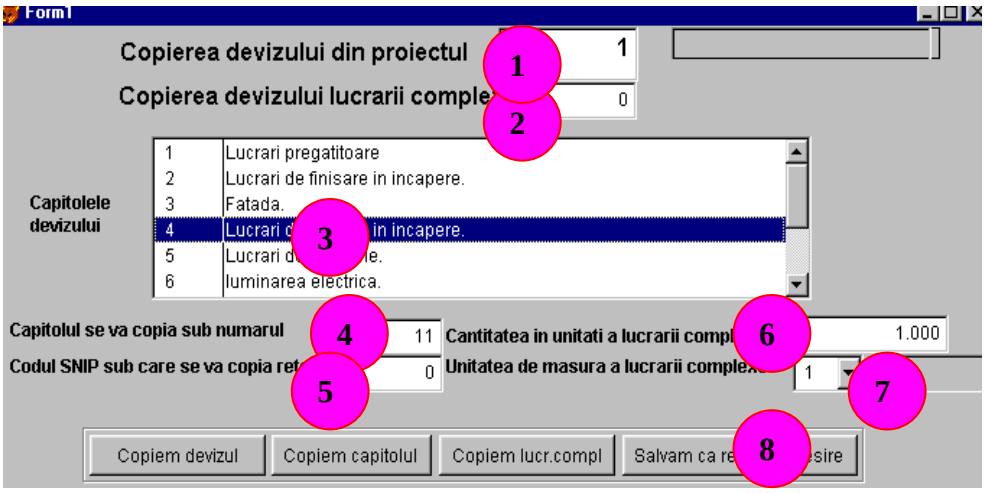


Figure 3.3.4. The screen illustrating the copying of a set of SNIP works

Copying an existent chapter. It is possible to copy out a chapter from any other bill of quantities, including the present one. For this purpose a user needs to indicate the number of the microproject from which the chapter is being copied (circle 1). After that all chapters of selected bill of quantities appear in list 3. From this list 3 the chapter intended to be copied out is selected. Box 4 indicates the number under which the bill of quantities is going to be copied. Should the latter not be indicated then the chapter is annexed at the end of the bill of quantities.

Creation of a complex work. To speed up the process of development of a bill of quantities, certain chapters are saved under a SNIP code as a single work, which in future is used as usual SNIP work. To do the copy operation it is necessary to indicate the chapter from which copying is to be done, by entering data into boxes 1,3. The SNIP code under which this complex work is being saved (code 6) and measurement units to be used (box 7) are indicated. Now, by pressing button "Salvam ca reteta" (Save as recipe) from the set of buttons 8 it is possible to save the work. If the code (box 5) exists already in the work catalogue, the user is warned in this connection. The user may insist to register the work. This will liquidate the previous version of the work, saved under this code. The complex work is being saved in two formats: as a recipe (when the work cost is being computed automatically) and as a bill of quantities, in order to see the clear break up of the work and to be able to modify it.

Reverting the complex work. To modify the complex work or to use it in the bill of quantities in a break up form it is possible to revert the complex work back to the bill of quantities. To do this the user needs to indicate in box 2 the code of the complex work, which will be reverted, and also to indicate the number of the chapter under which the work is being registered (box 4) along with the amount of data to be placed in the bill of quantities (box 6). Then button "Copiem lucr.compl." (Copy of the complex work) from the set of buttons 8 is pressed. As a result of this action in the present bill of quantities a chapter will appear with the content of the complex work. The print of the complex work is done with button "Tipar" (Print) from the set of buttons 10 (Figure 3.3.3.).

3.3.7.6. Processing of blocks within the bill of quantities

A possibility to work with blocks of works in a bill of quantities has been introduced to ensure a more efficient work with the bill of quantities segments. **Blocks** constitute a set of consecutive works from a chapter of the present bill of quantities or from another one. To work with the bill of quantities the hidden menu is used which is brought on the screen by pressing the right button of the mouse, placing the cursor within column 1 ("Number") of the works grid in the bill of quantities (grid 6 from Figure 3.3.3.).

A block is formed by indicating the beginning of a block (**start block** option from the hidden menu) and its end (**end of block** option). Now the block is ready and it might be processed in different ways. The **Copying** programme permits to do copying of the block into an intermediary buffer. The programme **Copying + Liquidation** gives the possibility to move the block (the block is copied in an intermediary buffer after having been liquidated from the bill of quantities). It remains in the buffer for a later transfer to an other part of the bill of quantities or to another bill of quantities. The **back from the buffer** programme fulfils the copying of the buffer content in a place indicated by the cursor. The **re-arrangement of codes** programme allows arrangement of works from a chapter into a strict order in exceptional cases when there could occur a disrupter of consequence of numbers (column 1 of grid 6 from Figure 3.3.3.).

3.3.7.7. Archive storage of bill of quantities

In the work with bill of quantities necessity appears to store certain copies of a microproject bill of quantities. The so called storage archive is meant to fulfil this task. Each microproject can have a copy of the bill of quantities in such an archive, which might not be an active one at the time being, but it might be of use in future. The button "Arhiva" from the set of buttons 10 (Figure 3.3.3) is meant to ensure the work with the archive of the bill of quantities. When the button is pressed a warning appears saying that the action is dangerous, due to the fact that it leads to the delete of the active bill of quantities. Once the work with archive need is confirmed, the programme proposes to select the working option: either to register the present bill of quantities in the archive or to extract one from the archive.

If the operation is one to register into the archive, first the archive is checked, to see whether the place is being available. Should there already exist in the archive a bill of quantities for this respective microproject it requests that the user makes the decision: either to cancel the registering operation or to replace the bill of quantities already existing in the archive (thus the archive version is destroyed).

If the operation is to call from the archive a warning appears saying that the active bill of quantities can be liquidated. Also there is a possibility to exchange the role of bills of quantities: the one in the archive becomes active and the active one is registered into the archive.

The print of the archive bill of quantities is done with the "Tipar" button from the set of buttons 10 (Figure 3.3.3.).

3.3.7.8. Printing the bill of quantities

Pressing the "Tipar" (Print) button from the set of buttons 10 (figure 3.3.3.) brings about a list of reports showing the developed bills of quantities.

Estimated bill of quantities with the prices. It contains a detailed information concerning chapters and SNIP works included in the bill of quantities, amounts of works, estimated costs and the date when these prices were computed, costs per each separate work, chapter and in total per a bill of quantities. At the end of a report data concerning the budget of the microproject are shown, including all possible expenditures.

Estimated bill of quantities without prices. Includes detailed information concerning works and volumes, but doesn't indicate prices and costs estimated by MSIF. This report is delivered to companies participating to the tenders. The companies add their prices to this report and return the report back to MSIF as a bidding offer.

Estimated bill of quantities for a microproject works. Includes general data about financial aspects of a microproject, including the structure of the community contribution. This is an official document, based on which the decision is made concerning the contribution of this particular community to the microproject.

List of materials. Based on available data within MIS the quantity of materials, the works and the equipment, necessary for the implementation of the set of works in the bill of quantities, is computed.

Bill of quantities stored in the Archive. The available in the archive estimated bill of quantity, along with the prices is printed.

Complex work. The bill of quantities of complex works, created via a transformation of a chapter into a SNIP work is printed. Before printing it is necessary to introduce the code of the complex work, which needs to be printed.

3.3.7.9. Actions concluding the development of the bill of quantities process

After development of the bill of quantities and entering the amount of the community contribution the estimator prints the necessary documents:

- The estimated bill of quantities of the microproject, which includes the MSIF prices and based on which the amount of the community contribution is established.
- The bidding bill of quantities, where only the amount of works are indicated but not also the prices.
- The estimated budget of the microproject, where the expenditures positions are indicated in general.
- Structure of the community investment.

All these documents are stored in the microproject file.

Once these actions are over the estimator registers stage 207 "the bill of quantities is developed". Thus he informs the engineer responsible for the project that this microproject may go to the next stage. Starting with this stage the microproject may go to stage 209.

3.3.7.10. Preparation of primary inputs basis.

The recipe method constitutes one method to compute the prices for SNIP works, which can be used in the work with the microprojects bill of quantities. A basis of primary inputs is prepared for the recipes. Primary inputs include the list of materials, labour and equipment, used in the SNIP works recipes. Each primary input is characterised by a code, name, measurement unit, price. The price is indicated for three different zones of prices. Also the date when prices are computed is saved, to avoid use of old prices.

To work with the primary inputs basis one should press the "baza resurselor primare" (primary inputs basis) button from the evaluation programme located in the set of buttons in the bottom left part of the screen (Figure 3.3.1.). Pressing of this button engages the following screen (Figure 3.3.5.).

Inputs have a unique code, which has got the following structure: There 6 signs altogether. The first two signals indicate the chapter. Inputs falling under "labour" category are included in the range from 1 through 49 and the code (all 6 figures) coincide with the SNIP work. Materials fall in the 50 through 89 range, while above 90 groups of equipment are included. The chapters are divided into groups (next 3 figures), 10 inputs in each group.

In order to bring to the screen prices in a certain zone, one is supposed to indicate in box 1 the zone of prices he is going to work with. To quickly spot the primary inputs, one should start to first select the chapter (hidden list 2).

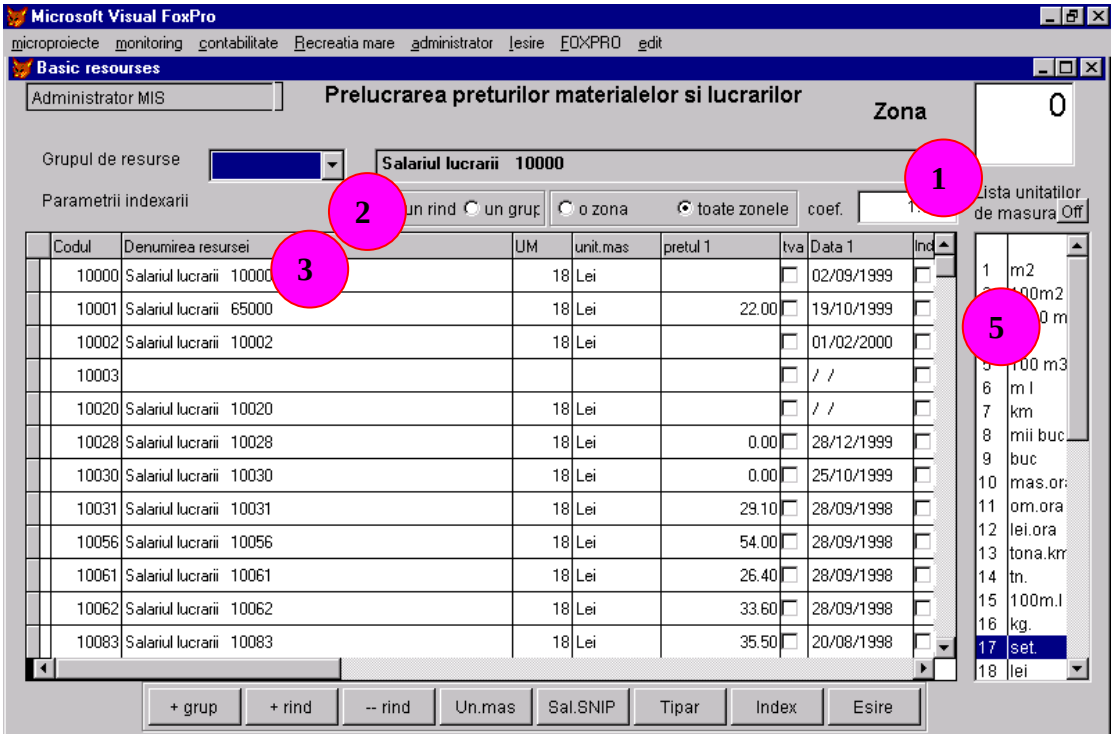


Figure 3.3.5. Screen used for the work with primary inputs

List of all materials, labour and equipment is shown in grid 4. Additionally the code, the name, the measurement unit, the price and date of its computing are also indicated. It is indicated whether the price is shown with VAT or without.

Initially the new primary input (a material or equipment) is added to the base with the assistance of button "+rand" (row) from the set 6. The input is liquidated

4

with the button "—rand" (row), by placing the cursor on the row that needs to be liquidated. Before being liquidated the material is checked to see whether this material has not been introduced into the recipes. Should this be the case, then the recipe it is party of is shown. It may be liquidated only after having been excluded from all recipes. **A group of primary recipes may be added** via pressing button "+group" from the set of buttons 6.

6

Once a row has been added the measurement unit of the input is selected. Selection is done from list 5 by simply pressing the necessary unit. To avoid to accidentally touch the list of measurement units, on the top part of the list there is a

button-control. It is placed in "off" position in its normal programme. To be able to copy units from this list one should press this button, which then will be in the "on" position.

While proceeding to **introduce prices** relevant for the price zone indicated in text box 1, one should indicate whether the price is calculated with VAT. At this moment in the field Data 1 the current date appears. This date is only an informative one, in order to assess how old is the price.

Two operations are available to process materials in a group.

Saving the labour component from the SNIP works is done in an automatic way via pressing the "Sal.SNIP". Once the button is pressed the programme starts to search in the SNIP works catalogue new works recently introduced, for which the labour component is not introduced, and automatically introduces the inscriptions. The user will look in the data base the newly introduced works and will indicate their cost.

Indexation of prices is done when the rise of a price to a material or to a group of materials is known. In order to assess the range of indexation one should use the options of the "Parametrul indexarii" (Indexation parameters) (Circle 3). First parameter indicates whether indexation is to be done for one single row (the one on which the cursor is placed) or for a group of inputs (the one on which the cursor is placed). The second parameter indicates whether re-computing is done with the same coefficient for all zones or only for that particular zone. The third parameter indicates the indexation coefficient. If, for example the price went12% up, then the coefficient "coef." will be equal to 1.12. When indexation is over a mark appears in the field to the right of grid 4 (the field "Ind.") showing that indexation was done. Simultaneously the date of the price is changed.

3.3.7.11. Preparation of recipes for SNIP works.

As mentioned above, the recipe method is one of the methods used to compute prices for SNIP works while working with the microproject bill of quantities. A recipe is a list of materials, labour and equipment along with their quantities, which together constitute a SNIP work. One should press button "Retete" (Recipes) located in the bottom part of the main screen of the evaluation stage (Figure 3.3.1.) to be able to work with the recipes. The working screen with the recipes is shown in Figure 3.3.6.

To start to develop or to edit a recipe of a SNIP work, one should select the SNIP work from the catalogue, first from the chapter (with the help of hidden list), then the necessary work from the inside of the chapter with the help of hidden list 2. The recipe is composed from three types of inputs, each of them being placed on separate pages (see circle 3): materials, works (labour) and equipment.

To add a row to the recipe one should first select with the assistance of pages (3) the type of the input, after the button "Adaugam un rand" (Add one row) had been pressed. To delete one row the button "Lichidam un rand" (Liquidate a row) is

pressed or the row is left with no quantity indicated. At the moment when exit from recipes is done the rows with no quantity are automatically liquidated. The name of the primary input should be first indicated for each row of the recipe. It is being selected from the primary inputs base, indicating first the group (hidden list 5) and then the concrete input (hidden list 6).

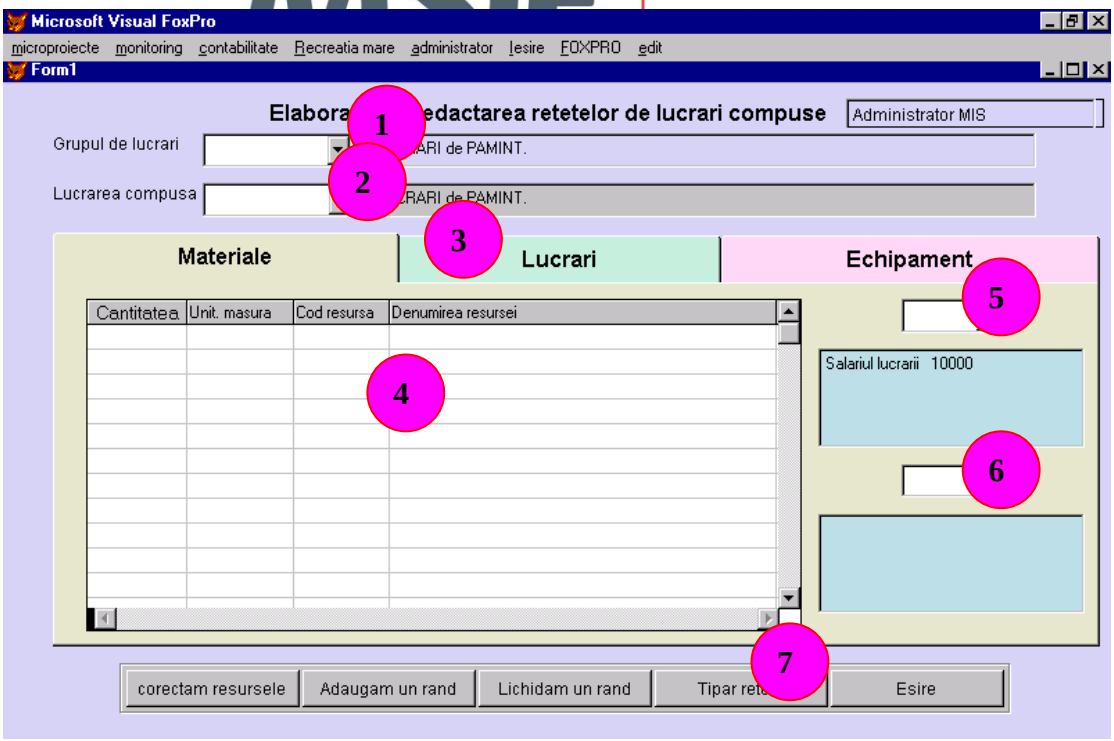


Figure 3.3.6. The screen illustrating the work with SNIP works recipes

In case of necessity, pressing the button "Tipar" (Print) from the set of buttons 7 may print a recipe. The print out contains data concerning the cost of a work separately per input and the total for the SNIP work. Both prices including VAT and the ones without VAT are indicated for each zone of prices.

The button "corectam resursele" (Correct the inputs) allows access directly to the primary inputs (Figure 3.3.5.).

3.3.7.12. SNIP works base

By pressing button "Lucrari SNIP" (SNIP works) in the bottom part, to the left of the main screen of the evaluation stage (Figure 3.3.1.) it is possible to open the SNIP works catalogue. The screen of this catalogue is shown in Figure 3.3.7.

As mentioned above the works have three prices set for different zones of prices. A separate page is foreseen for every zone of prices (circle 3). In order to quickly find the primary inputs, one should first select the chapter (hidden list1) and within the chapter - the input.

Initially **the SNIP work is added** to the base with the help of button "+ rand" (row) from the set 6 or **is liquidated** with "—rand" (row). Before liquidating a work it is checked to see whether it wasn't included into the bill of quantities. Should this be the case, the programme indicates the bill of quantities it is contained in. The work may be liquidated only when it had been excluded from all bills of quantities.

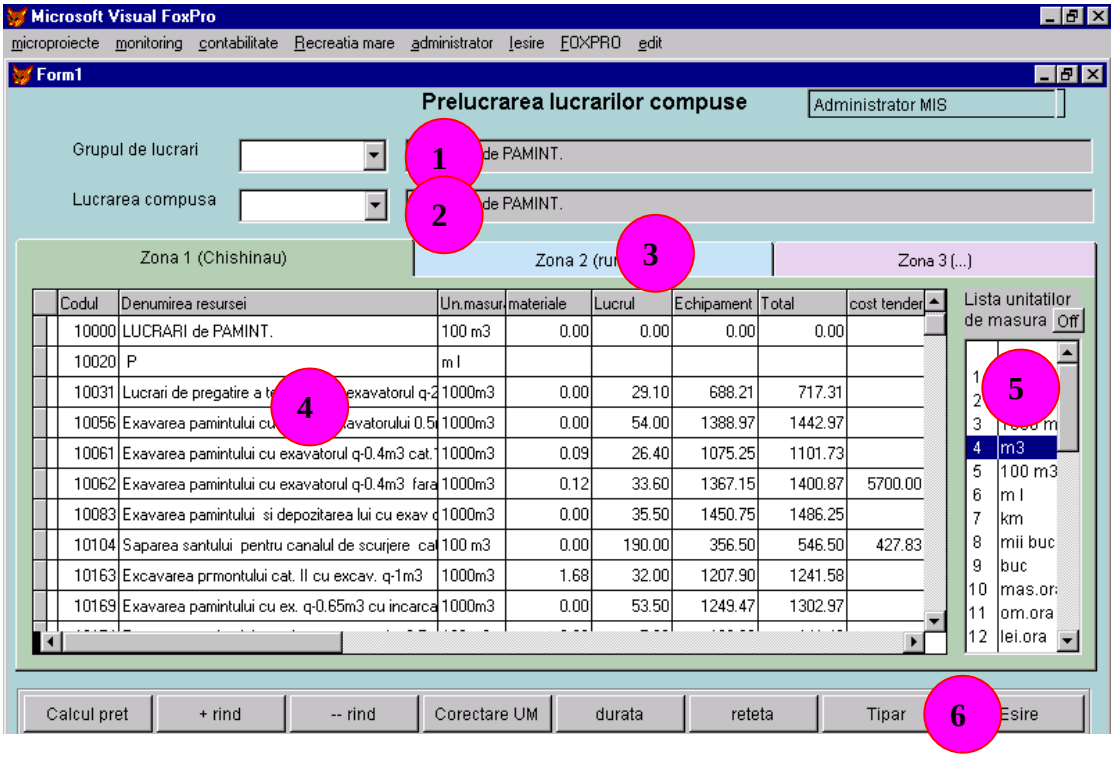


Figure 3.3.7. The screen for the SNIP works processing

Once a row is added one should proceed to select the measurement unit. Selection is done from list 5 by simply pressing the necessary unit. To avoid to accidentally touch the list of measurement units, on the top part of the list there is a button-control. It is placed in "off" position in its normal programme. To be able to copy units from this list one should press this button, which then will be in the "on" position.

Next, the page with the necessary zone of prices is selected (3). At the moment when the price for the selected zone is introduced, the current date is entered too, with the purpose to track the date when the price was computed. To see the date when the prices had been computed the fields of grid 4 are moved to the left by pressing the bottom part of the grid. The "Data modificarii" (Date of modification) field is hidden because there is not enough space on the screen.

Computing of the price is possible for the current zone. To compute the price, button "Calcul pret." (Computing the price) is used. When pressing the button the user is asked whether he is going to compute one single work, on which the cursor is placed, or the entire chapter.

Another question is whether the prices are to be computed via the recipe method or via the method utilising data of previous tenders. When computing is done based on tender data, a special screen apperas which allows searching and computing of the respective prices.

The "Corectare UM" (Correction of the measurement unit) allows access to the codifier of measurement units to do editing of the measurement units or to add new measurement units.

The "Durata" (Duration) button allows bringing on the screen the duration of implementation of a particular work based on man/hour (instead of prices).. This duration makes possible the computation of the work volume in the microprojects bills of quantities (in man/day). Revert to the prices is done with the assistance of the same button.

The recipe button facilitates access to the recipe screen (See Figure 3.3.6.).

The "Tipar" (Print) button facilitates printing out the list of SNIP works according different options. All works from the SNIP catalogue or only a single chapter, or all works from the previous option or only the corrected ones in a certain period of time, may be printed out. The user should indicate what date interval he wants to see.

Computation of prices based on the use of tender method is done with the assistance of the programme shown in Figure 3.3.8.

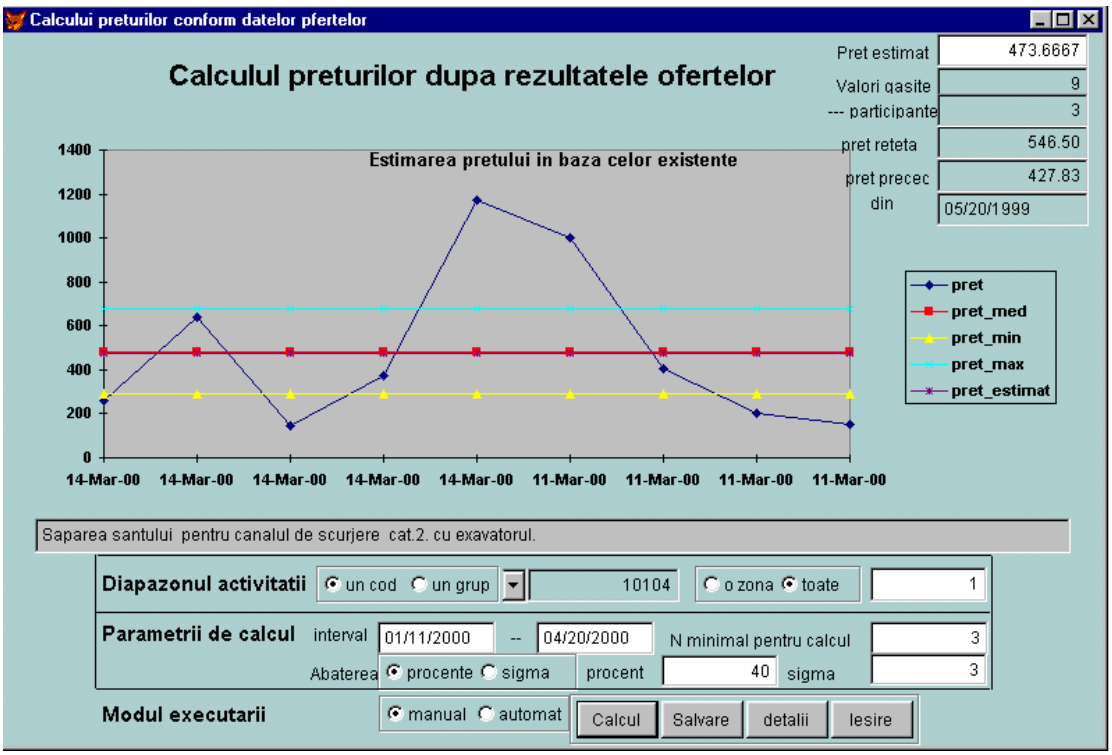


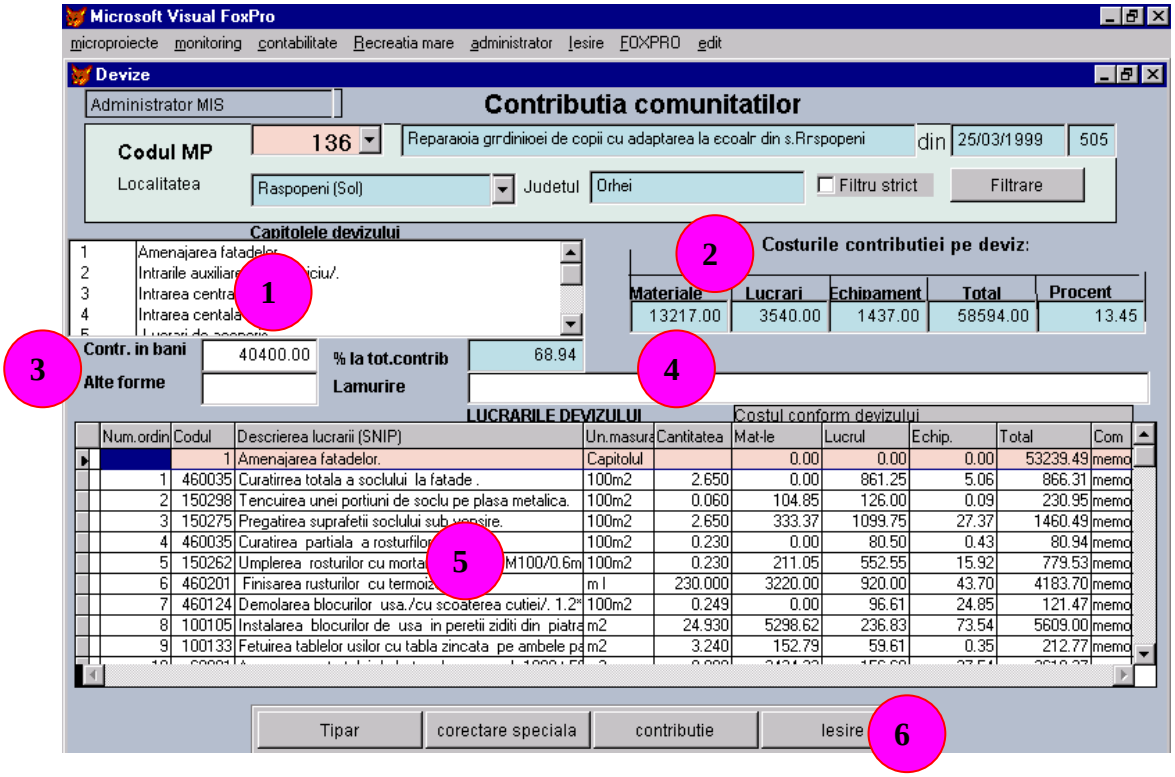
Figure 3.3.8. Screen of prices computation based on tender method

With the assistance of this programme the period of time is selected, within which offers are to be analysed in connection with this respective work. One single SNIP work or a SNIP chapter within a zone or within all zones may be computed. Deviation from the average is measured in percentage or in sigma (standard error in statistics). The percentage or the deviation is indicated. Their significance is the following: only prices for values that deviate from the average along with the given

percentage (sigma) will be included. In the example in the Figure only three values from the nine ones are included in computation of the average. In automatic computation also the minimum number of values is also indicated, based on which the average price is computed.

3.3.7.13. Structure of the community contribution.

To find the structure of the community contribution one should enter this respective programme by pressing the "Contributia" (contribution) button located in the bottom part to the left of the main screen of the evaluation screen (Figure 3.3.1.). Figure 3.3.9. shows the programme used in processing data referring to the



community contribution.

Figure 3.3.9. Screen used to process data referring to the community contribution

With the assistance of this programme data regarding contribution made in materials, labour and equipment are entered. The money contribution is entered into a special account and is managed in a different way. The money contribution is entered in the "Contr. In bani" (Money contribution) box (The text box is to the right of circle 3). Below the "Alte forme de contributie" (Other contribution forms) is situated, also expressed in money. The peculiarity of this contribution, which goes under the category "other forms of contribution" is described nearby (box 4).

Contribution in materials, works and equipment is entered separately for each work of the bill of quantities. There is an access to the bill of quantities envisaged for this purpose. Transfer to a chapter of the bill of quantities is done from list 1. The

chapter selected from the list of chapters appears in grid 5. To switch to the programme envisaged for the contribution entering, button "Contributie" (Contribution) from the set of buttons 6 is pressed. In the text box 2 automatically appears the total amount of the contribution as existent in the bill of quantities along with its break up per materials, works and equipment. Also the percentage of the community contribution to the total budget of the microproject is indicated.

The button "Corectare speciala" (Special correction) facilitates access to the data base of the contribution.

The "Tipar" (Print) button ensures printing out of reports regarding the contribution content and distribution:

- Indicating prices, meant to be annexed to the microproject file;
- Without prices, meant to be used for the preparation of the bidding package of documents.

3.3.8. Rejecting the proposal at the evaluation stage (stage 208)

A proposal is rejected when as a result of investigations carried out during the evaluation stage, it turns out that the microproject proposal does not meet the FISM requirements. The Executive Committee is the only body that is entitiled to make this decision.

Stage 208 is used to register the rejection proposal. Its screen is similar to the one shown in Figure 2.8.2. The date when the decision was made, the number of the decision and grounds based on which the decision was made are entered. After this the letter to the community containing this information is printed out and an entry is made registering the rejection event.

3.3.9. The proposal is ready to go to the approval for implementation stage (stage 209)

During this stage the evaluation engineer, who knows very well all details connected with the project, confirms the fact that the proposal is ready to be considered by the Executive Committee for further transfer to implementation or to rejection. The screen for this stage is similar to the one shown in Figure 2.8.1. It includes only the electronic signature and the date of the stage.

Once stage 208 is registered the evaluation stage of the microproject is considered over and it is possible to go to the approval stage. To exit from the main screen of the evaluation stage (Figure 3.3.1.) button to the right of the screen with the inscription "Iesire" (Exit) is pressed.

3.4. Approval

The approval stage is meant to ensure computerised assistance to all MSIF activities connected with the approval of the microproject proposal for implementation up to the moment when collection of the community contribution is over when switch to the next stage – contracting- is possible. For convenience purposes the approval stage is divided into the following sub-stages:

300	**Approval**
301	Approved by the Executive Committee
302	Approved by the Co-ordination Committee
303	Approved by donors (WB)
304	Rejected at the APROVAL stage
305	Approved with the condition to do amendments
306	The implementation Agency is invited to sign the Agreement
307	The Contract between MSIF and IA is signed; collection of contribution starts
308	Contribution from the IA is received

In order to go to the approval stage, one should go from the main menu to the MICROPROJECTS programme and from there to the APPROVAL. The user sees the following screen in this case (Figure 3.4.1.):

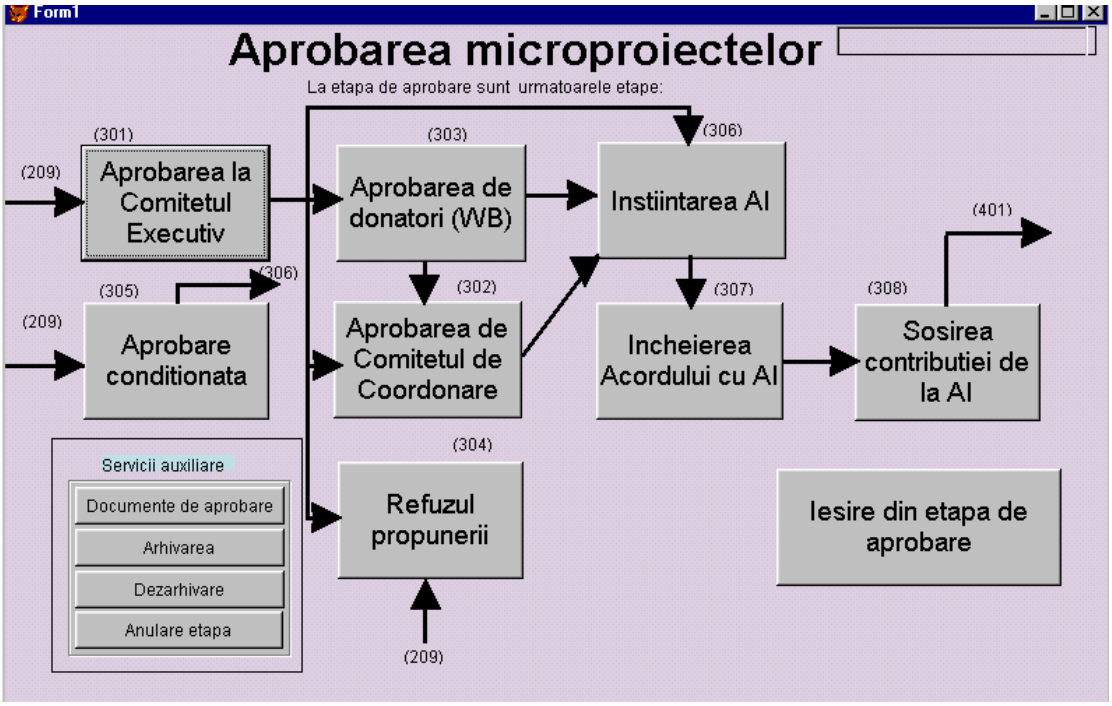


Figure 3.4.1. Main screen with the approval stage

One can see from the Figure that this window contains the graphical view of the stages and the possible change of microprojects from one stage to another.

In the bottom part of the screen, to the left there is a set of auxiliary instruments, which ensure the work with the archive programme of the microprojects,

exit from the archive programme and cancellation of the previous stage. Below a detailed description of these stages is given.

At the bottom, to the right the exit button from the evaluation stage is located.

We are going to study in details every sub-stage that a microproject went through during evaluation and we'll describe the way MIS is to be used.

3.4.1. Approval of the microproject for implementation (stage 301)

At stage 301 the fact that the Executive Committee considered the proposal and decided to move it to implementation is confirmed. The screen for this stage is shown in Figure 2.8.2. Data concerning the date of approval and the number of the decision are entered here as well as comments made by the members of the committee and a resume of the decision. Then the stage is registered.

3.4.2. Approval of the microproject by the MSIF National Council (stage 302)

Whenever the cost of a project exceeds the amount of 75 thousand US dollars, it is necessary that the MSIF National Council approve the microproject. During stage 302 the fact that the MSIF National Council considered this proposal and decided to move the microproject to implementation is confirmed. The window for this stage is shown in Figure 2.8.2. Data concerning the date of approval and the number of the decision is entered into this window as well as comments made by the members of the committee and a resume of the decision. Then the stage is registered.

3.4.3. Approval of the microproject by the World Bank (stage 303)

When the cost of the project exceeds the amount of 100 thousand US dollars the microproject needs to be approved by the World Bank. During stage 303 the fact that the World Bank accepted that the microproject goes to implementation is confirmed. The window for this stage is shown in Figure 2.8.2. Data concerning the date of approval and the number of the decision is entered into this window as well as comments made by the members of the committee and a resume of the decision. Then the stage is registered.

3.4.4. Rejection of a proposal during the evaluation stage (stage 304)

A proposal is rejected when after a microproject had been moved to the implementation stage it turns out that the community doesn't meet a number of conditions such as terms of collection of the community contribution; non availability of resources for this particular county; existence of certain violations, which could not be found before, etc. Only the Executive Committee is entitled to make a rejection decision.

To register the rejection proposal stage 304 is used. Its window is similar to the one shown in Figure 2.8.2. Date when the decision is made, number of the decision and grounds for rejection are being entered here. Next the letter to community containing this information is printed out and the event of rejection is registered.

3.4.5. Conditioned approval of the microproject (stage 305).

Should the Executive Committee during the analysis of the microproject find that not all conditions are met, it might mace the decision to approve this microproject, provided the drawbacks are corrected. The decision enters into force only when all requirements put forward in connection with this microproject are met. At stage 305 the fact that the Executive Committee accepted the proposal and decided to move it conditionally to implementation is confirmed. The screen for this stage is shown in Figure 2.8.2. Data concerning the conditioned date of approval and the number of the decision are entered here as well as comments made by the members of the committee and a resume of the decision. Then the stage is registered.

3.4.6. Invitation issued to the IA to sign the contract (stage 306)

Once the decision of the Executive Committee entered into force the engineer responsible for the microproject sends a letter to the Implementation Agency of this microproject informing the community that the microproject was approved for implementation. The IA is invited to sign the co-operation agreement (framework agreement. The microproject conditions, cost and terms are indicated in the letter, for the knowledge of the IM, before its arriving to MSIF.

The window for this stage is shown in Figure 2.8.2. Once the letter is sent, the stage is registered as over.

3.4.7. Signing the agreement between MSIF and the Implementation Agency (stage 307)

This programme contains data regarding the content and peculiarities of the Agreement between MSIF and the community. The programme allows printing out the filled in agreement. Once the agreement is signed, the stage is registered as over. The window for this stage is similar to the one shown in Figure 2.8.2. Starting with

the moment of the agreement signing the community starts collecting their contribution to the project.

3.4.8. Collection of the community contribution (stage 308)

Collection by the community of at least 15% resources of the project cost, as an investment of the community, appears as an obligatory condition before going to the contract signing. To make possible observance of this condition MIS contains a recording programme for the collection of the community investment (see Figure 3.4.2.)

When a microproject is selected from the hidden list 1, data regarding collected contribution by the community forwarding this respective microproject appears on the screen. Detailed data are given in this window regarding the planed

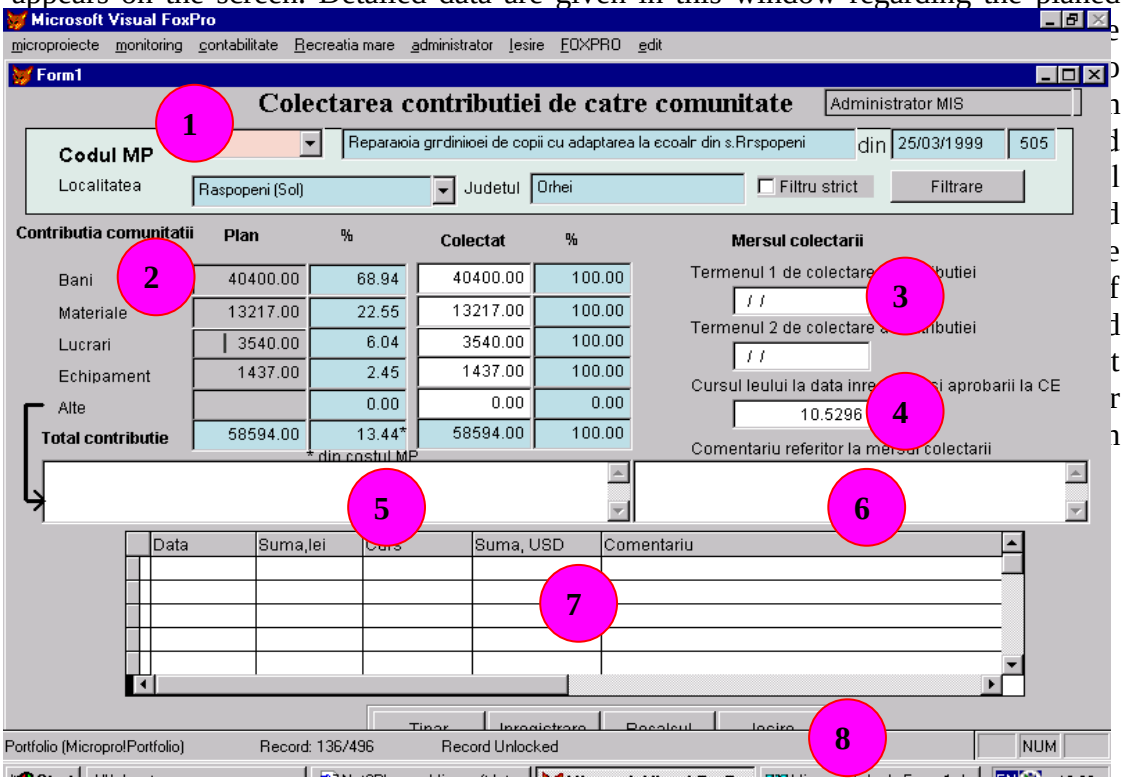


Figure 3.4.2. Recording the collection of the community contribution

Should some peculiarities appear during collection of the community contribution the engineer can make notes in text box 6 in connection with this. The Executive Committee during the approval of a microproject for implementation sets up a dead line for the collection of the community contribution. Usually this term is equal to a month period of time. The term is shown in the text box 3. Should the community fail to collect the contribution during this period of time, the Executive Committee considers the reasons of the delay. The Executive Committee may extend the terms of the contribution collection, should the community have grounded reasons for that and should it prove that it is still able to collect the contribution within terms acceptable by the MSIF. These terms are indicated in the text box shown below ("Term 2 for the contribution collection"). If the contribution is not collected within the new terms of collection, then the microproject may be rejected and transferred to the archive. The resources designated for this microproject may be transferred to the next communities on the waiting list.

The rate of the "Leu" exchange, corresponding to the moment when the microproject was accepted, is also shown on this window with the purpose to make modifications whenever the period of time since the computation of the bill of quantities is considerably long and prices had been re-computed.

Grid 7 shows all money amounts transferred by the community to the MSIF accounting office, either in cash or by transfer. When the contribution window is open the system automatically starts to search whether the accounting office received any other contributions from the community and transfers these amounts to the respective microprojects. This enables the microproject engineers to have the most updated information regarding collection of the contribution. When a contribution arrived for a certain microproject the respective amount is added up to the collected cash amount for this microproject and the total amount collected for this microproject is modified.

After the collection of contribution the microproject moves to the contracting stage.

3.4.9. Archive storage of microprojects

When there are signs that delays are possible in a certain community and when going further to the evaluation or implementation stages of this microproject becomes problematic, the Executive Committee may make a decision to move this microproject to the MSIF archive. This doesn't mean that the microproject stops to be a component of the MSIF portfolio. The community continues to claim for financing from the MSIF. However, the microproject is excluded from the reports regarding the work with active microprojects. This is done with the purpose to make the recording process easier with regard to the active microprojects.

To move a microproject to archive, a user needs to press the button located at the bottom, to the left, with the inscription "Archivare" (Archive) (Figure 3.4.1.), which is the main window for the approval stage. While pressing this button a standard screen appears designed for entering stages, which is similar to the one

shown in Figure 2.8.1. The date indicating transfer of the microproject to the archive, the number of the EC decision and the reasons based on which the microproject was archives are entered. Next the "Inregistrare" button is pressed and the microproject is transferred to the archives.

3.4.10. Extraction of microprojects from the archives

Whenever communities forward to MSIF concrete proposals for the continuation of the implementation of the archived microproject, the Executive Committee considers the possibility to extract the microproject from the archive. There could be reasons making impossible extraction of the microproject from the archive. These are: availability of financial resources for this particular county; the deadline of activity of the MSIF in this particular county is over: incapacity of the community to meet requirements put forward by MSIF, etc.

To extract a microproject from the archive, the button "Dezarhivare" (Recovery from Archive) is pressed. The button is located on the main window of the approval stage (Figure 3.4.1.) at the bottom of the window, to the left. The picture of the working window with the programme to recover a microproject from the archive is shown in Figure 3.4.3.

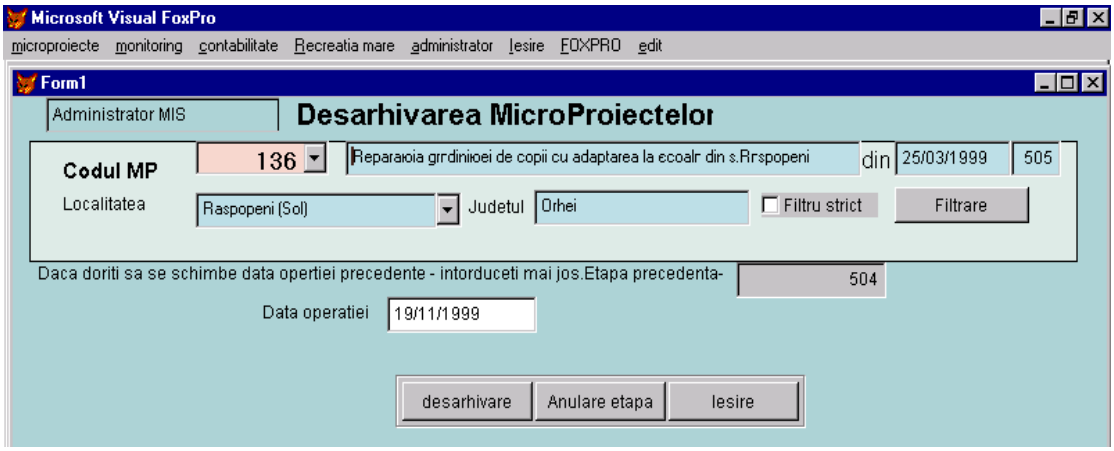


Figure 3.4.3. Extraction microprojects from the archives

Extraction of a microproject from the archive is done from the stage, during which the microproject was transferred into the archive. Along with the return to the previous stage, the date of operation may be modified. Pressing the "Dezarhivare" (Extraction from Archive) button returns the microproject from the archive.

3.4.11. Annulment of the electronic signature

The manager of the system, (or other entitled person) may cancel an electronic signature. All measures to prevent errors are taken. However there are cases when MIS users make their electronic signatures in a wrong way. When they find their mistake they request the assistance of the responsible person to cancel the electronic signature for the standard stages. To cancel the stage button "Anulare etapa" (Annulment of the stage) is pressed. The button is located in the bottom part of the

window, to the left in the main window for approval (Figure 3.4.1.). The picture of the programme is similar to the one shown in Figure 3.4.3.

To cancel the electronic signature one should press button “Anulare” (Annulment). It is important to mention here that the system allows annulment of the last stage signature only.

3.5. Contracting stage

Once the contribution of the community has been collected and the engineer has electronically sign this event, the procurement expert receives information regarding this moment. Thus, signing contract process gets started.

To open the contracting stage, one should press the microprojects programme in the MIS main menu, and later the contracting programme. The main window of the contracting stage is shown in Figure 3.5.1.

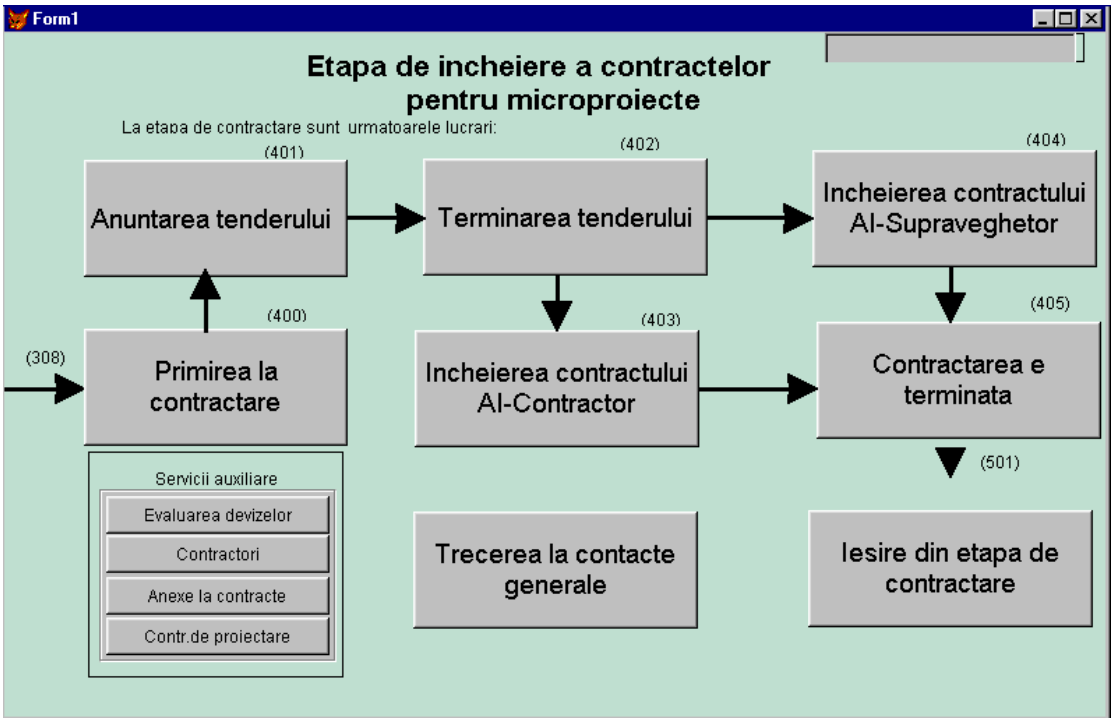


Figure 3.5.1. Main window of the contracting stage

The contracting stage include the following sub-stages:

400	**Contracting**
401	Tender is announced
402	The tender is over and the contract is waited
403	The contract is signed (IA – Contractor), the documents are prepared
404	The contract between IA and the Supervisor is signed
405	Contracting is over; the project is ready to start works

3.5.1. Acceptance of microprojects to the contracting stage (stage 400)

This stage foresees a simple signature of the procurement expert, who states the fact that he is aware about the fact that a new microproject appeared so that he starts contracting. This signature signifies that the microproject is transferred from the evaluation engineer (the one who signs stage 308) to the procurement expert (who signs acceptance in stage 400).

The screen for this programme is a standard one for electronic signatures (see Figure 2.8.2.).

3.5.2. Announcement of tender (stage 401)

Several days after the receipt of the microproject to the contracting stage the procurement expert together with the community place an announcement in the newspaper regarding the bidding process for construction works in connection with this particular object. When contracting is done directly, this stage is skipped.

The screen illustrating the programme used for the announcement of bidding is shown in Figure 3.5.2.

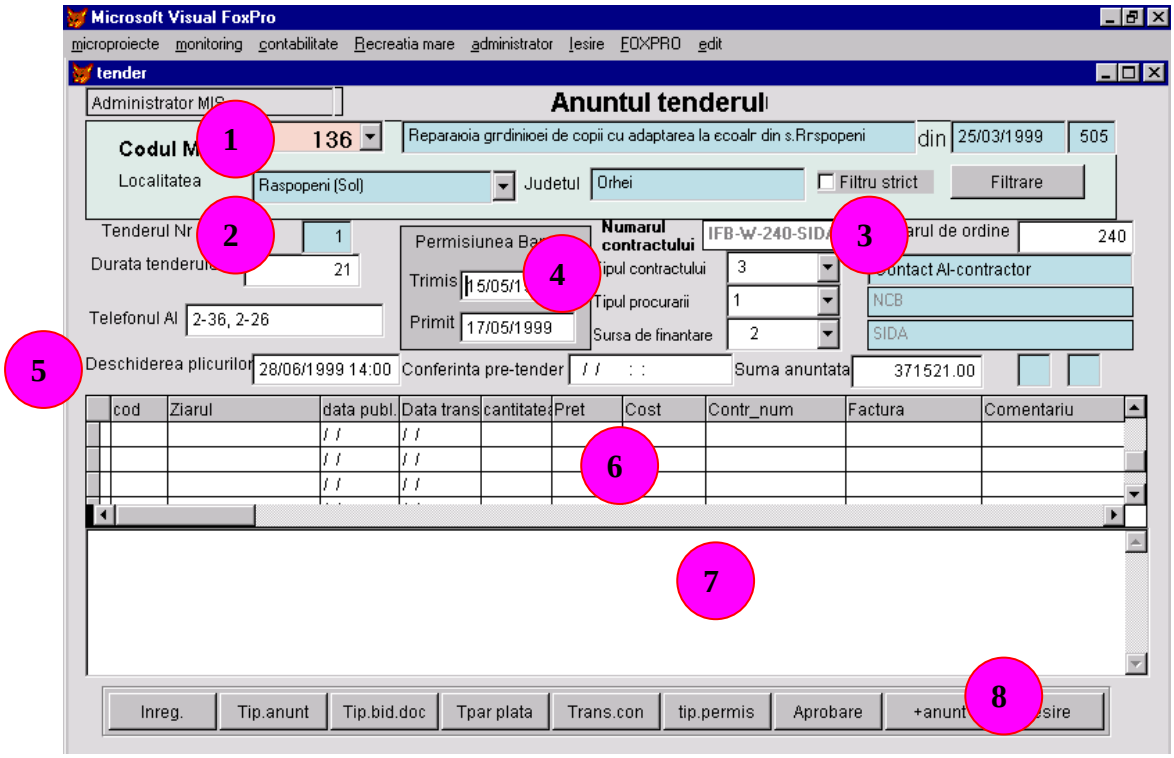


Figure 3.5.2. Screen used for the announcement of the bidding process

When the programme is open the user will work with the microproject, the code of which is indicated in the hidden list 1. In the text box 2 the number of the tender is indicated. Initially number 1 is indicated in this box. During the next stage (402) the number may be increased, once that the results of the tender have been announced and it is necessary to start a new tender.

Below data regarding the tender are indicated, namely: the date of the tender, telephone number of the Implementation Agency (it shows up by itself, because it was entered into the system during the identification stage). In the neighbourhood of circle 3 the necessary instruments to generate a new contract number are located. The number of the contract includes several parts: For example IFB indicates that the procurement is done via procurement at the national level (NCB). Next symbol indicates the category of procurement. In tenders held during stage 401 all procurement operations deal with procurement of construction works (this is determined by the type of the contract – "contract between the Implementation Agency and the contractor") and they are marked with "W" (from "works"). Next 5 figures are reserved for the number of the contract. This number is automatically produced by the system, but it is possible to edit it. The last symbols make possible abbreviation of the financing resource (in our example – SIDA).

Also information regarding the hour and date when the envelops were open and the pre-tender conferences were held (circle 5) are entered as well as the amount of the contract estimated by MSIF. In certain cases it is necessary to receive permission of the World Bank to announce the bidding process, for example in case of the first three contests for different types of microprojects. In this case the date when the documents were sent to the World Bank for approval are entered and the date when the answer was received (sector 4).

In grid 6 data regarding announcements placed in newspapers are entered. Initially the system generates place for 4 announcements. In case of necessity new lines can be added by pressing button "+ anunt" (announcement) from the set of buttons 8. The following information is entered in connection with each announcement:

- The code of the newspaper, which is selected from the hidden list of field 1 of the grid;
- The name of the newspaper;
- The date when the announcement was published;
- The date when the information was transferred to the accounting office by the procurement expert;
- The quantity (is measured in square meters or the number of words);
- The price per unit;
- The cost of the announcement (is computed automatically);
- The number of the contract, based on which the payment is done (appears automatically from the contract base);
- The number of payment invoice;

- The comment with the description of the peculiarities of the announcement or of the payment;
- The date when it was approved by the accounting office;
- The exchange rate of the "Leu" in the day when the transfer was made;
- The percentage paid from the community contribution;
- The amount paid from the community contribution.

Note, that part of these fields is not seen within the grid. Press the bottom line of the grid to see them.

In text box 7 different notes and comments necessary for the procurement experts are entered such as certain promises made by the community, peculiarities of the development of the announcement process, etc.

The button "Inreg." (Registration) from the set of buttons 8 allows registration of stage 401, meaning that the tender has been announced. The button "Tip. Anunt" (Printing the announcement) allows printing of the announcement in WORD format. The button "Tip.bid.doc." (Printing out the bidding documents) facilitates printing of the set of documents for the bidding process. The button "Tipar plata" (Printing payment) is meant to print out the payment document for the accounting office. The button "tip.permis" (printing allowed) allows printing out of list with all microprojects, for which the announcement publication is permitted. The Executive Director signs the permission to publish an announcement only in that case that the microproject has appeared in this report.

Button "Trans. Con." (Transfer Confirmation) is meant to register the fact that data regarding a certain announcement (on which the cursor from grid 6 is placed) will be transferred to the accounting office. The procurement expert confirms with the assistance of this signature that the information regarding the announcement was fully entered and it is necessary to make the payment. Once this signature is made the accounting office receives the application to make payment for the announcement. When the accountant receives this information he enters this programme and verifies correctness of the information regarding the announcement and enters the missing data. This data are: the date when approval was made, the "Leu" exchange rate, percentage of the contribution and the amount of the community contribution. After this the accountant presses the button "Aprobare" (Approval) and confirms that the payment information was received. In the accountant office this information takes the form of a payment order.

3.5.3. Finalisation of the tender (stage 402)

When the deadline is over, the tender is held and the winner of this bidding process is established. Programme 402 is used to carry out actions connected with the selection of the winner in the bidding process (Figure 3.5.3.).

When the user selects the code of the necessary microproject in the hidden list 1, information regarding tender results for this microproject appears on the screen. In text box 2 the code of the contract is indicated, which is to be signed as a result of the tender. A set of data is given in segment 5, which may not be modified and is used for information only. These include the number of the tender under way, the date and

hour of the announcement of the tender, the type of procurement, date of the tender conclusion, date and hour set to open the envelopes and the amount announced by MSIF for this contract. All this data is entered at the moment when the announcement of the tender is made (stage 401).

1

2

5

Regarding the tender of the microproject the list of participants to the tender is

3

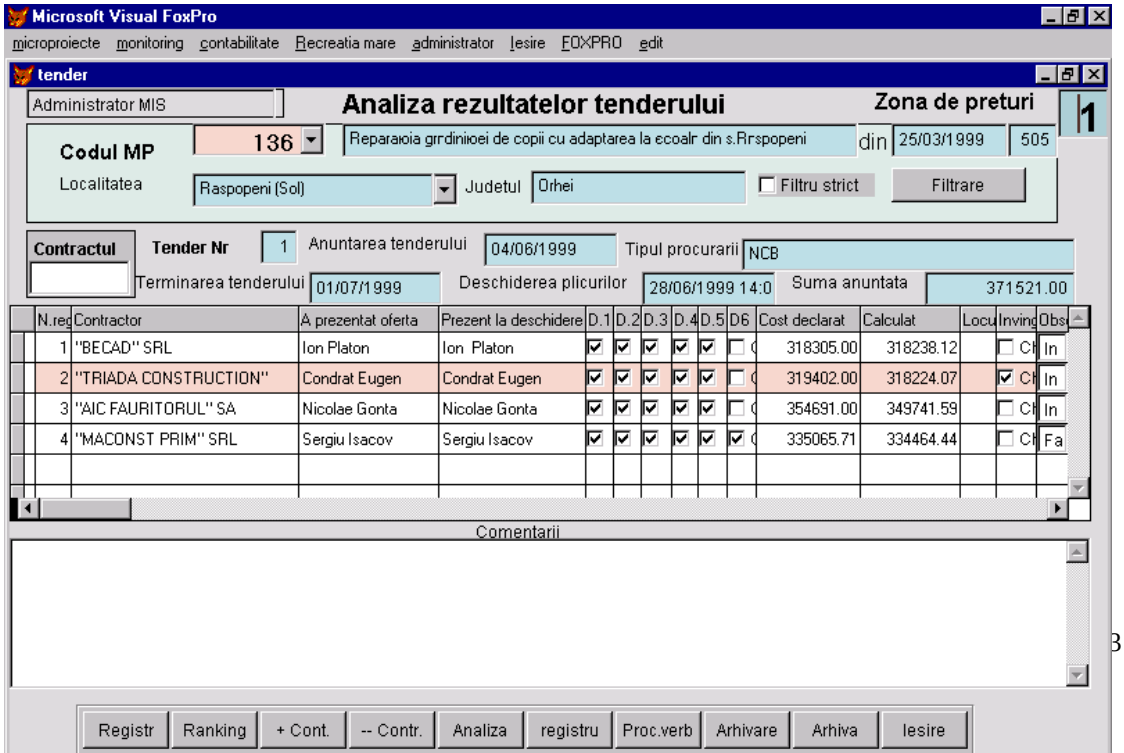
entered in grid 3. The following data are entered with respect to each participant:

4

6

Figure 3.5.3. The screen with the analysis of the tender results

- Number of registration;
- Name of the potential contractor, name of the company participating to the bidding;
- The name of the person who submitted the bidding proposal;
- The name of the person who was present during opening of envelopes;
- Statement regarding presence of the 6 obligatory documents in the submitted package of documents (D1-D6 fields);
- Cost stated by the bidder in the bidding documents;



- MSIF estimated cost based on the check of the bidder's bill of quantities;
- Place occupied depending on the offer cost;
- Information stating whether the offer is a winning one or not;
- Additional notes. When this field is pressed a page with text appears where all peculiarities of this proposal may be entered, as well as drawbacks or especially important moments.

In the text box 4 all comments regarding the bidding process in general are entered. Should the tender be considered invalid, then the reasons based on which the bidding process was qualified invalid are entered here.

With the assistance of button "+cont." one can add up rows for additional data regarding bidders. Liquidation of rows is done with the assistance of button "-contr.". It needs to be mentioned here that usually the prices of the bill of quantities proposed by the bidders are checked only for the 5 smallest prices. The system allows checking up the bills of quantities for the first bidders only. That is why at the moment when the list of bidders is entered one needs to take into consideration this fact and to first enter the contractors proposing the smallest prices. The process verifying correctness of costs proposed by the bidders is described in compartment 3.5.7.

Once the estimator checked the correctness of prices, the ranking of checked proposals is done based on the price. Ranking is done by pressing button "Ranking" from the set of buttons 6. The assigned place is indicated in the field "Locul"" (Place) from grid 3. The proposal with the smallest price takes the first place. In case that this company meets all requirements as set by MSIF it is declared winner of the bidding process. Should there be serious drawbacks in connection with this company, next company is considered.

There exist three necessary reports for the presentation of the tender results. The button "Registru" (Register) allows printing out of the register with the names of participants to the bidding process. The button "Analiza" (Analysis) allows printing out of the results as received based on the analysis of tender. The declared amount, the verified one, percentage deviations, peculiarities observed for each company are indicated here. Also a general conclusion regarding the bidding process is done and the winner is described. The button "Proc.verb." (Minutes) allows printing out in WORD format the minutes of the session of the committee selecting the winner.

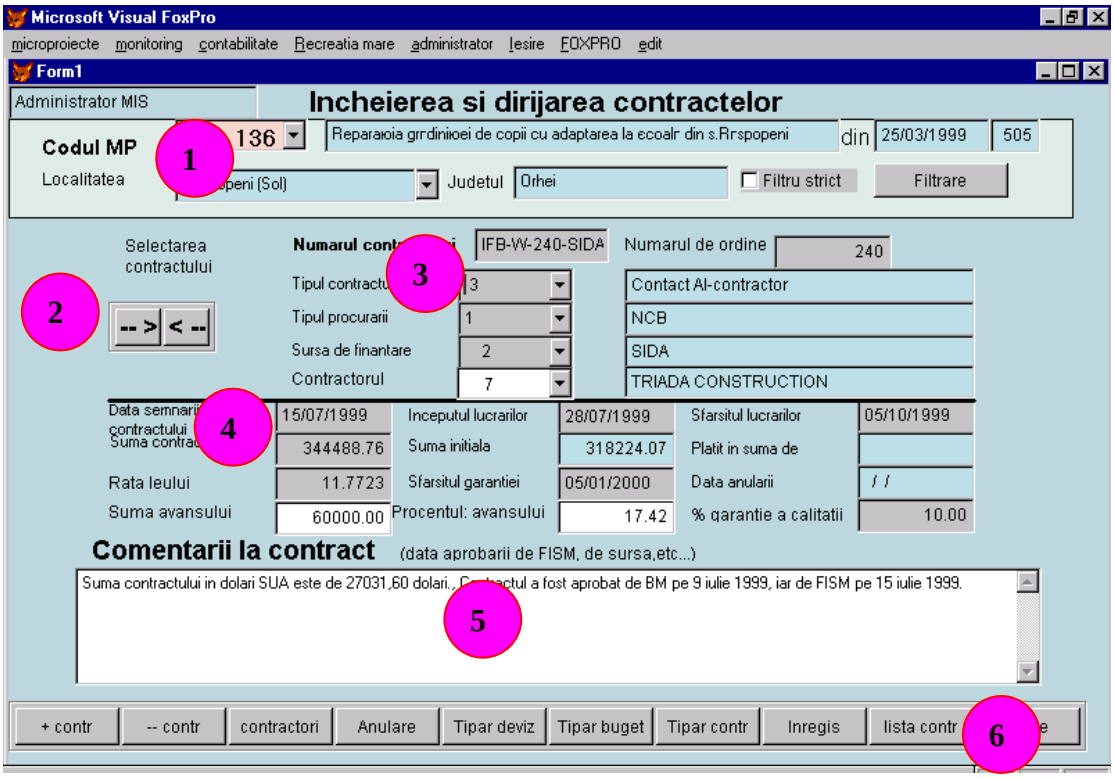
An important aspect concerning the process of conductance of the biding process is the **repeated conduct of bidding processes**. When it turns out that the winner could not be selected, a repeated bidding process is announced. In order to do that the present tender is sent to the so-called archive of tenders to free space for a new bidding process. To do archive storage of a tender, button "Arhivare" (Archive storage) from the set of buttons 6 is pressed. Pressing this button makes all information regarding the tender to be transferred to a special base and liquidated from the tender data base. In the text box "Tender Nr" the number of the tender becomes one unit bigger. After that a new bidding process may be announced during stage 401.

One can see results of tenders stored in the archive by pressing button "Arhive" (Archive).

3.5.4. Contract signing between IA and the Contractor (stage 403).

Once the winner of the bidding process was selected, the process of contract signing between the contractor and the winner starts. The contract signing programme may be used for this purpose (Figure 3.5.4.). It should be mentioned here that this screen is a standard one for all possible types of contracts during the implementation

of microprojects. That is why it is necessary to thoroughly study this screen. Further on in the text, in case of other contract signing programmes, reference will be made to



this section.

Figure 3.5.4. Screen illustrating the recording of contracts

To work with the contracts of a certain microproject one should select the code of the microproject with the assistance of the hidden list. First contract falling under this type of contracts appears on the screen (in our case – contracts between IA and the contractor) for this microproject. With the assistance of arrows from the set of buttons 2 it is possible to go from one contract to another within one and the same microproject with reference to this type of contract.

As mentioned in section 3.2.2. the code of the contract was established during stage 401 – the announcement of the bidding process. The number of the contract is shown in field 3. It can be modified with the assistance of instruments from this particular region. The number of the contract is composed of several parts: the first

there symbols stand for the type of procurement, which can be selected from the procurement list.

For example IFB means that procurement is done via procurement at national level (NCB). Next symbol indicates the procurement category. In tenders belonging to stage 401 all procurements are procurement of construction works (this fact is determined by the type of the contract – contract between the Implementation Agency and the Contractor), marked by "W" (from "works"). The next 5 figures are for the number of the contract. This number is automatically produced by the system, but it is possible to edit it. The last symbols denote the abbreviation of the financing resource (in our example SIDA).

Below the financing resource there is the hidden list for the **selection of the contractor** from the data base with the name of contractors. The work with contractors (adding up, liquidation or modification) is done in the working screen for the contractors, described in section 3.5.8.. To enter into the contractors data base, button "Contractorii" (Contractors) from the set of buttons 6 is pressed.

To add a new contractor, button "+contr." Is used and to liquidate one button "-contr." Is used. Contracts already registered can not be liquidated. Should the conclusion be reached that a contract is not valid any more (the contract was terminated, etc.) but this contract is a registered one, then the contract is marked as cancelled. Button "Anulare" (Annulment) is pressed for this purpose. In the text box "Data anularii" (Date of annulment) automatically the current date appears, marked in red.

In region 4 the following information about the contract is entered:

- Date when the contract is signed
- Date when the works foreseen in the contract started
- Date when the works were over
- The amount foreseen in the contract (in lei), along with modifications of the bill of quantities this amount may change through special Annexes to the contract
- Initial amount of the contract (it is not modified during implementation)
- The "Leu" exchange rate in respect to the US dollar at the moment when the contract is signed (is indicated in the contract). It is indicated the number of "lei" per dollar
- Date when the guarantee term expires
- The amount of the advance payment
- The percentage of the advance
- The percentage of the quality guarantee - usually makes 10%.

In text box 5 all necessary notes are made to do recording of the peculiarities of the respective contract.

Once the data concerning the contract has been entered, **the reports** necessary for the contract conclusion are printed out. The button "Tipar deviz" (Printing out the bill of quantities) from the set of buttons 6 allows printing out the working version of the bill of quantities. This bill of quantities contains the quantities indicated by MSIF, while the prices are the ones indicated by the contractor during the bidding process. It

serves as an official document indicating the payments for completed works and is one of the annexes to the contract. Another annex to the contract is the working budget of the project, which is printed out by pressing the button "tipar.budget" (printing out the budget). The button "tipar.contract" (printing out the contract) is meant to print out the contract including also all data about the contract and the contractor. The contract is printed out in a WORD format and in case of necessity may be edited and only later printed out.

When data was entered and documents were printed out, the contract is registered. This confirms that all data are correct and all necessary actions were completed. At the moment when the contract is registered the bidding bill of quantities is copied out in the data base for the working bill of quantities. After registration no editing of the contract data is permitted and is even impossible. In case that an error has been made, the user has to call the manager of the system.

3.5.5. Signing the contract with the local inspector (stage 404).

Once the contract with the contractor is signed one can proceed to sign the contract with the local inspector. The screen for the working programme with the contract for the local supervisor is similar to the one illustrated in Figure 3.5.4. The working principle is analogous to the one described in section 3.5.4.

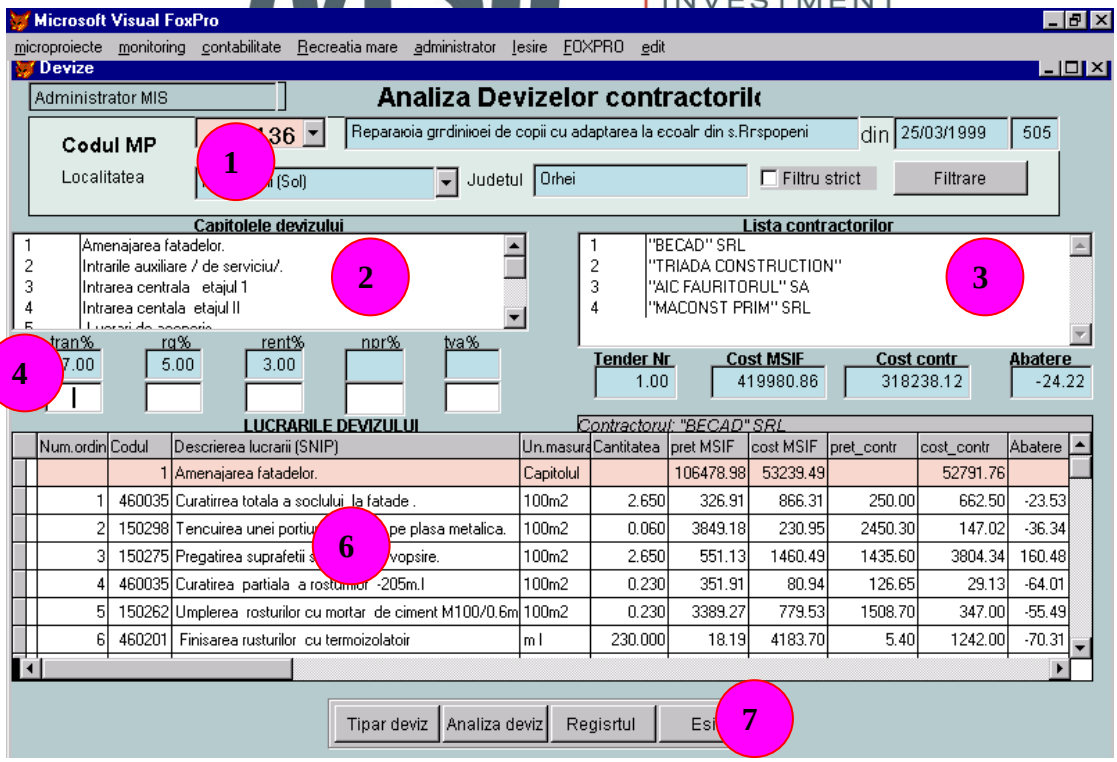
3.5.6. Finalisation of the contract signing stage (405)

At stage 405 the procurement expert signs electronically to confirm the fact that all data related to the contracts are checked out and the contracts are signed and registered in MIS. The screen picture is a standard one for the registration of stages (Figure 2.8.2). Once this stage is signed, the Director of microprojects department receives a notification regarding the appearance of a new microproject, which is ready for starting works. This means that the microproject is through with the contract signing stage and goes to the supervision of the construction works stage.

3.5.7. Evaluation of the bill of quantities proposed during the bidding process

At stage 402 (finalisation of tenders) a check of price computing correctness is done for 3 to 5 proposals. The bill of quantities evaluation programme is used for this purpose. To have access to this programme button "Evaluarea devizelor" (Evaluation of bill of quantities) from the bottom-left part of the screen is pressed in the main screen of the contracting stage (Figure 3.5.3.). This produces the screen illustrated in Figure 3.5.6.

To work with the bill of quantities in case of a microproject one should select the code of the microproject from the hidden list 1. In list 2 the chapters of the bill of quantities appear and in grid 6 the bill of quantities with the list of works for this microproject is produced. In list 3 appears the list with the name of bidders who participated to the tender. One should remember that no more than 5 and no less than 3 bill of quantities are verified. Once a chapter of a bill of quantities is pressed in list 2, the beginning of the chapter appears in grid 6. When pressing the name of a contractor in list 6 the fields indicating the prices and costs proposed by this contractor appear.



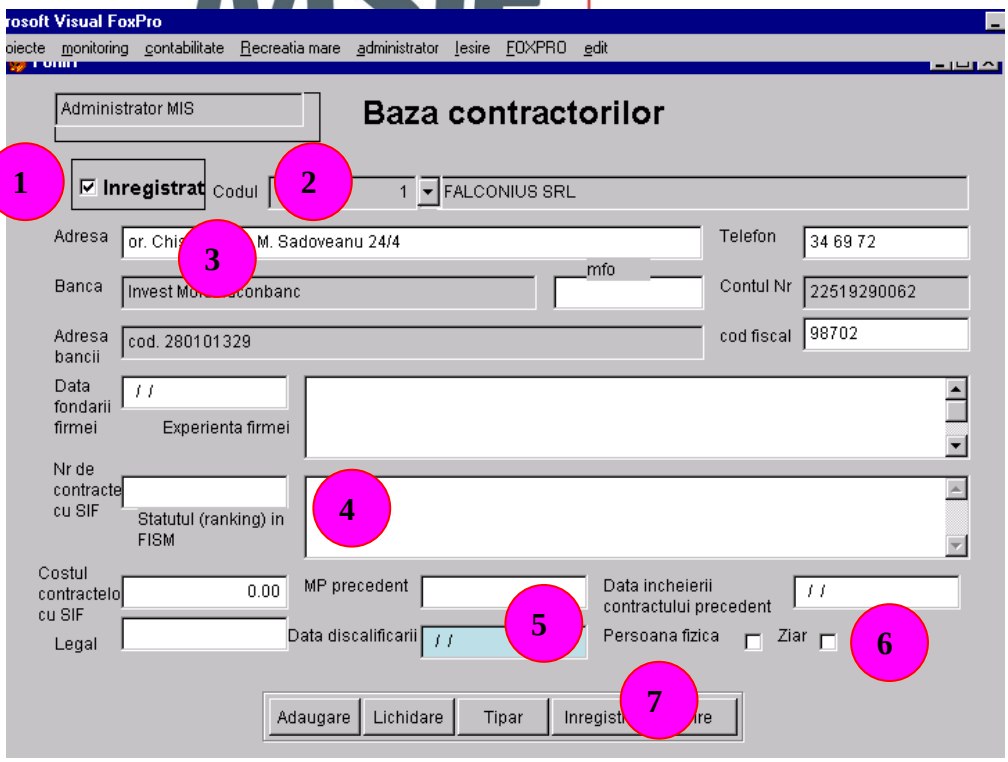
To check correctness of computations in the bill of quantities of a bidder, the price proposed by the contractor is entered into the field "Pret.Contr." (Contractor's Price) for each work. The price proposed by the contractor appears automatically in the field "Pret.Contr." (Contractor's Price), whereas in the field "Abatere" (Deviations) the deviation in percentage in respect to the cost estimated by MSIF is shown. Should the deviation be a significant one, the estimator checks the reason for such a big deviation. The most frequent cases are: errors in the arithmetic calculations; the contractor didn't understand properly the essence of this particular work; the decimal sign is placed in the wrong place; etc. In cases when deviations bigger than 10% have been found it is necessary to clarify the cause of the deviation.

Figure 3.5.6. The screen for the analysis of bill of quantities from the bidders' proposals

Data regarding additional expenditures are entered for each bidder (see the space to the right of circle 4): percentage of expenditures for transportation, for management and efficiency, for contingencies and VAT. Also general information is given here at the right of circle 5 for familiarisation purposes. This is the number of the bidding process, the total cost of the bill of quantities estimated by MSIF, the total cost computed based on bidder's data and the deviation percentage.

Once the bidder's prices have been entered it is possible to print out his bill of quantities with the deviations in respect to the MSIF bill of quantities. The most significant deviations are highlighted. Also the register indicated in list 3 and the results of the analysis of deviations may also be printed out.

3.5.8. The contractors' data base



Data about any contractor that participated to the implementation of a microproject is entered into the contractors data base. To work with this data base one should press button "Contractorii" (Contractors) in the main window of the contracting stage, which is located at the bottom to the left of the screen (Figure 3.5.1.). The picture on the screen designated to work with contractors is shown in Figure 3.5.7.

To add a new contractor in the contractors data base button "Adaugare" from the set of buttons 7 is pressed. In order to liquidate a contractor, button "Lichidare" (Liquidation) is pressed. A contractor can not be liquidated after registration. Box 1 shows whether the contractor is registered or it is not. To move from one contractor to another the user needs to use hidden list 2.

Figure 3.5.7. Programme for contractors recording

The following information regarding each contractor is entered (region 3): The official address and the contact telephone number; the number of banking accounts. There are also non-obligatory data such as: the date of the firm foundation; the number of contracts signed with MSIF and their total amounts; the number of the last contract signed with MSIF and the date when the contract was signed. When a contractor had had other contracts with MSIF before a short characteristic of the work quality made by this contractor is entered in the text box 4.

In case when a contractor was de-qualified the date of de-qualification appears in text box 5. De-qualified contractors are not accepted to sign any other contracts.

Two more options are indicated in boxes 6: it is stated whether the contractor is a physical or a legal entity. Especially newspapers are specified, because long term contracts are singed with them.

Once the data regarding a contractor were introduced, a registration regarding this event is made. During registration the main data about a contractor is transferred to the accounting office, and later it is protected against editing. A contractor will show up in the list of contractors for the possibility to be included into contracts only after having been registered.

Button “Tipar” (Print) allows printing out the list of contractors separating the physical entities from the legal ones.

3.6. Construction follow -up

When signing of contracts is over the microproject goes to the construction implementation stage. MSIF carries out supervision of works. The objective of this stage is to ensure the qualitative completion of the construction works. To ensure computerised support of contractors payment operations, to monitor the implementation process and prevent possible delays. This stage is divided into the following sub-stages:

500	**Supervision**
501	The official decision to start construction works is expected
502	Implementation has started
503	Receipt of acts stating completion of works has started
531	*Acceptance act No 1 is signed*
532	*Acceptance act No 2 is signed*
533	*Acceptance act No 3 is signed*
	……..
504	Preliminary hand-over has started
505	Preliminary hand-over completed
506	MP is fully accepted

The main screen of the supervision stage is shown in Figure 3.6.1.

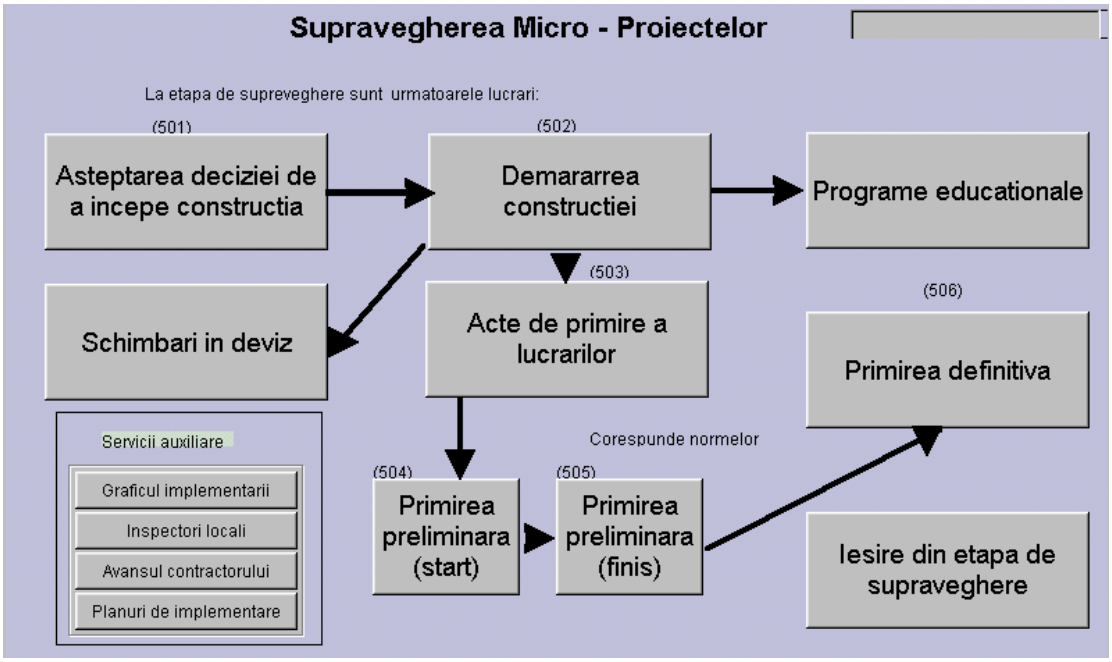


Figure 3.6.1. Main screen of the supervision stage

3.6.1.Official decision regarding permit to start construction (stage 501)

This stage is managed by the Director of the Microprojects Department. The stage includes all preparation activities, necessary to start up the construction. A plan-schedule developed by the contractor is entered. It shows with an accuracy of two weeks the process of works estimated in money. The engineer responsible for the project is assigned and date to launch the works is set (the one envisaged in the contract).

To see which microprojects are through with the contracting stage the Director of MP prints out the list of microprojects forwarded to the work start-up stage.

By signing this stage the Director of the MP Department allows the supervision engineer to go to the construction site and to hand-over to the contractor the construction site.

3.6.2.Start up of the construction works (stage 502)

Once the construction site has been handed over to the contractor the construction of the object starts. This stage is a simple electronic signature made by the supervising engineer, which indicates that construction has started up. The screen of this stage is a standard one for the electronic signatures for stages (Figure 2.8.2.).

3.6.3. Receipt of acts stating completion of works (stage 503)

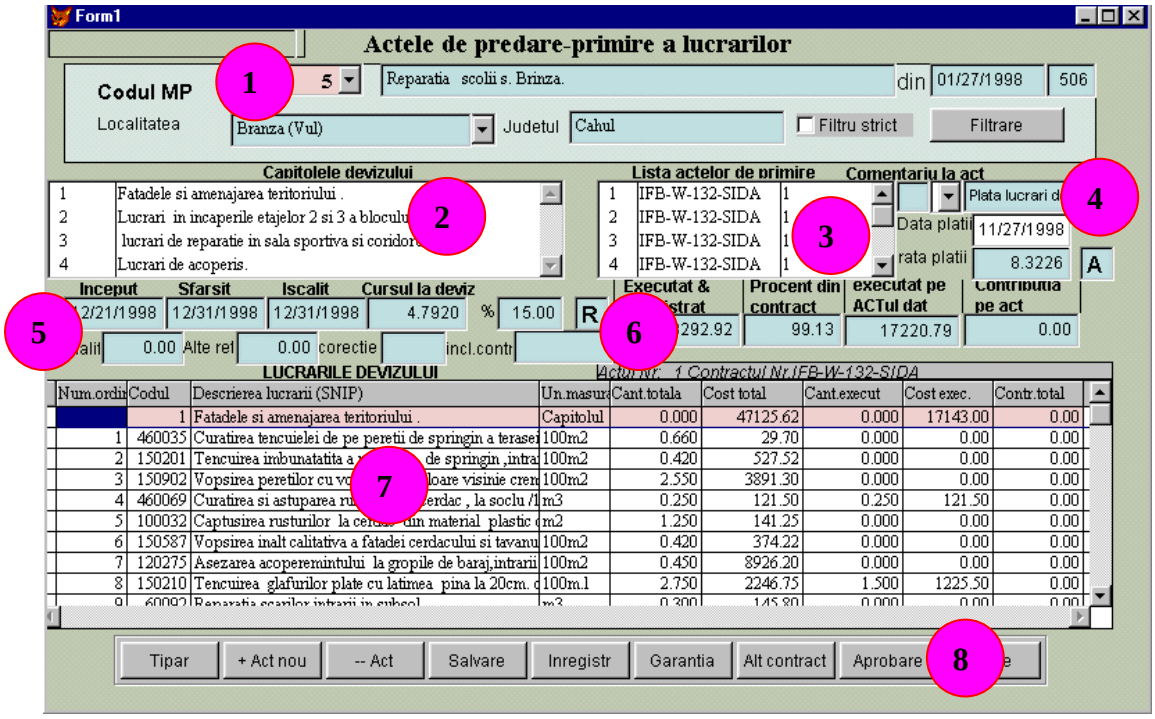


Figure 3.6.2. Processing acts stating completion of works

This stage is the supervision itself. The objective of this stage is the supervision of the way the contractor carries out the implementation of the contract clauses. To sign an act stating completion of a work, the engineer goes to the field and checks the volume of completed works and later introduces the results into MIS. Working programme shown in Figure 3.6.2. is used for this purpose.

To work with acts stating completion of works in case of a microproject one should select the code of the microproject from the hidden list 1. Data referring to the acts of the microproject appear on the screen. All chapters of the bill of quantities are enumerated in list 2. The payment documents are enumerated in list 3. Grid 7 indicates all works included into the bill of quantities. By pressing a chapter in list 2 information from grid 7 is moved to the beginning of the chapter. Pressing an acceptance act of completed works in list 3 brings about the data regarding quantity and the costs of completed works in connection with this respective act. They appear in columns “Cant. Execut.” And “Cost execut.” (Executed quantity and respectively, Cost of executed work) within grid 7.

The following data regarding the works in the bill of quantities are included in grid 7.

- The number of the chapter and the number of the work within the chapter
- The code of the work in conformity to the catalogue of SNIP works
- The name and short description of the work
- Measurement unit and the total volume envisaged in the contract
- The quantity of completed work in conformity to the current acceptance act
- The code of fulfilled works
- The community contribution included into this cost

A number of controls are carried out during data entering such as: statement regarding the quantity being equal or smaller than the one envisaged for execution; statement regarding the community contribution being equal or smaller than the outstanding; statement regarding the exchange rate of “Leu” indicating whether it coincides with the rate accepted for the entire work.

Additionally to data regarding fulfilled works, also general data regarding the act are entered (region of circle 5) such as: Date when works covered by the present act started; date of works completion; date of signing the act by the manager; the “Leu” exchange rate for all works covered by this act; the % of the cost of this act, which is to be paid from the “community contribution” source and the cash amount of this contribution (the text box “incl.contr.” (entering contribution)). In exceptional cases also entering of penalties is envisaged (the box “penalit.” (penalties)) or other unforeseen payments (box “alte ret.” (other payments)). In some cases a small divergence may appear (one or two bani) between computerisation made by the accounting office and MIS computerisation. The tex box “corectie” (Correction) is envisaged for these cases.

Other general data for the selected act may be introduced with the aid of instruments located in region 4. The hidden list to the right of circle 4 allows selection of the type of payment act. There are two types of payment acts, namely: type 1 – payment for the construction works covered by this act and type 8 – payment of the percentage preliminary detained for the quality guaranty insurance. To the left of the list indicating the types there is a small box "Comments to this act". Pressing of this box produces a page with text, where the engineer may enter all necessary comments, peculiarities and explanations. Below this box the date of payment entered by the accountant is indicated, and the exchange rate of "Leu" used for sale of currency needed for the payment of the contractor according this act.

Region 8 includes information about total amounts in this year. For example: the amount covered by this act and the one registered for previous acts; the percentage of the amount paid up to this moment; the percentage of the amount to be paid under this act and the percentage of contribution in materials under this act.

To introduce a new act button "+act nou" (new act) is pressed. To liquidate an act button "—act" is used (from the set of buttons 8). An act cannot be liquidated after registration. Once the information regarding completed works was entered, it is necessary to save the data by pressing the "salvare" (save) button before exiting from the programme is done. After having been saved it is possible to register the act. Registration is an electronic signature ("inregistrare" (registration) button) via which the engineer confirms that the quantities entered into the act correspond to reality and that all data regarding this act are correct and payment may be done. After registration letter "R" appears in the box to the left of circle 6, this being a sign that registration was done.

At the moment of registration data regarding payment arrive to the accounting office. The accountant opens this screen, verifies correctness of information and enters data regarding the payment date and the "Leu" exchange rate during sale of currency. Next the report regarding the payment is printed out and if everything is all right the act is approved. Approval by the accountant is done via pressing button "Aprobare" (Approval) from the set of buttons 8. At the moment of approval all data regarding the payment is transferred to the accounting recording system in the form of a transaction and payment orders. The accountant is expected to only print out these documents. After the approval letter "A" appears in the box under circle 4 and this is a signal that the act was approved.

Additionally to the payments for completed works, the contractors are also paid money after completion of the works for the following: 5% guaranty of the total cost of the contract – immediately after completion of works and preliminary hand-over. The remaining 5% of guaranty is paid out when the guaranty term expires and after final hand-over of the object. Difference of the payment acts for guaranty lies in the fact that they don't specify the amount of completed works. The total amount that needs to be transferred is indicated in box "Executat pe actul dat" (Completed under this act) locate din region 6.

Automatic production of payment acts for the quality guaranty is possible. To do this button "Garantia" (Guaranty) is pressed. In this case two acts, for 5% each are produced for each round of the bill of quantities (possible rounds of a bill of quantities

are described in section "Changes of the bill of quantities" given below). The engineer is expected to only check the correctness of the information and to register the acts.

There cases (rare) when several acts are signed for one and the same microproject. For example when a microproject contains two construction profiles, or when the contract with the contractor is terminated, etc. In this cases the active contract may be indicated. One single contract may be considered active. To change the active contract button "Alt contract" (Other contract) is pressed. When this button is pressed the system starts to look for all contracts registered for this microproject and the engineer selects the necessary one. After the selection, information regarding payment acts and works under this contract appears on the screen.

By pressing the button "Tipar" (Print) from the set of buttons 8 a set of reports can be printed with the assistance of this programme:

- "Explicatia la act" (Explanation in connection with the act) allows printing of general data regarding the act and a comment (an explanation) made by the engineer. This report is useful in those cases when certain works were not finished and explanation is necessary about the reasons that they were not finished.

- The act stating completion of works - includes a list of the works in connection with which quantities were completed as covered by this act.

- The detailed bill of quantities of completed works - includes additionally to completed works covered by this act all other works to see the general status of this contract.

- A resume regarding the bill of quantities for completed works – includes total amounts at the level of chapters and at the contract levels.

- Part 1 of the payment request – includes general information about the microproject and is used in the field so that the Implementation Agency signs this document on spot.

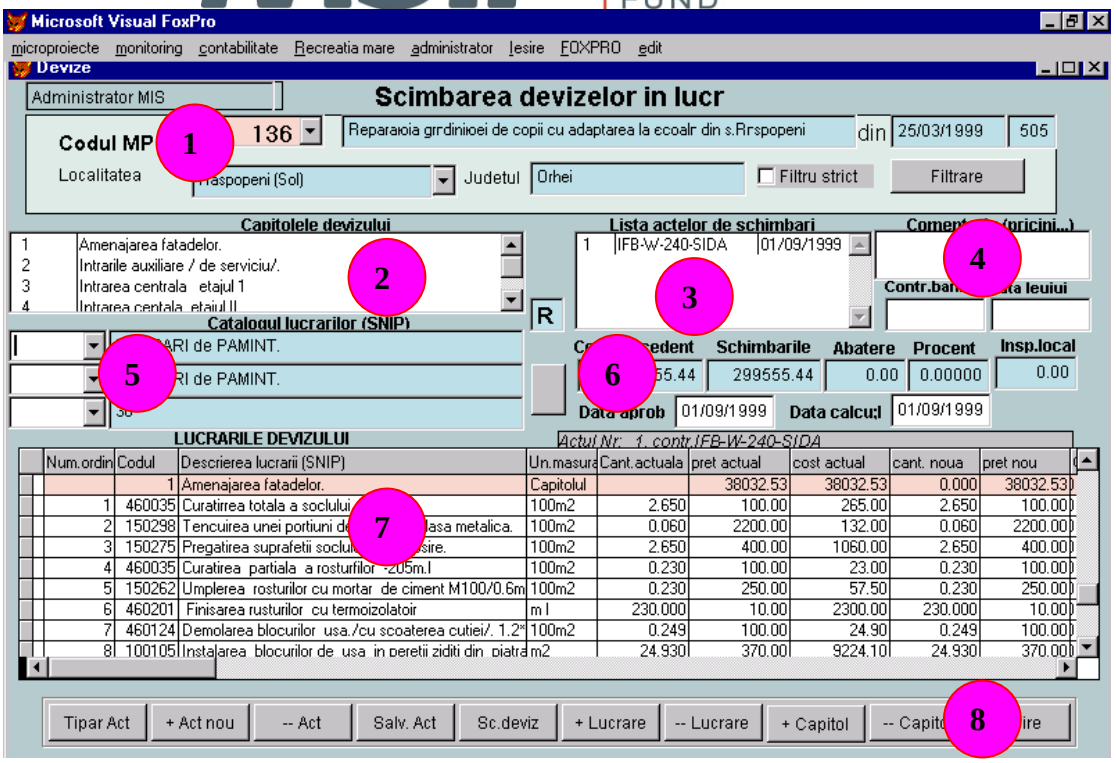
- Part 2 of the payment request – is the document, based on which the MSIF accounting office does the payment.

- Quality guaranty – is a little different payment form, which is used for the payment of the quality guaranty.

- The act for non-finished works – contains only those works including non-finished quantities. It is used for reports when certain works were not carried out, but the microproject is considered finished. It is also used to rapidly look for the works that remained "forgotten".

- The list of made payments is printed for general information in connection with this contract.

3.6.4. Changes made to the bill of quantities during implementation



After the start up of works it might be necessary to make amendments to the bill of quantities. Button “Schimbari de deviz” (Changes to the bill of quantities) in the main screen of the supervision stage is used for this purpose. The working screen with the changes in the bill of quantities is shown in Figure 3.6.3.

Figure 3.6.3. Working screen with the changes to the bill of quantities

To do changes in a microproject bill of quantities, one should select the code of the microproject from the hidden list. This causes an information regarding acts of changes in this microproject bill of quantities to appear on the screen along with the respective contract. List 2 includes the chapter of the working bill of quantities. When a certain chapter in the list is pressed information regarding this chapter appears on the screen, in grid 7. List 3 includes data regarding acts concerning changes in the bill of quantities. Pressing an act generates information regarding this act.

- Grid 7 includes the works of the microproject bill of quantities and allows making changes to the bill of quantities. The following data are available in connection with each work in the bill of quantities:
- Number of the chapter and number of the work inside the chapter
- The code of the work in conformity to the SNIP catalogue
- Description of the work
- Measurement unit and the amount in conformity to the effective bill of quantities (The field “Cant. Actuala” (Real quantity)
- Real price and real cost
- Proposed new quantity and the new price

- Data regarding the component of the community contribution with materials and labour (fields are located a little more to the right of the new price and one can see them by pressing the bottom part of the grid window).

To add a new round of changes in the bill of quantities button "+Act nou" (New act) is pressed, and to liquidate an act button "—Act" from the set of buttons 8 is pressed. Registered acts may not be liquidated.

New chapters and new works may be added to the current bill of quantities. To add a chapter one should press button "+capitol" (chapter) and to liquidate a chapter button "-capitol" (–chapter) is pressed. Chapters from the initial bill of quantities can not be liquidated. To add a new SNIP work button "+lucrare" (work) is pressed and to liquidate a work button "-lucrare" (work) is pressed. Works from the initial bill of quantities can not be liquidated. If the necessity appears to liquidate a work from the initial bill of quantities the work is saved in the bill of quantities, however, a new quantity equal to zero is indicated.

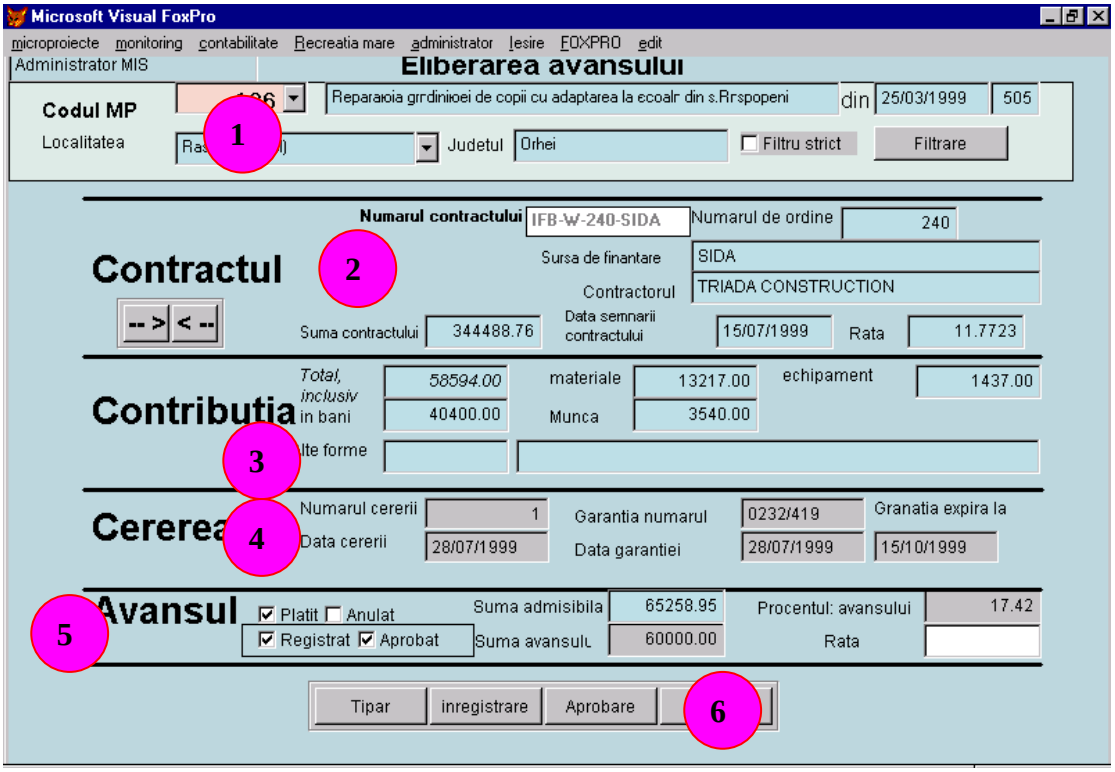
Once a row for the work was added, the code of the work is selected from the SNIP catalogue with the assistance of the hidden list 5. The first list helps to select the chapter, the second one helps to select the work inside the SNIP chapter and the last one allows the selection of the initial resources (Materials or equipment) in a SNIP works form.

When the code and the specifications of the work have been entered the actual quantity and price automatically are brought to zero magnitude. The new quantity may be indicated for each work in the bill of quantities. The new price may be added for the new works entered into the bill of quantities. The new prices may have a new exchange rate of the "Leu", that is why it is recommended to separate the new works into other change acts, to be able to show the "Leu" exchange rate for them. All works in a certain act presuppose the same "Leu" exchange rate. The "Leu" exchange rate for the current act is indicated in the text box below circle 4. When this rate is not indicated, it is considered that the act hasn't got the same "Leu" exchange rate as all the other works of the initial working bill of quantities. Also the money contribution is indicated here, the one that the community will have to invest additionally due to the increase of the cost of the contract.

In text box 4 the comment –explanation of causes that a necessity appeared to make changes in the bill of quantities and other moments connected with the act is given. During data entering it is simultaneously calculated the impact of the changes made to the bill of quantities (field 6): the previous total cost, the cost with the changes and the percentage of changes (deviation). Also the date of the approval of the change to the bill of quantities is entered along with the date when the computation of changes was made.

Once all data connected with this change have been entered, the change is saved by pressing button "Salv.act" (Save the act) from the set of buttons 8. After saving it is possible to exit from the change programme. Provided that correctness of information was checked, the act is registered and during registration changes to the

bill of quantities are done (button “Sc. Deviz” (Change of the bill of quantities)). The



number of the bill of quantities will go up one unit. After that different actions may be done with modified works, because they become actual.

3.6.5. Release of payment in advance to the contractor

After signing the contract the contractor may receive a payment in advance up to 20% of the cost of the contract. To work with the payment in advance a special programme is used. One can open the payment in advance programme in the supervision main menu by pressing button “avansul” (payment in advance) located at the bottom, to the left of the screen. A picture of the screen designated to work with payments in advance is shown in Figure 3.6.4.

Figure 3.6.4. Screen designated to work with the payments in advance

To process the microproject payments in advance one is supposed to select the code of this microproject with the help of hidden list 1. Information connected with the advanced payment for the first contract appears on the screen. To switch from one contract to the other (in case when several contracts are signed for a microproject) arrow-marked buttons located in the region of circle 2 are used. Main data concerning this respective contract appears in this region, namely the number of the contract, date of its signing, the amount of the contract and the “Leu” exchange rate in this contract.

To correctly compute the advance payment one also needs data concerning the contribution of the community, which is shown in region 3 and refers to the structure of the money, material, equipment labour and other forms contributions.

In region 4 data concerning the contractor's application for an advance payment are entered: the number of the application (usually it is No 1), the date of submission of the application, data related to the bank guaranty (number, data of the guaranty, the date when the guaranty expires). It is necessary to mention that the advanced payment can not be released to a contractor without a bank guaranty.

Data related to an advance payment are entered in region 5. The acceptable amount is computed by the system and the engineer enters the amount of the advance. The percentage of the advance is computed in an automatic way. After data entry concerning the bank guaranty and the requested amount the engineer registers the advance.

When registration is done the accounting office receives information concerning the necessity to release the advance payment. The accountant opens this window, enters the "Leu" rate of exchange at the moment of advance payment, checks the correctness of information and approves the advance. After approval the information concerning the advance is automatically transferred to the accounting office in the form of payment order and transactions, based on which the accountant prints out the payment order with the assistance of button "Tipar" (Print) from the set of buttons 6.

3.6.6. Preliminary hand-over of the microproject started (stage 504)

This stage is a simple electronic signature via which the engineer responsible for supervision informs the system and other users that the process of the object hand –over started. A committee assigned to study the object is set up. The screen is a standard one for electronic signatures for the stages (see Figure 2.8.2.).

3.6.7. Preliminary hand-over of the microproject is over (stage 505)

During this stage the engineer responsible for supervision informs the system and other users that the object has been accepted for operation. The screen is a standard one for the stage signing (see Figure 2.8.1). At this stage the engineer enters data concerning the quality of works, gives a mark to the contractor's quality and indicates the duration of the guaranty period. Once the signature for this stage was made (registration) the engineer receives the possibility to pay the first 5% of the quality guaranty (stage 503).

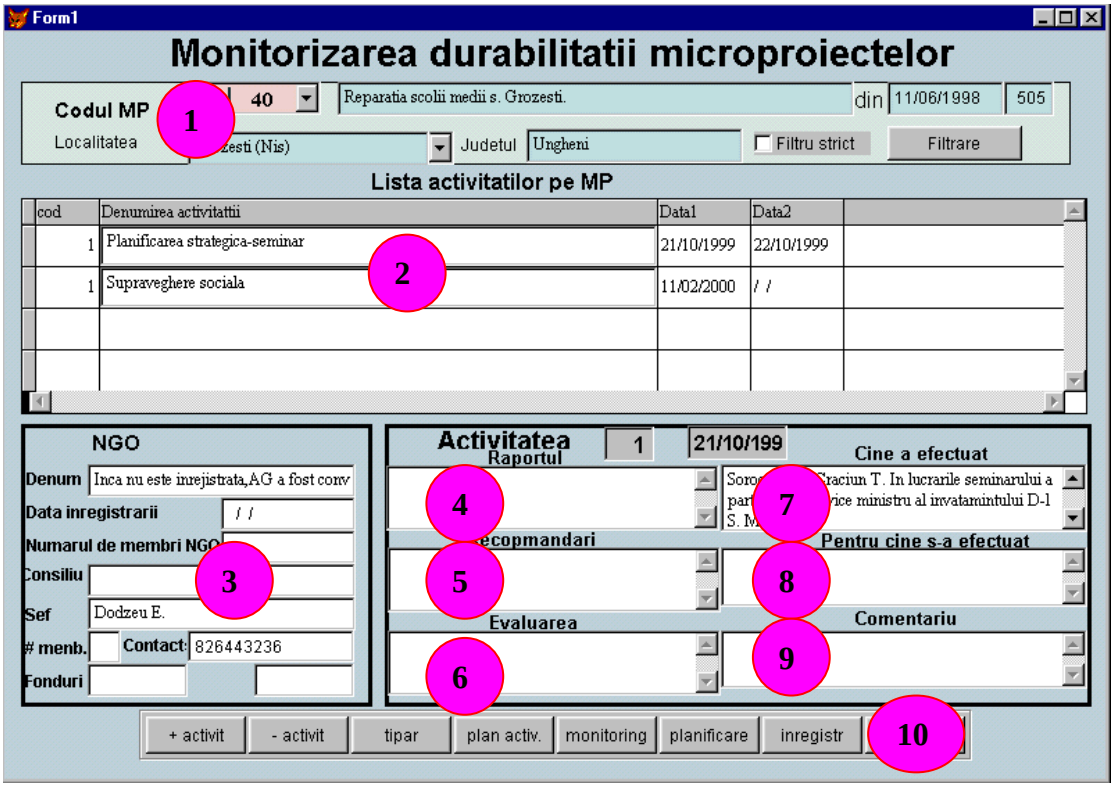
3.6.8. Final hand over of the microproject (stage 506)

At this stage the engineer responsible for supervision informs the system and other users that the object received final approval for operation. This means that the guaranty term expired and no defects were found. The screen is a standard one for stage signing (see Figure 2.8.1). At this stage the engineer enters data concerning the quality of works and makes other necessary comments. After having made the signature for this stage (registration) the engineer has got the right to pay the last 5% of the quality guaranty (screen for stage 503).

3.7. Sustainability monitoring

The process of preparation of the community as far as availability of a capacity to operate and maintain a rehabilitated or a newly constructed objects starts already during the implementation period. After the object hand-over the MSIF experts continue to supervise the object for two years more and extend assistance to the village in the form of training or small amounts of money.

To operate with the programme designed for the sustainability recording a user needs to go from the main menu to the MICROPROJECTS programme, and from there to the SUSTAINABILITY programme. The picture of a working window is



shown in Figure 3.7.21.

Figure 3.7.1. Screen used for the sustainability monitoring

To work with sustainability measures of a microproject the code of the necessary microproject is selected with the help of the hidden list. Data regarding sustainability activities carried out for this microproject appears on the screen. The list of activities is given in grid 2. Information regarding the name of activity, its code in conformity with the activity codifier for sustainability and date of the activity start and end are given.

In region 3 information related to the non-governmental organisation which is supposed to deal with the sustainability of the object is entered. Usually this NGO is a Users' Association or Association of Parents and Children.

In order to add an activity in the list of activities button “+activit.” (activity) is pressed and to liquidate an activity the “—activit.” (activity) from the set of buttons 10 is pressed. Registered activities can not be liquidated. When a new activity is added a new line appears in grid 2. When field “cod” is pressed a hidden list appears that might be used to select the type of activity. In the field “Denumirea activitatii” (Name of the activity) the name from the codifier appears. Should it be necessary the name can be completed with peculiarities and details.

To make the search of activities easier, it is possible to range activities according their name, code or date. To do this it is necessary to press the name of the field. Selection of an activity for work is done via pressing its name. This causes the appearance of information about this activity on the screen.

Box 4 includes the detailed report about fulfilled activity. To enlarge the window of the report this box is double clicked. A text editor appears on the screen, where the report may be printed. The remaining boxes are processed in the similar way.

Box 5 contains data related to the recommendations made by the MSIF team to the community.

Box 6 contains a very short evaluation of the results of the community activity. For example one can write in this box “Good” “Bad”, etc.

Box 7 contains data regarding participants to the activity on behalf of MSIF and certain comments regarding the participation.

Box 8 includes the list of participants to the activity on behalf of the community along with the respective comments.

Box 9 contains a short comment to the entire activity. This comment appears in the print out in connection with the microproject list of activities.

After entering data regarding the activity, the latter is registered, to mention the fact that the activity was fulfilled. Until this moment the system considers that the activity is a planned one, but not yet completed.

To print out the report of a concrete action the button “Tipar” (Print) is pressed after the selection of the “raportul activitatii” (Report of the activity). This report includes all entered data with reference to this activity. With the assistance of this button option “lista totala a activitatilor” (Total list of activities) may be selected making possible to see short descriptions regarding all activities carried out in connection with this microproject. It also indicates whether the activity was fulfilled or only planned.

The “Monitoring” button from the set of buttons 10 allows monitoring of activities according different criteria: the range of necessary data, fulfilled activities, planned activities. Also the list of activities carried out in connection with all microprojects may also be printed.

3.8. Recording the business trips

The big number of trips made to villages all around the Republic of Moldova constitutes one of peculiarities of the MSIF activity. All trips to the country require recording and automatic processing to make easier the interaction between experts going on these trips and the accounting office. Within MIS system recording of business trips is fully automatic. Each user makes an application for a business trip, which is electronically signed by the Director of the Department and is approved by the Executive Director. After his return from the business trip the user fills in a report regarding incurred expenditures and the accounting office makes the necessary payment.

To be able to work with the business trip programme the CONTABILITATE (accounting) accessory is selected from the main menu and inside the DEPLASARI (trips) accessory is selected. The picture of the working screen is shown in Figure 3.8.1.

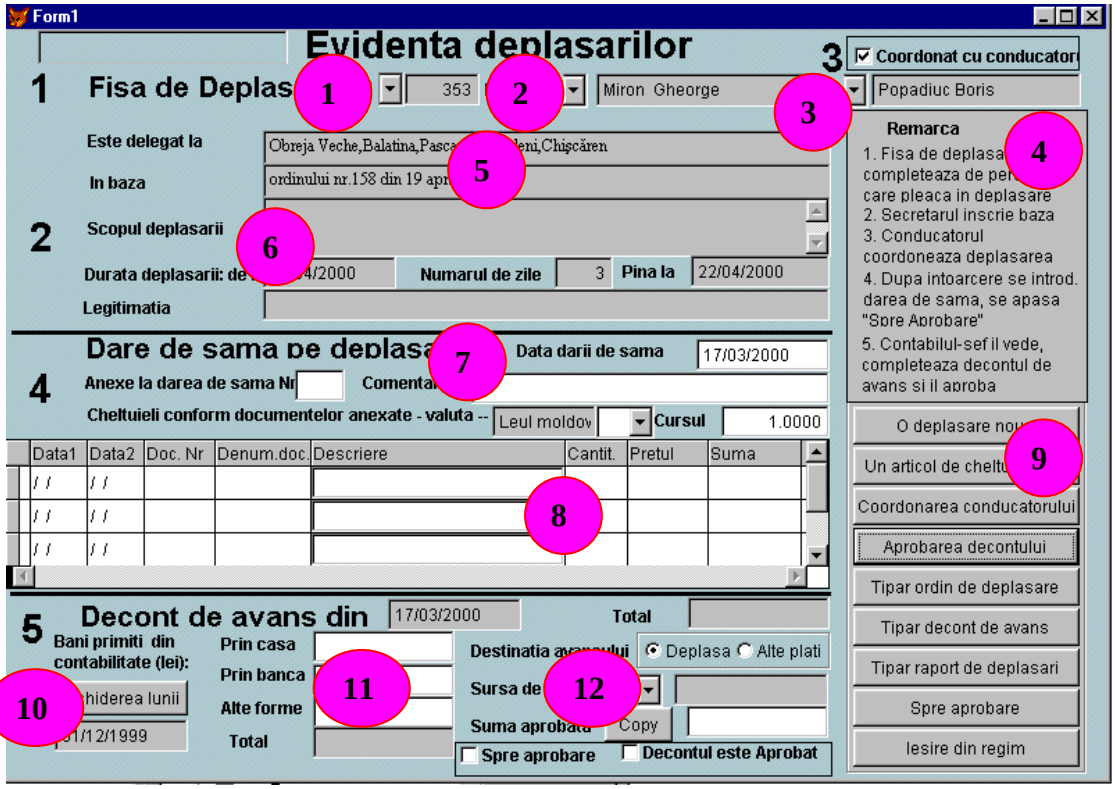


Figure 3.8.1. Recording of MSIF business trips

A short working instruction is given on the screen (the region around circle 4). To add a new business trip, button “O deplasare noua” (A new business trip) from the set of buttons 9 is pressed. With the assistance of hidden list 1 it is possible to select one of the business trips under way. Each business trip has got a unique code – a number. The name and the code of the person intending to go on a business trip is selected with the help of the hidden list. Next data regarding the business trip are entered, namely where does the expert go (circle 5) and the purpose of his trip (circle 6), the number of days and the dates and finally the identity document (licence).

Once this enter was made the business trip becomes known to the secretary who makes the necessary co-ordination with the manager of this respective expert and enters the order based on which the business trip takes place. Co-ordination is done by the Director of the Department, indicating the name, with the assistance of hidden list 3, and later pressing the button Coordonarea conducatorului" (Co-ordination with the manager) from the set of buttons 9. After having been signed as co-ordinated with the manager, data entered up to this moment is secured and can not be modified any more.

Next, the secretary types out the business trip orders (button "Tipar ordin de deplasare" (Print. Trip order) and submits it to the Executive Director for signature. The expert goes for his business trip and when back he makes a report (the region around circle 7). The date when the report is made is entered, the number of annexes to the report (all documents are annexed based on which the expert made his expenditures). If the expenditures were made in another currency than the Moldovan "Leu", then there will also be an entry regarding the currency and the "Leu" exchange rate in respect to this currency.

In grid 8 all forms of expenditures made by the expert during this business trip are entered. Initially 4 rows are envisaged for expenditure items. Whenever there are more than 4 items, one can add a new item by pressing the button "Un articol de cheltuieli" (An expenditure item) from the set of buttons 9. The following data are entered with respect to every expenditure item: the date or interval of dates when the expenditures were made; the number of the document confirming the expenditure and the name of this document; a description of the expenditure and the quantity and price per unit. The system makes an automatic computation of the remaining arithmetic operations.

Once the user has entered data regarding the expenditures he presses button "Spre aprobare" (To be approved) from the set of buttons 9 to inform the accounting office about the operation. The accounting office receives information indicating to the need to make the payment and opens this business trip programme in order to make this payment. The accountant enters the amounts of money that had been given to the expert as advance payment into the text boxes 11, indicates the financing source and presses the button "Copy" near the financing source. At this moment the information from the report is copied out in the approved amount box. Should the report be made in dollars, the amount is transformed into lei at the moment when copying out is done.

The accountant prints out the advance discount, submits it to the Executive Director for approval and then presses the "Aprobare" (Approval) button to indicate that the discount was approved. At the moment of approval the respective accounting transactions are engaged in the accounting office. After approval the data regarding the business trip is secured and can't be modified any more.

To keep an integral recording regarding business trips, the reports can be printed (by pressing the button "Tipar raport de deplasari" (Print report on business trips)) in different ways, for different period of times and in different orders. This allows spotting errors much easier.

One more important thing to mention here. With the assistance of this programme additionally to business trips it is also possible to keep records regarding all types of expenditures, which require advance payments as well as reports for expenditures in cash. To the right of circle 12 there is an option “Deplasari – alte cheltuieli” (Business trips – other expenditures) to help distinguish between business trips and other forms of expenditures.

4. Monitoring

Another important facility offered by the MIS system is the possibility to monitor MSIF activity.

We distinguish the following monitoring forms:

- Monitoring MSIF activity
- Monitoring correctness of MIS information
- Graphical monitoring.

MIS envisages a large set of different reports which allows to do monitoring of MSIF activity. To work in the monitoring programme the MONITORING accessory is selected in the MIS principal menu, and further the MONITORING option. This causes the appearance of the list of reports including the following reports:

1. Register of proposals
2. Stages of a MP
3. Date of implementation of stages
4. Portfolio report – all data
5. Stage of a MP identification
6. Approval and Contracting stages
7. MP stages and indices
8. Budget analysis based on the type of construction
9. The standard portfolio
10. Distribution and consumption of resources
11. List of offers for all contracts
12. Report on an activity for a certain period of time
13. Impact on the local population
14. The report – impact on the beneficiaries
15. Prognosis of the payment of contractors
16. List of companies participating to bidding processes
17. Statistics regarding periods of time elapsed for the fulfilment of stages
18. The MP type along with the most important events
19. Community contribution per districts
20. Analysis of the tender results – total
21. Control of the large delays during a MP cycle
22. Logic control of the MP important calendar dates
23. The list of MSIF contracts
24. Procurement specialist contract in Excel
25. Community contribution – form 2
26. Microprojects dedicated to construction works
27. List of contact persons expected to ensure contact with MSIF
28. The report dedicated to the supervision of the microprojects implementation
29. The report dedicated to the supervision of the MP implementation - Form 2
30. Monitoring stages of the community collection and contracting
31. Approval of the MP package by the EC

To get a report, one should place the cursor on the respective report from the list of reports and press button “executare” (execution) or double click on the name of the report. In case of certain reports there might appear different simple option (foe example the date interval, the financing source, etc.) which are clarified with the assistance of the comments on the screen. Below there is a description of the reports, from the above list, which refer to the monitoring activity. The rest of reports will be analysed in section 4.2.

Compartment 4.1 describes the reports, which reflect the integral activity of the MSIF activity.

4.1. Monitoring MSIF activity

The reports from this compartment follow the aim to reflect with the assistance of indices the MSIF activity I general, without going into details down to a microproject or community level.

4.1.1. (No 10) Distribution and use of resources

This is one page report, which indicates the amount of money (in US dollars) allocated at the county level and totally for the Republic. It shows the number of MP approved for implementation, for contracting, or under construction. It indicates the amounts already paid to the contractors and the amount of money to be allocated in future per each county. Finally it indicates the amount of contribution collected from the county community. With the assistance of this report it is possible to keep records of money in general in order to do management and to make decisions regarding the necessity to intensify or to slow down the activity in a certain county.

4.1.2. (No 12) Activity report for a certain period of time

This report is a review of the progress of works in each county and at the Republic level made in conformity to the model requiring the status at the beginning of the selected period, during the selected period and at the end of the selected period. The number of microprojects is indicated and the respective amounts per different stages of implementation of microprojects: evaluation, approval, collection of contribution, supervision, finalisation, archive storage, rejection. This report is one of the annexes to the annual and semi-annual report, based on which conclusions are made regarding the speed of works in different counties in the Republic and the weak moments in the MSIF activity are seen (from the geographical point of view, per counties).

4.1.3. (No 13) Impact on the local population

This is a report, which includes the main indices per microprojects such as the number of beneficiaries, the cost per beneficiary, the collected contribution, the number of labour days generated by the microproject, etc. The report includes data only regarding finalised microprojects and has totals at the level of the county and the Republic.

4.1.4. (No 14) Report regarding the impact on the beneficiary

This is a report partially similar to the previous one, but includes all microprojects, which are classified according the categories: during evaluation, during construction and finalised. Contrary to the previous reports, data are given only in US dollars here.

4.1.5. (No 15) Payment of contractors prognosis

This report is an attempt to make quarterly and semi-annual prognosis to be able to plan the MSIF activity from the financial point of view. MSIF activity is a very specific one and is connected with a great many of small procurement operations. It deals with construction sites, a process very much dependent on the weather factors. That is why prognosis is very complex. However, the first results were very close to the reality.

4.1.6. (No 16) List of companies participating to the bidding process

The report includes all companies, which participated at least once to the MSIF tenders. Included in this report is the number of participation of a certain company to tenders, number of contract awards and the last won microproject.

4.1.7. (No 19) Contribution of communities per district

This report is a detailed list of collected contribution at the level of the microproject, county, republic. Indicated for each microproject are the cost of the microproject, the planned contribution (including a break up per materials, labour, equipment, money) and the same indices for the collected contribution. Also the percentage of planned and collected contribution is shown. This report facilitates monitoring of the contribution collection.

4.1.8. (No 20) Analysis of the results of tenders. Total

This is a report including total figures regarding each held tender. Information regarding estimated cost by MSIF is included here and the cost as received as a result of tenders, the number of companies participating to the tender, the number of the contract, the company winner, etc.

4.1.9. (No 23) List of the MSIF contracts

Includes a list of all MSIF contracts that may be ranged and classified in different sections, depending on the period when the contracts were signed, the types of the contracts, the types of microprojects, etc. This report can also be printed from the screen of contract signing.

4.1.10 (No 25) Community contribution – form 2

The report contains more concise information compared to the report indicated in 4.1.7. The report includes information on the price decrease during the tender, the percentage of the collected contribution in respect to the planned one. This is one of the most frequently used reports by the representatives of the Government of the Republic.

4.1.11. (No 27) List of contact persons ensuring the contact with MSIF

This is a list of microprojects classified per counties and in an alphabet order. It contains data regarding the types of the microproject and other detailed data about the Implementation Agency, such as the telephone number, address and name. The MSIF experts use the report to make telephone calls or to send letters.

4.1.12. (No 31) The MP package approved by the Executive Committee

This is one page report with data about the structure of the portfolio. It indicates the number of microprojects at approval, evaluation, contribution collection, contracting, finalisation, rejection or archive storage. This report is an useful instrument for the activity planning. For example, if during the contracting stage there are few microprojects, this means that very soon there will be less microprojects at the construction stage.

4.2. Monitoring of the portfolio during different stages of microprojects

This group of reports allows a more detailed supervision of microprojects, even at the level of a single stage. For example, the Approval and Contracting report keeps records only of the microprojects at these stages. The specialised reports refer to a smaller number of microprojects and a larger range of specific indices may be brought for this stage.

4.2.1. (No 1) Register of proposals

This is a simple list of the microprojects with data that become known at the moment of the registration of microprojects, such as the date when the General Assembly was held, the date of registration within MSIF, the place, the type, the type of the construction. This is meant for general and transparent information. Ranging per counties is useful for the county authorities, making possible to learn which village has submitted proposals to MSIF and the type of these proposals.

4.2.2. (No 2) MP stages

This is a list of microprojects allowing to show the stage of microprojects per county: what stages are behind and which ones are under implementation at present.

4.2.3. (No 3) Date when a stage is being implemented

This report is equal to the previous one. However there is a special peculiarity. Fore every stage it shows the date when this stage took place. This report allows monitoring of microprojects from the calendar point of view and makes possible the identification of microprojects in case of which there is a substantial delay between the stages.

4.2.4. (No 5) The MP identification stages

This is a report indicating the specific data for the identification stage. Only microprojects that are at the identification stage are indicated in the report. The report is used to keep records of the microprojects during this stage and to identify the delays.

4.2.5. (No 6) Approval and Contracting stages

The report includes the list of microprojects that are at the approval and contracting stages. With the assistance of the report it is possible to identify the delay of the contribution collection and also to avoid the possible “forget” to move the microprojects forward. Two possible dates are indicated – the deadline of the contribution submission. Once the first deadline expired – the limiting deadline is shown, after which the microproject may be transferred to the archive.

4.2.6. (No 11) The list of offers for all contracts

The report contains detailed data regarding each held tender for MSIF microprojects. In case of microprojects when two or more tenders were held, the valid

number of tenders is shown. Information regarding each proposal is included here, such as the address, the declared amount and the one estimated by MSIF, as well as the bidding results, such as the winning company, the percentage of reduction, etc. The procurement expert and the Implementation Agencies that want to invite companies to participate to the bidding use this report.

4.2.7. (No 7) The MP stages and the indices

This is an analysis of the microprojects from the several points of views: per types and per counties. The amounts and the number of microprojects at every possible stage are shown with respect to each microproject. With the help of this report it is possible to obtain information for the MSIF reports and to plan the activity during winter period of time, because construction works during winter period strongly depend on the type of the microproject.

4.2.8. (No 8) Analysis of budgets depending on the type of construction

This classification is different from the official classification according the types of the microprojects. Microprojects are classified depending on the type of the construction. For example, within the same category "schools" different types of construction works may be. Could be renovation of the roof or of the heating system. This report has got special indices, such as: the cost of a construction unit (a square meter of the roof surface, a square meter of the gas pipeline at medium pressure, etc.) and the average length of construction in respect to the number of units. With the use of this report some average statistical data may be obtained and based on this data a comparison of constructions can be made.

4.2.9. (No 9) The standard portfolio

This is one of the most frequently used reports. It contains rather detailed data about each microproject. The microprojects are classified per counties or per microproject cycle stages. The following data are indicated for each microproject: the name, place, type, estimated and current costs, the number of beneficiaries and the cost per beneficiary, the collected contribution, its percentage, the contract and the contractor. It is indicated the stage the microproject is at present and is possible to enter comments to explain the reasons why a microproject is at this particular stage. This report is done in two languages and is used by the administration of the counties, the journalists and leadership of the Republic. It is also used during all county seminars.

4.2.10. (No 26) Monitoring microprojects during their construction stage

It is a frequently used report. It contains reports referring to a construction under way and reports referring to finished construction. Important indices for this stage are included into the report, such as estimated and current cost, the cost decrease or increase percentage, the name of the contractor and the cost of the contract, the percentage of implemented money and percentage of elapsed time since the beginning of the construction. It is used by the Microprojects Department to monitor status of affairs in microprojects during their construction stage and to prevent substantial delays.

4.2.12. (No 29) The report regarding supervision of the microprojects implementation – Form 2

It differs from the previous report by having a smaller number of indices. Only the very necessary indices are left with the purpose to make the report concise. The report is used rather frequently to supervise the terms of implementation. The report contains the terms of the contract, namely: the start, the end and the real finalisation. A more precise monitoring of delays is possible with the assistance of graphical monitoring, which is described in compartment 4.4.

4.2.13. (No 30) Monitoring of contribution collection and contracting stages

The report contains another version of the report from 4.2.5. The report contains data regarding the approved amount and the current one, the terms of the approval, the collection of the contribution, the date when the tender was held (hour when the envelop was open), the planned and collected contribution. It is indicated the stage the microproject is undergoing at present. Once the contracting stage is over the microprojects are excluded from the report and are transferred to the group of supervision reports.

4.3. Monitoring correctness of MIS information

The reports from this compartment are expected to facilitate conductance of some studies of MIS data for different purposes, namely: to obtain statistical data regarding MSIF microprojects, to spot the weaknesses in the microprojects cycles, to identify the microprojects with delays or violations, to control how well the users keep the MIS data.

4.3.1 (No 17) Statistics regarding intervals of implementation of stage

This is an instrument allowing doing measurement of time intervals (average value and the variation coefficient) between any sub-stages of the microprojects cycles within MIS. Only the microprojects that went through both stages are taken into consideration. Studies can be done for different categories of microprojects: per counties, types, engineers responsible for the projects. With the assistance of these measurements comparison can be done and bottlenecks can be identified in these area.

4.3.2. (No 18) Printing out the MP along with the important events

This report informs about the most important events, which take place during a microproject cycle. With the assistance of this report it is possible to keep under control the peculiarities of a microproject. The following calendar events are analysed:

- Whether a MP is ready to be approved by the Executive Committee for the first evaluation stage
- Whether a MP is ready to be approved by the Executive Committee for the second evaluation stage
- Whether the microproject needs design works
- Whether a MP is ready to be approved by the Executive Committee for the implementation
- Whether the contribution collection process has started
- Whether the contribution collection process is over
- Whether a MP is ready to be approved by the Executive Committee for the second

This report is widely used for management purposes to ensure that the users keep data in MIS. For example the microproject is excluded from the EC agenda, should it not appear in this report at the respective stage. Appearance in this report is a proof that the microproject is correctly entered into the system.

4.3.3. (No 21) Control of big delays in the MP cycle

Based on the previous report measurements of the average magnitude were done for the most important segments of the microproject cycle. These magnitudes were used as comparison items to determine those microprojects that are facing big delays at certain stages. The system allows to introduce the delay degree compared to the average magnitude. Should no modifications be done then the user prints out those microprojects that stay at a certain cycle more than 30% than the MSIF average

magnitude. With respect to each microproject, additionally to the identification information of a microproject, such as the MP code, the name and the settlement, also the following data are given: the expert responsible for this microproject at this particular moment, length of stay at this segment and the percentage in respect to the average. Every engineer can identify his microprojects and undertake the respective measures. In order to avoid a complication of the real picture of the situation the microprojects, which are not active need to be sent to the archive.

4.3.4. (No 22) Logic control of a MP important calendar data

This report is used to identify certain violations in microprojects processing with the assistance of a logic analysis. The following cases are analysed:

- the date of advance payment has expired
- the date of quality date has expired
- the date of finalisation f works according the contract has expired
- the date of conductance of tender has expired
- The date for submission of acts regarding completed works exceeds one month
- Construction has started, but the plan-schedule is not entered
- Contribution is shown as being brought, however, the collection is entered as <100%

In case of an error the system indicates the magnitude of a deadline expiration (or the amounts) and the responsible person for the microproject at this particular moment. Meeting the requirements of this report has lead to an essential increase of quality of MIS data.

4.3.5. Payment requirements to the accounting office

When a certain payment is registered in MIS, information about this payment requirement appears in this report. The accounting office uses the report on daily basis to see what payment requests need to be made. Information about the following payment requests is submitted:

- Advance payments for business trips or according the report for this business trip
- Discounts as advance payment for different procurements for cash money
- Advance payment to the contractors in conformity to the construction contracts
- Payment for the completed construction works
- Payment for the quality guaranty
- Payment for design works
- Payment for the local supervisor
- Payment for the expertise or other consulting services for a microproject
- Payment for announcements placed in newspapers.

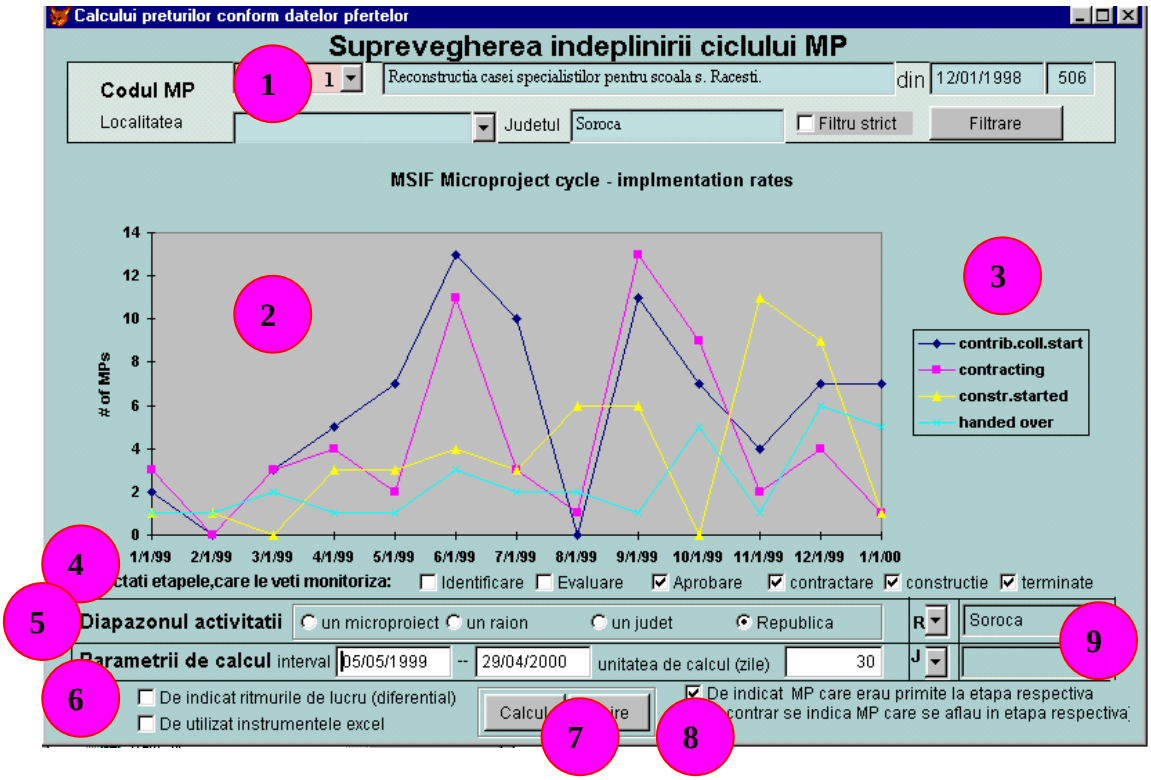
Based on this report an accountant opens these respective programmes, checks the correctness of the information and approves the payment, which immediately is transferred in the accounting system as shows as a transaction form.

4.4. Graphical monitoring

Monitoring of processes in a graphical way is one of the efficient methods used to ensure rules observance and to spot bottlenecks in the MSIF activity. There are two graphical monitoring in MIS: based on the number of microprojects and based on the money amounts. These reports are on the monitoring window, on another page.

4.4.1.Monitoring based on the number of microprojects

This is a report that gives the graphical view of the number of microprojects at different stages of the microproject cycle. The picture of the working window is



shown in Figure 4.4.1.

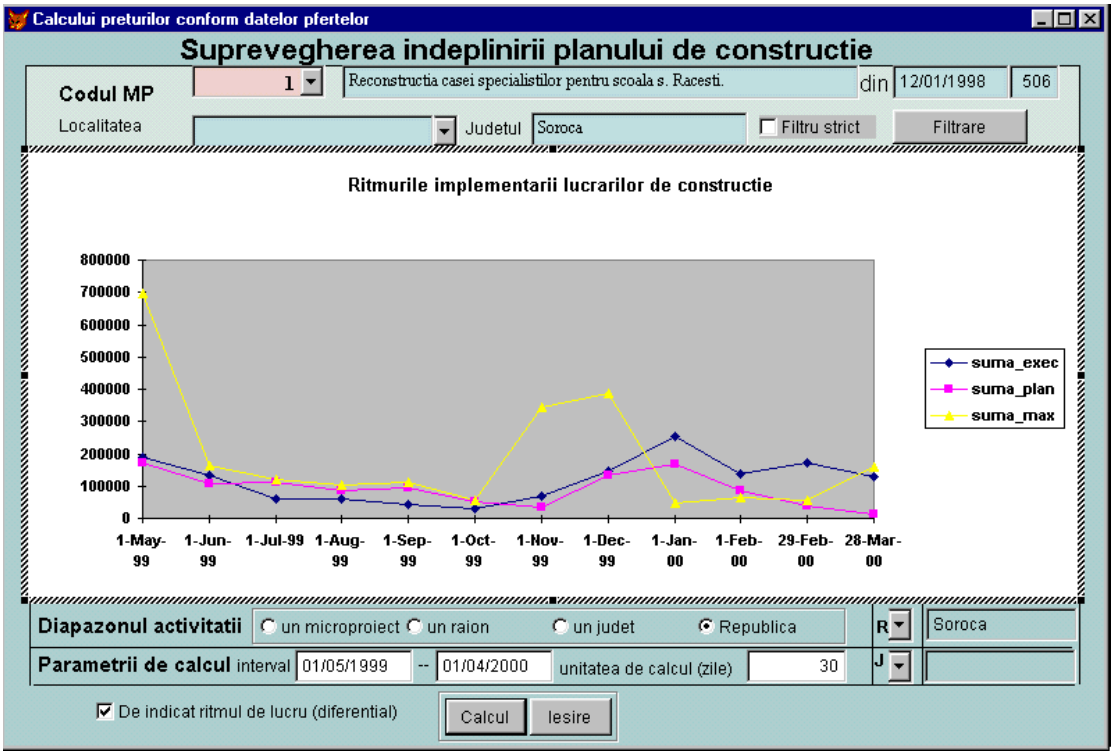
Figure 4.4.1. Monitoring of microprojects at different implementation stages

Selection of the added up range is shown in region 5: it might be the search of a microproject, on a county basis or in the republic. The most spread programme is the "on the Republic basis" programme and is used for reports about the MSIF activity. Also the time period is selected for which an activity schedule is developed and the accurateness (in days) period of data presentation. In the example shown in the Figure the need to develop a schedule for period of time May 5, 1999 through April 29, 2000 is shown with dots at every 30 days. In region 6 there is a possibility to show the activity progress (cumulative) or only the cycles (microprojects within the selected period of time). With the assistance of the hidden list 9 we select the necessary county if we chose a particular county. If we chose the option to work with a particular microproject we select this microproject from list 1.

Graphs for different stages may be shown on one and the same window. Indicators in region 4 allow selecting the stages for which the graph is to be developed. Connector 8 facilitates a deeper detailing, namely to show the microprojects that used to be in that period of time, at that particular date.

Once the configuration of the request is done button "Calcul" (computing) from the set of buttons 7 is pressed. The calculated graphs appear in region 2 of the screen and in region 3 the legend of graphs appears. Double click on region 2 maximises the graph and allows its copying out with the purpose to transfer it to other reports.

4.4.2.Monitoring of the financial aspect of the microprojects



The picture of this screen is given in Figure 4.4.2.

Figure 4.4.2. Monitoring the use of financial resources

The configuration options are described in compartment 4.4.1. Three graphs are given in this report: amounts (in US dollars) for the completed works, the planned amounts and the amounts for which contracts had been signed. These graphs may be used to spot the delays and to avoid possible delays.

Annex 1
(attached)