1. Basic Information

1.1 CRIS Number: PHARE 2003/005-551.02.01

1.2 Title: Multi-annual Programme for Implementation of the Cadastre and Real Property Rights Registration System in Romania – Phase 1 – Annual Phare Project 2003.

1.3 Twinning component: RO03/OT/03

1.4 Title: Multi-annual Programme for Implementation of the Cadastre and Real Property Rights Registration System in Romania – Phase 1 – Annual Phare Project 2003

- Duration: 14 months
- Budget: 1.20 M€

1.5 Sector: Public Administration and Justice

1.6 Location: Romania, the National Office of Cadastre, Geodesy and Cartography (ONCGC) and the Ministry of Justice (MJ).

2. Objectives

2.1 Overall Objective:
The overall objective is represented by the development and implementation of a secure, unitary, integrated and cost efficient system of cadastre and real property rights registration.

The follow up of the Overall Objective will be done through Multi-annual Programme for Implementation of the Cadastre and Real Property Rights Registration System in Romania, as described in Annex 5.

2.2 Project purposes
Support the development and implementation of a secure, unitary, integrated and cost efficient system of cadastre and real property rights registration in order to:

1. Increase capacity building, joint management coordination, QA and production management
2. Improve regulatory framework in order to force simplification, standardization and unification of registration systems and links with other public registers
3. Speed up the quantitative implementation of the system

The project purpose will be followed up and implement through three project components.

2.3 Accession Partnership and NPAA priority
The European Convention on Human Rights requests to Governments of the Member States and of countries in the pre-accession process to comply with the protection of rights on real property.

The multiannual programme for Development of the Cadastre and Real Property Rights Registration System in Romania is designed to fulfil its role in the Pre-Accession Economic Programme and supporting programmes such as:

- The Government’s strategy concerning the acceleration of Public Administration Reform, covering the period 2001-2004 (PAR, Document of 2001);
- The Governments strategy for The National Action Plan “Informatizare a Administratiei Publice (IAP)”, E-Administration, (IAP, Document 2001);
- The National Plan for Agriculture and Rural Development (NPARD)

The Pre-Accession Economic Programme requires contributions from the cadastre and real property rights registration strategy to achieve improvement in the business environment and foster new investments in the private sector. The completion of land restitution and the creation of a functional land market are top priorities in the preaccession policy, and so are the efforts to create transparency and stability in the land market. Furthermore, the regularisation of the real property rights registration and information systems in Romania will provide a basis for an
enlarged tax basis and a more efficient tax administration and collection, a priority of the PAEP. The Public Administration Reform is the cornerstone in improving the business environment and foster investments. Speeding up transition to the information society is expected to dramatically enhance overall economic productivity.

In the 2002 regular report on Romania’s progress towards accession issued by the EU-commission on October 9, 2002, the need for judicial reforms, and investments in the cadastre and property rights registration system is underlined (ref. to pp. 129, 70, 74).

3. Description

3.1 Background and justification:

In the course of history, different forms of registration of real property rights have been developed in Romania; at one historical point of time four different land registration systems existed on the territory of present day Romania. Presently the most important distinction is between the areas, where the deed registration system of inscription/transcription has been in force, and areas in Transylvania with the old land book system, the latter covering approximately 42% of the area of Romania.

After 1989 a complexity of laws on land reform and privatisation in Romania have been instituted. Privatisation has been based on a patchwork of laws and regulations in different versions governing different types of properties, agricultural land, forest, apartments, etc. The restitution and privatisation process is still ongoing but is expected to be completed in 2004. In 1996 the General Cadastre and Land Registration Law (Law 7/1996) was adopted with the objective of establishing a unitary and compulsory system of the real property registration, from the technical, juridical and economical viewpoints.

The main institutions in charge with the implementation and operation of the cadastre and real property rights’ registration system - authorised according to the Law 7/1996 with subsequent modifications - are the National Office for Cadastre, Geodesy and Cartography (ONCGC) and the Ministry of Justice (MJ) through its judiciary branches. The ONCGC was established in 1996 pursuant to the law, and acted in parallel with the activities of the Ministry of Agriculture until 2001, when the Government of Romania decided to establish a single national office for cadastre responsible for the correct and concrete enforcement of the Land Fund Law (Law 18/1991) and the Cadastre Law, ref. to Urgency Ordinance 70/2001.

Given the fact that – following the Central European legal and institutional tradition – Romania separates the functions of identification of the real property through the National Office of Cadastre, and the registration of rights on those identified objects through the Land Book offices at the courts, a co-ordinated development of the total process of registration requires joint management between the two institutions.

Both institutions, the ONCGC and the MJ, have developed or are in the process of developing co-ordinated long term strategies for the implementation, maintenance and management of an integrated cadastre and real property rights registry system.

The implementation of the system according to Law 7/1996 is difficult, and during the transition phase the situation is particular complex. In the old land book areas Law Decree 115/1938 is still in force until a total judet has been systematically registered. Procedures under Law Decree 115/1938 are outdated and out of the procedural control and supervision of the ONCGC with the consequences that transactions in the land book are unidentified by the cadastre. The land book offices use old maps and identification systems. The lack of procedural and technical standardisation of the system leads to major difficulties in the operation of the County Offices of Cadastre, Geodesy and Cartography (OJCGC) and of the Land Book Offices (BCF) in these areas. The unification and standardisation of the procedures at national level will improve and unify the cadastre and land registration subsystems.

The cadastre and land registration system has come into functioning long after the land reforms and privatisation were initiated, and the registration is therefore lagging behind. The output of the land reform and privatisation process is fractionated and no single Governmental Agency or Ministry has a complete overview of the situation of possession and ownership of real property. The cadastre and land registration system does not only have a function of integrating the scattered records on properties into a unified system, it also carries the burden of cleaning up and reconciling the theoretical legal situation described in those documents with the real situation in the field.

Therefore the ONCGC together with the Ministry of Justice, Land Book offices, are now carrying the heavy burden of creating a reliable cadastre and land registration system, which
can install confidence of all users in its recordings, administrative functions and the legal protection of the system.

The implementation of the national programme for implementation of Law 7 is a massive undertaking and it requires EU-Phare support in order to accelerate the work and achieve acceptable coverage within the pre-accession period.

### 3.2 Linked activities:

The following projects have been identified within the cadastral and land registration activities (minor projects not included):

<table>
<thead>
<tr>
<th>Title or subject</th>
<th>Project organisation</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Reform (supporting privatization of former collective farms under Law 18)</td>
<td>EU-PHARE Land Reform project, 1992-97</td>
<td>Completed</td>
</tr>
<tr>
<td>Densification of the Geodetic Network using GPS receivers to strengthen geodetic control and facilitate use of GPS technology</td>
<td>USAID, 1994-96</td>
<td>Completed</td>
</tr>
<tr>
<td>Land titling pilot in two judets to test the technology and organizational procedures for land registration</td>
<td>EU-PHARE Pilots, 1995-96</td>
<td>Completed</td>
</tr>
<tr>
<td>Drafting Regulations for Land Registration</td>
<td>Canadian International Development Agency, 1996-97</td>
<td>Completed</td>
</tr>
<tr>
<td>Defining a strategy for the ONCGC</td>
<td>Canadian International Development Agency, 1996-97</td>
<td>Completed</td>
</tr>
<tr>
<td>World Bank-financed: Revision of aspects of the land laws that impede land market development</td>
<td>ASAL, July 1997</td>
<td>Completed</td>
</tr>
<tr>
<td>Improving the land valuation expertise in Romania</td>
<td>EU-PHARE, 1997-98</td>
<td>Completed</td>
</tr>
<tr>
<td>General Cadastre and Land Registration Project</td>
<td>IBRD, World Bank co-financing, 1998-2003</td>
<td>Extension is under negotiation</td>
</tr>
<tr>
<td>Municipal Cadastre and Public Registration in Sighisoara and Odorhei</td>
<td>D-GTZ, Romanian government 1999-2002</td>
<td>Expansion is under negotiation</td>
</tr>
<tr>
<td>Assistance for Establishing a National Center for Remote Sensing, Romania (Matra)</td>
<td>French Government loan, Romanian government, 18 month</td>
<td>Loan-agreement not completed</td>
</tr>
<tr>
<td>Inventorying of covering and utilisation of lands by remote sensing, for the agriculture’s reform</td>
<td>FAO financed (223 000 USD) project for MAAP</td>
<td>Start in 2002 end in 2003</td>
</tr>
</tbody>
</table>

The present programme is building directly on the achievements of the on-going project, the “General Cadastre and Land Registration Project”, co-financed by the World Bank, hereafter called the WB-project, which is by far the most important project currently under implementation for cadastre and land registration in Romania. The project has laid the groundwork for introduction of new methods for both the cadastre and the real property rights registration sub systems. In particular there has been reached acceptance of the use of digital orthophotos as base maps for cadastre, and the concept of cadastral index mapping has been introduced and agreed as an approach to mass registration. Cadastral index mapping has been executed in parts of Dambovita judet (covering about 90%) and of Prahova judet (about 30%), which will permit a further refinement of the specifications and optimizing the methodology in the following works.

The current status is that while the World Bank project is nearing its end, it is at the same time gaining momentum in its last phase through significant contracts for IT-equipment and system, orthophoto mapping and cadastral index mapping as a part of a mass registration approach. Computerisation has reached most offices of cadastre and major land book offices; some training activities have been conducted; the sporadic registration activities according to Law 7 have accelerated; and mass registration methods have been developed. It is also clear that the assistance provided by the WB-project has only partially covered needs and been instrumental in the initial phase of the reform, but the country wide
implementation of Law 7 is still a challenge for the future. The institution building objectives of the WB-project were not achieved, e.g., for reasons of unstable organizations during the years 1998-2000, or non-availability of necessary counterparts. With the WB-project nearing its end, and with much valuable preparation and development work having been laid down, possible assistance to this sector from the EU will phase in well with the out-phasing of the WB-project during 2003-2004.

At the end of the World Bank Joint Portfolio Review (March 2003) WB and Government of Romania agreed for General cadastre and Land Registration project on the following actions:

- Amend Loan Agreement to restructure Project management;
- Sign contracts for the new PMUs staff;
- Provide adequate logistic support (office and equipment) to the new PMU in MJ;
- Procure TA to develop strategy and vision for the future of the Land Book activity in cooperation with the Cadastre function;
- ORNISS to revise criteria and procedures for authorising aerial surveys.

Discussions at expert level regarding responsibilities between ONCGC and Ministry of Agriculture, Food and Forests, in LPIS establishment and implementation are started and it is planned to be end with a high level signed protocol in the second quarter 2003.

3.3 Results:

Component 1

1. Management, planning, QA and monitoring systems developed and functioning with monthly updates including all offices of partner institutions;
2. Joint management structures strengthened at national and local levels between the partner institutions;
3. Training programmes and courses designed and prepared for countrywide capacity building; training of managers, trainers and of specialists, study visits conducted;
4. Harmonised, simplified and standardised procedures and standards; including standardisation of definitions and formats of identifiers and key data for all types of real properties and entities;
5. Proposed amendments of legal framework required for harmonisation and for systematic registration and dispute resolution;
6. Analysis of user requirements and significant improvements in delivery of services;
7. Proposed strategies and action plans to optimise the services of partner institutions to major user groups;
8. Inventory of relevant data in other registers/other organisations - Proposals on principles of data exchange, pricing of services, and formal agreements with cooperation partners;
9. Proposals for use of cadastre and real property rights data for property valuation and taxation;
10. Proposals on role of cadastre and real property rights data in building the IACS-LPIS.
11. Economic analysis of the cadastre and land registration sector;

Component 2

1. Updated design and specification of national IT-system (based on experience with sites in operations financed by World Bank Project);
2. Integrated production planning and monitoring system in place with monthly updating of operational plans and reports;
3. Proposed strategies, and methods for digital conversion and migration of key data of Land Book offices;
4. Proposed strategies, and methods for conversion of old Land Books to Law 7, and for systematic registration in general;
5. Public campaign methodology and material prepared; campaigns conducted in support of the mass registration activities;

Component 3

1. Cadastral and Land Book offices equipped for mass registration and general IT-infrastructure for data and system management matches capacity requirements for mass registration;
2. Acceleration of establishment of ground control for cadastral works co-ordinated with mass registration planning;
3. Acceleration of determination and surveys of administrative and intravillan boundaries;
4. Cadastral index mapping of high priority areas (Ilfov /Bucharest and of pilot area in old land book area, in total about 2500 sqkm).
5. Base mapping for cadastre increased with 27000 sqkm.

3.4 Activities:

**Component 1**

1. Assistance for development of co-ordinated management, planning, QA and monitoring systems;
2. Development of regional management structures, and the co-operation between cadastral and land book offices with special attention to the old land book areas;
3. Design and implementation of capacity building at both national and local levels;
4. Administrative procedures simplification, harmonisation and standardisation;
5. Develop new norms, instructions, manuals for standardisation based on accumulated experience;
6. Review and prepare adaptations of the regulatory framework in support of the programme;
7. Review and draft procedures for and agreements on data exchange and data access;
8. Explore and analyse the requirements of major user groups; prepare strategies and action plans to provide and optimise the services to major user groups;
9. Improve user services;
10. Support compatibility of data of the cadastre and land registry with other basic public registers;
11. Explore the formal and practical realisation of the obligations of the cadastre and land book system in respect to property valuation;
12. Develop proposals on improvements of local tax rolls based on new cadastral and land registry data and for future mass appraisal;
13. Analyse and support the development of local co-operation between OJCGC’s, land book offices, county, communes and city authorities for the future land administration;
14. Assist with developing co-operation with the Ministry of Agriculture on necessary services and data for e.g., IACS, and structural development
15. Assist with developing co-operation with other Ministries for exchange of data and for development of sustainable land management;
16. Implement an economic analysis of cadastre and land registration including related revenues (property taxes e.g.), and review transaction costs;
17. Prepare proposals on principles of data exchange, pricing of services, and formal agreements;

This component shall be entirely implemented through a twinning project (contract no. 1). All activities will be implemented through common work of the Member State and Romanian experts. The Romanian project management shall take responsibility in corellating all three components. A special attention shall be focus on corelation of twinning contract with component 2.

**Component 2**

1. Assist the ONCGC and the MJ in updating the specifications for the IT-infrastructure and strengthening general IT infrastructure for data and system management;
2. Assistance for integrated production planning, QA and management for mass registration;
3. Support for methodology development and execution of pilots on conversion of records of Land Book offices;
4. Methodology development and pilot for systematic conversion of old land book areas to Law 7;
5. Methodology support and training for systematic registration;
6. Preparation of incentives, public information and public campaigns in support of mass registration

This component shall be implemented through one technical assistance contract contract no.2). The appropriate qualified contractor shall be selected using Phare rules of tendering.

Component 3

1. Support the MJ with completing computerization of land registry offices sufficient for basic operations and mass registration;
2. Support the ONCGC with completing computerization of cadastral offices sufficient for basic operations and mass registration;
3. Cadastral index mapping of high priority areas;

This component will be implemented through a supply contract (contract no 3, with two lots) and a technical assistance contract according to Phare tendering rules (contract no. 6).

Additional to Phare support for this component, two government financed contracts, one for the procurement of 27 000 sqkm of digital orthophotoplans, scale 1:5000 and the other for IT equipment supply contract for the Ministry of Justice will be implemented. The two additional contracts will be therefore:
4. Aerial Photography and orthophotomapping of 27 000 sqkm (contract no. 5)
5. IT supply contract (contract no.4).

Twining requirements

The Pre-Accession Adviser must meet the following requirements:

A Tasks:
- The PAA will commence his/her work at the ONCGC and MJ and will continuously accompany the implementation of the project, together with the project team.
- S/he, together with the SPO and DSPO, will co-ordinate the activity of experts assigned to the project.

B PAA Profile:
- S/he should have at least 10 years experience in cadastre and land registration in a member state and should have worked in a central cadastre or land book authority structure for at least 3 years.
- S/he should be able to quickly adapt to local environment and understand the constraints and opportunities of it.
- S/he should have usual office type computer skills.
- S/he should have sound knowledge of relevant regulations and policies of the European Union specially in the field of land policy and land registration;
- S/he should have sound communication skills and previous experience of working in a multi-disciplinary and multi-national team;
- S/he should have previous experience as project co-ordinator /project manager;
- S/he should have sound knowledge of English.

The PAA is expected to ensure a presence in Romania for 16.5 months along the project implementation period.

3.5 Lessons learned:
The present programme is based on a long experience with developing the cadastre and land registration system in Romania, which has been ongoing since the passing of the Law 7 in 1996. From past experience it is clear that unstable organisations, bureaucracy and lack of efficient management structures have been the main cause of previous implementation problems. The current programme is focused on addressing the need to build management capability during its first stage, and it has been designed on the precondition that the overall
structure of operational project management is in place to ensure co-ordinated management between and within each of the two partner organisations, the National Office of Cadastre, Geodesy and Cartography, and the Ministry of Justice. One of the necessary adjustments of current practices is to institute delegation of necessary power to operational levels. Likewise, on the background of lessons learned, the present programme requires a commitment by the partner organisations to resolving the capacity problems in key functions creating bottlenecks, such as the insufficient staffing of IT-management and implementation functions. The programme will assist in strengthening the organisations through capacity building programmes.

4. Institutional Framework

According to the Law 7/1996 with its subsequent modifications, the institutions subordinated to the Government of Romania in charge with the implementation of cadastre and land registration system are the National Office for Cadastre, Geodesy and Cartography (ONCGC) and the Ministry of Justice (MJ). In each county there are local offices under the authority of both agencies. These local institutions are in charge with the achievement of technical and real property rights registrations. Theoretically there are an average of 4 Land Book offices (BCF) in a county, one of these being located in the municipality of the county. Currently are operating at national level 186 courts of law, each of these having one land book office. In the Ministry of Justice the department for ‘Movables, Real Property Rights Registration, and Public Notaries’ and the Land Book Offices are responsible for the implementation of Law 7 and for overall management of the land book offices.

There are 42 county cadastral offices (OJCGC) and these are located in the municipality of the county. Subordinated to ONCGC is also the Institute of Cadastre, Geodesy, Photogrammetry and Cartography (ICGFC), an institute with considerable resources in charge of research and production in the mentioned areas.

The National Office of Cadastre and its subordinate branches like the Ministry of Justice and the Land Book offices suffer from lack of sufficient capacity both in key functions and general implementation capacity. The situation is particular severe in many land book offices, where there can be encountered a lack of the most basic space, facilities and resources. In the land registry courts, technical resources have to be provided to enable judges and their staff to work efficiently and accurate.

The implementation capacity of the cadastre subsystem will depend on increased participation and contribution from the Institute for Cadastre, Geodesy, Photogrammetry and Cartography (ICGFC) in mass registration, data integration, system support and management, etc. Therefore the ICGFC will be supported through the programme.

The success of the programme is dependent on government attention to the retirement of staff, filling in of key positions and additional staff where severe understaffing is encountered. Implementation of the cadastre and real property rights registration system will be eased by outsourcing of some implementation activities financed by the programme. The investment activities in question concern orthophoto mapping, cadastral index mapping and certain aspects of conversion of data in Land Book offices. The contracts concerning mapping will be managed by the ONCGC, while the outsourcing of the data conversion contracts for the Land Book offices will be managed by the Ministry of Justice, which is also obliged to ensure the appropriate legal basis. The resulting data will be under the responsibility of the respective organisation.

Investments in IT-infrastructure and equipment financed through the EU-Phare programme will in a similar way be managed and owned by the respective organisations.

5. Detailed Budget

<table>
<thead>
<tr>
<th>Phare</th>
<th>Support</th>
<th>Investment Support</th>
<th>Institution Building</th>
<th>Total Phare (I+IB)</th>
<th>National Cofinancing*</th>
<th>IFI*</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Twinning</td>
<td>1.200</td>
<td>1.200</td>
<td>1.200</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technical Assistance Contract</td>
<td>1.500</td>
<td>1.500</td>
<td>1.500</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.1. Detailed twinning budget (EURO)

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>PHARE SUPPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Building</td>
<td>MEURO</td>
</tr>
<tr>
<td>Long-term assistance and overall twinning project management including long term assistance for Joint Management ONCGC-MJ a(PAA)</td>
<td>0.380</td>
</tr>
<tr>
<td>Medium-term assistance</td>
<td>0.485</td>
</tr>
<tr>
<td>seminars, workshops and study visits</td>
<td>0.500</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1.365</td>
</tr>
</tbody>
</table>

6. Implementation Arrangements

6.1 Implementing Agency
The Central Finance and Contracting Unit within the Ministry of Public Finances is the Implementing Agency, having responsibilities for procedural aspects of tendering, contracting and payments.
Contact detail: PAO - Mrs. Jeana BUZDUGA, General Director, CFCU, 6-8 Magheru Blv sector 1, Bucharest, phone no.4021/210 64 26, 4021/210 62 20, fax 4021/210 64 56

6.2 Implementing Authority
The National Office for Cadastre, Geodesy and Cartography (ONCGC) and Ministry of Justice (MJ) are the implementing authorities. A Project Steering Committee comprising senior representatives of implementing authorities will be set up for the project management. The Ministry of Public Finance will also take part in the Steering Committee given the use of both cadastre and the land books as instruments used for taxation purposes. The PSC will monitor, supervise and co-ordinate the overall progress and implementation of the project and will provide guidance for the different sub-components of the project, will approve the results and will define priorities.
For detailed implementation of the project the implementing authorities will be represented by a person named as Senior Programme Responsible (SPO). SPO and a person named as deputy program responsible (DSPO) are responsible for technical implementation of the project according with the PHARE provisions, regulations and procedures.
A Project Implementation Unit (PIU) in order to assist PAO in the technical implementation of important sections of the program according with the PHARE provisions, regulations and procedures follow to be established based on PSC decision. Project Implementation Unit (PIU) follows to ensure the technical support and the auditing for program implementation.
Name SPO: Mr. Traian CONSTANTINESCU,  
The National Office for Cadastre, Geodesy and Cartography (ONCGC)  
202 A Splaiul Independentei, Bucharest, Sector 6, Romania  
Tel: +40 21 310 01 90  
Fax: +40 21 222 52 24

Name DSPO: Ms. Anca TAMAS  
The Ministry of Justice  
17 Apolodor Street, Sector 5, Bucharest, Romania  
Tel: +40 21 313 60 46  
Fax: +40 21 313 60 46

6.3 Twinning
The National Office for Cadastre, Geodesy and Cartography (ONCGC) and Ministry of Justice (MJ) are the Implementing Authorities for this component.
Commitment:
The Romanian beneficiary institution will provide:
• Adequate human resources to implement the twinning project together with the twinning partner, in accordance with the agreed Twinning Covenant.
• Facilities necessary for the implementation of the twinning (offices, computers, printers, telephones, access to Internet);
• Funds to cover the travel costs of the Romanian personnel in the context of training or seminars in the country.

6.4 Non-standard aspects
The project will be managed according to the Practical Guide to PHARE, ISPA & SAPARD contract procedures, therefore there are no non-standard aspects.

Two contracts will be excepted from Phare procurement rules. These two contracts shall be financed 100% from government funds and national procurement rules shall be apply - C4 - IT equipment for LBO and C5- Aerial Photography and Orthophoto Mapping (according to Annex 6)

6.5 Contracts
This project will be implemented through 6 contracts: Twinning Covenant (C1), Technical assistance contracts(C2), Equipment Supply contracts (C3, C4), Services Supply contracts (C5, C6)  
Details regarding contracts – Annex 6

7. Implementation Schedule
7.1. Start of tendering/call for proposals - March 2004
7.2. Start of project activity – September 2004
7.3. Project completion – not later than the expiry of the disbursement period pursuant to the Financing Memorandum 2003.

8. Equal Opportunity
Recruitment for the current project activities will be made with specific attention to the equal participation in the project by women and men. Provisions on this matter will be included as a clause in all vacancy announcements.
Monitoring of the gender balance and the fair treatment of women in the land registration process will be included in the monitoring system of the project, which is to be designed to record gender disaggregated data on land registration. The project will further pay attention to the registration of the names of both spouses in property document.

9. Environment
The project has not been screened separately for environmental impact, as the positive influence of improved land information, as will be the outcome of the project, is widely recognized to enable better land management. Land management is currently weak due to
the uncertain legal situation, the lack of efficient instruments for controlling land use, weak administrative enforcement, and the untransparency of the land situation. As an example, there is a danger that with privatisation of forests there is excessive cutting, which may lead to land degradation and erosion, if not controlled. Good land information in combination with a well-regulated land market, effective physical planning and a regime of environmental protection legislation will have a positive environmental impact.

10. Rates of return
N/A

11. Investment criteria

11.1 Catalytic effect:
The very purpose of the present project is to accelerate the land registration process through building the internal capacity on one side and on the other speed up the delivery of converted or cleaned land records through outsourcing. The investment is currently needed, as the task is too large for the government institutions to cope with. It is therefore sensible to perform part of the works through external contracts in parallel with the work performed with the internal resources of the institutions. The investments proposed for EU-Phare funding in the multianual programme are far from filling the full needs and further funding from the national budget and/or international donors will be required to achieve the overall objectives.

11.2 Cofinancing:
The Phare programme is designed to supplement and continue work performed through the ongoing WB-financed project for general cadastre and land registration. With a reinforcement of the institutional capacity resulting from the present project, the responsible institutions will be able to manage further assistance as required for completion of the cadastre and real property rights registration in Romania by 2010, which is the long term government objective.

11.3 Additionality:
The partner institutions have no potential other donors ready to provide the support covered by the present project.

11.4 Project readiness and Size:
Preparations for full-scale implementation of the new cadastre and real property rights registration system have been made through previous and ongoing work of the institutions, and through previous projects focused on pilot testing and methodology development. Through the accumulated experience and the huge difficulties encountered so far, the institutional environment is expected to be ripe for a massive insurge of resources. The organisations are open for implementation of modern working methods and waiting for computerization.

11.5 Sustainability:
The Implementing Authorities will take responsibility to include the running costs and related maintenance costs in its own budget starting from 2003. The investments will be sustainable in the long term, i.e. beyond the date of accession and will comply with EU norms and standards. They have no adverse effects on the environment. Updating is a particular important topic for the current project, as the registration and data will be outdated quickly if real property registration is not enforced through a range of direct and indirect measures. One of the obligations of the technical assistance is to ensure that the legal framework and the enforcement measures are sufficient in respect to reflecting changes in the property situation in the system and to ensure consistency of the subsystems, as soon as the initial coverage has been established. Sustainability is helped by the fact that the resulting land and property data will be in demand from many other government institutions and from the private sector. An information campaign conducted in the project is also expected to raise awareness about the important role of the system.
Part of the project activities will be directed towards improving user services and enabling the institutions to deliver data and services to major user groups. The cost recovery of the land book system is already over 100%, and development of user services are expected to improve the sustainability of the system. A cadastre and real property rights registration system is an indispensable part of the public infrastructure, so the question of sustainability is not in doubt on the level of principles, but relevant in questions of choosing appropriate methodologies and data standards. For this reason, the initial strategic focus will be on core data, and index mapping methods. Further refinement of the registration will have to follow in a next phase, if and when needed.

11.6 Compliance with state aids provisions

12. Conditionality and sequencing

Conditionality
Signed high level agreement between partner institutions, ONCGC and the MJ, on commitment to overall objectives of the programme and on the principles and arrangements of co-ordinated management and integrated operations between the cadastre and the land book subsystem, including:

1. Agreement on the structure and commitment to establishment of joint management structures both at central and local levels with definitions of roles and responsibilities;
2. Commitment of counterparts within the responsible organisations to work with the TA-project team, and the specification of necessary new positions (government employees) in the national budgets beginning with 2004, in order to ensure sustainability of the system in both organisations;
3. Agreement on the principles and practices of cadastre and land registration systems and data as an important part of public data infrastructure to remain a public good.

The conditionality shall be fulfilled until the signature of Financing Memorandum 2003.

Sequencing
All three components can start simultaneously. During 2003 ONCGC and MJ will establish the joint management structures. The project team is under constitution. The Technical Specifications developed in the project financed by the World Bank for the procurement of orthophotoplans, cadastre services to obtain digital index plans, GPS equipment, are available and were evaluated by the PPF assistance. The ToR for the consultancy contract, Twinning agreement and the specifications for the informatization of the BCF, ICGFC and OJCGC are underway. The digital orthophotoplans necessary for the cadastral index plans in the periurban area of Bucharest and Ilfov county are contracted and will be delivered at the end of 2003 or the latest at the beginning of 2004.

ANNEXES TO PROJECT FICHE

1. Logical framework matrix in standard format (compulsory)
2. Detailed implementation chart (compulsory)
3. Contracting and disbursement schedule by quarter for full duration of programme (including disbursement period) (compulsory)
4. Reference to feasibility / pre-feasibility studies. –General cadastre and Land Registration Project –Overview and Status
5. Structure of 3 years PHARE programming
6. Contracts details
### Annex 1: Logframe Matrix for project “Implementation of the Cadastre and Real Property Rights Registration System in Romania”

**Phare log frame**

<table>
<thead>
<tr>
<th>LOGFRAME PLANNING MATRIX FOR</th>
<th>Programme name and number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project: Multi-annual Programme for Implementation of the Cadastre and Real Property Rights Registration System in Romania – Phase 1 – Annual Phare Project 2003</td>
<td></td>
</tr>
<tr>
<td>Contracting period expires on 30 November 2005</td>
<td>Disbursement period expires on 30 November 2006</td>
</tr>
<tr>
<td>Total budget: <strong>6.698 MEURO</strong></td>
<td>Phare budget: <strong>5.600 MEURO</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Overall objective</th>
<th>Objectively verifiable indicators</th>
<th>Sources of Verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development and implementation of a secure, unitary, integrated and cost efficient system of cadastre and real property rights registration</td>
<td>Harmonised and streamlined processes and services of registration and transactions provided by the cadastre and real property rights registration institutions; Coverage of cleaned and integrated cadastre and real property rights data systematically by area increasing over the programme period to reach 100% by 2010; Land market activities increased significantly and transparency of transactions ensured;</td>
<td>Standards, QA- and monitoring system; Amount of administrative territories fully covered by land data and integrated real property rights records; Transaction time and costs, market information;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project purpose</th>
<th>Objectively verifiable indicators</th>
<th>Sources of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support the development and implementation of a secure, unitary, integrated and cost efficient system of cadastre and real property rights registration in order to:</td>
<td></td>
<td></td>
<td>- Proposed amendments from Joint</td>
</tr>
</tbody>
</table>
### Annex 1: Logframe Matrix for project “Implementation of the Cadastre and Real Property Rights Registration System in Romania”

<table>
<thead>
<tr>
<th>1. Increase capacity building, joint management coordination, QA and production management</th>
<th>2. Improve regulatory framework in order to force simplification, standardization and unification of registration systems and links with other public registers</th>
<th>3. Speed up the quantitative implementation of the system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase capacity building, joint management coordination, QA and production management.</td>
<td>Improve regulatory framework in order to force simplification, standardization and unification of registration systems and links with other public registers.</td>
<td>Speed up the quantitative implementation of the system.</td>
</tr>
<tr>
<td>- Trained key personnel of ONCGC, OJCGC’s, MJ and land book offices in management and in specialised functions, in methods, processes and operations;</td>
<td>- Improved working conditions in land book offices through computarisation;</td>
<td>- Trained key personnel of ONCGC, OJCGC’s, MJ and land book offices in management and in specialised functions, in methods, processes and operations;</td>
</tr>
<tr>
<td>- Nationally harmonized standards, processes and instructions developed and adopted - secured uniform practice at land registry offices;</td>
<td>- Nationally harmonized standards, processes and instructions developed and adopted - secured uniform practice at land registry offices;</td>
<td>- Nationally harmonized standards, processes and instructions developed and adopted - secured uniform practice at land registry offices;</td>
</tr>
<tr>
<td>- Review of legal framework with proposed amendments required for systematic registration and dispute resolution;</td>
<td>- Review of legal framework with proposed amendments required for systematic registration and dispute resolution;</td>
<td>- Review of legal framework with proposed amendments required for systematic registration and dispute resolution;</td>
</tr>
<tr>
<td>- Review of IT-system design and specifications;</td>
<td>- Review of IT-system design and specifications;</td>
<td>- Review of IT-system design and specifications;</td>
</tr>
<tr>
<td>- Computerization of cadastral offices and land book offices - Digital data exchange developed, Digital base map coverage by 2005 integrated from different sources;</td>
<td>- Computerization of cadastral offices and land book offices - Digital data exchange developed, Digital base map coverage by 2005 integrated from different sources;</td>
<td>- Computerization of cadastral offices and land book offices - Digital data exchange developed, Digital base map coverage by 2005 integrated from different sources;</td>
</tr>
<tr>
<td>- Methods, procedures and incentives for mass registration developed and adopted - Public information and public campaign material prepared;</td>
<td>- Methods, procedures and incentives for mass registration developed and adopted - Public information and public campaign material prepared;</td>
<td>- Methods, procedures and incentives for mass registration developed and adopted - Public information and public campaign material prepared;</td>
</tr>
<tr>
<td>- Compatibility of data definitions and formats of the cadastre and land registry with other basic public</td>
<td>- Compatibility of data definitions and formats of the cadastre and land registry with other basic public</td>
<td>- Compatibility of data definitions and formats of the cadastre and land registry with other basic public</td>
</tr>
<tr>
<td>Monthly progress reports, monitoring system data</td>
<td>Monthly progress reports, monitoring system data</td>
<td>Monthly progress reports, monitoring system data</td>
</tr>
</tbody>
</table>

**Supportive top level government representatives promote necessary changes at the highest levels:**

**Governmental budgets from year 2004 include necessary staff for IT-system implementation,**

**Ministry of Justice intensive support for old land book areas,**

**Land book judges support; Legal amendments promoted by the Ministry of Justice and the Ministry of Public Administration,**

**Supportive political context of campaign,**

**Supportive management at all levels;**
Annex 1 : Logframe Matrix for project “Implementation of the Cadastre and Real Property Rights Registration System in Romania”

<table>
<thead>
<tr>
<th>Component 1</th>
<th>Objectively verifiable indicators</th>
<th>Sources of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Management, planning, QA and monitoring systems developed and functioning with monthly updates including all offices of partner institutions;</td>
<td>1. Management, planning, QA and monitoring systems formally adopted</td>
<td>Monthly progress reports, monitoring system data</td>
<td>Full commitment of the parties involved.</td>
</tr>
<tr>
<td>2. Joint management structures strengthened at national and local levels between the partner institutions;</td>
<td>2. Joint management structures delivering ordinary reports for building of a improved regulatory framework</td>
<td></td>
<td>Timely and adequate resources available</td>
</tr>
<tr>
<td>3. Training programmes and courses designed and prepared for countrywide capacity building; training of managers, trainers and of specialists, study visits conducted;</td>
<td>3. 120 persons from each organisation trained</td>
<td></td>
<td>Supportive management at all levels;</td>
</tr>
<tr>
<td>4. Harmonised, simplified and standardised procedures and standards; including standardisation of definitions and formats of identifiers and key data for all types of real properties and entities;</td>
<td>4. Standardization of procedures adopted, definition of key data nationwide adopted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Proposed amendments of legal framework required for harmonisation and for systematic registration and dispute resolution;</td>
<td>5. New legal framework for systematic registration send to the Government for approval</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Analysis of user requirements and</td>
<td>6. New services formally defined and adopted</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Cooperation with partner institutions and major user groups improved</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Methodology for use of property taxation formally proposed to</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Annex 1: Logframe Matrix for project “Implementation of the Cadastre and Real Property Rights Registration System in Romania”

<table>
<thead>
<tr>
<th>Component 1</th>
<th>Ministry of Finance</th>
<th>Ministry of Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Proposed strategies and action plans to optimise the services of partner institutions to major user groups;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Inventory of relevant data in other registers/other organisations - Proposals on principles of data exchange, pricing of services, and formal agreements with cooperation partners;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Proposals for use of cadastre and real property rights data for property valuation and taxation;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Proposals on role of cadastre and real property rights data in building the IACS-LPIS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Economic analysis of the cadastre and land registration sector;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Component 2**

| 1. Updated design and specification of national IT-system (based on experience with -sites in operations financed by World Bank Project); | 1. Standard specifications adopted by the ONCGC and MoJ |
| 2. Integrated production planning and monitoring system in place with monthly updating of operational plans and reports; | 2. Progress reports containing monitoring indicators |
| 3. Proposed strategies, and methods for digital conversion and migration of key data of Land Book offices; | 3. No of Land Book open in digital format increased |
| 4. Proposed strategies, and methods for conversion of old Land Books to Law 7, and for systematic registration in general; | 4. Public campaign results reported |

Monthly progress reports, monitoring system data
5. Public campaign methodology and material prepared; campaigns conducted in support of the mass registration activities;

**Component 3**

1. Cadastral and Land Book offices equipped for mass registration and general IT-infrastructure for data and system management matches capacity requirements for mass registration;
2. Acceleration of establishment of ground control for cadastral works co-ordinated with mass registration planning;
3. Acceleration of determination and surveys of administrative and intravillan boundaries;

4. Cadastral index mapping of high priority areas (Ilfov/Bucharest and of pilot area in old land book area, in total about 2500 sqkm).
5. Base mapping for cadastre increased with 27000 sqkm

<table>
<thead>
<tr>
<th>Activities</th>
<th>Means</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Number of OJCGC and LBO equipped for electronic operation of cadastre and land book system;</td>
<td>Monthly progress reports, monitoring system data</td>
<td>Timely and adequate</td>
</tr>
<tr>
<td>2. No of geodetic points increased by 100% by end of 2005;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. 50% of administrative territorial boundaries and intravillan boundaries determined by 2005</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Cadastral index mapping completed for Ilfov judet and mass registration in land book completed by end of 2005;</td>
<td>Monthly progress reports, monitoring system data</td>
<td></td>
</tr>
<tr>
<td>2. Cadastral index mapping and pilot completed for area of Transylvania by end of 2005;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Total coverage about 50 comunas;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Annex 1: Logframe Matrix for project “Implementation of the Cadastre and Real Property Rights Registration System in Romania”*
### Component 1

1. Assistance for development of co-ordinated management, planning, QA and monitoring systems;
2. Development of regional management structures, and the co-operation between cadastre and land book offices with special attention to the old land book areas;
3. Design and implementation of capacity building at both national and local levels;
4. Administrative procedures simplification, harmonisation and standardisation;
5. Develop new norms, instructions, manuals for standardisation based on accumulated experience;
6. Review and prepare adaptations of the regulatory framework in support of the programme;
7. Review and draft procedures for and agreements on data exchange and data access;
8. Explore and analyse the requirements of major user groups; prepare strategies and action plans to provide and optimise the services to major user groups;
9. Improve user services;
10. Support compatibility of data of the cadastre and land registry with other basic public registers;
11. Explore the formal and practical realisation of the obligations of the cadastre and land book system in respect to property valuation;
12. Develop proposals on improvements of

<table>
<thead>
<tr>
<th>Contract no.1-Twinning convenant</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 mm covering 14 months of implementation</td>
</tr>
<tr>
<td>resources available</td>
</tr>
</tbody>
</table>
local tax rolls based on new cadastral and land registry data and for future mass appraisal;

13. Analyse and support the development of local co-operation between OJCGC’s, land book offices, county, communes and city authorities for the future land administration;

14. Assist with developing co-operation with the Ministry of Agriculture on necessary services and data for e.g., IACS, and structural development

15. Assist with developing co-operation with other Ministries for exchange of data and for development of sustainable land management;

16. Implement an economic analysis of cadastre and land registration including related revenues (property taxes e.g.), and review transaction costs;

17. Prepare proposals on principles of data exchange, pricing of services, and formal agreements;

### Component 2

1. Assist the ONCGC and the MJ in updating the specifications for the IT-infrastructure and strengthening general IT infrastructure for data and system management;

2. Assistance for integrated production planning, QA and management for mass registration;

3. Support for methodology development and execution of pilots on conversion of

<table>
<thead>
<tr>
<th>Contract no.2 – Technical assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>36 mm of international experts</td>
</tr>
<tr>
<td>320 mm of national experts</td>
</tr>
</tbody>
</table>
records of Land Book offices;
4. Methodology development and pilot for systematic conversion of old land book areas to Law 7;
5. Methodology support and training for systematic registration;
6. Preparation of incentives, public information and public campaigns in support of mass registration

**Component 3**

1. Support the MJ with completing computerization of land registry offices sufficient for basic operations and mass registration;
2. Support the ONCGC with completing computerization of cadastre offices sufficient for basic operations and mass registration
3. Cadastral index mapping of high priority areas;
4. Aerial Photography and orthophotomapping of 27 000 sqkm

<table>
<thead>
<tr>
<th>Contract no.3</th>
<th>IT equipment for LBO, OJCGC, ICGFC, and survey GPS equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract no.4</td>
<td>government financed contract (supply of IT equipment for the Ministry of Justice)</td>
</tr>
<tr>
<td>Contract no.6</td>
<td>Cadastre services contract</td>
</tr>
</tbody>
</table>
**Annex 1 : Logframe Matrix for project “Implementation of the Cadastre and Real Property Rights Registration System in Romania”**

<table>
<thead>
<tr>
<th>Preconditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signed high level agreement between partner institutions, ONCGC and the MJ, on commitment to overall objectives of the programme and on the principles and arrangements of coordinated management and integrated operations between the cadastre and the land book subsystem, including:</td>
</tr>
<tr>
<td>• Agreement on the structure and commitment to establishment of joint management structures both at central and local levels with definitions of roles and responsibilities;</td>
</tr>
<tr>
<td>• Commitment of counterparts within the responsible organisations to work with the TA-project team, and the specification of necessary new positions (government employees) in the national budgets from 2004 in order to ensure sustainability of the system in both organisations;</td>
</tr>
<tr>
<td>• Agreement on and commitment to implementation of Law 7 in a systematic and phased approach towards full coverage of Romania with mass registration by 2010;</td>
</tr>
<tr>
<td>• Agreement on the principles and practices of cadastre and land registration systems and data as an important part of public data infrastructure to remain a public good;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contract no.5 government finaced contract</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>activities</td>
<td>2003</td>
</tr>
<tr>
<td>--------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Twinning</td>
<td>D</td>
</tr>
<tr>
<td>Technical assistance contract</td>
<td>D</td>
</tr>
<tr>
<td>Equipment Supply contract</td>
<td>D</td>
</tr>
<tr>
<td>Services Supply contract</td>
<td>D</td>
</tr>
</tbody>
</table>

D = Design  C = Contracting  R = Review  
I = Implementation  X = Closure
Multi-annual Programme for
Implementation of the Cadastre and Real Property Rights Registration System in Romania
– Phase 1 – Annual Phare Project 2003.

CUMULATIVE CONTRACTING AND DISBURSEMENT SCHEDULE (MEURO 5,600)

<table>
<thead>
<tr>
<th>DATE</th>
<th>31/03/04</th>
<th>30/06/04</th>
<th>30/09/04</th>
<th>31/12/04</th>
<th>31/03/05</th>
<th>30/06/05</th>
<th>30/09/05</th>
<th>31/12/05</th>
<th>31/03/06</th>
<th>30/06/06</th>
<th>30/09/06</th>
<th>31/12/06</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTRACTED</td>
<td>0</td>
<td>0</td>
<td>4,450</td>
<td>5,600</td>
<td>5,600</td>
<td>5,600</td>
<td>5,600</td>
<td>5,600</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>DISBURSEMENT</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0,960</td>
<td>1,920</td>
<td>2,880</td>
<td>3,840</td>
<td>4,800</td>
<td>5,600</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
General cadastre and Land Registration Project – Overview and Status

During the preparation phase of “Multi-annual Programme for Implementation of the Cadastre and Real Property Rights Registration System in Romania – Phase 1 – AnnualPhare Project 2003” NOCGC and MoJ where assisted by foreign consultants hired through PPF. The consultants investigated the specific objectives of the project and the status of implementation. The findings are issued in PART A.

At the end of the World Bank Joint Portfolio Review (March 2003) WB and Government of Romania agreed for General cadastre and Land Registration project on the following actions: Amend Loan Agreement to restructure Project management; Sign contracts for the new PMUs staff; Provide adequate logistic support (office and equipment) to the new PMU in MoJ; Procure TA to develop strategy and vision for the future of the Land Book activity in cooperation with the Cadastre function; ORNIS to revise criteria and procedures for authorising aerial surveys.

Also from December 2002 until March 2003 a new progress of WB project was done. New procurement and TA activity plan are issued. These are reflected in PART B.

PART A- World Bank project overview

The WB-project took its offset in the adoption of Law 7 March 13, 1996, and the Project Appraisal Document dates back to September 25, 1997. The total loan amount is 25,5 mio. USD and the government financing of the project constitutes 11,7 mio. USD (ref. WB PAD, September 25, 1997, with annexes). The project implementation period is planned to be 5 years starting in 1998 running through 2003, but there is currently on-going negotiations between the GoR and the WB on an extension of the period of implementation, to compensate for delays generated in the first years of the project. A World Bank mission has visited the project in the beginning of June, 2002, and recommended that the project be granted a one year extension.

By June 2002 about 13% of the loan had been disbursed, but there are many activities in the pipeline at different stages of procurement, so that the current commitment of funds amounts to about 70% of the loan.

The aim of the WB-project is to:
1. Establish an efficient system for securing land titles of real estate owners, which can be expanded nationwide;
2. Create a general cadastre system which provides clear and current definition of real estate parcels which form the basis for real estate registration; and
3. Set up a simple, safe and cost effective procedure for land transactions.

Although some assistance had previous been implemented, the WB-project was the first major project to be implemented after the passing of the Law 7, 1996, in pursuant to which the organisation of the ONCGC and its associated structures were set up. Consequently the initial focus of the project was on institutional strengthening, methodology development and testing. The project has three components and two phases: Cadastre Component, Land Registration Component and Institutional Development Component.

The first phase concentrated on implementation trials, training and technical assistance to lay the groundwork for the major task of surveying, mapping, and land registration to take place during the second phase.

Initially the project was designed to cover trials for systematic land registration in 7 judets and 18 judets (out of in total 42 judets) for sporadic land registration system, and these judets were selected during the project preparation phase. However, in 1999, there was issued a governmental decree to implement sporadic registration in the whole country by July 1, 1999, which changed the basis for the project. As a consequence of these changes some of the cadastral works currently in the pipeline will cover (selected) areas in all judets.
Some general upgrading of facilities has been provided to all judet offices, and further material assistance is under procurement.

Other conditions have changed during project execution, especially in the area of the institutional framework, which has suffered under frequent changes and rivalries between institutions, but also the legal basis was in question during 1999, when there were proposals in Parliament on privatising the land registry. During the latest year there have been significant improvements and progress, resulting in a stable institutional framework at the side of the General Cadastre and its associated structures. The WB-project is currently in a stage of execution of a large number of activities in phase two of the project on the key areas such as an integrated computer hardware/software system for cadastre database and land book system, service contracts for aerial photography, GPS control, ortho-photography, and cadastral index mapping. In addition to the service contracts mentioned, the project also supported some renovation and refurbishing of offices, etc. to local OJCGC's. Each of these specific activities and the stage of implementation will be described below.

The cadastral works is clearly gaining momentum and the progress is remarkable in both operations of the local offices and execution of contracts.

It is also clear that the assistance provided by the WB-project has only partially covered needs and been instrumental in the initial phase of the cadastral reform, but the country wide implementation of Law 7 is still a challenge for the future. With the WB-project nearing its end, and with much valuable preparation and development work having been laid down, possible assistance to this sector from the EU could potentially phase in well with the out-phasing of the WB-project during 2003-2004. The timing is good as preparations have been done.

The world bank mission has provided support for an optimal utilisation of remaining resources during the last part of the project, such as for example suggesting that there is prepared a fourth lot and contract for aerial photography and ortho-photo production in addition to the three already planned lots. The fourth contract for aerial photography was signed in February, 2003.

Funds will be allocated to improved facilities of cadastral offices, e.g., for archives and provision of services for private surveyors and other customers.

Other additional activities suggested by the WB-mission include a study to be commissioned by the ONCGC through CIG, to determine the experiences of the EU member states and the impact on the country cadastre agencies upon EU accession. What are the lessons, what to do and when, staff and financing consequences are some of the questions that could be answered for the ONCGC.

1.1. **Main Activities of the WB-project Cadastre Component**

The project has done the groundwork for introduction of new methods for both the cadastre and the land registration component. In particular there has been reached acceptance of the use of digital ortho-photos as base maps for cadastre and the concept of cadastral index mapping has been introduced and agreed.

Following the delivery of works on cadastral index mapping there will be refinement and further work to be done on the methodology in order to complete the total process of mass registration and systematic registration. As has been described in previous chapters, the cadastre has only registered a tiny percentage of the total properties in Romania, so the bulk of the work remains to be done. Thus, the time for testing has passed, and the current situation calls for large scale implementation, with parallel adjustments of methods and processes.

The remaining activities of the WB-project covers nearly all budget lines, and on the side of the cadastre they can be grouped into four types of activities:

1. Renovation of OJCGCs facilities and procurement of office equipment, archive furniture and vehicles for OJCGCs
   Some refurbishing and upgrading of facilities has been performed. There has now been achieved a stable arrangement of the premises for the OJCGC's, which permit further investments to be made.

2. Procurement of AP and OP - 2nd stage and 3rd stage plus a minor trial on satellite imagery
   See index map showing areas covered by aerial photography
There will be covered in total about 60,000 sqkm with OP's by the end of the project with the planned 3 lots. Preparation of a fourth lot has been recommended by the World Bank.

3. Cadastral Index Mapping

Cadastral Index Mapping is ongoing based on Ortho Photo plans in Dâmbovita and Prahova judets, where the production of orthophotos lot 1 has been delivered, see index map. General cadastre works based on existing maps is currently in the tender process for two comunas in each judet in the country, see index map.

4. IT-system

A tender for a comprehensive and integrated IT-system for the cadastre and Land Book offices has been contracted and the development is ongoing. Testing of the system in the pilot areas will begin in April 2003, while it will be installed in the remaining 7 judets and land book areas in the same geographic areas during autumn 2003.

The ongoing contract provides a basic set-up for the national centre and for 7 of 42 judets, which leaves 35 judets fully uncovered by the delivery. During the testing in 2003 it will be seen if the specified system fulfills the expectations, and how far the needed capacity will be covered by the configuration procured.

A package for preliminary IT-system for all judet offices, e.g. for data conversion works, has been prepared and is being discussed with the World Bank, as there is a serious lack of IT-infrastucture and facilities in all cadastral offices.

These activities will be further described below. The original budget of the World Bank Project shows the broad range of activities included, from consultancy and cadastral works to renovation of offices. Note, that the budget below includes all three components for cadastre, for land book and for the institutional component.

Table 1: Expenditure Account by Project Cost, Ref to Project Implementation Plan, World Bank Project, 1997.

<table>
<thead>
<tr>
<th></th>
<th>(Lei Million) Local</th>
<th>Foreign</th>
<th>Total</th>
<th>(US$ Million) Local</th>
<th>Foreign</th>
<th>Total</th>
<th>Exchange</th>
<th>Base Costs</th>
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<tbody>
<tr>
<td>I. Investment Costs</td>
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<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>A. CIVIL WORKS</td>
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<td></td>
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<td>Minor Renovation</td>
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<td>B. EQUIPMENT &amp; GOODS</td>
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<td></td>
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<td>2,951</td>
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<td>0.4</td>
<td>0.6</td>
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<td>0.9</td>
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<tr>
<td>Other Equipment</td>
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<tr>
<td>Subtotal EQUIPMENT &amp; GOODS</td>
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<td>0.5</td>
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<td>1.0</td>
</tr>
<tr>
<td>D. TECHNICAL ASSISTANCE</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>International Consultants</td>
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<td>14,525</td>
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<td>2.1</td>
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<td>2.3</td>
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<tr>
<td>E. SERVICE CONTRACTS</td>
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<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
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<td>Base Mapping</td>
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<td>4.0</td>
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<tr>
<td>Subtotal SERVICE CONTRACTS</td>
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<td>10.6</td>
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<tr>
<td>F. TRAINING</td>
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<td></td>
<td></td>
<td></td>
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<td>121</td>
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<td>0.0</td>
<td>0.5</td>
<td>4.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>
1.2. Aerial Photography and Ortho-photo Mapping

It is generally known that aerial photography and digital Orthophotos produced from new aerial photography are very valuable base maps highly suitable as a basis for land reforms and for cadastral mapping. This has become close to a standard in cadastral projects around the world due to the rich informational contents, short production time and low cost.

During the latest years there has been gained some experience in Romania with the taking of aerial photography by contractors. The current system in Romania for getting the range of permits needed for aerial photography from aviation and military authorities is heavy and difficult for the contractors, and a streamlining of this process is required to permit this critical activity for the cadastre to proceed without unnecessary delays and costs. If there are delays, so that the photo season in spring is missed, then there will be a full year to wait until the next possible aerial photography can be taken. Delays in the photography have consequences for the whole chain of production of cadastral index maps, as has been the case with some of the aerial photography.

The coverage by the WB-project has been divided in three lots of aerial photography and orthephotos as shown on the map with the following scales:

- 1:25 000 AP for 1:5 000 orthophotos/maps – resolution 0.5m
- 1:12 000 AP for 1:2 000 orthophotos/maps – resolution 0.2m
- 1:6000 AP for 1:1 000 orthophotos/maps – resolution 0.15m

It can be seen that the surroundings of Bucharest city will be covered in lot 3. The requirements in Bucharest municipality for new coverage have not yet been covered by the WB-project.

The experience gained with the orthophoto maps has been positive: the price is low and the information contents high and well suited for cadastral works in Romania. Consequently the new strategy of the ONCGC includes production of ortho-photo maps for as large areas as possible. There are mountain areas (perhaps 15-20% of the total area), where the production of orthophotos may be less suited, and it is currently investigated as a part of the WB-project, if use of high resolution satellite imagery will be a suitable supplement to existing maps.

It is still a challenge for the ONCGC to manage the new data delivered by the contractors and to establish services for distribution to all potential users. The technical capacity for management of large data sets at the judet offices is still limited. Therefore the WB-project has started preparing the judet offices for the
receipt of the cadastre services contract data, through training and the purchase of a graphics
workstations and software to enable the digital data to be used. More training is needed.

The status of existing base mapping is well documented by the WB-project, which has analysed the age
and quality of base maps and created overviews useful for this assignment and for detailed planning of
the cadastral activities. There are in many urban areas high quality maps in scales 1:500 and in 1:2000.
Extravillan areas are covered with maps in scales 1:5,000 or 1:10,000.

1.3. Geodetic Network and GPS surveys

The situtation of the geodetic network in Romania is unclear. For many years there has not been made a
systematic review of the existing points, what points are physically existing and usable, etc. Some of
these problems have been addressed by the WB-project. There has been executed some tenders for
densification of geodetic points in limited areas. There is no lack of geodetic expertise in Romania.

Included in the WB-project was procurement of 5 permanent GPS stations and 7 GPS-rovers. A sixth
station placed in Bucharest has been financed from German assistance. The 5 permanent stations have
been installed around the country at different judet offices to permit the best possible coverage and for
easy maintenance and service of the stations. The judet offices are in charge with data recording, which
is transmitted to the ICFG GC monthly.

As a part of the WB-project there has been procured contracts for geodetic works. As a result there has
now been established 200 geodetic points in order to compensate for the lack of sufficient geodetic points
level 1-4 in the judets of Dimbovita and Prahova, which have been delivered to the National Geodetic
Fund.

1.4. Cadastral Index mapping

1.4.1. The concept

The concept and specifications for cadastral index mapping has been developed over a period since
1999 by the WB-project, see "Methodology regarding the Cadastral Index Plans Accomplishment and
Updating", First Draft 30.04.02 (75 pages). The document describes the idea and purpose of the
cadastral index map as follows:
"The main reason for the cadastral index plan is to create, under efficient costs, a cadastral map at a
national level that would give the premises of a correct registration of the property rights in the land book.
The cadastral index plan accomplishment is based on the broad use of the existing cadastral data (no
matter what their quality is, but supported by legal deeds - property titles, etc…. or various specialised
cadastral works that contain the properties’ limits that have been approved by the county cadastre offices)
aiming to reduce the amount of field works, as a cadastral plan primary data source.
The cadastral index plan represents the general cadastre works output that has been accomplished on
the basis on a flexible solution that would satisfy the market request against cadastral data registration."

"The cadastral index plan allows to:
1. To integrate the existing cadastral data in a unitary format, no matter their quality, and to allow
the problems' identification and also to make correct decision.
2. Spatial identification of the real estate dealings in order to avoid over laps and control frauds.
3. Spatial identification of the real estates resulted after the enforcement of the new laws against
property.
4. To update the cadastral information (graphical and textual) on the basis of sporadic registration in
the land books, on each administrative territory, and in time to get a complete and accurate
cadastral plan.
5. To provide updated and accurate cadastral identifiers for all the registered properties.
6. To structure the information on several levels of details and accuracies and to allow the NOCGC
and OJCGC to provide low costs cadastral services.
7. To get reports based on the data existing in the textual database, at both central and local level.
8. To provide the specialised cadastres with a database and to give control of the areas that are going to be classified against different criteria (e.g. land use categories).

1.4.2. Coverage of Cadastral Index Maps by WB-project

The WB project is in the process of testing the use of new orthophoto maps as base maps for cadastral index maps in comparison with the use of existing base maps available in a range of scales. It is expected that the use of OP's out-performs the method of using existing base maps, which may still be an option, until new OP's are available.

The areas to be covered in ongoing works or tenders for cadastral index maps are:
1. Based on Ortho-photomaps: 4 lots covering in total 438.212 hectares in 99 administrative territories. The delivery of these lots will be taking place in 2003.
2. Production of cadastral index maps based on existing maps and plans: in tender 5 lots. The resulting cadastral index maps will cover in total 355.900 hectares and 78 comunas across the country with delivery in 2003 – 2004.

In total 794.112 hectares will be covered with cadastral index maps within the ongoing activities in the pipeline, which amounts to about 3.5 % of the total area in the country and about 5 % of the agricultural area.

With the mentioned coverage of 794.112 hectares, and assuming an average parcel size of 0.3 hectares, the total number of property units registered in the cadastre through the ongoing works would be approximately 2.6 mio. parcels of Law 18 titles data entry, which is close to the original target for this activity of the WB-project.

The WB-project foresees some difficulties with the reception and further processing/updating of data from the contractors. Proposals will be provided to the Bank for carrying out activities through contracts for implementation of the 60 day statutory viewing period and updating in the transition stage until the new IT-system will be operating.

1.5. Status of IT-system Development and Implementation

1.5.1. Introduction

One of the main activities of the ongoing WB-project is the design and procurement of an integrated IT-system for General Cadastre and Land registration. The implementation of a national IT-system is critically important for a range of reasons: With an IT-system working methods can be rationalised, standardised and the much needed overview and transparency can be created. The longer the ongoing chaotic situation with files and lack of coordination continues, the more errors remain undetected, data is lost and has to be created all over again. Even worse, the legal situation gets entangled into myriads of discrepancies between different records.

During a previous EU-Phare project in 1994-96 there was developed a system implemented in selected Judet offices of the Ministry of Agriculture and at the Land Book offices in these areas. The system was functioning in a period, but gradually fell out of use due to lack of maintenance, etc. The remaining equipment has been transferred to the OJCGC's in 2001 as a result of the merger with the OCAOTA's. Until recently there has been no common IT-development prepared by the ONCGC in support of the Judet offices. The ONCGC has provided packages of Romanian software to each of the judet offices, Toposys and Mapsys, but these packages have not come into wide spread use, perhaps caused by insufficient training or support.

Consequently, every judet office has found its own solution, and there has been implemented a variety of individual systems typically customised solutions based on Access and AutoCad ranging from rudimentary to complete systems. There are also cases of the use of public domain software like Linux and My-sql. Field visits were made to Vilcea Judet office having developed a complete system, which also handles administrative aspects of the process, such as management of applications. In the cadastral office in Bucharest municipality, there is an advanced Linux based system and there has also been developed a web page which offers services to licensed surveyors, who can submit applications by mail. In some judet offices there has been little expertise available for developing and implementing IT, but all
Judet offices use computers, and there is currently an average of 15 computers per OJCGC. Despite the remarkable achievements of the judet offices, they still need more licences and different types of upgrades and supplementary equipment. The IT-situation is reflected in monitoring indicators updated quarterly by the WB-project.

As a result of this diversified situation the task of standardising processes and data is huge. In the majority of cases where documents are recorded only in paper form there is a large data conversion task. In the cases where data has been captured in non-standardised data formats, the task of data conversion is a major one. Customised data conversion tools and procedures have to be developed for each office.

Currently, there are efforts for introducing an intermediate IT-system to all judet offices, in order to standardise data capture and work processes. It is a basic system with the same data model as the forthcoming national IT-solution under development (see below). The national IT-solution will not be ready until end of 2003 and will cover only 7 judets (including Bucharest) in the first lot. The ONCGC plans to use the mentioned intermediate system in the transition phase and in order to offer all judets an IT-solution as soon as possible. The support of 42 different IT solutions and data structures is not possible. There are remaining funds available of the WB-loan allocated for the purpose, and the tender documents for the equipment procurement have recently been approved.

1.5.2. **Integrated General Cadastre and Land Registration IT-system**

Work on specifications of the system has been ongoing since 1999 by the LBIG and the CIG supported by the TA-component of the WB-project. The tender for the IT-system has been performed as a two-stage bidding process, and the contract with the successful bidder, IBM, was effective on April 1, 2002. System design and development has reached an advanced stage, reference to specification documents. As an important part of the specification work flow work flow diagrammes have been developed for both Subsystems.

The IT-system comprises two interconnected and complementary sub-systems for the Land Book and the Cadastre respectively, and the Ministry of Justice will be responsible for the operation and maintenance of the Land Book Sub-System, while the ONCGC will take responsibility for the Cadastre Sub-System. The linkages of the systems will be made on a technical level through communication access to read data in each subsystem. Common key data on cadastral ID’s, Personal ID’s and Company Identification Numbers are the most important linkages of the entities in the data models.

The configuration of the system is designed to reflect the decentral responsibility assigned to Judet offices, which therefore will be responsible for master data, while the central server will be functioning as the national hub of information services. To serve the business functions of the local cadastral services there will be an internal system belonging to each local cadastre office, which will cover the business functions of the local cadastre offices regarding field works evaluation and maintaince of various administrative registers.

The District Cadastre Offices, under the authority of ONCGC are responsible for:
- Generation of the cadastre numbers
- Cadastral map files
- Geodetic control points
- All parcel and building description elements belonging to Part 1 of the land book.

The solution currently under development includes essential security features to permit safe management of legal data. It is expected that the system will be cost effective, allow management of large data sets and the provision of services countrywide.

The structure of the application software is shown below:
During the first pilot test the central server will be installed at the ONCGC and a district processing unit at the Cadastral office in the Municipality of Bucharest. The current contract includes a roll-out of the IT-system for the Judet offices of Brasov, Dimbovita, Prahova, Constanta, Dolj, and Buzau to be completed by the end of 2003.

<table>
<thead>
<tr>
<th>Cadastral Registration</th>
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<th>X</th>
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</thead>
<tbody>
<tr>
<td>Cadastral Mapping</td>
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</tr>
<tr>
<td>Cadastral Projects Evaluation</td>
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<tr>
<td>Surveyors/Companies Authorization</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Control Networks Development and Maintenance</td>
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<td>X</td>
</tr>
</tbody>
</table>

The deliveries include a range of hardware and integrated application software for General Cadastre and Land Book registration subsystems, Data migration application software for general cadastre in order to load the data and data models to be related to the current applications in use in local cadastre offices. A training package on a “training of trainers” basis is part of the responsibility of the provider. For further details, please, refer to the IT-systems specifications for a full description of deliveries (“Addendum to Bidding documents, stage II, Procurement of Information Systems Equipment, Software and Services, Government of Romania, The Ministry of Justice And The National Office for Cadastre, Geodesy and Cartography, December 7, 2000.”)

The success of the IT-implementation will of course be dependent on delivery of suitable applications from the provider, and it will only be after testing of the deliveries in 2003 it will be possible to create an overview of how the system functions in daily operations. Thus, despite delivery of a system in full accordance with the specifications, further development may still be required.
1.5.3. IT-Staffing situation

There is currently no IT-department at the ONCGC, but there are in total 5 IT-persons employed in 3 different departments of the ONCGC. In the Cadastral Department, head of Database and GIS service plus two IT specialists, one IT specialist in the Department of Geodesy and Cartography, and in the Project implementation Unit for the WB-project there is one IT-specialist.

At the Institute ICFGC there is an IT-department counting currently 5 IT-specialists of different types. Unfortunately the salaries are so low, that there is a constant danger of loosing the IT-specialists.

1.5.3.1. Staff Needed for IT-Implementation

One of the main challenges and a most critical point for the IT-implementation is the recruitment and retaining of IT specialists both at the ONCGC and at the Judet offices. It is estimated that there will be needed the following minimum staff for introduction of the IT-system, but it is likely that the numbers shown will be insufficient.

Requirements estimated by the current IT-specialists of the ONCGC:

a. IT-management, ONCGC

Tasks:
- Duties of planning and coordinating development of IT-systems (HW, Network, DB’s applications);
- Planning and Coordination of data conversion and data integration;
- Planning and coordination of development plans. For this work there is needed:
  - Databases &GIS specialists: 6 persons
  - Hardware support: 4 persons
  - Networks administration: 3 persons

b. Data Center at the Institute (24 hWT)

Tasks:
- The national center and computing service needs to cater both for system and data administration for the total system, and to provide data services to customers. For this there is needed a minimum of:
  - Running of services: 10 persons
  - System administration: 4 persons
  - Application development etc.: 4 persons.

b. IT staff for judet offices

- 1 system administrator, HW, network, OS;
- 2-3 persons for data base work.

1.5.4. IT-Master Plan for the Cadastre

It has been recognised by the current management that a master plan for implementation of IT is urgently required. Planning of the data conversion and data integration is a challenging task, which has to be made to optimise the use of resources and strive towards having data available, once IT-systems are installed. If the data conversion is not performed urgently, there would still be required parallel work in dual systems until the situation has been normalised. The need for digital base maps is urgent and despite ongoing tenders for aerial photography and ortho-photography, this will still be insufficient to meet the needs for the installations of the systems in the 7 judets by the end of 2003.

1.6.

1.7. The Land Market and Valuation in Romania

1.7.1. The Property Market in Romania

One of the activities of the WB-project was technical assistance for valuation and studies of the land market in Romania. Since development of an efficient land market and use of land as collateral is an overall objective for the preparations for EU-accession, the study will be commented here.
There are a wide range of factors influencing the land market, but here the focus will be on factors associated with access to information in accordance with the recommendations of a study on the land market conducted by the WB-financed project, ref. to report of October, 2000, prepared by Dr. Paul Munore-Faure and Richard Grover, consultants of Kampsax. Their observations on the real market efficiency include among others:

“5. Real estate market efficiency
An efficient market requires that market participants have good access to information, especially about prices. It is very difficult to discover what is happening in the Romanian land market, as those participating in it tend to have direct knowledge of a limited number of transactions and there is a culture of secrecy about deals. The situation could be improved if the government made its knowledge of the market, gained from land book operations and the cadastre, more widely available. This requires procedures to collect, collate, and publish the data.

Recommendation:
That ONCGC and the Ministry of Justice develop systems for collating the data about the real estate market that is received by the land book offices and the cadastre, and explore the optimal means of making this available to interested parties.”

The study provides some proposals on improvement of the quality of real estate market data, and concludes that it is not necessary for the data problems in the real estate market to remain.

“Action could be taken to put in place the collection, collation, and publication of relevant data that would enable not only cost recovery models to be developed, but also bring other benefits. The benefits include better information being available to policy makers about a major sector of the economy and improvements in the efficiency with which the real estate market operates as a result of better information about prices and trends being available to valuers and market participants.”

The study confirms the difficulty of getting access to data and the urgent need to improve the management and accessibility of data in all organisations related to Cadastre and Land registration. Even when some of this data is available, some of it may not be wholly reliable. There is a belief that prices may be understated in registration documents, though the evidence for this belief seems to be either anecdotal or else based upon derivations of price that use methodologies that are unreliable. However, collecting and collating data may itself help to improve the quality, for example, by clearly identifying prices that are inconsistent with those achieved elsewhere in the market.

The study points to the difficulty in counting the number of transactions with the current system, and concludes that the it would certainly be much easier to collect this type of data if a computerised system of handling land registration was to be introduced as the statistics could be generated as part of the management system. Implementation of a computerized system for general cadastre and land registration is therefore also required to support transparency and efficiency in the land market.

1.7.2. Land Valuation and Taxation

One of the objectives of the General Cadastre according to Article 1 of Law 7/96 is to keep the economic record of the cadastre, and in accordance with article 2 point d) to ensure for the whole country: “d) supply of data necessary to the system of taxes and duties for the correct establishment of tax-payers’ fiscal obligations.”

The obligations of the ONCGC are further stated in Law 7, articles 10 and 14, “The National Office of Cadastre, Geodesy, and Cartography and the county offices in its subordination, as well as the titulars of specialized cadastres shall have the obligation to supply the Ministry of Finance’s bodies with the necessary records for levying taxes on tax-payers.”

Furthermore, the Law prescribes that the Land Book shall include taxable value in the descriptive Part I of the LB. What is taxable value is a matter of uncertainty. There is consequently needed a clear and equitable system of valuations, that avoid tax evasion, encourage investments, and provide certainty of burden for the taxpayer and for the government.
The responsibility for implementation of property valuation is another area of uncertainty. The local governments are currently levying taxes according to Ordinance 36/2002, fiscal law of February 2, which prescribes the level of fees to stabilize the level of taxes. Values are determined according to a simple classifications of areas. The current land taxes can be described as a type of fee, which is not necessarily related to the value of the property. Municipalities can vary the tax coefficient and this may result in variations that crudely follow perceptions of market prices.

Valuation forms the basis for taxation and in the case of transactions stamp duties relate to values of properties. The transaction costs in the market is an area, which deserves attention. Thus a suitable valuation systems is needed for fair and equal administration of both forms of taxation. The only perceivable way to advance towards modern valuation will be through development of mass appraisal systems based on computerized methods.

The advantages from greater transparency are greater certainty as to the tax liability for the taxpayer, greater certainty of revenue for the government, and less opportunity for corruption.

1.8. Institutional development

The WB-project has conducted a number of institutional development activities including study tours and training courses. Recent training activities in Land Information Systems have drawn about 100 participants from Judet offices, and further training courses are under planning by the WB-project. Still, the number of persons and subjects included has only covered a small part of the potential training requirements.

An international consultant of the WB-project has in 1999 prepared a plan for training both of government officials as for a general redefinition of the curriculum for cadastral specialists. It is likely that the plan needs further elaboration and updating.

Work on defining new workflows, methodologies and preparation for introduction of new IT-systems need to be followed up by adaptation of the organisational arrangements and extensive training programmes.

The WB-project did not include management consultants, organisational development or other areas of management training.

1.9. GTZ financed Project in the Municipalities of Sighisoara and Odorhei

A GTZ financed pilot project has been taking place over the latest three years in the municipalities of Sighisoara and Odorhei. During the initial years there has been focus on development of a pilot system covering all different types of data for the urban information system, including the cadastral information.

The first phase of the GTZ project is finished in August 2002 with the second phase to be started in September 2002 for another three years. The project areas are the municipalities of Sighisoara and Odorhei where the project advises the two municipalities in the field of setting up an updated GIS and LIS, checking old land book info with the latest cadastre info, assisting in agricultural land conversion in urban land for further city planning and all kinds of other problems related to cadastre and land register activities. The GTZ project has also offered technical assistance to the National Office if and when required.

There has been cooperation with the GTZ project on top management level, but there has been little communication between the cadastral specialists of the ONCGC and the project team. It is suggested that there will be needed closer cooperation between the operational levels of project execution and the specialists of the ONCGC on e.g., development of the datamodel and sharing of experience in data conversion and establishment of user services in urban areas. It is expected that the new directorate for International relations of the ONCGC will be instrumental in further developments.
1.10. **National Centre for Photogrammetry and Remote Sensing, EADS - MATRA Project**

A proposed project is currently under consideration for establishing and equipping a National Centre for Remote Sensing, Romania, funded by a French loan. The first documents were prepared in June 1999, and there has currently been reached agreements on the technical specifications. The provider is the company, Matra Systemes & Information, Vélizy-Villacoublay CEDEX, France, which belongs/is a component of EADS company/society. The project valued at 10 mio. USD is planned for execution over 18 months, and a warranty period for 30 months.

The project is designed to develop and install an advanced turn-key system comprising of two components:

a. The geographic and Cadastre Production Subsystem (GCPS),
   The system includes a range of software plus hardware for orthophoto production:
   LH-film scanner for aerial photography and 2 Photogrammetric Workstations (Leica Helava), 2 editing work stations, and 10 PC-based work stations, plus peripherals.

b. The Remote Sensing Applications Subsystem (RSAS),
   3 Remote sensing workstations, 1 Remote Sensing server and other peripherals.
   A suite of applications will be part of the delivery.

Some test data will be delivered for both subsystems. Training will be conducted as an integral part of the system handover.

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**PART B-World Bank project status**

**The General Cadastre and Land Registration Project support – the cadastre component for the year 2003**

In January 2003 The Unit for Implementation achieved the agreement of the ONCGC board for the 2003 Acquisitions Plan – the cadastre component.

In 2003, the Acquisitions Plan’s objective is to spend 10 mil. USD as follows (on the domains):

- civil constructions: 0,2 mil. USD
- equipment acquisition: 1,1 mil. USD
- technical services: 8,2 mil. USD
- consulting and training: 0,5 mil. USD
The buildings and local branches of the ONCGC will be rehabilitated within civil construction domain. In the next months is expected an approval due to the financing of this actions which will be made through existing contracts finalized beyond the World Bank acquisitions procedures.

The equipment chapter includes the acquisition of:

<table>
<thead>
<tr>
<th>CONTRACT</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>auxiliary equipment for training: 0,005 mil. USD</td>
<td>Contract 2003</td>
</tr>
<tr>
<td>computers, software and accessories: 0,45 mil. USD</td>
<td>Contract 2003</td>
</tr>
<tr>
<td>office equipment – copiers, faxes, alarm systems: 0,14 mil. USD</td>
<td>Contract 2003</td>
</tr>
<tr>
<td>Archives furnishings: 0,14 mil. USD</td>
<td>Contract 2003</td>
</tr>
<tr>
<td>vehicles : 0,4 mil. USD</td>
<td>Contract disburses 2002</td>
</tr>
</tbody>
</table>

Services acquisitions will focus on:

<table>
<thead>
<tr>
<th>CONTRACT</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>air-photo services during three campaigns covering a surface over 6 mil. ha.: 1,6 mil. USD</td>
<td>Aero 02 and Aero 03 Contracts in 2002 and Aero 04 Contract in 2003</td>
</tr>
<tr>
<td>systematic cadastre services based on air-photo and existing maps: 4,5 mil. USD</td>
<td>Contracts in 2001 (Cadastre services 01) and contracts in 2003 (Cadastre services 02)</td>
</tr>
<tr>
<td>land registration in the cadastre registry: 0,5 mil. USD</td>
<td>Contract ce se va încheia în 2003</td>
</tr>
<tr>
<td>IT systems finalized in 7 judets: 1,5 mil. USD</td>
<td>Contract din 2002</td>
</tr>
<tr>
<td>Advertising campaign: 0,1 mil. USD</td>
<td>Contract 2003</td>
</tr>
</tbody>
</table>

Consulting contract – about 0,5 mil. USD will be assigned for consulting and training services

In December 2003 a new work plan for TA was prepared due to the next considerations:

- the current Clients’ needs for TA intervention identified during the mission of the Consultants in Romania 14:20 Dec. (ITGIS) and 11*20 Dec. 2002 (MATL),
- the World Bank Mid-term Review Aide Mémoires of June and December 2002, and discussions with the WB delegation
- the fusion of Kampsax in Cowi and the newly appointed TA management in the Consultant firm
- the advantage of coordination with the coming PHARE Multi-annual Programme for Implementation of the Cadastre and Real Property Rights Registration System in Romania – Phase 1,
- informal discussions with other Contractors, namely IBM, and Blominfo.

The above, including the issues below, raised and debated during the Wrap-up Meeting of the Project Steering Committee and the WB Delegation of 13/12/2002, provide the backbone on which the TA will be fleshed for 2003. The following 7 major activities, supplemented by further recommendations in line with the ToR of the Consultant were identified as priority areas for TA intervention and project implementation.

1. Training and Capacity Building
2. Strategy and Business Plans
3. Procedures and Workflows for Central and County Offices, and IT strategy
4. Audit and Review of the Technical Requirements of JITS
5. Development of Cadastre Updating Software
6. Review of the Data Capture Contracts
7. Updated legal review of the Land Book Component

The activities above consist of several subcomponents which are covered in the present action plan, respectively for each Component where appropriate, as activities or proposals to be discussed and agreed. Other recommendations and areas of intervention identified where the TA could also support e.g. Publicity Campaign and Promotion, EU integration, Project Management System, Data Conversion, Use of VHR Satellite Imagery; the possibility for addressing these areas will be further assessed.

It is worthy to underline that the TA contract terminates on July 1st, 2003, in principle, both ONCGC and the Ministry of Justice agree to an extension until end of 2003. It has been therefore agreed that the present action plan should include TA for the whole of 2003. The action plan is constructed in away, stiff as it may seem, though still allows for flexibility and ad hoc tasks that might emerge. The splitting up of TA budget between components is also taken into consideration. At this stage, it is recommended; so not to halt the development of activities for the one component or the other because of budgetary limitations, that the budget is split or redistributed between the respective beneficiaries, at the end of the project. The areas of intervention according to the needs identified and recommendations are listed in continuation.

Project Management and Capacity Building

Justification of proposals
The PMUs are supposed to support in project implementation by provision of guidelines and meeting the right decisions in a cadastre and land registration project. Well functioning, modern land administration systems could provide an inspiration, and together with high tech tools and project management skills offer the basis for successful and professionally managed projects. This could be gained, amongst other, from a 1 week study tour to Denmark, to get introduced to the Danish system in use since 1844. The participants should mainly be the newly appointed members of the PMUs.

A course in Denmark could also be arranged for a 4 to 6 weeks period for 10 of key operational staff. The modules could be project management and modern land administration tools and practices to ensure capacity building and hence sustainability and continuity.

Objectives
For a far-reaching nationwide project under the responsibility of state institutions like the MoJ and ONCGC, it is basic to ensure that the project management and implementation groups, as well as the key operational staff, are well aware of the task in hands, and possess the necessary tools and skills to tackle a project of such complexity.

Expected output
1.10.1. Workshop for new PMUs
1 week input from 2 International experts as soon as possible to draw the global view for the new Steering Committee and the new PMUs, to meet the right decisions in both the cadastre and Land Book Components for achievement of sustainable and cohesive System, and coordination with PHARE projects. The experts proposed are the Land Registration and Land Records Expert and the ITGIS and Cadastre Specialist. (0,25 mm). 1 Workshop for 2 days as soon as possible.

1.10.2. Study Tour
1 week study tour for the new PMUs to Denmark, as introduction to well functioning and modern land administration practices.

1.10.3. IT Training
2 weeks in Romania for Follow up on ESRI Romania Training Course. This will cover and familiarise key operational staff with new cadastre applications and data management in the JIS developed by IBM on ESRI platform.
1.10.4. Course (optional)

4 to 6 weeks course in project management and modern land administration processes in Denmark for key managerial and operational staff from both MoJ and ONCGC. A draft programme has been prepared by the consultants and is being translated to Romanian for submission and evaluation.

Input/Resources

For project management and coordination of inputs, quality assurance, and to ensure the interface with the Clients in line with the original Consultant proposal; 6 missions of 2 weeks every second month are planned; halftime in Romania and half in Denmark for the MATL. The duties will consist of management and coordination of international and national staff input as well as QA of outputs and prompt intervention for any identified need or bottleneck, in addition to, possibly if agreed, planning the Study tour and the course.

Further, to assess the progress of the project, and project implementation in line with present contract and budget; the Monitoring and evaluation expert will provide an input of 2 weeks in May and 2 weeks in Nov.

The National team leader, OSTLA is according to present contract full time employed on the project, his duties consisting of supervision and coordination of National consultants’ activities, monthly and quarterly reporting on project activities, and the final report in collaboration with the MATL, as well as a kind of TA to the client.

The Consultants propose to hire the services of the Training Advisor of the TA team, for 2 weeks. He will together with the national consultants, and the training officers from the 2 Implementation Groups, review the contents and tailor the programmes, profiling the participants, and identifying the needs and modules of the series of courses.

Resources:

MATL: 3 mm
M&ES: 1 mm
OSTLA: 12 mm
ITSA: 12 mm
GA: 12 mm
SA: 3.2 mm
Lreg & ITGIS: 0.25 mm

Critical Assumptions

The management and implementation of this project requires skilled, experienced and highly qualified staff. Given the recent changes in the staff composition within the PMU/IGs, the consultants consider the investment in capacity building worthwhile for ensuring the long term perspective, hence, sustainability, including coordination and dovetailing with the coming PHARE project. Mobilisation of additional funds available from Project budget should benefit greatly the institutions in the undertaking of these activities which have to be conducted soonest. Funding for above TA human resources is available from TA budget, including MATL 0.5 mm for training and course planning, SA: 0.5 mm, and support from ITSA. For ensuring a better management and quality control of deliveries, the consultants would request more time in home office than has been the case so far.

Business plan for the Technical Assistance Activity in Semester I 2003

In accordance with the approved general plan for cadastre component, the following working plan was made, discussed with ONCGC’s board and approved in January:

1. The assessment of the existing data and the achievement of technical specifications for the digital ortophoto plans output for the surfaces in Olt and Dolj counties (“judet”). At the end of the year 2002, ONCGC identified the data (movies, contract copies, etc) of a photogrammetric flight for which the digital ortophoto plan wasn’t made. This work was ordered by another agency and it is
now in the ICGFC’s fund. The flight took place in satisfactory conditions in order to get the necessary ortophoto plans for the achievement of the cadastral mapping index – aerial-photos acquisition 1998-1999: infrared color, flight scale 1: 25 000, surface: 1400 sqkm.

2. **Achievement of an IT application design and software for updating the graphic and alphanumeric data included in the cadastral mapping index.** This application will be developed by the consulting team according to the actions portfolio established by the last World Bank supervisory mission. This application is intended for all the local offices which are not included in the IT contract. At the beginning of the year 2003 a number of contracts, regarding the achievement of the cadastral mapping index, has started for two administrative territories in each county (“județ”). Acquisition of two graphic stations, updating the existing “ArcView” licenses (brought in 1994-1996, by the Ministry of Agriculture, Food and Forestry as a part in a Phare project) and the development of these software application are included in the systematic computerization activity for cadastral component. The supplementary Phare 2003 Project will provide a graphic station, a “ArcView” license and training for an operator in two stages.

3. **The audit of the IT system for general cadastre and land registration.** During the last supervisory mission World Bank was informed about the difficulties in the implementation of the contract for achievement of an integrated informational system and decided for the consulting team to realize the system’s design audit.

4. **Donor coordination strategy for the ONCGC - Business plan and cost recovery.**

5. **Training in IT system and ESRI products.** This activity is related to the one in 2nd position.

6. **Workshop for the new PMU.** According to the rapport of the last supervisory mission and World Bank and Government of Romania Joint Portfolio Review established activity, new project implementation structures were introduced in February - March 2003. Consulting team proposed a knowledge transfer to the new structures.

This plan will evolve new activities in the next months after the joined workshops of consulting team and the new PMU’s.
Acronyms used in the Standard Summary Project Fiche

<table>
<thead>
<tr>
<th>Acronym in Romanian</th>
<th>Acronym in English</th>
<th>Term in Romanian</th>
<th>Term in English</th>
</tr>
</thead>
<tbody>
<tr>
<td>UMP</td>
<td>PCU</td>
<td>Project Management Unit</td>
<td>Project Coordination Unit</td>
</tr>
<tr>
<td>IG</td>
<td>CIG</td>
<td>Implementation Group</td>
<td>Cadastre Implementation Group</td>
</tr>
<tr>
<td>MJ</td>
<td>LBIG</td>
<td>Ministry of Justice</td>
<td>Land Book Implementation Group</td>
</tr>
<tr>
<td>BCF, LBO</td>
<td>AT</td>
<td>Land Book Office</td>
<td>Technical Assistance</td>
</tr>
<tr>
<td>MATL</td>
<td>M&amp;E</td>
<td>Management Technical Assistance Leader</td>
<td>Monitoring &amp; Evaluation Consultant</td>
</tr>
<tr>
<td>OSTLA</td>
<td>ITSA</td>
<td>Technical Assistance Team Leader</td>
<td>Information Technology and GIS Consultant</td>
</tr>
<tr>
<td>GA</td>
<td>SA</td>
<td>Geodetic Assistance</td>
<td>Surveying Assistance</td>
</tr>
<tr>
<td>LregA</td>
<td>OPQA</td>
<td>Land Book Consultant</td>
<td>Ortophoto Plan Quality Assistance</td>
</tr>
<tr>
<td>SITI</td>
<td></td>
<td>Integrated IT System</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Acronym in Romanian</th>
<th>Acronym in English</th>
<th>Term in Romanian</th>
<th>Term in English</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAP</td>
<td>MPA</td>
<td>Ministerul Administratiei Publice</td>
<td>Ministry of Public Administration</td>
</tr>
<tr>
<td>MIE</td>
<td>MEI</td>
<td>Ministerul Integrarii Europene</td>
<td>Ministry of European Integration</td>
</tr>
<tr>
<td>MAAP</td>
<td>MAAF</td>
<td>Ministerul Agriculturii, Alimentatiei si Padurilor</td>
<td>Ministry of Agriculture, Alimentation and Forests</td>
</tr>
<tr>
<td>MJ</td>
<td>MoJ</td>
<td>Ministerul Justitiei</td>
<td>Ministry of Justice</td>
</tr>
<tr>
<td>OPCP</td>
<td>CFCU</td>
<td>Oficiul de Plati si Contractare Phare</td>
<td>Central Financing and Contracting Unit</td>
</tr>
<tr>
<td>ONCGC</td>
<td>NOCGC</td>
<td>Oficiul National de Cadastru, Geodezie si Cartografie</td>
<td>National Office for Cadastre, Geodesy and Cartography</td>
</tr>
<tr>
<td>OJCGC</td>
<td>JOCGC</td>
<td>Oficiul Judetean de Cadastru, Geodezie si Cartografie</td>
<td>Judet Office for Cadastre, Geodesy and Cartography</td>
</tr>
<tr>
<td>BCF</td>
<td>LBO</td>
<td>Biroul de Carte Funciara</td>
<td>LAND BOOK OFFICE</td>
</tr>
<tr>
<td>ICGFC</td>
<td>ICGPC</td>
<td>Institutul de Cadastru, Geodezie, Fotogrammetrie si Cartografie</td>
<td>Institute of Cadastre, Geodesy, Photogrammetry and Cartography</td>
</tr>
<tr>
<td>ORNISS</td>
<td>NROSSI</td>
<td>Oficiul Registrului National al Informatiilor Secrete de Stat</td>
<td>National Registry Office of the State Secret Information</td>
</tr>
</tbody>
</table>
Status of contracted services
Annex 5 - Structure of 3 years PHARE programming

The Multi-annual Programme for Implementation of the Cadastre and Real Property Rights Registration System in Romania has three interrelated and interdependent purposes:

1. Strengthening of the institutional framework; harmonise, streamline and computerise processes of cadastre and real property rights registration;
2. Supporting systematic implementation of general cadastre and real property rights registration area by area to achieve countrywide coverage at earliest possible time.
3. Improving user services, and supporting the development of the cadastre and real property rights registry system as an open system with other related public registers and services;

The overall objective and the project purposes cover the whole multi-annual programme, but the emphasis on sub objectives and activities will develop from year to year concurrent with the development of the sector and when the implementation process is gaining momentum as outlined below:

PROJECT FICHE YEAR-2003 assistance focus:
   a. Building integrated management and operational capacity, standardisation and simplification; complete the IT-infrastructure to be scaled to mass registration activities;
   b. Assistance for rapid coverage of skeleton data and for mass registration;
   c. Methodology development on systematic registration and develop solutions for the periurban areas and the old land book areas;
   d. Improving delivery of user services;

PROJECT FICHE YEAR-2004 assistance focus:
   a. Strengthening the regional /local registration activities, co-operation structures and services; Completion of the IT-infrastructure; Professional training;
   b. Assistance for mass registration and for processing management;
   c. Development of data exchange and data sharing;

PROJECT FICHE YEAR-2005 assistance focus:
   a. Streamlining the cadastre and land registration systems for the future;
   b. Assistance for mass registration and for systematic registration;
   c. Building modern user services;

Annex 6 – Contracts details

<table>
<thead>
<tr>
<th>Name of contract</th>
<th>Type of contract</th>
<th>Correspondence with Logical Framework Matrix</th>
<th>Mens</th>
<th>PHARE financing Mil. Euro</th>
<th>National co financing Mil. Euro</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1-Twining</td>
<td>Twining covenant</td>
<td>Component 1</td>
<td>36 MM of international</td>
<td>1.200</td>
<td>0</td>
</tr>
<tr>
<td>Component 1</td>
<td>Component 2</td>
<td>Component 3</td>
<td></td>
<td></td>
<td></td>
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<td>-------------</td>
<td>-------------</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C2-Tech</strong></td>
<td><strong>C2-</strong></td>
<td><strong>C2-</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Assistance</td>
<td>Component 2</td>
<td>Component 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36 MM of international experts, 312 MM national experts, 0.340 Mil Euro services,</td>
<td>1.500</td>
<td>0</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Supply</th>
<th><strong>C3-</strong></th>
<th><strong>C3-</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot 1 - IT equipment for LBO</td>
<td>Lot 1 - The computerization for 28 large LBO - 28 servers, 252 workstations, 28 printers, 28 scanners, 28 packages of software, 28 networking installation, etc</td>
<td>Lot 1 - 0.680</td>
</tr>
<tr>
<td>Lot 2 - IT and survey equipment for OJCGC, ICGFC</td>
<td>Lot 2 - GPS survey equipment 5 rovers, 1 Notebook for field computation and storage, 40 graphical workstations (35 for OJCGC and 5 for ICGFC), 36 fileservers, 40 software packages, 36 networking installation, 1 large scanner etc</td>
<td>Lot 2 - 0.470</td>
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<thead>
<tr>
<th>Supply</th>
<th><strong>C4-</strong></th>
<th><strong>C4-</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>IT equipment for LBO</td>
<td>Component 1</td>
<td>Component 3</td>
</tr>
<tr>
<td>The computerization for 1 large LBO , and 12 medium LBO -13 servers, 57 workstations, 13 printers, 13 scanners, 13 packages of software, 13 networking installation, etc</td>
<td>0</td>
<td>0.288</td>
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<table>
<thead>
<tr>
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<th><strong>C5-</strong></th>
<th><strong>C5-</strong></th>
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</thead>
<tbody>
<tr>
<td>Aerial Photography and Orthophoto</td>
<td>Component 3</td>
<td>Component 3</td>
</tr>
<tr>
<td>Areas covering 27 000 sqkm</td>
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<tr>
<td>Mapping</td>
<td>Technical assistance</td>
<td>Component 3</td>
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<tr>
<td>-------------------------------------</td>
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<td>-----------------------------</td>
</tr>
<tr>
<td><strong>C6-Cadastre services contract and data conversion</strong></td>
<td></td>
<td></td>
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<tr>
<td>Total amount of contracting</td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

The need assessment is where estimated based on World Bank project experience and with PPF experts support.