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**REPUBLIC OF CROATIA
MINISTRY OF JUSTICE
AND
STATE GEODETIC ADMINISTRATION**

**INTEGRATED LAND ADMINISTRATION SYSTEM PROJECT
(Project Preparation Advance No. P459-HR)**

ENVIRONMENTAL MANAGEMENT FRAMEWORK

Zagreb – May 2011

List of Abbreviations

Bank	International Bank for Reconstruction and Development
EA	Environmental Assessment
EMP	Environmental Management Plan
EMF	Environmental Management Framework
SGA	State Geodetic Administration
EU	European Union
IBRD	International Bank for Reconstruction and Development
ILAS Project	Integrated Land Administration System Project
PMU	Project Management Unit
PSC	Project Steering Committee
MEPPPC Construction	Ministry of Environmental Protection, Physical Planning and Construction
MoJ	Ministry of Justice
NSDI	National Spatial Data Infrastructure
PPA	Project Preparation Advance
RoC	Republic of Croatia
RCO	Regional Cadastral Office
LRMS	Land Registration Management Sector
JIS	Joint Information System
LR	Land Registration
LRO	Land Registry Office

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Introduction

The objective of the Integrated Land Administration System Project (ILAS Project) is to modernize the land administration system in the Republic of Croatia in order to improve on the government services from the point of view of efficiency, transparency and costs. This is proposed to be achieved through the four project components:

- A. *Automating Land Registration* would focus on further simplification and automation of the land registration system operated in the municipal courts under Ministry of Justice (MOJ). A specialized unit within MOJ – the Land Registration Management Sector (LRMS) – is responsible for managing the land registration offices decentralized in 67 municipal courts. These improvements should also fit within the overall judicial reform program underway for EU accession. The activities would include scanning and digitizing land registry documents, legal framework improvements, and further cleaning of the digital data for migration to the Real Property Registration and Cadastre Joint Information System (JIS).
- B. *Spatial Information and Cadastre System Modernization* would focus on improving the quality and presentation of spatial data managed and maintained by State Geodetic Administration (SGA) and implementation of a National Spatial Data Infrastructure (NSDI), in line with the EU INSPIRE Directive. This component will also support SGA with its own re-structuring, including improving the physical premises for 3 regional cadastral offices and technical assistance to support HR planning and future IT outsourcing; improvements to the Geoportal and digitizing of cadastre documents.
- C. *Improving Digital Services* would support further development of the JIS and completion of the JIS roll-out to all cadastre and land registry offices, the associated data migration, and training; and associated public awareness and information campaign to introduce the JIS and service improvements to the public. The Component would also support the establishment of a structure and strengthening institutional capacities to manage the JIS operation and further development; technical assistance to analyze the existing groups/types of non-harmonized data and elaborate solutions for data harmonization; and cadastral map homogenization to transform all digital cadastre maps into a unified, geo-referenced cadastre map in Croatia's new coordinate system (CROPOS).
- D. *Project Management, M&E and Training*. This Component will support a small Project Management Unit (PMU) responsible for fiduciary functions and monitoring and evaluation. This Component will also include funds for training under the Project and for improving the education programs of both the geodetic and legal faculties to bring them more in line with the modernization of the land administration system.

The Government of Croatia has requested The International Bank for Reconstruction and Development (Bank) to support Croatian land administration system modernization in line

with the EU accession needs and priorities. The Bank financing would support the modernization effort in areas where the Bank has considerable expertise, and which has not been covered by assistance from the EU or bilateral donors.

MoJ and SGA are the Project implementing agencies and beneficiaries. The funds have been approved based on the past successful cooperation and completion of the Real Property Registration and Cadastre Project (January 2003 to June 2010) that is recognized as the pillar of the "Organized Land" National Land Administration Reform Program. The results of the reform are visible mostly in the reduced time needed for processing cases, backlog reduction and faster mortgage registration. If one adds to this also the transparency ensured by the e-Land Registry browser (over 75 million inquiries) and e-Cadastre (over 30 million inquiries), the extraordinary interest and need for this service as well as the importance of a modern land administration system for the State and its citizens become obvious. In the past five years, there have been great improvements in the development and modernization (digitalization and open public access to data over the Internet) of both the land registration (LR) system and the cadastral system. The improvements have been achieved against an increasing number of in-coming cases.

Today the land administration system reform is halfway i.e. preconditions have been created for the implementation of an efficient real property registration system and the JIS has been completed. The JIS provides a unified database and application for keeping and maintaining the real property registration and cadastre data. In the next phase, it is necessary to implement JIS throughout the Republic of Croatia which will streamline both the cadastre and land registry systems and simplify the business processes.

The new ILAS Project will represent a continuation of the Real Property Registration and Cadastre Project and will serve as the framework for financing the activities envisaged by action plans for strengthening the judiciary. It will ensure the continuity of the land administration reform as one of the priority reforms in the RoC. It should enable that all the past efforts and investments are materialized in a modern, well-functioning system of registering the real property and appertaining titles that will represent not only a strong basis for the efficient land administration system in Croatia but also a National Spatial Data Infrastructure (NSDI) multifunctional platform that will be a motor for the economic growth in Croatia within the framework of the European Union.

The projected estimated amount of the loan for the new ILAS Project amounts to EUR 15 million.

An important part of the land administration reform is the court and cadastre office network rationalization. Component B of the ILAS Project encompasses the resources to construct a building of the data conversion centre as part of the scan centre in Vinkovci and the provision (purchase/additional construction) of three business premises for the needs of the regional cadastral offices. The rationalization and the follow-up shut-down of the regional cadastre branch offices will lead to the need to concentrate the employees in the regional office seats whose business premises meet neither the current nor the future needs. Therefore, a necessary precondition for the reform completion is to create physical preconditions in the regional cadastre office seats.

ILAS Project has triggered World Bank safeguards policy: OP/BP 4.01 Environmental Assessment. Policy is addressed through this part of the Operational Manual. ILAS Project has been classified as environmental Category B in accordance with the Bank's Operational Policy on Environmental Assessment (OP/BP 4.01) due to anticipated rehabilitation and

construction of cadastral offices and scan-centre facility as part of the Project expenditures. An environmental review that is based on the previous projects has been conducted to assess the application of Croatian environmental laws, permits, and practice to construction in Croatia.

The review of existing documents concluded that the construction proposed under this project would not trigger a full Environmental Impact Assessment under the Croatian laws nor the World Bank policies. The type of expected environmental impacts of concern is localized in nature and more adequately addressed through environment permits and good construction practice, or in the case of World Bank policies, through implementation of site-specific checklists of the environmental management plans (EMP checklist) (in the case of construction or extension) while general measurements will be given for the objects to be only refurbished in the environmental management framework.. The environmental issues to be addressed through these instruments include ensuring that sites are safe and suitable for construction, proper waste management and disposal of construction debris (including asbestos), proper waste water treatment;, dust and noise control, sensitivity of designs to cultural settings, and cultural heritage/chance finds procedures. An **Environmental Management Framework** for the Project has been prepared as part of the Project Operations Manual. It provides environmental screening procedures, the nature of Environmental Assessment (EA) or EMP checklist which should be prepared for office construction or extension, and an example of the environmental issues that will be addressed through the permitting, construction, contracting, and operations of the new and/or rehabilitated facilities (See *Annex 2. EMP checklist*). These environmental issues will be addressed and ensured through a series of local permits, through constructor contracts, through site supervising engineer oversight, through the local municipality requirements, and through oversight by a small team in the State Geodetic Administration, will be designated for the issues of the project environmental compliance.

1. Environmental Management Framework

1.1.OBJECTIVE

The Environmental Management Framework (EMF) has been prepared in order to integrate environmental concerns into the design and implementation of the proposed Project. The EMF supports:

- (a) inclusion of environmental screening procedures and sequent environmental due diligence documents for individual sub project sites concerning all Project-supported office rehabilitation, extension and construction activities;
- (b) site-specific environmental mitigation measures and monitoring requirements of activities commonly associated with the rehabilitation of buildings and construction;
- (c) highlighting of EMP follow-up responsibility in the TOR of the designated SGA staff and officials in the cadastral offices working on the project;
- (d) training of designated staff from the SGA involved in the implementation of Project activities;
- (e) guidelines and requirements on retrofitting buildings that may have historic or Cultural Property value and provisions associated with “chance finds”

1.2.

MAJOR INVESTMENT COMPONENTS

The main physical investment activities of the proposed ILAS Project are under the Component B: Spatial Information and Cadastre System Modernization which would focus on improving the quality and presentation of spatial data managed and maintained by SGA and implementation of a national spatial data infrastructure (NSDI), in line with the EU INSPIRE Directive. Support for restructuring of SGA: SGA will be reorganizing its office structure. Currently there are 112 local offices and 20 regional offices. Many smaller offices will need to be closed or turned into service points (for submitting and receiving documents only). Regional offices will take on more staff and functions in the short term to facilitate service provision across their territory. Several SGA regional offices have been renovated by at least 7 others are in need of major renovation. As such the Project will finance renovation or buying space for 3 regional offices and construction of the building for data conversion within the Scan centre in Vinkovci.

The preliminary list of sub- projects is shown in Table 1.

Activities would consist of: **a)** minor civil works for rehabilitation and renovation or extension of existing office facilities, **b)** construction of building within the existing Scan centre.

Table 1 List of offices and associated type of works

Office forename	Location	Intended civil works	Real Property Ownership	Environmental assessment documents required
Data conversion centre building as part of the scan centre	Vinkovci	Construction building Blueprint area of approx. 105 m ² (developed gross surface area: 313 m ²)	LR file no. 8730 Right of construction on parcel no. 1993/12 Vinkovci CM, registered in LR file no. 677 for the benefit of: Republic of Croatia, State Geodetic Administration, Gruška 20	EMP checklist
Regional Cadastral Office	Bjelovar	Purchase of the building (680 m ²)	Rotor d.o.o. company, Bjelovar Ul. Hrvatskog proljeća 10	
Regional Cadastral Office	Šibenik	Purchase of the building (approx. 500 m ²)	Zagreb – Montaža Grupa 10 000 Zagreb, Veslačka 2-4	
Regional Cadastral Office	Sisak	Rehabilitation (approx. 342 m ²) and extension (approx. 300 m ²)	Town of Sisak ½ Republic of Croatia ½	EMP checklist

1.3. ENVIRONMENTAL CATEGORY

It is anticipated that environmental risks related to rehabilitation, extension and construction would be easily predictable and mitigated in the proposed project. The measures on rehabilitation or renovation of cadastral office facilities are considered to mitigate potential adverse environmental impacts. For the extension of offices on the existing sites and construction of new building for scan centre, which have potentially larger environmental impacts, a separate environmental assessment documents will be prepared for individual sub projects based on this EMF.

The environmental impacts of the project are expected to be of manageable, temporary and of local impact as they are related to the general construction activities on already known location. These most commonly include: a) Dust and noise due to excavation, demolition and construction; b) Management of demolition and construction wastes and accidental spillage of machine oil, lubricants, etc., c) Encroachment to a private property; d) Risk of damage to historical or cultural property or unknown archaeological sites; e) Traffic disturbance, f) Impacts / damage to ecosystems, and g) Impacts on hydrology of the area.

These risks can be effectively anticipated in advance of project implementation and addressed by direct mitigation activities in the design, planning and construction supervision process as well as during the operation of the facilities. The project is classified under the Environmental Category B in accordance with World Bank operational policies and requires the preparation of an Environmental Assessment. The project as a whole has an EMF. Environmental due diligence procedures for sub projects are explained in more detail in section 1.2. of EMF. The sub – projects will be individually assessed by the SGA and Bank. Potential category A projects will not be financed under ILAS Project neither by Bank's or Government funds, *i.e.* only category B sub-projects will be considered for financing. These would include sub projects in the sensitive areas, sub projects in the vicinities of contaminated sites, or any other sub - projects that are likely to have significant adverse environmental impact (*i.e.* significant dewatering of the site, removal of small creeks, etc.)

1.4. SITE SPECIFIC ENVIRONMENTAL SCREENING

As a part of the EMF, all Project-supported activities for rehabilitation and construction of cadastral offices facilities will be subjected to a site-specific environmental screening and review process.

Since the investments planned under the project might have different magnitude of environmental impacts which depends mainly on the size and location of investment, a preparation of environmental assessment documents of different scope for different type of sub projects is envisaged.

The team in the SGA will together with the World Bank team assess the sub project and propose due diligence according to WB procedures as Croatian legislation does not require an environmental assessment for these type of projects. The required information for screening the

sub project is presented in the following table form (table 2). Before commencing the preparation of the documents, SGA will submit the recommendation to WB for no objection (in the form bellow). The Bank will issue its no objection to proposal of category¹.

Table 2 Environmental screening data form

Sub project	<i>Name, location and type (office renovation, office extension on the existing office site, or scan centre construction on new site)</i>
Description of present situation	
Description of location:	<i>(maximum one page) Historic, current use and purpose of land – land use plan, neighborhood, geographical position, basic hydrology, access to transport infrastructure, some info on nature – flora and fauna or protected areas, important cultural monuments; archeological heritage A special attention should be given to the current ownership, occupation and/ or use of the land – the ownership should be described, in addition to that presence of any type of residence or economic type of activities should be noted.</i>
Relation to Physical Plan:	<i>Physical Plan exist/not exists / isn't needed; location already included as..., special requests from Physical Plans – if any</i>
State of environment:	<i>sewage system exist/not exist; solid waste disposal exist/no exist; air pollution; impact of other/existing industry/plants; state of transport facilities; potential soil pollution;</i>
Description of planned activities:	
Description of activities:	<i>(half page) What? size?</i>
Environmental Impacts	<i>Please describe briefly potentially significant environmental impacts related to the construction and operation of office (if any)</i>
Proposed category	
B 1 B 2	<i>Please elaborate (categories are explained in the EMF, table 3)</i>
Person proposing the environmental category (SGA)	
Date and Place	

¹ Only B category sub projects will be financed. Category A projects will not be financed under ILAS Project.

Filled form will be send to the WB for no objection prior to preparation of environmental due diligence reports for relevant sub project.

All activities envisaged under the project will fall under World Bank category B related to environmental assessment. The category will depend on the environmental sensibility and suitability of the site.

The construction of the cadastral office in general does not have significant environmental impacts. .

The environmental screening table for category B (Table 3) differentiates two different types of activities: a) rehabilitation (B2) and b) extension or construction on existing location (B1). Consequently, two different type of due diligence environmental assessments reports can be applicable.

Table 3 Environmental Screening table

Types of Category B activities	Environmental Assessment documentation required	Type of public consultation	Applicable to:
1	Site-specific EMPs for each office building in form of a checklist	Public disclosure on the website of the SGA, Project and the municipal info board, written comments from the public requested	New office or extensions on existing locations. Demolitions and new construction.
2	No site-specific EMPs necessary. General measures described in EMF are applicable	Disclosed as part of EMF	Rehabilitation of existing office on existing locations.

For **extension or construction of offices in existing locations (B1)** *i.e.* For low risk topologies (e.g., rehabilitation works), the ECA Region of the Bank developed an EMP checklist type format. The goal is to provide a more streamlined approach to preparing EMPs for minor rehabilitation or small-scale building construction, especially in education, health and public service reconstruction sector. The checklist-type format attempts to cover typical mitigation approaches to common civil works contracts with localized impacts. The intent is that this checklist would be directly usable and applicable in bidding documents and as an integral part of contract documents for civil works under Bank-financed projects. The checklist has three sections:

- a) Part 1 constitutes a descriptive part (“site passport”) that describes the project specifics in terms of physical location, the institutional and legislative aspects, the project description, inclusive of the need for a capacity building program and description of the public consultation process,
- b) Part 2 includes the environmental and social screening in a simple Yes/No format followed by mitigation measures for any given activity,
- c) Part 3 is a monitoring plan for activities during project construction and implementation.

A special attention in EMPs should be put to:

- a) current environmental problems at the sites (soil erosion, water supply contamination, soil contamination, etc.);
- b) potential environmental impacts due to the project (disposal waste from construction, construction noise and dust, etc);
- c) potential impacts on archaeological and historical sites as well as nature protection sites or sensitive zones;
- d) potential requirements for land acquisition or involuntary resettlement / temporary relocation of a limited number of affected persons during the construction activities according to the procedures highlighted in the Resettlement / Land Acquisition Policy Framework

The Environmental Assessment documents will be prepared based on the criteria presented in the table 3, specifying mitigation measures and assigning responsibilities for implementation. The supervising engineer will prepare the monthly reports for the SGA on implementation of EMP checklist.

Semi annual reports outlining progress in EMP implementations and highlighting environmental issues arising from Project-supported activities, the status of mitigation measures and next steps will be prepared by SGA in coordination with the representatives of each participating cadastral office and submitted to World Bank for review.

1.5. LEGAL FRAMEWORK INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS

This section briefly describes existing environmental regulation and standards relevant to the Project and makes reference to institutions at the local and national levels responsible for issuing permits, licenses, and enforcing compliance of environmental standards. The section as well identifies the responsibilities for the project implementation with in the SGA and Regional Cadastral Offices.

World Bank policies

As for the other projects proposed for World Bank financing, ILAS Project also requires preparation of environmental assessment (EA) to help ensure that reconstruction / construction of facilities are environmentally sound and sustainable and as well to improve decision making related to the project. The Bank undertakes environmental screening of each proposed project to determine the appropriate extent and type of EA. The Bank classifies the proposed project into one of four categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts. In this way risks associated with project actions can be effectively anticipated in advance before project implementation, and addressed by direct mitigation activities in the design, planning and construction supervision process as well as during the operation of the facilities.

The project has been classified as a category B project, meaning that the project might have potential adverse environmental impacts on human populations and/or environmentally important areas. For all Category B projects and Environmental management Plan needs to be prepared.

- **Environmental Management Plan and administrative procedures preceding construction**

The Environmental Management Plan (EMP) aimed at carrying out the investment project comprises procedures whose purpose is to recognize and control the quality of environment and to identify and implement measures, aiming at mitigation of negative environmental impacts and environmental protection.

The World Bank regulations define the obligation of producing and enforcing EMP. Although under the Croatian laws and acts, EMP is not an obligatory document in the preparation of any investment projects, some elements usually found in EMP are prescribed in permits and documents preceding construction, whose supervision is under the jurisdiction of different ministries and agencies (*Annex 4.*).

Croatian policies

The following Croatian Laws define a legal framework for environmental management (see *Annex 3* for details):

- The Law on Environmental Protection - Off. Gazette No. 110/07
- Physical Planning and Building Act – Off. Gazette No. 76/07, 38/09
- The Law on Nature Protection - Off. Gazette No. 70/05
- Regulation on Environmental Impact Assessment – Off. Gazette No. 64/08, 67/09)
- The Law on Protection and Preservation of Cultural Values - Off. Gazette No. 69/99, 151/03, 157/03, 87/09, 88/10)

One situation related to administrative procedures for procurement of documents proceeding construction works execution has been recognized:

1. Reconstruction that includes upgrade (building extensions)

Procedures preceding construction in Croatian legislative are: **land acquisition, environmental impact assessment (EIA), location permit** procurement and **construction permit** procurement. For the type of projects / activities envisaged under ILAS Project EIA is neither required nor suggested.

After issuance of all relevant permits, completion of construction works, and before utilization of the object, it is necessary to obtain **Operation Permit**.

▪ **Location permit**

Location permit is administrative document defined by the Physical Planning and Building Act (Off. Gazette No.76/07 and 38/09). It is issued based on Physical Planning document and on special related laws and regulations.

Location permit defines important characteristics of planned intervention like: form and size of construction lot, purpose, size (height, number of floors) and area of the constructed object, auxiliary objects on construction site (garages, storages, septic tanks, etc.), architectural form of the object (roof, materials and other factors depending on surroundings), site organization, methods and conditions of connection of the object to public traffic surface (including parking

lots) and communal infrastructure, mitigation measures related to environment (if intervention notably effect environment by its operation) and other elements important for spatial intervention. Location permit needs to be issued for every spatial intervention, except for cases specially defined under regulations (The Ordinance on Spatial Intervention that do not Require Procurement of Location Permit - Off. Gazette No. 101/07).

If construction works are performed on an object protected as cultural monument, prior to any kind of works (for spatial intervention that do not require location permit) it is necessary to obtain an official approval from the regional authorized body (Regional Office for Monument Protection).

▪ **Construction permit**

Construction permit is administrative document defined by the Law on Physical Planning and Construction (Off. Gazette No. 76/07 and 38/09). After verification and issuance of the permit construction may start. Construction permit confirms that the Main project is in compliance with Location permit and all special conditions issued by authorized bodies and obtained in the Location permit procurement procedure. In addition, Main project conformity to important construction regulations defined in the Law on Physical Planning and Construction are evaluated. For instance: mechanical resistance, stability of building, fire protection, sanitary health and environmental conditions, operational safety, energy efficiency, thermal insulation, access and mobility in the object. The ownership and the construction rights on the parcel are as well defined.

Construction permit needs to be issued for every construction, except for cases specially defined in regulations. For attaining Construction permit it is necessary to submit evidence that legal or physical entity submitting the request for permit has a right to build on the parcel.

▪ **Operational permit**

Operation permit is issued after the technical assessment of the constructed object, if proven that the object has been constructed in compliance with Construction permit requirements and the Main project.

1.6. INSTITUTIONAL ARRANGEMENTS

The Project Management Unit (PMU) will be responsible for:

- Bidding procedures for:
 - works relating to the purchase/construction/rehabilitation/extension of the offices funded under ILAS Project
 - services provided by the site supervising engineer;
 - ensuring that adequate guidelines and standards defined by EMP become part of the agreement with the contractor and site supervising engineer;
- offer support during the bid evaluation
- ensure that the contracts are signed in accordance with the World Bank procedures and guidelines
- The PMU Training Specialist will:

- draft a training program and coordinate training related to environmental protection for the involved SGA employees, designers and local contractors
- Ensure correct and prompt payment of authorized invoices

The Site Supervisory Engineer will be responsible for:

- According to the contract for the civil works supervision, and in addition
- for the implementation of environmental guidelines.

The activities of the Site Supervisory Engineer will involve:

- Regular monitoring and evaluation of the measures mitigating the negative environmental impact of the project and of the environmental protection in accordance with the EMP as well as the proposed monitoring
- Regular submissions of monthly reports on the conducted supervision to the Head of the Regional Cadastral Office
- Develop the environmental guidelines with regards to the issues not covered by the existing regulations.

The RCO Head will be responsible for:

- Developing individual EMP's for the location under his/her jurisdiction based on the Environmental Management Framework with the support of the PMU, Coordinator nominated at the SGA Head Office (hereinafter: Coordinator) and Site Supervisory Engineer
- General implementation of the investment project activities on the location
- Reporting to the Coordinator about the project implementation and EMP on the location
- Coordinate training with regards to the environmental site management

The nominated Coordinator at the SGA Head Office will be responsible for coordinating investment projects (for 3 selected RCO's and the scan centre building in Vinkovci), including the coordination of developing individual EMP's for each of the locations, planning and implementing environmental management and reporting to the SGA Director-General on the EMP implementation. The Coordinator will work closely with the PMU that will be responsible for the project procurement, financing and training programs for the staff and with the Assistant Director at the Sector for Procurement, Legal and Bookkeeping Affairs responsible for controlling and authorizing invoices.

The activities of the Coordinator encompass:

- Preparation of the consolidated report based on the reports received from RCO heads and site supervisory engineers on the implementation of EMP's
- Coordination/inspection of environment for projects
- Periodic site visits to double-check and approve the plans and supervise their conformity

After finalizing the construction the main responsibility of monitoring will fall under the RCO staff, especially the Head of RCO, who will be responsible for waste management and office maintenance staff responsible for municipal waste management.

In addition to structure in the SGA, the Ministry of Environmental Protection, Physical Planning and Construction (MEPPPC) with its inspection unit can participate in the supervision of the individual sub project implementation.

Implementation of the EMP provisions will be regularly reported in the semi annual progress reports. The input for the reports will be provided from the site supervising engineer, consultant supervising project implementation and RCO.

Table 4 Responsibilities for environment during construction and operation

<i>Responsibilities for mitigation and monitoring</i>	<i>Environmental information flow (reporting)</i>	<i>Decision making chain of command for environmental management (to take action, to authorize expenditures, to shut down, etc.)</i>	
		<i>Activities</i>	<i>Responsibility Institution or person</i>
<i>During Design:</i>			
Team in the SGA: - Nominated Coordinator in SGA Central Office (Coordinator) - Head of Regional Cadastral Office (RCO)	Design team to Head of RCO, Head of RCO to Coordinator, Coordinator to SGA Director General	Monitoring of the Implementation of the EMP and provisions of the EA	Design team Ministry of Culture
<i>During Construction:</i>			
Team in the SGA: - Coordinator - Head of RCO	Site Supervisory Engineer to Head of RCO, Head of RCO to Coordinator, Coordinator to SGA Director General	Monitoring of the Implementation of the EMP and provisions of the EA	Site Supervisory Engineer,
<i>During Operation:</i>			
Team in the SGA: - Head of RCO - RCO	Head of RCO to SGA Director General	Monitoring of the Implementation of the EMP and provisions of the EA	Appointed person from ROC Environmental Inspectorate

1.7. DISCLOSURE AND CONSULTATIONS

Public consultations or rather the draft Environmental Management Framework (EMF) presentation has been conducted by having the EMF published on the websites of the SGA (www.dgu.hr <<http://www.dgu.hr/>>) and ILAS Project (www.uredjenazemlja.hr <<http://www.uredjenazemlja.hr/>>) on 25 March 2011. The document was also available in analogue format at the Project Implementation Unit. The invitation to public consultations was publicly announced in two daily newspapers (*Večernji list* of 25 March and *Jutarnji list* of 26 March). Written comments from the public were requested within 2 weeks of the document publication. The comments could have been submitted in writing (by post, fax or e-mail) until 11 April 2011.

After the invitation to public consultations, no comments have been received to the published draft Environmental Management Framework.

All documents prepared according to table 3 will be prepared both in English and Croatian. After receiving NO objection from the World Bank, the documents should be publicly disclosed within the municipality (probably cadastre office and town/municipal board) and as well in the SGA and ILAS Project (websites and hardcopies on the information board) as presented in table 3. Written comments from the public will be requested within 2 weeks of the document publication.

All written comments will be addressed. Written comments will be reflected in the report to the extent possible and summary would be attached to the final report as annex.

The presentation of individual EMP's to the stakeholders will be carried out after the locations are selected and individual EMP's developed and approved by the World Bank.

2.1 ENVIRONMENTAL GUIDELINES

2.1.1 Introduction

The Environmental Guidelines section details the specifics to be addressed in the ecological/biologic concept, design and planning of small-scale projects for the upgrading of cadastral office infrastructure. The guidelines cover the handling of construction debris generated, selection of construction materials and construction methods with limited impact on the environment, energy saving methods as well as the handling of construction wastes under Project-supported activities. However, in selecting suitable construction methods and materials, great attention should be paid to locally available traditions, skills and resources in the project sites.

2.1.2 The Site

The proposed locations for cadastral offices and the new scan centre were chosen on the basis of the situational analysis and after defining the locations in great need of solving the issue of business premises and the availability of state owned land as well as physically suitability for construction and operation of a cadastral office. Seven cadastral offices locations have been included in a “more general selection” while five locations have been short-listed for being financed under the World Bank loan. Resources have been secured for three locations.

The solution for the business premises of the regional cadastral offices will increase the business premises and create better conditions for the work of employees, thus increasing the quality of services for the users, citizens, economy and authorities. It will also create preconditions for further reforms of the jurisdiction of an office or branch office that, as is the case with municipal courts, presupposes the concentration of capacities for the purpose of increasing the efficiency and quality of the system functioning.

The site specific environmental and social screening will be done and a review should carefully assess the following issues:

- History of land use at the site (particularly any industrial or other activity) which might have resulted in the presence of hazardous contaminants or sub-surface structures
- Presence of any important ground or surface water resources which could be negatively affected by the construction or operation of the office

- Proximity of the site to any known historical or archaeological assets which could be directly or indirectly damaged by the construction
- Present use of the land (presence of any residences or economic structures or activities, legal or otherwise)

Construction sites should be fenced off in order to prevent entry of public, and general safety measures would be imposed. Temporary inconveniences (traffic or other) due to construction works should be minimized through planning and coordination with contractors, neighbors and authorities. After completion of works the site should be restored as planned in the design. All wastes and machinery should be removed from the location. In densely populated areas, noisy or vibration generating activities should be strictly confined to the daytime. The contractor should conduct its practice to assure safety of vehicles and pedestrians around the site.

Dust from transportation and handling of construction works will be minimized by water and other means such as enclosure of construction sites. To reduce noise, construction will be restricted during certain hours. All debris, construction and wood waste will be stored within the work site. Wood waste will be stored separately and arranged to be recycled instead of disposing it. Open burning and illegal dumping will not be permitted. Proper sites for earth/clay and sand disposal will be determined and prior approval from relevant authority for disposal will be obtained. Stockpiling of construction debris on site will be avoided and waste will be disposed of on a regular basis at the authorized government dumping ground. Debris chutes will be provided to transfer debris from higher floors to the ground.

It is necessary to arrange transport and make agreements with relevant organizations involved in waste and construction debris discharge including the inspection.

It is also required to create necessary conditions for safe removal (if necessary) and installation and connection to municipal infrastructure during the construction and rehabilitation activities and observe the ecological and sanitary regulations during the rehabilitation of sanitary and technical equipment, sewage pipes and purifying constructions.

Encroachment into neighboring territory

Encroachment into neighboring territory should be avoided if possible. In case where maneuvering surface is too small, approval for the encroachment should be asked. Any accidental damages of the neighboring properties should be recovered and brought in the condition as it was prior to the construction.

Archeological and monuments finds

If encountering archaeological finds during preparation of the site for the construction, the contractor should stop the works, respond immediately and notify the municipal authorities, the Regional Institute for Protection of Cultural and Historical Heritage and SGA.

Works on protected constructions

If a construction is protected or part of the protected cultural property registered in the Cultural Heritage Register of the Republic of Croatia, it is necessary, when implementing the project, to

adhere to the expert opinion and conservation guidelines issued by the Cultural Heritage Protection Directorate of the Ministry of Culture:

- Before starting the ground works on the parcel in question, it is necessary to perform protective archeological research which will, depending on its results, determine necessary protective measures
- It is necessary to develop a high-quality architectural solution for the expansion. Special attention should be paid to the design of the building expansion so as to avoid exaggerated dimensions as compared to the building being extended and, through its design, contributing to the high-quality compositional whole with the main building
- In order to obtain prior special expansion and rehabilitation conditions, the investor shall submit to the Ministry of Culture the architectural drawings and, after having obtained positive special conditions, it is required to submit two copies of the main project in order to obtain prior consent, in accordance with Article 63 of the Law on Cultural Property Protection and Preservation and Article 213 of the Physical Planning and Construction Act.

The selected contractors shall meet the criteria set forth by the Rules and Regulations on the conditions for the natural persons and legal entities to obtain a permission to perform the works related to the protection and preservation of cultural properties (NN 74/2003).

2.1.3 Energy Efficiency, Insulation and Ventilation

Insulation should be tailored to the seasonal impacts of climate, internal thermal load, and characteristics of exposure. Vapour berries should prevent moisture intrusion in the roof insulation and outer wall cavities and using damp course.

Window location should be determined on view, ventilation, light, thermal gain, privacy control and interior space functions.

High-efficiency systems for heating domestic water (including solar systems) and for interior space heating should be selected with maintenance and long term running costs in mind. Plumbing should be coordinated to minimize plumbing and also water service to toilets, kitchen and utility rooms. Water-saving faucets, ring mains and other devices also require consideration. All plumbing lines should preferably be copper, with waste lines in cast iron to avoid PVC outgassing. Exposed plumbing and pipe insulation should be of nontoxic material.

All materials and equipment (to be used) should have a security certificate.

2.1.4 Cabinetry and Wood

Selecting the least toxic finishes (water based sealers) should be used especially on easily accessible surfaces for people. This implies that varnishes should not be used. All materials should have appropriate permissions on quality and safety (appropriateness certificate and sanitary-epidemiologic conclusion).

2.1.5 Finishes

Water-based interior nontoxic, no allergenic paint for drywall or plaster surfaces is preferable to latex or oil-based paints from a respiratory standpoint. Any enamel coating for doors or other surfaces that require a more durable finish is advised to be applied away from interior spaces and be fully aired for over a month before installation. Indoor space should not be occupied until odour and toxins of the paint or finish has been adequately aired.

2.1.6 Demolition work

Existing building elements (walls, foundations, ground cement slabs etc.) should be carefully demolished and the debris should be sorted and removed as directed by the annex 1 (to be determined during the preparation phase of the project). All valuable materials (doors, windows, sanitary fixtures, etc) should be carefully dismantled and transported to the storage area assigned for the purpose. Valuable materials should be recycled within the project or sold.

Prior to rehabilitation or demolition, a building should be inspected to determine wheatear there are building material such as particleboard, plywood, urea-formaldehyde foam insulation and various adhesives which emit formaldehyde, or weather there are asbestos insulation or roofing. If such material is found, a special mitigation health and safety measures should be prepared.

2.1.7 Selection of Construction Materials and Construction Methods

Priority should be given to products meeting international or national environmental standards. Both traditionally well-tried techniques and nationally or internationally accepted innovative techniques can be used

3 MONITORING, REPORTING AND DEVELOPMENT COMMUNICATION

3.1 MONITORING REPORTS AND REVIEW MEETINGS

The following monitoring reports will be produced:

1. **Monthly Progress Reports:** The supervising engineer will prepare the monthly reports for the SGA on implementation of EMP checklist. Each RCO will produce Activity Progress Reports and Summaries for the activities for which it is responsible. These reports will be sent to the nominated Coordinator in the SGA Central Office for consolidation. **The monthly report will as well present the information from the supervision of the implementation of EMPs on individual sub project sites gathered from the site supervising engineers.**
2. **Semi-annual Progress Reports:** they will be produced by the SGA Central Office by combining monthly reports and the results of the review meetings. **Semi – annual report should as well outline progress in preparation and EMP implementations and highlighting environmental issues arising from Project-supported activities, the status of mitigation measures and next steps needed.** The status of mitigation measures and next steps will be prepared by SGA in coordination with the representatives of each participating cadastral office and submitted to World Bank for review.

ANNEX 1. ENVIRONMENTAL MANAGEMENT PLAN

A. MITIGATION PLAN

PHASE	ISSUE	MITIGATION MEASURES	COSTS	INSTITUTIONAL RESPONSIBILITY	COMMENTS
DESIGN	Reviewing design plans for construction and adaptation of offices	Implementation of measures proposed by EMP	Included in the project costs Not significant	Design team	This is not a legal requirement, but it is recommended to become a binding requirement
	Cultural Property – is it in a historic building, district or in close connection with other physical cultural resources	If so, ensure that reconstruction, design of extensions and materials used are appropriate. If works are on historical monument, the construction workers should follow the special condition of construction		Design team	Contractor/ monitored by Local Authority
	Impact on landscape and urban areas	Reconstruction of the existing building shall be designed according to local constructing (and cultural) practice (respect of surrounding architecture)	Included in cost of procurement of construction permit	Reviewed by institution issuing construction permit Regional Office for Construction (under MEPPPC ²)	

PHASE	ISSUE	MITIGATION MEASURES	COSTS	INSTITUTIONAL RESPONSIBILITY	COMMENTS
CONSTRUCTION	Noise	<p>Construction is restricted to 5 days a week and only dayshift (7 am to 5 pm).</p> <p>Machinery has to possess attest (needs to be calibrated for certain noise level)</p>	Not significant	Contractor	Will be specified in bidding documents (compliance with EMP)
	Dust	<p>Dust from demolition and transportation of construction material and waste will be minimized by use of water and enclosure of cargo</p> <p>If demolition in the object presents high source of dust site can be enclosed</p>	Could be significant if construction is done in the dry period of the year	Contractor	Will be specified in bidding documents (compliance with EMP)

PHASE	ISSUE	MITIGATION MEASURES	COSTS	INSTITUTIONAL RESPONSIBILITY	COMMENTS
CONSTRUCTION	<p>Construction waste</p> <p>Excavated material handling</p>	<p>Hazardous waste has to be separated from solid waste</p> <p>For hazardous waste (paints, oils, etc.) contractor has to follow procedure for hazardous waste management, this implies collection, handing over the waste to authorized company for hazardous waste management and fulfilling accompanying documentation</p> <p>All recyclable fractions have to be separated from non recyclable waste and taken to appropriate collection points with accompanying documentation</p> <p>Non recyclable waste has to be take to approved landfill</p> <p>The building site will be cleaned and all debris and waste materials will be disposed of in accordance with clauses specified in the bills of quantities</p> <p>Burning or illegal duping of waste is strictly forbidden</p> <p>Excavated material is transported to the area in the city planned for such type of materials.</p>	<p>Significant (depending on quantities of hazardous waste)</p>	<p>Contractor (or other entity, depending on the Contract)</p>	<p>Will be specified in bidding documents (compliance with EMP)</p> <p>Regulation on categories, types and classification of waste with a waste catalogue and list of hazardous waste</p>
	<p>Replacement of asbestos containing materials and other hazardous materials</p>	<p>Replace asbestos and other not environmental friendly material from the building</p> <p>Insulation material containing asbestos is defined as hazardous waste and it has to be handled accordingly</p>	<p>Significant cost</p>	<p>Contractor</p>	<p>Will be specified in bidding documents (compliance with EMP)</p>

PHASE	ISSUE	MITIGATION MEASURES	COSTS	INSTITUTIONAL RESPONSIBILITY	COMMENTS
OPERATION	Heating system and storage tanks for crude oil or gas	<p>Fire protection measures have to be implemented</p> <p>Emergency Operation Plan has to be done if fuel storage exceeds mass of 5000 kg (crude oil) and / or 500 kg of gas</p>	Relevant costs	Operator (Under supervision of SGA)	
	Waste management	<p>Organized solid waste separation, Collection of recyclables</p> <p>Organized collection of non recyclable solid waste</p> <p>Introduction of measures for minimization of waste production,</p> <p>Coordination with local waste management plan Collect and separate waste within facility</p> <p>Hand over waste to authorized company for hazardous waste management</p> <p>Follow binding reporting procedure on hazardous waste</p>	Not significant through period of years	Operator	
	Storing	Hazardous waste should be stored according to Material Safety Data Sheets.	Initially relevant (one time cost)	Operator	Facility designs should address the need for storage

B. MONITORING PLAN

Monitoring of construction is a part of procedure for obtaining Operation permit.

PHASE	WHAT Parameter is to be monitored?	WHERE Is the parameter to be monitored?	HOW Is the parameter to be monitored?	WHEN Is the parameter to be monitored (frequency)?	WHY Is the parameter to be monitored?	COST	RESPONSIBILITY
Design	Implementation of EMP guidelines (RECOMMENDATION)	Design project for construction, reconstruction and adaptation	Review of elaborates and adaptation designs	Prior approval for construction as part of project monitoring program	It is recommended for the reason that adaptation by Croatian law do not need construction permit.	Should be part of the project?	RCO, Designer
Construction	Parameters given in construction permit - all special conditions of construction issued by different bodies (up to 19 bodies like water company, electrical company, etc.)	Main project documentation	Part of regular inspection of MEPPPC (regional offices)	During the construction, and before Operation permit is issued	Regular review stipulated in the Law, and if any public complaint is sent to the Ministry (MEPPPC)	Included in the process	Supervising engineer and Regional Construction Inspectorate (under MEPPPC)
	Construction waste management (including hazardous)	Thru waste accompanying documentation that is submitted to MEPPPC		After reporting on waste management in MEPPPC	Required by series of regulation on waste	Cost of MEPPPC and small cost for contractor	Supervising engineer MEPPPC
Operation	Waste management	Thru waste accompanying documentation that is submitted to MEPPPC,	Reports to MEPPPC	After reporting on waste management in MEPPPC,	Required by series of regulations on waste	Cost of MEPPPC and operator	MEPPPC, RCO

ANNEX 2. EMP CHECKLIST



ILAS EMP
CHECKLIST.doc

ANNEX 3. LEGAL FRAMEWORK FOR ENVIRONMENTAL MANAGEMENT

THE LIST OF THE NATIONAL LEGISLATIVE AND SUB -LEGISLATIVE ACTS REGULATING ENVIRONMENTAL PROTECTION

Environmental and Nature Protection

- The Law on Environmental Protection - Off. Gazette No. 110/07
- Physical Planning and Building Act – Off. Gazette No. 76/07, 38/09
- Regulation on Environmental Impact Assessment – Off. Gazette No. 59/00, 136/04
- By-Law on Environmental Information System - Off. Gazette No. 74/99 and 79/99
- Environmental Protection Emergency Plan - Off. Gazette No. 82/99, 86/99, 12/01, 14/01
- Ordinance on Environmental Emission Inventory - Off. Gazette No. 36/96
- The Law on Nature Protection - Off. Gazette No. 70/05
- The law on Cultural Monuments Protection - Off. Gazette No. 52/94
- The Law on Environmental Protection and Energy Efficiency Funds - Off. Gazette No. 107/03
- The Law on Hunting - Off. Gazette No. 10/94, 5/95, 25/96, 33/97,44/98,29/99
- The Law on Protection and Preservation of Cultural Values - Off. Gazette No. 69/99
- Ordinance on Mammal Protection (Mammalia) - Off. Gazette No. 31/95
- Ordinance on Birds Protection (Aves) - Off. Gazette No. 43/95
- The Law on Acceptance of Convention on the Conservation of European Wildlife and Natural Habitats (Bern convention) - Off. Gazette No. 6/00

Air protection

- The Law on Air Quality Protection- Off. Gazette No. 178/04 and 60/08
- By-law on Recommended and Limit Values of Air Quality - Off. Gazette No. 133/05

Water Protection

- The Law on Water - Off. Gazette No. 153/09
- The Ordinance on Issuance of Water Management Documents - Off. Gazette No. 28/96
- By-law on Hazardous Substances in Water - Off. Gazette No. 137/08
- Regulation on Limit Values of Indices, Hazardous and Other Substances in Waste Water - Off. Gazette No. 94/08
- Instructions for Keeping Records on the Frequency of Discharging of Hazardous and Harmful Substances into Water, of Quantities and Composition of Such Substances, and on the Procedures of Submitting Such Data to Public Water Management Enterprises - Off. Gazette No. 9/90

- Decision on Water Use Charge - Off. Gazette No. 94/07
- Decision on Water Protection Fee - Off. Gazette No. 94/07
- Decision on Determining Catchments Areas –Off. Gazette No. 20/96, 98/98, 5/99
- Regulations On The Establishment Of Sanitary Water Source Protection Zones – Off. Gazette No. 55/02.
- The List of Authorized Laboratories – Off. Gazette No. 107/00
- National Water Protection Plan – Off. Gazette No. 8/99

Noise Protection

- The Law on Noise Protection - Off. Gazette No. 30/09
- The Ordinance on the Highest Permitted Levels of Noise In Working and Living Environment- Off. Gazette No. 145/04
- The Ordinance on Conditions to be Fulfilled by Companies which Measure and Forecast Noise In Working and Living Environment - Off. Gazette No. 156/08

Waste Management

- The Law on Waste - Off. Gazette No. 178/04
- Ordinance on Waste Types - Off. Gazette No. 101/07
- List of Authorized Institutions for Publishing Reports on Testing Physical and Chemical Properties of Waste - Off. Gazette No. 51/96,93/96
- Ordinance on Waste Management Requirements - Off. Gazette No. 123/97
- By-law on Hazardous Waste Management - Off. Gazette No. 32/98
- Regulation on amendments to the Regulation on categories, types and classification of waste with a waste catalogue and list of hazardous waste - Off. Gazette No. 39/09
- Ordinance on Packaging Waste - Off. Gazette No. 97/05
- By-law on unit fees, corrective coefficients, approximate criteria and measures for setting charges on burdening the environment with waste - Off. Gazette No. 71/04

ANNEX 4. ROLES AND RESPONSIBILITIES OF THE AUTHORITIES

MINISTRY OF ENVIRONMENTAL PROTECTION, PHYSICAL PLANNING AND CONSTRUCTION

The Ministry carries out administrative and other works related to general environmental protection with a high regard toward sustainable development goals. The scope of the Ministry is all work related to physical planning and development, location, construction and operation permits, and zoning and building inspection.

MINISTRY OF HEALTH AND SOCIAL WELFARE

Ministry of Health and Social Welfare administer sanitary inspection on activities, building structures, premises, facilities and equipment that may have negative influence on human health.

MINISTRY OF CULTURE

The Ministry of Culture performs administrative and other works related to: research, examination (analysis), updating, noting, documentation and promotion of cultural heritage; central information service; designation of protected cultural values; publishing special conditions of construction with the aim of Cultural heritage protection; cultural heritage inspection works.

MINISTRY OF THE INTERIOR

Along administrative works, Ministry of Interior carries out other works related to: road traffic safety, motor vehicle registration; explosives; fire protection.

MINISTRY OF AGRICULTURE, FORESTRY AND WATER MANAGEMENT

Ministry of agriculture, forestry and water management administer among others activities related to: protection of agricultural land, transformation of agricultural land to building land, forest and forestland protection.

Water protection is entirely under the jurisdictions of the Water Management Directorate, which performs administrative and other works related to water management, water resources and usage. Under its authority are as well all inspection works on water protection, pollution prevention and water usage. The Directorate is administered through four units among which are: Unit for water management and Inspection Unit.

CROATIAN WATERS

Among others, Croatian Waters activities includes: water protection – control and monitoring of water conditions, enforcement of State Plan for Water Protection, general water management, record keeping, maintenance of integrated water information system, supervision of water related construction works.