Environmental Management Plan

Mitigation and Monitoring Plan

Checklist for Demolition and Construction Activities for Real Estate Cadastre Office of Sopot

1. Introduction

During the funding period 2004 - 2012 the World Bank supported Real Estate Cadastre and Registration Project (RECRP) helped Serbia to establish the Real Estate Cadastre (REC), a single system for real property rights registration, which is under the authority of the Republic Geodetic Authority. The main aim of this Project was to extend support to the development and general advancement of the real estate market on the territory of the Republic of Serbia through formation of a unique real estate cadastre on its territory. Project had two components - Technical and Operational Development and Support (development of a methodology and formation of a real estate cadastre, as well as its maintenance combined with the quality services extended to the customers) and Institutional Development and Capacity Building of RGA. Also, as achievements of this project, the time required to register transactions has been reduced, cadastral offices have been renovated, important geodetic infrastructures have been built and customer satisfaction has improved.

Although results of the RECR Project and improvements in Serbia's real property services were significant, the Government of Republic of Serbia recognized that "there is a whole set of additional reforms in the land sector that need to be undertaken. They relate to building a unified and transparent mass property valuation system to improve property taxation, streamlining and simplifying the process of issuing construction permits, strengthening the e-governance system by enabling on-line use of data related to land and real estate, and most importantly, building the institutional capacities for implementing these reforms." In response to that, a new World Bank funded project in the land sector has been prepared in Serbia – The Real Estate Management Project.

The development objective of new Project is to improve the efficiency, transparency and reliability of Serbia's real property management systems. The primary beneficiaries of the project will be the general population, within Serbia, and internationally, with a special focus on women and vulnerable members of society to ensure that the benefits are more equally distributed.

The main focus of the project is to ensure accurate, complete and electronically available information for the improvement of services and greater transparency. Beneficiaries will also include the land market professionals (lawyers, surveyors, appraisers) and organizations associated with mortgaging, who will benefit from more accurate and accessible real estate data and who will be able to provide better services to the public. Further, government agencies and local government will benefit as they will be able to easily access information about real estate for:

planning and property tax purposes; for providing social and other local government services; and through improvements in the use of the real estate that they manage.[1]
The Project will have four components:

1. *Component A – Valuation and Property Taxation (US$ 6 million);*
2. *Component B – E-governance for Enabling Access to Real Estate Information (US$ 24 million);*
3. *Component C – Institutional Development of the Republic Geodetic Authority (US$ 17 million);*
4. *Component D – Project Management and Supporting Activities (US$ 3 million).*

Component A will provide all the information required about lands and buildings so that a complete record is available for local government use and improve the methodology for valuing and using that property. In order to make use of this information it must be available on-line. Component B focuses on provision of on-line services relating to real estate in an e-government environment. The key agency responsible for providing the information about real estate is RGA. Component C focuses on the collection of data and institutional support to RGA. Component D provides the necessary support for this project in various aspects, from training to conducting the necessary studies and project management activities.
Component C - Institutional Development of the Republic Geodetic Authority supports the improvement of the service infrastructure in additional local REC offices and the data acquisition in the areas in stereographic projection in Vojvodina was discussed again. Serbia Real Estate Management Project, as a part of its activities under Component C, envisages support to RGA in replacing an existing temporary asbestos building with the new building for the REC office of Sopot which is the subject of this EMP document.

2. REC office of Sopot

Geographical context of the site, Municipality Sopot, is one of the seventeen municipalities of Belgrade, located south of Belgrade at 44°31′N 20°35′E, 177.38 m above sea level, in the northern part of Šumadija region. Area of the municipality is 27 094 ha and is bordered by the municipalities Mladenovac, Lazarevac, Zemun, Grocka, Arandelovac and Barajevo. According to census of the 2011th the population is 20 367.
The location of the site is cadastral parcel no. 2535, Cadastral Municipality Sopot, address Kosmajski trg 12, Sopot (Photo no. 1). The new building is envisaged to be on the same parcel with the same overall dimensions as the existing building of REC office Sopot.

1 Adlington,Gavin P.. 2013. Project Information Document (Concept Stage) - Real Estate Management Project - P147050. Washington, DC: World Bank. http://documents.worldbank.org/curated/en/2013/12/18647894/project-information-document-concept-stage-real-estate-management-project-p147050

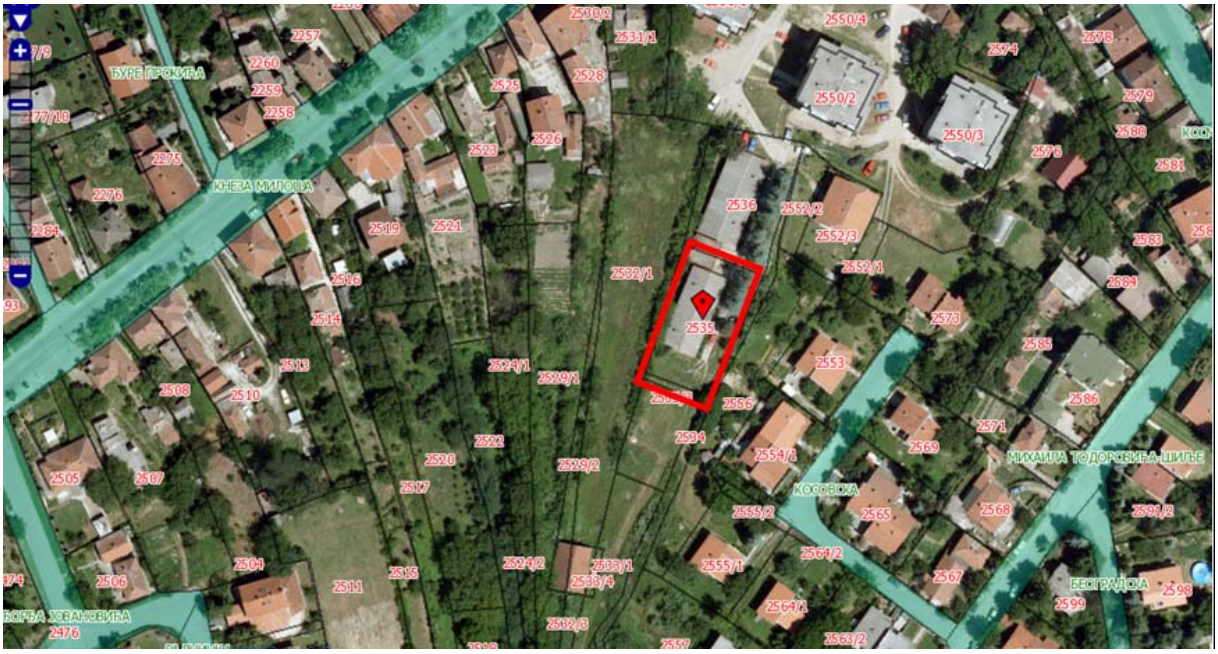

Photo no.1

The parcel surface is 715 m2. The existing building of REC office Sopot is a temporary object made of dangerous material - Asbestos panels and have total surface of 182 m2 (Photo no. 2). The building is unsuitable for operation and maintenance (Photo no.3)

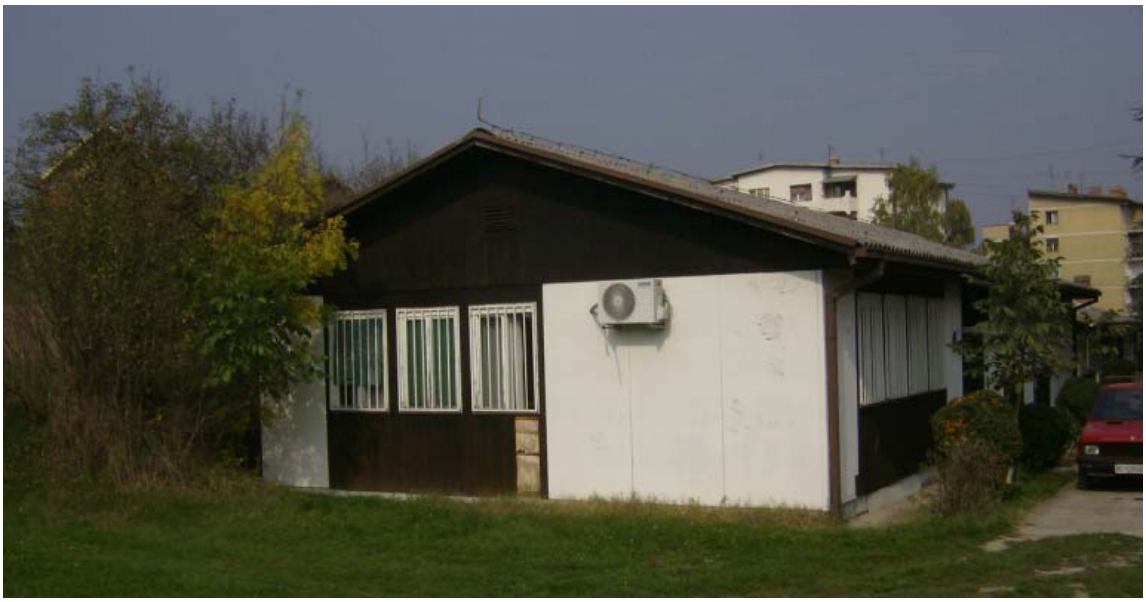

Photo no.2

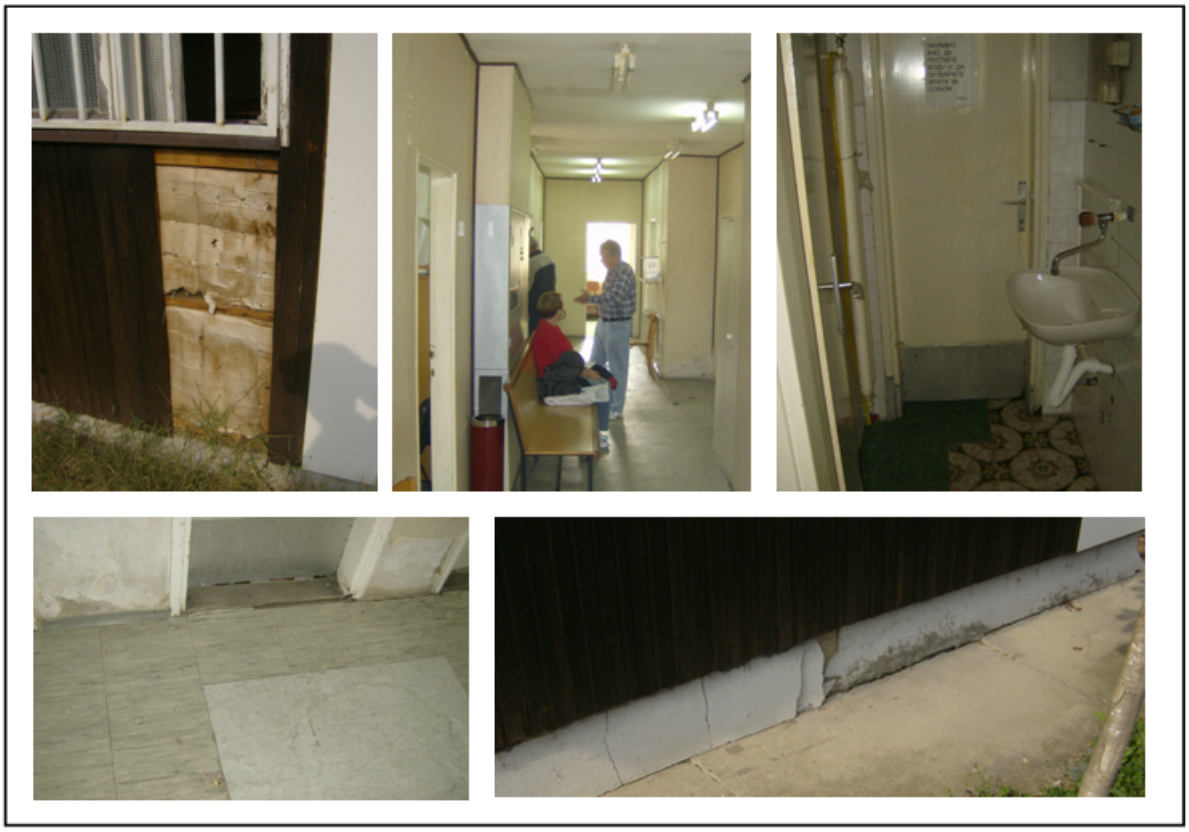

Photo no.3

Removal and disposal of asbestos demolition waste and construction waste will be done in a proper manner and in accordance with the standards for disposal and destruction of such materials. During the period of demolition and construction of new office building, premises for the temporary operation of REC office will be rented.

In the table given below, Part 1 consists of information on Institutional and administrative arrangements, site description and legislation that apply to project activity. Part 2 is a checklist on environmental and social screening.

In order to avoid, prevent or mitigate the potential occupational and community health and safety risks, potential environmental impacts on air quality, underground waters, noise disturbance, waste generation and management, the good demolition/construction practice implementing several mitigation measures is proposed within the following Environmental Mitigation Plan - EMP Checklist (Part 3). The main responsibility for implementation of EMP related measures lays on the Contractor/Sub-contractor, who needs to take into account and applies on daily basis all proposed preventive and mitigation measures. The Site Supervisor needs to perform the supervision on the practical implementation of the mitigation measures by the Contractor/Sub-contractor, and issue corrective instructions and/or orders, if necessary.

The main inspection responsibility is, according to national legislation, given to the municipal staff (Environmental Inspector and Communal Inspector) that will be

involved in monitoring the implementation of the mitigation measures and proposed Monitoring Plan Checklist (Part 4).
Finally we want to emphasise that:

- the location is in urbanized area of Sopot, with good transport communication lines and access to transport routes;
- that site will be fully fenced and secured from access of unauthorized persons, that waste will be collected within the construction yard and removed to the landfill (add name and indicate approximate distance from the landfill to the construction site);
- that there are no near-by protected cultural nor natural heritage locations;
- that the new constructed office will be within the existing footprint, and on ground floor only (or ground plus first floor - please complete as appropriate), be constructed using the "conventional construction method", according to design that has not yet been prepared.

PART 1: INSTITUTIONAL & ADMINISTRATIVE				
Country	**Republic of Serbia**			
Project title	**Serbia Real Estate Management Project** **Component C: Institutional Development of the Republic Geodetic Authority**			
Scope of project and activity	**New building construction for the REC office of Sopot**			
Institutional arrangements	WB (Project Team Leader)	Project Management **Republic Geodetic Authority - PIU Team**	Local Counterpart and/or Recipient Republic Geodetic Authority, Belgrade, Serbia	
Implementation arrangements	Safeguard Supervision selected Consultant for Work supervision (it will be selected afterwards)	Counterpart Supervision -Inspector for work security and protection **TBD**	Inspectorate Supervision -Inspector for environmental protection -Inspector for construction	Contactor (it will be added later, after Contractor is selected)
SITE DESCRIPTION				
Name of site	**Republic Geodetic Authority, Local REC Office Sopot, Sopot**			
Describe site location	**Local REC Office Sopot, is located on address Kosmajski trg 12, Sopot** **Parcel number: 2535**		**Attachments:** **- Copy of the parcel plan 2535 KO Sopot** **- REC data Sopot**	
Who owns the land?	**Republic of Serbia**			
Geographic description	**Sopot is a town and municipality in Serbia. It is part of the wider region of Belgrade, located south of Belgrade at 44°31′ N 20°35′ E, 177.38 m above sea level.**			
LEGISLATION				
Identify national & local legislation & permits that apply to project activity. Indicate the institutional	**Law on spatial planning and object building, Official Serbian Gazette, no: 72/2009, 81/2009** **Location permit – Municipality Sopot** **Building permit – Municipality Sopot**			

authorities with responsibility for implementing each piece of legislation or issuing permits	
PUBLIC CONSULTATION	
Identify when / where the public consultation process took place	
INSTITUTIONAL CAPACITY BUILDING	
Will there be any need for environmental management capacity building (e.g. environmental training, monitoring equipment etc.)?	[x] N or [ ]Y if Yes, Attachment 2 includes the capacity building program

PART 2: ENVIRONMENTAL /SOCIAL SCREENING			
Will the site activity include/involve any of the following potential issues and/or impacts:	**Activity and examples of potential issues and/or impacts**	**Status If Yes for any**	**Additional references**
	1. Building rehabilitation • Site specific vehicular traffic • Increase in dust and noise from demolition and/or construction • Construction waste • Safety at the site	**[]** Yes [**x**] No	See Section **B** below
	2. New construction • Excavation impacts and soil erosion • Site specific vehicular traffic • Increase in dust and noise from demolition and/or construction • Construction waste	[**x**] Yes **[]** No New construction is planned	See Section **B** below
	3. Individual wastewater treatment system • Effluent and / or discharges into receiving waters	[ ] Yes **[x]** No	See Section **C** below
	4. Acquisition of land[2] • Encroachment on private property • Relocation of project affected persons • Involuntary resettlement • Impacts on livelihood incomes	[ ] Yes **[x]** No	See Section **D** below
	5. Hazardous or toxic materials[3] • Use of hazardous/toxic materials (solvents, fuels, surface coatings etc.) • Removal and disposal of toxic and/or hazardous demolition and / or construction waste (e.g. asbestos) • Storage of machine oils and lubricants	**[x]** Yes [ ] No	See Section **E** below
	6. Impacts on forests and/or protected areas • Encroachment on designated forests, buffer and /or protected areas	[ ] Yes **[x]** No	See Section **F** below
	7. Handling / management of medical waste • Clinical waste, sharps, pharmaceutical products (cytoxic and hazardous chemical waste), radioactive waste, organic domestic waste, non-organic domestic waste • On site or off-site disposal of medical waste	[ ] Yes **[x]** No	See Section **G** below
	8. Traffic and Pedestrian Safety • Site specific vehicular traffic • Site is in a populated area	**[x]** Yes [ ] No	See Section H below

[2] Land acquisitions includes displacement of people, change of livelihood encroachment on private property this is to land that is purchased/transferred and affects people who are living and/or squatters and/or operate a business (kiosks) on land that is being acquired.

[3] Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc.

PART 3: MITIGATION PLAN		
ACTIVITY	**PARAMETER**	**GOOD PRACTICES MITIGATION MEASURES CHECKLIST**
A. General Conditions	Notification and Worker Safety	(a) The local construction and environment inspectorates and communities have been notified of upcoming activities-Project manager obligation (b) The public has been notified of the works through appropriate notification in the media and/or at publicly accessible sites (including the site of the works)-PIU obligation (c) All legally required permits (to include not limited to land use, resource use, dumping, sanitary inspection permit) have been acquired for construction and/or rehabilitation-permits are not needed (d) All work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment.-Contractor obligation (e) Workers' PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots) .-Contractor obligation (f) Appropriate signposting of the sites will inform workers of key rules and regulations to follow. .-Contractor obligation
B. General Construction Activities	Air Quality	(a) During interior demolition use enclosed debris-chutes above the first floor.-Contractor obligation (b) Keep demolition debris in controlled area and spray with water mist to reduce debris dust.-Contractor obligation (c) Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site.-Contractor obligation (d) Keep surrounding environment (side walks, roads) free of debris to minimize dust.-Contractor obligation (e) There will be no open burning of construction / waste material at the site.-Contractor obligation (f) There will be no excessive idling of construction vehicles at sites.-Contractor obligation (g) Water dusty areas, particularly during hot, dry or windy weather .-Contractor obligation
	Noise	(a) Construction noise will be limited to restricted times agreed to in the permit.-Contractor obligation (b) During operations the engine covers of generators, air compressors and other powered mechanical equipment should be closed, and equipment placed as far away from residential areas as possible.-Contractor obligation
	Water Quality	(a) The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.-not relevant
	Waste management	(a) Waste collection, transport, and disposal sites will be identified for all major waste types expected from demolition and construction activities.-obligation of Contractor and Project Manager (b) Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers. .-Contractor obligation (c) Construction waste will be collected and disposed properly by licensed collectors.-Contractor obligation (d) The records of waste disposal will be maintained as proof for proper management as designed.-Obligation of Contractor, Work Supervisor and Project Manager (e) Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos) .-Contractor obligation
C. Wastewater	Water Quality	(a) The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities-not relevant **(b)** Before being discharged into receiving waters, effluents from individual wastewater systems must be either treated or approved for discharge into the public sewerage system in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment-not relevant
D. Land acquisition	Land Acquisition	(a) If expropriation of land was not expected and is required, or if loss of access to income of legal or illegal users of land

PART 3: MITIGATION PLAN		
ACTIVITY	**PARAMETER**	**GOOD PRACTICES MITIGATION MEASURES CHECKLIST**
	Plan/Framework	was not expected but may occur, that the bank task Team Leader is consulted.-not relevant (b) The approved Land Acquisition Plan/Framework (if required by the project) will be implemented-not relevant
E. Toxic Materials	Asbestos management	(a) If asbestos is located on the project site, mark clearly as hazardous material - Contractor obligation (b) Asbestos is to be appropriately contained and sealed to minimize exposure- Contractor obligation (c) The asbestos prior to removal (if removal is necessary) will be treated with a wetting agent to minimize asbestos dust- Contractor obligation (d) Asbestos will be handled and disposed by skilled & experienced professionals licensed. Any personal involved with handling asbestos must have personal protection clothing or equipment in accordance with applicable international standards- Contractor obligation (e) If asbestos material is be stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately- Contractor obligation (f) The removed asbestos will not be reused, and disposed in officially authorized sites. - Contractor obligation
	Toxic / hazardous waste management	(a) Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information - Contractor obligation (b) The containers of hazardous substances should be placed in an leak-proof container to prevent spillage and leaching- Contractor obligation (c) The wastes are transported by specially licensed carriers and disposed in a licensed facility. - Contractor obligation (d) Paints with toxic ingredients such as solvents or lead will not be used- Contractor obligation
F. Affects forests and/or protected areas	Protection	(a) For large trees in the vicinity of the activity, mark and cordon off with a fence large tress and protect root system and avoid any damage to the trees-not relevant (b) Adjacent wetlands and streams will be protected, from construction site run-off, with appropriate erosion and sediment control feature to include by not limited to hay bales, silt fences-not relevant (c) There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas. - not relevant
G. Disposal of medical waste	Infrastructure for medical waste management	(a) In compliance with national regulations the contractor will insure that newly constructed and/or rehabilitated health care facilities include sufficient infrastructure for medical waste handling and disposal; this includes and not limited to: ▪ Special facilities for segregated healthcare waste (including soiled instruments "sharps", and human tissue or fluids) from other waste disposal: -not relevant a. Clinical waste: yellow bags and containers b. Sharps – Special puncture resistant containers/boxes c. Domestic waste (non-organic): black bags and containers ▪ Appropriate storage facilities for medical waste are in place; and-not relevant ▪ If the activity includes facility-based treatment, appropriate disposal options are in place and operational-not relevant
H Traffic and Pedestrian Safety	Direct or indirect hazards to public traffic and pedestrians by construction activities	(b) In compliance with national regulations the contractor will insure that the construction site is properly secured and construction related traffic regulated. This includes but is not limited to ▪ Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards-Contractor obligation ▪ Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes. -Contractor obligation

PART 3: MITIGATION PLAN		
ACTIVITY	**PARAMETER**	**GOOD PRACTICES MITIGATION MEASURES CHECKLIST**
		▪ Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement -Contractor obligation ▪ Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public. -Contractor obligation ▪ Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public. -Contractor obligation
I Land clearing and vegetation removal	Pesticide Use	(a) Land clearing vegetation removal shall be done either manually or mechanically. No pesticides shall be used-not relevant
J Use of materials in compliance in international protocols		(a) No insulating materials produced with or containing greenhouse gas agents (foaming or blowing agents) are to be used-not relevant

PART 4: MONITORING PLAN							
Phase	**What** (Is the parameter to be monitored?)	**Where** (Is the parameter to be monitored?)	**How** (Is the parameter to be monitored?)	**When** (Define the frequency / or continuous?)	**Why** (Is the parameter being monitored?)	**Cost** (if not included in project budget)	**Who** (Is responsible for monitoring?)
During activity **preparation**	Notification and Worker Safety	close to the object	regular supervision Inspection	all time	secutrity, quality of works		Work Supervision Inspectorate Supervision
During activity **implementation**	Building construction	on object	regular supervision	all time	Quality of works		Work Supervision Inspectorate Supervision
During activity **supervision**	Traffic and Pedestrian Safety	close to the object	Inspectorate Supervision Work Supervision	all time	security		Inspectorate Supervision Work Supervision
	Notification and Worker Safety	on construction	Inspectorate Supervision Work Supervision	all time	protection		Inspectorate Supervision Work Supervision
	Air Quality	on construction	Inspectorate Supervision Work Supervision	all time	protection		Inspectorate Supervision Work Supervision
	Noise	on construction	Inspectorate Supervision Work Supervision	all time	protection		Inspectorate Supervision Work Supervision

	Waste management	on construction	Inspectorate Supervision Work Supervision	all time	protection		Inspectorate Supervision Work Supervision Contractor Project Manager

Remark: Selected Contractor and Project Manager have common responsibility to provide and collect information, documentation, measurements results and to collect progress and work photos that confirm fulfillment of the mitigation plan and monitoring plan during the implementation on the field.