



Netherlands Commission for  
Environmental Assessment

## PALESTINIAN TERRITORIES (ORIO13/PT/01)

# Process Advice EIA Public Transport West Bank



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## Advice of the Secretariat

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**To** RVO  
**Attn** Ms Barry Nieuwenhuis  
**From** The Netherlands Commission for Environmental Assessment (the NCEA)  
**Date** 5 October 2015  
**Subject** **Process Advice EIA Public Transport West Bank, Palestinian Territories**

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## Glossary

BRT	Bus Rapid Transit
E&S	Environmental and Social
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
ESMS	Environment and Social Management System
GHG	Greenhouse Gas
GIIP	Good International Industry Practice
IFC	International Finance Corporation
IFC C3P	IFC's Public-Private Partnership Transaction Advisory Department
IO Plan	Input Output Plan
KPI	Key Performance Indicators
LRT	Light Rail (public) Transport
MoT	Ministry of Transport
NCEA	Netherlands Commission on for Assessment
ORIO	Dutch development fund "ORIO"
PPT	Public Passenger Transport (definition EU CEN Norm)
PS	Performance Standard
PT	Public Transport
PTA	Palestinian Transport Authority
SEP	Stakeholder Engagement Plan

# 1. Introduction

The Ministry of Transport of the Palestinian Authority (MoT) aims to improve the West Bank public transport system with support from the Dutch ORIO fund and the IFC. Objective is to upgrade and expand the bus fleet, to enable the creation of additional routes; and to create economies of scale that will provide a natural incentive for consolidation to occur.

EIA procedures apply to this project. The Dutch Enterprise Agency (RVO), who manages the ORIO fund, has requested the secretariat of the Netherlands Commission for Environmental Assessment (NCEA) to advise about the process of applying these procedures with the aim to improve the quality of the project. RVO, IFC and MoT will now draw up a so-called Input-Output (IO) plan, which will form the basis of the first phase of project development (development phase). The NCEA is asked to make suggestions for a process that enables the EIA to increase the environmental and social quality of this development. The NCEA does not express an opinion on the project itself, but only how environmental and social information can serve project decision-making. These suggestions can in be used in the IO Plan. It may also be useful for other authorities, in particular those responsible for EIA in the West Bank.

## 1.1 The proposed project and its impacts

This advice is mainly based on information from RVO ("ORIO13/PT/01 Improving Public Transport Infrastructure in the Palestinian Authority"), an email from IFC (8 sept 2015) and the draft IO plan (version: September 2013). The available information about the project, its justification and applicable procedures and phasing can be summarized as follows.

### *Project*

The project has the following main features:

- development, use of public bus infrastructure in the West Bank;
- improve passenger bus services in the West Bank;
- investments in new buses and associated bus facilities;
- infrastructure should ensure that operators can meet service requirements;
- appropriate tariffs and lease rates;
- consolidation of services and defining clear service standards for bus companies;
- institutional reform implemented by the Ministry of Transport (MoT), which has two components:
  - the Palestinian Transport Authority (PTA) to ensure functioning of the passenger bus sector and the public infrastructure; monitor and enforce service standards in the passenger bus sector and manage the contract under which the operations and maintenance services will be provided by a private sector partner;
  - the buses and associated bus infrastructure (including workshop and depots) are expected to be owned by the PTA and will be leased to the existing individual bus companies.

### *Justification*

The situation that justifies the project is summarised as follows:

- 67% of West Bank households are fully dependent on public transport and 97% regularly use public transport; public transport consumes 19% of total income due to high maintenance costs of the old bus fleet and the forced use of taxis with limited availability of other public transport alternatives;
- inability of the bus companies to finance the purchase of new buses; fragmented nature of the sector (86 private bus companies);
- MoT has reorganised the bus companies into three Unions and has begun to revoke the vehicle registration for buses over the age of 20 years;
- for minimum levels of service, MoT has also worked with the bus companies to rationalise the current route allocations;
- MoT intends to allocate relinquished and new routes to the Unions;
- as the bus companies and the Unions remain financially unable to upgrade the current bus fleet, additional route allocations are impossible;
- should new buses and associated infrastructure be available, standards associated with operation and maintenance, and level of service, should be enforced, and therefore the establishment of the functions of the PTA would be essential to create and monitor such standards;
- impacts will be mitigated: competition for maintenance providers and restructuring taxi sector; emissions from vehicles and operations at the maintenance workshops.

### *Procedures*

This project is likely to have significant social and environmental impacts. In particular employment in the public transport sector may be affected. Therefore, at least three procedures may apply:

- National: according to NCEA's screening advice of November 2013, the project may require an EIA under national legislation; although this project type does not occur on the list of project types that require an EIA, its social impacts might trigger an EIA according to general screening criteria<sup>1</sup>. According to the email from IFC, "An E&S assessment should be conducted as per national legislation", which may also refer to other environmental and social norms and standards.
- OECD: the project falls under category B of the OECD Common Approaches since there will be construction activities with the roads and stops/terminals, the depots and central maintenance workshop, and Orio therefore requires an Environmental and Social Impact Assessment (according to project information entitled "ORIO13/PT/01 Improving Public Transport Infrastructure in the Palestinian Authority")<sup>2</sup>.
- IFC: According to the email from IFC, IFC performance standard 1 (PS1) applies<sup>3</sup>.

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<sup>1</sup> See also the EIA profile of the Palestinian Territories on NCEA's website:

<http://www.eia.nl/en/countries/as/palestinian+territories/>

<sup>2</sup> "The scope of a review for a Category B project may vary from project to project. Members should require appropriate information to be provided by the applicant that addresses the relevant environmental and social impacts of the project. Such information may be contained in an ESIA or in project-related assessment reports, planning and concept documents, environmental and social studies and plans, technical documentation of pollution control plans and criteria, applicable legal and regulatory frameworks, community engagement activities (information disclosure, dissemination, consultation and other participatory processes) and information collected during discussions with applicants".

<sup>3</sup> [http://www.ifc.org/wps/wcm/connect/3be1a68049a78dc8b7e4f7a8c6a8312a/PS1\\_English\\_2012.pdf?MOD=AJPERES](http://www.ifc.org/wps/wcm/connect/3be1a68049a78dc8b7e4f7a8c6a8312a/PS1_English_2012.pdf?MOD=AJPERES)

### *Phases and their contents*

IFC and Orio intend to help develop the project in the following phases:

- **Development** 7 months; Environmental and Social ("E&S") scoping study (preliminary EIA):
  - gaps between local laws and regulations and IFC's Performance Standards;
  - estimating Greenhouse Gas (GHG) Emissions and other air pollution resulting from the Project;
  - impact on various stakeholders, including bus companies and their staff, taxi operators as well as end users. Community consultation through the Ministry of Transport. Land acquisition mapping and mitigation;
  - E&S capacity building.
- **Implementation** 36 months:
  - full ESIA to be completed based on the technical solutions and operational procedures provided by the winning private sector partner(s) following the competitive tender which will take place during the implementation phase.
- **Operations** 84 months.

The IFC email adds that the final (full) EIA should:

- take national legislation into account;
- design an E&S management system (ESMS) which should include adequate training and monitoring components to ensure the project (both construction and operation phases) meet any applicable national laws, PS 1 requirements and Environmental, health and safety standards.

It should be based on a prior scoping study that includes:

- identification of major project E&S risks and preliminary definition of mitigation measures plus associated costs for their implementation and proposed timeline (before/after bid) and responsible party for their implementation;
- assessment of likelihood and significance of social impacts on the workers of the alternate public transport businesses and of the maintenance workshops – e.g. workers coming from the same neighbourhood, belonging to the same vulnerable groups, difficulties in re-deployment, etc. The study will also suggest possible mitigation measures (preliminary evaluation) to be conducted by the client and/or by the winning bidder. The study is expected to assess also (but not be limited to) the following two possible mitigation measures:
  - alternate public transport businesses – At this stage, the IFC C3P team envisages the possibility to define a strategy for the management of the shared taxis business in such a way to support the passenger bus system, for example through the creation of shared taxi stops to feed the main traffic axes on which the new buses will operate;
  - existing maintenance workshops – At this stage, the IFC C3P team envisages that local maintenance workshops will continue to maintain the existing bus fleet, declining over time as this bus fleet ages and is ultimately taken out of service.
- Assessment of the site selection process and its adequacy according to IFC PS and GIIP (Good International Industry Practice) and definition of PS5 applicability – i.e. requirements of PS5 will apply if there is a possibility to resort to expropriation or in case of physical/economic displacement of informal settlers;
- preliminary stakeholder mapping to identify interests/concerns of all stakeholders and, in particular, of groups that may be exposed to E&S risks and impacts.

As a next step to the assessment:

- full Stakeholder mapping should be conducted and a Stakeholder Engagement Plan (SEP) should be developed. To mitigate risks related to potential/perceived impacts on:
  - workers of the alternate transport business (such as the shared taxi system mentioned in) and proposed project maintenance workshops;
  - public using the bus system (e.g., tariff increase).

## 2. Approach to this advice of the secretariat

The NCEA has limited itself to a so-called NCEA 'Advice of the secretariat' that been prepared based on a desk review of available information only and therefore does not constitute an in-depth technical review of the available information, nor have the contents of the EIA been verified 'on the ground' in the West Bank. The advice is based on the knowledge available at the NCEA's secretariat and the experts' public transport reform experience in similar countries.

The legal procedures plus the project phasing as outlined in the introduction structure project development. It can be assumed that the procedures for EIA (national), E&S assessment (OECD) and ESIA (IFC) can be combined into one procedure with documents combining the requirements of these procedures in their respective stages. The NCEA will refer to this combined procedure as "EIA". The generalized stages are "screening", "scoping" and "assessment". These stages are linked to the phases of project development. They can be summarized as follows:

- project preparations phase (ongoing) = screening for EIA requirement: has been done by Orio and IFC (whether this has been done under Palestinian Territories law is unknown);
- project development phase = scoping phase EIA, delivering the scope for EIA in the next phase depending on already made ("strategic") decisions;
- project implementation phase = assessment phase EIA, delivering the final (project) EIA report.

In the final EIA report and the project consent decision, arrangements can be made for the monitoring and enforcement of environmental and social mitigating measures during the operations phase and after that.

With this structuring principle, the NCEA secretariat can give advice about what the IO Plan can specify for the development phase. Given the limited time and information available, the NCEA presents recommendations that it believes are likely to reduce the most important environmental and social risks. These risks are those caused by possible insufficient support from relevant authorities needed for successful implementation and operation, and a possible insufficient support from affected groups given any effects on their employment or income they may perceive. The NCEA is aware that to reduce risks it may not be necessary to apply all these recommendations to their fullest. It also has not been NCEA's intention to identify all requirements indicated above (national, Orio and IFC) which need to be integrated into one general overall procedure. The authors of the IO Plan may integrate the NCEA recommendations into that Plan.

### 3. Advice of the Secretariat

Hereafter the NCEA presents first its key recommendations and followed by more detailed recommendations about substantial issues, process organization and procedure.

#### 3.1 Key recommendations

##### *Public transport reform strategic plan*

1. The proposed public transport development implies some strategic decisions, some of which may be controversial or a lack of support may create risks. The NCEA recommends that the relevant Palestinian authorities formally decide about these strategic issues in a plan for public transport reform before they develop the project in more detail. It will then be possible to take the environmental and social effects into consideration in a “strategic EIA”, a level that is more appropriate for stakeholder engagement for the principles of the reform. Design and impact analysis need to be just detailed enough to be able to justify the strategic decisions (further details can be postponed to the implementation phase). To reduce the risk of insufficient support, the justification should be based on a consultation process organized by the authorities (see hereafter). See appendix for a possible outline of this strategic decision.
2. The NCEA believes that in the West Bank a bus network/system as proposed (Bus Rapid Transport, BRT) is preferable over other public transport alternatives, such as Mass Rapid Transport (e.g. lightrail). For the West Bank the advantages of a BRT are the costs(less), sustainability and flexibility of the system for the required services to the consumers and to the staff. Therefore the NCEA recommends to focus the strategic phase/plan, as recommended under 1. above on the alternative ways of implementing BRT in a way that is acceptable to all affected groups and optimal from an economic, social and environmental point of view, and to compare with the current system and its probable development without transport reform.

##### *Ownership and accountability*

1. The NCEA recommends that at the end of the development phase, and before the implementation phase, the relevant authorities decide about the key features (i.e. preferred alternative?) of the new public transport system, after an analysis of, and stakeholder discussion about, the main alternatives and their impacts. Donors are recommended to indicate what their precise conditions are, and how these should be incorporated in this BRT plan, so that the Palestinian authorities may take that into consideration.
2. The NCEA recommends that the strategic decision(s) at the end of the development phase is/are shared by all authorities that have crucial responsibility in its implementation (like road ownership, local land acquisitions etc.). Other than the transport ministry, these might include (but this should be identified at the start of the development phase): Environmental Quality Authority, any ministries responsible for justice, spatial planning, social affairs, employment, and local authorities. These can be identified on the basis of

the possible alternatives, including those of public transport management reform, and the division of powers and responsibilities.

3. The NCEA recommends that this public transport reform plan at the end of the development phase is publicly justified by the relevant authorities on the basis of an analysis of its impacts. This should include the views of affected groups on these impacts and on the ways in which the authorities propose to mitigate adverse impacts.

#### *Consultation*

1. To that end, NCEA (in agreement with what has been suggested by IFC and ORIO) recommends to do a stakeholder analysis at the start of the development phase, and devise a way of consulting these groups. The method of consultation should depend on the size of the group and the degree of internal organization of the group. The draft public transport reform plan and its justification – already taking account of stakeholder views – should be widely communicated and reactions should be answered to.
2. The NCEA may be invited to advise about the contents of the strategic (environmental and social ) assessment to be used as justification of the proposed public transport reform plan, as well as the formal EIA to be prepared in the implementation phase. NCEA's usual method is to put together an expert panel that may visit the area (in this case the West Bank) to meet stakeholders and gather additional information before its writes an advice.

#### *Phasing within the development phase*

1. The development phase should start with a determination by the MoT – with the aid of a consultant – of the precise applicable procedures and authorities, a road map for consultation and decision-making, (e.g. stakeholder engagement plan) for the development phase and a further outline of the desired contents of the public transport reform plan and the analyses necessary to produce that plan.
2. The development phase should result in the acceptance by any elected bodies, as appropriate in the West Bank, of the strategic public transport reform plan (determining strategic choices and how the more detailed, less strategic choices should be treated in the implementation and operations phase).

### 3.2 Specific points of attention for the content of the public transport reform plan

The following strategic issues (questions and choices) are either functionally related, needed to enable tendering in the implementation phase, or crucial for acceptance, and should be treated as part of a package (there may be more).

1. Early in the development phase, to study the existing public transport system performance and impacts to enable comparison of its performance with that of a new system, enabling public justification of the proposed public transport reform plan as an improvement. Also, to help identify stakeholder groups (affected groups and relevant authorities).
2. The economic and financial business case, and preparedness of the Palestinian Authorities to subsidize (usually subsidy stays necessary).
3. The spatial constellation of bus services (changes of routes, P+R facilities, feeder lines stops etc., ) and bus capacity (feeder lines in radial system or hub/spoke systems...) taking account of effects on congestion and bus types and employment, and to assure services to the doorstep.
4. The desired performance criteria of the new system: economic sustainability (including level of state subsidy, also after the operations phase), service reliability, timetable, comfort, environmental performance. The NCEA recommends making use of the EU Key Performance Indicators system to describe and work out the selected performance levels (see appendix).
5. Employability is relevant to make this reform socially acceptable given the competition with the existing system. Within margins of economic sustainability and willingness to subsidize the system, in a transition period people with registered jobs in the existing system who lose their income may be offered jobs in the new system. The NCEA recommends to consider an agreement about how the private sector in the new system may be required to ensure employability and minimize overall loss of jobs. This may be included in the tender procedure that follows in the implementation phase.
6. As far as choice of locations (new infrastructure, maintenance shops etc.) may influence the overall acceptability of the proposed public transport reform plan, locations should be roughly included.
7. To discuss options for one ticketing system (one ticket handling per trip) and preferable electronic ticketing systems, as a means to increase the accessibility of the system.
8. Look for new employment not just as bus drivers, but also bus attendants, platform attendants, and infrastructure maintenance. Require that in the implementation phase a plan is made to facilitate the required job mobility, by those actors who can implement that plan. This may include an education plan. Assess what will happen to those who cannot be employed in public transport anymore.

9. To estimate the consumer benefits via the mentioned KPI's if the new system (relative to the old system) in terms of travel time and travel expenditure, and also the difference in the degree different groups (including genders) benefit.
10. To estimate the general national benefit in terms of economy (productivity) and environmental quality, including emissions of CO<sub>2</sub>.
11. To make a choice of the required environmental performance of the bus technology (Euro number; hybrid), and to justify this choice.
12. Discuss how other issues possibly are of strategic importance, like possible dealing with commuters from the West Bank to Israel, admitting live animals, possibly required resettlement of residents in development area, provisions for safety of women like dedicated departments in buses and waiting rooms.

### 3.3 Specific points of attention for organisation of the development process

Since the Ministry of Transport is responsible for the reform, it will have prime responsibility to organise a process that leads to the approval of the strategic public transport reform plan and its implementation.

The Ministry of transport is recommended to get together early with the other closely involved authorities that are crucial for successful implementation, and to set up a joint task force to develop the public transport reform plan with the following tasks. The NCEA recommends:

1. that the task force identifies all stakeholders early in the process and the best way of communicating with them (via representing organisations, or in other ways). In particular ways should be sought to communicate with the taxi drivers: probably a large and little organized group. The same for potential commuters. For example, a combination of panel meetings, interviews and survey. It is recommended to agree in an early phase about a consultation plan: which decisions to be presented, which questions to be asked, at which stage of strategy development;
2. to make a participation plan for further development stages to increase acceptability (clearly indicating which decisions are final, and where room for variation still exists). A component of that plan may be to put together a soundboard group of representatives of affected groups that can discuss the progress of the strategic plan, the consequences and the wider consultations;
3. the task force preferably be supported by a technical team. Key experience required is 1) management of public or private transport (logistics) firms, 2) experience with stakeholder processes, 3) experience with supporting strategic political processes and 4) experience with EIA in the transport sector;
4. to ensure that those adversely affected are aware of the public benefits, the possible ways of compensation;

5. specify roles and responsibilities of all actors who must contribute in the implementation phase, as well as their formal commitment;
6. the public transport reform plan should include directions for an operation tender strategy.

### 3.4 Specific points of attention for the procedural aspects of the planning process

1. The NCEA advises to consult the Palestinian Environment Quality Authority about national environmental legislation, and the associated national procedures that must be followed and to do the same for any non-environmental procedures, like those to make decisions about subsidies or to reform the legal framework of public transport.
2. The NCEA recommends to make a detailed schedule of procedures needed to get the new public transport system in place, including reform issues, and link it to the project phases, in special the road extensions, places for the stops/hubs and the needed land acquisition.
3. The NCEA recommends to prepare a scoping document for the detailed EIA that is integral part of the implementation phase. This scoping document should be an appendix of the strategic plan. It should among others pay attention to the systems of detailed design and how these take environment into consideration. For example, enabling the start-up of buses by means of compressed air, design of platforms and maintenance shops, etc.

# ANNEX – Possible content of the public transport reform plan and strategic EIA

1. Strategic choices
  - a. Functionality of the total public transport system/network (LRT/BRT, Feeder Lines, small buses, taxi etc.) by using Key Performance indicators, based on, for example the EU norm (nen 13816 2002):
    - i. availability: extent of the service offered in terms of geography, time, frequency and transport mode
    - ii. accessibility: access to the PPT system including interface with other transport modes
    - iii. information: systematic provision of knowledge about a PPT system to assist the planning and execution of journeys
    - iv. time: aspects of time relevant to the planning and execution of journeys
    - v. customer care: service elements introduced to effect the closest practicable match between the standard service and the requirements of any individual customer
    - vi. comfort: service elements introduced for the purpose of making PPT journeys relaxing and leasurable
    - vii. security: sense of personal protection experienced by customers, derived from the actual measures implemented and from activity designed to ensure that customers are aware of those measures
  - b. Required key legal reforms and responsibilities in implementation and operation, including financial (subsidies) and possible payable ticketing system
  - c. Minimal elements / scope of the mitigation plan to be developed in the implementation phase
2. Justification of these strategic choices based on feasible alternatives and their costs and impacts
  - a. Alternatives
    - i. The further development and improvement of the existing public transport system (without reform and investment in buses)
    - ii. Possible different sets of mitigation measures that have been proposed in assessments and consultations
  - b. Impacts of each alternative:
    - i. Costs and benefits for consumers / citizens / workers
    - ii. Costs and benefits for the authorities
    - iii. Costs and benefits for corporations and the economy

## Appendix

- a. Analysis of the existing PT system/network and its impacts and possible improvements
- b. Main origin and destinations study, including:
  - i. Define the most important attraction points (main residential areas, industrial estates, shopping centres etc. ) for the transport demand
  - ii. Define and locate the main routes for PT (back bone of the system, included tracks with free BRT lanes)
  - iii. Define the feeder lines (with rerouting of existing PT routes/taxi usage etc.)
- c. Environmental impact estimates: effect on the environment from the provision of a PPT service, report of consultations, etc.