Quick Impact.
Sustainable Investments.
Guiding Vision.

Three Proposed Initiatives for Improving Mobility, Quality of Life, and Economic Growth in the West Bank

A Visual Summary
Three Initiatives for Improving Mobility, Quality of Life, and Economic Growth in the West Bank

The RAND Corporation has been working with the Palestinian Authority to develop a suite of proposals for immediate practical projects that would promote economic development in the region while also advancing the U.S. policy agenda in the Middle East. The initiatives, which draw on findings from RAND’s comprehensive assessment of requirements for a successful Palestinian state, reflect five years of close consultation between RAND and the PA at the highest ministerial levels and the Office of President Abbas.

The projects address the critical issues of mobility, infrastructure, and organized development in the following ways:

• Inauguration of a regional transit system for the West Bank. The core of the system is a bus line linking Jenin, Nablus, Ramallah, and Hebron, with three station areas in each city, connected by transit boulevards

• Development of several new urban districts in the cities served by the transit system. Model stations improve quality of life for commuters, areas around the stations are zoned for private sector development, and stations incorporate best practices for energy and water conservation.

• Design of the first national physical plan for Palestine, incorporating transportation and urban development. This master plan, which integrates RAND’s initial work on infrastructure with studies and plans developed by the PA Ministry of Planning, guides long-term development

All of these initiatives could be implemented in the current political and diplomatic environment, beginning immediately and evolving in parallel over several years. The projects are consistent with and supportive of plans recently put forward by the PA to begin building the state institutions required for an independent Palestinian state.

The images that follow illustrate the nature of each initiative and the power of their collective contributions.
Three Initiatives

1. **Quick Impact**
   Transit Line
   The West Bank’s First Regional Transit Line

2. **Sustainable Investments**
   Urban Districts
   Model Urban Districts Around Transit Stations

3. **Guiding Vision**
   National Plan
   A National Physical Plan for Palestine

**URBANIZATION, OPEN SPACE, INFRASTRUCTURE**

**THREE STATION TYPES PER CITY**
- Central Station Type
- Boulevard Station Type
- Arc Station Type

**THREE MODEL DISTRICTS PER CITY**
- Central Urban District
- Boulevard Urban District
- Arc Urban District

**BUS LINE WITH 12 STATIONS**

JENIN
NABLUS
RAMALLAH
JERUSALEM
BETHLEHEM
HEBRON
### Concept Schedule

#### Three Timeframes

<table>
<thead>
<tr>
<th>Quick Impact Transit Line</th>
<th>Sustainable Investments Urban Districts</th>
<th>Guiding Vision National Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The West Bank’s First Regional Transit Line</strong></td>
<td><strong>Vibrant Urban Districts Around Transit Stations</strong></td>
<td><strong>A National Physical Plan for Palestine</strong></td>
</tr>
</tbody>
</table>

#### 100 days

- set up operations center
- launch website
- select station sites
- develop system branding
- select and procure buses
- install station landscaping and signage

= **VISIBLE PROGRESS**

- establish fares
- prepare buses
- designate and upgrade highway
- designate and restripe transit boulevard
- install crosswalks and signals
- train drivers, mechanics, and managers
- install shade structures and PV panels
- design and install maps
- test line operation

= **INITIAL CONCEPTS**

<table>
<thead>
<tr>
<th>300 days</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VISIBLE PROGRESS</strong></td>
</tr>
</tbody>
</table>

- develop incentives for private development
- launch facade improvement program
- launch energy and water conservation incentives
- install green infrastructure and landscaping
- improve pedestrian facilities and linkages
- break ground on key projects

= **INITIAL OPERATION**

- establish fares
- prepare buses
- designate and upgrade highway
- designate and restripe transit boulevard
- install crosswalks and signals
- train drivers, mechanics, and managers
- install shade structures and PV panels
- design and install maps
- test line operation

= **FIRST DRAFT**

<table>
<thead>
<tr>
<th>1000 days</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FULL OPERATION</strong></td>
</tr>
</tbody>
</table>

- complete station improvements
- complete highway improvements
- complete signal synchronization
- full testing

= **REVITALIZATION**

- complete public space improvements
- complete private development projects
- full integration with transit

= **COMPLETE & ADOPTED**

<table>
<thead>
<tr>
<th>Concept Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three Timeframes</td>
</tr>
</tbody>
</table>

#### The West Bank’s First Regional Transit Line

- set up operations center
- launch website
- select station sites
- develop system branding
- select and procure buses
- install station landscaping and signage

= **VISIBLE PROGRESS**

- establish fares
- prepare buses
- designate and upgrade highway
- designate and restripe transit boulevard
- install crosswalks and signals
- train drivers, mechanics, and managers
- install shade structures and PV panels
- design and install maps
- test line operation

= **INITIAL CONCEPTS**

<table>
<thead>
<tr>
<th>Concept Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three Timeframes</td>
</tr>
</tbody>
</table>

#### Sustainable Investments Urban Districts

- establish model district boundaries
- establish district guidelines
- identify key sites and projects
- identify public projects

= **CONCEPTS**

- develop incentives for private development
- launch facade improvement program
- launch energy and water conservation incentives
- install green infrastructure and landscaping
- improve pedestrian facilities and linkages
- break ground on key projects

= **VISIBLE PROGRESS**

- establish fares
- prepare buses
- designate and upgrade highway
- designate and restripe transit boulevard
- install crosswalks and signals
- train drivers, mechanics, and managers
- install shade structures and PV panels
- design and install maps
- test line operation

= **INITIAL OPERATION**

- complete station improvements
- complete highway improvements
- complete signal synchronization
- full testing

= **REVITALIZATION**

- complete public space improvements
- complete private development projects
- full integration with transit

= **COMPLETE & ADOPTED**

<table>
<thead>
<tr>
<th>Concept Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three Timeframes</td>
</tr>
</tbody>
</table>

#### Guiding Vision National Plan

- establish working technical team
- begin inventory of national resources and policies
- begin to identify basic principles and goals
- establish and define sectors

= **INITIAL CONCEPTS**

- concept maps and drawings
- launch website, begin public outreach
- develop options and alternatives
- feasibility studies
- establish financial strategy and priorities

= **FIRST DRAFT**

- select and refine alternatives
- extensive public outreach
- selected preliminary engineering
- prepare final draft
- submit for adoption

= **COMPLETE & ADOPTED**

<table>
<thead>
<tr>
<th>Concept Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three Timeframes</td>
</tr>
</tbody>
</table>
Quick Impact

Transit Line Elements

Transport Modes

- Walking and Biking Integrated with Transit
- Existing Private and Group Taxis
- Existing “Fill and Go” Shuttle Bus Lines
- Existing Local Bus Routes
- Scheduled Intercity and Municipal Buses

Right-of-Ways

- Upgraded Existing Highways or New Segments
- Enhanced Arterial Boulevards with Transit Lanes
- Center City Streets with Bus Lanes & Crosswalks

Information

- Station, Bus and Route Signage
- Digital Fare Cards and Phone Applications
- Online Services and information

Stations

- Tickets, Refreshment, and Bathrooms
- Seating and Enhanced Permeable Paving
- Shade Structures with Photovoltaic Panels
- Shade Trees and Water-Conserving “Bio-Swales”
Existing Conditions
In most West Bank city centers, microbus and taxi services operate out of privately run parking lots or structures. These typically lack basic passenger services such as ticket booth, maps, schedules, seating, shade, lighting, refreshment, restrooms, trash receptacles, or other amenities. Passengers must often hold seats by waiting inside hot vehicles until they are filled. Few provisions are made for families with children.

STATION TYPE
Central

STATION FEATURES
- located in the historic city center
- incorporates existing streets, curb space, off-street parking areas
- publicly owned and operated
- integrates existing microbus, taxi service with new municipal rapid bus service
- high levels of passenger information and amenity

DISTRICT IMPROVEMENTS
- upgraded sidewalks and crosswalks
- facade and building renovations, housing, shops, cultural facilities, parks
- photovoltaic arrays
- bio-swales and graywater recapture
### Existing Conditions

Outside historic city centers, major arterial roads extend to other districts and cities. These roads are typically designed for high-speed traffic but without any special provisions for public transport. Many road segments lack sidewalks and crosswalks are almost nonexistent. Landscaping is minimal at best. This environment discourages walking and transit use, and sharply diminishes the livability of adjacent office, retail, and residential structures.

### Station Type

**Boulevard**

### Station Features

- located on arterial roadway converted into transit boulevard
- incorporates existing streets and medians
- publicly owned and operated
- integrates existing microbus, taxi service with new municipal rapid bus service
- high levels of passenger information and amenity

### District Improvements

- upgraded sidewalks and crosswalks
- housing, offices, shops, schools, parks
- photovoltaic arrays
- bio-swales and graywater recapture
Existing Conditions
The peripheries of most West Bank cities remain relatively undeveloped. Many opportunities exist to create national transport and infrastructure facilities and new urban districts in close proximity to the historic city centers. Exploiting those opportunities is essential to avoiding unchecked urban sprawl, which would impose enormous financial and environmental costs on a prospective Palestinian state.

STATION TYPE
Arc

STATION FEATURES
• located at urban periphery where transit boulevard intersects planned Arc corridor
• publicly owned and operated
• major transfer point from intercity bus line
• integrates microbus, taxi, municipal and intercity bus
• high levels of passenger information and amenity

DISTRICT IMPROVEMENTS
• layout of new district
• initial investments in office, commercial, and technology development
• sites for government, university, and hospital use
• photovoltaic arrays and windfarms
• bio-swales and graywater recapture
Arc Station District - Long-Term Development

Near Term: Medium Density with Intercity Bus

Long Term: High Density with Intercity Rail

Interior of Intercity Rail Station

Intercity Bus Station Upgraded to Rail Station at Arc Corridor