Transformative and Inclusive TOD of Gare Petersen, the future hub station of Dakar's first BRT Line

Aiga Stokenberga
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Public transport serves 80% of motorized trips in Dakar

Doubling in motorized trips in next 20 years

Public transit speeds declining by 1.5%/year

High informality of employment

An 18-km BRT line financed by the World Bank, from Gare Petersen to Guediawaye, will help address congestion issues in downtown Dakar

Significant impacts expected on accessibility to jobs, health facilities, schools, markets

Urban express train (TER) financed by other donors also planned
Gare Petersen context:
• A city center bus station
• A dense urban context, a saturated space
• Low-level constructions, a real functional mix
• A highly organized ecosystem

Objective: A data-driven plan for redeveloping the Gare Petersen station area:
• Reflecting input from a wide range of stakeholders
• Can be realistically implemented given the local context and constraints
• Could serve as a model for (re)developing other station areas in the future

The Study focus:
• Support development of a major multimodal hub (BRT / Bus station)
• Facilitate accessibility to the future BRT terminal
• Quality planning of public spaces
• Integrate existing uses
The study

Integration of existing uses of the space as a key objective
Timeline

February 2019

Study launch

Phase A

Development of methodology

- 1 week of on-site observations
- Interviews with stakeholders to confirm objectives
- GIS tools and database

April

Phase B

Assessment of project area’s economic potential

- Accessibility
- Pedestrian traffic
- Commercial potential
- Potential for informal use
- Social structure
- Land value, land capacity, redevelopment potential
- Real estate trends

May

Phase C

Development of a vision for Gare Petersen station area

- Share and validate multi-criteria analysis with stakeholders (formal & informal station users; institutional actors)
- Co-construct a vision for the future development of Petersen station
- Prioritize issues and actions

June

July

August

September

October

Final outputs

Phase D

Development of a detailed station area (re)development plan

- Programming and urban design features:
  - Estimated land use quantification and distribution (facilities, public services, retail outlets, housing,...);
  - Organization of public space
  - Inter-modality
  - Built form: height and density
  - Preliminary balance sheet (cost estimates)
  - Phasing of actions
1. The bus station
2. The right-of-way of the station
3. **Operational scope:** immediate surroundings of the station
4. Coherence perimeter: 800 m around the station

**Study perimeter**
Diagnostic

Réseau de transports en commun actuel et futur sur Dakar Plateau
Many formal and informal uses in the station area:

- Some directly linked to the bus station requiring presence on site *(minibus operators)*
- Some directly linked to the bus station but can be located at some distance *(bus repair)*
- Some indirectly linked to the bus station but requiring a presence on site *(mobile traders)*
- Some indirectly linked to the bus station but can be located near the site *(permanent shops)*

**Diagram:**

- Vendeur de jujubier, médicaments et de baumes
- Vendeur de tissus
- Vendeur de bracelets en perles
- Vendeur de produits importés
- Vendeur de chaussures / cordonnier
- Grossista/semi-grossista et import/export

- Vendeur d'eau
- Vendeur de café
- Vendeur de jus de fruits
- Gargotièrere/stauratrice

- Laveur
- Mecanicien sur les bus
- Vendeur de pièces détachées

- Laveur ambulant
- Coeur
- Rabatteur
- Chauffeur de bus
- Mecanicien ambulant
- Chef de secteur
- Chef de garage

**Activités Niveau 1**

**Activités Niveau 2**

**Commerces Informels Niveau 3**

**Commerces Informels Niveau 4**

**Indépendance vis à vis de la gare**
Diagnostic
Developing a Vision

Visioning workshops: group work around 4 themes (tables)

- Mobility & accessibility
- Integration of commercial activities
- Neighborhood programming
- Public spaces & living environment

The strengths and weaknesses of the area

Prioritization of issues

Proposed actions

Proposal for spatialization of actions
A plan for station area (re)development

At the heart of the development of the Petersen district, two elements will play a major role:

- **A hub**: a place for fast and comfortable inter-modality
- **Markets**: places where fresh produce and consumer products are sold and places of sociability

To achieve this ambition, two interventions central:

- **Governance and formalization**
- **Spatial reorganization**

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**Existing condition**: Petersen station before implementation of BRT project

**Phase 0**: BRT terminal layout

**Phase 1**: Development of markets and commercial spaces

**Phase 2**: Progressive development of the district around flagship facilities
A plan for station area (re)development

**Phase 0**: BRT terminal layout

Activities not relocated on site, whose external relocation must be anticipated before the operation: Mechanical activities not related to buses and public transport.

1. **Papa Gueye Fall Triangle**: temporary location of street vendors (categories 3 and 4)
2. **Former Petersen market**: temporary location of all buses and bus-related functions
3. **North Triangle**: construction of a temporary car park

Conflicts identified at the Petersen roundabout and at the terminus level

Dangerous pedestrian crossings

Main flow conflicts
A plan for station area (re)development

**Phase 1:** Development of markets and commercial spaces
A plan for station area (re)development

**Phase 2:** Progressive development of the district around the flagship facilities
A plan for station area (re)development

**Phase 2:** Progressive development of the district around the flagship facilities
Thank you!

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