

Urban Public Transport Development Study in Batam, Indonesia - Focusing on the Bus Pilot Project -

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1. Introduction

The Urban Public Transport Development Study in Batam was undertaken within the AJLT-6 Urban Public Transport Policy Framework (UPTPF), which is a part of the Association of Southeast Asian Nations (ASEAN)-Japan Transport Partnership. As part of the AJLT-6, the Japanese Ministry of Land, Infrastructure and Transport (MLIT) has conducted studies in several major regional ASEAN cities to better comprehend their urban transport systems and recommend practical solutions and frameworks for moving forward in creating a sustainable and comprehensive public transport policy. In 2003, Chiang Mai, Thailand was chosen as the first target city, while a Batam, Indonesia served as the second case study in 2004.

2. Background and Objectives of the Study

Study Background: Batam is one of the largest islands of Indonesia's Riau Archipelago and lies 20 km southeast of Singapore. The area of Batam is 415 km². The Government of Indonesia has strategically developed the island, with an emphasis on industry, trade, tourism, and transshipment. Batam is also a major weekend getaway destination for Singaporeans and a major recipient of foreign/private investment for its industries. Economic growth has been strong in recent years, leading to increased population and vehicle growth and placing a strain on the existing transport infrastructure and services. Moreover, formal public transport services in Batam are relatively poor, with low frequencies, and lack operating schedules and timetables. Most public transport users in Batam depend heavily on illegal operators, which gives those operators a sense of legitimacy.

Objectives of the study: The ultimate objective of this study is to formulate an island-wide Bus Transport Development Strategy to enable sustainable and efficient public transport in the future, integrating the island's plan for the so-called Bus Pilot Project (BPP) to introduce higher service levels. The Study Team in Japan (STJ) and the Study Team in Batam (STB) was formed and this study was undertaken in partnership with the both teams. This paper only details aspects relevant to the BPP.



Figure 1 Map of Indonesia and Batam

3. Bus Pilot Project (BPP) in Batam

Supported by the Central Government and BLA (Batam Local Authority) and slated to begin operations in 2005 on a single pilot corridor from Sekupang (on the northeast part of the island) to Batam Center (one of the major downtown areas and economic centers), the BPP will bring an entirely new concept in service and quality to public transport services in Batam, with scheduled, frequent, and on-time service, in large comfortable vehicles that only stop at regulated bus stops along a fixed route. The BLA and the Central Government envision that successful implementation of the BPP will: (i) lead to improved perception of and an increasing public transport mode share on the island; (ii) provide the impetus for extending this system; and (iii) provide the impetus for systematizing all public transport on the island under the auspices of a single organization that can coordinate routes, schedules, operating policies, and fares.

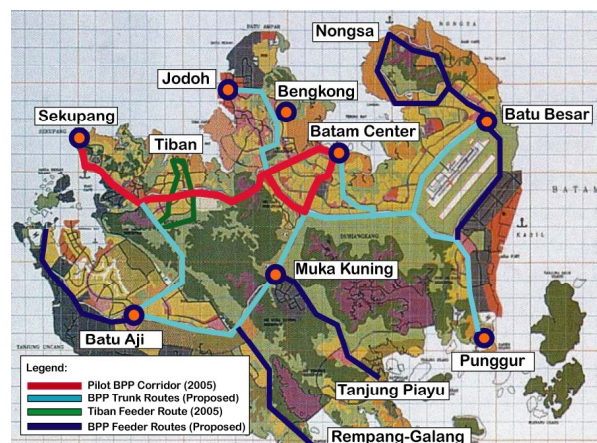


Figure 2 Initial BPP Route and Future Network

4. Issues and Recommendations for the Bus Pilot Project

STJ assessed the current transport situation in Batam by reviewing previous reports and studies that had been conducted. Information on the transport situation and the BPP was also gathered through surveys and interviews with government officials, public transport providers, and local transport institutions in Batam. STJ also undertook a questionnaire survey of over 400 people. Based on the results of the study, STJ proposed recommendations and strategies for the BPP. This section particularly focuses on major short-term recommendations.¹

4.1 Network and Operation

Infrastructure for the BPP corridor is nearly complete and ready for its mid-2005 unveiling. Network and operating characteristics for the BPP have yet to be finalized, including: (i) schedule; (ii) feeder route for Tiban; (iii) fares; (iv) ticketing systems; (v) integration with existing network and routes; and (vi) maintenance. BIDA (Batam Industrial Development Authority) is responsible for planning and

¹ STJ also proposed other comprehensive recommendations for the BPP in the study, such as a) safety and training, b) passenger information, c) fare and ticketing system, etc.

managing land development on the island. As such, LTA (Land Transport Authority, part of BLA) aspirations to build bus stops, etc. on the island are subject to BIDA approval for the provision of land for construction. As of now, the planned BPP route does not directly serve ferry terminals at Sekupang and Batam Center, as BIDA does not permit LTA to place bus stops inside the seaports. As such, planned BPP stops are some distance away and extremely inconvenient for riders.

- **Route Network: Coordination between related organizations to secure space inside Sekupang and Batam Center ports and obtain agreement from BIDA to permit placement.** LTA and the operators must come to an agreement with BIDA to assure the placement of infrastructure within these facilities and to assure right of entry to these vehicles. The STJ recommend that a formalized, written agreement (possibly a mayoral decree) be concluded among these key stakeholders. The following process might be needed: (i) delineate space needs and long-term benefits; (ii) create schematics of possible stop options; and (iii) seek compromise and consensus.

- **Maintenance: Require drivers to conduct cursory inspections of the vehicles both before and after shift as a preventative maintenance.** An easy first step to improve preventative maintenance and unnecessary field breakdowns is to require drivers at the beginning and end of their shifts to inspect the vehicle and its vital operating components. BPP drivers should be required to fill out a checklist prior to their departure for the day and when they arrive back to the depot to identify potential problems.

- **Infrastructure: Enhance problematic junctions.** The STJ recommend that traffic engineering specialists for LTA be deployed along major routes to identify key capacity constraints such as: (i) inadequate timed signals; (iv) lack of signals; (iii) inadequate geometric configuration at intersections; and (iv) lack of dedicated turning lanes.

- **Operations: Revise proposed operations and schedule to maintain spare buses and distribute mileage evenly on vehicle fleet.** Though an operational schedule has been proposed by the BPP project team, the following modifications are suggested: (i) keeping one or at most two buses in the depots as spare buses throughout the day for contingency purposes; (ii) rotating the buses serving as the spares each day, to more evenly distribute mileage among the fleet and to prevent overuse of certain vehicles; and (iii) scheduling for potential lag time for connections with the Tiban feeder route.

4.2 Organization and Regulation

Ministerial Decree #64 (2004) created the basis for the bus pilot project and Mayoral Decree #162 (2004) authorized the creation of a special team to propose the Bus Pilot Project. The team consists of the Mayor, BLA, LTA, public transport operators, consultant, etc. The team does not involve the BIDA and police. As of March 2005, they had identified the route, secured funding for the buses and operations, and started constructing bus stops, but had not identified or created an operating organization.

- **BPP Organization: Identify metrics and evaluation criteria.** The BPP project team has to outline clear scope, roles, and responsibilities for BPP operational organization and identify it. At the same time, the team must identify metrics and evaluation criteria to enable the success or failure of BPP to be judged. This is critical for two reasons. First, along the project timeline, having these metrics will enable the team to determine how the project is progressing and make changes if necessary. Second, a record of accomplishments (e.g. increase in ridership, revenues, decrease in illegal operations) will present a better picture to future private investors.

- **Transport related Organization: Form committee among key operators, LTA, and BIDA focusing on integration and coordination issues.** Pertaining to placement of bus stops, other infrastructural provision, and enforcement, it is important that consensus be reached among operators and related entities and organizations, especially LTA, BIDA, and police. In regards to the BPP, coordination among LTA, BIDA, and police is essential to place the bus stops in ferry terminals and to effectively enforce regulations.

- **Regulations: Hiring Practices.** Regarding the number of bus company employees, set average proportions of drivers to vehicles, maintenance workers to vehicles, etc. to some extent. Bus operators should also secure rest for drivers during peak period. These guidelines should assist operating organization for the BPP, as they need to hire suitable drivers. It will also provide insight for future contracts with private operators.

5. Conclusion

At the conclusion of the study, the study teams held a seminar in Batam. The seminar participants included the BIDA, police, Government of Riau Province, and public transport operators, as well as the Ministry of Communications and BLA. The seminar was a valuable opportunity for related organizations and entities including BIDA and the police to exchange opinions on future public bus services and share problems and perspectives on how to effectively promote future public transport development in Batam. Attendees confirmed the importance of formulating better regulations and enforcing them, improving the passenger level of service, and especially improving the services of legal buses to develop a better public transport in Batam.

In this study, the STJ detailed several recommendations and strategies to improve services level for the BPP so that riders will choose BPP buses and legal public transport operators over illegal operators. One major emphasis point is the need for BPP access to the ports. This means that the BPP team should endeavor to place bus stops within such facilities, to improve mobility and accessibility. As maintenance is always an important issue, the BPP team should establish firm maintenance and upkeep procedures prior to service initiation. Organizational, regulatory, and institutional problems, however, are relatively more difficult to solve than the technical ones. Such issues require close cooperation and arrangements among related organizations and entities, as well as inclusion of all major players (BIDA and the police are not included in public transport planning at the moment).

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