



PROJECT BRIEF: MOMBASA WATER TRANSPORT SYSTEM

Delivering Affordable, Reliable and Green Urban Mobility for an Island City

Status: Advanced Concept / Pre-Feasibility | **Location:** Mombasa Island & Creek Corridors | **Sponsor:** EDIC & Mombasa County Government



THE OPPORTUNITY: UNLOCKING A HIGH-IMPACT URBAN MOBILITY SOLUTION

Mombasa is a dense island city with an estimated urban population of ~1.55 million by 2025, anchored by the Port of Mombasa, tourism, trade, and manufacturing. Its physical geography, limited road space, and reliance on a few critical crossings have created structural congestion that constrains productivity and quality of life.

Road congestion is identified by over 55% of residents as the number-one transport challenge, with more than 35% citing high commuting costs. Prior studies estimate that daily island entries and exits exceed ~1 million trips, placing sustained pressure on the Likoni Ferry and Nyali Bridge. Over 90% of surveyed residents support the introduction of public water transport, indicating strong demand and social licence for an alternative mode.

THE SOLUTION: A MODERN, SHARED WATER TRANSPORT SYSTEM

The project proposes the development of a modern, affordable water transport system using licensed private vessels operating on county-owned waterfront infrastructure.

Short water crossings of approximately 0.4–0.5 km at Nyali and Likoni offer a natural advantage for fast, high-frequency waterborne services. The system will prioritise solar-electric or electric vessels due to significantly lower operating costs, near-zero local emissions, quieter operation, and stronger eligibility for climate and green mobility finance.

The service will be designed as a shared urban mobility platform, with multiple routes and landing sites integrated with existing transport modes to maximise commuter convenience and adoption.

PROJECT ECONOMICS & DELIVERY MODEL

The project will be delivered through a private-operator model, with public investment focused on route development and landing infrastructure, and private capital mobilised for vessel acquisition and operations.

Early modelling combining vessel capacity, cycle times, and low solar-electric operating costs shows that the service can reliably break even at mass commuter fares of approximately **USD 0.38–0.62 per trip** (equivalent to KES 50–80), ensuring affordability and high utilisation.

Compared to road and bridge infrastructure, jetties can be installed within months at low to medium capital cost, with minimal land disruption, enabling faster deployment and scalability.

DEVELOPMENT IMPACT



- **Job Creation:** Generates ~**3,000 jobs** including 300-500 direct jobs in ferry operations and 800-1,200 jobs during infrastructure development and 1,000-1,500 indirect and induced jobs generated through spillover effects in hospitality, retail and local transport services.
- **Urban Mobility:** Provides immediate congestion relief at key chokepoints, reducing commute times and restoring millions of productive hours to residents each year.
- **Environmental Impact:** Delivers significant CO₂ emissions reductions by shifting trips from road-based transport and diesel vehicles to clean, electric water transport.
- **City Competitiveness:** Improves access to jobs, education, and services, strengthening productivity and supporting Mombasa's long-term urban growth.