SOCIO-ECONOMIC · ECOSYSTEM SERVICES

Food–Water–Energy Nexus & Maritime-Based Development

Considerations for Iloilo City

Briefing for Private Sector & Academe · ~12 minutes

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Why This Matters for Business & Research

Private sector

Investment risk, supply-chain resilience, water & energy reliability, ESG expectations, blue-economy opportunities, and social license to operate all depend on how these systems interact.

Academe

Iloilo offers a living laboratory for nexus research, ecosystem valuation, coastal urbanism, and evidence-based policy design that can inform regional and national practice.

Shared interest

Sustainable growth requires aligning economic expansion with the ecosystem services that underpin food, water, energy, and maritime livelihoods.

Iloilo City: Socio-Economic Snapshot

Services-led

Dominant sector (trade, BPO, education, healthcare, tourism)

Regional hub

Western Visayas growth center & port city

Port & logistics

Commercial port modernization & container terminal

Agri-fishery links

Province as rice & food basket; strong maritime ties

Growth is real—but it increases pressure on water, energy, land, and coastal ecosystems. Development choices today shape the reliability of the services that businesses and communities depend on tomorrow.

Key anchors: Iloilo River Esplanade · Visayas Container Terminal · IT-BPO / ecozones · public-market PPPs · RISE roadmap

Ecosystem Services Underpinning the City

Iloilo River & mangroves

Nursery habitat, water filtration, flood & surge buffering, carbon storage, recreation (Esplanade). ~70–80 ha mangrove belt restored since 2010; global restoration recognition.

Watersheds

Tigum–Aganan and related systems supply potable water to the city. Degradation upstream translates directly into urban scarcity and flood peaks.

Coastal & marine

Fisheries support, coastal protection, tourism and gastronomy value. Blue-economy potential depends on healthy nearshore ecosystems.

Urban green–blue space

Heat mitigation, amenity value, health co-benefits. Supports livability that attracts talent and investment.

Food–Water–Energy Nexus in Practice

These three systems are tightly coupled in Iloilo. Stress in one quickly transmits to the others—and to business continuity.

Food

Urban & peri-urban agriculture, public markets, provincial rice & fisheries supply chains. Climate extremes and water stress affect price and availability.

Water

High urban demand vs limited reliable supply; watershed degradation; El Niño risk; competition with agriculture and industry. Groundwater and surface sources both constrained.

Energy

Grid reliability and cost affect production, cold chains, water pumping, and digital services. Renewables and waste-to-energy are emerging options for resilience.

Maritime-Based Development Considerations

Port & logistics

Commercial port modernization and container terminal expand trade capacity for agri-fishery and manufactured goods. Critical for regional competitiveness.

Fisheries & aquaculture

Municipal and commercial fisheries remain economically and culturally important. Stock health and nearshore habitat quality determine long-term viability.

Coastal tourism & gastronomy

UNESCO Creative City of Gastronomy; river and coastal amenities support tourism receipts and brand value.

Risks to manage

Storm surge, sea-level rise, pollution, and habitat loss can erode the natural capital that maritime value chains depend on.

Development Considerations & Trade-offs

01

Growth vs natural capital

Port expansion, reclamation, and riverside development can create value—but may reduce flood buffering, fishery nurseries, and amenity if ecosystem services are not protected.

02

Water security as a binding constraint

Urban water demand already strains supply. Industrial and commercial expansion without watershed investment and demand management increases scarcity risk.

03

Energy reliability & cost

Business competitiveness depends on stable, affordable power. Nexus planning links renewable generation, waste-to-energy, and efficient water systems.

04

Inclusive value chains

Maritime and agri-food growth should strengthen—not displace—municipal fisherfolk, small vendors, and informal livelihoods that depend on healthy ecosystems.

Roles for Private Sector & Academe

Private sector

- Invest in water-efficient operations and on-site / shared storage
- Support watershed PES and mangrove protection as risk management
- Partner on waste-to-energy, renewables, and circular models
- Align port, logistics, and tourism investments with coastal resilience
- Strengthen local agri-fishery supply chains and cold-chain reliability
- Report and manage nature-related risks (TNFD-aligned thinking)

Academe

- Quantify ecosystem service values (flood, water, carbon, recreation)
- Model FWE nexus under climate and growth scenarios
- Co-produce applied research with LGU and industry
- Train talent for blue economy, circular systems, and resilience
- Evaluate policy and investment options with transparent trade-offs
- Support monitoring of river, mangrove, and coastal health

Key Messages

1. Iloilo’s growth is tightly bound to the health of its river, watersheds, and coastal ecosystems.
2. Food, water, and energy form a nexus: stress in one domain rapidly affects the others and business continuity.
3. Maritime and port development can expand opportunity—if natural capital and residual climate risk are managed.
4. Private sector and academe both have concrete roles: investment design, risk disclosure, applied research, and talent.
5. The highest-return path integrates ecosystem services into land-use, infrastructure, and supply-chain decisions.

Development that ignores ecosystem services borrows against its own future.

Iloilo’s opportunity is to grow as a regional hub while keeping the natural systems that supply food, water, energy, and maritime value intact and resilient.

Sources: Iloilo City RISE roadmap & CLUP · CDRA · PAGASA / CORDEX · UNDP circular economy notes · Port & fisheries reports · Ecosystem restoration coverage