

Introduction

Over the years, society's sensitivity towards the plight of natural environments has influenced trends in urban planning. A new sense of urgency towards creating more flexible built and physical environments have challenged man's ingenuity to come up with innovative ideas to incorporate change in planning spaces. The recent effort to revive Iloilo River emerged with the same demand for ground-breaking measures.

The Iloilo River Development Master Plan is product of a collaborative effort of multi-sectoral parties that includes the city government, private individuals, government and non-government agencies, and other stakeholders. The report includes the different goals, objectives and action plans in the aspects of land use, environment, socio-economic, institutional, infrastructure and transportation. The development thrusts are also identified in recognition of Iloilo River's potential to cater to a more specialize usage in its different sections. Different policies, programs and projects that support the attainment of agreed targets are also incorporated in this master plan. The mechanics to be used in the implementation are discussed together with the details of the management plan.



This document is the first of its kind in Iloilo City and came at an opportune time when both the Iloilo City Government and the Business Community have agreed to focus on the economic potential of Iloilo River. It is made in accordance with the impetus of the City's Comprehensive Land Use Plan, and it integrates the various national and local policies that concern the environment and human activity.

As in all master plans, the main intention is to address the diverse needs of society especially that of Iloilo City. With its formulation, the Iloilo River Development Master Plan becomes a source of information; a basis for amendment; a forecast of the future; a technique for coordination and more importantly, a means to stimulate public interest and responsibility.

The Need To Work Together

Iloilo River is an important natural resource located at the heart of Iloilo City. Its strategic location gives it an edge for development because it traverses the hub of major activity in the city. Interestingly, Iloilo River offers the necessary space and atmosphere that can support development while preserving its ecological value.

At present, Iloilo River provides for sustenance and livelihood to some residents of barangays alongside the river who are still dependent on fishing. Despite its evident degeneration, it is still utilized for recreation (e.g. boat racing) and navigation of vessels coming in from neighboring islands. Its estuarine features make it an ideal source of brackish water for inland fisheries or fishpond cultivation and source of raw material for salt production. It also serves as drainage for sewerage systems and storm surface run-offs.

Although Iloilo River played an important role in the rise of the sugar industry in the 1960's with the construction of the Iloilo Wharf, the momentum was not sustained. Today, the condition of Iloilo River is deteriorating. Its wharf facilities are sub-standard, under utilized and reduced to structural and economic blights. The river is also deprived of appropriate protection and maintenance both in terms of physical infrastructure and legislation. Aside from its inaccessibility to the public, domestic and industrial effluents contaminate it. The river is also adversely affected by siltation, encroachment and illegal structures.



Studies and projects (e.g. partial relocation of informal settlers, enforcement of protective zoning, Iloilo River Clean-Up Project, Water Quality Monitoring, Environmental Quality and ECC Compliance Monitoring) have been sporadically undertaken by concerned agencies and institutions to ease the burgeoning problem but a master plan is required to assure future utility and continued presence of Iloilo River. Moreover, the responsibility of formulating and implementing such master plan should not be left to certain sectors but must be shared by the whole *Ilonggo* community.

The Iloilo River Development Master Plan

The Iloilo River Master Development Plan is a ten-year plan that blueprints the rehabilitation, improvement and sustainability agenda proposed for Iloilo River by *Iloilo Business Club* in collaboration with the *Asia Foundation*, *US-AEP* and the *Iloilo City Government* under the administration of Mayor Jerry P. Treñas.

As a policy document, the master plan identifies goals and objectives that will govern activities in all aspects of the river environment.

As a strategic document, the master plan institutes a framework for short and long-term development interventions while categorizing specific activities to accomplish them.

As a dynamic process, the master plan will include monitoring and evaluating systems to gauge success indicators and facilitate improvement on areas that are unsuccessful.

Limitations of the Master Plan

The master plan will cover the entire stretch of Iloilo River. Immediate entities within the fifty (50) meter radius from the water edge are considered in this master plan. Although the development thrusts mentioned in this master plan are centered on the different sections of the river, its possible impact to Iloilo City's environment, society, economy, land use, infrastructure and transportation are considered.

At the onset, important data on the existing environment of Iloilo River was inadequate. Government agencies were unable to compile historical information especially on economic factors that would have been useful in establishing trends for analysis. Suffice to say, the team made do with whatever information was available and aspects with data gaps were prudently treated.

Relationship To Other Plans

As previously mentioned, the Iloilo River Development Master Plan was made in accordance with Iloilo City's Comprehensive Land Use Plan. It integrates various proposed programs and projects identified by national and local agencies, academe and non-government agencies.

Challenges

The basic challenge of this plan is the sustainability of the project. Implementing this plan will require a considerable amount of resources from the City Government and the other proponents. Also, the momentum at the start of its implementation will be difficult to maintain unless factors like community participation, maximization of resources and realistic government policies, are strengthened.

Issues:

The following are most critical issues identified by the different stakeholders during the workshop held last December 2002 at Amigo Terrace Hotel, Iloilo City:

1. Poor water quality of Iloilo River.

Waste water discharges from institutional and residential sources, industries, commercial establishments, warehouses, oil depots, mooring, inbound sea vessels over the years have contributed a lot in the deterioration of water quality in Iloilo River. The DENR-EMB is an agency that conducts the water quality monitoring of Iloilo River and in the past five years results showed that Iloilo River barely complied with the standard parameters for class "C" water (see Table 6). Unless appropriate measures are adopted to prevent further fluctuation of water quality, entities dependent on the river will suffer in the coming years.



2. Presence of solid waste and other floating debris in Iloilo River.

Solid wastes or garbage carelessly dumped into the river are considered eyesores. Informal settlers and boat passengers were identified to be major culprits in the worsening presence of suspended solids in the water. The absence of proper solid waste disposal system and facilities force these entities to carelessly dump their garbage in the river unmindful of the repercussions if such practice is continued.



3. Siltation or persistent sediment loading in Iloilo River.

Siltation is flooding from the upstream brought about by heavy rains and fast running water carries particles and larger-sized sediment. Heavy rains pick up sand, silt, clay, and organic particles (such as leaves, soil, and tire particles) from the land and carry it to surface water contributing to the shallowing of the river channel. Illegal installation of fish corals, and erosion of riverbanks due to the cutting of mangroves and other inappropriate farming practices that largely increase soil deposits in the river are just some of the factors that cause siltation. Soil erosion can also be a factor because eroded soil particles are carried by storm water to surface water and the debris from streets and industrial, commercial, and residential areas are washed into the nearest bodies of water. Sediment is also carried through storm water as it drains directly to creeks and rivers.

Siltation of navigation channels and river ports require expensive maintenance dredging. The further deepening of navigation channels is necessary to mobilize boats and other watercrafts

4. Laxity on the issuance of ECC; and the monitoring & regulation of environmental and sanitation requirements of industrial and commercial establishments.

Government agencies tasked to monitor compliance of business establishments to environmental policies are lenient. This may be due to limited manpower and resources of such agencies for effective discharge of duties.

5. Deficient garbage disposal system/ non-segregation of organic & inorganic solid waste management.

Households in barangays and establishments along the river do not observe the appropriate way of disposing garbage. Although the law on Solid Waste Management is already enforced, barangay governments have not strongly campaigned for its implementation. This can be attributed to lack of manpower, diligence and funds to conduct seminars and training on how to handle SWM.



6. Encroachment/reclamation of Iloilo River.

Several property owners along the river extended their lots to cover portions of the bank causing irregularity on the river width. The prescribed legal easement was not properly observed along Stations 1, 2, 3 and 4.



7. Lack/inadequate infrastructure facilities for public access to and from the river that otherwise could draw public interest; create awareness and appreciation of Iloilo River.

A great part Iloilo River is inaccessible to the public. Roads and bridges that surround and traverse the river are very limited. Currently, only the population residing on properties or working in establishments located along the river have access to its view and bank. As such, majority of Ilonggos are unaffected by the plight and deterioration of the river because they do not see what thoughtless human activity has done to it.

- Worn-out buildings/structures from the river mouth up to Quirino Bridge contribute to the poor quality of the river's physical environment.

Property owners have not improved the façade of their buildings and structures along Iloilo Wharf. Rusty roofs and dilapidated walls are everywhere in Station 1 and this affects potential influx of business opportunities in the city.



- Presence of informal settlers.

Iloilo River has been home to many informal dwellers. However, facilities that could allow them to live a healthy life are very inadequate. For one, there is the absence of sewage facilities that result to direct dumping of household wastes into the river. Continued presence of these informal settlers is very detrimental to the health of Iloilo River.



- High incidence of respiratory diseases among residents near Iloilo River.

The unsanitary surroundings and poor living condition of families living along Iloilo River contribute to the rise of cases of respiratory disease illness e.g. asthma and tuberculosis. Constant exposure to air polluted with unpleasant chemical odor from the river will weaken the body immune system.

- Seasonal unpleasant odor emanating from the river, annoy the senses.

The gravity of Iloilo River's unhealthy condition is manifested by the odor it exudes. The combination of solid and liquid wastes dumped into the river triggers chemical reactions that produce unpleasant stench.

- Absence of sanitary facilities and water supply for the majority of informal settlers.

Informal settlers along Iloilo River and Dungon Creek do not have the means to provide themselves with sewage facilities for sanitary disposal of their household wastes. Moreover, there is an absence of clean water supply for the families.



- Some Barangay Officials are not keen on protecting territorial boundaries.

Some officials of the barangays located along Iloilo River are unable to protect the river from abuse. The continued presence of garbage, encroachment and other forms of exploitation implies the inability of the officials to apply due diligence in looking after the interests of the river.

14. Lack of data/information on the economic valuation of the different industrial and commercial activities and business along Iloilo River.

The agencies involved with the monitoring of business activities in the city are not equipped to come up with credible economic valuation of all businesses operating along Iloilo River.



15. Illegal fishing practices in Station 3 & 4.

Fish corals occupy the entire river width in Stations 3 & 4 threatening the sustainability of aquatic resources.



16. Absence of proper administrative boundaries and legal easements.

Local governments surrounding the river have not delineated boundaries to address accountability issues. Property owners along the river have not observed the prescribed legal easement from the river shoreline thereby affecting accessibility and river protection.

Table 1. Issues and Concerns Unique to the Different Stations

	Station 1	Station 2	Station 3	Station 4
Environment	Presence of Oil Seeks		Indiscriminate cutting of mangroves.	Proliferation of fish corals Removal of mangroves that impedes navigation at the boundary of Oton and Iloilo River. Unsanitary condition of existing Iloilo City slaughter house.
Infrastructure	Poor/inadequate port facilities	Flooding of Lapaz Market and its peripheries dumping of solid wastes on open canals illegal construction of structures overlapping of MIWD & drainage pipes. Obsolete drainage system	Presence of abandoned infrastructure implementation materials.	Deterioration of carpenter's bridge. Need for a bridge & related access road from Soc, Navais to Arevalo district that will not impede navigation.
Social	Unhealthy peace and order situation at the Iloilo River Wharf.			
Economic		Existence of kiosks along the promenade area.	Construction of illegal structures and unregulated number of fish corals Indiscriminate conversion of mangrove areas into fishponds and other uses.	Decrease in harvest of aqua-culture products.