

APPENDIX K : MASTER PLAN

APPENDIX-K MASTER PLAN

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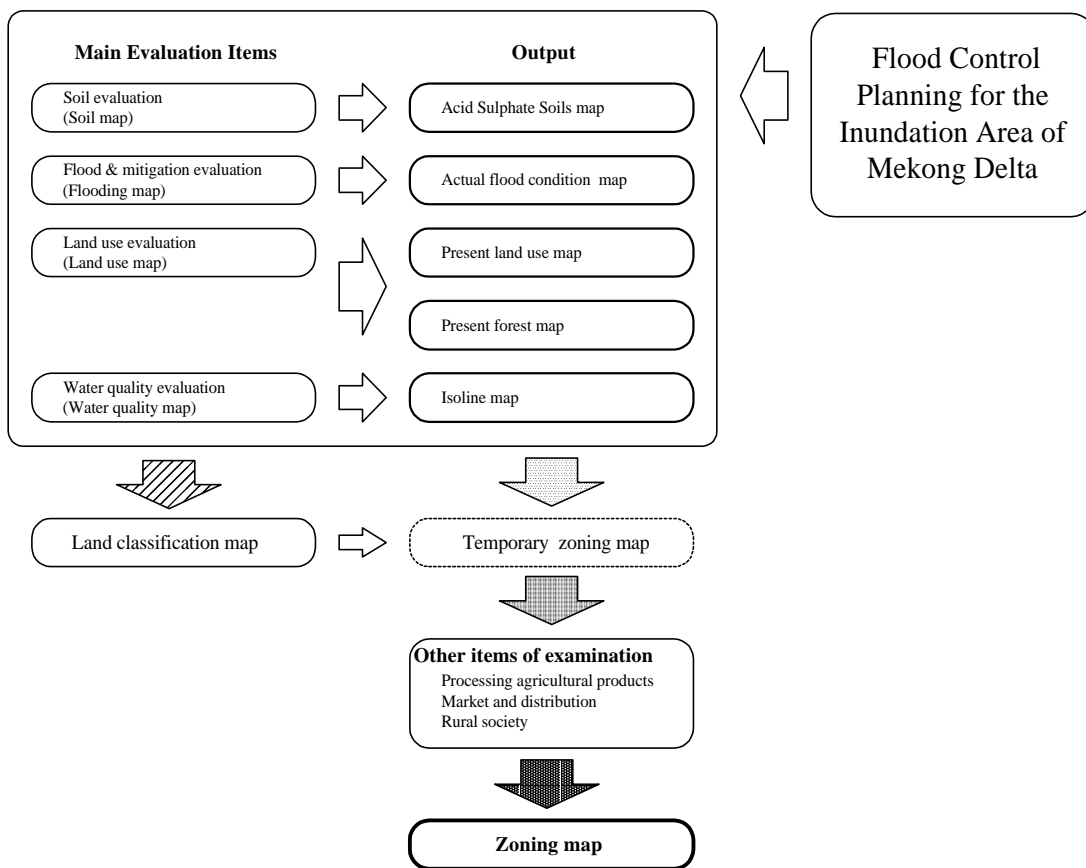
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K.1 Zoning

The zoning was made for establishment of sub-regional development strategies of the Master Plan. In zoning, 4 main factors, soil types, flood conditions, land use and water quality were taken into consideration. Evaluation results of respective factors are summarized in the maps. For instance, the map of soil shows the distribution of Acid Sulphate Soils that is one of the major development constraints. These maps were combined to draw the zoning map of the Study Area.

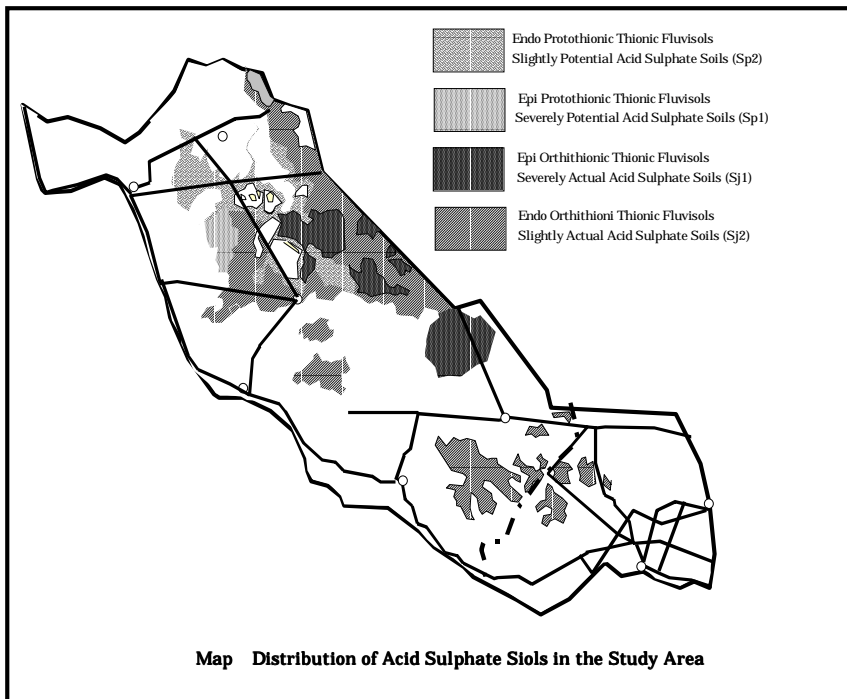
The zoning map was prepared with considerations of other factors such as the processing of the agricultural products, the marketing and the distribution systems in addition to the above 4 factors.

When zoning, **FLOOD CONTROL PLANNING for the INUNDATION AREAS of the MEKONG DELTA**, which divides the area into 3 zones of different level of flood control in the Study Area, was also considered.

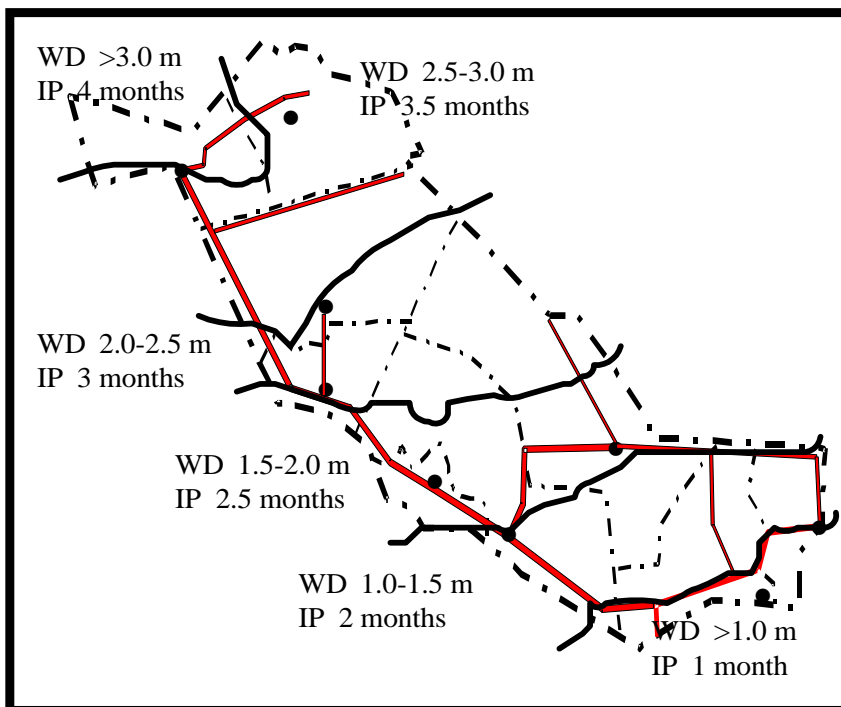


The maps of each factor and the final zoning map are shown below.

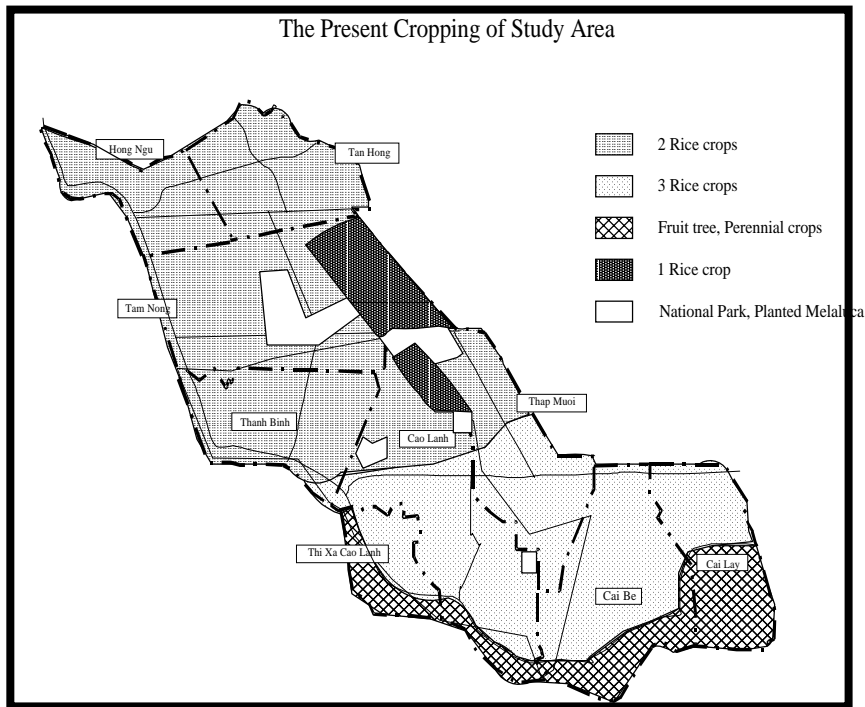
Present Acid Sulphate Soils Map



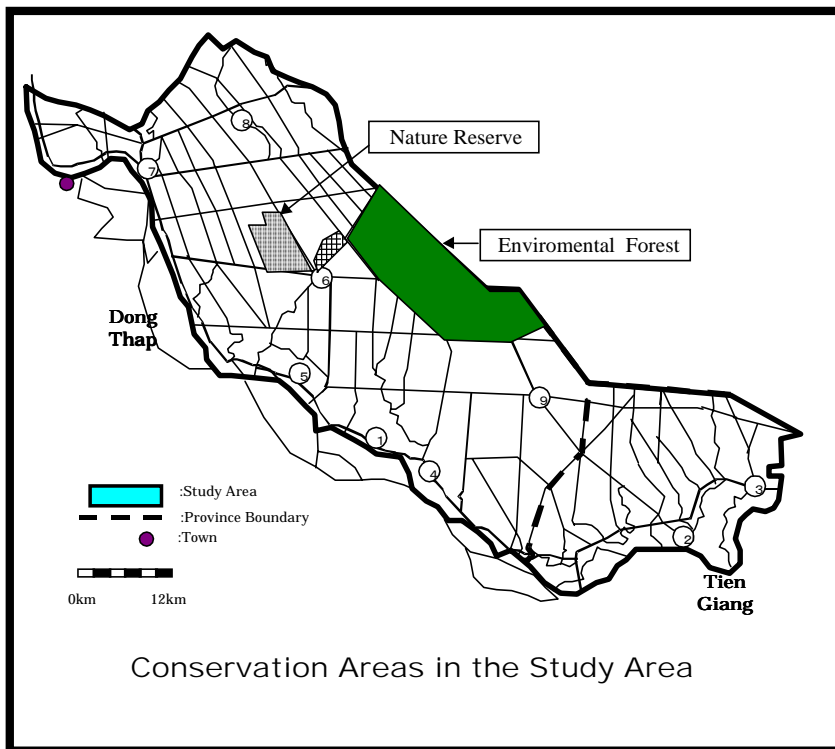
Actual Flood Condition Map



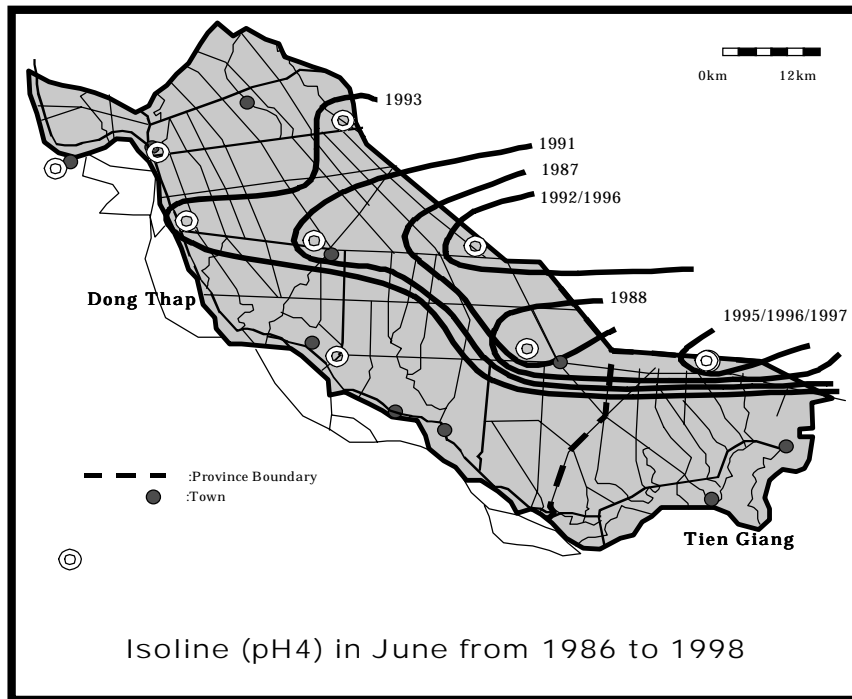
Present Land Use Map



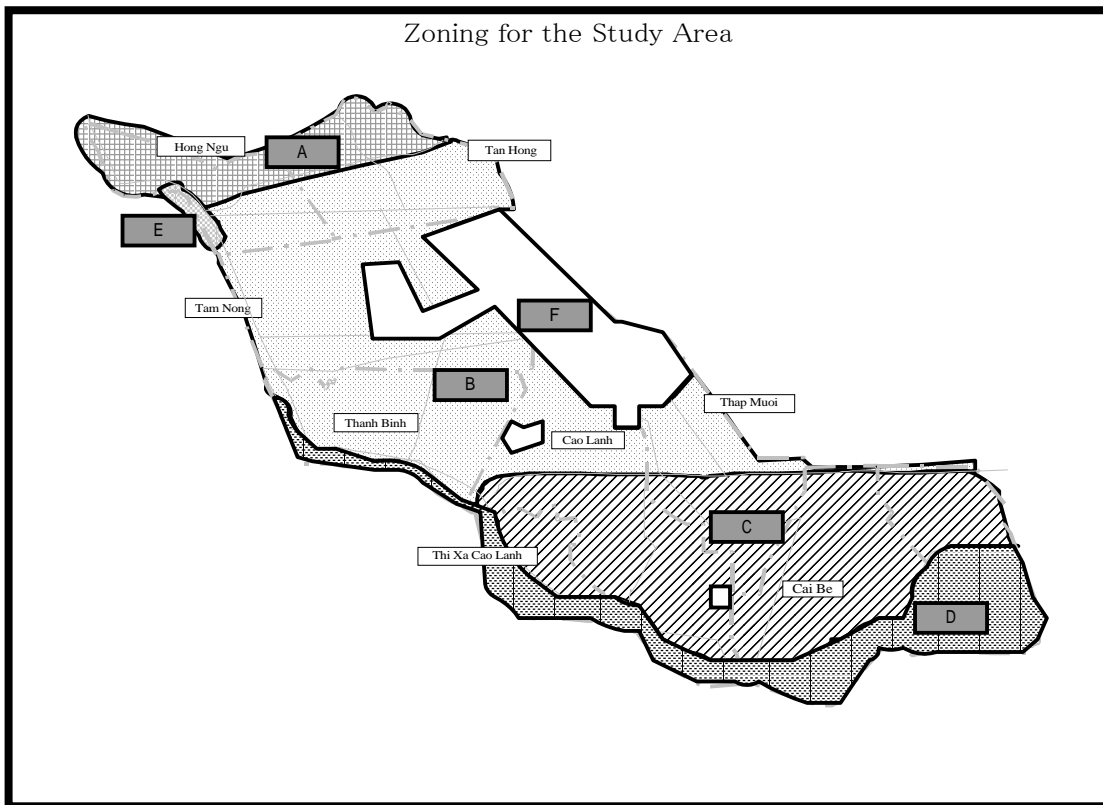
Forest Reserves Map



Isoline Map



Zoning Map



The main and other factors of zoning are shown below.

Main Factors on Zoning

	Main characteristic			
	Soil Resources with emphasis on ASS*	Flood Condition		Water Quality (pH)
		With dike	Without dike	
Zone A	ASS does not distribute. Low cation exchange capacity and low base saturation with strongly acidic subsoil. Generally thin surface horizon with a low amount of organic matter.	Dike for S-A 70% Depth: 0 to 3m Period: 2 months	Non Dike area 30% Depth: 2 to 3m Period: 4 months	pH of canal water does not likely decline below 4.
Zone B	Saturated with water for long periods during the year. Rather fertile with a finer soil texture and a slower organic matter decomposition, and an influx of ions from adjacent higher lands. But the zone is sparsely covered by potential and actual ASS.	Dike for S-A 60% Depth: 2 to 3 m Period: 2 months	Non Dike area 30% Depth: 2 to 3m Period: 4 months	pH of canal water likely decline below 4 in the area adjacent to ASS particularly at the beginning of rainy season. (June)
Zone C	Saturated with water for long periods during the year. Rather fertile with a finer soil texture and a slower organic matter decomposition, and an influx of ions from adjacent higher lands. The zone is partly covered by Potential ASS.	Dike for S-A 70% Depth: 1 to 2 m Period: 1.5 months	Non Dike area 30% Depth: 1 to 2m Period: 3.5 months	In the past 13 years of the northern part of the zone, pH of canal water declined below 4 once every two years in June.
Zone D	ASS does not distribute. Generally fertile and used for a wide range of crops due to chemically rich properties with a near neutral soil reaction. High hydraulic conductivity because of silty or loamy nature.	Garden dike area 95% Depth: 0 to 0.5 m Influenced by Tide	Non Dike area 5% Depth: 0.5 to 1m Period: 3 months	pH of canal water does not likely decline below 4.
Zone E	No ASS in the zone. Endowed with a relatively fertile alluvial soils,			pH of canal water does not likely decline below 4.
Zone F	Severe Actual ASS covers most part of the zone together with potential acid sulphate soils.	Dike for S-A 30% Depth: 2 to 3 m Period: 2 months	Non Dike area 70% Depth: 2 to 3m Period: 4 months	The zone is very susceptible to acidification of canal water.

*ASS: Acid Sulphate Soils

Other Characteristic Factors of Zoning

	Social & economic characteristics			Transport & market characteristics			
	Population Density	Farming Size	Supply and Demand of Rice	Transport Infrastructure	Access to Saigon Port by 300ton boat directly	Processing Facility of Export rice	Pickup Point of Fruits for Outside of Province
Zone A	Medium density	Middle 1-2ha	Consumer area	Along QL30 Good access to HCM market by land route	Possible	Some	None
Zone B	High density	Small < 1ha	Consumer area	Along QL1 & QL30 Good access to HCM market by land route	Possible	Some	Some (An Huu Market Cai Be Floating Market)
Zone C	Low density	Large >2ha	Production area	Possible access to HCM market by land route	Impossible	None	None
Zone D	Medium density	Small < 1ha	Production area	Only water route	Possible	Some	None
Zone E	Low density	Large >2ha	Production area	Only water route	Impossible	None	None
Zone F	Low density	Large >2ha	Production area	Only water route	Impossible	None	None
Zone G	None or low density			Only water route	Impossible	None	None

Project Prioritization

List of respective projects included in the Master Plan	Sustainability and Environmental Impact	Benefit to Farmers	Compatibility with Regional and National Plan	Feasibility	Profitability	Synergy Effect	Overall Evaluation
Agricultural Infrastructure							
1 Flood Control on Boundary Area	B	B	A	A	A	A	A
2 Flood Control on Southern Nguyen Van Tiep Canal	B	A	A	A	A	B	A
3 Small Scale Dyke System Improvement	A	A	B	B	A	A	A
Forestry Management							
4 Concentrated Plantation of National Forest	A	B	A	A	B	A	A
5 Concentrated Plantation outside of National Forest	A	B	A	C	B	A	A
6 Conservation Forest	A	B	A	C	B	A	A
7 Border Protection Forest	A	B	A	B	B	A	A
8 Scattered Plantation	A	A	A	B	B	A	A
Post Harvest Processing							
9 Training and Extension of Post Harvest Technology including Quality Control and Monitoring of Harvest Losses		A	B	A	C	A	A
10 Improvement of Drying Facilities/Equipment of farmers		A	B	B	B	B	B
11 Improvement of Processing Facilities/Equipment of Processors		A	B	B	B	A	B
12 Model Processing Activities by Farmer's Group		A	B	B	A	A	A
Marketing							
13 Collective Marketing by farmer's Group		A	A	A	A	A	A
14 Introduction and Dissemination of Collective Marketing							
15 Expansion of Marketing Scale at Producing Area		B	B	B	B	A	B
16 Improvement of Fruits Marketing Information System		B	A	B	B	B	B
17 Upgrading Wholesale Market for Fruits		B	A	B	B	B	B
Environmental Conservation							
18 Monitoring of Acid Sulfate Soils/Water Quality	A	B	A	A	C	C	A
Extension and Support Services							
19 High Quality Rice Seeds Production/Supply Project		A	A	A	B	A	A
20 High Quality Fruits Seedling Production/Supply Project		A	A	B	B	B	B
21 Improvement of Training/Extension System		A	A	A	C	A	A
22 Agricultural Machinery Service Program		A	C	C	A	A	B
Rural Credit							
23 Establishment of Special Fund for Respective Project Implementation		A	B	C	B	B	B
Farmers' Organization							
24 Establishment/enhancement of cooperatives integrating the Projects of Various sectors		A	A	A	B	A	A
Integrated Project	A	A	A	A	A	A	A