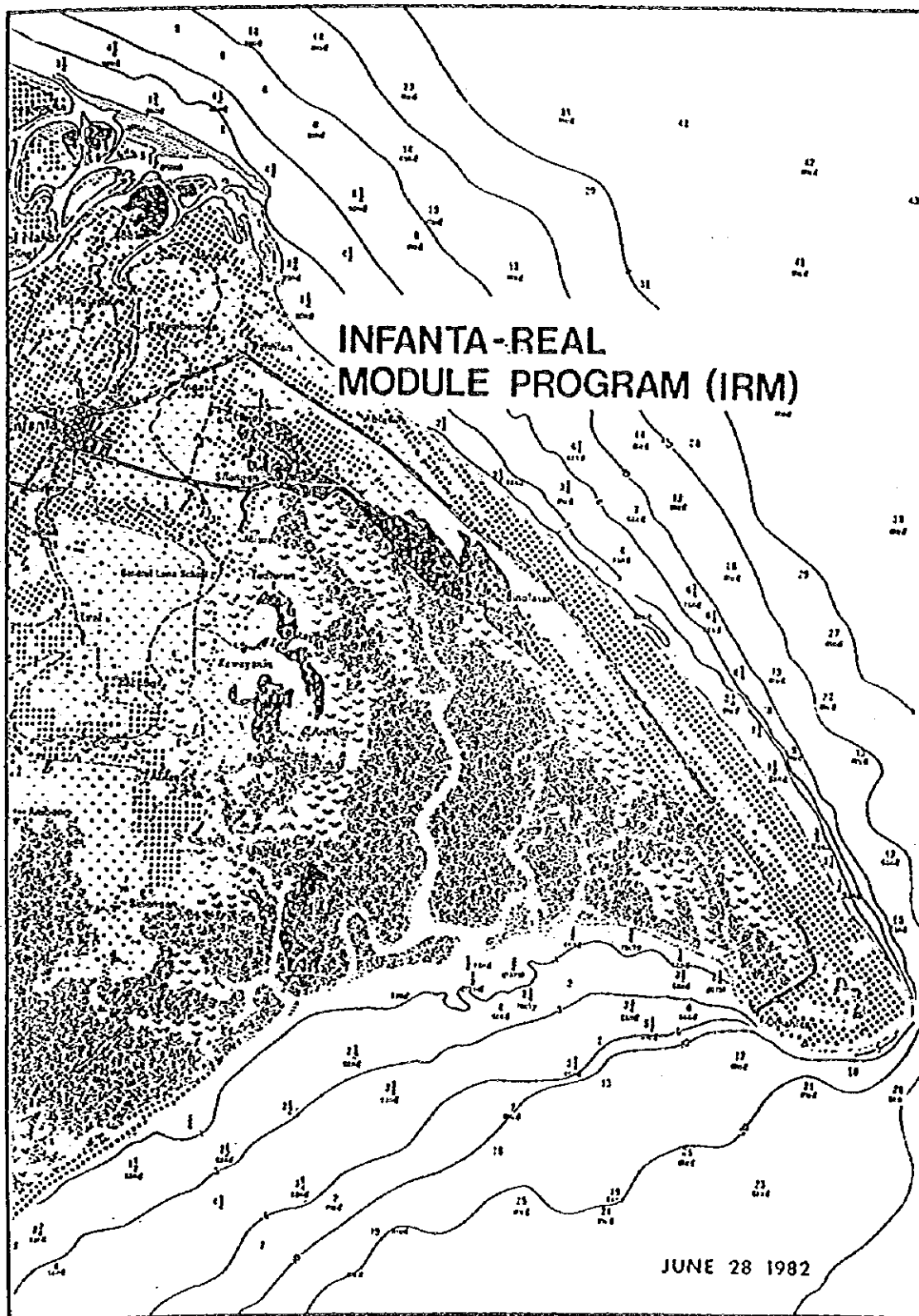


TERMS OF REFERENCE (DRAFT)



INFANTA-REAL MODULE PROGRAM

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I. Project Title

The Master Plan Study for Infanta-Real Module
Urban Development.

II. Project Description

The Infanta-Real Module Urban Development (IRMUD) is the construction of a full-scale urban growth center in the area of 13,000 has. located in the east coast of the Luzon Island directly 80 kilometers east of Metropolitan Manila Area (MMA), which aims both at the redistribution of population, industry and other urban facilities of the MMA and the development of the Pacific coast of the Luzon Island and an access to the Pacific for MMA. Furthermore, the development has been identified as one of the Four Modules in the Lungsod Silangan Development which was initiated for the purpose of the planned growth of MMA's urbanized area. The population of 200,000 to 250,000 should be an ultimate target of the city growth which will comprise a full range of industry, residence, commerce, distribution function, fishery, and tourism development to become a self-sufficient urban growth center.

III. Project Background and Necessity of Master Plan

1. Background Policy

In order to alleviate the Metropolitan Manila's serious urban problems, an effective and planned distribution of industrial and other urban facilities to adequately distant areas from MMA should be achieved along with the institution of location controls over existing and proposed urban facilities in the already urbanized area of MMA. (Urban Development Areas in the Capital Region)

The Infanta-Real area is conceived as one of these urban development areas, and at the same time is one of the four modules of the Lungsod Silangan Development which aims at a large-scale provision of housing in the National Capital Region and ultimately at the rationalization of the future growth of MMA's urbanized area.

Furthermore, IRM Urban Development has

been identified as an urban growth center for the development of the east coast of Luzon Island where an urban development has not fully materialized due to the area's poor accessibility.

To integrate and generalize these background policies, the construction of the Marcos Highway connecting MMA with the area had been initiated. But land speculation occurred and the consequent disorder of land use was foreseen resulting in the decision to postpone the completion of the Marcos Highway. Thus, in order to resolve these problems, that is to secure a definite control over IRMUD's relating elements and to generalize the intention of the background policies, a necessity of the formulation of Master Plan was recognized.

2. Institutional Background

Aforementioned background policies were expressed in the form of Presidential Decree

No. 1637 issued on April 18, 1977 as a national intention and institutionalization followed.

As the concerned Ministry in charge of this development plan, the Ministry of Human Settlements thru the Human Settlement Development Corporation (HSDC) was mandated to act as lead implementing agency. An inter-agency meeting was convened where the Minister requested the cooperation of various agencies and indicated the necessity of supporting studies to be done by the concerned agencies.

The studies proceeded separately for each component and a move towards establishing an inter-agency committee and an appropriate task force for the project started. This committee is proposed to have one Steering Committee and three Sub-Committees: the Sub-Committee on Government Controlled Projects, the Sub-Committee on Private Development Projects and the Sub-Committee on Capital Investment Projects.

In future meeting, the various project implementation schedules of each agency shall be synchronized into the implementation schedule of IRM. When a master plan, as a result of consensus acquired here, is recognized as an administrative or authorized plan, this can possibly become a legal basis for the administration of IRMUD. As such, the formulation of Master Plan has become a necessity in institutionalizing the project.

3. Supporting Studies

The necessity of various studies indicated at the initial inter-agency meeting by the Minister was to cover each component of the project, however, so far the progress of each study varies. For example:

Already included in its own implementation program;

- National Electrification Administration

Included in future plan and pre-study is warranted;

- Export Processing Zone Authority

Studies completed and implementation is ready to start (with completion of Marcos Highway)

- Fishery Industry Development Council

(Fish Marketing Port)

Submitted a concept paper;

- The National Manpower and Youth Council

(Training Center)

Pre-F/s is completed jointly;

- Bureau of Air Transportation

- Ministry of Communication and Transportation

(International Airport)

Expansion is not necessary on the present trend basis but warranted a further study in connection with IRMUD;

- Philippine Port Authority

(International Seaport)

In such a new urban development as IRMUD, the viability of each component when considered separately seems very weak. Even when the component is conceived feasible, it is of the local scale and impossible to correspond to the planned

scale of IRMUD. Therefore, the necessity and possibility of each component must be dealt together with other components on the basis of a comprehensive urban planning practice, and a Master Plan should give such common ground to all the components in elaborating an efficient over-all implementation program of the project.

IV. Necessity and Possibility of Urban Development

1. Necessity of Urban Development

Recognized as the premier urban center in the country, Metropolitan Manila will undoubtedly have to play a leading role in the future development of the Philippines industries and the society as a whole.

As mentioned in the Background Policy, the necessity of urban development had been recognized as shown by the reorganization of MMA's regional structure from the present concentric growth pattern to a more dispersed and multi-nuclear development pattern in order to form a vital economic sphere of Capital Region. (Figure - 1)

Infanta-Real Area will undoubtedly be included in this economic sphere by the construction of Marcos Highway. Furthermore, with its geographical attribute of being situated at the center of the Luzon's east coast, the city should be constructed comprising various inter-dependent urban functions.

On the basis of location controls (banning) over the urbanized area of MMA for new industry and specific urban facilities, the strategic urban development area should be developed within the range of 50 to 80 km. or 2 or 3 hours of driving from MMA so as not to lose the economic linkage with the Metropolis and at the same time not to put a burden on the MMA's already crowded urbanized area. Infanta-Real area is located within the strategic range and should consequently grow into a strategic urban growth center attracting both industry and urban functions.

On the other hand, IRMUD is fundamentally related with the Lungsod Silangan Development which is aimed at the controlled growth of MMA towards the east direction with constraining the urbanization within 20 or 30 km. radius range (Figure - 2)..

Furthermore, the necessity and possibility of the industrial and urban development has been recognized considerably in terms of its potential of becoming a leading growth center in the East Coast Area.

new areas conducive strategic sites in terms of the outward expansion of Metro Manila
 The identified growth center in the east, inland

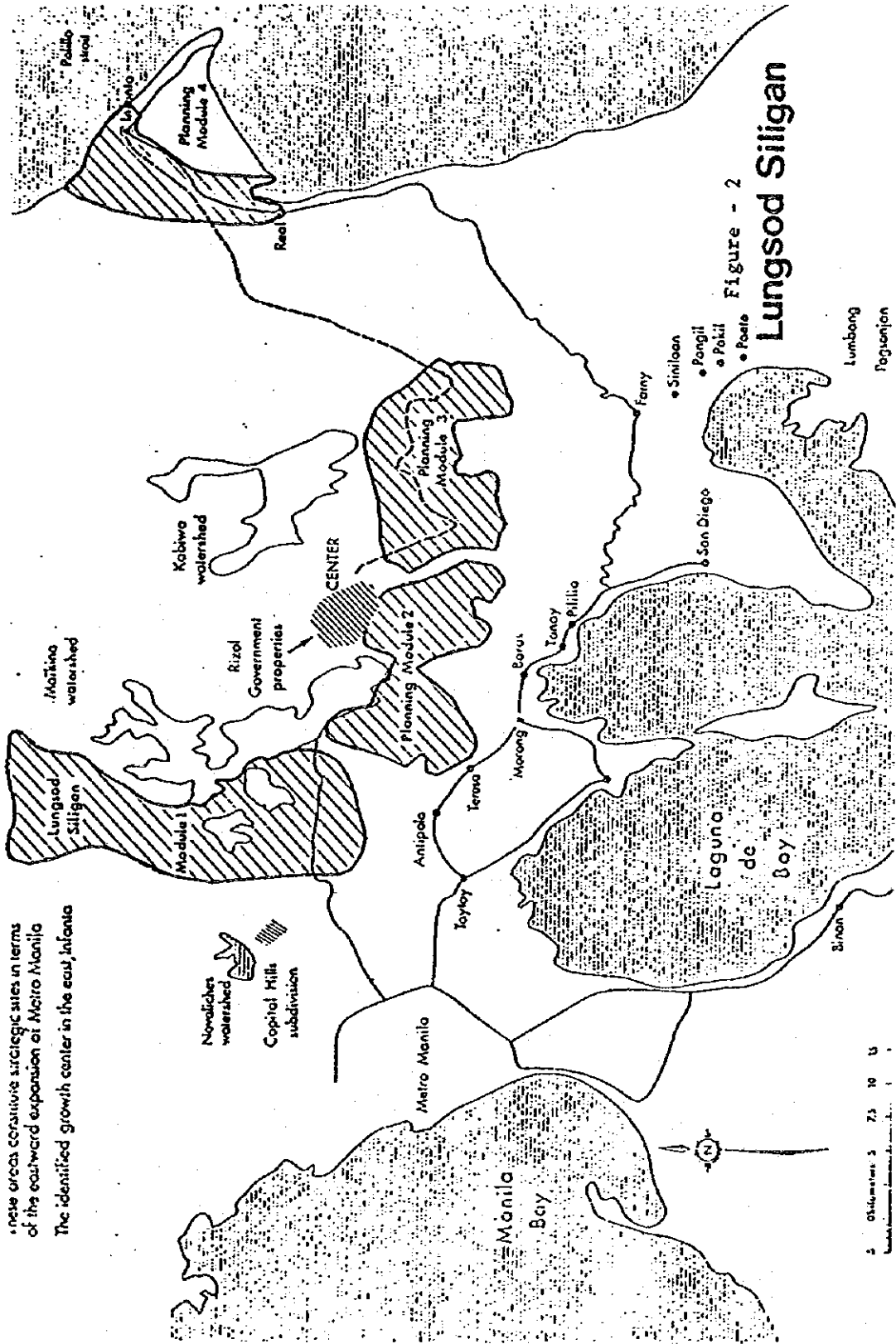
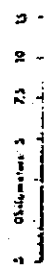


Figure - 2

Lungsod Siligon



The urban growth of Infanta-Real area, designated as a growth center of the east coast area, should not always activate such local industries as forestry, agriculture, aqua-culture and fishery but should be recognized as the ground of accepting industries such export processing and others with the provision of basic infrastructure and a transport system.

In this provision, not only the development of port function alone but also of port related industries - storage, wholesale, trucking, processing and distribution should be encouraged in the course of IRMUD, which consequently will contribute to the improvement of freight transport system inside and also outside the Capital Region (the East Gateway of MMA).

2. Possibility of Urban Growth

1) Possibility of Population Growth

The municipalities of both Infanta and Real are the two of few municipalities (others are San Andres, San Francisco and San Narciso) in Quezon Province that have experienced a social increase (in-migration) in their population growth (1970-1975).*-1

The above fact implies that firstly the area has active local industries (mainly the primary industries and their related activities based on its abundant resources) despite its geographical disadvantage, and secondly, the increasing demand in labor which the future industrial development envisioned will bring about can be met by the natural and social increase of population of three municipalities (Infanta, Real and General Nakar) combined has increased by about 3% annually from 40,301 in 1970 to 54,413 in 1980. When projected with the same ratio of increase, the population by the year 2,000 will become 98,000. (A NEDA projection, ^{*-2} statistical trend base, indicated a higher population growth potential of the area which is 99,000 - 132,000 by the year 2000.)

Therefore, the necessary future labor force for the initial phase of urban growth is likely

*- 1. Settlements Profile, MHS, 1980

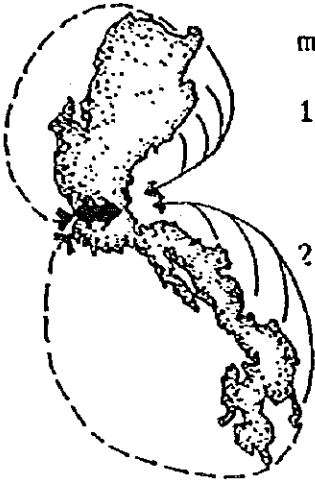
to be secured within the scale of this population projection. In addition, the future industrial development on the basis of the construction of Marcos Highway should strengthen the above-mentioned trend of social increase in the population growth, and should consequently increase the pace of growth to a considerable extent.

As such, if a certain growth of population materializes, the attraction potential of the area will multiply and shoot up. Furthermore, there is also a need to not only provide for the employment opportunity but also to improve the living environment to create an attractive urban atmosphere so that the potential influx of population out of different parts of the country (even out of Quezon Province) into MMA can be re-directed towards IRMUD.

2) The Possibility of Economic and Industrial Growth

The construction of the Marcos Highway should, by directly connecting the east coast

*-2. Population projection of Cities and Municipalities in the Philippines, (NEDA)



area with MMA's economy and its active commodity market;

- 1.) Activate and modernize the local industries and related economic activities;
- 2.) Initiate a first phase of urbanization in the Infanta-Real area by promoting the location of new industries and other facilities here.

Regarding 1.), based on the activation of local industries such as agriculture, forestry, fishery, and aqua-culture, in different parts of the east coast area and a good access to MMA, these products will concentrate in the Infanta-Real area. Consequently, the area should become the base for concentration and distribution of local products along the east coast area. Thus,

- i.) Development of distributing functions and related activities such as the Fish Marketing Port, ^{*-1} and supporting port facilities in various areas of the east coast shall be facilitated;
- ii.) Development of resource processing and related manufacturing industries ^{*-2} can be

foreseen.

Regarding 2.), given good access, the potential for marine transportation, and its geographic advantage, if basic infrastructures (electricity, water, telecommunications, etc.) is provided, an attraction for new industries^{*-3} (EPZ, etc.) can be achieved.

*-1. Based on the fact that firstly the east coast area is abundant in fishery resources (high class fish species, prawns, deep sea lobsters) and unexploited, secondly the accessibility given by Marcos Highway which is necessary for such fresh foods. The possibility of Infanta-Real becoming a dominant fishery port along the east coast is very high. FIDC has agreed on the construction of Fish Marketing Port on condition that the Marcos Highway is completed.

In addition, it seems possible that Tourism^{*-4} and other recreational industries be located in the east coast area.

Furthermore, development of service industries should be expected relating to the industrial development mentioned above and to the future population increase. Consequently the development of an active consumers market should follow to again activate the service and other industries in such a reciprocal manner.

-
- *-2. Usually in a such city which is a base of distribution of local products of agricultural fishery and forestry, a processing and manufacturing industry tends to develop. As a matter of fact, in Infanta-Real area it is reported that fish processing, vegetable oil processing and paper manufacturing are potential industries.
 - *-3. EPZA has included Infanta as one of its future priority sites for construction of a EPZ.
 - *-4. A different climate type: when MMA is in rainy season the Infanta-Real area has better weather. Aquatic and mountain recreation potential can facilitate a location of hotels and other tourism related industries there.

Lastly, besides the industrial development mentioned above, the following development of industry and urban facilities can be foreseen on the basis of future feasibility studies from the stand point of long term and wide-regional aspects.

1) Regional or International deep seaport

(As an only fullscale deep seaport on the Pacific side, the area has a large potential of becoming a transshipment base, a bulk and container base and consequently of developing port-related industries to a considerable extent)

2) Industrial Estate

(With future accumulation of urban facilities, basic infrastructure and provision of adequate transportation system, construction of an industrial estate can be foreseen to facilitate the redistribution of industry in MMA).

Based on the discussion above, Infanta-Real Module Urban Development can be concluded possible

in many aspects such as population projection and its potential of industrial and economic development .

Therefore, if IRMUD develops according to an elaborated urban growth scheme, it should grow into a city that materializes its possibility and promising potential foreseen in the coming future.

V. Purpose and Contents of the Study of Master Plan Formulation

1. Purpose

- Examine and analyze a socio-economic and physical feasibility of IRMUD in corresponding to the regional development themes of Metropolitan Manila and of the East Coast Area, and;
- Establish objectives and development strategy of the urban development on the basis of above analysis and finally formulate a master plan of IRMUD.

2. Contents

- 1) Analysis of Present Condition
- 2) Objectives and Development Strategy
- 3) Establishment of Development Frame
- 4) Growth Plan
 - Population Growth Plan,
 - Industrial Development Plan
- 5) Land Use Plan
 - Developable Land Analysis
 - Demand Forecast and Zoning Plan

- 6) Transportation Plan
 - Land, Marines and Air Transportation
- 7) Urban Facility Plan
 - Water Supply, Energy, Drainage, Waste Disposal, Community Facilities (Schools, Cultural facilities, etc.)
- 8) Environmental Assessment
- 9) Implementation Plan
 - Urban Development System, method, executing body
 - Implementation Program (Industrial Development, Urban Infrastructure Provision)
 - Financial Plan
 - Regulation and Control Plan
- 10) Economic and Financial Analysis and Evaluation
- 11) Identification of priority Projects for the Initial Development Phase

I R M P

インファンタ・リアル都市開発マスタープラン策定調査

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2. プロジェクト概要
3. プロジェクトの背景とマスタープラン策定の必要性
4. 拠点都市開発の必要性と可能性
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インファンタ・リアル都市開発マスタープラン策定調査

1 プロジェクト名：インファンタ・リアル都市開発

2 プロジェクト概要

インファンタ・リアル都市開発計画は、マニラの東約80Kmの太平洋岸インファンタ・リアル地域約13,000haの区域に、マニラへの人口・産業、都市機能の過度の集中を分散し、更に東海岸地域の開発を図る目的で大規模拠点都市を建設しようとするものである。

また、このインファンタ・リアル都市開発は、マニラ既成市街地の計画的成長を図るためのラングソッドシランガンの定住区-4として含まれるもので、最終的には人口200,000～250,000を目標人口とし、住居、工業、商業、流通機能、水産、観光等複合的な機能を持つ自立都市として育成するものである。

3 プロジェクトの背景とマスタープラン策定の必要性

☑政策課題 マニラは現在、環境悪化、交通渋滞、スラムの形成や経済・産業活動の不効率・不経済化等極めて深刻な都市問題に直面している。

この都市問題を政策的に解決するため、既成市街地での工場・都市機能の新規立地を抑制し、マニラから一定の距離(50～80Km)にこれら産業・都市機能を計画的に收容するための都市開発区域の整備が必要とされ、インファンタ・リアル都市開発はその一つとして位置付けられている。更にこの都市開発の政策的重要性は「首都マニラにおける住宅供給政策としてのラングソッドシランガン開発計画にも同時に関連していること」及び「現在マニラとの地理的近さにもかかわらず未開発状態にあるルソン島東海岸地域に対する開発拠点都市として位置付けられていること」等にも認められる。

比国政府においては、これらの政策を実現すべく、東海岸とマニラを短時間で結ぶマルコスハイウェイの建設に着手したが、この建設により予測される土地投機や土地利用の混乱を未然に防止し、秩序ある都市建設を行うことによって、上記政策の意図を合理的・効果的に達成するために、都市開発の総合的計画——マスタープラン——の策定が緊急に必要となった。

☑制度的裏付け 上記の都市開発政策は1977年大統領令第1637及びその修正令によって、国家意志として表明され、この開発政策の制度的準備が進められた。

すなわち、この開発計画の主務大臣として居住環境省(MHS)の大臣が任命され、その下で居住環境整備公団(HSDC)がその実施統括機関となる一方、この件に関する省庁連絡会議が開催された。ここで主務大臣はこの件に関する協力を要請し、各省庁

に関連のある項目の調査を指示した。

これにより、調査は各コンポーネント毎に進むと同時に、政府内に省庁連絡委員会設立の準備とその委員会に対する強力な作業部隊づくりが進められた。この委員会は統括委員会をトップにその下に政府事業、民間開発事業、公共投資計画の3小部会が設けられる予定である。

この委員会でインファンタ・リアル都市開発と各省庁の持つ事業計画との調整が図られ、その合意としてのマスタープランが作成され、これが行政あるいは法定計画として認定されれば、当都市開発事業の行政における制度的裏付けとなる。このように各行政機関の協力によるインファンタ・リアル都市開発事業を確実にかつ円滑に推進するために、その基本計画としてのマスタープランの策定が必要になった。

☑調査状況 先に示した主務大臣が各省庁に指示した調査は各コンポーネント全てに亘るものであるが、その進捗はかならずしも一様のものではない。すなわち、

すでに自省の事業計画に取り込んだもの

◦ NATIONAL ELECTRIFICATION ADMINISTRATION

計画リストに乗せ、その可能性調査を約束したもの

◦ EXPORT PROCESSING ZONE AUTHORITY

調査が完了し、事業に着手できるもの(但しマルコスハイウェイの建設を前提として)

◦ FISHERY INDUSTRY DEVELOPMENT COUNCIL

(FISH MARKETING PORT)

概念計画を提出したもの(Training Center)

◦ THE NATIONAL MANPOWER and YOUTH COUNCIL

現在予備的可能性調査を行っているもの

◦ BUREAU OF AIR TRANSPORT

◦ MINISTRY OF TRANSPORTATION AND COMMUNICATION

自然的成長では、既存施設の拡張は必要がないが、IRMとの関連で再調査を約束したもの

◦ PHILIPPINES PORT AUTHORITY

これらは、個々別々に検討されたものであるが、新都市開発計画とも言うべきこのような地域で、各コンポーネントを切離して計画するのではその成立の可能性は薄く、可能なものでも地方レベルのものであり、先に示した計画課題に対応することが出来ない。したがって、各コンポーネントを都市開発という総合的な関連性の中でその必要性が検討されるべきであり、また策定されたマスタープランは、今後、各事業計画に対するベースを与えることになる。

4 拠点都市開発の必要性和可能性

(1) 拠点都市開発の必要性

首都マニラは、従来そうであったように、今後も比国全体の経済社会の牽引役であり、先導的な役割を果たしてゆかねばならない。このため先にこのプロジェクトの政策課題でも示したように、マニラ中心部への人口・産業・都市機能の過度の集中を分散し、1点集中の都市構造から多核都市構造へ再編成して強力な首都経済圏を構成しなければならない。

インファンタ・リアルはマルコスハイウェイの建設により、この首都圏に組み入れられるとともに、ルソン島の東海岸の中心的位置にあるという立地的特性のため、複合的な機能を持つ都市として建設される必要がある。

これを首都圏における拠点都市開発の必要性からみれば以下のとおりである。

マニラ都市化地域での新規の産業・都市機能の立地を抑制する一方、これらの受け皿として、首都マニラとの経済的リンクを失わず、また既存市街地に負担を掛けない距離(50～80km, 2～3時間)に都市開発区域を整備する必要がある。インファンタ・リアルはこのような位置にあり、産業・都市機能を吸引して拠点都市として育成される必要がある。

また、メトロマニラの秩序ある成長を図るためマニラ市街地の無秩序な外延的拡大を抑える一方で(20～30km)、東方向には市街地を計画的に整備してゆくという開発目的で建設が進められているラングソッドシランガンにおいても、インファンタ・リアルは、その東端にあつて、開発戦略上重要な役割を持っている。(図-1)

更にインファンタ・リアルは、東海岸地域の開発促進のための拠点都市としての位置付けと必要性があり、これは首都圏における拠点都市育成のための産業開発の一層の可能性を高めるものとなる。

これを東海岸地域開発からみれば、この拠点都市開発は、この地域の地方産業である農業、林業、水産漁業等を活性化させるばかりでなく、物資輸送体系が整備されるとともに、輸出加工業、工業等の立地・収容を図る都市として東海岸地域の中で位置付けられる。

また、この物資輸送体系の整備はインファンタ・リアルにおいては、中継港湾機能のみでなく、港湾関連産業——倉庫業、卸売業、流通加工業——の育成を図り、マニラ首都圏の流通体系の東の拠点都市として整備される必要があろう。

(2) 都市成長の可能性

1. 人口成長の可能性

インファンタ・リアル両市は、ケソン地域で人口が社会増(1970～1975)を示す数少ない市のうちの2市である。(他にSAN ANDRES, SAN FRANCISCO, SAN NARCISO) 図-1

これは地理的に不利な条件にありながらも自然資源に恵まれた地場産業の豊かさ(主として第1次産業とその関連産業)を示すものであり、また今後の産業発展に伴う労働力を

社会増、自然増でまかない得ることを示すものである。

すなわち、人口は3市で、1970年(40,301人)から1980年(54,413人)に年率約3%で伸び、この伸び率で(社会増+自然増)、20年後(2000年)を予測すれば98,000人の人口規模が予測される。(NEDAの人口予測—過去の傾向からの統計的予測—では92,000人~132,000人とこれを上回る人口増加ポテンシャルを認めている。) ②-2

したがって、今後のこの地域の労働力はこの人口予測規模の中で確保されようが、マルコス・ハイウェイの建設による産業開発は、上記の社会増加傾向を更に強め、予測人口の達成時期を早めることになろう。このように一定規模の人口集積が形成されれば、相乗的に人口吸引力も高まるが、IRMを就業機会を与えるばかりでなく、生活環境においても魅力ある町とすることによって、他地域たとえばケソン地域からマニラへの流入潜在人口の吸収を図る必要がある。

2. 都市の経済的・産業的成長

マルコス・ハイウェイの建設は、インファンタ・リアルを出入口として東海岸地域をマニラ市場・経済に直結することにより、

- ① 地場産業の活性化・近代化とインファンタ・リアルにおけるその関連産業の発達
- ② 新規の工業、その他産業の立地

を促進し、これによってインファンタ・リアルの最初の都市化が始まる。①については、東海岸地域全体の農業、林業、漁業水産が活性化され、これらの生産品が、マニラへの輸送利便性からインファンタ・リアルに集まり、このインファンタ・リアルが東海岸出産品の集結・中継地点となる。このため、

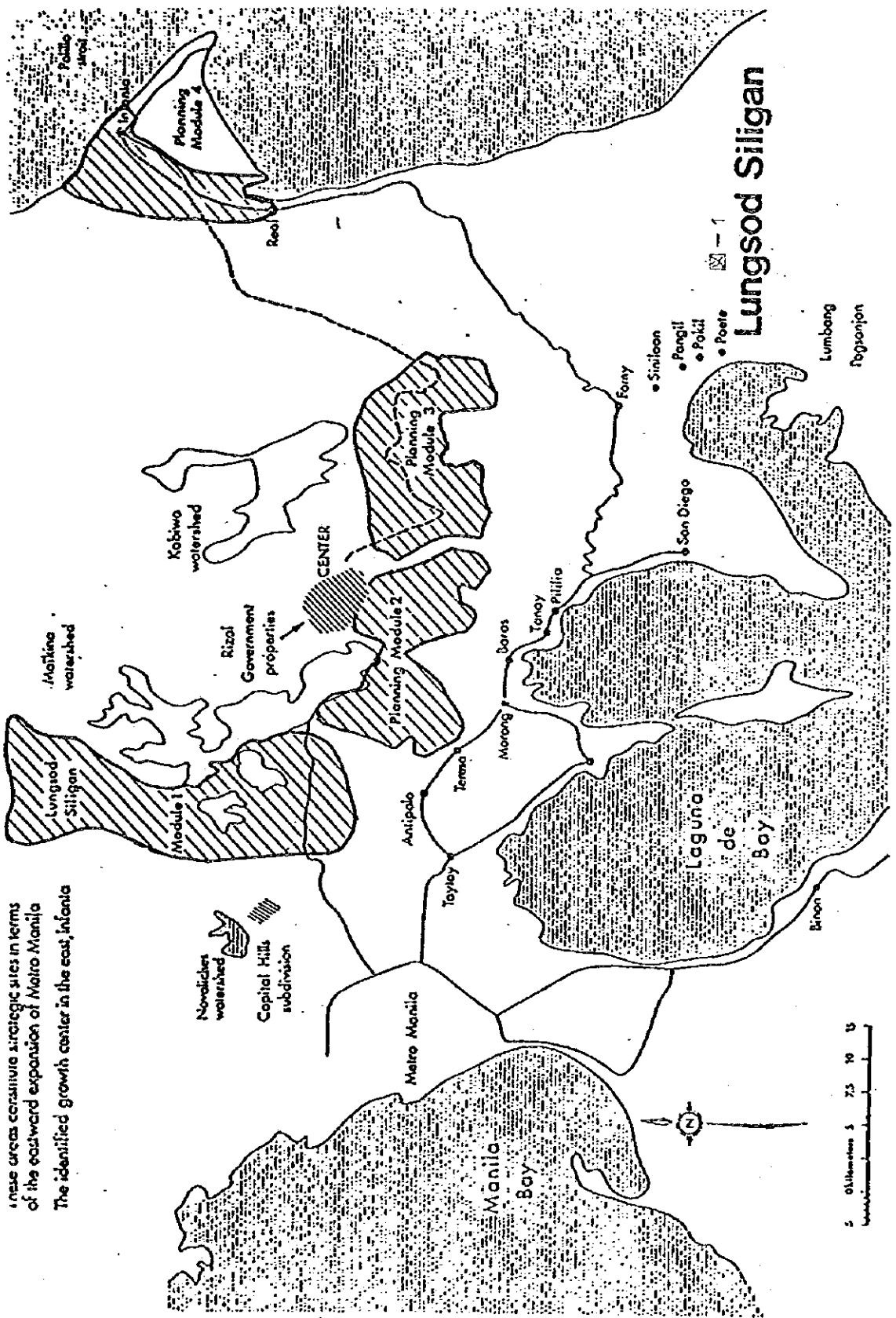
- i) FISH MARKETING PORT ③-(1) や東海岸地域における主要港務等の流通機能及び流通関連産業の発展がみられるようになる。
- ii) このような第1次産業生産品に関連した、資源加工型及び関連製造業 ③-(2) の発展がインファンタ・リアルにみられるようになる。

②-1 Settlement Profiles MHS 1980

②-2 Population Projection of Cities and municipalities (NEDA)

③-(1) 東海岸沿海は漁業資源(高級魚)が豊富で、未だ未開発であること、このような生鮮食料品は、その鮮度維持のためマルコス・ハイウェイの利用価値が高いこと等によって、インファンタ・リアルは東海岸における主要漁港としての可能性が高く、FIDCもマルコス・ハイウェイの建設を前提にFISH MARKETING PORTの建設を約束している。

③-(2) 農産物、水産物、木材等の集結地点となり、かつ大消費地に近い都市には、これらの加工製造業が発達する。インファンタ・リアルにおいても、FISH PROCESSING, VEGETABLE OIL PRODUCT, PAPER MANUFACTURING等の可能性が高いと報告されている。



These areas constitute strategic sites in terms of the eastward expansion of Metro Manila. The identified growth center in the east, Infanta

②についてはマニラとの近さ、海上貨物輸送の可能性とその立地条件により、都市基盤（電気、水、通信等）が整備されれば、新規の工場立地を図れる。（EPZ）^{（3）}

その他、東海岸における観光・レクリエーション^{（4）}に関連した産業の立地も部分的に可能となる。また、都市にはこれらの産業に関連して、あるいは居住人口に対しての各種のサービス業、小売業等のいわゆる都市消費産業が発達し、更に都市消費市場が形成されることによって、上記各産業のより一層の活発化も期待される。

以上の産業開発とは別に、今後のより長期的、広域的可能性調査によって以下のような飛躍的な都市機能・産業の開発が期待される。

① 広域あるいは国際港湾化

（フィリッピンのパシフィック側に位置する唯一の本格的港湾として、貨物中継、バルク及びコンテナの基地を整備できる可能性があり、これによって港湾機能の高度化を図るとともに港湾関連産業を育成する。）

② 工業団地

（交通・輸送体系の整備、都市基盤の整備、都市集積の形成等とともに首都マニラの工業の本格的分担としての工業団地の建設）

以上のようにインファンタ・リアル都市開発については、人口予測、経済・産業の可能性からみてもその成長の可能性は高く、慎重に練られた都市成長計画によってその育成が図られれば、目標とした都市への発展が十分に期待されるものである。

5. マスタープラン策定調査の目的と調査項目

(1) 調査の目的

- インファンタ・リアルがマニラ首都圏や東海岸地域の広域的課題に対応し、自立成長するための経済・社会的、自然物理的可能性を検討・分析し、
- これに基づいて、都市の目標・開発戦略等を設定して、都市開発のマスタープランを作成するものである。

(2) 調査項目

- ① 現況分析
- ② 都市の目標と開発戦略
- ③ マクロ・フレームの設定
- ④ 都市発展・成長計画

— 人口成長計画、産業育成・導入計画 —

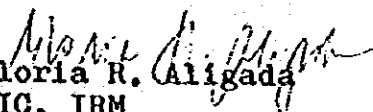
脚 - (3) EPZAは輸出加工区建設のリストにインファンタ・リアルを入れている。

脚 - (4) マニラが雨期の場合、この地域は反対の天候になるという気候条件、残された自然、あるいは海洋、山岳レクリエーションの可能性等からホテル等の観光産業の進出も考えられる。

- ⑤ 土地利用計画
 - 利用可能性分析、需要予測、ゾーニングプラン——
- ⑥ 交通・輸送計画
 - 陸上交通、海上交通、航空——
- ⑦ 都市施設計画
 - 給水計画、電気エネルギー計画、排水計画、廃棄物処理計画、
コミュニティ施設（学校、文化施設等）——
- ⑧ 環境予測・評価
- ⑨ 実現計画
 - 都市開発・整備システム・事業手法・主体
 - 事業段階計画（産業開発、都市基盤整備事業）
 - 財政計画
 - 規制・誘導計画
- ⑩ 経済・財務分析・評価
- ⑪ 第1次段階計画におけるプロジェクトの特定

Questionnaire に対する HSDC の回答書

QUESTIONNAIRE OF THE JICA PRELIMINARY SURVEY TEAM FOR THE MASTER
PLAN STUDY OF INFANTA-REAL AREA URBAN DEVELOPMENT PROJECT


Gloria R. Aligada
OIC, IRM
March 31, 1983

QUESTIONNAIRE OF THE JICA PRELIMINARY SURVEY TEAM FOR THE MASTER PLAN STUDY OF INFANTA*REAL AREA URBAN DEVELOPMENT PROJECT

I. REGIONAL PLAN

Social and Economic Situation of the 5-Year Plan of Philippines in Relation to the Urban Development Plan of Metro Manila

Viewed from a holistic perspective, the past trends of the national economic growth have been remarkable. However, the pattern of regional growth shows a distinct concentration of resources in a few regions like Metro Manila, Southern Tagalog and Central Luzon and minimal development gains in other regions like Eastern Visayas, Cagayan Valley and parts of Mindanao. These disparities are a result of the combined effects of an uneven distribution of natural resources among the regions and the concentration of public and private investment in a limited number of locations.

Increased concentration of resources within Metro Manila has accelerated its pace of urban development. Its gravitational attraction has produced a myriad of problems as rapid population growth, uncontrolled and indiscriminate land uses, strip commercial development, pollution, concentration of institutions and a lack of services and facilities to cater to the needs of its residents.

Development strategies evolved centered on the replanning, redirecting, restructuring and integration of land, improvement of services and facilities, identification of growth centers or contiguous areas ideal for development for a more efficient and equitable allocation of resources.

LUNGSOD SILANGAN PROJECT

a. Master Plan of the Whole Project

Lungsod Silangan (City in the East) was conceived as an area for New Town Development based on the underlying factors of the area's susceptibility to rapid urbanization, eventuality of becoming a part of the built-up area of the Metro Manila and its high development potentials. Its major function will be to serve as a counter-magnet to the congested area of nearby Metro Manila absorbing the population spillover.

The area covers a series of new towns composed of three modules over an area east of Metro Manila, serving as a link between the east/west coast through the Marcos Highway.

Module 1 covers portions of the municipalities of Montalban, San Mateo and Antipolo.

Module 2 covers portions of the municipalities of Tanay, Tereza and Baras.

Module 3 covers portions of the municipalities of Tanay and Sta. Maria.

Maximum usage of existing infrastructures has been adopted as the major approach to Urban Development. It seeks to develop towns and their infrastructures from the outside, along the Marikina-Infanta road (Marcos Highway) with the development of other towns incrementally undertaken towards the center.

A Multi-Use Country Town Development concept shall likewise be integrated based on the following objectives:

1. Balanced integration of the benefits of urban concentration and the attributes of country side dispersions.
2. Balanced interplay of multi-functional activities.
3. Viable integration of economic activities and environmental conservations.
4. Enhancement and development of socio-cultural values.
5. Limitation of development to buildable areas such as ridges and valley floors.
6. Preservation and protection of ecologically sensitive areas such as rivers, valley walls and forested areas.
7. System of unified ownership and control of land through land consolidation in order to meet special development requirements.

b. Progress of Module I

At present the Lungsod Silangan Team is busily preparing for the Project Presentation of construction of 2000 flexihomes to be built by phases. Upon approval by the HSDC Executive Committee, construction of the flexihomes could commence.

c. Whole Plan and Implementation Programs of Modules 1, 2, 3

The plans for Modules 1, 2 and 3 are general in nature based on assumptions. As conceived, general land uses are residential, commercial/industrial areas, institutional, agro-industrial, agricultural, parks and recreational spaces, forest reserves and major roadways.

Det ailed plans shall be prepared upon the completion of the topographical survey by the Certeza Surveying Firm.

d. Development System and Method/Implementing Body

The Lungsod Silangan Project Team has recommended the formation of a Lungsod Silangan Development Authority to develop and implement the project. Conceived as a Public Corporation and autonomous in nature, it shall have the following major functions:

1. Government Liaison
2. Comprehensive Planning
3. Financing
4. Implementation

Being public in nature, the Development Authority shall strive to join efforts with the private sector in the investment requirements for housing and support infrastructures. It shall also consider the participation of residents in the development of their community and shall give due priority to the organization of project management groups. The latter shall render advice on matters such as settler selection, terms of tenure, community leadership and organization, methods of participation and delivery of services.

II. RELATED PROJECTS

1. Marcos Highway

a. Whole Plan - Basis - Pre-Feasibility Study of the Bureau of Public Highways (1973)

Proposed Marcos Highway was conceived to ease the only existing overland link between Infanta and Manila which is the Infanta-Siniloan Road. It shall as well serve to spur development of mining and agricultural potentials at Infanta/Real and open new settlement areas along the sphere of influence of the road.

A new road of a bituminous concrete pavement with an approximate length of 103.5 kms. and a pavement width of 6.7 meters shall be built to connect Marikina to Infanta, Quezon.

From Marikina to about 20.6 kms of proposed road are land areas described as flat to rolling terrain, wherein residential and industrial land uses shall be situated. Remaining stretch passes mostly through the alternately rolling and mountainous terrain of the Rizal-Quezon boundary.

Geometric features of proposed road are:

Design speed - 50 km/hr to 80 km/hr. for various topographies.

Width of pavement - 6.70 m.

Width of shoulders - 1 m. to 2 m. for various topographies

Horizontal radius - 40 m. to 320 m. for various topographies

Gradient - 4% to 7%

Stopping sight distance - 50 m. to 110 m.

Passing sight distance - 175 m. to 500 m.

Right-of-way - 30 m.

The technology to be adopted for this project shall be dependent on the civil engineering capability of the local contractor to whom the project is awarded.

To complement the Marcos Highway, the following structures and projects are proposed:

1. Building of several permanent bridges and drainage structures.
2. A feeder road leading to Sta. Ines Iron Mines from the main road with an approximate length of 11.65 kms. Estimated construction cost is at ₱ 4.2 M with a maintenance cost of ₱ 870,000.00 for 20 years.
3. Development of the Port of Real, Quezon to serve as export outlet for mine and forestry products, with an estimated development cost of ₱ 2.1 M and an operating expenditure of ₱ 2.9 M for 20 years.
4. Construction of dirt roads at vantage points to serve the logging and agricultural industries.

Total estimated Project Cost is P 51.632 M. Cash requirements to include allocations for materials, equipment and spare parts, labor, administrative, taxes, right of way and other expenses are given as follows:

Year 1	-	P 15,909,000.00
Year 2	-	18,008,000.00
Year 3	-	17,715,727.00
		<u>P 51,632,727.00</u>

Computations for Estimated Maintenance Costs are given as follows:

Estimated basis maintenance cost per km/yr.	4,017.00
Adjusted Maintenance cost estimate per km/yr.	6,896.00
Estimated Adjusted Maintenance Cost 20 years	14,274,720.00
Estimated discounted maintenance cost for 20 years	4,469,092.00

Proposed Funding Scheme Source:

Proposed under the Japanese Commodity Loan of P 51.6M. It shall be appropriated under Presidential Decree No. 3, Item No. 32, Annex II for P 40 M with the balance appropriated under Item No. 55 of the same decree.

b. Implementation Programme

1. Pre-Construction Work

- 1.1 Detailed Engineering - July 1973 - Mar. '74
- 1.2 Pre-qualification - Oct. 1973 - May '74
- 1.3 Solicitation and award - Oct. 1973 - May '74
- 1.4 Land Acquisition - July 1973 - June '74

2. Construction Work

- 2.1 Earthwork & drainage - Jan. 1974 - Mar. '76
- 2.2 Bridges - Apr. 1974 - Mar. '76
- 2.3 Pavement & Misc. - Feb. 1974 - Jun. '76

3. Overall Project Status

Completed stretches of the Marcos Highway from Marikina to Lungsod Silangan range: from short stretches of concrete, asphalted roads, then long stretches of rough roads up to Camp Capinpin, Module 3 of Lungsod Silangan, where a short stretch of concrete roads are found, followed by a long stretch of very rough roads up to Infanta.

2. Status of Proposed Projects at IRM

- a. International Airport - Pre-feasibility studies conducted jointly by the Bureau of Air Transportation and the Ministry of Communication and Transportation.
- b. International Seaport - Expansion not necessary on present trend basis but warranted a further study in connection with IRM Urban Development Program.
- c. Export Processing Zone - Included in future plans (one of 15 candidate sites) and pre-study is warranted.
- d. Fishery Industry Development Council - Studies completed. Implementation to be started upon completion of Marcos Highway.

Utilities

Water

- Preliminary Feasibility Study conducted by Local Water Utilities Administration

Electricity

- Agos River Hydro-Power Const. Dev. Prog. drawn up by National Power Corporation.

Submission of feasibility study report by JICA in 1981

RECOMMENDATIONS OF JICA

Agos River Hydro-Power Generation Program is feasible and strongly recommended a prompt execution of engineering services including detailed survey and preparation of design bidding formats.

III. INFANTA-REAL URBAN DEVELOPMENT PROGRAM

1. Relationships between Infanta-Real and the 5-Year Plan of the Philippines

The five-year plan of the Philippines identifies regional disparities in terms of development gains achieved and highlights the three regions of Metro Manila, Southern Tagalog and Central Luzon as being the most progressive.

Overall development thrust to resolve these disparities is the creation of an urban/regional hierarchy composed of primary and secondary growth centers which shall act as counter-magnets to the sphere of influence of these regions, principally Metro Manila.

Within the Southern Tagalog region, Quezon is included as one of the provinces wherein the towns of Infanta, Real and Nakar are situated.

Due to the semi-urbanized conditions prevalent in Quezon, Laguna and Batangas per major transportation routes which link it to Metro Manila, these provinces have been identified as a Major Growth Corridor.

Less developed provinces of Palawan, Mindoro, Marinduque and Romblon to include the sub-province of Aurora are referred to as the resource sub-regions. Regional community self-reliance programs will be initiated for the improvement of agricultural productivity, encouragement of rural industries and promotion of physical environment.

For the Growth Corridor aforementioned provinces, the strategy is aimed at the development of potential growth centers. Improvement of the spatial-physical accessibility of these areas shall be achieved through the concentration of overhead capital in these centers.

The development of the Marikina-Infanta road (Marcos Highway) and the complementary improvement of the Port of Real will accelerate the pace of urban development at Infanta. Other development potentials as the iron-ore deposits, forest reserves, Mangrove and nipa swamps ideal as breeding areas for fish/seafoods, scenic tourist spots have contributed to its classification as a Major Growth Center.

2. Lungsod Silangan Project

Lungsod Silangan was originally conceived to be composed of Modules 1-4, the latter to refer to Infanta. The high development potentials of Infanta as a major growth center caused its separation from areas included under Lungsod Silangan.

Infanta's main linkage to Lungsod Silangan is by way of the proposed Marcos Highway. The proposed highway shall traverse through areas of Modules 1 to 3 of Lungsod Silangan with its final connective link situated at Infanta.

The pace of development of Lungsod Silangan shall necessarily affect urban development activities of IRM due to this linkage. Complementary and compatible land uses among these catchment areas of Lungsod Silangan and Infanta shall be a resultant output.

3. Land Use Plan Prepared by MHS

The Multi-Year Development Plan prepared by the Ministry of Human Settlements integrated the nation's social and economic goals as formulated by the National Economic Development Authority (NEDA) Philippine Development Plans. In the Multi-Year Development Plans the hierarchical concept of growth centers, composed of primary and secondary centers based on development potentials of the regions and its projected population growth were likewise incorporated.

These were translated into physical and spatial activities per Existing and Land Use Plans to include Zoning Maps and Zoning Regulations in coordination with the National Coordinating Council.

The Integrated Plan of Metro Manila identifies areas in the east, Lungsod Silangan and the Infanta Real Module as proposed new towns, to showcase modern urban planning methods.

4. Situations of Existing Regional and Town Plans, On-Going Projects and Land Prices and Land Ownership

Based on the five-ten year plan prepared by the National Economic Development Authority (NEDA) and the MHS Multi-Year Plan prepared by the ministry, the regional and town plans were made. The establishment of the National Coordinating Council composed of members from NEDA, MHS, regional and town officials facilitated its preparation.

Around 120 selective town plans were prepared and approved to serve as overall guides to projected development in these areas. Development projects were identified based on the plans made and implementation of projects varied per growth potentials of the region, attracting the infusion of capital outlays. At present regional plans for 1983-1987 are being updated and shall be subjected to public hearings.

The concentration of land ownership among the Upper Income groups necessitated the introduction and passage of laws to effect an equitable distribution of land among the poor and the rich as gleaned from the following Presidential Decrees. P.D. # 2 dated September 26, 1972 declared the entire country as a Land Reform Area. P.D. # 27 emancipated the tenants from the bondage of the soil with other complementary P.D.'s passed for a more effective manner to implement these laws and to protect both owners and tenants in terms of the usage of land, its retention, sale and conversion among its more salient features. Likewise, distinctions have been made on urban land reform and rural reform areas by way of its application and implementation.

Urban Reform areas are subject to the appropriate development and zoning zones as well as the enforcement and implementing guidelines prepared by the Ministry of Human Settlements.

Areas under rural reform fall under the jurisdiction in toto of the Ministry of Agrarian Reform. Close coordination with the Ministry of Agriculture and Ministry of Justice for rulings on improvement of tenural arrangements between landowner and tenants in private agricultural lands devoted to crops other than rice or corn. For the extension of credit facilities, transfer of medium appropriate technology to the farmers and the insurance that the program is successful, other government as well as private sectors have jointly contributed efforts in this undertaking.

From an economic perspective on the other hand, the interrelationships of projected developments in an area as a proposed major road necessarily affects land pricing and structure. The sphere of influence of the road network on lands aligned or within its catchment areas dictzto the increase of land prices, initiating land speculation and the entry of squatters. Since the assessed andmarket values of properties necessarily fluctuate due to projected developments in the area, preliminary measures must be undertaken to avert problems of land speculation and squatting. This consideration guided the decision of the Deputy Minister for Human Settlements, Dr. Jose Conrado Benitez when he requested the Ministry of Public Works and Highways to halt the construction of the Marcos Highway until such a time that the IRM Master Plan has been completed.

The social implications of land ownership under the Land Reform Code has created a leeway for the provision of land for the "Landless" especially in the urban areas where land is a precious commodity. Through the Urban Land Reform Code, land titles have been awarded to selected recipients of huge estates formerly owned by the rich.

IV. INSTITUTIONS AND SYSTEMS OF URBAN DEVELOPMENT
(Town Planning, Restrictions of Land Use, Development System/
Method, Division of Urban Development Works between Public
and Private Sector)

Other than the 120 town plans prepared by the MHS under the aegis of the National Coordinating Council, the preparation and submission of town plans fall under the jurisdiction of distinct cities and towns per region. It is incumbent upon the Human Settlements Regulatory Commission to assist in terms of technical expertise and insure its eventual approval. Likewise, the Zoning Regulations and zoning maps form the basis for the awarding of locational permits by HSRO for areas outside Metro Manila.

For Metro Manila, the granting of locational clearances for approved land uses per Zoning Maps and Regulations are made through the Metro Manila Commission. Subdivision permits are processed and granted through the Human Settlements Regulatory Commission.

Inasmuch as selected areas in Metro Manila have been declared as Urban Land Reform areas, the granting of locational clearances are also subject to this classification. Areas declared as Urban Reform areas are known as Areas for Priority Development. Processing of permits for these APD's have to be channeled through the Home Financing Commission, an agency under the MHS, wherein approval and in part its implementation are lodged.

Though development controls are being instituted by government agencies, urban development, specially in terms of

short, medium and long range projects for implementation is a responsibility of both the public and private sector. Funding requirements of projects to help initiate development in an area are shared jointly by both sectors. Tax exemptions, profit sharing, Joint Ventures and the like are illustrative of some measures undertaken to encourage private sector participation in urban development.

V. RELATIONSHIPS BETWEEN MMC, MHS AND HSDC

The relationships between MMC, MHS and HSDC is defined by the functional responsibility of granting of locational clearances by MMC for the Metro Manila area. It is in this sector that MHS and HSDC make necessary referrals for projects undertaken by them or for projects, the nature of which should be the responsibility of the MMC.

VI. ORGANIZATION OF A STEERING COMMITTEE BY MHS

The organization of a Steering Committee shall be made prior to the dispatch of the Contact Mission which shall undertake the Master Plan undertaking. The Chairman and Vice-Chairman shall either come from representatives of MHS/HSDC which shall be the lead agencies.

The Steering Committee makes distinctions between the Input Agencies and Component Agencies. Input Agencies shall include representatives from the following:

Human Settlements Regulatory Commission
Ministry of Public Works and Highways
Ministry of Tourism
Ministry of Natural Resources
Bureau of Lands
Bureau of Coast and Geodetic Survey
Bureau of Mines
National Environmental Protection Council
Mayors/Governors of Quezon (Infanta, Real and Nakar)
Local Water Utilities Administration
National Power Corporation

Component Agencies

National Economic Development Authority
Export Processing Zone Authority
Fishery Industry Development Council
Philippine Ports Authority
Ministry of Communication and Transportation

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