

7.2 Project Financing Scheme

Diversification of sources is indispensable in mobilizing financial resources, which will lead to the sustainable development in financial terms. To this end, there are two conceivable directions or policies.

One is to shift the weight from foreign financial resources to domestic ones, thus mitigating latent effects generated by fluctuations in international business economy. In this regard, the development policy founded mostly on foreign direct investment (FDI) must be rectified.

The other is to broaden and deepen the "financial resources recycling system," which is expected to countervail business cycles of the domestic economy. Earnest efforts to this direction have been made in the last few years. It has been established that the financial resources recycling system is as important as the production of goods and services although the former tends to be thought marginal. For the purpose of achieving stable and sound development of the economy, both are indispensable.

The financial resources recycling system comprises the following two parts in terms of generalized category. The first is the public investment, including tax and other public revenues. The second is related to financing and capitalization.

7.2.1 Budget Revenues

In Vietnam, budgetary information has not been made public yet. In the near future, a new decree will be unveiled, permitting broad outlines of the State Budget to be published upon the request of foreign donors. According to IBRD (International Bank for Reconstruction and Development), the revenue reached VND 53,370 billion, accounting for 23.9 % of GDP (Gross Domestic Product) in 1995. The share has been on the upward trend.

(1) Tax Revenues

At present, the country has more complicated tax systems than in the past. It has more than ten kinds of taxes. However, the financial resources available through taxes under the present system are not adequate to cope with the expanding demand for public expenditures comprising investments and current expenditures. It is important to note that in spite of continuing reforms, tax revenues are dependent on three resources, i.e. state-owned enterprises, external trade, and joint ventures, which recorded over 70 % share in 1995 and 1996.

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One of the important reform measures with the overlap of the turnover tax is the implementation of a value-added tax (VAT). The VAT Law promulgated in May 1997 by the National Assembly will be implemented beginning January 1, 1999. Besides VAT, two other tax laws have been compiled and promulgated, i.e. corporate tax and individual tax. Corporate income tax will replace profit tax, and it will be levied only on companies and big private businesses. Individual income tax will be levied even on small private businesses.

Taxes levied on inherited properties and fixed assets should be expanded further. The country will go on track to a more consistent tax system based upon tax bases as income, asset, and commercial transactions in the future. Equally important is strengthening tax collection system and enhancing trust in the tax system as a whole.

(2) Other Public Revenues

As for other revenues, Vietnam recognizes that contribution is one of the major revenue sources from civic entities and individuals both at home and overseas. Not only the central government but also local governments can accept contribution from them. Especially provinces have the right to encourage them to contribute funds under the condition of prior approval by the Prime Minister. Of course, these financial resources thus mobilized should be invested in the social capital formation.

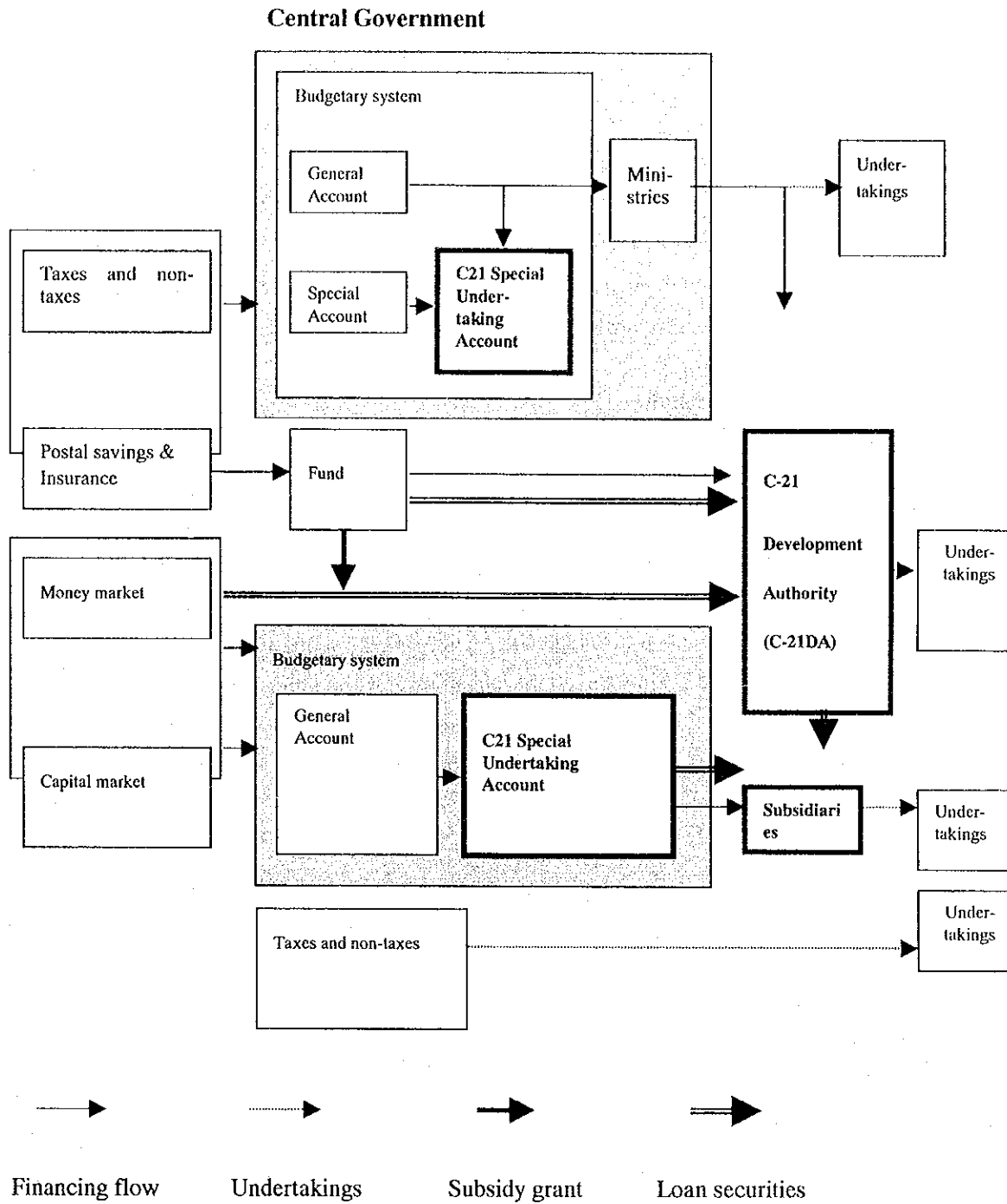


Figure 7.2.1 Budget Revenues

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(3) Allocation of Public Revenues among Governments at Various Levels

There is another argument about how to make local governments at all levels properly funded. There are two main financial resources for local governments, i.e. independent resources and transfer of funds from the central government. At present, most local governments are undertaking projects using their own funds. To create a better living environment, local governments are expected to devise means of generating their own funds. In this regard, "taxes on urban planning" is a prime candidate, and this will be worth serious consideration by the government, particularly in relation to the Corridor 21 Development.

7.2.2 Financing and Capitalization

It is estimated that the domestic idle savings and annual remittances reach US\$ 2 billion and US\$ 1 billion, respectively. Until recently, partly due to poor condition of the banking system, the country cannot afford to mobilize these precious resources. The clearest sign of this is that liquid bank deposits in 1995 were just 16 % of GDP, the same level as in 1991. However, the country has begun to go on a new track in financing and capitalization. Many of the pre-conditions have now been satisfied as evidenced by the establishment of a public deposit system, new financial instruments symbolized by the issuance of treasury bonds, and markets such as foreign exchange and security markets. In this connection, various efforts seen are detailed in the following.

(1) Diversification of Forms of Credit Institutions

First of all, it is noteworthy that Vietnam has diversified credit organizations. More so now with several leasing companies. The government issued Decision 64/CP in October 1995 on temporary regulations for the formation and operation of finance leasing companies. Finance leasing supposedly provides an extra level of safety and convenience for all parties. In the country, institutions dealing with collateral are not well established, therefore, leasing is very effective in mobilizing financial resources.

Secondly, the state looks into insurance industry for investment funds. The purpose is to mobilize idle capital and savings through social insurance. Most recently, the country has witnessed the approval of the establishment of 100 % foreign-owned insurance companies. Furthermore, experimental establishment of one or two such companies will be approved. This is in line with the policy of diversification of insurance companies in order to attract investment capital from a multitude of economic sectors.

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Lastly, a post office is to open savings accounts. Capital mobilization through the post office network aims to tap unused money of depositors into use for the government's investment projects. There are people with small savings accounts or those living far from banking facilities that keep money at home. Post office services have the advantage of a network of over 3,000 stations reaching even remote areas throughout the country. Depositors can withdraw money at any post stations nation-wide, which operates 19 hours per day. Service, limited to individuals instead of businesses, will shortly begin operations. Mobilized money will be transferred to the central government for domestic investment.

(2) Restructuring Credit Institutions

The banking sector has long been characterized by weak management practices and poor legal framework. Restructuring of state-owned commercial banks and joint stock banks is pursued. There are too many banks for the size of the economy. At present, there are 85 banks, six of which are state-owned, 51 joint-stock commercial banks, 4 joint ventures, and 24 operated overseas.

The country needs to undertake massive overhaul of its financial institutions, which should include reducing the number of banks. The reform is aimed at ensuring a healthy and sustainable development of the credit society and its contribution to the task of economic transformation. The country's credit institution is expected to have intermediary functions and long-term credit functions.

(3) Special-purpose Financial Organizations

Before 1988 the banking system consisted of the State Bank of Vietnam (which was both the Central Bank and a main commercial bank), the Bank for Foreign Trade (BFT) and the Construction and Investment Bank, which implemented the government's capital budget.

With the reorganization of July 1988 the State Bank's central banking functions were strengthened and its commercial banking role was assigned to two newly created banks, the Vietnam Agricultural bank and the Vietnam Industrial and Commercial Bank, catering as their names suggest, to the agricultural and industrial-commercial sectors respectively.

Other than the banks, the country has now the following kinds of special-purpose credit institutions, informal or formal alike; Informal and Formal Circles, Rural Banking Institutions, Poverty Alleviation Programs, Mass Organizations, and Multilateral & International Non-Governmental Organization. The country has as yet no credit institution in housing development and supply. A new financing organization geared solely to

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development of the housing sector is to be established due to its enormous contribution to the national economy.

(4) Financial Instruments

There are more financial instruments available to individuals. In the country, transaction based on cash payment is the most popular. In terms of the process of capital creation, if the economy is to take off, marked changes must be made starting with banking. Cash cannot be used for a large percentage of transaction, as it is at present. Conditions should be created for all businesses to replace as much cash as possible with "quasi money" such as trade, state and treasury bonds. It is important to create many kinds of credit instruments that can be converted and exchanged among individuals and companies.

(5) Bond Sales Distribution

The Treasury is now selling retail bonds to individuals. It has a nationwide network of branches selling bonds directly to the population for as little as VND 100,000 or about US\$ 9.

The sales effort is part of the government's bid to mobilize dormant domestic funds, which are now being touted as a possible source of finance for major national projects such as the Corridor 21 Development. It is estimated that the amount withheld by the people outside the banking system amounts to US\$ 2 billion at least.

The Ho Chi Minh City (HCMC) Investment and Urban Housing Fund is planning to issue municipal bonds of dollar-denomination at an international market in order to raise over US\$ 8 million to upgrade the city's highway and water supply system, which requires approval of the city's People's Committee. The proposed Corridor-21 Development Authority (C-21DA) can do the same thing in the future.

(6) Market Establishment

The country has been in the process of establishing a direct financing and capitalization framework, namely, securities exchange markets. The market connects business entities (such as manufacturers trying to expand their factory and equipment) with investors that have financial resources, and are looking for promising low risk projects with high returns.

The Decree 48/CP on securities and the securities exchange markets issued on July 1998 will pave the way for establishment of security exchange centers in the country. As state-owned

enterprises will be encouraged to equitize part of their holdings, the new bourse will help facilitate government's efforts toward this end.

As the exchange market becomes more and more accepted within the whole financial resources recycling system, the market will contribute to generating more capital for business entities.

With more companies in dire need of funds, the commodities traded on the exchange market will become diversified. They will include not only shares of equitized state-owned enterprises but also bonds, bills of different years in maturity issued by the central government, provincial authorities, commercial banks and state corporations, and investment certificates.

(7) Collateral

The market economy environment under which collateral is assumed to play a role in commercial transaction is undergoing a gradual change.

The country has four types of collateral to secure loans available to the formal and non-formal financial systems. These are real estate mortgages (houses, buildings, ships, and fixtures on land), mortgages of land use right, chattel mortgages (pledges) on personal property, cash collateral and third party guarantees.

Collateral plays a critically important role in securing interest among parties engaged in business activities by way of reducing uncertainty attached to commercial transaction, and contributes to activating it more. As a result, the country will have more advanced market economy. However, at present, the country has a couple of problems regarding the collateral.

Firstly, the transparent and prompt system of enforcement and realization of the collateral is not provided.

Secondly, a more basic problem is that the registration system is not well established, especially its operation is not properly working because of under-capacity and lack of awareness of the importance of registration.

Thirdly, with regard to land use rights under the New Land Law of 1993, constraints on the transfer of land use rights make liquidation of mortgage very difficult, which has been a big obstacle to the development of a more viable transaction of land use rights. For banks eager

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to expand business in the country, current laws governing land use rights pose serious problems. More cohesive legal framework is to be established.

(8) Wholesale Market

In order to maintain the present high economic growth rate in the coming years, the country must create and develop a financial, monetary and credit infrastructure to attract investment.

While retail market for individuals is now well developed, the Government still has a long way to go in its efforts to promote a wholesale market for government bonds. The country has concentrated heavily on developing the retail market and not the wholesale market. Treasury bill auctions only began in 1995, with the irregular auctions of 12 month-bills. In 1996, only 2 % of the total debt stock of US\$ 759 million came from the Treasury bill auctions.

The development of a market-oriented economy with a high growth rate requires the creation and accumulation of capital. It means the necessity of promoting a network of intermediary financial-monetary mechanisms outside the limited sphere of commercial banks. At present, there are no intermediary financial entities in the country.

The most urgent need in the immediate future is for establishing and expanding intermediary financial institutions outside the sphere of activity of commercial banks, including such mechanism as regional capital markets. At that point, the amount of credit available in many fields, for example financial grants for infrastructure construction, will no doubt increase by billions. It is worth pointing out that the guarantees for official and private financial asset accumulation should be freely and openly assigned through the mechanism of capital markets at various localities and in different trades.

The establishment of secondary markets is also a pressing demand. However, only with serious attention to controlling risks in these markets will it be possible to conduct efficient assistance services related to capital creation. Such a situation will place capital creation within the context of strict adjustment provisions.

(9) Syndicated Foreign Currency Loan

The foreign currency loans effected to date are:

- (a) City Bank for US\$ 30 million for the state coal producer Vinacoal,
- (b) ANZ Bank (US\$ 15 million for expansion by Vietnam Airlines),

- (c) ABN-AMRO (US\$ 30 million for Vietnam National Post to fund a contribution to a major underwater cable project), and
- (d) Bank of America (US\$ 30 million for the Maritime Commercial Bank).

A few outstanding technical matters still need to be resolved before the loan is approved because of overlapping and contradictory regulations related to the escrow account and guarantee. But the emergence of syndicated foreign currency loans from foreign banks could also hold some lessons for the banking system.

The State Bank is currently drafting new regulations that would allow private commercial banks to engage in syndication. But the underdeveloped nature of the banking system means that domestic loan syndication will be some way off. There are two key ingredients for a successful syndication, i.e. transparency of the system and trust. Both are in short at the moment.

(10) Market Establishment and International Financing

Public as well as private credit institutions should be expanded outside of the form of commercial banks and into a range of capital market for each economic sector, so that one day they can be part of the national stock markets. Planning for this step should include heavy industry, light industry, chemical and plastic industries, small and medium industries and various localities and major financial centers, such as HCMC, Hanoi City and Da Nang City.

The process of capital creation through the building of credit infrastructure consists of many phases. Banks (banking sector) will introduce new modes of capital mobilization such as issuing government bonds and business bonds. State bonds have been issued many times on the domestic markets, earning thousands of billions of VND. Although these revenues of bond issue transfer into some tens of millions of dollars, it is still too small an amount to finance the country's industrialization and modernization.

The participation in world capital organizations hinges on the international market's estimation of the country's credit-worthiness. A relatively good rating empowers a country to issue bonds, especially medium- and long-term bonds, in order to obtain loans on the international capital market. For this undertaking, it is possible to make use of one of the many professional stock companies. With its support, the country can enter the international financial market and borrow billion dollars.

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Borrowing foreign capital should not be worrisome if those loans really help increase the nation's productive forces and promote efficiency. Access to such capital sources is urgently needed to help the country gradually enter into competition with the region and the world, with a view to obtaining an increasingly large share in exports of goods, services, and credit.

It is not surprising to find that the process for industrialization followed the path described above. Especially, the path is owing to the creation of capital through building and developing their banking and financial infrastructure. At the same time, the nation's banking, finance and credit institutions must maintain their credibility in the eyes of investors and organizations around the world.

7.2.3 Immediate Measures to Mobilize Domestic Financial resources

In the short-term, the government should look into the following financial resources as revenues through selling properties (e.g. villas) held by the State, equitization of state-owned enterprises (SOEs), and disposal of the land on which Vietnam National University (VNU) is presently located.

(1) Sales of Properties

The Government issued Decree 61/CP governing purchasing and trading houses under State management. The move is part of the government plan to privatize public housing in urban areas. The process will create favorable conditions for people to use the villa effectively. And profits from the sale will be used to finance new residential quarters and infrastructure projects. Also, the vacated land resulted from the VNU relocation should be sold somehow, and the revenues should compensate for the relocation cost. This will provide effective incentives to those public and private entities that do not need to remain in Central Hanoi to move to the Hoa Lac and Xuan Mai areas.

(2) Equitization

The Central Government has promulgated the Decree 44/CP, which replaces Decree 28/CP, on the standards and regulations governing the process of transferring SOEs into share holding enterprises.

The new decree stipulated that from now on, SOEs could sell shares to foreign organizations and individuals. This break-through legal regulation will pave the way for the foreign capital to pour into the capital-thirsty economy as the country should be able to attract not only direct foreign investment but foreign portfolio investments as well.

The reasons for the weakness and inefficiency of SOEs vary and include obsolete technologies and the lack of both registered and working capital, but topping the list is the management system.

In order to step up the reform plan, on April 1998, the Central Government issued a regulation stipulating that all existing SOEs must be divided into three groups: i) SOEs that are 100 % state-owned, ii) SOEs that are either equitized, privatized or consolidated, and iii) SOEs that must be either bankrupt, leased or sold.

7.2.4 Long-term Measures to Mobilize Financial Resources

In the long-term, in order to strengthen the foundation of taxes, and financing and capitalization, the country has to establish a special framework contributing to mobilization of domestic financial resources. As to taxes, asset tax, and urban planning tax are the most expected financial resources mostly available to the provincial authorities. As for the future residents of the Hoa Lac and Xuan Mai areas, they should pay urban planning tax in return for the convenient and comfortable urban facilities they can enjoy. This is a sort of a “beneficiary-pays principal.”

Facilitation of financing and capitalization should be directed to diversification of financial instruments (bond, bill, and promissory note), strengthening of guarantee function, project financing, corporate financing, and syndicate loaning.

7.3 Implementation Organization and Management Structure

7.3.1 Characteristics of the Development

As mentioned before, the Development comprises the construction of infrastructure and facilities, VNU relocation, HHTP development, housing development, industrial development in Phu Cat, Urban Center development, and so on. Each component tends to be developed at its own pace without paying due attention to the other components. In order to achieve an integrated and united urban development, effective and efficient coordination and management are of the prime importance. To this end, the following are key factors worth consideration.

(1) Coordination

Firstly, as each component has its particular feature, lack of coordination will spell dislocation of this entire Development. The coordination among components is of great importance. Taking into account the fact that each component is implemented under the

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sponsorship of relevant ministries, university, and other organizations, coordination at the first stage must be made at the sponsors' level. Even if coordination is made well at the first stage, it is almost difficult to thoroughly preclude troublesome matters that could hinder smooth implementation of the Development.

Secondly, while part of the Development is completed during the implementation stage, new components as well as new businesses will emerge continuously. They include commercial transactions, sales of property, provision of services, finance, promotion, and so on. Appropriate pace of construction of various facilities has to be well coordinated and programmed. Otherwise, the overall cash flow balance will be moved into deficit, which might lead to a critical halt of the Development, thus resulting in waste of immense amount of precious financial resources.

In order for newly value-added properties, including developed land, constructed infrastructures and buildings, to have their values maintained or enhanced over the future, appropriate maintenance and operation are also indispensable.

Thus, coordination among construction, commercial transaction, as well as maintenance and operation should be one of the most critical elements to ensure the success of the whole Development.

Finally, what is more important is that the Development does demand not only coordination in itself but also enhancement of management as well. The minimum requirement is that each component should be well managed to work in harmony with others. For the purpose of realizing this condition, serious considerations should be given to how effective and efficient functional relations among physical components as well as relations between physical components and people's/business entities' activities should be established. This will contribute to enhancing better living environment and to creating highly productive urban space as well.

The management structure to be established has to cope with these tasks to ensure the success of the Development. It is possible that some rectification should be put on the traditional strategy such as the industrial zone (IZ), export processing zone (EPZ), and high-tech incentives. In this context, it is proposed that a more comprehensive "Special Economic Zone (SEZ)" concept be applied to the Development.

(2) Management Infrastructure and Investors' Attitudes

It is also noted that management infrastructure will affect investors' attitudes to the Development. In this case, investors include Vietnamese people who are taxed or fee-charged at home, overseas Vietnamese people, and foreign investors. The Development will extend over a long period of time and necessitate an enormous amount of money, and money requirement for supporting the Development may exceed the governmental revenues.

Vietnamese people have to fully understand the Development with confidence in giving approval for its implementation. Overseas Vietnamese and foreign investors need to be recruited in an effort to raise enough money for the Development. In this context, their attitudes will be influenced by credibility of the country in general and the Development in particular.

What is vital to those who invest in the Development is whether it is viable enough to generate reasonable returns on investment. To the end, whether or not the management infrastructure is built up effectively and efficiently, is critical in affecting the favor of prospective investors. Ineffective and inefficient infrastructure fails to attract many investors both at home and abroad. Thus, the management for the Development should be structured in a way that is attractive and confident to lure more investment.

7.3.2 Basic Approach to Management Structure

As mentioned above, the Development is the one that the country has not experienced yet. It can be said that it is indeed a pioneer for this country. It is imperative that some old organizational structure should be superseded with the new one so created as to implement the whole Development effectively and efficiently.

The management structure will be built up on two layers; a unit within the central government organization and another unit solely oriented to implementation, by which the Development will be directed to the successful completion.

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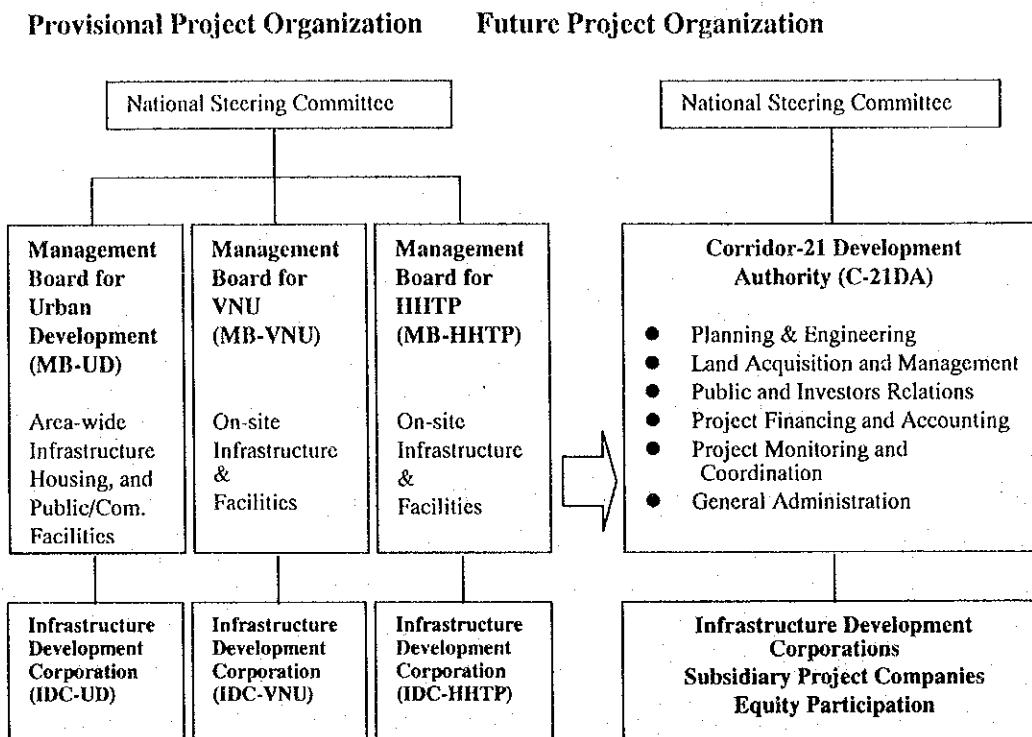


Figure 7.3.1 Project Organization

Because each component is implemented under different sponsorship of the competent ministries, university, and other organizations in terms of planning and budgeting, coordination among ministries concerned and other organizations involved, such as the VNU and Ha Tay Province, is of the prime necessity. The unit within the central government organization is directed to this coordination. A strong power should be attached to this unit. In the course of the implementation, such coordination machinery can cover troublesome matters that may risk failure of the Development. It is conceived that the unit within the Central Government organization will take the form of the “**National Steering Committee (NSC).**”

Another unit should be mostly engaged in implementation in terms of infrastructure construction, maintenance and operation, commercial transactions, sales of property, provision of services, finance, promotion, and so on. The unit is required to get through the following coordination tasks.

Firstly, in the process, appropriate pace of construction of various facilities has to be coordinated with sales of properties, provision of services, finance, and so on. This is essential to ensure the financial sustainability of the Development. Given the failure of such coordination, the project

cash flow balance will go into deficit, which may possibly lead to a critical halt of the Development.

Secondly, another important task is to implement the Development with the condition that each component works in harmony with others. As already discussed, serious considerations should be given to how effective and efficient functional relations among physical components as well as relations between physical components and people's/business entities' activities should be established.

In the light of these requirements, the unit, for being well structured, is oriented towards two different directions. One is to establish it on a ministerial scale either as a new independent governmental organization or an ad hoc unit, attached to the existing ministry. It will be in charge of coordination among various independent components planned and implemented by different ministries, universities, and so on. It will also have its own budget and staff. The other is to establish it outside the Government organization, fully empowering and authorizing it as far as the implementation of the Development is concerned.

The Administration has long striven for making itself smaller and more effective (streamlining the administrative body, equitizing state-owned enterprises, and so on), and hence, the former is inconsistent with this policy, while the latter has more private overtones than the former. Thus, the latter direction seems to be in accordance with an effort that the Administration has made to streamline by itself.

In the latter case, policy making and inter-ministerial coordination will be handled by the Governmental organization (such as NSC), and decision making for actual implementation will be carried out by a newly set-up organization outside the present government structure.

This new organization, which can be referred to as the "Corridor-21 Development Authority (C-21DA)," should be a public entity but could have a half-public, half-private personality. It will combine governmental authority with market strategy as effectively as possible. In the long run, C-21DA will be reorganized as a quasi-public entity, involving the private sector in its operations. The Government will own some stocks of C-21DA and will exert its control over C-21DA only through its stocks.

7.3.3 Traditional Strategic Scheme

The country has the basic dual-tier scheme consisting of the provincial Management Board (MB) and Infrastructure Development Company (IDC), which is stipulated by the Decree 36/CP on the Regulation on IZs, EPZs and High-Tech Perks (HTPs).

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The Decree has also some stipulations about the State management and provincial People's Committee in terms of function, task, and power. In the case of a project on large scale, the State management is strengthened by setting up the Steering Board recognized in projects such as Dung Quat Oil Refinery Project, Hoa Lac High-Tech Park, and HCMC High-Tech Park (with the latter two being in formulation stage).

The traditional scheme is not expected to cope with the Development. It is envisaged that a number of new problems will come out, including overlapping functions and tasks/powers, complicated decision making process, lack of coordination in budgeting, unbalanced relationship between power and responsibility, rigidity of personnel appointment system, and so on. The traditional system may not be appropriate to overcome these anticipated problems.

(1) Comparison of Functions among Related Organizations

1) State Management:

- (a) Elaborate strategies, planning, plans and policy,
- (b) Issue legal documents,
- (c) Provide guidance on formation, building, development and management,
- (d) Grant, adjust, and withdraw licenses,
- (e) Decide the organizational apparatus, personnel training, and fostering, and
- (f) Supervise, inspect, monitor, and deal with newly arising issues.

2) Provincial People's Committee:

- (a) Perform the function of the State management over IZs and provincial Management Boards,
- (b) Take part in the elaboration of the overall planning, direct the drawing up of the plan to set up an IZ, and work out the detailed zoning of IZs,
- (c) Monitor and supervise the implementation of plans,
- (d) Assume the main responsibility for the site clearance plan and organizing implementation, resettle the inhabitants in the area to be cleared, allocate land inside and land outside the IZs for the building of the infrastructure works in service for the development of IZs,
- (e) Grant licenses for the establishment of Vietnamese enterprises,
- (f) Propose to grant, adjust and withdraw licenses, propose to authorize the provincial MB of the IZ to consider and approve the import and export plans of IZ enterprises,

- (g) Approve regulation on the management,
- (h) Recommend the personnel eligible to head the provincial Board of Management, decide the posts of deputy heads and members and assisting apparatus of the Board,
- (i) Assume the main responsibility for organizing the evaluation of the technical designs of group A projects (foreign investment), group B and group C projects (domestic projects), and
- (j) Supply documents, materials, and information to the provincial Management Board.

3) Provincial Management Board of the IZs:

- (a) Work out the regulation on the management,
- (b) Organize the elaboration of the detailed planning and manage the implementation, take part in the development of the related infrastructure works outside the IZ, and dwelling quarters for employees,
- (c) Urge and supervise the building of the related infrastructure works inside and outside an IZ, ensuring that they are built and put into operation in accordance with the approved planning and schedule,
- (d) Support the mobilization of investment,
- (e) Receive applications for investment, organize the evaluation, and grant licenses,
- (f) Supervise and inspect the execution of investment licenses, contracts for processing of products, contracts for provision of services, business contracts, and settle economic disputes,
- (g) Coordinate with the agencies performing the state management,
- (h) Manage service activities,
- (i) Seek agreement with the IZs infrastructure development companies in setting the price rate for sub-lease land and service charges,
- (j) Grant, adjust, and withdraw certificates, as well as grant, adjust and withdraw licenses,
- (k) Attend meetings of the government agencies and provincial People's Committee to discuss the formation, building, development, and management, and
- (l) Send reports on the situation of formation, building, development and management of IZs to the provincial People's Committee, the Vietnam MB of IZs, and other concerned government agencies.

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4) Infrastructure Development Company (IDC):

- (a) Mobilize investment in the IZ on the basis of the detailed development planning,
- (b) Sub-lease to the enterprises the land together with infrastructure work,
- (c) Lease or sell to IZ enterprises the workshops,
- (d) Provide various services in conformity with the investment approving decision or investment license, the business registration certificate, and company's charter,
- (e) Set the sub-lease rate for the land with the infrastructure works built thereon, the rate for lease or sale of workshops, and service charges after consulting the provincial MB of IZs,
- (f) Elaborate and submit the master plan on the development infrastructure works in the IZ, and propose the related infrastructure works which need to be developed outside the IZ so that the State management agencies can have foundation to elaborate the development plan and assign responsibilities for implementation,
- (g) Build infrastructure,
- (h) Render maintenance to the IZ infrastructure works,
- (i) Ensure the industrial hygiene and environmental and ecological protection, and
- (j) Observe periodical and yearly reporting to the provincial Board of Management of the IZs.

7.3.4 Government Organization (National Steering Committee – NSC)

(1) Functions and Power

The governmental organization has minimum but important administrative functions in implementing the Development.

1) Formulation of the Basic Plan:

The governmental organization is to formulate the basic plan which covers various components such as fixing new infrastructure and facilities, relocation of VNU to the new site, constructing housing complexes, and developing HHTP and Phu Cat IZ, by utilizing the land in Hoa Lac in an innovative way.

This land utilization plan will put forward a design for future utilization of the site. The site, which is to be covered by the land utilization plan is classified into several groups, e.g.

agriculture (paddy fields, cassava fields, and others), forestry, fish pond/reservoir, industrial area, commercial area, residential area, public area and green area.

Basic questions have to be addressed to the total extent of land, and the ways and timing appropriate for land acquisition, to properly implement the Development. For example, the State and Ha Tay Province will have to secure in advance the site where basic infrastructure is to be constructed.

Land acquisition process often faces very difficult problems caused by the timing for deciding on and announcing a new land utilization plan. That is because this kind of action may lead to triggering off speculative expectations about the value of land use rights. Thus, it cannot be too careful to judge the right moment for this kind of act. It is recommended that preventive measures should be prepared for the legal framework that will be mentioned later.

2) Outline for Coordination of Details in a Construction Plan:

A construction plan puts forth an outline of how to coordinate it in detail; for example, it should specify which agencies or entities should be responsible for the construction of various buildings and facilities among competent ministries, local governments, universities or the other organizations involved. The coordination among them will be required at any stage of implementation of the plan.

3) Budgetary Guideline:

The budgetary guideline will be formulated before budget requests, and the final settlements which are related to the Development, will be made. That is because the budget is to be requested and settled only based upon this guideline.

4) Incentives Provision and Licensing:

The country is full of regulative rules because more weight is put on stability and integration of society at the start of the new development path. Regulatory rules cover various fields. Among them, incentive provision and licensing are the most popular and important. They will often generate difficult conditions if pertinent rules and regulations are not reasonably secured.

With regards to investment, the current funding allocation mechanism has not worked well to effect smooth disbursement. The current system requires the State capital to go through the State Treasury and the Department of Investment and Development before disbursement, and this has caused a great deal of delay in funding flows. To ensure the timely progress of

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construction projects, the State Budget Department under the Ministry of Finance (MOFI) has given priority to allocate the funds for key construction projects. But the money often stuck at the State Treasury. It is stipulated that the State Treasury cannot release the funds if Department of Investment and Development fails to meet the required demand.

Department of Investment and Development blames investors and local authorities' inability to submit full required funding application documents. This condition shows how importantly coordination should ensure the smooth investment proceeding.

5) Special Legislation

Directives should be issued to put a group of special legislation into practice. And also, in order for a successful development, the government needs to draw up new legislation. It should deal with rights related to land use, land utilization plan, urban planning, transactions in real estate, establishment of a new organization, introduction of special undertaking account into the government budgetary system, and so forth.

(2) Some New Measures Infused into the National Budget System

The Development should depend on the central government's financing for a large portion of the investment cost. Because of a dearth in financial resources, it is an ultimate requirement that they are put into use in a most effective and efficient way, that is to say, to maintain the strict budgetary discipline.

To this end, the structural framework under which financial resources allocated to the Development are to be identified at any time, past or present, by any related parties such as taxpayers and investors, has to be established. Of certain, it also enables the country to have measures to attract more financial resources toward the future, which contributes to strengthening the financial foundation of the Development. The successful reform of this sort should make investors, especially foreign investors, trust the country's finance to be in good shape, post a reduced risk rating for the country, and recognize the enhanced attractiveness of the Development.

1) Coordination

One of the perplexing matters is how to deal with other projects in planning or in implementation. Some are related to the Development and others are not. It becomes important to differentiate the related from the unrelated from the standpoint of keeping the

strict budgetary discipline. If it is badly handled, overlapping of investment will come out, thus resulting in a waste of precious financial resources.

2) Budget Appropriation:

There are alternative ways of appropriating budget for investment. The first is to appropriate all budget to one competent ministry. The second is to appropriate the budget to ministers concerned. The third is to set up a special undertaking account, which is called the "C-21 Special Undertaking Account." In the light of the situation prevailing in the country, the third is recommended.

3) Reserve Budget:

At the start of every year a specified level of budget is reserved for the purpose of coping with unexpected situations that could result in an ineffective or inefficient implementation of the Development at the stages of planning and construction. This measure will result in a high-score evaluation of management infrastructure and enhance credit worthiness. Which ministry the budget should be appropriated, however, remains to be decided.

4) Management of Budget

Effective and efficient management of budget is dependent on how well management system is structured. If a special undertaking account is not set up, at the start of the budget outlay, the whole picture about which ministry budget is appropriated to and the progress of budget expenditure cannot be derived from the implementation of undertakings related to parties concerned, which are ministries or C-21DA.

5) Budget Appropriation, Outlays, and Undertaking

Every country recognizes the three different functions of appropriation, outlay, and undertaking. However, a ministry does not necessarily have to handle all these functions. In some cases, a budget appropriated to a ministry at the start of a fiscal year is transferred to another ministry that takes care of its outlay. In other cases, the appropriate budget is put into expense through commissioning undertakings to different entities.

6) Incentives Provision, Licensing:

The country has not been unfettered from a chain of incentive provision and licensing. Its contribution could not be denied under the present conditions. What is important is that budgeting should work in harmony with incentive provision and licensing. Many countries,

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either advanced or developing, have confronted situations wherein an ample budget could not be spent because an undertaking did not clear licensing.

(3) Organizational Structure

The National Steering Committee for the Development is to be established, which will be headed by the Prime Minister. Relevant ministries, local governments, Vietnam National University, State Bank of Vietnam, Vietnam Industrial Zones Authority, the National Council for Investment Projects Appraisal, and other related organizations should participate in it.

7.3.5 The Corridor 21 Development Authority

The Corridor 21 Development Authority (C-21DA) covers the functions, powers, and tasks of the provincial Management Board and Infrastructure Development Company (IDC) stipulated by the Decree pertaining to the traditional development formula. These traditional two bodies should be merged into C-21DA.

This structure should enhance its financial capacity, which makes investors or creditors more secure, and attract more investments. A complicated structure under the traditional development formula would not enjoy such favorable circumstances.

C-21DA will be in charge of coordination among various independent components planned and budget allocated, under the authorization of the NSC. It should also have its own budget and staff. Main tasks should be centered on the implementation of the Development, and should be engaged in infrastructure construction, maintenance and operation, commercial transactions, sales of property, provision of services, finance, promotion, and so on.

It may not be of the immediate future, but this new organization could have a mixture of half-public and half-private character; it will combine governmental authority with market strategy as effectively as possible. The government may own some stocks of this organization and exert its control over the new organization through its stocks.

The Central Government, Ha Tay Province and Hanoi City should have stocks because the Development will have a profound effect on a national scale. Hanoi City will also enjoy a multitude of benefits derived from the Development, such as less concentration of socioeconomic activities, thus contributing to generating more viable and better living environments in Hanoi.

As mentioned before, the Development cannot be properly handled within the traditional strategic formula. Accordingly, Ha Tay Province does not have to necessarily shoulder all burdens as stipulated by Decree 36/CP of April 1997 on the regulation on industrial zones, export processing zones, and high-tech zones. If the Development proceeds based upon the traditional formula, IDC will be set up, 100 % contribution by Ha Tay Province in the form of land use rights. The past experiences have witnessed 100 % contribution, although this is not required by the Decree.

(1) Functions

- (a) Formulation of implementing the project
- (b) Acquisition of land use rights and management of land
- (c) Construction of facilities
- (d) Management and operations
- (e) Sales of property and provision of services
- (f) Financing (Funding)
- (g) Promotion
- (h) Others

(2) C-21DA outside the Present Governmental Structure; Singular Unit or Plural Units

The Development comprises four components in a broader context; infrastructure construction, VNU relocation, HHTP development, housing complexes, and Phu Cat industrial development. Industries in Phu Cat will be founded on the traditional artisanship and skills nurtured for a long time, and basic materials industries such as cement, steel, plastic processing, brick making, housing materials. In Phu Cat IZ, services provided to households and business entities will grow. In this regard short-term effects such as demand and employment generation will be realized more remarkably here.

There are two alternatives. One is that only one authority will be engaged in all of the above, the other is plural authorities should be established and each one should be in charge of each component. The former is more suited to the Development, taking into account particular features attached to the Development, which has been already mentioned.

(3) Establishment of More Subsidiaries

As the Development makes a gradual progress, the C-21DA will set up more and more subsidiaries. In addition to VNU, HHTP, and Phu Cat IZ, C-21DA could possibly participate in housing corporations, telecommunications company, mass transport company,

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water distribution company, and some commerce and business developments, either by sharing equity or by establishing subsidiaries.

(4) Management Principles and Accounting and Auditing Systems

Each entity has to exert effort towards maintaining sound financial condition and attaining a good performance record. Organizing management, drawing up and carrying out a management policy that constitute corporate infrastructure should be prepared solely in conformity with the management principles. The country should have performance evaluation on three bases; component project basis, business entity basis, and project basis.

In preparation, the country needs to upgrade its accounting practice to international standards. In the case of the Development, a consolidated accounting and auditing system is required to be implemented, under which inter-trade and internal subsidy are to be revealed to the public, thereby presenting a total picture. Of course, the performance of non-profit bearing project components, which C-21DA should be engaged in, will also be evaluated under the system.

Those who have already participated or plan to participate in the C-21DA will be able to assess its financial standing and results of business operations, based on which will enable parties concerned to make risk evaluation with ease, thus making the Development more attractive. But the country has also encountered obstacles. Vietnam does not have standardized accounting and auditing systems. Reports made by many auditing companies are subject to suspicion by creditors or investors. They usually complain that they cannot access information about business operations, and do not rely on examination results by various auditing companies because such companies are not independently operated.

(5) Relations between NSC and C-21DA

1) Equity participation:

The Government will invest money in the C-21DA and it will have 100 % equity holding at the inception of C-21DA. Then, C-21DA will gradually come to finance itself, and thus Government's share of subscription to the capital will probably phase down. However, it should remain to be seen whether or not this privatization process could be applicable and beneficial for the Development.

2) Business operations:

Business operations related to the Development are classified into the following three groups:

- (a) Business operations which belong to the central or local governments;
- (b) Business operations which the central or local governments entrust the C-21DA to conduct.; and
- (c) Business operations which are under the charge of the C-21DA.

The C-21DA has to finance itself in order to operate its own business. It will raise funds through issuing bonds or stocks, credit taking and so on.

A basic framework for the business operation should be presented in the construction plan, as this will dictate which of the above-mentioned three business operation categories and those various facilities planned for the Development should fall into. NSC headed by the Prime Minister will be responsible for working out those questions through coordination at every stage of implementing the Development.

Foreign investors have a high stake in the question whether the C-21DA has corporate infrastructure that will secure the implementation of the Development on a long-term basis. Positive evaluation of corporate infrastructure will serve the purpose of attracting an increasing number of foreign investments. But negative evaluation will go the other way and it would give the worst-case scenario in which C-21DA would end up with default and the Development itself would run aground.

3) Budget

It is not too much to say that budget resources should be expanded, that public finance is kept in good shape and that strict budgetary disciplines have to be held.

7.4 Legal and Institutional Adjustments

The Corridor 21 Development is planned to extend over a twenty-year period and will encounter new socioeconomic conditions both proactive and counteractive to the implementation. In the process of implementation, a new formula contributory to the Development should be built up and applied to the Development.

Certainly, the country has made a remarkably successful advancement in digesting the essence of working mechanism of market economy and in infusing it into the traditional economic system. At present, the country has been in the process of forming a firmer economic foundation on a new paradigm. However, there is much to be developed. With new ingredients being injected into the

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traditional structure, the Development will be implemented more effectively and in a firmer way. The following are the concrete measures to be developed and applied to the Development.

7.4.1 Land Acquisition and Management

(1) Land Exchange System

At some stages deemed as appropriate in the process of the Development, the system of “exchange of land” is applied to generating better living and productive environment. The system is akin to the “**kukaku-seiri**” (land readjustment) of Japan. The system is aimed at readjusting and agglomerating the land parcels owned in piecemeal by exchanging them in a planned manner, thus realizing the desired land use. The system may be applied to improve the existing communities that will be preserved in principle. Reference will be made in the “**Existing Village and Expansion Area**” of this report.

(2) Land Use Rights Trust System

Land trust is an arrangement wherein those who own land or hold land use rights entrust their property with someone who is entitled to manage and operate the land and put the land for economically effective use. When trustees manage to turn a profit, the profit will be divided among those who have entrusted their properties.

Land trust will be set up through either lease contract or sales contract, and the land trust instrument is issued accordingly. As long as land trust contract runs, trustees have the disposal of property right and it will be returned at the termination of land trust contract. With the termination of the land trust contract, a trustee cannot manage or operate the land any longer.

(3) Preventive Measures against Speculative Commercial Transactions of Land Use Rights

If speculative commercial transactions of land use rights are not properly regulated, the Development will face detrimental effects such as distorted allocation of economic resources, increasing difficulty in recovering land use rights due to massive cash demand, and generating increasing disparities between the haves and the have-nots.

(4) Land Use Rights Registration

The country has the registration system of immovable and movable assets, stipulated by the New Land Law and related decrees. The People’s Committees have to be engaged in the

duty in cooperation with the Department of Land Administration of both local and central levels. There are three problems related to the registration of land use rights.

Firstly, because of insufficiency of capacity in terms of manpower, experiences, and so on, the system has not worked well. The registration rate of housing in Hanoi is only about 30 %.

Secondly, even if the registration is made, only the direct party is permitted to look into the register book, and the third party is not eligible, which makes it difficult to formulate the property market.

Thirdly, in addition to the above, the present system of land use rights and housing registration is not a unified one, which causes considerable inconvenience to concerned parties.

The registration is expected to contribute greatly to making the transaction market of land use rights more viable through disclosure of features of particular land use rights. With this system being more reformed, the collateral which is essentially important to credit creation by private parties concerned is sure to be given birth. Therefore, substantial improvement of the registration system, including fee collection for the administration of the registration system, should be realized through capacity enhancement and motivation. For this, a special undertakings account is desired to be set-up within the national budgetary system.

7.5 Housing Development Policy

The Hoa Lac and Xuan Mai areas urban development project is a creative state project in the new era of Vietnam. The housing supply plan in this area is the one which is carried out with a role as a leading/guiding model of residential environment development contributing to the development of the national economy and people's welfare. It is expected that it proposes a new housing supply method and a construction method under the new policy and approach, which leads to the evolution of the urban development and the housing development by future Vietnam. The following three issues are stated as the important recommendations.

- The model of planned community: The creation of truly new city with multi-functions including the university, HHTP function and facilities of culture, art and science, education as well as the industry

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- The model of the housing supply: The establishment of the housing loan by the utilization of public funds, private funds, and by organizing housing supply organizations
- The model of the housing production: The upgrading and reinforcement of the high quality housing supply, which aims at the improvement of house construction technique

(1) The Present Situation and the Housing Policy in HMA

Before introduction of the Doi Moi policy in 1986, the government supplied houses under the various housing policy and supply program. However, the all houses were state owned houses by the government. Those houses were not responds to the various housing demands of citizens but those of the government staff. The citizens could not have houses to meet the various kinds of their demand even after the Doi Moi policy adopted. On the other hands, supply of the house is rather apart from market economy, even though subsidized housing system of the government was abolished and the National Housing Development Corporation became a financial self-sufficiency.

Normally, for the house construction capital, construction firms borrow it from commercial banks with 8% to 10% interest, so the housing supply to citizens are becoming very costly and difficult. The housing supply by private construction firms is only about 5% of the total supply. On the other hand, self-purchasing house accounts for 60% to 70% of the total supply.

The housing supply is a responsibility of the government, particularly for the citizens who cannot afford to own houses. The number of houses constructed by local governments is minimal so that the citizens could not own houses. As a result, the housing market stands at a marginal level in Vietnam.

The housing supply by self-order construction (construction made by an owner-occupant's direct request to a house builder) is creating an urban issue caused by inadequate infrastructure under the demand and supply economy, the low quality housing, and the overcrowding construction. The floor area per person of house in Hanoi City was decreasing from 6 m²/person in 1954 to 4 m²/persons in 1994. Also, a lot of existing houses in urban area are in serious need of rebuilding or repairing.

The total floor area of the house in Hanoi City is about 70 ha, which had been supplied from the year 1954 to 1994. The ratio of the floor area between private sector and public sector was 70 % versus 30 % in that period, however, the ratio still remains the same at present. The total floor area of house supplied in Hanoi City was 100 ha from 1991 to 1995. The total

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floor area supplied by public sector of the state owned enterprises (SOEs) was only 20 ha from 1991 to 1994, corresponding to 5 ha in each year. There is a result of 100 ha/year of the housing demand in Hanoi City estimated by the House and Land Department of Hanoi in 1995.

The director of the Department that it is very important to expand and open the housing market, to ensure free access to housing and estates by each economic sector. The important issues are shown below:

- To create the market environment open to investors of both domestic and international origin;
- To streamline and simplify the procedures for land acquisition;
- To reduce the property values by computing the land rental charge and land rental right; and
- To develop residential quarters for sale and to provide the pertinent information.

Development of housing market in Vietnam is very badly distorted under the absence of housing policy with the result of immaturity of the housing market. The housing development is a very important policy issue from the viewpoint of the national economy and welfare, e.g. housing development will bring about considerable rippling effects on the rational and regional economies associated with employment opportunity.

(2) The Present Situation and Issue of the Housing Supplier in HMA

The types of the organizations and construction firms that are supplying housing in the Hanoi area are as follows:

- The public housing organization in each corporation and authority (e.g. Housing development corporation)
- Joint Stock Company
- Private Company
- Joint Venture Company

According to the Hanoi City Construction Bureau, there are 220 companies with 72,000 employees in the housing construction sector in 1995. In this sector, there are 60 SOEs with 18,000 employees and 27 companies of the Hanoi City Construction Bureau with 8,000 employees. Moreover, there are a lot of small-scale construction firms to support

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construction business for the self-order sector which is out of the statistics of the construction bureau.

The housing supply by public organizations accounts for 30 % to 35 %, whereas by private companies accounts for 5 %, and the remaining 65 % to 60 % is self-order construction. The self-order construction is overwhelming over the housing in total.

There are some construction firms that have the ability to build a high-rise building in the public constructor. However, a lot of construction firms have only the technique that can construct a low- and middle-rise building under 10 storied.

As for private construction firms, the employee scale is too small with about 10 to 100 employee and the procurement capability is from US\$ 50,000 to US\$ 1,000,000. The technical and financial capability of construction companies is so weak. The general construction firms are supplying the construction of 2 to 3 storied housing in the city. Small-scale construction organizations and/or individual carpenters support the self-order construction that accounts for a huge rate of the building sector.

The construction sector has only low construction technique and capability, and the quality and quantity of housing supplied by them are generally poor. Therefore, it is essential to nurture and reinforce the business ability of the construction sector to supply quality housing to meet the demand.

(3) The Present Situation of the Housing Loan in Vietnam

1) The Present Situation of the Finance System in Vietnam

The banking system in Vietnam consists of the Central Bank, four state-owned commercial banks, 40 private commercial banks, four joint stock management banks, and 24 foreign bank branches. The capital of Vietcombank as a foreign exchange bank is around US\$ 2 billion.

It is said that enormous assets are held by the citizen in the form of gold and/or foreign currencies, and that the total amount of such is estimated as US\$ 2 billion to US\$ 10 billion. The amount corresponds to the scale of the national budget with US\$ 5.5 billion in 1995, and the fund is not circulated in the market without contributing to the development of the financial market in Vietnam.

There is a persistent distrust to the national bank on the part of the citizen, which results in the strong tendency to hold on the cash in house. The number of the personal bank accounts

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is only 16,000 accounts in the whole country in 1996. Reflecting the people's property possession form in household stock, the credit is 7.9%, whereas gold, cash and movable properties account for 59.8% of the whole.

The property possession form of the average family is as follows:

Gold	44.0 %
Cash by Dollar and Dong	13.7 %
Savings in bank	7.9 %
Credit and stock	4.4 %
Real estate	20.1 %
Cereals	3.0 %
Movable property	2.1 %
Others	4.7 %

Source: "Living standard investigation in Vietnam in 1994" by MPI and The Housing Loan Corporation

To utilize the citizen's property in the housing supply is very important issue for the development of the national economy and for the development of the financial system in Vietnam. In the present situation, the financial system in Vietnam is lagged behind and needs much improvement.

2) The Present Situation of the Housing Loan

There is the Local Housing Fund (introduced already in Ho Chi Minh City and examined at present in Hanoi City), Housing Development Commercial Joint Bank and other commercial banks which provide housing loans at present. However, the amount of housing loans stands at an extremely low level.

The housing loan to housing development companies is available for their working capital, but there is no direct housing loan to individuals except for a special case. Therefore, the house acquisition fund is to be covered by own savings, remittance from foreign country, borrowed money from relatives and/or the acquaintance, sale of real estates, and so on.

The payment for housing construction cost is divided into advanced payment and completion payment. There is a rare case where installment payment with about 10 times is accepted. There is a special advanced case where the local governmental corporations provide long term and low interest loan. The condition of the loan is 6.5-7.5 % interest (i.e., 1-2% subsidized to 8.5% normal interest), and installment payment over 10 to 20 years with 20 % advanced payment.

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The reasons why housing loans are not adapted to individual citizens are:

- shortage of the fund;
- difficulty in estimating/asking the income level including earnings from second job (which is informal);
- difficulty in setting up the mortgage (there is a mortgage law but undeveloped); and
- absence of insurance systems on the mortgage.

Because of the situation in housing loan for individual citizens, the private construction companies, having limited capacity of fund raising, tend to collect the construction cost as soon as possible to avoid the risk for installment payment. Therefore, the present housing finance system falls in a vicious circle.

In recognition of the present situation and problems, the mechanism of the housing loan with a long term and a low interest to finance to individuals is very important for the medium-income group who have the ability to refund the loan. Ho Chi Minh City has a plan for setting up the housing supply business under the partnership and cooperation among local government, financial institutions and the citizen.

3) The Housing Development Funding Conception by the Government

At present, the government has the concept of Housing development Fund (HDF) to secure a housing development capital. The outline of the HDF is as follows:

- The local government establishes and manages the housing development fund;
- The source of the housing development fund are expected from i) individual savings, ii) individual deposits, iii) allotment from land rental fees, vi) sales profit of national housing v) incomes from the rental fee for state owned houses, vi) contribution from private companies, vii) contributions from individual persons, viii) bank loans and ix) contributions from J/V companies;
- The government has an obligation to defray the infrastructure development cost and provision for housing development.

The housing bank is entrusted with the housing loan operations. The goal of the housing development fund is to evolve the sale and rent of housing by financing to housing development firms which sale housing under installment payments. The financing conditions are as follows:

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- The housing development with necessary infrastructure facilities;
- The housing development investment to low-income citizens under the welfare policy;
- The construction and/or acquisition of the house for low-income group.

The housing development fund needs to be carefully and properly managed in the situation where there is skepticism among the people on the establishment of the fund. However, to develop housing supply, the capital should be revolving in the housing supply and market. Therefore, the financial mechanism to utilize the hoard fund of the citizen is indispensable.

(4) The Examination of the Housing System

1) The Examination of the Housing Supply Method

The Corridor 21 Development Authority (C-21 DA) prepares housing sites and hands them over to the housing development public corporation, private housing companies and individuals. The one who received residential land should supply housing to the final demand persons. However, the residential land supply needs the mechanism of the land management that should flexibly correspond to the social and economic situations.

As for the mechanism of the residential land management, the public organizations such as C-21 DA in the new city must deal with this task.

2) The Basic Consideration

The housing supply in the New Town development should be considered mainly in Hoa Lac Area and divided into four components such as the housing development area (Dong Xuan Area), the industrial zone (Phu Cat Area), the high-tech park area (HHTP Area) and the university area (VNU Area) corresponding to the land use plan. As for the housing development in the HHTP Area, a development organization for HHTP may be responsible for its construction and supply.

A housing supply organization of the housing development area (Dong Xuan Area) should also conduct housing development in the VNU Area and the Phu Cat Area except for the dormitory.

3) The Organization of the Housing System

There are two concepts, namely Plans A and B, for establishing the housing supply body to housing development area (Dong Xuan Area), Phu Cat Area and VNU area.

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Plan A: The strengthening and the utilization of the existence organization

The various kinds of capital sources and channels should be prepared for the expansion of the housing supply under the present housing supply in Vietnam. Therefore, it is necessary to establish various kinds of supply entities involving many types of business firms in order to correspond to the demand of the end users. It is required that the functions of state-operated housing development corporations, whether operated by the central government or local governments should be strengthened to meet the requirements for leading the housing development and developing housing supply system to the low-income group.

It is necessary that the housing supply system should go with the financial balance of New Town area as a whole. The construction schedule of social facilities (i.e. culture, art and science, education, and health care) should be managed and adjusted to correspond to the schedule of human settlements and housing development.

Plan B: The establishment of the new organization

It is worth considering the establishment of a new organization for planning and implementing housing supply in the Hoa Lac and Xuan Mai Area. There are two cases of establishing the organization, namely i) a regional level organization exclusively aiming at the development of the Hoa Lac and Xuan Mai Area, and ii) a national level organization targeting to the whole country. Here, it is recommend to establish the former type of organization, which may be later expanded to be the latter type.

The new organization, which has an important role of leading Vietnamese urban and housing development, should be established under the strong partnership among the central government, local government, and business circles.

To establish the organization, however, various difficulties are anticipated such as procurement of fund, securing of competent personnel, and adjustment with existing organizations. Also, there is a difficult problem for a single organization to centrally and collectively deal with various housing needs such as different conditions of different income-level groups for housing acquisition.

4) The Selection of the Housing Supply System

The above-mentioned consideration suggests that the housing supply organization should deliberate i) to keep the various channels of capital sources, ii) to supply various housing to meet the end user needs and acquisition conditions. Therefore, it is recommendable to select

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the key responsibility of the housing supply body i) not to organize itself as a single housing supply body for responding to all housing needs, ii) but to coordinate the participation of various appropriate housing supply bodies.

However, the organization should be established to house the low-income group by issuing the housing bond (as later discussed). A the new organization (tentatively named the New Town Housing Development Corporation: NTHDC) is examined for its establishment as a reorganized state-operated housing development corporation. The NTHDC should be considered as an organization involving foreign investors who have various capital sources, business know-how, and technique to meet the various housing needs of the end users.

Incidentally, the new organization should consider not only the housing construction also the operation and management after the construction such as the mediation of housing from rental house to owner-occupied house. The organization should continuously maintain and improve the living environment of the New Town.

(5) The Setting of Housing Supply Organization and Supply Method

1) Setting of Housing Supply Method by Housing Supply Organization

There are public housing supply organizations and private companies, namely i) public housing organization (e.g. Housing Development Corporation), ii) joint stock company (J/S), iii) private company, iv) joint venture company (J/V).

Housing supply organizations belonging to the category i), ii) or iv) are expected to have sufficient ability of business operation with construction techniques. Therefore, they are considered appropriate to supply middle- and high-rise housing. On the other hand, the remaining housing supply organizations (i.e., those of the category iii) could deal with rather small-sized projects of 2 to 3 storied housing because of their limited business ability and construction techniques. However, in any case, upgrading and reinforcement of the existing housing organizations and existing construction firms are very much necessary to promote housing supply to the market.

- (a) Public housing organizations and joint stock corporations (housing development area)
 - Existing public housing organizations and joint stock companies

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- Existing public or semi-public organizations belonging to either category of public housing organization or joint stock companies mainly supply owner-occupied housing to the upper- and middle-income groups.
- The New Town Housing Development Corporation (NTHDC): joint stock company

NTHDC supplies rental housing to low- and middle-income groups.

NTHDC is responsible not only for constructing new housing but also for managing constructed housing.

The fund of NTHDC is covered by the fund from MOC, Ha Tay PC and Hanoi PC, subscription from enterprises invested in the New Town area, and foreign capital. Also Housing development Fund (HDF), which is to be established by the State, and the New Town Housing Bond (as later discussed) are expected to be the funding resources of the NTHDC establishment.

(g) joint venture companies (whole New Town Area)

J/V companies will supply high-quality housing for the high-income group in the New Town area utilizing their resources.

(h) Invested enterprises (HHTP Area)

The enterprises invested in HHTP Area construct and manage their company housing (rental) for their employees in the housing development area. Also, the enterprises can construct and sell houses to the middle-income employees (by installment). Enterprises lacking enough funds to construct company housing can support the establishment of a housing association formed by its employees, or in some cases, a housing association set up by the employees of plural enterprises. Collecting funds from the enterprise(s) and their employees, the housing association operates housing projects mainly for providing funds to the member employees.

(i) The university affiliate (VNU Area)

The VNU-affiliated construction body will be responsible for supplying housing to its staff on a rental basis.

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However, public housing organizations, joint stock corporations and joint venture companies supply the high-income teaching staff members with the owner-occupied houses.

(j) Housing associations (housing development area)

A housing association is responsible for supplying its members (employees of invested enterprise(s)) with housing. To fulfill its mission, a housing association lends housing finance to its members. Main financial resources of a housing association are savings of its members, financial support from invested enterprises, and public funds.

(k) Individuals (housing development area)

The individuals being funded can order a private builder to build their house by their own arrangement after obtaining the tenure on a prepared housing site.

2) The Examination of the Supply Method by Area

Concerning the supply method by area, the types of building and the types of disposition (i.e., selling and leasing) is considered as follows.

(a) The VNU Area: university area

Housing for high-income university staff, both academic and administrative, are mainly supplied in the residential zone of VNA Area. These are the composite of installment sales housing and rental housing, and constructed by various house builders. Housing for low- and middle-income university staff should be constructed in the Dong Xuan area for sell and rent.

(l) HHTP Area

Housing for high-income persons, working in the HHTP including foreigners, are constructed in the residential zone of the HHTP. House builders such as J/V companies mainly supply these. Housing for average staff (i.e., low- and middle-income groups) should be constructed in the Dong Xuan area.

(m) The Dong Xuan Area: housing development area

It is desirable to prepare appropriate housing methods corresponding to a variety of housing needs and acquisition conditions, which are addressed by various income

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groups. Therefore, it is recommendable to invite various types of house builders in order to supply various types of housing.

3) The Examination of the House Method by Income Level

Various supply methods are investigated hereunder by a sort of housing and income levels.

(a) The high income group

The type of housing for high-income level group should be a sales house with the shape of detached house or town house (row house).

Detached houses should be constructed on a self-ordering basis.

As for the foreigners belonging to the high-income group, middle- and high-rise housing with various types of services are supplied and such housing should be of lease type.

The construction bodies of middle- and high-rise condominium housing are the types supplied by J/V and J/S.

(n) Middle income group

The building shape of housing should be low- or middle-rise condominium, and most of them are for sale but some for lease. Variety of housing development bodies, i.e., public housing organizations, joint stock corporations, joint venture companies and invested enterprises, can take part in the planning and construction of them. Especially, NTHDC chiefly supplies rental housing but some for sale as well. Concerning self-ordering housing, low-rise and relatively small-scaled building should be accepted taking its advantage of low building cost thus becoming affordability.

(o) The low-income group

The building shape of housing in the early stage should be low- and middle-rise, and the construction of high-rise housing should be considered in the later stage. This is because the construction of high-rise building is rather high in cost. Low-income housing supply bodies shall receive the low interest financing from the Housing Development Found and NTHDC' which should be the core institutions to supply the lease type housing.

(6) The Promotion and Support Plan of Housing

1) The issue of the housing supply

There is no housing loan system directly financing to the end user because of the real estate financing system is underdeveloped. This condition makes difficulty the affordable housing supply for the low-income group. Therefore, it is very important how to build the mechanism of providing the housing supply body with the construction fund, a well as the housing loan for the end users.

Also, except for some entities in the public sector, housing developers and house builders in Hanoi area are lacking financing sources, construction technology, and construction methods. Therefore, to supply high quality housing, it is necessary to encourage and strengthen such housing suppliers.

2) The recommendation of the housing supply support system

(a) The establishment of the housing loan system

a) The necessity of the housing loan system

To acquire a house easily, it is necessary to enable the end user to access housing loan when purchasing house. It is necessary to give better access to construction capital for the housing development business as well.

For this purpose, the expansion of housing loan supply is an important issue. In this business, 'who needs to what extent' must be considered. In other words, it is necessary to establish housing loan system based on the understanding of real demand of each income-level.

As for the high-income level group, because of their ability to buy house, it is presumed that housing suppliers can easily run their business for high-income people without particular difficulties.

As for the middle-income citizens, on the other hand, it is difficult for them to purchase house by cash payment despite of the fact that they have some saving. Moreover, it is very difficult for the low-income citizens to live in houses with acceptable standard without mentioning the difficulty of purchasing house.

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Such a difficult housing situation of low-income citizens has been brought, in some part, by the shortage of the public housing budget. Since the introduction of Doi Moi policy, house-subsidizing policy in the country was renounced. However the public finance support to the low-income group is indispensable.

The personal finance system in Vietnam has not functioned well for the undeveloped financial system itself. When thinking of the property of the individual, it seems that he/she is hoarding a lot of property home. Thus it is very important that how to utilize this hoarded individual property for the business activity from the viewpoint of the national economy.

It is necessary to improve and to expand the function of the existing housing finance institutions such as Hanoi Building Commercial Joint Stock Bank (former Housing Development Bank). However, the establishment of new mechanism that absorbs and utilizes hoarded individual property for the housing development investment is important.

b) The recommendation on the mechanism of new housing loan

At present, Vietnamese government is planning to establish Housing Development Fund as a new mechanism for housing finance. This national level fund is targeted to be a comprehensive housing finance system but not for the specific housing development project.

Therefore, two housing finance systems are proposed, both of which shall be used only in specified housing development projects with excellence. The two are housing bond and housing association. These systems shall be linked to the above-stated Housing Development Fund for the effective operation of the three systems.

- Introduction of the housing bond (or housing reserve fund)

The housing bond of Hoa Lac and Xuan Mai project shall be issued to the end user and the purchasers of the bond will be given the right to obtain a piece of allotted land or a installment sale house in Hoa Lac and Xuan Mai project area. The detailed conditions of this policy is as follows:

- The publishing organization of housing bond shall be the NTDC as the land developer or NTHDC as the housing administrator/manager.
- The purchaser of the bond shall principally be individual person. Invested enterprises and housing associations, however, could buy the bond, too. The land

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or the house given as the right to possess means: for a invested company, land or house used for company houses; for a housing association, land or house used for accommodate its members; and for a housing developer, land used for housing development. In order to acquire the right to possess a piece of land or a installment sale house, the end user needs to reserve fund, thorough purchasing the bond, equivalent to some 1/2 or 1/3 of the estimated price of the land or house to obtain. The end user can purchase the bond either in a lump or in installment. In the case of installment purchasing the end user needs to pay in constant period of 5 years and more. When buying a house, the amount of saving fund with interest added is used for the down payment.

- The publishing organization and the purchaser of the housing bond make a contract about the transfer of the right and the use of the right of this system. Each contract has to specify each purchaser's choice between a piece of allotted land and an installment sale house as the object of the right. The type of the house should be specified when the end user purchases the bond, but the price of the land and/or house and the location of them are not specified. The person who acquired land by this system is under an obligation that the construction of the house shall be start within 2 years as the principle.
- The purchaser of this bond has a right to borrow long-term and low-interest housing loan handled by the Housing Development Fund. The period of the loan is ranging from 10 to 15 years. Its interest rate would be, for instance, around 4 to 5% a year.
- The state establishes a housing bond security organization for protecting the bondholders' interest. The state should be developed the register system to make easy to set the real estate mortgage in order to protect the creditors' interest and promote their funding.
- When the person who has purchased the housing bond, wish to stopped the acquisition of the land or house, the bond publishing organization should buy back the amount of his/her saving fund with a certain amount of interest.
- The resale of the bond is prohibited in principle.
- When issuing the bond (e.g., twice a year or so), the bond publishing organization makes an advertisement open to the public in order to attract the potential purchasers' interest.

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- The state develops the institutional environment of housing bond, including legal framework and executing organizations.

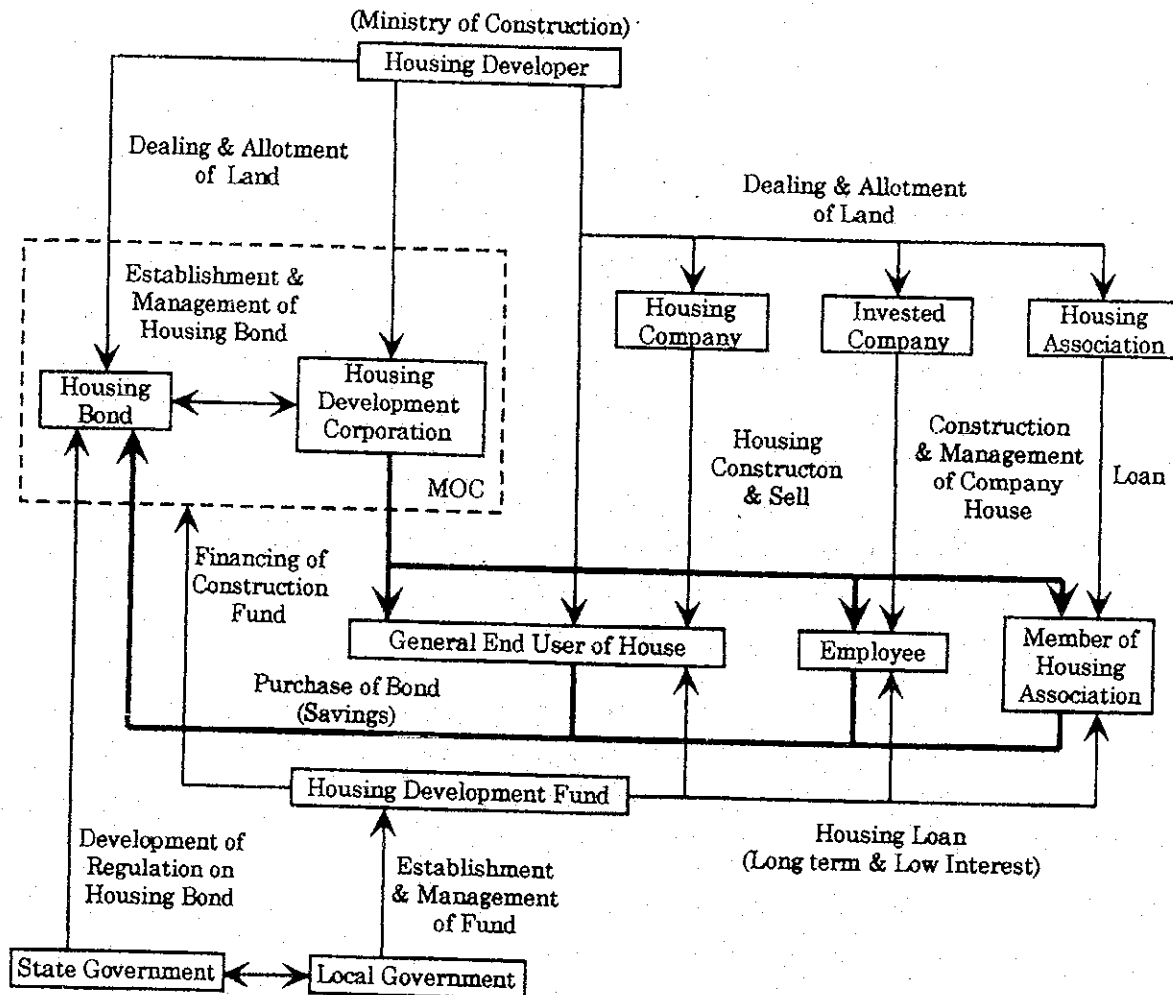


Figure 7.5.1 The System of the Housing Bond for the New Town Development

- The establishment of housing associations

Housing associations, having a mutual help characteristic and thus having a high possibility to fully utilize personal saving fund, should be established as a measure to enable the general public to obtain house easily. The outline of proposed housing association system is as follows:

- A housing association is set up by the employees of an enterprise, the employees of a group of enterprises, and a community.

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- The main activity of housing association is to provide housing finance to its members. Also, if required, housing association conducts business on housing related matters on behalf of association members.
- Funding resources are the saving fund of the members (employees), the support fund from the enterprise (s) and the public support fund.
- The state and the local government establish the legal framework on the housing association.

(b) The upbringing and the reinforcement of the housing suppliers

Except for a part of public sector corporations, housing developers and house builders in the Hanoi urban area have various weaknesses in, among others, fund raising, project management, planning and construction techniques. The upbringing and the reinforcement of them are indispensable for promoting a large-scale supply of high quality houses.

Except for the high-income group, the housing supply is unprofitable in general. Therefore, it is necessary to reduce the land use charge, registration fee, value-added tax (VAT) and other related taxes/charges in order to improve housing business environment leading to the upbringing and reinforcement of housing industry.

- The improvement of the business environment

To promote housing supply in the New Town, the State and the administrative body of this project area should give the incentives, such as the reduction of taxes and charges, to the resident and housing suppliers for a certain period – e.g., 10 years from the start of new town construction.

- The introduction of the foreign capital and the establishment of the joint venture

In order to strengthen capital sources and business operation know-how of Vietnamese housing industry, it is recommended to set up joint venture corporations with foreign capital having strong capital source and needed know-how.

- Human resource development on housing development

To invitation foreign housing experts and to dispatch trainees abroad are recommended as useful measures for the transfer of housing techniques and the upbringing of Vietnamese housing experts and technicians.

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(c) The upbringing and the reinforcement of the house building techniques

The house building techniques of Vietnam lags behind. There is little construction company that can build a high-rise building. One of the factors obstructing the housing supply in Vietnam is in widespread self-order construction. The construction form comprises 60 % to 65 % of yearly housing output and most houses constructed by the form are 2 to 3 storied buildings. Cause for concern is that most of them are constructed without building permit and thus technical inspection. Therefore, as far as such widespread informal activities continue, it seems there is not enough room to improve house building techniques.

In Hanoi area, we can expect enormous demand for new housing development, rebuilding and renovation because of the huge population inflow. The upbringing and reinforcement of housing industry is a most essential policy issue for both economic and social development of the state because housing industry can contribute the state a lot by producing job opportunity, economic ripple effect, and welfare improvement.

Therefore, housing supply in Hoa Lac and Xuan Mai should be promoted, aiming at improving house building techniques and upbringing housing industry as well as improving the quality of Vietnamese urban houses. Then, it is necessary to recognize the housing supply in the New Town as a model project leading the improvement of Vietnamese housing policies as well as techniques. The detailed items of discussion are as follows:

- The development and the diffusion of the housing-unit plan technique
e.g., - the development of standard house and low cost house
- The development and the diffusion of housing production system and house building techniques
e.g., - the development of building techniques of middle- and high-rise apartment and the development of prefabricated house
- the development of the form panel of concrete mold, steel pipe scaffolding and prefabricated scaffolding
- The development and production of construction materials and components, and parts of the house facilities

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e.g., - the development and standardization of the various concrete product, aluminum sash, and exterior and the interior material

- the development and mass production of the house facilities, sanitary ware and fixture

- inviting the establishment of factories producing house material and house fixture

(d) The management system of buildings and building lots

The town view in the area is aiming at establishing the model town of the 21st century Vietnam. For this purpose, such things like creating attractive living environment and keeping the beauty of streets are important. Thus, not too strict but effective control/guidance mechanism, applied to both constructors and residents, is needed to introduce in the use of land and building and construction works.

On the other hand, the construction of the New Town takes a long time and economic and social conditions necessarily change during the time. Thus the contents and the application of the control/guidance needs to be flexibly changed according to the change of social and economic conditions.

For securing such flexibility, it is recommendable to form an organization like Conference of Building and Land Use that is comprised of habitant representatives and institutions related to the development and the management of the New Town. Key responsibilities of such a organization are two: i) to check construction related activities so as not happen the disregard of the control/guidance; and ii) to review the control/guidance as it can catch up with the stage of the New Town development and the change of social and economic conditions

Main components of the control/guidance are as follows:

- The building area ratio, floor area ratio, height of building, setback of wall surface line
- The specification of the shape, the design, the color of the building
- The exterior of house and planting design for the landscape management
- Promotion of building up
- Enlargement, alternation and reconstruction of building development in Vietnam.

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7.6 Preliminary Evaluation of the Development

The Hoa Lac and Xuan Mai Urban Development is of the huge scale and complicated nature and its implementation requires a considerable span of time under changing circumstances. Moreover, investment effects for the fields of human resources development and development of science and technology defy their reasonable quantification in monetary term, thus making it difficult to evaluate the economic benefits of the Development in a tangible way. The evaluation of the Development will be discussed by its principal component mostly in a qualitative way.

7.6.1 Overall Evaluation of the Development

In general, expected effects of urban development projects are considered, mainly;

- (a) Effects (spread effects) for national/regional economy aspect, and
- (b) Effects (spread effects) for regional social aspect.

Spread effects for national/regional economy aspects are;

- (a) Multiplier effect of incremental demands for construction materials and employment in the related sectors induced by investment for urban infrastructure development.
- (b) Multiplier effect of incremental demands for inductive production induced by development investments for such building/facilities as industrial estates, laboratory facilities, educational facilities, residential estates, etc.
- (c) Moreover, ordinary productive effects after development of infrastructure/building/facilities produced by human activities of settled population, production activities of industrial estates, research activities of laboratories, educational activities of universities/colleges, and business/service activities of supporting business sectors.

The above various activities will contribute as a whole to support and promote human resources development and science and technology development, resulting in stimulating the activation of regional economy in Ha Tay and Hanoi areas and nationwide economy.

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In the above, while effects of the first and second items are those during the period of project implementation/construction, effect of the third item is a so-called ordinary effect which is possibly anticipated continuously after project implementation.

Spread effects for regional social aspects are;

(a) Upgrade of physical environmental situation in the related region.

Upgrade of physical environmental situation in the related region is anticipated due to the development/improvement of such public infrastructures as water supply, sewerage, roads, parks, and other public service facilities.

(b) Upgrade of quality of life of people in the related region.

Upgrade of quality of life of people in the related region is anticipated due to the development/improvement of public facilities related to cultural, educational, medical fields.

(c) Promotion of modernization of life style in the related region.

Promotion of modernization of life style in the related region is anticipated due to the social structure of settled population with relatively higher income level as a result of urban development.

In addition, through the construction activities by Vietnamese contractors during the period of project implementation, promotion of technology level advancement in the construction business sectors is anticipated.

Regarding multiplier effects of incremental demand and induced production, the results of precedent study conducted in Japan using the data of input-output table of inter-industrial relations represents that the ratio of induced productive output versus investment cost arranges approximately 3.5 times (1.6 times in terms of value added).

In light of its enormous impacts on the socio-economic development in Vietnam, it can be safely said that the Development would bring about the multiplier effects nothing less than 3 times the total investment costs.

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7.6.2 Investment for Human Resource Development

According to several experiences in the developed and also developing countries, it can be said in general that national economic growth has been supported largely by factor of human resource development in the countries. In nature of things, human resource development is to be cultivated through the process of education. Thus, roughly speaking, education contributes to national economic growth in the countries through development of human resources supporting economic growth.

As described previously in the section of "Basic Planning Concept", the developing world needs to reorient its development path towards a more endogenous direction to strengthen its economic fundamentals and capacity. Obviously, among the endogenous development efforts, effort for human resource development is critically important. Especially under changing circumstances of society towards more information-oriented network systems and more intelligence-oriented value added systems

Effects of education come to appear in various aspects of society. Therefore, effects of education are difficult to measure in monetary terms. Thus, the current manner of studies on the educational effects have focused on the return of educational expenditure which represents peoples' (workers') lifetime incomes.

This return on workers' income originates from the increase in their productivity. Generally speaking, individual worker's increased productivity results in the growth of per capita national income. It is assumed that productivity is possibly measured by income. The rate of return, as an indicator of the efficiency of educational expenditure, is obtained by comparing lifetime income against the total educational expenditure.

The rate of return on higher education is obtainable by comparing lifetime income and educational expenditures between university graduates and high school graduates. The comparison is to be based on between groups of the same generation. The rate of return on higher education is the discount rate which balances the present values of the following: Lifetime income difference between the two group; i.e. (a) – (b), and incremental expenditure of university graduates (c).

- (a) Sum of the stream of returns during lifetime of university graduates (per person)
- (b) Sum of the stream of returns during lifetime of high school graduates (per person)
- (c) Sum of the stream of expenditure for finishing university (per person)

According to the "White Paper on Peoples' Life 1986" published by Japanese government, the estimated rates of return in case of Japanese higher education are 11%, 8% and 9% for the generation born in 1960, 1975 and 1980, respectively. And the Paper predicts that the rate for younger generation will decrease with the trend of the narrowing salary gap between university graduates and high school graduates due to popularization of higher education.

It seems that the rate of return in Vietnam is probably higher than that in current Japanese level because of the smaller number of university graduates in Vietnam.

7.6.3 Investment for High-tech Industry

The effects of development investment for high-tech industry in Hoa Lac area are generally envisaged as follows:

(1) Embodiment of a nationwide industrial core leading high-tech industrialization and a model of high-tech park development in Vietnam:

High-tech industries have higher labor productivity (value added) and a multiple-fabricated production structure with a large growth potential. Thus, the high-tech industrialization will accelerate a nationwide industrialization and modernization, resulting in creating and strengthening Vietnam's industrial competitiveness for an international market under a progressing circumstance of Vietnam's market-oriented economy. The investment for High-tech Industry development will precede such high-tech industrialization and be embodied as a model to be followed by other possibly succeeding high-tech parks in Vietnam.

Specifically, the following are envisaged as major direct effects/impacts by development of high-tech industry:

- (a) Incremental output of production values generated by the private enterprises operated in high-tech park area.
- (b) Incremental job creation by private enterprises of high-tech industries.

(2) Embodiment of a nationwide deregulation zone for high-tech industrialization in Vietnam:

It is anticipated that high-tech industries will play a role of a deregulation zone for resolving several obstacles involved by various regulations, as a nationwide core leading high-tech

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industrialization. The establishment of legal system and organization for high-tech industrial promotion will contribute a high-tech industrialization in Vietnam.

Specifically, the following effects/impacts are envisaged:

(a) Establishment of legal system for high-tech industrial promotion

(Strengthening of legal protection of intellectual property, promotion of technology transfers, promotion of commercialization of R&D outputs, etc.)

(a) Establishment of organization for high-tech industrial promotion

(Strengthening of legal protection of intellectual property, promotion of technology transfers, promotion of commercialization of R&D outputs, etc.)

(3) Embodiment of a core project for development of science, technology and human resources in Hanoi and Ha Tay area as a regional impact:

The city of Hanoi has a potential for development of science, technology and human resources. However, decentralization of population and various urban functions of Hanoi City resulting in a harmonized urban development as a national capital are also urged in a long run.

Development of high-tech park in Hoa Lac area, located in about 30 kilometer west of Hanoi together with proposed transportation system of Lang-Hoa Lac highway connecting two areas, is anticipated to contribute a moderate urban development of Hanoi City.

Moreover, high-tech park in Hoa Lac area is also anticipated to contribute to work as a gear for forming a science city in Hoa Lac area, together with functions of high-level research and education performed by VNU located in neighboring site.

(a) Specifically, the following effects/impacts are envisaged as a regional impact:

(b) Mitigation of urban activity concentration in Hanoi city due to establishment of newly developed satellite city.

(c) Overall regional development effects for Ha Tay Province.

(d) Interface-functional effect among private industry (research and production) – university (education and research) – government (administration and research)

Tight co-operation in the field of R&D among the above three will confirm a progress into next step in high-tech industry.

Neither the economic benefits from incremental industrial output and employment opportunities nor the financial profit from sales or lease of industrial zone could tell the real feasibility or necessity of the development.

Regarding the return on investment for high-tech industrial estates, although simply based on the high-tech industrial value-added, the previous JICA Study of HHTP represents that the expected Economic Internal Rate of Return (EIRR) for the HHTP development of Phase I (about 800 ha) is 25.9 %. And, according to the reviewed study by MOSTE (Ministry of Science, Technology and Environment) shows a EIRR value of 14.3% for the first stage development of Phase I (200 ha by 2003).

7.6.4 Housing Development

The housing development in Hoa Lac area has the following aspects, mainly:

- (a) Supporting for self-contained city,
- (b) Harmony with natural environment, and
- (c) Effects by establishment of improved housing provision system.

(1) Self-contained city

The housing development in Hoa Lac area (mainly in Dong Xuan area, and also in other areas of HHTP, Phu Cat, VNU) will aim to provide comfortable residences for settled population who will have jobs within Hoa Lac area, i.e. HHTP, Phu Cat, and VNU. (In future at the stage of year 2020, some residential facilities will be provided for commuters to Hanoi City.) The several types of residences are to be designed so as to meet demands for settled population in accordance with their income level.

As a result of allocation of residential area in Hoa Lac area, the settled population will have benefits of a very short distance commuting. The housing development in Hoa Lac district is anticipated to contribute for the realization of a self-contained town.

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(2) Harmony with natural environment

The allocation of housing site is designed so as to maintain the existing natural environmental condition, resulting in the reservation of huge natural green and water area. Consequently, the settled population will have benefits of enjoying such natural environment together with comfortable houses itself.

As a result, together with the other areas of HHTP, Phu Cat, VNU of which allocation are also designed to make the most of existing natural environmental condition, Hoa Lac area can afford in harmony with natural environment.

(3) New housing provision system

For such a huge housing project as the housing development in Hoa Lac area, it can be said that some improvements in terms of systems is recommendable for the several fields of providing system/organization by public sector and/or private sector, financing system for providers and/or purchasers, etc. When such improvements will be realized in the Hoa Lac housing development, the housing development in Hoa Lac area would be a model for housing project, and be expected to contribute to promote a housing development in Vietnam.

Taking the above aspects into consideration, as a whole, the housing development in Hoa Lac area is anticipated to be a so-called pioneer project for promotion of housing development in Vietnam.

7.6.5 Preliminary Estimation of EIRR / FIRR for HHTP Area, Phu Cat Area and Dong Xuan Area

As a part of preliminary evaluation of the Development, preliminary economic and financial analysis are made for the Areas of HHTP, Phu Cat and Dong Xuan.

The evaluation indicators to be calculated for the above Areas are as follows:

- | | |
|------------------|--------|
| - HHTP Area | - EIRR |
| | - FIRR |
| - Phu Cat Area | - EIRR |
| | - FIRR |
| - Dong Xuan Area | - FIRR |

The details of estimation process for each part are referred to Appendix 7.5.

(1) HHTP Area

1) Estimation of EIRR

For the economic analysis in this section, the assumptions were based on the following previous studies and some review were made in this Study:

- The Master Plan and Feasibility Study on the Hoa Lac High-tech Park Project , March 1998, JICA , (hereinafter referred to as “Previous HHTP JICA Study”), and
- The Hoa Lac High-tech Park Project, presentation of the Feasibility Study, April 1998, Ministry of Science, Technology and Environment (MOSTE), (hereinafter referred to as “MOSTE Study”).

(a) Basic assumptions of analysis

The development of HHTP has comprehensive economic benefits as previously mentioned in the section 7.5.3, and in this analysis, added value in the high-tech industrial park is treated as a quantitative benefit. The added value related to Software Park is not included and the value added in the agricultural production in the HHTP development area is treated as a benefit in the case “when the project is not implemented”.

That is, the benefits are estimated through the comparison the current value added of mainly agricultural production (“without project”), and the value added of high-tech industrial production (“with project”).

EIRR is calculated on a cash flow basis, consisting of the following:

Economic costs

- Construction cost of infrastructure for HHTP Area.
- Construction cost of factory building by private investors.
- Investment cost of machinery and equipment by private investors.

Economic benefits

- Value added in High-tech industrial production.
- Value added in agricultural production (as a negative benefits).

(b) Assumptions of costs

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The economic costs for the items above-mentioned were estimated.

(c) Estimation of economic benefits

The economic benefits for the items above-mentioned were estimated. Especially for the estimation of value added of high-tech industrial production is as follows:

In the "Previous HHTP JICA Study", the productivity of the high-tech industry has been estimated in terms of "net product per number of employee". And, according to the "MOSTE Study" the unit value of net productivity per number of employee has been reviewed (approximately 50% compared to "Previous HHTP JICA Study"), resulting in the reviewed value added of US\$ 104 million as of Phase-1 / Stage-1. It is assumed that for this analysis, this reviewed value is applied as the base of an estimation of the value added in the period of Phase-IA.

Since, in this Study, the kind of high-tech industry allocated in HHTP Area is uncertain, the value added for this analysis were estimated on the land area proportional basis. The annual growth rate of 8.4% during 2005 – 2010, 5.9% during 2010 – 2020 and 3.3% after 2020 were assumed based on the "Previous HHTP JICA Study".

(d) Estimated EIRR

Using the economic costs and benefits above, the EIRR was estimated to be 18.2%.

2) Estimation of FIRR

Similarly in the case of EIRR estimation, the assumptions for the financial analysis was based on the studies of "Previous HHTP JICA Study" and "MOSTE Study", and several reviews were made.

(a) Basic assumptions of analysis

This financial analysis aims at evaluation in terms of investment for the components of high-tech industrial zone, software park zone, urban business zone, and high grade housing (detached type and row house type) zone.

(b) Assumptions of costs

In the financial analysis, the costs were estimated for the items of infrastructure costs, land rent cost, land compensation cost and land relocation costs.

(c) Estimation of financial revenues

In the financial analysis, the financial revenues for the items of land lease for high-tech industrial zone, land lease for software park, land lease for urban business zone and land lease for high grade housing zone.

(d) Estimated FIRR

Using the financial costs and revenues above, the FIRR was estimated to be 15.5%.

(2) **Phu Cat Area**

1) **Estimation of EIRR**

(a) Basic assumptions of analysis

Due to the limitation of data availability about Phu Cat Area, the assumptions for this analysis compellingly followed those in the case of HHTP Area. Accordingly, the estimation process of economic benefits was based on that in the case of HHTP Area.

However, considering the general characteristics of the industrial park in Phu Cat Area compared to the high-tech industrial park in HHTP Area, some modifications for such as unit cost / unit value were made.

The benefits are estimated through the comparison the current value added of mainly agricultural production (“without project”), and the value added of industrial production (“with project”).

EIRR is calculated on a cash flow basis, consisting of the following:

Economic costs

- Construction cost of infrastructure for Phu Cat Area.
- Construction cost of factory building by private investors.
- Investment cost of machinery and equipment by private investors.

Economic benefits

- Value added in industrial production.
- Value added in agricultural production (as a negative benefits).

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(a) Assumptions of costs

The economic costs for the items above-mentioned were estimated.

(b) Estimation of economic benefits

The economic benefits for the items above-mentioned were estimated. Especially for the estimation of value added of high-tech industrial production is as follows:

Since, in this Study, the kind of industries allocated in Phu Cat Area is uncertain, the value added for this analysis were estimated on the land area proportional basis. Considering the differential characteristics compared to HHTP Area, the factor of 50% to that of HHTP Area was assumed. Also for the annual growth rate, the decrease by 2 points in terms of percentage was assumed, which is equivalent to the rate of 6.4% during 2005 – 2010, 3.9% during 2010 – 2020 and 1.3% after 2020. The following is the estimated results of value added of high-tech industrial production:

(c) Estimated EIRR

Using the economic costs and benefits above, the EIRR was estimated to be 18.1%.

2) Estimation of FIRR

Similarly in the case of EIRR estimation, the assumptions for the financial analysis was based on the studies of “Previous HHTP JICA Study” and “MOSTE Study”, and several reviews were made.

(a) Basic assumptions of analysis

This financial analysis aims at evaluation in terms of investment for the components of industrial zone and high grade housing (detached type and row house type) zone. And these components are analyzed as a whole in Master Plan stage. Other component such as middle / low grade housing zone is assumed to be excluded as an evaluation objective, because such component is considered to be non-profitable and have public benefits.

(b) Assumptions of costs

In the financial analysis, the costs were estimated for the items of infrastructure costs, land rent cost, land compensation cost and land relocation cost.

(c) Estimation of financial revenues

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In the financial analysis, the revenues of the items of and land lease for industrial zone, land lease for high grade housing zone.

(d) Estimated FIRR

Using the financial costs and revenues above, the FIRR was estimated to be 13.7%.

(3) Dong Xuan Area

1) Estimation of FIRR

The assumptions for the financial analysis was based on those in the case of “HHTP Area” and “Phu Cat Area” in the above-mentioned analysis.

(a) Basic assumptions of analysis

For the case of the Dong Xuan Area, this financial analysis aims at evaluation in terms of investment for the component of high grade housing (detached type and row house type) zone. And the component is analyzed in Master Plan stage. Other component such as middle / low grade housing zone is assumed to be excluded as an evaluation objective, because such component is considered to be non-profitable and have public benefits.

(b) Assumptions of costs

In the financial analysis, the costs were estimated for the items of infrastructure costs, land rent cost, land compensation and land relocation cost.

(c) Estimation of financial revenues

In the financial analysis, the financial revenues for the item of land lease for high-grade housing zone.

(d) Estimated FIRR

Using the financial costs and revenues above, the FIRR was estimated to be 18.1%.

(4) Summary of the Evaluation

The results of preliminary economic and financial analysis are summarized as below:

Table 7.6.1 Result of Preliminary Economic and Financial Analysis

	EIRR	FIRR
HHTP Area	18.2%	15.5%
Phu Cat Area	18.1%	13.7%
Dong Xuan Area	-	18.1%

Source: JICA Study Team

According to the "Previous HHTP JICA Study", the opportunity cost of capital in Vietnam is assumed to be 8 – 10%. The obtained information from commercial bank in Hanoi indicates that the recent interest rate for loan is approximately 13 %.

Considering the above conditions, it can be roughly said that while the Projects are economically feasible, an effort for seeking funds with lower financing cost will be required in terms of financial aspect, although FIRR values are exceed the level of interest rate.

7.7 Preliminary Environmental Evaluation

(1) Environmental Consideration

Environmental conditions are often powerful forces that create limits and opportunities for urban development. Similarly, the various individual and collective human activities that contribute to urban development have numerous positive and negative environmental impacts. If the Hoa Lac & Xuan Mai Urban Development Project is not implemented in the proposed area, it is likely that the areas will remain roughly as it is now. The implementation of the project will have both direct and indirect impacts on the surrounding areas. During the construction period, fugitive dust, sediments and erosion from construction activities such as excavation, landfill, construction of buildings and infrastructure work will be the major pollutants, which affect local air and water quality. After the implementation of the project, diversified urban activities, which arise from in the areas such as commerce, business, manufacturing, etc. will have an important influence on the environment. Furthermore, the project will increase traffic, and it will enhance demand for housing and services in the area. The landscape will change considerably from a majority existing forest, paddy and crop fields, reservoirs, etc. to artificial facilities such as buildings, factories, etc. In addition to the effect on the physical environment in the area, the implementation of the project can have impacts on the socio-environment. From the environmental conservation standpoint, it is necessary to pay careful attention to prevent pollution and changes during both construction and operational periods, and it is also necessary to consider how the landscape of the Project will blend into the surrounding area. Table shows important development-environment interactions. In this table, problem area such as air related, water related, and so on are

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grouped with their effects, causes, and managerial measures. In order to minimize and control adverse impacts, which arise with the implementation of the Project, required counter and mitigation measures including items mentioned below should be taken:

- (a) To adopt proper construction techniques such as cut and fill operations and water spraying on the roads, etc. to mitigate the negative environmental impacts.
- (b) To investigate and assess the flora and fauna in the area in order to make a natural environmental conservation plan such as a forestation plan.
- (c) To adopt appropriate measures in order to harmonize the artificial facilities with the natural scenic landscape in the area.
- (d) To prepare well developed infrastructure for environmental conservation and anti-pollution measures such as water supply system, sewage system and waste disposal system.
- (e) To adopt pollution prevention measures at the source rather than the end-of-pipe technology for minimising the environmental impacts caused by the variety of activities, especially in the industrial areas of the HHTP, Phu Cat and Xuan Mai.
- (f) Environmental Impact Assessment (EIA) for development projects is compulsory in Vietnam at present. Therefore, a full-scale EIA should be carried out by the Government of Vietnam to assess the potential impacts of the Project on in and around the Project area during both construction and operation periods, and to propose policy recommendations for the environmental conservation in the area.

(2) Concept of Eco-City

The Corridor 21 development aims to create a “garden city” or “Eco-city” where urban amenity and life, natural environment can coexist. This concept can be expressed in other word, namely a “environment-friendly” or “environment-harmonized” city. In natural ecosystem, efficient interactive circulation and exchange of energy and materials with each ecological element make it sustain and stabilize. In order to establish a sound and comfortable urban environment, it is indispensable to develop an urban structure characterized by its diversity, self-supporting, stabilization and circulation which is a feature of natural ecosystem above mentioned. Namely, in order to establish a favorable urban environment in the social environment system, actions which promote a function of ecosystem such as controlling the quality and quantity of urban activity, elimination and

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control of pollutants at the sources, efficient use of energy and resources, practice of resource recovery from waste, etc. are required. This also means a formation of urban system similar to an Eco-cycling, which is functioning within natural ecosystem. Furthermore, policies for building Eco-city should incorporate both public and private opinion. OECD report states the ecological city that;

“An ecological city is distinguished by the degree to which environmental considerations are incorporated into decision-making in public and private sectors alike. An ecological city is simply more effective at finding and implementing solutions to environmental problems. In an ecological city, people should be conscious of their local and global responsibilities for the environment, environmental problems would be addressed continually, environmental considerations would be integral to a wide range of policies and sectoral activities, and greater attention would be given to providing a better quality of life for all urban citizens. The object must be to integrate social, economic and environmental objectives to achieve sustainable development.” (Innovative Policies for Sustainable Urban Development, The Ecological City. OECD, 1996)

Building the Eco-city means building a city that is inherently adaptable, characterized by diversity, variety, self-supporting and sustainability in both natural and built environments. The following are principal concepts, which should be included for the formation of Eco-cycling urban system or Eco-city.

- (a) To make an environmental conservation plan from the standpoints of Eco-cycling and sustainable urban development.
- (b) To use energy and materials efficiently which are basic elements for supporting urban activities. For this purpose, it should be promoted to establish a structurally Eco-cycling city by introducing and completing the ecosystem, which include 5 functions as follows, 1) the improvement of efficiency of the use of energy and materials, 2) utilization of natural energy, rain water, sewage and other treated waters, and waste heat, 3) reduction of wastes, 4) resource recovery from wastes, 5) re-use of circulated water in business offices and residential areas, etc.
- (c) To positively re-create nature in urban area by conserving and completing the biological habitat, and to positively conserve nature remained in urban area by increasing greenery area and other measures as well.
- (d) To positively participate in variety of environmental conservation activities toward improving the urban environment for urban people and companies in order for

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sustainable development. Enhanced public awareness, consultation, and participation can improve environmental management.

- (e) To grapple with the problems toward the promotion of Eco-cycling city from the comprehensive and predictive standpoints with a large number of participants of citizen and companies.
- (f) To install/construct the appropriate environmental infrastructure such as sewage, solid waste treatment facilities, etc. to cope with the problems concerning the environmental issues.

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Table 7.7.1 Factors Affecting the Urban Environment

Generation Area	Effects	Causes	Management Options
AIR-RELATED PROBLEMS			
<p>AMBIENT AIR POLLUTION</p> <ul style="list-style-type: none"> • community • city wide • regional <p>INDOOR AIR POLLUTION</p> <ul style="list-style-type: none"> • household • workplace 	<ul style="list-style-type: none"> • health problems • economic costs from health care costs and productivity losses • amenity losses (aesthetic, cultural, and recreational) <ul style="list-style-type: none"> • health problems (chronic obstructed lung disease, acute respiratory infections, low birth weights, cancer) • economic costs from health care & productivity losses) 	<ul style="list-style-type: none"> • construction activities • urbanization & industrialization • increase in motorized fleet & congestion • use of highly polluting fuels (leaded gas and high sulfur coal) • energy pricing policies • topography and climate <ul style="list-style-type: none"> • use of low-quality fuels for cooking and heating (biomass and high sulfur coal) • poorly ventilated dwellings & workplaces • passive smoking • cottage industry activities 	<ul style="list-style-type: none"> • fuel pricing • regulations, standards, emissions charges • demand management • transport planning • appropriate technology (clean fuels, scrubbers, FGD, proper stack height, etc.) • improve monitoring and enforcement (environmental quality and discharged gas from factory stacks) <ul style="list-style-type: none"> • substitute fuel and equipment pricing • fuel switching • building codes • public education • tax hazardous products and processes
WATER-RELATED PROBLEMS			
<p>SURFACE WATER POLLUTION</p> <ul style="list-style-type: none"> • community • city wide • regional 	<ul style="list-style-type: none"> • health problems • economic cost (additional treatment, new sources of supply, health costs) • increase turbidity in river and lake water • amenity losses 	<ul style="list-style-type: none"> • construction activities • urbanization & industrialization • pricing policies • unclear property rights • poor regulations and/or enforcement • municipal & industrial waste disposal practices • urban runoff • irrigation practices 	<ul style="list-style-type: none"> • marginal cost pricing • regulations, standards, licensing charges • improve monitoring and enforcement (environmental quality and effluent from factories) • waste minimization (water saving, recycling, recovery) • demand management and wastewater re-use • appropriate technology • land use controls • waste management

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Generation Area	Effects	Causes	Management Options
LOSS OF CULTURAL AND HISTORICAL PROPERTY <ul style="list-style-type: none"> • community • city wide 	<ul style="list-style-type: none"> • loss of heritage • loss of tourism revenues • damage to culturally valued buildings, monuments, natural sites 	<ul style="list-style-type: none"> • land prices do not reflect social valuation • lack of regulation and/or enforcement • air pollution • solid waste management practices • land subsidence and poor drainage 	<ul style="list-style-type: none"> • internalize costs of loss in development • tax incentives for preservation • zone and building codes • pollution control • public education
DEGRADATION OF ECOSYSTEMS <ul style="list-style-type: none"> • regional 	<ul style="list-style-type: none"> • health hazards • resettlement costs • loss of habitat and species • air, water, land pollution 	<ul style="list-style-type: none"> • failure to anticipate effects in planning and development • pricing policies • lack of rural political power 	<ul style="list-style-type: none"> • internalize costs of rural degradation • resource pricing • clarify property rights
CROSS-MEDIA PROBLEMS			
MUNICIPAL SOLID WASTES <ul style="list-style-type: none"> • household • community • city wide • regional 	<ul style="list-style-type: none"> • health impacts • costs related to blocked drainage and flooding • water pollution from leachates • air pollution from landfill and/or burning • amenity losses 	<ul style="list-style-type: none"> • poor management (improper collection and disposal, little resource recovery) • pricing (no cost recovery) • disposal impacts external to community • input pricing 	<ul style="list-style-type: none"> • public and/or private sector delivery of collection and disposal • waste minimization (recycling, recovery, source reduction) • regulations, standards, licensing, charges • expanded coverage
HAZARDOUS WASTES <ul style="list-style-type: none"> • household • community • city wide • regional 	<ul style="list-style-type: none"> • surface, ground, lakeside water contamination • related health, economic, and resource impacts • accumulation of toxic in the food chain • reduce property values 	<ul style="list-style-type: none"> • inadequate regulations and/or enforcement • no incentives for treatment • input pricing for waste-producing industries • low visibility, nonlinear, long-term effects • dispersed small-scale & cottage industries 	<ul style="list-style-type: none"> • regulations, standards, licensing, charges • improve monitoring and enforcement • treatment and disposal incentives • economic input pricing • waste minimization • construction of specific treatment plant • marginal cost pricing • special incentives for small-scale generators • privatization of treatment and disposal options

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Generation Area	Effects	Causes	Management Options
NATURAL AND MAN-MADE HAZARDOUS <ul style="list-style-type: none"> • household • community • city wide • regional 	<ul style="list-style-type: none"> • health effects (deaths, injuries) • economic costs (loss of lives, property, infrastructure) • land degradation (flooding, landslides, earthquakes) • amenity loss 	<ul style="list-style-type: none"> • natural forces • land markets failures (lack of alternatives for squatters, artificially constrained supply) • land policies (no taxation, no/unenforced protection of high-risk lands) • poor construction practices 	<ul style="list-style-type: none"> • reduce constraints on supply of usable land • appropriate incentives (prices, taxes, tenure, housing finance) • land use controls • improve knowledge about risks and alternatives
INADEQUATE SANITATION <ul style="list-style-type: none"> • household • community • city wide 	<ul style="list-style-type: none"> • health impacts (diarrhea diseases, parasites, high infant mortality, malnutrition) • related economic costs • eutrophication • amenity losses 	<ul style="list-style-type: none"> • inappropriate technology • pricing (no cost recovery) • poor management (lack of operations and maintenance, uncoordinated investments) • inadequate hygiene education 	<ul style="list-style-type: none"> • gear sanitation options to willing to pay • community approaches • cost recovery • hygiene education
INADEQUATE DRAINAGE <ul style="list-style-type: none"> • community • city wide 	<ul style="list-style-type: none"> • health effects • property damage • accidents • reduce urban productivity (shutdown of business, transport systems) 	<ul style="list-style-type: none"> • inadequate hygiene education • increased urban runoff due to impermeabilization and upstream deforestation • occupation of low-lying lands 	<ul style="list-style-type: none"> • community management of maintenance • strategic investment in drainage • land use controls & market liberalization • solid waste management

Source: UNDP/UNCHS/World Bank, Rapid Urban Environmental Assessment, Vol. 1.