

CHAPTER 8

SUBSEQUENT DEVELOPMENT ISSUES



CHAPTER 8 Subsequent Development Issues

8.1 Institutional Building

There will be so many issues to be sorted out prior to commencing the implementation; for example, formation of consensus on overall project organization and decision making process, agreements among affiliated universities for the VNU relocation, budget allocation and project financing machinery for each component, and so on.

Another important issue is how to share the responsibilities among relevant agencies for land acquisition and resettlement of inhabitants, adjustment of relevant laws and regulations, overall project management and administration, operation and maintenance after completion, and so on.

In order to deal with these matters in a prompt and decisive manner, what should be done first and foremost is to organize the proposed “**National Steering Committee (NSC)**” based on the consensus that the Corridor 21 Development should be regarded as a “**national project.**” The NSC will assume the functions of policy making at the Central Government level as well as inter-ministerial and inter-agency coordination. The NSC will be headed by the Prime Minister, and composed of responsible representatives from relevant ministries, local governments, and other related agencies and organizations. It is highly expected that the NSC will be organized as soon as possible so that pre-implementation arrangements can be made in a timely manner.

The organization at the implementation level will be structured through two steps, the first step to establish the three independent Management Boards (MBs), and the second step, to establish the central implementation arm named “**the Corridor 21 Development Authority (C-21 DA)**” probably by integrating the three MBs. The C-21DA could be a mixture of half-public and half-private. The Board of Directors will be established within C-21DA with the representatives from the Central Government, Ha Tay Province, and Hanoi City. The MB and infrastructure development companies of Ha Tay Province will be merged into C-21DA.

It is presumed that all these preparatory arrangements may not be fulfilled in a short period, and therefore, the Project may start its implementation under a provisional institutional arrangement, which should be integrated and consummated towards more effective and efficient institutions within a reasonable period after the commencement. However, an independent implementing agency, which will be the foundational organization of the future C-21DA, needs to be established as soon as possible. This organization may take the form of an integrated MB or one of the MBs (perhaps the MB established in Ha Tay Province) taking leadership.

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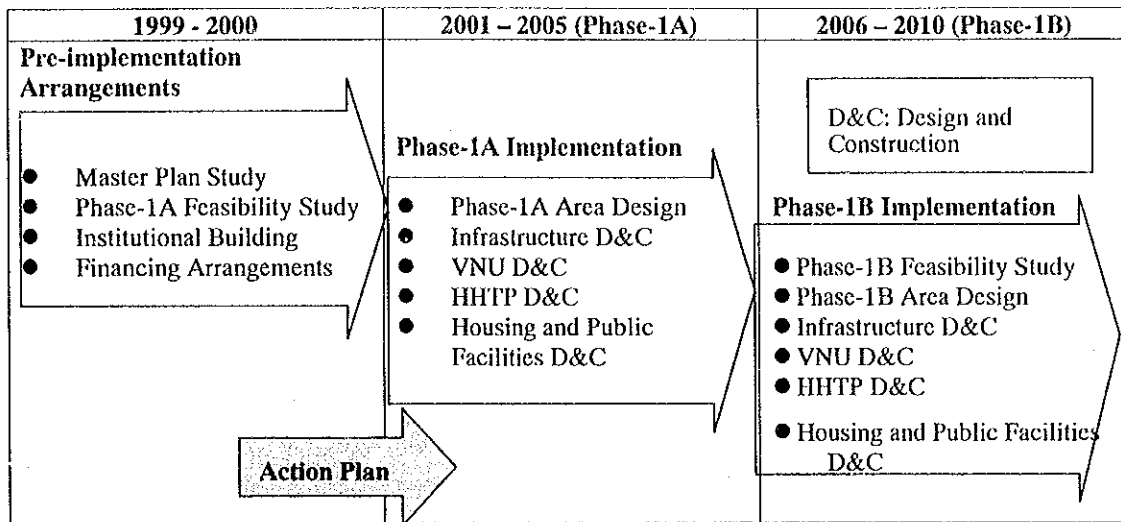
As discussed in Chapter 7 of this report, one of the crucial pre-implementation arrangements shall be to freeze any commercial transaction of the land designated as the Urban Development Area or the proposed SEZ as early as possible. The Development should not encounter any difficult situation in land acquisition, which may arise from speculative transactions and result in price increase and piecemeal ownership of the land.

8.2 Action Development Plan

8.2.1 Definition of the Action Plan

The Master Plan for the Hoa Lac and Xuan Mai Urban Development discussed heretofore is the “**basic plan**” that will serve as the basis for its implementation. As long as the national importance and significance remain unchanged, the Development should be implemented as planned, even though it would take a considerable span of time. Meanwhile, the Master Plan (M/P) should be flexible against the surrounding circumstances in terms of its scale, scope, and speed of development. In this context, a strong “head wind” is blowing against the Development due to the current worldwide economic crisis.

In the light of this, considerations were given to the Action Plan that is in fact a “**cost-minimizing alternative**” of the proposed Phase-1A (2005). The Action Plan will be formulated by introducing only highest priority components with minimum supporting infrastructure and facilities, basically in compliance with the basic framework of the M/P.



Note: Taking into consideration the tight fiscal situation of the Government, the Action Plan, which is an initial-investment-minimizing alternative, is proposed for immediate implementation. The Action Plan should be construed as a “fast-track development” of Phase 1A.

Figure 8.2.1 Short-term Development Schedule

As the initial-cost-minimizing alternative, the Action Plan should be oriented towards a “compact urban development,” aiming at minimizing the development cost while maximizing urban attractiveness and convenience even at its developing stage. The Action Plan hereinafter proposed will basically abide by the basic concepts for the Development, attempting to keep the established framework for land use and facilities layout as much as possible. However, some modifications on the Phase-1A development may become necessary for securing a smooth conjunction with the Action Plan. The Action Plan will be proposed to include the following components:

8.2.2 VNU Relocation

Only a “Faculty of Technology (FOT)” will be newly established by means of separating and reorganizing the existing University of Natural Science. The FOT may include the faculties of Electronics, Mechatronics, Biotechnology, New Materials, New Energy, and Environmental Technology. A new “Research Institute of Science & Technology (RIST)” will be attached to the Department of Technology. RIST will be associated with an “Open Laboratory” as its core facility, which will be open to affiliated universities of VNU and other universities and research institutes. The number of VNU-related population will be approximately 2,000, including 1,600 students (including dependents) and 340 staff/employees. The area to be developed is 17 ha, including 12 ha for the FOT campus and 5 ha for RIST.

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8.2.3 HHTP Development

A new training and research institution that is tentatively named the “**National Center for High-Tech Research and Training (NCHRT)**” will be established in the HHTP area. MOSTE plans to upgrade the existing training and research institutes in Hanoi by improving training programs and materials, renovating and expanding laboratory equipment, and training lecturers and researchers through attendance in domestic and foreign training courses.

NCHRT will be established to consummate the program. The existing Hanoi University of Technology and the National Center of Natural Science and Technology (NCNST) will be particularly called for to support the establishment of NCHRT. Alternatively, the above RIST may be attached to NCHRT for common use of VNU and NCHRT. The number of NCHRT-related population (excluding dependents) will be approximately 1,450 including 1,000 students and trainees, and 450 staff/employees.

In addition, as a multi-purpose facility, the “**Hoa Lac High-Tech Center (HHTC)**” will be established, which may include, but not all at once, such functions as Service Center, Software Park, Techno-partnership Center, and so on, depending on the needs and circumstances involved. The number of HHTC-related population is estimated at 300 researchers and staff/employees.

The area for NCHRT will cover approximately 10 ha, while for HHTC, 6.3 ha as originally estimated. The students and trainees of NCHRT will be accommodated in the dormitory facilities to be built in the site.

Following the same methodology as applied for establishing the basic framework, the planned population resulting from the implementation of the Action Plan is forecast as follows:

Table 8.2.1 Resident Population and Required Housing Units

	Employees	Population	Unit: Persons	
			Resident	Housing Unit
VNU (excluding students)	340	680	476	119
HHTP (excluding students)	750	1,500	1,050	263
Construction	252	504	403	101
Service	335	670	536	134
Total	1,677	3,354	2,465	617

Source: JICA Study Team

Note: Assumptions were made that the population is twice the number of employees and a quarter of the population is the number of households with 2 working family members, and that the resident ratios are 70 % for VNU and HHTP and 80 % for construction and service. Also assumed were the numbers of construction and service-related employees equivalent to 15 % and 20 % of the total employees, respectively.

8.2.4 Urban Infrastructure and Facilities Development

In order to achieve the prime objectives of human resource development and promotion of science and technology, strong linkages between VNU and HHTP are essential, and for this purpose, the FOT and RIST facilities shall be located as near the NCHRT and HHTC facilities as possible. Naturally, FOT and RIST, as well as NCHRT and HHTC, should have reasonable proximity within each site.

In the light of these, FOT and RIST are to be located alongside NR21A and adjacent to the Urban Center; opposite from NR21A, NCHRT will be located in the Urban Business Area near the Urban Center to keep a reasonable proximity with HHTC. The Urban Business Area is added to the original HHTP area, and is brought closer to the Urban Center thus allowing for absorption of part of the R&D and business activities.

The residential area to accommodate the expected resident population of 2,500 will be developed in the Dong Xuan area that will serve as a “seed” for subsequent residential development in the area. The Urban Center will also be developed in a minimum scale, but it should be attractive and supportive enough for the daily life of the resident population including students (altogether about 5,000). To ensure the commercial viability, the Urban Center needs to expand its service area by attracting consumers in the Corridor 21.

Taking into consideration the scale and objectives attached to the Action Plan, the following three alternative cases are studied.

(1) Case-1

As shown in Figure 8.2.2, in this alternative, the VNU campus is located alongside NR21A, and the residential area is developed in the west of the Urban Center adjacent to the Lang-Hoa Lac Highway. The residential area has the scale of a half neighborhood unit, and in the north of the Highway, dormitory facilities for students are provided. The Urban Center is developed in a minimum scale at its northwest corner. A bus terminal is provided to serve the shuttle bus service between Central Hanoi and Hoa Lac, as well as within the Hoa Lac area.

VNU and HHTP are closely linked with a new arterial road. A small hill located in the north of the Urban Center is developed as a park area that spatially links the campus area and the Urban Center. An “**observation tower**” is built at the top of the mountain to allow visitors to enjoy a panoramic view of the whole Hoa Lac area.

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(2) Case-2

In this alternative, the residential area is developed in the Phu Cat Area along with a small urban center near the area. The dormitory facilities are built in the proximity of the campus area. The development area will be split to the north and the south.

(3) Case-3

This alternative is similar to Case-1 but locate the facilities (FOT and RIST) along the central artery of the VNU Campus that runs in parallel to but 1 km away from NR21A. The campus facilities and the residential area can be integrated in a more compact way, but the distance between the campus facilities and HHTP will become far.

Taking into account the deficiency in Case-2 in terms of compact development as well as in Case-3 in terms of physical separation between VNU and HHTP, Case-1 is considered most recommendable.

In the west of the campus facilities and in the north of the park, a part of the sports facilities required for the SEA Games in 2003 is conceived to be located, taking into consideration its promotional effects towards gaining a development momentum. If this comes true, an athlete village to be built in the west of the park can be utilized as a guesthouse of the campus, and the sports facilities can be used by the campus.

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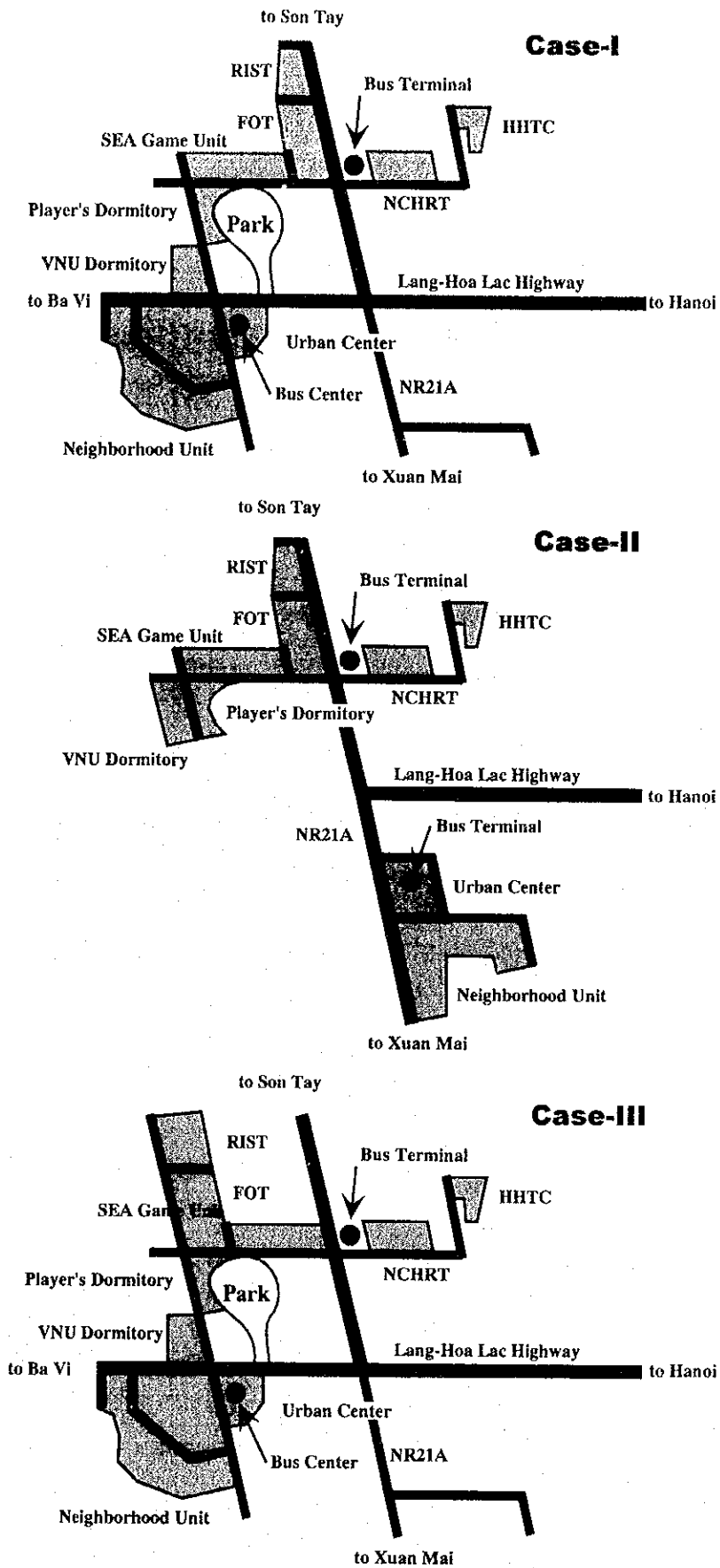


Figure 8.2.2 Alternative Action Plan

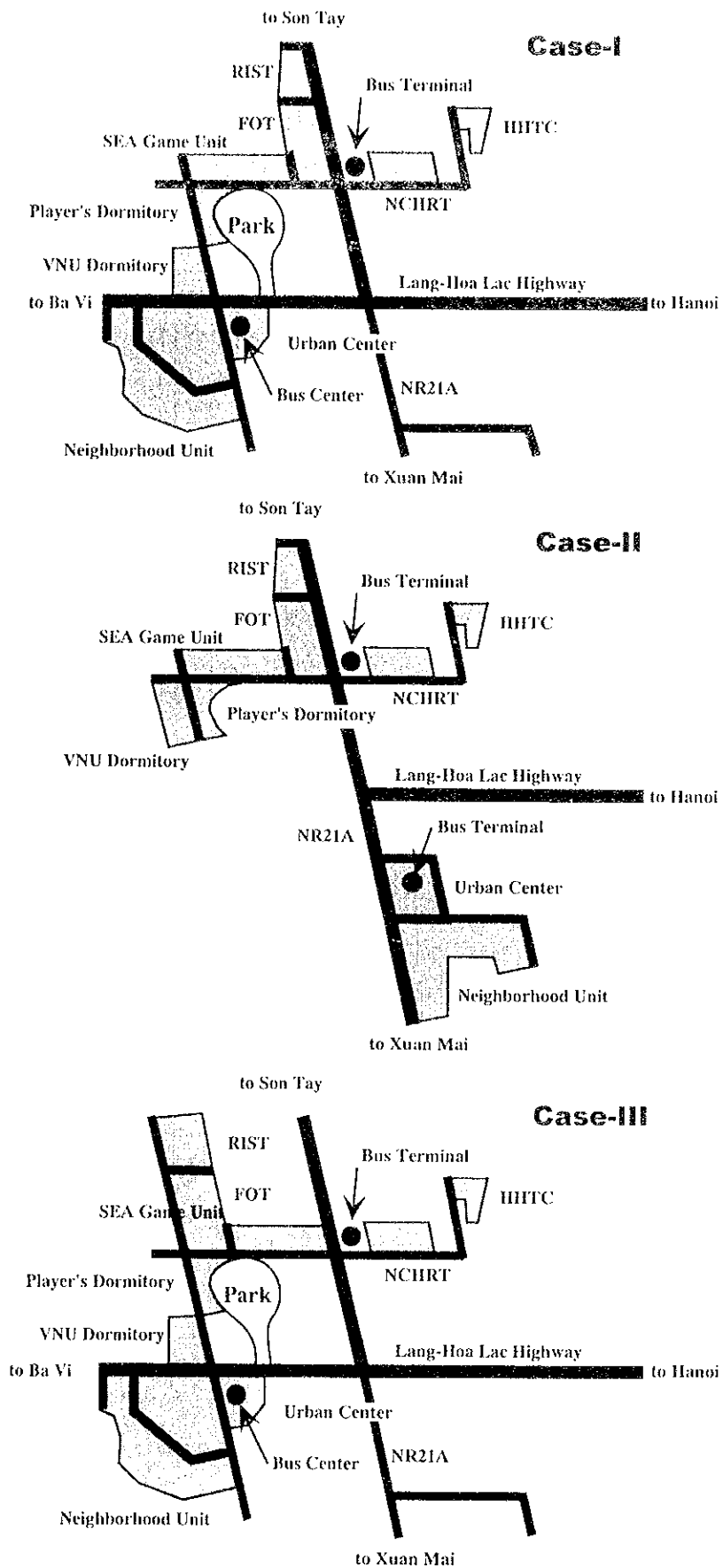


Figure 8.2.2 Alternative Action Plan

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Another bus terminal to be provided adjacent to NCHRT can be used by the SEA Games, but it will normally be used for the shuttle bus service to link with the Urban Center.

In summary, the development area required for the Action Plan is as follows:

VNU Campus Area:	Faculty of Technology (FOT)	12.0 ha
	Research Institute of Science and Technology (RIST)	5.0 ha
	Dormitory	4.0 ha
	Roads and Green Spaces	7.0 ha
	SEA Games (Sports) Facilities	15.0 ha
	Athletes' Village (Guest House)	5.0 ha
	Total	28 ha
	Including SEA Games Facilities and Athletes' Village	48 ha
HHTP Area:	National Center for Research and Training (NCHRT)	12 ha
	Hoa Lac High-tech Center (HHTC)	6.3 ha
	Roads and Green Spaces	10.0 ha
	Total	28.3 ha
Dong Xuan Area:	Housing Site	30.5 ha
	Roads	2.2 ha
	Total	32.7 ha
Urban Center:	Urban Center	4.5 ha
	Urban Park and Green Space	24.0 ha
	Total	28.5 ha
	Total Area	117.5 ha
	Including SEA Games Facilities and Athletes' Village	137.5 ha

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As discussed in Chapter 4 of this report, influenced by the global awareness of the environmental issues, many cities are challenged to adopt more public-transport-oriented systems. In reality however, massive investment required for public transport and extreme difficulties in regulating private vehicles, have resulted in marginal effects, thus aggravating traffic problems.

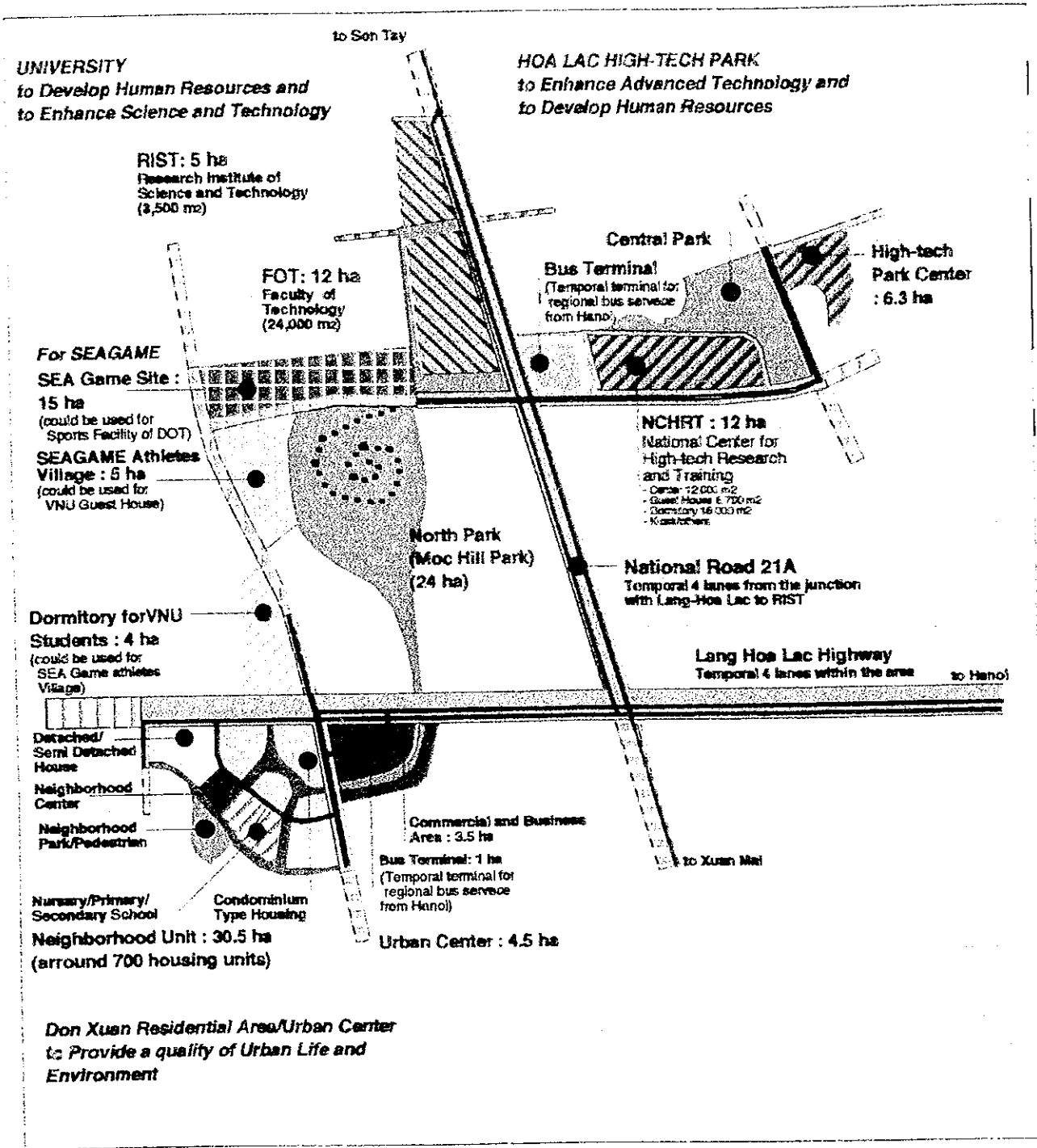
In this context, priority consideration should be given to create a public-transport-oriented urban structure in the Hoa Lac and Xuan Mai Urban Development. Along this line, a bus transport system is proposed in the Master Plan particularly for the initial phase of the Development. Also, taking into consideration the mixed traffic causing serious congestion in the Hanoi Central Area, roadway geometry will be designed to segregate public buses, vehicles, and motorcycles/bicycles.

Figure 8.2.3 shows the proposed Action Plan.

8.2.5 Summary of the Cost for the Action Plan

Table 8.2.2 shows the cost summary for implementation of the Action Plan.

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(JICA Study Team)

Figure 8.2.3 Proposed Action Plan

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Table 8.2.2 Summary of Cost for Action Plan

Unit: US\$1,000

1	Road Construction	15,078
1.1	Regional Road	5,288
	Hoa Lac Ba Vi Highway	2,610
	National Road 21 A	2,678
1.2	Internal Road	9,790
	VNU Area	3,720
	HHTTP Area	4,534
	Dong Xuan Area	1,536
2.	Urban Center	405
	Land Preparation	135
	Landscaping	270
3.	Facilities Construction in VNU	26,159
	Land Preparation	1,230
	Landscaping	2,215
	Building Construction	6,670
	Dept. of Technology	3,105
	Research Institute of S./T.	460
	Dormitory	2,499
	Others	606
	Equipment and Machinery	16,043
4.	Facilities Construction in HHTTP	33,153
	Land Preparation	585
	Landscaping	1,060
	Building Construction	18,868
	High-tech Park Center	360
	National Center for High-tech Research/Training	18,508
	Equipment and Machinery	12,640
5.	Housing and Community Facility	7,379
	Land preparation	905
	Landscaping	634
	Dwelling Units	2,498
	Detached House	520
	Condominium Type	704
	Apartment Type	1,274
	Community/Public Facilities	3,342
	Nursery	656
	Primary School	820
	Secondary School	1,536
	Neighborhood Center	150
	Public Health Center	30
	Clinical Center	150
6.	G. Total	82,174

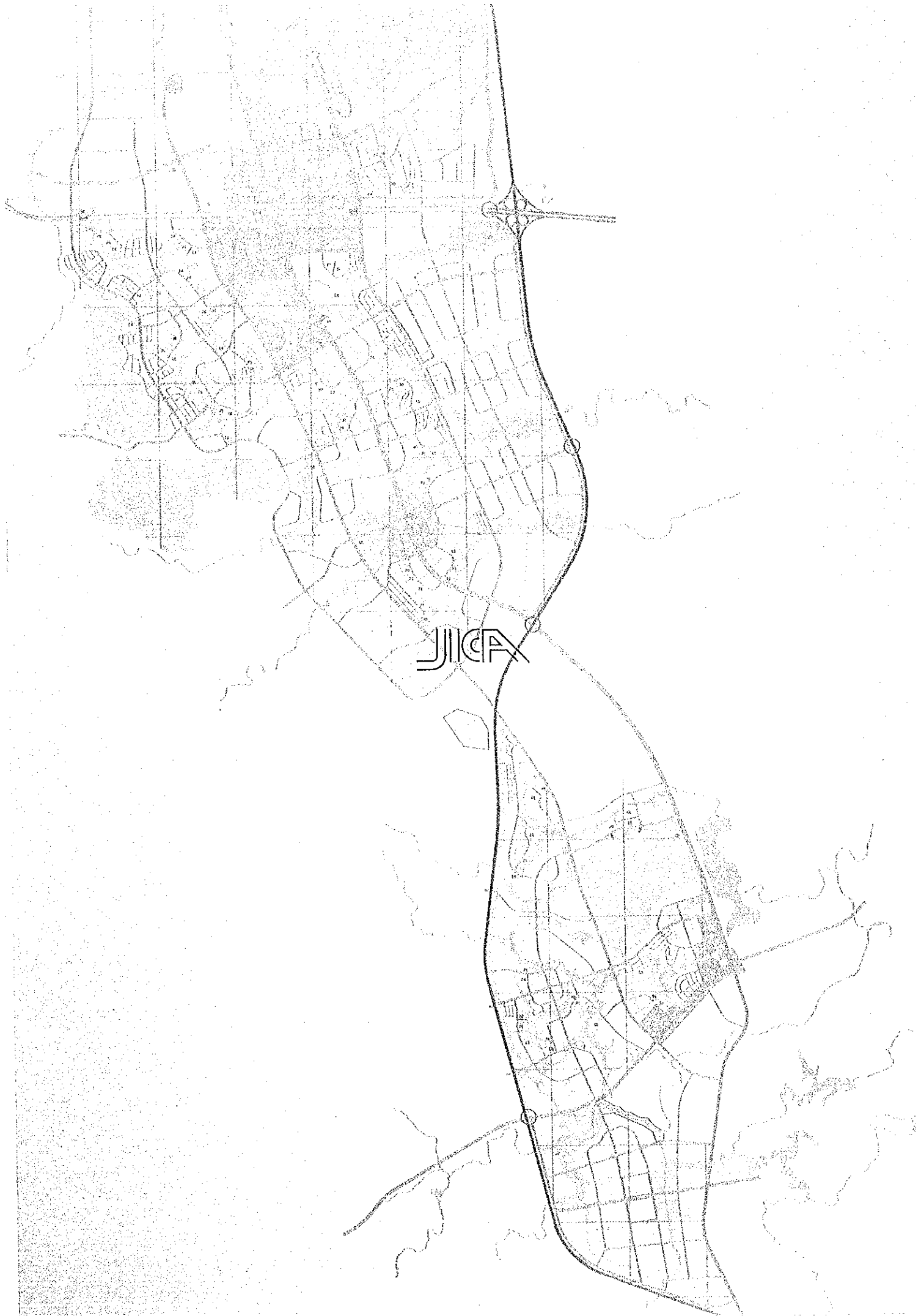
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8.3 Subsequent Feasibility Study – Phase 2 Study

The strategic national importance and significance of the Corridor 21 Development is truly recognized in the context of human resource development and development of science and technology in the country, as well as proactive measures to cope with aggravating urban issues of the Hanoi Metropolitan Area. Therefore, its core development of the Hoa Lac area should be put on a right implementation track upon completion of the M/P Study.

However, the M/P Study may not necessarily be sufficient to formulate a firm consensus among the parties concerned, in order to push it towards implementation. Hence, the F/S for the Action Plan (the conduct of which is intended as Phase-II of the Study) will become important to orient towards implementation the efforts and concerns of the parties involved. The F/S is in fact regarded as part of the implementation due to its objective to pursue the optimization for implementation in terms of investment-efficiency. Therefore, it is strongly recommended that the F/S should be conducted under the initiative of the agency that should be directly responsible for the overall implementation of the Project.

Toward this end, a “**Joint Management Board**” is to be established as early as possible as the foundational organization as discussed earlier, which will be later reorganized as the proposed C-21 Development Authority.



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