Centre for ASEAN Studies

Centre for International Management
and Development Antwerp

Human resources development in the Mekong Delta

Nguyen Pham Thanh Nam
Phuoc Minh Hiep
Mai Van Nam
Bui Van Trinh
Pham The Tri

CAS Discussion paper No 31

July 2000

1. Introduction

In the past few years, the Mekong Delta –the rice granary of Vietnam and one of the important economic regions of the country– has achieved significant economic growth. However, with its potential –rich natural resources with four million hectares of land, 700 kilometres of coastline, a dense network of rivers and canals, favourable weather conditions for good production, and a moderately dense population of 16.5 million inhabitants– such achievement is really not as expected. The living standard and income level of the inhabitants in the Mekong Delta remain lower than in other regions in the southern part of Vietnam.

Why has the Mekong Delta only achieved a low socio-economic development level? Why have the people living in the heart of the 'rice basket' of the third world net exporting country a low living standard and a very modest income level? Many surveys and researches have been conducted in order to find proper answers to this question, including such suggestions as to change the economic structure and to optimise the agricultural potential of the Mekong Delta region. In addition, several large scale projects to build and upgrade infrastructure have also been planned to facilitate the development process.

However, a long-term strategy resting on the most critical factor as human resource development (HRD) in the Mekong Delta has not been paid relevant attention to. Indeed, the manpower factor is extremely important for the development of the region as compared to other factors such as investment, natural resources, foreign aid, and international trade. As Rashid Amjad (1987:1), a senior development economist with the Asian Employment Programme and regional advisor on manpower planning, observed: "Investment in human capital could contribute significantly and directly to overall growth and development".

In order to avoid the risk of being lagging further behind and to ensure a sustainable growth and development level, the region should need a comprehensive strategy on human resource development within the framework of an overall master plan.

In order to have accurate data on HR needs in the region, we compiled data from 136 ex-students of Can Thö University (from an initial group of 250 who were sent the questionnaires); 87 responded questionnaires from institutions were returned. Based on the collected data and information, essential variables will be analysed below relating to the demand for high-skilled labour.

2. The Mekong Delta region: an overview

2.1 Geographics

The Mekong Delta region, which lies in the southern part of Vietnam, is one of the seven geographical regions of Vietnam consisting of the Northern Mountain and Midland, the Red River Delta, the North Central Coast, the South Central Coast, the Central Highland, the Northeast South and the Mekong

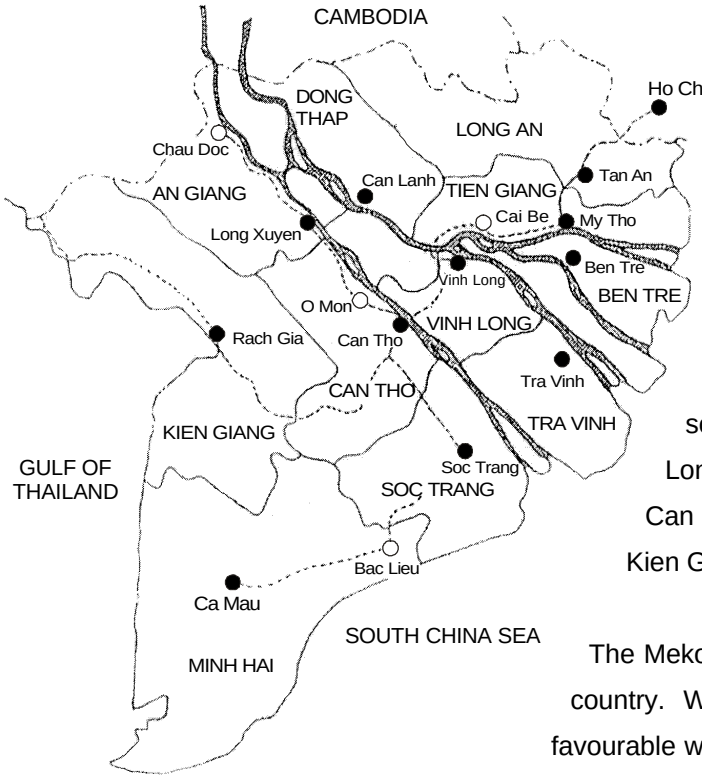

Figure 1: The map of the Mekong Delta

Delta. It spreads over approximately 40,000 sq. km, occupying about 12 percent of the total natural area of the country. It is bordered in the West by Cambodia, and in the East and in the South by the South China sea. *(See the map of the Mekong Delta, Figure 1).* The delta consists of the 12 southern provinces of Vietnam, namely, Long An, Tien Giang, Ben Tre, Vinh Long, Can Thö, Tra Vinh, Dong Thap, An Giang, Kien Giang, Soc Trang, Bac Lieu and Ca Mau.

The Mekong Delta is a vital agricultural zone of the country. With a tropical monsoon climate and a favourable weather condition, it lends itself so much to the growth of paddy and a wide range of plants and vegetables all around the year. The Mekong Delta accounts for 45.8 percent of the country's agricultural food production. As for paddy alone, the region produces 50.5 percent of the total paddy production of the whole country each year, and contributes up to 80 percent of the exported rice. In addition, with over 700 km coastline and a dense network of rivers and canals, the Mekong Delta is also the largest potential area of fishery products. It is estimated that sea products in the Mekong Delta make up about 40 percent of the total yield of the country, and exported sea-food accounts for 50-60 percent of the gross exported sea-products of the country.

2.2 Demographics

Population growth is a pressing issue for the Mekong Delta. It is the most populated region in the country, with over 16.5 million inhabitants in 1997, representing 22 percent of the total population in the whole country. Its population is expected to reach 17.7 million in 2000 and 21 million in 2010; an increase of approximately 300,000 people per year on the average. The three main ethnic groups living in the Mekong Delta are the Viet or Kinh, the Khmer and the Chinese, of which the Viet account for 80% of the population. The Khmer live scattered in various regions but are concentrated most in the provinces of Soc Trang, Can Thö, Vinh Long, Tra Vinh, An Giang, with a total population of one million people. The Chinese only take a small percentage of the population and are concentrated in the provinces of Minh Hai, Kien Giang, Can Thö, and Soc Trang. Besides, there is a very small proportion of the Cham.

The population density, already quite high in comparison with other parts of the country, is likely to continue to increase. As shown in Table 1, the 1997 population density in the Mekong Delta was 421 inhabitants/sq. km, and it is anticipated to reach 455 and 533 persons/sq. km in the year 2000 and

2010, respectively. Such a high population density would certainly affect any attempt to improve the quality of life of the people in the region. Moreover, the distribution of the population is uneven between provinces. For instance, the Long Xuyen quadrangle, Dong Thap Muoi, and the Ca Mau peninsula have a very low population density. This leads to an ineffective utilisation of human resources and other natural resources.

The Vietnamese government's continued efforts have contributed a lot to the control and the reductions of the birth rate. Consequently, the population growth rate in the region has decreased from 3.05% in the period of 1976-1985 down to 2.2% currently. Nevertheless, this level is still too high, and the pressure of population is expected to remain over the coming 20 years in the Mekong Delta. In that case, the quantitative expansion of education would adversely affect its quality, and the poverty cycle would be difficult to break in this region. To contain this, attempts have been made to reduce the growth rate down to 1.7%. To achieve this objective, the Mekong Delta needs combined efforts with a specific focus on finding an effective solution for the very young population structure of the region which again will lead to an increasing birth rate in an imbreakable vicious circle in the coming years. In addition, a large number of farmers want to have many children as a source of labour supply for their production needs on the field. According to a survey (Nguyen Ngoc Tran, 1990), 74% of the households would like to have 4 children, and 86% of them like to have 3 or more children. Additionally, the family planning programme only concentrates on technical solutions but is not paying much attention to the socio-economic factors (Ronnas and Sjoberg, 1996).

Table 1: Demographic characteristics of the Mekong Delta region, 1997

Province	Area (sq.km)	Population (1,000 pers.)	Population density (pers./sq.km)	Fertility rate (‰)	Mortality rate (‰)	Annual growth rate (‰)
Long An	4362.5	1300.1	298	2.85	0.60	2.25
Tien Giang	2333.6	1726.1	739	2.61	0.68	1.93
Ben Tre	2252.7	1393.8	618	2.72	0.59	2.13
Vinh Long	1481.9	1109.9	749	2.51	0.59	1.91
Tra Vinh	2348.9	1003.2	427	2.68	0.53	2.15
Dong Thap	3383.6	1558.6	460	2.50	0.60	1.90
An Giang	3410.9	2055.5	602	2.61	0.70	1.91
Can Tho	2920.5	1904.5	652	NA	NA	2.04
Soc Trang	3199.2	1254.4	392	2.40	0.34	2.06
Kien Giang	6045.9	1446.8	239	2.67	0.47	2.20
Bac Lieu	2049.7	783.5	382	NA	NA	2.16
Ca Mau	5633.1	1082.0	192	NA	NA	2.16
Total	39422.6	16618.4	421	NA	NA	2.20

Source: Centre for information - Statistics On Labour and Social Affairs, 1998.
NA: Not available

2.3 Population structure

Vietnam in general and the Mekong Delta in particular have a very young population structure. The age group under 15 years old occupies about 32 percent of the total population. This has created an imbalanced situation in which the increase of the labour force is faster than that of the population, i.e. about 350,000 to 400,000 people are added to the labour force annually. Therefore, the local government has to find ways to create new employment to absorb this growing labour force, before it becomes a serious social problem. Presently, over 10 percent of the population at working age in the region is unemployed and many more are underemployed, especially in the rural areas.

The figures in Table 2 show a high concentration of the working age group, making up approximately 55 percent of the total population of the region. As a result of the young population, the working age group (15 years and older) as a percentage of the population will go up in the future.

Table 2: Population distribution by age group and sex in 1997 (%)

Age group	Whole country			Mekong Delta
	Male	Female	Total	
0-14	35.75	31.70	33.68	32.35
15-24	18.85	18.01	18.42	20.20
25-34	15.41	15.75	15.58	16.54
35-44	12.77	13.71	13.25	12.51
45-54	6.78	7.56	7.18	7.19
55-59	2.46	3.04	2.76	2.55
60+	7.98	10.23	9.13	8.66

Source: Centre for information - Statistics On Labour and Social Affairs, 1998.

This abundant and young human resource is energetic in production and life; smart and dynamic in the market economy and in the learning of advanced technologies, and if used properly, could provide a stock of valuable assets to the region. Furthermore, the low cost of labour as compared to other Asian countries, might build up, in principle, a comparative advantage in attracting foreign investment. However, in the long-term, the Mekong Delta cannot compete with low cost labour unless it possesses a contingent of high skilled labour. Thus, the urgent need facing the region now is to train and retrain the young labour force to satisfy the market requirements in the future.

As shown in Table 3, the proportion of the urban population in the Mekong Delta region was only 15% of the total in 1997 which reflects the rural character of the region by nature. This ratio is the lowest of the whole country (21%) and of the southern region (48%). As a matter of fact, nearly 85% or 14 million of its population is living in rural areas.

Table 3: Average population by urban and rural, and sex (1,000 persons) in 1997

Provinces	Total	By sex		By urban, rural		
		Males	Females	Urban	Rural	Urban popul. ratio (%)
Long An	1300.1	635.9	664.2	163.3	1136.8	12.56
Tien Giang	1726.1	794.8	931.3	208.8	1517.3	12.09
Ben Tre	1393.8	652.7	741.1	102.8	1291.0	7.37
Vinh Long	1109.9	535.3	574.6	149.2	960.7	13.44
Tra Vinh	1003.2	474.6	528.6	59.7	943.5	5.95
Dong Thap	1558.6	749.6	809.0	247.5	1311.1	15.87
An Giang	2055.5	1010.7	1044.8	382.1	1673.4	18.59
Can Tho	1904.5	920.4	984.1	370.6	1533.9	19.46
Soc Trang	1254.4	609.8	644.6	206.1	1048.3	16.43
Kien Giang	1446.8	690.3	756.5	299.5	1147.3	20.70
Bac Lieu	783.5	375.9	407.6	187.6	595.9	23.94
Ca Mau	1082.0	528.1	553.9	215.1	866.9	19.88
Total	16618.4	7978.1	8640.3	2592.3	14026.1	15.60
(%)	(100)	(47.8)	(52.2)	(15.60)	(84.40)	

Source: Centre for information - Statistics On Labour and Social Affairs, 1998.

Needless to say, in the process of development the local government has to confront many socio-economic problems attached to it. First of all, the rate of unemployment in the rural areas is much higher than that in the urban areas. Next, the income level in the rural areas is very low, being almost twice as low as compared to non-rural areas. As a result of low income, expenditure to improve HRD such as health care and education, is greatly limited.

There are plans to establish industrial zones in the region, especially for labour intensive industries, to alleviate the pressure of the labour surplus in the rural areas. However, since most of the rural labourers are unskilled, many of them can hardly compete with the better educated workforce in the cities. Moreover, the living standard of the people in the rural areas is very low which drives many of them to migrate to the cities in search for seasonal employment. Such a massive movement would cause more difficulties for the implementation of an effective family planning programme, even leading to a 'ruralisation' process of the cities.

2.4 Economic development

In recent years, the economy of the Mekong Delta has reached a higher growth rate. However, it remains a less developed economic region. The starting point by any standard is low. GDP per capita was only US$204 in 1994 which is lower than the average of the whole country of US$213 (State Planning Committee, 1995), despite a constant growth rate of 5.6% between 1991 and 1994 (World Bank, 1995). In fact, this rate was the lowest in comparison with other economic regions as illustrated in Table 4.

Table 4: Average regional growth rate by sector (1991-1994)

Regions	Agriculture	Industry	Construction	Service	Average
North Mountain and Midland	3.7	10.0	5.7	10.0	6.8
Red River Delta	7.7	9.2	15.7	6.7	7.7
North Central Coast	4.3	5.2	7.2	7.8	5.8
South Central Coast	2.8	6.0	18.9	8.4	5.9
Central Highland	6.9	7.1	6.7	3.1	6.0
Northeast South	4.1	17.2	22.8	10.0	12.2
Mekong Delta	**3.1**	**7.2**	**10.6**	**9.2**	**5.6**
Whole country	4.3	12.2	13.5	8.6	7.9

Source: World Bank, 1995.

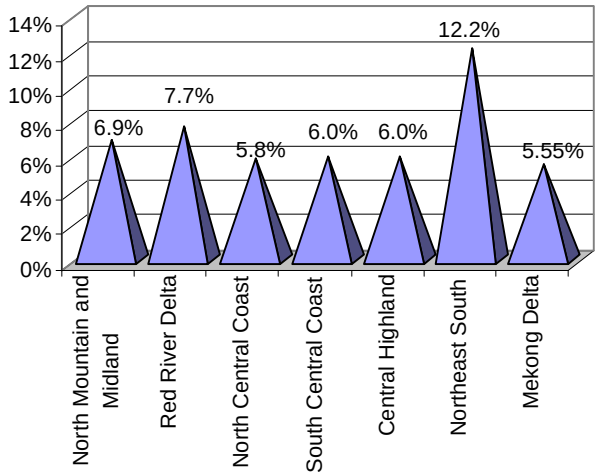

Figure 2: Average regional growth rate (1991-1994)

During the same period, the economic structure in the Mekong Delta has changed considerably. The gross output of agriculture as a percentage of GDP went down. Meanwhile gross output of other sectors as industry, construction and services has increased considerably. However, its economy depended heavily on agriculture and aquaculture, representing a share of 52.7% of the total economy, followed by industry 13%, construction 2.3%, and services 32%, respectively.

3. An evaluation of human resource development of the region

3.1 Assessment of the existing labour force

Labour is abundant in the Mekong Delta, accounting for 82% or 7.9 million of the total population of working age in 1997. The percentage of labour employed in the agriculture, industry and service sector is 64%, 9%, and 27%, respectively. The unemployment rate is around 10%. In fact, the Mekong Delta has an abundant labour force, yet it has been confronted with serious problems of human resource development.

3.1.1 Lack of a skilled labour force

As said earlier, the Mekong Delta is endowed with rich natural and human resources, and plays a vital role in the country's economy. However, it is also perceived to be among the least developed regions in terms of education and training level. A more detailed analysis of the human resource development status, as shown in Table 5, reveals that many key indicators on human resource development of the MD region are inferior to those of the country.

Table 5: Quantitative indicators of HRD in the Mekong Delta in 1997

Provinces	Per 10,000 population number of			(%)Pupils enrolled at		
	teachers	doctors	physicians and doctors	first-level education	second-level education	third-level education
Long An	66.8	2.7	9.2	85.5	13.5	0.3
Tien Giang	61.7	2.4	8.1	78.2	15.3	0.7
Ben Tre	61.2	2.4	7.9	80.2	15.9	0.9
Vinh Long	60.8	2.4	8.5	83.1	18.6	0.6
Tra Vinh	60.7	1.9	7.2	91.5	13.3	NA
Dong Thap	63.6	2.8	7.6	86.1	12.4	0.6
An Giang	48.9	2.9	8.4	79.2	10.6	0.4
Can Tho	53.3	2.8	8.9	81.7	13.2	2.8
Soc Trang	57.8	1.9	6.9	89.8	9.5	NA
Kien Giang	64.6	3.0	9.5	96.7	9.1	NA
Bac Lieu	62.5	2.5	10.1	89.9	8.7	NA
Ca Mau	69.3	2.8	9.6	94.1	9.0	NA
Average	60.1	2.6	8.5	87.5	12.5	1.0
Whole country	72.8	4.3	10.7	94.2*	20.4*	4.5

* Estimated by research group: $\text{Pupil enrolled at first - level education} = \frac{\text{Number of pupils of primary and middle schools}}{\text{Total population x \% of population in 5 to 14 years old}}$

Source: General Statistics Office, 1998.

For instance, the ratio of teachers per 10,000 inhabitants is 60.1 for the region, as compared to 72.8 on a country basis. This low ratio reflects a serious shortage of teachers, which, in turn, affects the overall development of the region. The ratio of students enrolled in higher education per total population aged between 20 and 24 is only 1 for the region, which is far less than that of the country. More seriously, many quantitative indicators of human resource development in the Mekong Delta now are lower than in countries such as Indonesia and China in the early of 1960.

In the area of health care, the number of doctors and physicians per 10,000 inhabitants of the Mekong Delta stands at 8.5 versus 10.7 for the country, of which the ratio of doctors alone is only 2.6, about half of the country level. In addition, most of the doctors were concentrated in the cities; many villages have no doctor.

3.1.2 Structural imbalance of the trained labour force

Currently, the labour structure by training level in Vietnam in general and in the Mekong Delta in particular is in serious imbalance. On a country basis, the number of people with university degrees and above accounts for 20.3% of the total labour force; those with middle vocational education level are occupying 35.5%, and the remaining 44.2% is skilled labour without a qualification, compared to developed countries where these percentages are 5%, 20% and 75% respectively (Figure 3).

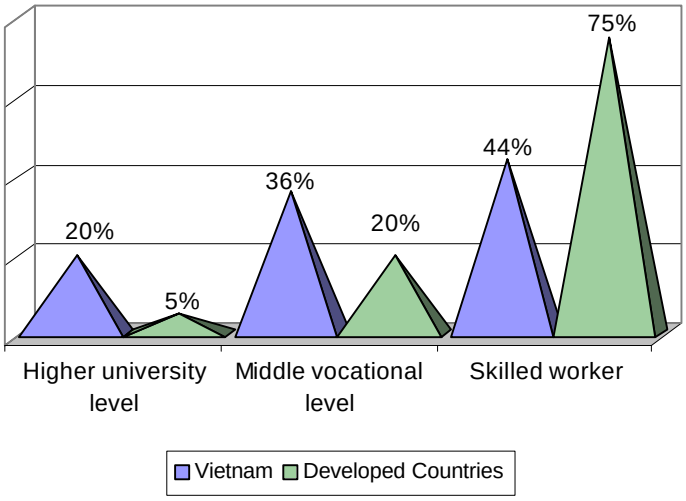

Figure 3: Labour structure by training level

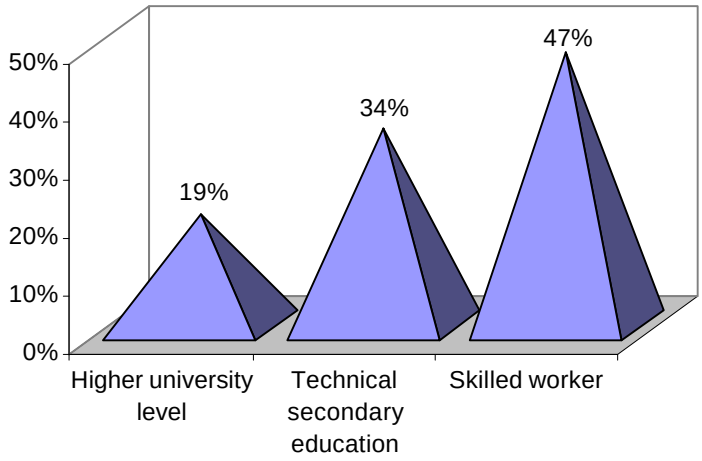

Figure 4: Labour structure by education level in the Mekong Delta in 1997

The situation in the Mekong Delta is similar. As shown in Figure 4 and Table 6 below, the labour structure in the Mekong Delta can be broken down as follows: 47% of the total trained labour with and without certificate, 34% of the total trained labour with technical secondary education, and 19% of the total trained workforce with higher education.

Table 6: Skilled labour structure in the Mekong Delta in 1997 (persons)

	Total	Skilled worker	Technical secondary education	University and College	Post-graduate
Long An	132,923	36,616	17003	8991	267
Tien Giang	69,158	31,667	21341	15723	427
Ben Tre	45,687	21,029	16789	7812	57
Vinh Long	43,435	17,301	14262	11872	
Tra Vinh	66,551	10,103	15332	7211	
Dong Thap	48,298	23,330	16641	8327	
An Giang	58,751	27,408	21436	9907	
Can Tho	84,144	43,173	22412	18265	294
Soc Trang	22,637	9,920	9136	3554	
Kien Giang	30,479	16,068	11275	3075	61
Bac Lieu	18,282	7,646	7231	3405	
Ca Mau	29,111	10,695	14971	3445	
Mekong Delta	545,478	254,956	187829	101587	1106

Source: Centre for information - Statistics On Labour and Social Affairs, 1998.

3.1.3 Inappropriate distribution of the skilled labour force between different sectors

On a micro level, the Mekong Delta suffers an irrational distribution of the high skilled labour force between sectors. The imbalanced distribution of highly skilled labour, mostly concentrated in the state sector, not only is a waste of human resources, but also is a burden to the state budget to continuously subsidise an inefficient situation.

Figure 5 below illustrates that a dominant proportion of highly skilled labour working in the state sector accounts for 55.4%, the trade sector for 8.3%, the service sector for 10.2%, and the production sector for 9.8% only.

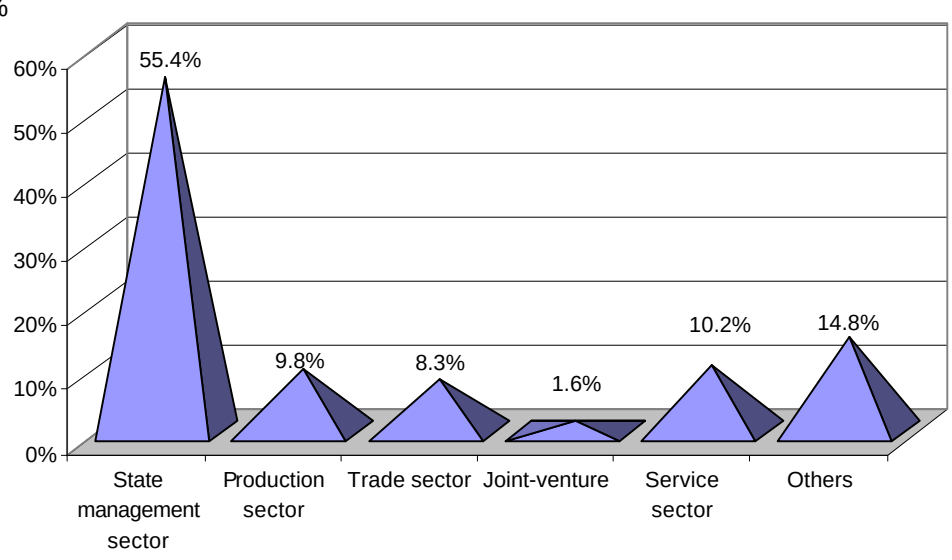

Figure 5: Distribution of high skilled labour by sector in the MD in 1996

3.1.4 Work unsuitable with expertise

A common problem which upsets the effective utilisation of manpower in Vietnam is the mismatch between a worker's expertise and his allocated job. In fact, as mentioned earlier, the Mekong Delta is short of teachers and agricultural engineers for development programmes, while other engineers and teachers are seeking for job opportunities as unskilled labour in joint-ventures with foreign partners. This causes a serious 'brain drain' from the state sector to foreign-invested sectors.

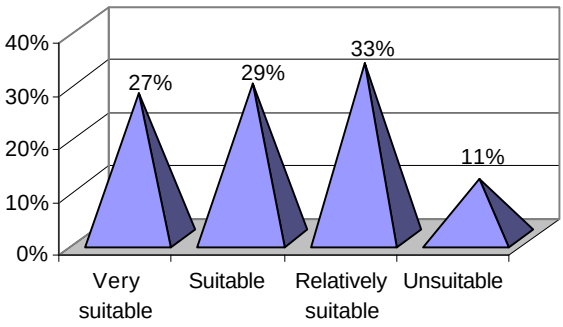

Figure 6: Level of suitability between work and knowledge/skills

The matter becomes obviously worst on a regional basis. In an analysis of the general situation in the whole region, the result of our survey shows that only 27% and 29% of total respondents have been doing work that is very suitable and suitable with their skills and knowledge acquired from the university. 33% of the respondents answered that their work is relatively suitable, and the remaining 11% said that their work is completely incompatible with their skills and knowledge (Figure 6). However, mention should be made of a possible cultural problem in answering the questionnaire. People want to avoid to be too negative and will answer

"relatively suitable" if they actually mean "unsuitable", therefore figures of "relatively suitable" and "unsuitable" should be added up (here: 33% + 11%).

What are the reasons leading to the under-utilisation of the high skilled labour force? According to our survey, two reasons were explained by the respondents. The first one is that it is difficult for graduates to find any suitable work with a satisfactory salary level. Two thirds of interviewees who are doing unsuitable work explained that they have not been able to look for any suitable work with a high salary. Therefore they have to take up unsuitable work in the private sector in return for high salaries. Another reason is that those who are now working in the State organisations did not choose to do so on their own after graduation, but were allocated by the State.

3.1.5 Brain drain

Under the policy reform (Doi Moi), Vietnam has allowed a multi-sector economy, implemented an open-door policy, and is applying market mechanisms under a socialist orientation. Article 5 in the Labour Code affirms everyone's right to work, to select a job and profession, to study and enhance his level of professionalism. A labourer has the right to work for any employer and in any field not banned by law. In this case, free movement of labour brings up a common problem, i.e., the brain drain of qualified people, particularly from the State sector to the private or foreign-invested sectors. Therefore, the local governments in the Mekong Delta need to reconsider and to introduce a suitable policy on personnel before the situation becomes more serious, once many more foreign-invested companies have been coming to the region and Export Processing Zones established. Unfortunately, there has not been any survey yet on this status of the brain drain in the Mekong Delta.

To make the matter worst, the Mekong Delta not only has been facing a one-way migration of highly skilled labour from the State sector to the non-state sector, but also suffering a widespread brain drain of graduates from the Mekong Delta region to Ho Chi Minh City. Indeed, many graduated students from Can Thö do not want to work in the region, instead they seek jobs offering more attractive salaries in HCM City. In the absence of a survey on this matter, some facts can help illustrate such a trend. It was estimated that about 2,000 Mekong Delta-based students graduated in the school year 1994-1995 from universities in Ho Chi Minh City and almost all of them have stayed to work there after their graduation (Saigon Economic Times, February 2, 1997).

In addition, as the result of an ineffective policy and implementation on human resource development, many students who graduate from Can Thö university usually do not return to work in their localities of origin. According to Prof. Tran Phuoc Duong, the former Rector of Can Thö University, only 20-30% of graduated students agree to go back to serve in their province of origin, where the socio-economic conditions are deemed not developed enough to ensure the expected quality of life of the young graduates. This is considered as a situation of 'brain drain' from less-developed areas to developed ones within the Mekong Delta region, which at the same time underlines the status of under-utilisation of high skilled labour in the region as described earlier.

3.2 Analysis of factors affecting human resource development

3.2.1 Policy on investment in education and training

As mentioned above, the investment in education and training for the last ten years has increased in Vietnam but it is still much lower than some other countries in the region. For example, investment in education as a percentage of the State budget in Vietnam is 11%, or approximately 2.3% of GDP. This is lower than the Philippines (12.3%), Singapore (14.7%) and much too low as compared to Thailand (19.2%). In addition, the real budget for education has been improved, but not in pace with the increase in enrollment of students. It is estimated that the budget for education increases only 15% per year, while the educational and training demand increases by 30% annually. Consequently, the real investment in education has been falling during the ten most significant years (1985-1995) of economic renovation. As a result of the low investment for education, there has been a shortage of classrooms, schools, teaching and learning facilities. Moreover, teachers' salaries have not improved for quite a long time. These factors all contribute to the low quantity and poor quality of education in the Mekong Delta.

Another important point is that funds for education mostly come from the State budget. In recent years, the State has become aware of the problems on mobilisation of all financial resources from other non-state sources for education. Yet, these sources are not considerable.

3.2.2 Lack of a strategy on human resource development

As a centrally planned economy, Vietnam established a human resource planning system which was part of the economic plan. The labour force planning is divided into long-term plans (10 years or more), medium-term plans (5 years) and annual plans. It is also broken down into a national plan, sector plans, local plans and enterprise plans. Different labour plans are linked and coordinated with one another. The labour force plan includes primarily a balance of urban and rural labour resources, a balance of labour resources in cities and towns, the number of workers, numbers enrolled in technical schools, higher education and labour productivity.

In the transformation process into a market economy, the labour force planning has not been paid much attention anymore. In the master plans of the provinces in the Mekong Delta to the year 2010, the human resource development strategy is only mentioned in vague terms as a prerequisite to sustainable development, but no concrete strategy is attached to it for implementation. In other words, it lacks an education and training plan/strategy to meet the requirement of a highly skilled labour force for the socio-economic development of the region.

3.2.3 Policy on personnel management

In order to measure the labourers' attitudes toward the current policy on personnel, we used in our survey some questions addressing two arguments in this aspect. One question is asking the people who have changed their workplaces why they did so. The underlying argument of this question is that people would likely change their workplaces only if they are not satisfied with the employers' policy on

personnel (See Question 6, Appendix 2). There are, of course, many other reasons for a change of job. We, however, decided to look only into the variables that relate to personnel issues rather than the other uncontrolled variables.

Another question directly dealing with the embodiment elements of the policy on personnel probes the respondents' level of satisfaction with these elements, which consist of salary, reward system, working conditions, career development, promotion, leadership and colleagues. This question develops an argument that people would be not satisfied with the policy on personnel if their overall attitude tends to show dissatisfaction (See Question 14, Appendix 2).

In this respect, the survey shows that more than 40% of respondents have changed their workplaces for at least one time (Figure 7). This proportion is large enough for further analysis on the reasons of these changes.

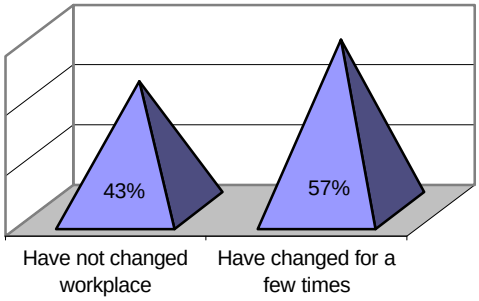

Figure 7: Percentage of those who have changed their work places

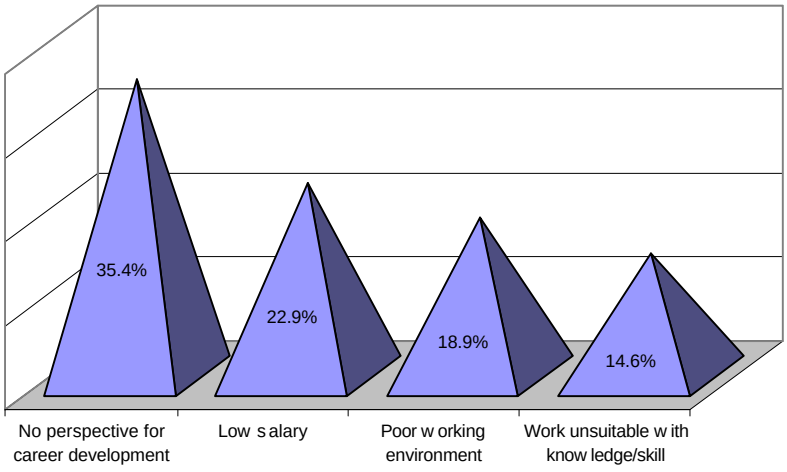

Figure 8: Reasons for changing work places
(Among those who have changed their working places)

As shown in Figure 8, among those who have changed their workplaces, no prospects for career development is considered the most significant reason with more than 35% of the responses. The second significant one is low salary with nearly 23% of the total answers. Then, working conditions and unsuitable-to-expertise work end up the list with 19% and 15%, respectively.

The survey also reveals that the most serious concern of many high-skilled labourers is about the existing remuneration and the reward system. Another related issue are the working conditions. Furthermore, organisations are expected to provide their employees with opportunities for career development.

It is obvious that salary, reward system, promotion opportunity, career development, and working environment are all very important factors to an organisation in establishing policies on personnel, because these factors influence directly the labourers' quality of life, physically as well as mentally. Another important implication is that policy makers should take into consideration the embodiment elements in their endeavour to build up an appropriate policy on personnel.

As shown in Figure 9, about 64% of respondents said that they are unsatisfied with their salaries, in which nearly 25% express their strong dissatisfaction for what they get. Similarly, half of the respondents are unsatisfied and strongly dissatisfied with the reward system. Nearly 45% look in a negative way to their working conditions. There is about 14% is not satisfied with opportunities for promotion, and about 13% with leadership provided in their organisations.

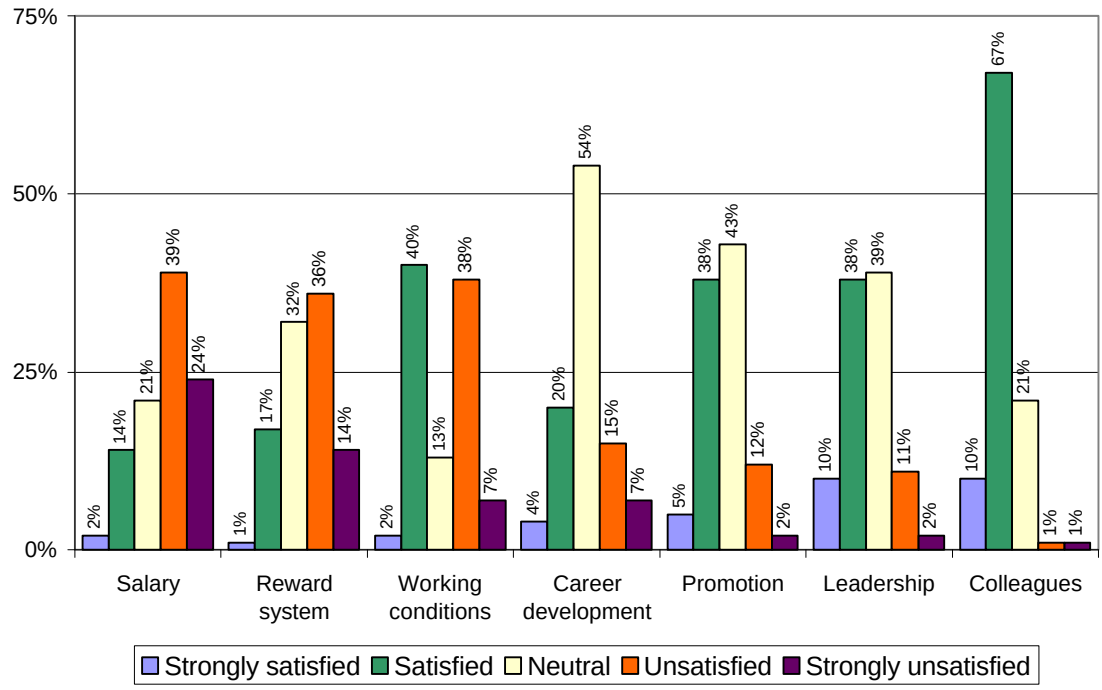

Figure 9: Level of satisfaction on policy on personnel management

The dissatisfaction evidences in the above results can be explained by the fact that many highly skilled labourers are doing unrelated or unsuitable jobs. Most companies and organisations are of small or medium scale and show poor working conditions. The highly skilled labour in these organisations really has no prospect for career development. It is difficult for them to find interesting and meaningful jobs. Another underlying reason that contributes to the overall dissatisfaction of this top category of labour is the policy on promotion. In organisations where nepotism**,** seniority and hierarchy are accentuated characteristics of their culture, good relationships with the top leaders instead of good performance would be a prerequisite for one's promotion, as many respondents claimed.

Salary and reward system

An analysis of the difference between salaries and income by industries also illustrates that public agencies such as schools, hospitals and State administration offices often offer lower wages than those in the business sector, especially in manufacturing, trading and service companies. The average income level in the public sector is below 500,000 VND per month[1], whereas an employee in the busi-

[1] 1 USD ~ 14,000VND

ness sector could earn from 750,000 to 1,000,000 VND. Even in rural areas, teachers only receive an extra amount of 5,000 VND per month in addition to their meager salary.

A survey conducted by the World Bank also illustrated that the average monthly salary of a primary school teacher in Vietnam was 0.8-1.2 times the national per capita income. A secondary school teacher earned between 1.2-1.7 times the per capita GNP. These figures are very low in comparison with other Asian countries, where primary school teacher's salaries average 3.8 times per capita GNP. The monthly salary of a university professor is also very low.

From Figure 10, we can see that a significant part (more than 70%) of the employees working in the State sector are not satisfied with their current level of salaries, of which nearly 30% are strongly unsatisfied and more than 40% unsatisfied. Respondents also present the same pattern of attitude toward the reward system. More than 60% is unsatisfied with the existing reward system. People who are working in the private and foreign-invested sectors are more likely satisfied with their salaries and reward system. However, the sample size is too small to show significant differences in the level of satisfaction on salaries and reward system among the people working in these different sectors.

** Joint-venture between Vietnamese and foreign partners*

Figure 10: Level of satisfaction toward salary and reward system by sector

The existing inappropriate incentive system not only adversely affects the utilisation of highly skilled manpower as mentioned above, but also causes a decrease in the enrolment in education and agriculture fields of study. In order to reverse the trend, it is necessary to have a more rational compensation system which addresses not only the expectation of the worker but also the reality of the region. Many respondents seem to be “neutral”. This does not imply that they do not care about their salary, but rather that they do not want to answer the question and give a negatively sounding answer.

4. Forecast of demand for skilled labour in the Mekong Delta to the year 2010

4.1 Strategic direction on economic development to the year 2010

From now to 2010, the Mekong Delta aims at pursuing an industrialisation- and modernisation-oriented strategy of economic development. Table 7 shows the long-term economic goals in the Mekong Delta. It is expected that the annual economic growth rate to be achieved from 1995 to 2010 will be between 9% and 11.5%. In the lower case, the annual average economic growth rate in the region will be 9% and 10% for the periods of 1995-2000 and 2000-2010, respectively. GDP per capita is expected to be US$696 by the year 2010. This only equals 66% of GDP per capita of the country in that year. In the higher case, the annual average economic growth rate is expected to soar from 10% up to 11.5% in the periods of 1995-2000 and 2000-2010, respectively. Per capita GDP will increase four-fold compared to that in 1994 or equals 78% per capita GDP of the country by 2010.

Table 7: Projected economic growth rate and per capita GDP in the Mekong Delta

Year	Economic growth rate (%)		Per capital GDP (US$)	
	Alternative I	Alternative II	Alternative I	Alternative II
1991 - 1994	5.5	5.5	204	204
1995 - 2000	9.0	10.3	NA	NA
2001 - 2010	10.0	11.5	696	800

Source: State Planning Committee, 1995. (Figures for 1995 – 2000 are overestimated because of the economic crisis in Asia.)

Accordingly, the region's economic structure will change toward a higher share of industry's and services in GDP. Table 8 indicates these changes to the year 2010 in two different scenario's. Both cases set the ambitious target for the services sector to increase its share to almost 50%, while the agriculture sector is expected to dramatically decrease to one-fourth in the year 2010. With the most optimistic scenario, the annual growth rate in the industry is expected to be between 13% and 14% on the average in the late 1990s and in the following decade, in which industry will keep a constant 24% share.

Table 8: Projected economic structure to the year 2010 in the Mekong Delta (%)

Industry	1994	2000	Alternative I	Alternative II
Industry	16.6	17.8	21.6	23.9
Agriculture/Forestry	51.5	44.2	28.0	24.0
Construction	2.2	2.5	3.2	3.2
Services	29.7	35.5	47.2	48.9
Total	100.0	100.0	100.0	100.0

Source: State Planning Committee, 1995.

4.2 Basis of Estimation

4.2.1 Methods of forecasting manpower requirements

There are several methods to forecast manpower requirements available. For example, one method is to use past trends to estimate needs for high-level scientific and engineering manpower as well as for teachers (Goldstein, 1958). This method has the advantage of simplicity, but its usefulness is limited. In many countries it is impossible to get past data for an adequate time series. And even where data may be available, the assumption that future relationships can be derived from past trends is open to question.

A more complicated method is what Beckerman and Parnes (1962) describe as the “manpower requirements approach to educational planning.” Here the estimated changes in productivity are the critical factor. This approach has some shortcomings. First, although the productivity criterion may be appropriate for the manufacturing, construction, mining, and transportation sector, it is not so useful for estimating high-level manpower requirements in public health, general activities of governments, and many kinds of services. Perhaps the most troublesome problem is the lack of empirical data on which to base estimates of expected increases in productivity and the bearing of these on changes in occupational requirements.

The Target-Setting Approach suggested by Harbison and Myers (1964) consists of the four following principles:

1. The first principle in the analysis of manpower requirements is that goals should be specified. This is clearly a conceptual matter. We start with the premise that, in itself, an educated, skilled, and reasonably healthy population is an essential condition for economic growth.
2. The second principle is that major reliance should be placed on making reasonable comparisons with other countries. In modern times, most nations tend to formulate their economic, social, and political goals by comparing themselves with other countries. They may seek to follow good examples set by others; they may intend to follow a divergent path; or they may wish to avoid particular mistakes that others have made.
3. The third principle is that in estimating future requirements the human resource planner should concentrate on setting targets rather than that on making forecasts. The purpose of target-setting is not to make a prediction of what will take place; nor is it to make projections on the basis of limited assumptions of attainment of one or two specific objectives. Its purpose is rather to influence the future course of development. A target indicates a direction for action.
4. A fourth principle is that requirements for HRD should be comprehensive. It is not enough to establish a single target for higher education, for secondary education, or even for all formal education. The closely associated targets for on-the-job training, for changing the structure of incentives, for importing expatriate manpower, for better utilisation of skills, and for creating adequate employment opportunities should be established along with educational targets.

Employing the Target-Setting Approach just described, we adopted a simple formula here to estimate the demand for skilled labour in the Delta to the year 2010 as follows:

student enrolment in higher education =
population of the 20-24 age group X targeted enrolment ratio in higher education

The population of the 20-24 age group is derived from the secondary data of the Mekong Delta, as shown in Table 9.

Based on the basic principles of the Target-Setting approach, the targeted enrolment ratio in higher education is determined by an analysis of the Mekong Delta's socio-economic goals as compared to those of other countries. In our opinion a reasonable comparison can probably be made by drawing a similarity in the Delta's current socio-economic conditions and targeted goals and other countries which in the 1964 Harbison and Myers study were considered as level II countries (e.g. China and Indonesia).

Table 9: Projected population distribution by age group in the Mekong Delta (%)

Age group	2000		2010	
	(%)	(1,000 pers.)	(%)	(1,000 pers.)
0-4	10.7	1,894	8.9	1,869
5-9	10.6	1,876	8.8	1,848
10-14	10.6	1,876	8.9	1,869
15-19	12.1	2,142	9.0	1,890
20-24	10.6	1,575	9.1	1,911
25-29	8.9	1,876	10.3	2,163
30-34	8.1	1,434	9.0	1,890
35-39	6.8	1,204	7.6	1,596
40-54	12.6	2,230	17.2	3,612
55-60	2.3	407	4.2	882
65+	6.7	1,186	7.0	1,470
Total	100.0	17,700	100.0	21,000

Source: Planning and Investment Department of Can Thö Province, 1996.

4.2.2 Determining the target of student enrolment in higher education

Using the above formula and indicators/variables, we end up with the result as presented in Table 10 below.

Judging on the estimated student enrolment in higher education of 25,200 and 91,700 for the years 2000 and 2010 respectively, we see a gap between the demand for skilled labour in the region and the available training capacity, particularly of Can Thö University. As the university has been a unique source of higher education in the region, it is necessary to examine the delivery capacity of this institution in its critical task of providing high skilled labour for the whole region.

Table 10: Estimated student enrolment in higher education in the Mekong Delta

Category	Quantity 1,000 persons	
	2000	2010
Population of the 20-24 age group	1,575.0	1,911.0
Targeted enrolment ratio in higher education	1.6%[1,2]	4.6%[3]
Student enrolment in higher education of which[4]:	25.2	91.7
education	7,200 (28.6%)	21,000 (22.9%)
agriculture	3,600 (14.3%)	15,000 (16.3%)
medicine	4,800 (19.0%)	15,000 (9.8%)
economics & laws	4,500 (17.9%)	17,500 (17.5%)
engineering	3,800 (15.0%)	18,000 (19.6%)
others	1,300 (5.1%)	11,200 (12.2%)

Notes:

1. The targeted enrolment ratio in higher education set forth in the year 2000 (1.6%) is determined as the median value for all the Level II countries according to Harbison and Myers (1964). The corresponding ratio (4.6%) for the 2010 is estimated on the basis of a three-fold expansion as recommended by Harbison and Myers (1964).
2. The 1.6% enrolment target is much different from the projected higher education enrolment according to the Master Plan Development of Can Thö University to the year 2010. Though not based on the Harbison and Myers data, this higher education enrolment target seems to be feasible and necessary, as it was the enrolment percentage of countries like Indonesia and China, already in the early 1960s.
3. The 4.6% targeted enrolment ratio in higher education in the Mekong Delta for the 2010 is equal to this in the whole country in 1997.
4. The distribution of enrolment in the fields of study listed is derived from the starting-point and the targeted goals of the Level II countries regarding their experienced shift in economic structure for a period of 10-15 years, approximately.

5. Conclusion

It goes without saying that the importance of human resource development must be emphasised in the process of socio-economic development of the Mekong Delta region, since sustainable development primarily depends on how effectively human resources are developed and utilised. It is obvious that a comprehensive strategy of human resource development in the Mekong Delta should be built as an essential part of a strategy of socio-economic development in order to achieve its overall goals to the year 2010.

In the process of industrialisation and modernisation of the region's economy, the Mekong Delta has encountered, and will continue to face many great challenges. One of the biggest obstacles is that its human resource development still remains a problem. Indeed, it is trailing other areas of the country by almost all standards. As a result, its economic growth and development performance were lower in the past than that of all other areas of the country.

As estimated earlier, the requirements of high skilled labour from now to the year 2010 is very large. At present, the Mekong Delta is in a serious shortage of skilled labour. The current educated labour force does not satisfy the needs for socio-economic development in the region. In addition, a situation of brain drain, a structural imbalance by level of training, an uneven allocation of high skilled labour between sectors and an underutilisation of university graduates have made the problem of manpower for developing the region even worse. Furthermore, the quantity and quality of general education in the Mekong Delta are very poor now. This makes the training of high skilled labour to become more difficult due to the low quality of input for higher education institutions.

Many reasons can be listed to explain this situation. First of all, the Mekong Delta lacks a strategy of human resource development. The human factor has not been rightly perceived and positioned as the most critical resource for economic development. As a result investment in human resources has been inadequate for short or long term development. In addition, the delta has ineffective policies of human resources management which neither are able to acquire, nor to retain the necessary resources. All these factors have adversely affected the human resources development in the Mekong Delta.

The Mekong Delta is the key economic region of Vietnam. With its important economic contribution to Vietnam's economy, it is known as 'the goose that lays golden eggs' for the whole country. However, the amount of reinvestment of income is not compatible with its contribution to income in Vietnam. This not only creates an adverse impact on the country's overall development in the coming years due to a possible stagnation of the Mekong Delta's economy, but it also widens the gap between the regions in redistributing income. Needless to say, the people should be regarded as the country's most valuable resource. They themselves are also consumers of resources and unless their potential is adequately developed, they constitute a net drain of the nation's total resources. Unless a more comprehensive and active programme is put in place, the situation will not improve, and the gap will become wider.

REFERENCES

- Beckerman, W and Parnes H.S. (1962). *Methodology for Projection of Educational Requirements*. Paris: OECD.
- Behrman, J.R. (1990). *Human Resource Led Development? Review of Issues and Evidence*, New Dehli: ILO-ARTEP.
- Can Thö University (1995). *Master Plan Development of Can Thö University to Year 2010*, Can Thö, May 1995.
- De Cenzo, D.A. and Robbin, P.S. (1996). *Human Resource Management*, New York: John Wiley & Son, Inc.
- Gilley, J.W. and Eggland, S.A. (1989). *Principles of Human Resource Development*, Reading, Ma.: Addison-Wesley Publishing Company.
- Harbison, F and Myers, C.A. (1965). *Manpower and Education: Country Studies in Economic Development*, New York: Mc GrawHill Book Company.
- Hiromitsu Muta (1990). *Educated Unemployment in Asia*, Tokyo: Asian Productivity Organization.
- Jong-Yoon Choi (1993). Survey Report: South Korea, in Kenichi Yanagi (ed.) *Asian Dynamism through Human Resource Development*. Tokyo: Asian Productivity Organization.
- Lim Pin (1984). "Opening Address", in Chow Kit Boey and SomSong Patarapanich (ed.) *Proceedings on the ASAIHL Seminar on Human Resource Management and ASAIHL University*. National University of Singapore, December 13-15, 1984.
- Nguyen Ngoc Tran (1990), *The Mekong Delta: Resource-Environment-Development: Report of a Basic Survey in the Mekong Delta*, unpublished report.
- J. Ravianto Putra (1993). "Survey Report: Republic of Indonesia", in Kenichi Yanagi (ed.), *Asian Dynamism through Human Resource Development*, Tokyo: Asian Productivity Organization.
- Rashid Amjad (1987). *Human Resource Planning: The Asian experience*, New Dehli: International Labour Organization Asian Employment Programme.
- Ronnas, P. and Sjoberg, O. (1996), *Socio-economic Development in Vietnam: Strategy for the 1990s*, Hanoi: Human Resource Development.
- Sloper, D. and Le Thac Can (eds.), (1995). *Higher Education in Vietnam: Change and Response*, Singapore: Institute of Southeast Asian Studies.
- State Planning Committee (1995), *Strategy for Socio-economic Development in the Mekong Delta*, Hanoi: State Planning Committee, July 1995.
- Statistical Publishing House (1996), *Statistical Yearbook 1995*. Hanoi.
- Statistical Publishing House (April, 1998), *Status of labour - employment in Vietnam*. Hanoi.
- Tran Phuoc Duong (1995). *Final Report: The Role of Universities in the Development of the Mekong River Basin.* Khon Kaen University and SEAMEO RIHED, Thailand, June 1995.
- Tran Phuoc Duong (1996). *Higher Education and Training in Agriculture and Technology in the 21st Century: Opening Address*, International Conference on Higher Education and Training in Agriculture and Technology in the 21st century: Can Thö University, September 20, 1996.

- Yu-Chuang Pai (1993). "Survey Report: Republic of China", in Kenichi Yanagi (ed.) *Asian Dynamism through Human Resource Development*, Tokyo: Asian Productivity Organization.