

Capital Analysis for Future Resettlement Approaches in Laos

Saychai Syladeth^{1*}

¹Research and Training Centre for Social Impact Assessment and Resettlement Management, Faculty of Social Sciences, National University of Laos, Don Noun, Laos

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*Corresponding author: Saychai Syladeth

Research and Training Centre for Social Impact Assessment and Resettlement Management, Faculty of Social Sciences, National University of Laos, Don Noun, Laos

Abstract

Review Article

Population resettlement is complex system in planning, implementing and monitoring of administration, land, houses, public facilities, livelihood, and other resources. One important element of resettlement work is the capital which plays a key role in the compensation, resettlement and livelihood restoration among project affected persons caused by development projects. This paper aims to contribute the quantitative analysis of influential capitals related to resettlement perspective. These include the natural capital, human capital, physical capital, social capital and financial capital. The paper also provides the alternative resettlement approaches and modes for future resettlement project in Laos.

Keywords: Capital, Analysis, Resettlement, Approach, Development Project.

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INTRODUCTION

Actually, there are many influential capitals related to resettlement project and livelihood rehabilitation activities such as the natural, human, social, physical and financial resources. These were accepted by many resettlement experts like Cernea [1] emphasized that during displacement, people lost the natural capital, man-made (physical) capital, human capital and social capitals. The resettlement also created eight risks such as landlessness, joblessness, homelessness, marginalization, food insecurity, social disintegration, loss of access to common property and increased morbidity and mortality and so forth. This was known as Cernea's impoverishment risks and reconstruction (IRR) model. Thus, during re-establishment, they must regain these capitals and prevent those risks. Although, the Scudder and Colson model was the earliest attempt at modeling involuntary resettlement, which was later updated to combine Cernea's IRR model. Likely, the Department of International Development (DFID) of UK [2] adopted a livelihood approach. The objective of DFID's sustainable livelihood approach is to increase the agency's effectiveness in poverty reduction by seeking to mainstream a set of core principles and a holistic perspective in the programming of support activities to ensure that these correspond to issues or areas of direct relevance for improving poor people's livelihoods. This

approach was also respected the natural, human, financial, physical and social capitals for the livelihood development [3]. According to the poverty reduction strategy (PRS) of the Asian Development Bank (ADB), the ADB explored the question of assets in great detail, the sustainable livelihood approach groups essential into five asset categories or types of capital namely (i) *Natural capital* comprises a variety of resources, from intangible public goods such as the atmosphere and biodiversity to divisible assets used directly for production; (ii) *Human capital* is defined as the skill, knowledge and good health that together allow people to work and earn living. The two most important human capital investments are in education and health; (iii) *Physical capital* comprises the basic infrastructure and services that help to keep people out of poverty. Essential infrastructure and services include access to roads and affordable transportation, adequate shelter/housing, potable water supply and sanitation, affordable energy, and communication; (iv) *Social capital* comprises the social resources upon which people are able to draw. These social resources are developed through networks and connectedness, membership of groups and organizations, and relationships of trust, reciprocity, and exchanges that facilitate cooperation and can provide safety nets among the poor; and *Financial capital* denotes the financial resources that people are able to access. There are two main sources of financial capital: available

stocks (such a saving or credit) and regular inflows (the most common types, side from wage earning are pensions and other transfers from the state, and remittances) [4]. Thus, the resettlement approach should be development oriented and it should be noted that, there are still many problems in this area, which need to be further studied and solved. For instance, the planning of resettlement, compensation and rehabilitation, the standard for compensation, the preferential policies and their implementation, the standard for post resettlement support, the monitoring and supervising resettlement, compensation and rehabilitation, and so forth. One important element of resettlement work is the capital which plays important role for the compensation, resettlement and livelihood restoration among project affected persons (PAPs). These will be more important way in the learning, teaching, practicing and managing capitals for resettlement approach in the future.

METHOD

This review paper intends to analyze the influential capitals related to resettlement perspective in Laos. This is descriptive research based on the documentary study, which was used for summarizing and describing the influential capitals. The paper was used secondary data by collecting from different sources such as both published and unpublished materials, websites, and other sources. Especially, the paper reviewed existing second data from the

Population and Housing Census from 1985-2015 including the Lao Censuses in 1985, 1995, 2005, 2015 and also reviewed the Lao Expenditure and Consumption Surveys: LECS1 (1992-93), LECS2 (1997-98), LECS3 (2002-03), LECS4 (2007-08) and LECS5 (2013-14). Finally, the paper presents and also summarizes the data/ sub-themes according to quantitative and qualitative explanation.

RESULTS AND DISCUSSION

The most proper capitals related to resettlement perspective

A. Natural capital

Land area: Laos has wealthy of natural resources (*Thammaxath*) such as lands, forests, rivers and other biodiversity. The rich in national resources may be helpful for the socio-economic development and poverty reduction of country. According to the MoPI & UNDP (2009), emphasized that Laos has a large land area with a small population, but over 70% of its undulating, some 35-40% forested, and an unknown area contaminated by unemployed ordinance (these number overlap). Less than 5% of Laos' land area is used for agriculture, and agricultural area per farm-worker does not exceed half a hectare. Most farmers are engaged on small land-plots [5]. Recently, the land area is distributed by different square kilometers in 18 provinces are as follow [6].

Table 1: Land area distribution by provinces

No	Provinces	1985	1995	2005	2015
		Areas (Km ²)	Areas (Km ²)	Areas (Km ²)	Areas (Km ²)
1	Vientiane Capital	3,920	3,920	3,920	3,920
2	Phongsaly	16,270	16,270	16,270	16,270
3	Luangnamtha	9,325	9,325	9,325	9,325
4	Oudomxay	15,370	15,370	15,370	15,370
5	Bokeo	6,196	6,196	6,196	6,196
6	Luangprabang	16,875	16,875	16,875	16,875
7	Huaphanh	16,500	16,500	16,500	16,500
8	Xayabouly	16,389	16,389	16,389	16,389
9	Xiengkhuang	15,880	15,880	15,880	14,751
10	Vientiane	15,927	15,927	18,526	15,610
11	Bolikhambxay	14,863	14,863	14,863	14,863
12	Khammuane	16,315	16,315	16,315	16,315
13	Savannakhet	21,774	21,774	21,774	21,774
14	Saravan	10,691	10,691	10,691	10,691
15	Sekong	7,665	7,665	7,665	7,665
16	Champasack	15,415	15,415	15,415	15,415
17	Attapeu	10,320	10,320	10,320	10,320
18	Xaysomboon	7,105	7,105	4,506	8,551
Total		236,800	236,800	236,800	236,800

Source: Lao censuses (1985, 1995, 2005, 2015)

The Table 1 shows that, Lao PDR has divided into 18 provinces namely Vientiane capital, Phongsaly, Luangnamtha, Oudomxay, Bokeo, Luangprabang, Huaphanh, Xayabouly, Xiengkhuang, Vientiane,

Bolikhambxay, Khammuane, Savannakhet, Saravan, Sekong, Champasack, Attapeu and the new province is Xaysomboon province (it was changed from Xaysomboon Special Region to Xaysomboon province

in 2014). As we could see from above table, over 30 years (1985-2015), the distribution of Laos' land area by provinces is not much change. Except the land change was happened between the Xiengkhuang and Vientiane provinces, this was because of the establishing new Xaysomboon province. Moreover, it is lucky for Savannakhet province in southern part, which has still covered the largest of land area and it is followed by Phongsaly, Luangprabang, Huaphanh (northern part) and Khammuane provinces. While these are provinces like Bokeo, Xaysomboon and Sekong have smaller land areas than other provinces. On the other hand, it is unlucky for Vientiane capital, which has the smallest land area in comparison to other provinces but it is the second biggest number of populations in Laos after Savannakhet province. Regarding to relationship between the land area and resettlement aspect in Lao context, these are good strengths and opportunities to have much land area for many provinces but much of land is mountainous area and it is not suitable to be cultivated and constructed as largely residential and other industrial areas. Especially, for those northern provinces where are mountainous areas like Phongsaly, Luangnamtha, Oudomxay, Bokeo, Luangprabang, Sayabouly, Huaphanh, Xiengkhuang and Xaysomboon provinces may not be suitable for future resettlement site. Even, Vientiane capital is too narrow area and the land price is very high value. Particularly, this may be not acceptable approach for rural to urban resettlement direction and it may not be

able to make it up to those resettled vulnerable groups. Likely, these are following five plains like Vientiane, Bolikhamxay, Khammuane, Savannakhet and Champasack provinces shall be recommended for future resettlement site because there are more suitable plain for both residential and agricultural lands. Unlikely, three provinces such of Vientiane, Bolikhamxay and khammuane were already occupied by too many resettlement projects together with resettled villages caused by both mining and hydropower development projects from last two decades. Thus, three provinces may not have enough land/ space and other natural resources for other new resettlers anymore.

Agricultural area: Laos generally enjoys a wild tropical climate with two distinct seasons, the rainy season begins from May to October and the dry season starts from November to April of every year. As mentioned above, Laos has a large land area but less than 5% of Laos' land area is used for agriculture, and agricultural area per farm-worker does not exceed half a hectare. Most of farmers are engaged on small land-plots. In addition, major people/ villagers in rural Laos have recognized that, agricultural area is the most important source of agrarian livelihoods system for several centuries. As seen in figure 1, the agricultural area is used for season rice or lowland rice area (*Napy*), dry or irrigated rice area (*Naxeng*), upland rice area (*Hai*) and others for planting and harvesting crops [7].

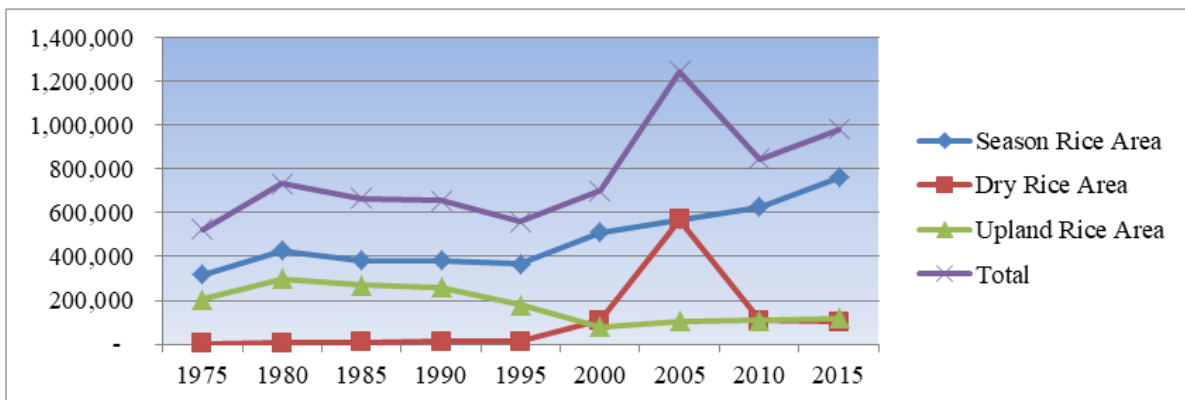


Figure 1: Agricultural area usage for planting and harvesting rice

As we could see in above table and figure, over 40 years (1975-2015) after the Lao PDR was established in December 2, 1975, Lao people have more chances and times for engaging in agricultural work and livelihood development. As of the year 1975-1980, it was the period for rehabilitating new quality of life after the war; the majority of rural villagers were initiative worked in both season rice and upland rice fields. Although, the number of both season rice and upland rice fields were little decreased during the 1985-1995, this was because of the government of Lao PDR (GoL) implemented the New Economic Mechanism (NEM) that based on market livelihood orientation rather than agrarian livelihood system. Later few years (2000s), the

number of both season rice and dry rice fields was grown up rapidly. Since many rural villagers were considered that agricultural activities were important parts for improving the livelihood and economic development. They were also motivated by many challenges in entering new market economic and its economic crisis in 1997. Likely, from 2005-2015, the number of season rice areas was grown up rapidly and the GoL has expected that the season rice fields shall be continued growing up in the future, especially for those middle and southern provinces have larger plain, season rice field and more chances in socio-economic development. However, the number of dry rice fields was decreased quickly from 2005-2010, these behind

reasons may be affected by the promoting and developing of new development projects such as industrial, urbanization, special economic zones and others that were cut/ affected to the irrigation system and increased water price. Unlikely, it was not promoted by government sectors and other donors for planting and harvesting upland rice field but it was no option for many rural villagers who had not enough food sources, education, job, and income generation. As seen, the number of upland rice fields was also decreased slightly from 1980s-2000s but it was a little increased again from 2005-2015 when the new planting of rubber, cassavas, corns together with rice in uplands where were promoted by many foreign investors/ companies. Based on the quantitative data shows us that, it is still not clear direction among local farm-workers for changing and choosing their permanent jobs based on lowland rice, irrigated rice and upland rice fields. It seems to be hard for them to transform from agrarian livelihoods to market livelihoods systems and to live in the sustainable livelihood concept. According to the report of MoPI & UDDP (2009) also revealed that, less than 5% of Laos' land area is used for agricultural and agricultural land per farm-worker does not exceed half a hectare. Most of farmers are engaged on small land-plots. Males usually identify themselves as 'self-employed workers', and females as 'unpaid family workers', which places them at a lower level in the hierarchy of jobs. A small shift in workers from agricultural towards nonfarm activities through 1995-2005 has not made much difference, as the natural increase in the workforce of about 2.5% annually has increased the population dependent on land. Farmers

have been claiming forestland and grazing land for crops, increasing the total cropland at the rate of about 4.7% each year in the last decade. This is larger than the annual growth of population in the sector. Thus, output in the agricultural sector has grown mainly owing to the expansion of the area under cultivation, with little evidence of yield-rate growth. In the agricultural societies like many rural Laos, the agricultural area is very important factor for developing of new livelihood and socio-economic conditions. According to Lao census 2015 showed that there were 1,177,600 households in the whole country. As approximated, there appears to be roughly 0.8 hectare of agricultural area for planting and harvesting rice per household. These included about 0.6 hectare of season rice field, only 0.08 hectare of dry rice field and about 0.10 hectare of upland rice field per household. It is unlikely, the agricultural area is very limited and it may no longer provide sufficient livelihoods among rural villagers, in particular, for those bigger families that have many people may not enough sticky rice for their consumption.

Main rivers:

Laos is criss-crossed with a myriad of rivers and streams. The largest is the Mekong river (Nam Kong), which is the main geographical feature in the west. These are main rivers that flow by many provinces in Laos namely Nam Kong, Nam Ou, Nam Ngum, Nam Xebanghieng, Nam Tha, Nam Sekong, Nam Xebangphay, Nam Beng, Nam Xedone, Nam Xekhanong, Nam Kading, Nam Khane and others (*Nam* is Lao word) [8].

Table 2: Main rivers

No	River (Nam in Lao)	Flowing by	Length (Km)
1	Mekong (Nam Kong)	Laos Laos-Thailand	1,898 919
2	Nam Ou	Phongsaly-Luangprabang Provinces	448
3	Nam Ngum	Xiengkhuang-Xaysomboon-Vientiane Provinces	354
4	Nam Xebanghieng	Savannakhet Province	338
5	Nam Tha	Luangnamtha-Bokeo Provinces	325
6	Nam Xekong	Saravan-Sekong-Attapeu Provinces	320
7	Nam Xebangphay	Khammuane-Savannakhet Provinces	239
8	Nam Beng	Oudomxay Province	215
9	Nam Xedone	Saravan-Champasack Provinces	192
10	Nam Xekhanong	Savannakhet Province	115
11	Nam Kading	Bolikhamxay Province	103
12	Nam Khane	Huaphanh-Luangprabang Provinces	90

Source: Lao Statistics Bureau (2013)

These main rivers and streams have provided great potential for hydropower development with 51% of the power potential in the lower Mekong basin contained within Lao PDR. In fact, majority of these main rivers were already constructed major hydropower projects and some rivers were also operated dams together with mining projects. Except few rivers like Nam Xedone, Nam Xekhanong and Nam Kading are not found in the list for potential hydropower

development project. Of course, these rivers are not included those Nam Nyuang in Bolikhamxay, Nam Hinboun and Nam Theun (NT) Khammuane where is located of major hydropower projects such of NT1, NT2 and NT3. Regarding to the real concept for developing hydropower project is the development chance and to make resettlement as development for those PAPs, this would be a good approach for resettlement project if those water engineers and

developers could operate dams together with irrigation development system where it could provide enough water for both season rice and dry rice fields, on-farm activities and other livelihood development activities for the downstream communities.

B. Human capital

Population growth: The population and housing census or Lao census was taken by the GoL together with other development partners in every 10 years. The 1st Lao census was conducted on March 1, 1985, the 2nd

Lao census was done on March 1, 1995, the 3rd Lao census was conducted on March 1, 2005 and the 4th Lao census was just completed on 1-7 March 2015. [9] Likely, the GoL has expected that, the main purpose of Lao censuses was attempted to highlight the main characteristics of population and household in Lao PDR that shall be used for socio-economic development of the country. The results from Lao censuses 1985, 1995, 2005, 2015, found Lao population growth in the following table.

Table 3: Lao population growth from 1985-2015 (persons)

	1985	1995	2005	2015
Male	1,757,000	2,260,986	2,800,551	3,254,800
Female	1,828,000	2,313,862	2,821,431	3,237,600
Total	3,584,000	4,574,848	5,621,982	6,492,400
Growth rate (%)	2.6	2.5	2.08	1.45
Density (%)	15.1	19.3	23.7	27.4

Source: Lao censuses (1985, 1995, 2005, 2015)

Based on the results from Lao censuses (1985-2015) disclose that, Lao PDR had a total population of 3,584,000 persons in 1985; 4,574,848 persons in 1995; 5,621,400 persons in 2005 and the Lao population was reached to 6,492,400 persons in 2015. Moreover, over 30 years, the population growth rate was decreased slightly that we could see that, it was about 2.6% in

1985, 2.5% in 1995, 2.08% in 2005 and it was going down to 1.45% in 2015. These may be caused by many factors such as the promoting of family planning policy, the challenging of job, income, and education and so forth. Additionally, the figure 2 shows Lao population distribution by sex from the year 1985 to 2015.

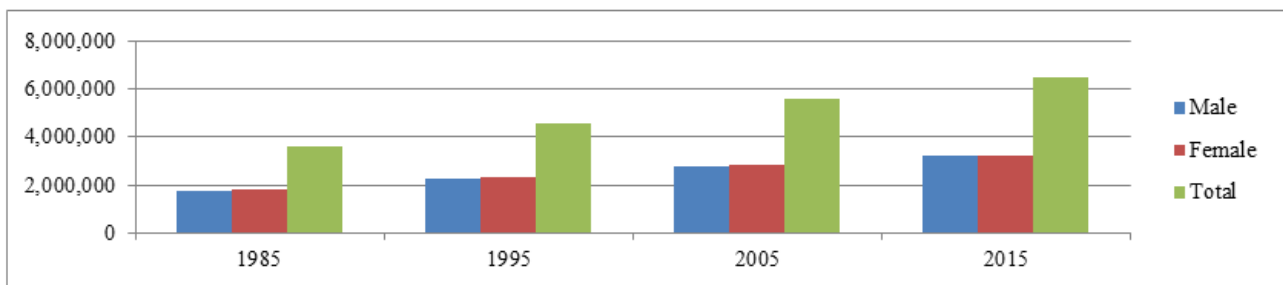


Figure 2: Population distribution by sex

Source: Lao censuses (1985, 1995, 2005, 2015)

As seen, the figure 2 discloses that, the number of females was increased little higher than males from last three decades (1985-2005). It was about 71,000 females in 1985, 52,876 persons in 1995 and 20,880 females in 2005. However, it was a little contrast, as of Lao census 2015; the number of Lao males was increased higher than the number of Lao females about 17,200 persons. In fact, the population growth for both female and male was acceptable and it was not much consideration for new development aspect in Lao context. But the gender, job, income, education attainment and the quality of life (QoL) are major considerations among two sexes. On the other hand, Jones (2015) added that, Lao PDR is facing with considerable population growth. The official population projections show an increase of population that, Lao population will increase steadily, probably to 10.25 million persons by 2030 and 10.72 million persons by 2050. It can certainly be argued that

Laos will benefit in various ways from a larger population. A larger and denser population may give a rationale for providing the infrastructure needed, resources and other facilities for development. However, it is less certain for rapid economic growth because the economic growth will depend on the productive employment, domestic purchasing power and other factors [10]. According to resettlement in perspective, the population growth has also become key considerations among project developers, policymakers and resettlement committees as well. For dealing with larger and denser resettlers caused by any resettlement of development project, this would cause to increase of finances, spaces, facilities, abilities and it may also cause to gender inequality.

Population distribution by provinces: Population distribution is important for planning purposes,

especially when data is disaggregated to geographic subdivisions such as provinces and districts. Recently, Lao population has distributed across 18 provinces namely Vientiane capital, Phongsaly, Luangnamtha, Oudomxay, Bokeo, Luangprabang, Huaphanh, Xayabouly, Xiengkhuang, Vientiane, Bolikhamxay, Khammuane, Savannakhet, Saravan, Sekong, Champasack, Attapeu and Xaysomboon provinces. The number of provinces was same in the 1985, 1995 and 2005 but it was a little different change in 2005 that few

districts were moved from Xaysomboon Special Zone to Vientiane province. As of the year 2014, it was changed from Xaysomboon Special Region Zone to Xaysomboon province formally. In addition, changes in the population at the provincial level may depend on the natural resources and net-migration, domestically and internationally. The results of Lao censuses 1995, 2005 and 2015 show that, over 20 years, Lao population has increased across provinces slightly that could be seen in the following table.

Table 4: Population distribution by provinces and density

No	Provinces	1995			2005			2015		
		Population	Area	Density	Population	Area	Density	Population	Area	Density
1	Vientiane Ca.	524,107	3,920	134	698,318	3,920	178	820,900	3,920	209
2	Phongsaly	152,848	16,270	9	165,947	16,270	10	178,000	16,270	11
3	Luangnamtha	114,741	9,325	12	145,310	9,325	16	175,700	9,325	19
4	Oudomxay	210,207	15,370	14	265,179	15,370	17	307,600	15,370	20
5	Bokeo	113,612	6,196	18	145,263	6,196	23	179,300	6,196	29
6	Luangprabang	364,840	16,875	22	407,039	16,875	24	431,900	16,875	26
7	Huaphanh	244,651	16,500	15	280,938	16,500	17	289,400	16,500	18
8	Xayabouly	291,764	16,389	18	338,669	16,389	21	381,300	16,389	23
9	Xiengkhuang	200,619	15,880	13	229,596	15,880	14	244,700	14,751	17
10	Vientiane	286,564	15,927	18	388,895	18,526	21	419,100	15,610	27
11	Bolikhamxay	163,589	14,863	11	225,301	14,863	15	273,700	14,863	18
12	Khammuane	272,463	16,315	17	337,390	16,315	21	392,100	16,315	24
13	Savannakhet	671,758	21,774	31	825,902	21,774	38	969,700	21,774	45
14	Saravan	256,231	10,691	24	324,327	10,691	30	397,000	10,691	37
15	Sekong	64,170	7,665	8	84,995	7,665	11	113,200	7,665	15
16	Champasack	501,387	15,415	33	607,370	15,415	39	694,000	15,415	45
17	Attapeu	87,229	10,320	8	112,120	10,320	11	139,600	10,320	14
18	Xaysomboon	54,068	7,105	8	39,423	4,506	9	85,000	8,551	10
	Total	4,574,848	236,800	19	5,621,982	236,800	24	6,492,200	236,800	27

Source: Lao censuses (1995, 2005, 2015)

As seen in Table 4, over 20 years (1995-2015), Savannakhet is the most populous province with a population of 671,758 persons (14.7%) in 1995, to 825,902 persons (15%) in 2005 and it has reached to 969,700 persons (15.1%) in 2015. Second in place came to Vientiane capital with a total population of 524,107 persons (11.5%) in 1995, to 698,318 persons (12.4%) in 2005 and it was increased to 820,900 persons (12.7%) in 2015. In addition, it was followed by Champasack province with a total population of 501,387 persons (11%) in 1995, to 607,370 persons in 2005 (10.8%) and 694,000 persons (10.8%) in 2015. Moreover, two provinces like Luangprabang and Vientiane have more than 400,000 persons by 2015 while many provinces have less than 399,999 persons by 2015 that included Oudomxay, Xayabouly, Khammuane, Saravan, Huaphan, Xiengkhuang, Bolikhamxay, Bokeo, Phongsaly, Luangnamtha, Attapeu and Sekong. As a new province, Xaysomboon province has only 85,200 persons (1.2%) by 2015. It is likely, Savannakhet is the

most populous province in Laos but it is lower population density rather than Vientiane capital because Savannakhet is the biggest province in terms of both land area and population characteristics. In this case, Savannakhet province together Vientiane capital and some provinces will continue to deal with an increase number of internal migrants and immigrants from other countries who will come to do business and find job with foreign investors and companies through the establishment of special economic zones and other industrial development projects.

Population density: Laos has a low population density and this is the lowest in ASEAN region. The population density of Lao PDR has increased from 15 persons per square kilometer in 1985 to 19 persons in 1995, to 24 persons in 2005 and to 27 persons per square kilometer in 2015. The population density has continued increasing in main provinces like Vientiane capital, Savannakhet, Champasack, Saravan, Bokeo,

Luangprabang and Khammuane provinces. As projected by development partners like UNDP, UNFPA and some authors, if Lao population may reach to 10.25 million persons by 2030 and 10.72 million persons by 2050, the population density of Laos will be about 43 persons per square kilometer by 2030 and roughly 45 persons per square kilometer by 2050. Especially, over 20 years (1995-2015), Vientiane capital is the densest city in Laos, the population density of Vientiane capital has increased from 134 persons per square kilometer in 1995, to 178 persons in 2005 and it has reached to 209 persons per square kilometer in 2015. However, some researchers/ authors made critical assumption that, Lao PDR does not have large cities. Even Vientiane capital is not large by international standards. Thus, the country will not face megacity issues. The issues will be how to spur the growth of regional cities as growth centers for their respective regions, so that the fruits of development can be more widely spread (Jones, 2015). In contrast, in this particular review, the author has considered that Vientiane capital may not have enough space for many internal and international migrants and it will cause to increase high price of both residential and agricultural areas and the living condition as well. Of course, as a capital of cultural, social, economic, political and modern centers of the country, Vientiane

capital will face with several social problems caused by density and urbanization.

Rural and urbanization: Over 30 years, Laos has been urbanizing rapidly. The figure 3, discloses the rural and urbanization features in Laos based on the results of Lao censuses 1985-2015. About 10 % of Lao population lived in urban areas in 1985, to 17% in 1995, to 27% in 2005 and it was reached to 33% in 2015. The urbanization was increased more than 10 percent in every 10 years. On the other hand, the percentage of Lao population who lives in rural areas was decreased by 90 percent in 1985, to 83% in 1995, 73% in 2005 and it was going down to 67% in 2015. According to the UNFPA's report was written by Gavin W Jones in 2015, also highlighted that Laos has been urbanizing rapidly, and this process is expected to continue. The urban population could reach to 50% as early 2030. This would imply no increase in the rural population. Vientiane's population could be close to 2 million in that year, and some of the other main cities could also grow very rapidly, particularly those with developing transportation connections to other countries, thus serving to make Laos a land-linked rather than land-locked country.

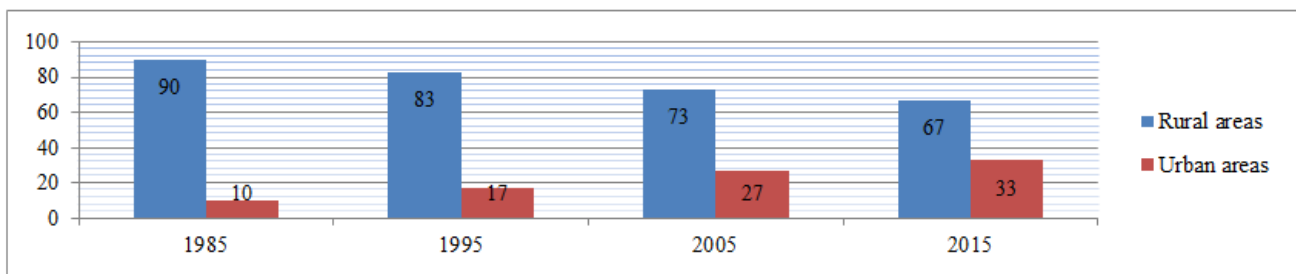


Figure 3: Rural and urbanization in Laos
Source: Lao censuses (1985, 1995, 2005, 2015)

In the reality, Lao population has been a substantial movement from rural to urban areas across all provinces. Especially, several rural areas in Huaphanh, Sekong and Phongsaly provinces have limited accessing to good road, electric, water supply and other facilities. Thus, this trend to move to cities has been particularly strong in provinces such as Vientiane capital, Xayabouly and Attapeu provinces where are comprised of better road, electric power, water supply and other facilities that were provided by rural development projects. Additionally, Vientiane capital had the highest proportion in urban areas about 63% by 2015. Regarding to the resettlement in perspective, the changing from rural to urbanization could discuss into two ways. The first could be positive change; this may provide better chances for those migrants/ resettlers who have enough knowledge, attitude and skill (KAS) to live in the market orientation system. On the other hand, the second may be negative change, this may make difficulties for those who do not have enough KAS like many rural villagers because

majority of them are agrarian workers who depend on the natural resources for food sources and livelihood modes. It is unlikely for many rural villagers, the urbanization will be caused reducing and destroying agricultural area, natural resources and it also creates too dense, slums and other social problems.

Migration and immigration: Internal migration in Lao PDR has been little studies, though it has clearly been significant in altering the pattern of population distribution and in enabling people to seek better economic opportunities. In the 20 years period to 2005, Vientiane capital received by far the greatest number of migrants from other parts of Laos. The majority of these migrants were from the northern highland provinces like Huaphan, Xiengkhuang and Vientiane provinces. In contrast, few migrants come to Vientiane capital from the southern provinces, because young people from these provinces are more likely to move to Thailand in search of work [11]. Regarding to international migration, rough estimates of the number of Laotians

living in Thailand were available: a registration of Lao migrant workers in Thailand in 2004 counted 180,000 persons and other estimates were in the 200,000-300,000 range (Phouxay, 2015). Thailand is likely to remain the main destination for Lao migrants, because of its high level of economic development, higher wages and similar culture. It is language commonality and the greater geographical accessibility to Thailand than other countries for most of the Lao population. On the other hand, Laos has received large number of foreign workers/ immigrants from many countries like Vietnam, China, Thailand, Cambodia and other countries. According to Lao census 2005 recorded that there were about 8,795 Vietnamese people, 1,825 Chinese people, 986 Thai people, 979 Cambodian people and other citizens who have worked in Laos. Recently, there is not available report for number of immigrants and their contributions to socio-economic development but in assumption, the number of immigrants in Laos may increase rapidly higher than this number. Thus, many related sectors will not only deal with an increase number of resettlers who will be affected by developmental projects but it also includes internal and international migrants and immigrants from other countries at the same time. This trend could make assumption that, the number of immigrant workers to Laos may be continued increasing rapidly than in that number by several times. The first reason is that, it is supported to the statement of Jones (2015) who emphasized that the development policy of Lao PDR stresses the need to change the nature of Laos from 'landlocked' to 'land-linked' country. Given that development policy stresses the benefits of opening more transport routes to other countries, such as a highway to Vietnam, a railway to China and more bridges to Thailand across the Mekong to add to the

four already built, such developments need to be linked with greater ease of border crossing. Thus, increased movement across Laos's borders can be seen as beneficial to development. At the same time, it will inevitably increase the flow of people both into and out of Laos. The second reason is that, the country is opening and entering the new development approach under SEZs where many immigrant workers will follow those bigger foreign investors or companies for doing business and finding their jobs under SEZs. Two reasons may motivate those policymakers, developers and practitioners by learning, teaching and practicing of resettlement management will play a key role in the future.

C. Social capital

Household size: Based on the Lao census in perspective, the household can be single person or multi-person households. A single person household comprises of a dwelling unit, arranging for food and other life necessities on his/ her own without joining other persons and possessing his/ her own registration book. While a multi-person household comprises of a dwelling unit and who together arrange for food and other life necessities and share a common registration book. A household is not the same as family. The different is that a household may consist of one person or more persons not necessarily related by blood. A family must have at least two related members. The concept of family was not used in the Lao censuses from 1985-2015. In practice, however, the household is usually composed of a single family, or contains more than one family. Thus, the average distribution of household size in Laos could see in the figure 4, as follow.

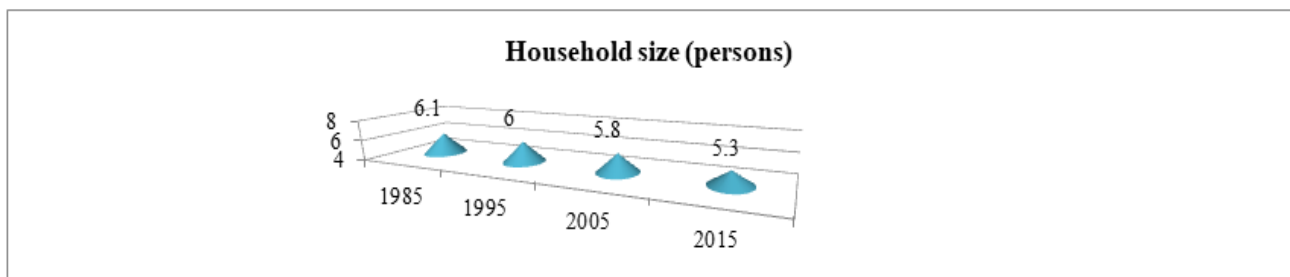


Figure 4: Household size

Source: Lao censuses (1985, 1995, 2005, 2015)

Traditionally, Lao households/ families are generally nucleus; with perhaps several generations are under the same roof. Men monogamous, and both husband and wife will decide family issues. Over 30 years, the average household size in Laos was decreased slightly, in particular, it was 6.1 persons per household in 1985, 6 persons per household in 1995, 5.8 persons per household in 2005 and the average household size was going down to 5.3 persons in 2015. In addition, Sekong province was the highest average

household size with 6.1 persons per household while the lowest average household size was in Vientiane capital with 4.7 persons per household by 2015. There were some influential factors related decreasing of household size in Lao context, such as the major couple prefer to have only few children, the influence of nuclear family promotion, the economic condition, educational promotion and other reasons. In the resettlement concept, there are two aspects for dealing with household size. If it is rural resettlement project,

the project developers and concerned sectors will experience with higher number of household size because rural households/ families have many family members and they may have more reasons to require another separate household easily. This may increase other project resources, costs and responsibilities for building new houses. Contrarily, in urban resettlement project, this may not much worry about household size since the urban households/ families have fewer members, so that this may help to save the project cost and other concerns regarding to housing issues.

Housing characteristics: In general speaking, Lao people live in established villages, generally in the lowland, middle land and upland areas. The most

prominent structure in the small villages is usually the temple. Their traditional houses are large, comfortable, and usually sit on wooden or concrete poles or stilts. They are generally made of wood, cement or bamboo with thatched or tin roofs. Usually there is a large living room with two or three sleeping areas that are walled. The front of house is straight to the north and the other end to the south. A ladder is at front of the house and also at the back balcony. The ladder always has an odd number of rungs. In addition, the space under the house is used for agricultural equipment and animals. In the past the rice husker was kept under the house. When visitors visit the house, they always take off their hat and shoes when entering the house. In the common practice, there are four main types of house namely:

Table 5: Proper types of house

No	House Types	1995 (%)	2005 (%)
1	Concrete or brick houses	3.4	17.6
2	Wooden houses	41.8	36.7
3	Mixed concrete and wooden houses	4	6.5
4	Semi-permanent houses	49.4	35.7
5	Others	1.4	3.5
	Total	100	100

Source: Lao censuses 1995, 2005

This is recognized by official term that; the first three types of house are defined as permanent houses while the fourth and fifth types are defined as temporary houses. According to the second population and housing census or Lao Census 1995, highlighted that the most common type of dwelling in Laos was the semi-permanent houses with structures of bamboo, plywood and grass, which occupied by almost 50 % of households. It followed by wooden house with 41.8 % while the mixed wood and concrete houses were 4 %, it was rough 3.4 % of houses made by concrete and about 1.4 % of houses made by other materials. On the other hand, the third Lao census 2005, found that about 36.7 % of houses were wooden houses, it followed by 35.7 % of semi-permanent houses with structures of bamboo, plywood and grass. The concrete or brick houses were comprised of 17.6 % while about 6.5 % of houses were mixed concrete and wooden houses and other types of house were less than 3.5 %. As seen from table 5, more than a decade, the percentage of semi-permanent houses and wooden houses have decreased slowly. In contrast, the percentage of concrete houses together with mixed concrete and wooden houses have increased rapidly. Of cause, the Lao Census 2015 on housing characteristics is certain trend that, the number of both concrete houses, and mixed concrete and wooden houses shall continue increasing in both rural and urban communities. In the resettlement practice, the housing data are very important parts for planning, implementing (building or constructing) and monitoring of new house, arranging public facilities and other food for work programs in the resettled communities.

Recently, it can find housing feature easily, the housing characteristics and beliefs among people have changed from last two decades. Many people in both rural and urban areas have preferred to build concrete houses rather than wooden house. This is because of, the hard wood sources are become higher price in market values and it is also quite hard to find wooden materials. For the future rejection, the semi-permanent houses that are structured by bamboo, plywood and grass should not be promoted among project developers or engineers because these are temporary houses and they are also lower than national policies and standards of resettlement and compensation.

Labor force: Based on the national human development report (2009) noted that, more than 75% of workers continue to be engaged in agrarian livelihoods, a clear indication that economic growth has not created job. Labour productivity in agriculture was 4-10 times less than in non-agriculture; consequently, rural standards of living are lower than urban. An examination of the statistics demonstrated the trends that, in 1995, 85.4% of total workforce was engaged in the agricultural sector and this proportion reduced to 78.5 percent in 2005. According to this figure below shows that over 30 years, the unemployment rate among population who aged 10 years or above was uncertain. The unemployment rate was decreased from 2.6% in 1985 to 2% in 1995 and it was reduced to 1% in 2005. However, the unemployment rate was increased little slightly with 1.4% in 2015. The unemployment rate shows in Figure 5, as follow.

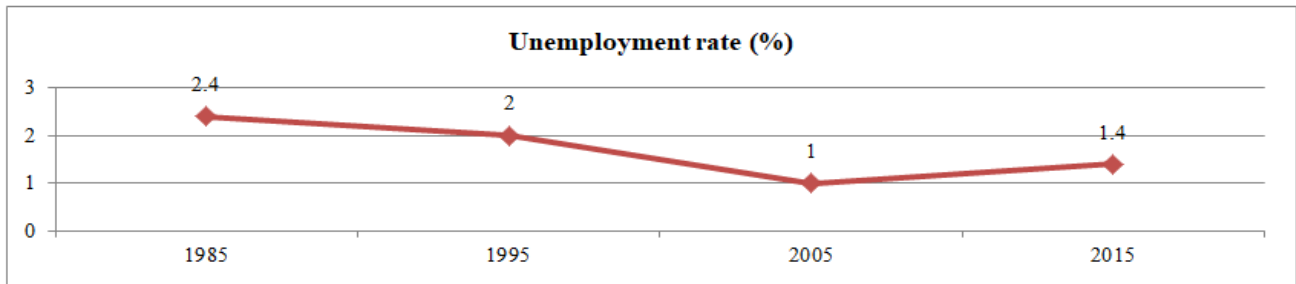


Figure 5: Unemployment rate

Source: Lao censuses (1985, 1995, 2005, 2015)

According to labour census 2010 also reported that, there were more than 3,886,000 persons who aged over than 15 years old. About 3.08 million persons were already been as part of labour force but more than 586,000 persons were still looked for suitable jobs and they were unemployed. The total unemployment rate was 1.9% while 1.8% was unemployment of males and about 2% was unemployment among females. The census report also highlighted that, there were highest unemployment rate in Xiengkhuang province (6.3%), Vientiane capital (5.5%), and Bolikhamxay province (3.6%). Unlikely, many provinces possessed unemployment rate less than 2% and there was no unemployment rate in Luangnamtha province anymore [12]. In addition, another report emphasized that; the unemployment is higher among poor, the landless and small farmers, ethnic groups and the internally relocated. That weaker sections of society face a larger incidence of unemployment is a master concern. Many workers withdraw from the workforce in the dry season and rejoin in the west season. In the past, especially in the agrarian sector, seasonal withdraws from work was considered voluntary, for self-provisioning. However, in recent years, with external exposure, low availability of forest produces and more people to feed workers find that they are no longer able to 'afford' this withdrawal since there is pressing demand for cash. They now

redefine this seasonal withdrawal as involuntary idleness, at least for part of the time [13].

Poverty reduction: Poverty is multidimensional and manifests itself in different forms. It is more than a problem of inadequate income. It includes a lack of access to basic social and essential economic services and life choices, including opportunities to participate in economic, social and other development processes. Also, different groups such as men and women, rural and urban dwellers, ethnic and cultural groups, may experience poverty in different ways. Unlikely, inequality in the ownership of land, the distribution of wealth and income, access to economic and social goods and services as well as remunerative jobs, participation in new developmental processes, and other life choices, have contributed to poverty. In Lao context, poverty may differ from situations and experiences in other countries. The poverty is new concept among many rural villagers and its opposites term of hunger. Many outsiders/ visitors travel to both rural and urban areas in Laos but they could not find the poor because they have wealthy of natural resources for providing food sources and livelihood conditions. However, the poverty in Laos may consider more about sustainable livelihood and food security [14]. The Figure 6, shows the poverty incidence rate of family from last two decades.

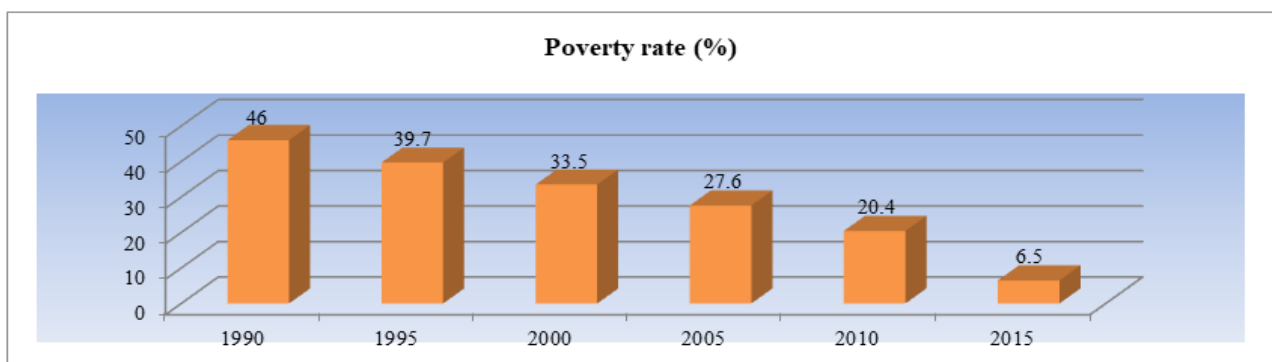


Figure 6: Poverty rate

The family or household poverty is official used as a unit analysis for poverty measurement. The quantitative data in percentage shows that, the poverty incidence was about 46% in 1990 and it was reduced to

39.7% in 1995, 33.5% in 2000, 27.6% in 2005, to 20.4% in 2010 and it was reduced to 6.59% in 2015. In addition, the government expects to eradicate less than 5% of mass poverty and leave the status of least-

developed country by 2020. Although some progress is noteworthy, a continuous and intensive effort shall be endured to achieve the objectives. The poverty rates are two to three times higher in rural areas than in urban areas. However, the poverty eradication in rural areas is more considerable on agricultural development, transforming rural villagers from agrarian livelihoods to market orientation and educational promotion among young generation. This may require new knowledge, attitude and skill that should be followed the formal education and vocational training. In contrast, the poverty eradication in the urban areas shall deal with urbanization, residential, food insecurity, jobless and other social problems that may create another poverty

dimension. These kinds of poverty eradication need higher level of knowledge, attitude and skill in overcoming complicated issues.

Job engagement for generating income activities:

People have engaged in different works for generating income activities. These are major jobs, that include working as employed, doing own business work, working in agricultural field, collecting firewood, hunting or fishing, constructing, making handicraft and others [15]. This table below discloses the job engagements for generating income activities among people are as follow.

Table 6: Job engagement for generating income activities

No	Job items	1992-1993	2002-2003	2007-2008	2013-2014
1	Agriculture work	47	49	46	50.5
2	Own business work	13	14	15	11.9
3	Work as employed	12	11	16	15.1
4	Hunting/fishing	13	11	9	8.7
5	Collecting firewood	6	7	8	8.8
6	Handicraft	7	7	4	3.8
7	Construction	2	1	2	1.2
	Total	100	100	100	100

Source: LECS1-5 (1992-2014)

As seen from the Table 6, the job engagement for generating income activities among people could be identified by each job engagement in different period.

Agricultural work: Roughly 47% of people were engaged in agricultural work in 1992-1993 and it was increased to 49% in 2002-2003 but later on, it was decreased to 46% in 2007-2008 and it was again increased to 50.5% in 2013-2014. This is uncertain trend in the short run but it may decrease in the long run because agricultural areas have used for development project concessions and other purposes. At the same time, many agricultural workers are transformed from agrarian livelihoods system to market livelihoods system.

Doing own business work: The percentage of doing their own business work was increased slightly by 13% in 1992-1993, to 14% in 2002-2003 and it reached to 15% in 2007-2008. Later on, it was decreased to 11.9% in 2013-2014. This trend may be increased in the long run because legal policies are approved and promoted several business works such as company, factory, SME and others. Moreover, personal business and private sectors have more financial, material and human resources than before.

Working as employed: About 12% of people worked as employed in 1992-1993 and it decreased 11% in 2002-2003. Later on, the percentage was increased to 16% in 2007-2008 and it was little decreased to 15.1% in 2013-2014. In the future, the percentage of working as employed will increase in both public and private

sectors. Especially, this is certain trend among public officers since the government has increased the salary and social welfare policies that are motivated many young people to enter public work (as permanent) rather than private work (as temporary).

Collecting wood: The percentage of people who collected firewood was increased slowly by 6% in 1992-1993, to 7% in 2002-2003, to 8% in 2007-2008 and about 8.8 % in 2013-2014. This trend may decrease slightly incoming few years because there is limited of natural resources for making firewood and many people have changed to use electric power.

Hunting/ fishing: The percentage of hunting/ fishing was also decreased slightly by 13% in 1992-1993, to 11% in 2002-2003, to 9% in 2007-2008 and there was only 8.7% in 2013-2014. Unlikely, the percentage of hunting/ fishing will decrease rapidly, especially the hunting is not promoted anymore and this is illegal job.

Handicraft making: The percentage of handicraft makers were roughly 7% in 1992-1993 as same as in 2002-2003. Later on, it was decreased quickly to 4% in 2007-2008 and it was about 3.8% in 2013-2014. This trend shall continue decreasing slowly in the long run since major handicraft products are made by natural resources but many items of products are low price. Even, main handicraft products have promoted for tourism and generating income but it is still hard to find the real market.

Construction: The percentage of people who engaged in construction work was about only 2% in 1992-1993 and it was decreased to 1% in 2002-2003. Later on, it increased 2% in 2007-2008 and it was again reduced to 1.2% in 2013-2014. This is uncertain trend in Laos because it is hard work and it needs more human power and technical skills among local workers. Another reason is that, many immigrant workers from other countries have more skills and lower wages rather than local workers.

The job engagement among people could be grouped into two groups: main job and extra job. The main permanent jobs as permanent are included agriculture work, business work, employed and construction while the extra jobs as temporary are comprised of hunting/fishing, collecting firewood and making handicraft making. Over two decades, almost 50% of people have still engaged in agricultural work rather than other permanent jobs like employed, doing own business work, and so on. As familiarized by many resettlement projects, the project developers and designers are promoted both jobs through on-farm (agricultural work) and off-farm (handicraft making and employed inside the project cycle) to PAPs rather than other jobs. Although, many projects have also promoted extra jobs like handicraft making, fishing, collecting firewood and non-timber forest products, etc but this seems to be used in the short run and this may not be sustainable concept. In addition, the construction work is very important work in the project cycle. Thus, this job/ work should be promoted and kept to PAPs, local workers and young people as well. This could be cheaper wage and to prevent internal migration among young generation as well.

D. Financial capital

Share of GDP: The gross domestic products (GDP) have shared by four main sectors that include agricultural sector (crops, livestock and fishery, forestry), industry sector (mining, quarrying, manufacturing and construction), services sector (transportation, post and wholesale and retail trade, banking, ownership and dwellings, public administration, nonprofit institution, hotel and restaurant, other services), and import duties. As of the year 1995, it was the second Lao census period, the agriculture sector shared more than 53.7% to the GDP while services sector shared rough 23.5% and the industry sector shared about 18.5%. Only 2.5% gained from import duties. However, during the third Lao census 2005, the share of agricultural sector to GDP was decreased rapidly to 44.4% while the industry sector was increased quickly to 29.2%. Likely, the services sector was a little increase to 25.5% but it was unlikely since the import duties were reduced to 0.9%. As of year, 2015, this year was fourth Lao census, the share of agricultural sector to GDP was continued

decreasing rapidly from 53.7% in 1995 to 23.15% in 2015 while share of services sector was increased quickly from 25.3% in 1995 to 37.87% in 2015. Two industry and import duties sectors were also together increased that could be seen in the figure, industry sector was increased from 18.5% in 1995 to 32.42% in 2015 while the import duties also increased from 2.5% in 1995 to 6.56 % in 2015. This is certain trend; the share of agricultural sector to the GDP will continue decreasing slowly in the long run. As seen from the figure, at least 10% of agricultural sector will continue to decrease in every 10 years. If the trend is like this, the share of agricultural sector to the GDP may reduce to rough 13.15% by 2025 and to 3.15% by 2035. Likely, the industry together with service sectors were increased rapidly from 42 percent in 1995, to 54.7% in 2005 and the share of two sectors to GDP were reached to 70.29% in 2015. If the share of two sectors to GDP continues an increase at least 10% in every 10 years through the longer run, the share of industry together with services sectors to GDP may reach to 80% by 2025 and roughly 90% by 2035. In that year, Laos may stay closer with the real state of industrial country where is already expected by many ministries and development partners. Thus, this trend could remind those project developers, designer and concerned sectors in planning of future resettlement project and livelihood rehabilitation activities. The suitable resettlement project in the long run shall be based more on off-farm activities (such of industry and service activities) rather than on-farm (agricultural activities). There are few reasons to be answer that, the number of agricultural areas is limited, major agricultural products have served for personal or family consumption rather than commercial or/ and market demand, and agricultural products are taken more human power, time and labour force. Likely, off-farm activities like industry work, trade, construction, and services will play more important role for generating family income, increasing GDP per capita and sharing to the GDP in the long run. These off-farm activities are required people/ resettlers to have more knowledge, attitude and skill based on formal education and training.

GDP growth rate: Over 40 years, after establishing Lao PDR since 1975, the GDP growth rate has continued increasing slowly. It was rough 0.2 % in 1975, to 0.3% in 1986, to 0.6% in 1985, to 0.8% in 1990, 1.7% in 1995, as 1.7% in 2000, to 2.7 % in 2005. Likely, the GDP growth rate was increased rapidly to 6.7% in 2010 and reached to 7.5% in 2015. The detail of GDP growth rate is shown in the following figure. As seen, the GDP growth rate was increased slowly from 1975 to 2005 and it was increased rapidly from 2010 to 2015. This trend has grown quickly because of the sharing and contributing of mining, hydropower and electricity development from last decade.

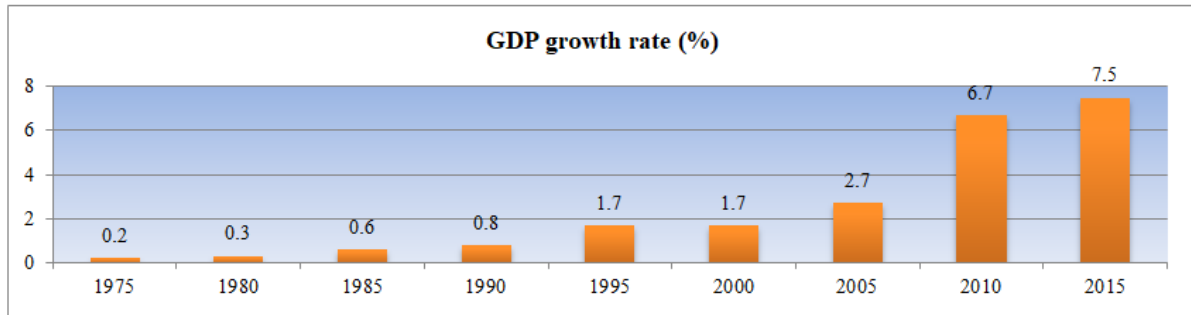


Figure 7: GDP growth rate

GDP per capita: The GDP per capita was increased slightly in every 5 years, it was rough US\$ 66 in 1975, to US\$ 99 in 1980, to US\$ 164 in 1985, to US\$ 208 in 1990 and it was reached to US\$ 380 in 1995. Unlikely, the GDP per capita was a little decreased to US\$ 335 in 2000 and this may be caused by the impact of economic

crisis in 1997. Later few years, the GDP per capita was again increased to US\$ 513 in 2005, it was continued increasing rapidly to US\$ 1,088 in 2010 and the GDP per capita was reached quickly to US\$ 1,857 in 2015. This is because of great contribution and its progress of mining, hydropower, and industrial projects.

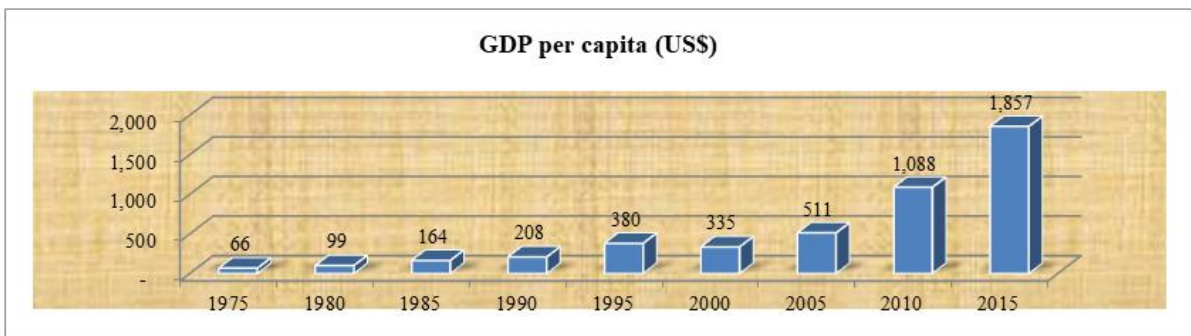


Figure 8: GDP per capita from 1975-2015

The GoL has expected that, the GDP per capita may reach to US\$ 3,220 and leave the least developed country by the year 2020. At the same year, poverty reduction line of poor family will reduce lower than 5%. As practiced by many project developers and concerned sectors, the GDP per capita is used as a main indicator for capturing livelihood development among PAPs who were affected by resettlement management of development projects. However, many resettlement cases have experienced that, an increase of GDP per capita is not meant people have well-off conditions. Because, the GDP per capita is just average money but someone cannot touch it directly. This could be beneficiary for those investors or someone who owns

business but it still seems to be shadow for many PAPs or vulnerable groups.

Expenditure items: According to Lao expenditure and consumption surveys (LECS) already conducted in five times such as LECS1 (1992-93), LECS2 (1997-98), LECS3 (2002-03), LECS4 (2007-08) and ECS5 (2013-14) [16]. The results of these surveys show that, people were spent their money for main items: foods, clothing and footwear, housing, household utensils, medical care, transportation and communication, recreation or relaxation, education, personal care, alcohol and tobacco and others. The details of expenditures are as follow.

Table 7: Expenditure items

Expenditure items	1992-93	1997-98	2002-03	2007-08	2013-14
Foods	26.3	26.9	26.4	22.7	36.5
Own products	38.0	33.9	28.6	23.4	21.8
Clothing, footwear, tailoring	4.1	2.8	2.4	2	2.7
Housing	7.1	7.1	12.6	12.6	5.2
Household utensils	4.0	5.1	4.1	4.3	3.4
Medical care	2.4	2.2	1.7	1.8	2.5
Transport & communications	6.7	10.6	11.8	19.8	13.1
Recreation (relaxation)	3.8	6.1	3.7	4.9	2.4
Education	0.8	0.5	1.0	1.3	1.3

Expenditure items	1992-93	1997-98	2002-03	2007-08	2013-14
Personal care	3.1	0.8	2.2	2.6	2.0
Alcohol and tobacco	3.0	2.9	2.5	2.3	4.3
Others	0.7	1.1	3.0	2.3	4.8
Total (%)	100	100	100	100	100

This could be reflected on above table in some points, the percentage of people who had their own food products has decreased slowly from 38% in 1992-1993 to 21.3% in 2013-2014. An average, at least 5% of own food products was decreased in every 5 years. If this trend continues reduction like this situation in the long run, this could be estimated that, people may have their own food products only 15% by 2020, 10% by 2025 and 5% in 2030. Unlikely, over 20 years, the percentage of expenditures for buying foods among people was higher expenditure from 26.3% in 1992-1993 to 36.5% in 2013-2014. Additionally, these were together with other expenditure items like medical care, transportation and communication, education, alcohol and tobacco, and others were also increased from last two decades. On the other hand, other expenditure items spent for clothing, footwear, tailoring; household utensils, recreation and personal care were seemed decreasing slightly from last 20 years. In reality, major of people live in rural areas and many of them have lower income, the promotion of own food products has practiced from many centuries and it will continue becoming important approach since many villagers

have experienced in agricultural livelihood activities rather than market orientation activities. This may not be only the case of Laos as an agricultural country but it may be similar to other countries where people are based on agricultural products.

E. Physical (man-made) capital

Mining: Mining output grew up rapidly from last two decades and its contribution to GDP rose to about 0.2% in 1995, to 1.5% in 2005, and 14.19% in 2014. The share of investment in the mining sector compared to the total commitment in 2015 was about 14.49% [17]. In addition, mining employed about 1.3% of total workers in the non-farm sector during 2003-2007. On the other hand, major mining projects affected to relocate rural people or/ and agricultural workers. Thus, in its present form for resettlement and rehabilitation, mining has more potential to create jobs rather than hydropower sector, if some conditions are satisfied like the larger investment of local workers/ PAPs in downstream, different components of human development and infrastructure, suitable jobs, security promotion, benefit sharing and others.

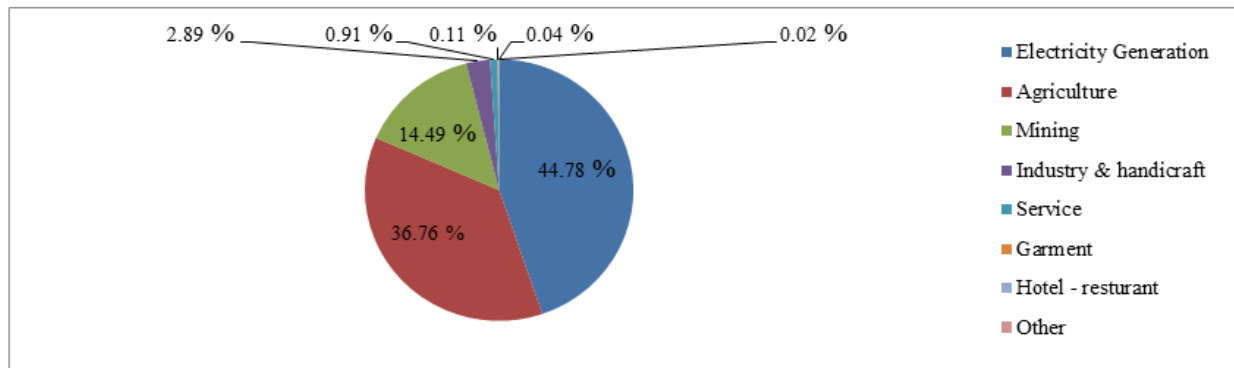


Figure 9: Foreign direct investment in Laos by 2015

Source: MoPI (2016)

Hydropower: Hydroelectric output has grown quickly from last two decades and its contribution to the GDP growth about 1.3% in 1995, to 2.7% in 2005 and 3.33% in 2014. Likely, the future profit gaining from this sector will continue increasing higher than other sectors in the longer run. This could be seen from the great share of investment in hydropower sector compared to total commitment in 2015 was 44.78%. This sector has also created some jobs for people, especially for those rural people and PAPs where hydropower projects were operated. However, those larger hydropower projects have created environmental, social, economic and cultural impacts to affected communities and PAPs in the large scale. The most consideration is resettlement

management among PAPs, which has become main issues for many hydropower projects.

Manufacturing: Manufacturing (plus construction and garment) has decreased slightly from 13.7% in 1995, to 9% in 2005 and about 7.78% in 2014. Recently, this sector has generated many jobs for people rather than other industrial sectors, especially for young women workers from rural areas have gained more jobs and income in garment factories from last two decades. Likely, if this sector grows again, it could increase more workers rapidly through garment and cement factories, furniture, construction and so forth.

Special economic zones: The special and specific economic zones (SEZs) in Laos have become new practices for economic development since last decade. Since, Laos is located in South East Asia, one of the fastest economic growing regions. Laos has been experiencing exceptional 7-8% of GDP growth in the last decade. In early 2013, Laos joined the WTO and has integrated into the ASEAN economic community (AEC) in the end of 2015. Laos also has special trade privileges with 42 countries. With the rich natural resources, Lao has desire to become the electricity supplier for the region, it has all available potential to provide cheap clean energy. Additionally, Lao

abundance of natural resources provides low cost of raw material sourcing from inside the country for the industries, shortening the length of the supply chains and importation from overseas. Laos is also an excellent place to live with pristine natural beauty and easy-going friendly people, low crime rates and a healthy natural lifestyle [18]. As of the year 2014, there were 10 special and specific economic zones where major SEZs are located in Vientiane capital, Luangnamtha, Bokeo, Khammuane and Savannakhet provinces [19]. This table below shows the details of each SEZ, establishment, location, area, cost and operational years.

Table 8: Special economic zones in Laos by 2014

No	Name of SEZs	Established	Location	Areas (ha)	Cost (US\$)	Period (year)
1	Savan-Seno Special Economic Zone	2003	Savannakhet	954	74,000,000	75
2	Boten Beautiful Land Specific Economic Zone	2003	Luangnamtha	1,640	500,000,000	50
3	Golden Triangle Special Economic Zone	2007	Bokeo	3,000	86,600,000	50
4	Longthanh-Vientiane Specific Economic Zone	2008	Vientiane Cap	557.75	1,000,000,000	50
5	Vientiane Industrial and Trade Area	2009	Vientiane Cap	110	50,000,000	75
6	Dongphosy Specific Economic Zone	2009	Vientiane Cap	53.94	50,000,000	50
7	Saysetha Development Zone	2010	Vientiane Cap	1,000	128,000,000	50
8	Phoukhyo Specific Economic Zone	2010	Khammuane	4,850	708,000,000	99
9	Thatluang Lake Specific Economic Zone	2011	Vientiane Cap	365	1,600,000,000	99
10	Thakhek Specific Economic Zone	2012	Khammouane	1,035	80,000,000	75

Source: Investment Promotion Department, MoPI (2014)

Over last decade, those special and specific economic zones have greatly contributed to the country's economic growth. The SEZs not only contribute to overall development but also help to boost the growth of the industry and service sectors. These SEZs have also created many thousand jobs for people, especially for those young workers who lived nearby zones have more chances to work under SEZs. As expected by government ministries and developers, this sector will become the largest industry and services sectors in Laos that could provide more jobs and contribute to GDP growth in the long run. Also, this sector will play important role to prevent international migrants cross some neighboring countries in the future. On the other hand, since SEZs will occupy larger areas and take many decades, these will affect to the land-usage and land-ownership among PAPs in the long run. In some SEZs, the larger projects will cause to relocate rural people to another new place.

Alternative approaches and modes for future resettlement project in Laos

These are some alternative approaches and modes for future resettlement projects in Lao context that are synthesized from the quantitative analysis on

influential capitals such as natural, human, social, financial and physical capitals.

Natural capital aspect: a) Future resettlement site should be considered larger and lower price of lands for both residential and agricultural areas where can be more available space in southern parts like Savanakhet and Champasack provinces; b) Sine agricultural area is limited and it may no longer provide sufficient livelihoods among rural villagers, thus the future resettlement approach shall be careful to consider suitably agricultural area, c) If the agricultural area is not available in the new resettlement site, the concerned sectors and project developers may select agricultural area-for-cash compensation rather than agricultural area-for-agricultural area compensation modes, d) Regarding to resettlement as development for those PAPs, this would be a good approach for resettlement project if those water engineers and developers could operate dams together with irrigation development system where can provide enough water for both season rice and dry rice fields, on-farm activities and other livelihood development activities for the downstream communities.

Human capital aspect: a) Future resettlement project shall try to minimize the number of resettled populations as small as possible. This can help to save more resources for both project cost and expenditures; b) The gender perspective shall be taken into account during the planning, implementing and monitoring processes. This is also required by many development financial institutions (DFIs), at least more than 20-30 percent of females should be participated or/ and involved in resettlement, compensation and rehabilitation activities of any development projects; c) As faster development, many sectors will continue to deal with an increase number of people's movement from one to another place for both internal migrants and immigrants. Thus, it may be better if the sufficient regulation on people's movement is initiative in place. This may help to prevent illegal migration and immigration workers in the long run; d) In the agricultural societies like Laos where major population has continued living in rural areas, the future resettlement approach shall be promoted from rural to rural or/ and from urban to rural resettlement modes rather than rural to urban or/ and urban to urban resettlement directions; and e) Since the Lao PDR has changed the nature of Laos from 'landlocked' to 'land-linked' country and the country is opening and entering the new development approach under special economic zones (SEZs), many sectors will experience with internal and international migrants and immigrants. Thus, the learning, teaching and practicing of resettlement management will play a key role in the future.

Social capital aspect: a) Future resettlement approach shall consider few household members rather than many household members. This is a good way to reduce resettlement cost, responsibility and issue among project developers and concerned sectors as well; b) Future resettlement approach shall consider concrete houses or mixed concrete and wooden houses rather than hard wooden house. Recently, the hard wood is higher price rather than other construction materials and it is rare to find hard wood in the urban areas. This can help to save more project cost but it may lose traditional house respectively; c) To prevent the unemployment among PAPs or resettlers who may be affected by development projects, the project developers and concerned sectors should promote workplace inside the project cycle rather than outside workplace. If it is limited workplace by the project itself, the big company or factory shall be in place nearby the new resettlement site where resettlers can find their permanent work, job and income generation easily. This way can be helpful mechanism to prevent the migration issues among resettlers and young generation in the long run; d) For eradicating poverty among PAPs and vulnerable groups, multiple sectors should understand poverty clearly. In this sense, poverty is not only economical dimension but it also includes social, cultural and natural dimensions. In the real practice, the poverty

term shall be promoted 'eradication' rather than 'reduction' because 'poverty reduction' is based more on quantitative display in terms of frequency, percentage, etc but the 'poverty eradication' is more about qualitative progress that close to creative concept of well-being for all in terms of physical, spiritual and wisdom aspects; and e) Of cause, future resettlement project shall choose permanent jobs rather than temporary jobs and practice from on-farm jobs to off-farm jobs in the longer run.

Financial capital aspect: a) Future resettlement policy and practice are required the clear benefit sharing rather than GDP growth generally; b) In the resettlement project cycle should not only consider national GDP growth but it also includes the real income generating and benefit sharing mechanism should be in place clearly. Therefore, every citizen and PAP can gain real benefit from the GDP growth; c) Future resettlement project and livelihood rehabilitation activities shall be considered well-being development rather than GDP per capita growth approach.

Physical capital aspect: a) In its present form for resettlement caused by mining project, mining has more potential to create jobs rather than hydropower sector, if some conditions are satisfied like the larger investment of local workers/ PAPs in downstream, different components of human development and infrastructure, suitable jobs, security promotion, benefit sharing and others; b) In the hydropower project, project developers and concerned sectors can take the following considerations for future resettlement project and livelihood rehabilitation activities, these are to use the power to boost downstream rural and small-scale industries or business, to support local workers rather than outside workers, to promote from micro to macro hydroelectricity, to implicate from benefit sharing rather than GDP contribution, to practice from livelihood development rather than physical reconstruction and also it prefers from partial relocation to resettlement. Those related sectors shall consider the suitable resettlement site where is nearby big factory or company, thus PAPs/ young workers could access to find job and generate income easily; c) SEZs as development approaches, thus future resettlement and compensation project caused by SEZs may be different from mining, hydropower, urbanization, rural and other development projects. Thus, the suitable resettlement and compensation modes among PAPs under SEZs may focus more on the benefit sharing rather than cash compensation, promotion of local workers rather than immigrant workers, practice from partial relocation to resettlement, and promotion from project workers to project owners should be implicated in the long run.

CONCLUSION

This analyzes the influential capitals such as natural, human, social, financial and physical capitals that are related to resettlement perspective. The results

of quantitative analysis synthesize that, natural, social and physical capitals have provided more potential for resettlement projects, however there are some constraints for the human and financial capitals. Based on the results of quantitative analysis, some alternative approaches and mods on resettlement could be implicated for future resettlement management caused by other development projects in this context.

Regarding to *natural capital aspect*, future resettlement site should be considered larger and lower price of lands for both residential and agricultural areas. If agricultural area is not available in new resettlement site, the better recommendation should promote agricultural area-for-cash compensation rather than agricultural area-for-agricultural area compensation modes. Likely, if it is possible, the dam operation together with irrigation development system may be promoted that could provide enough water for agricultural and livelihood development activities in the downstream communities.

For *human capital aspect*, future resettlement project shall try to minimize the number of resettled populations as small as possible and the gender perspective shall be taken into account during PIM processes. At the same time, this may help to prevent illegal migration and immigration workers in the long run if the sufficient regulation on people's movement is initiative in place strictly. Since major population has continued living in rural areas, future resettlement approach shall be promoted from rural to rural or/ and from urban to rural resettlement rather than rural to urban or/ and urban to urban resettlement directions. In addition, changing from 'landlocked' to 'land-linked' country and entering larger industries may experience with an increase number of internal and international migrants and immigrants. Thus, the learning, teaching and practicing of resettlement management will play a key role in the future.

Referring to *social capital aspect*, future resettlement approach shall consider few household members rather than too many household members and concrete houses or mixed concrete and wooden houses rather than hard wooden house. As expected by many sectors, future resettlement project should be promoted job creation from inside to outside workplace, poverty eradication rather than poverty reduction, permanent jobs rather than temporary jobs and practiced from on-farm jobs to off farm jobs in the longer run.

Financial capital aspect, future resettlement approach is required the clear benefit sharing rather than GDP and GDP per capita growth generally and future livelihood rehabilitation activities shall be considered well-being development rather than GDP per capita growth approach.

In some *physical capital aspect*, future resettlement project and livelihood rehabilitation activities should boost downstream rural and small-scale business, support local workers rather than outside workers, promote from micro to macro hydropower, implicate from benefit sharing rather than GDP contribution, practice from livelihood development rather than physical reconstruction and select from partial relocation to resettlement. The initiative task is to consider the suitable resettlement site where should be nearby big factory or company, thus PAPs/ young workers could access to find job and generate income easily. Particularly, for SEZs as development approaches, thus future resettlement and compensation project caused by SEZs may be little different from mining, hydropower, urbanization, rural and other development projects. The suitable resettlement and compensation modes among PAPs under SEZs may focus more on the benefit sharing rather than cash compensation, promotion of local workers rather than immigrant workers, practice from partial relocation to resettlement, and promotion from project workers to project owners should be implicated in the longer run.

Author

Saychai Syladeth, PhD is a director of the Research and Training Centre on Social Impact Assessment and Resettlement Management (RTC) and he is also a deputy head and senior lecturer at the Department of Social Work and Development, Faculty of Social Sciences (FSS), National University of Laos (NUoL). He received PhD in Resettlement Science and Management from Hohai University (China), graduated MA in Social Services and Development from Asian Social Institute (the Philippines) and finished BA in Political Science and higher diploma in English from National University of Laos. His research interests and academic services include social and resettlement management, environmental and social framework (ESF), poverty eradication, social problems, social impact assessment, and social work for resettlement caused by development projects.

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