

Hubs and Spokes: Emerging Patterns of Intra-Mekong Trade and Investment

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Abstract

Recently intra-Mekong trade and investment have been on the rise although they remain small in scale relative to other regional trading groups such as ASEAN and the EU. This trend reflects structural changes in the Mekong economies in question (Cambodia, Laos, Thailand and Vietnam), patterns of trade relationships in Mekong, and economic policies imposed by the Mekong governments. This paper finds that the economies of the Lower Mekong have increased overall trade flows between themselves. At the same time, they have also diversified their domestic production and industries to serve external demands that rise from regional and global markets. New patterns of trade relationships in the Mekong Region are emerging which can be likened to hub and spoke relationships, in which the more advanced economies of Thailand and Vietnam can be seen as hubs and the less developed economies of Cambodia and Laos as spokes. This trade pattern unavoidably generates unequal gains between the hub and spoke members, where the spokes receive lower gains from trade than the hubs, have a more dependent trade relationship with the hubs, and bear the most social and environmental costs. These relationships illustrate an asymmetrical interdependence and consequently shapes the effects of trade and investment on people's livelihood, environment, income distribution, labour rights, and land rights in Mekong.

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1. Introduction: Intra-regional Trade and Definitions

This section introduces some of the definitions used in this paper, presents some historical context and summarises overall trade figures for 4 countries – Cambodia, Laos, Thailand and Vietnam. In 2000, intra-Mekong trade among these countries was approximately US\$4.5 billion, this has increased to over US\$ 23 billion in 2008. In 2000, this accounted for around 2.73% of overall trade from these countries, rising to 4.59% in 2008. The rate of growth of such trade during the period between 2000 and 2008 has been around 420% or 47% annually.

Intra-regional trade can simply be explained as the exchange of economic goods and services between countries within a close geographical distance. On the surface, this definition may represent only an economic dimension. However, intra-regional trade involves multifaceted and non-economic aspects that may lie behind the more visible flows of trade. Geographic proximity or natural boundary, cultural-historical-social sharing, and political amity are three influential factors that determine the directions of trade that neo-classical economic theories ignore. The closer the distance, history, language, and political alliances between the two places, the higher the trade flows, as a result of cheaper transportation costs (e.g. insurance and refrigeration) and better communications by using common languages and sharing similar cultures.

Economic geography explains that the above three factors are basic natural advantages to create trade between countries. In addition, “path dependence” based on historical accumulation can also influence current trade relationships (Eichengreen and Irwin 1998). Several economic studies have empirically suggested a strong relationship between geography and trade (Wonnacott and Lutz 1989, Krugman 1991, 1993, Frankel, Stein and Wei 1997, Soloaga and Winters 2000).

On the other hand, political scientists suggest that political amity is another big factor that generates trade. They argue that the effects of political alliances were stronger than those of regional trade arrangements during the period between 1960 and 1990 (Mansfield and Bronson 1997). Countries that sided under the same security umbrella had a political incentive to trade more among themselves and with the major powers in the group.

The political hostility between the communist and democratic camps prevented the four Mekong countries from trading with each other during the cold war period although they share natural borders. This divergent path, along with the heavy costs of the war between the US and Vietnam which engulfed all of Southeast Asia, causing loss of life, livelihoods and destroying the physical infrastructure of Cambodia, Laos and Vietnam, led to a widening income gap among them. The average rate of growth in GDP per capita in Cambodia, Laos, and Vietnam increased only 1.5% between 1960 and 1990, compared to a 7% average in the Newly Industrialised Economies in Asia and a 4 % average in Indonesia, Malaysia, the Philippines, and Thailand (Syed 2006).

After the end of the Cold War, communist countries started to liberalize their economic policies and trade with partners outside of their own security camps. Vietnam and Laos started to liberalize their economic policies in the late 1980s. Following their example, Cambodia also set up a New Economic Policy to transform its centrally planned economy to a market-driven economy. However, the country remained politically unstable until the first election in 1993. Responding to Vietnam’s “Doi Moi” and Laos’ “New Economic Mechanism” liberalization policies, a former Thai Prime Minister Chatichai Choonhavan eagerly announced his new policy toward the neighbouring countries in terms of turning the battlefields in Mainland Southeast Asia into a marketplace.

Now every country trades with China, Laos, and Vietnam, although they may have different political ideologies and political systems. Since 2001 and 2007 respectively, China and Vietnam became WTO members. Laos has been in the process of joining WTO since 1997, and is expected to become a member in 2013.

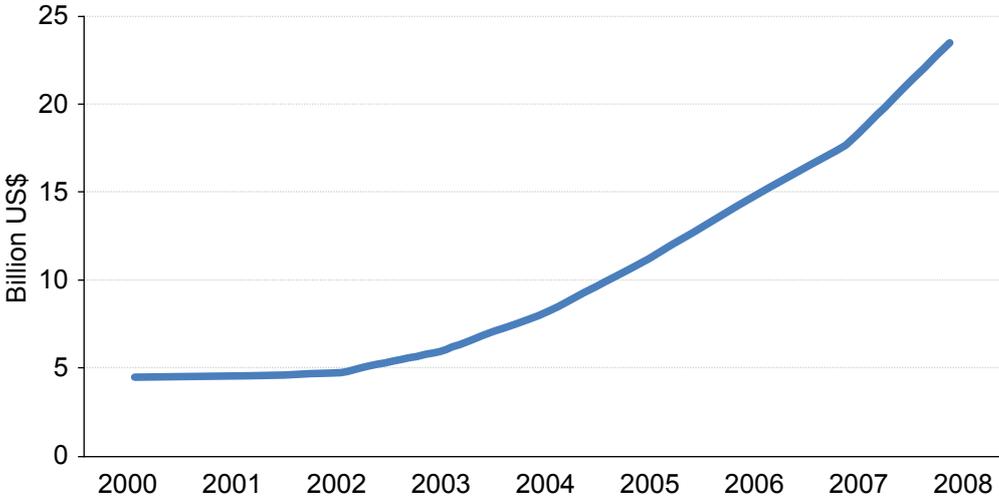
In the early 2000s, increasing engagement in the global and regional networks of manufacturing and agricultural production has brought Mekong economies ever closer. In 2000, trade between these four countries, referred to in this paper as

intra-Mekong trade, was approximately US\$ 4.5 billion, which increased to over US\$ 23 billion in 2008. As a percentage of these countries' total foreign trade, the share of intra-Mekong trade has been small, but rising. In 2000, the share was around 2.73%, increasing to 4.59% in 2008. Although this percentage is tiny compared to trade from these Mekong countries to other ASEAN nations, which accounts for around 25% of their total trade, the growth of intra-Mekong trade has evidently been accelerating, as shown in Figure 1 and Table 1. Its growth rate during the period

between 2000 and 2008 was about 420% or 47% annually.

This paper mainly focuses on trade in the Lower Mekong Basin, which consists of the four lower riparian countries—Laos, Thailand, Cambodia and Vietnam¹. It will examine the directions, patterns, and policies of trade and investment in the Mekong region as well as some of the structural changes in the Mekong economies. This paper finds that the Mekong economies have increased overall trade flows between themselves. At the same time, they have also diversified their domestic production

Figure 1: Intra-Mekong Trade Trend from 2000 to 2008



Source of data: UN Comtrade Database

Table 1: Intra-Mekong Trade Data from 2000 to 2008

Year	Intra-Mekong Trade Volume (Billion US\$)	Total Trade Volume (Billion US\$)	Share of Intra-Mekong Trade (%)	Share of Extra-Mekong Trade (%)
2000	4.5	165	2.73	97.27
2001	4.5	162	2.78	97.22
2002	4.8	173	2.77	97.23
2003	6	206	2.91	97.09
2004	8	255	3.14	96.86
2005	11	304	3.62	96.38
2006	14.5	352	4.12	95.88
2007	18	418	4.31	95.69
2008	23.4	510	4.59	95.41

Source of data: UN Comtrade Database

¹ These countries are referred to as the Mekong-4 in this paper.

and industries to serve external demands that rise from regional and global markets. The new pattern of trade relationships in Mekong can be described as hubs and spokes, in which the more advanced economies of Thailand and Vietnam are represented as hubs and the less developed economies, of Cambodia and Laos, as spokes. These relationships illustrate an asymmetric interdependence and consequently shapes the effects of trade and investment on people's livelihood, environment, income distribution, labour rights, and land rights in Mekong.

2. Mekong Economies at a Glance

This section presents various trade and other indicators to introduce the four countries studied.

Table 2 gives a quick glance at the similarities and diversities of the Mekong-4 economies. In 2009, Vietnam's total population was around 87 million, which is approximately 14 times larger than the total population in Laos. In that year, around 66% of the total population in Thailand lives in rural area, compared to 68% in Laos, 72% in Vietnam, and almost 80% in Cambodia. The expansion of urbanization in the past 20 years is associated with a decline in rural population in each of the countries of the Mekong region.

Table 2: Basic Indicators of Mekong-4 Economies in 1989 and 2009

Indicator	Cambodia		Laos		Vietnam		Thailand	
	1989	2009	1989	2009	1989	2009	1989	2009
Geography and Population								
Population (million)	9	14	4	6	65	87	60	68
Rural population (% of total population)	87	78	85	68	80	72	71	66
Forest area (% of land area)	73 ^a	57	75 ^a	68	29 ^a	44	38 ^a	37
Economic Structure								
Agriculture (% of GDP)	47 ^b	35	61	35 ^d	42	21	15	12
Industry (% of GDP)	13 ^b	23	13	28 ^d	23	40	36	43
Services (% of GD)	40 ^b	42	26	37 ^d	35	39	49	45
GDP per capita, PPP (constant 2005 US\$)	740 ^b	1,842	907	2,079	877	2,682	3,621	7,260
Aid Dependence								
Net ODA received (constant 2008 US\$ million)	41	734	235	425	199	3,726	970	-58
Net ODA received per capita (current US\$)	3	49	34	66	2	43	12	-1
Socio-economic Development								
Life expectation, at birth (total years)	55	62	54	65	64	75	69	69
Human Development Index (HDI) ^f	--	0.49	0.35	0.49	0.41	0.57	0.55	0.65
Income Gini Coefficient (between 2000-2010) ^g	--	44.2	--	32.6	--	37.8	--	42.5
Poverty headcount ratio at \$1.25/ day, PPP (% of pop)	--	28.3 ^c	--	33.9 ^d	--	13.1 ^e	--	10.8 ^d
Politics								
Freedom House Index (FHI)	Not Free	Not Free	Not Free	Not Free	Not Free	Not Free	Free	Partly Free
Corruption Perceptions Index (CPI) ^h	--	158	--	158	--	120	--	84

Source of data: World Development Indicators (WDI), Freedom House for FHI, Transparency International for CPI, United Nations Development Programme for HDI and Gini Coefficient.

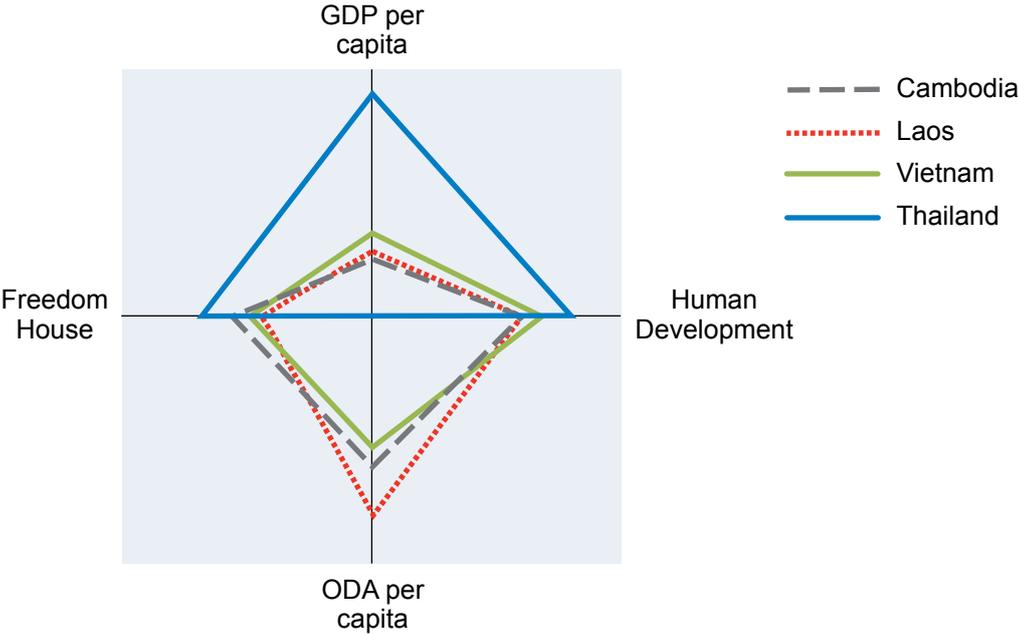
Note: a = 1990, b = 1993, c = 2007, d = 2008, e = 2010, f = higher ranking indicates a higher level of human development, g = higher ranking indicates higher inequality of income distribution, h = out of 180 countries, a higher ranking indicates a higher level of corruption.

All countries have experienced deforestation. Between 1989 and 2009, Cambodia's forest area declined by the largest proportion, that is 16%, followed by 7% in Laos and 1% in Thailand. By contrast, Vietnam has pursued a forest plantation policy that increased its forest area from 29% of its total land area in 1990 to 44% in 2009. Laos has recently faced an accelerating rate of deforestation as a result of illegal export of wood and timber to Vietnam, Thailand, and China as the consequence of its neighbouring countries' fast economic growth and stricter policy of forest conservation.

In terms of economic structure, the contribution of the agricultural sectors to the gross domestic product (GDP) of each country shrank, while their industrial and services sectors expanded, a situation similar to that observed in other developing countries. Although this change makes the four Mekong economies look much more convergent, their economic structures are in fact very different from each other. The industrial

sectors in Cambodia and Laos are much smaller than those in Thailand and Vietnam, reflecting the lower level of technological production and economic development. Both countries have concentrated on light manufacturing such as garments, footwear, and miscellaneous manufactured goods. Conversely, Thailand and Vietnam have small agricultural sectors relative to their total GDP, as shown in Table 2. The agricultural sector of the Thai economy accounted for only 12% of total GDP in 2009. For decades, Thailand has been relocating resources and investing in building national capacity to produce manufactured and electronic goods, and parts and components of high-tech products. Recently, both Thailand and Vietnam have expanded their investment in agricultural businesses such as maize, rubber, and sugarcane in neighbouring Cambodia and Laos, where labour is cheaper and natural resources abundant.

Figure 2: Diversities in the Mekong-4, 2009



Source of data: World Development Indicators for GDP per capita and ODA per capita, Freedom House for Freedom House Index (FHI), and United Nations Development Programme for Human Development Index (HDI).

Among the Mekong-4, Thailand has the highest GDP per capita. The country registered US\$ 7,260 of GDP per capita, which was four times larger than Cambodia's GDP per capita in 2009. In terms of socio-economic development, Thailand has the highest human development index (HDI) ranking among the four countries, followed by Vietnam, Laos, and Cambodia. Laos has the highest proportion of people living on less than US\$ 1.25 per day. However, the country also has the most equal income distribution, shown by the Gini Coefficient in Table 2. In contrast, Thailand and Cambodia are among the countries that have the widest income gaps between rich and poor in the Mekong region.

Of the four countries, Vietnam received the largest amount of Official Development Assistance (ODA). But when taking the population factor into account, Laos is the country most dependent on aid per capita. Each Lao citizen received approximately US\$ 66 in ODA in 2009, compared to US\$ 49 in Cambodia and US\$ 43 in Vietnam. Thailand became a net provider of ODA since 2003, with an exception in 2004.

On the issue of political freedom and expression, Vietnam and Laos restrict political participation under a socialist system. Cambodia and Thailand are democratic countries, but their systems are known to be "deficient" or "artificial"². Thailand was slumped in political turmoil after the 2006 coup. According to Transparency International's Corruption Perceptions Index, Thailand was ranked 84th, Vietnam 120th, while Cambodia and Laos were at joint 158th place, among 180 countries studied. Figure 2 shows a graphic representation of the diversities among the Mekong economies in terms of income, foreign aid, political freedom, and human development. The characteristics of the Thai economy are disparate from those of the Cambodian, Lao, and Vietnamese economies, represented as a long-sided rectangle. This can imply that Cambodia, Laos, and Vietnam are likely to be grouped in the same stage of development.

² Melanie Beresford (2005) suggests that Cambodia has an artificial democratization because political rights and freedom in the country are limited and controlled by the Cambodian People's Party (CPP), which is headed by the Prime Minister Hun Sen.

3. Intra-regional trade: Building Block or Stumbling Block to Free Trade?

This section identifies the bilateral and regional trading relationships to which the four countries have agreed and examines how they affect trade in the region. It introduces the emergence of a hub-spoke relationship in the Mekong region.

The Mekong-4 are each members of the ASEAN Free Trade Area (AFTA), which came into force in 1993. Thailand is one of the founding members of the Association of Southeast Asian Nations (ASEAN)³ and AFTA. Vietnam joined ASEAN and AFTA in 1995, Laos in 1997, and Cambodia in 1999. AFTA is a trade grouping that aims to eliminate tariffs to zero percent by 2015. Sensitive products may be excluded from this target, if requested by members. So far, ASEAN members have not set up a customs union like the European Union (EU). On the other hand, they have agreed to form an ASEAN Economic Community (AEC) that will not only cut all tariffs for trade among members but will also facilitate unhindered flows of trade, investment, and "highly-skilled or professional" workers in the region. This agreement does not include the free movement of low-skilled workers and labour immigrants. A classic debate is whether this kind of free trade arrangement is a building block or a stumbling block towards the establishment of free trade, and whether it brings about a net trade creation or a net trade diversion.

Being AFTA members, the Mekong-4 accede to the multilateral free trade agreements agreed by ASEAN, that is, ASEAN-Australia-New Zealand

³ ASEAN was formed in 1967 and currently consists of ten countries, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam. East Timor, which officially established its independence from Indonesia in 2002, has not been granted ASEAN membership. Papua New Guinea's application for ASEAN membership is also pending.

FTA, ASEAN-China FTA, ASEAN-India FTA, and ASEAN-Korea FTA. Besides that, the four Mekong countries are members of the East Asian Summit. Vietnam and Thailand are members of Asia-Pacific Economic Cooperation (APEC). Three countries, Cambodia, Laos, and Vietnam (CLV), also have their own bilateral agreements with or receive trade privileges from the EU and the United States. Laos has a bilateral trade agreement (BTA) with the United States that supports the accession of Laos to the WTO and allows Laos to have normal trade relations with the United States even though Laos has yet to become a WTO member. Cambodia signed a Trade and Investment Framework Agreement (TIFA) with the United States in 2006. Vietnam also signed a bilateral FTA with the United States in 2007. Under the Everything But Arms (EBA) programme Cambodia and Laos, along with other 47 least developed countries (LDCs), have trade privileges to export all goods, except arms and ammunition, to the EU market with no tariff. Within the Mekong region, the Ayeyawady-Chao Phraya-Mekong Economic Cooperation Strategy or ACMECS was endorsed by the four countries plus Myanmar in 2003. ACMECS is not a tariff elimination scheme or an FTA, but aims to facilitate regional agreements such as AFTA and the ASEAN Investment Area (AIA) through bilateral or multilateral cooperation projects in the Mekong region.

It is expected that intra-regional trade arrangements can provide several benefits to its members such as increasing volumes of trade and investment, strengthening the bargaining power of small nations at an international negotiation, increasing income and welfare, and providing possible compensation to those who are disadvantaged from free trade. However, intra-regional trade agreements (RTAs) also contain potential risks for members and non-members.

First, RTA members are likely to trade less with “natural” low cost producers because the preferential tariffs discourage members to trade outside their own RTAs. This can artificially divert trade flows. If this is the case, a RTA is likely to be a stumbling block rather than a building block to free trade. However, the effect of trade diversion could be reduced if members of RTAs are geographical/natural trading partners and the gap between the Most Favoured Nation (MFN) tariff rate and the preferential tariff rate for trade within the RTA is small (Krueger 1995, Wonnacott and Lutz 1989).

Empirical studies have suggested that membership of ASEAN or AFTA is likely to generate a net trade creation, particularly amongst the first six members of ASEAN⁴ (Frankel, Stein and Wei 1997, Frankel and Wei 1995, Soloaga and Winters 2000). They found that these members of ASEAN had a high level of trade openness and did not discriminate against non-members. But when Cambodia, Laos, Myanmar and Vietnam (CLMV) were included in the empirical tests, the result showed that ASEAN-10 had a smaller effect of trade creation (Areethamsirikul 2007, Tumbarello 2006), which means intra-ASEAN trade with CLMV economies is likely to bring about trade diversion. One reason for this trade diversion effect could be the broad gap between the MFN and AFTA tariff rates in CLMV. When the AFTA tariff rates are a lot lower than the MFN rates, the members tend to trade more within AFTA although their AFTA partners may produce goods at a higher price compared to other producers in the world market. According to Patrizia Tumbarello (2006), the average MFN rate and average Common Effective Preferential Tariff (CEPT) rates of CLV were 14.8% and 6.5% respectively in 2005, while the average MFN rate and average CEPT rates of the six members of ASEAN referred to above were 7.3% and 1.8% respectively in 2005. Nevertheless, scholars suggest that AFTA could be a stepping stone toward trade liberalization for CLMV (Fukase and Martin 2001, Fukase and Winters 2003).

Second, as of 2011 the WTO has recorded a total of 438 RTAs. The complexity of trade relations and the potential complications from their different rules of origin under several overlapping agreements and non-harmonized regulations can create the so-called “*spaghetti bowl effect*” (Bhagwati 1995), known in Asia as the “*noodle bowl effect*”. In addition, RTAs can lead to an adverse incentive to become a closed trading group that encourages other types of protection, such as anti-dumping policies and Voluntary Export Restraints (VERs), against non-members or weaker states.

Third, RTAs can promote a “*hub-spoke*” relationship. The “*hub-spoke*” concept originally referred only to bilateral trade agreements between a big state and small states, whereby the big state is a “*hub*” that signs bilateral trade

⁴ These are Indonesia, Malaysia, the Philippines, Thailand, Singapore and Brunei.

agreements with several small states, “spokes”⁵. In the Mekong, hubs and spokes are members of the same RTAs and their major export destinations lie outside the RTA area. The Mekong countries also have their own bilateral FTAs or trade privileges with other trade partners separately. The larger and more advanced economies play the role of hub; and the smaller and less developed economies play the role of spoke.

A hub-spoke system in the Mekong has appeared gradually, with Thailand and Vietnam as hubs and Cambodia and Laos as spokes. Spokes provide raw materials such as wood, maize, and copper to the hubs where the finished goods are produced, then exported to the global market. Otherwise, the spokes can export raw materials or primary goods directly to the global market. In both cases, companies from the hubs can hold control over trade flows as they make direct investments and joint ventures in the export sectors of the spoke countries. The hubs have also sponsored dam constructions in the spoke countries hoping to import energy that helps to fulfil the hub’s domestic needs and continue implementing national economic policies. This pattern of control over trade by the hubs generates unequal gains between the hub and spoke members. The spokes receive lower gains than the hubs, have a more dependent trade relationship with the hub, and bear the most social and environmental costs.

Under this hub-spoke system in intra-Mekong trade and investment, the role of the private sector from the hub countries, especially Thailand, is amplified. The relationship between private enterprises and national governments of the spoke countries has expanded fast and become closer with the help of the national governments of the hub countries. State-invested enterprises can also directly gain from this new pattern of trade and investment.

Finally, RTAs in general, as well as economic cooperation projects, can generate unexpected and adverse impacts on people’s livelihoods, environment, land rights, labour rights, and social welfare, some of which are discussed below.

⁵ This system creates an advantage for the hub to trade with spokes separately while the spokes have a restricted access to trade between themselves. To get preferential treatment, spokes must export goods through the hub. Under these circumstances, the system allows the hub to gain more from trade than the spokes. The hub-spoke system has empirically shown a positive effect on trade (Alba, Hur and Park 2010). However, this system could also cause a loss in welfare and uneven income distribution amongst members, as seen in the unequal trade relationships between the United States and smaller countries (Bhagwati 1991, 1993).

4. New Directions of Intra-Mekong Trade and Investment

This section illustrates the changes in trade among the four countries in the last decade. It presents data on gains and losses in comparative advantage, and examines the extent to which the Mekong economies have diversified. After examining eight different trade sectors, a summary is given of the big picture of Mekong economies in terms of their similarities and differences. It ends with a review of trends in inward and outward foreign direct investment.

All four countries have increased their trade flows with the Mekong-4. Cambodia has increased its trade with Mekong countries from 12.9% in 2000 to 15.4% in 2008, as shown in Table 3. Laos amplified it from 66% to 71% over the same period. On the other hand, Vietnam and Thailand are much less dependent on trade within the Mekong. Thailand’s trade with Mekong countries amounts to only 3.1% of its total trade in 2008 boosted from 1.5% in 2000, while Vietnam increased its trade with the Mekong by only 0.6%, up from 5.1% to 5.7% over the eight year period.

In the period 2000 to 2008, every Mekong country increased their trade within the region and with China, whereas each country decreased their trade with the EU. Trading with the United States showed a mixed pattern.

Table 3 illustrates that Laos heavily relies on intra-Mekong trade, particularly with Thailand. Laos’ trade with Thailand accounted for 60% of its total trade in 2008 or 85% of its total trade in Mekong. Cambodia traded more with the United States than with the Mekong-4 and the rest of the ASEAN members combined. Thailand traded more with other ASEAN nations than with Cambodia, Laos and Vietnam. In the same vein, Vietnam traded less within the Mekong-4 than with the other ASEAN members, China, the EU, or the United States.

Table 3: Share of Intra-Mekong Trade

Mekong-4	Year	Trade partners (share of trade %)								
		Cambodia	Laos	Thailand	Vietnam	Mekong-4	ASEAN-6	China	EU-27	US
Cambodia	2000	--	0.1	8.8	4	12.9	9.8	4.9	15.5	27.7
	2008	--	0.01	8.1	7.3	15.4	7.5	10.8	14.7	25
Laos	2000	0.3	--	47.5	18.2	65.9	3.6	4.3	17.5	1.5
	2008	0.02	--	60.1	11.1	71.3	1.1	10.2	7.5	1.6
Thailand	2000	0.3	0.3	--	0.9	1.5	16.6	4.7	14.2	16.8
	2008	0.6	0.7	--	1.8	3.1	16.6	10.2	10.7	8.9
Vietnam	2000	0.6	0.6	3.9	--	5.1	18.4	9.8	17	6.3
	2008	1.2	0.2	4.3	--	5.7	15	14.5	12.2	10.2

Source of data: UN Comtrade Database;

Note: The share of trade figures here represent the value of trade (sum of exports plus imports) as a percentage of total trade by the countries in the left column. Numbers in blue (bold) indicate an increasing share of trade. ASEAN-6 here refers to the six members of ASEAN who are not included in the Mekong-4 (Cambodia, Laos, Thailand, and Vietnam)

Thailand and Vietnam appear to have diversified their trade destinations. On the other hand, Laos has tied its trade relations mostly with the Mekong, especially with Thailand. Cambodia has concentrated on trade with the United States, which accounted for a significant amount, 25%, of its total trade in 2008, and has increased its trade with Mekong-4 (15.4%) and China (10.8%). These flows of trade in Mekong countries show that the less developed economies have tied their trade relations with just a few partners, while the more developed economies have diversified their risks by trading with several other partners outside the region.

Cambodia and especially Laos have been more reliant on trade with Thailand and Vietnam than the other way around, illustrated in Table 3. For example, Thailand's trade with Laos amounted to only 0.7% of its total trade, while Laos' trade with Thailand accounted for more than 60% of its total trade in 2008. Cambodia's trade with Vietnam accounted for 7.3% of its total trade. In contrast, Vietnam's trade with Cambodia only figured 1.2% of its total trade. These trade figures show an "asymmetric interdependence" in terms of trade between bigger and smaller economies.

Four reasons could explain trade dependence of small economies in the Mekong. First, geographical disadvantages such as being landlocked and language barriers do not help, for example, Laos to increase economic activities outside the region. Second, the economic structures of Cambodia and Laos have a low level of diversification, which mostly focuses on primary goods and few industries for export. Third, both countries have

a less developed transport system leading to a high cost of logistics, refrigeration, and insurance. Fourth, a large difference between the MFN tariff rate and AFTA tariff rate may encourage Cambodia and especially Laos to stick to trading with AFTA members. However, bilateral FTAs between, for example, Cambodia and the United States and the special treatment under the EBA programme can be a driving factor for trade to flow outside the Mekong.

4.1. Revealed Comparative Advantage and Trade Diversification

A comparison of comparative advantage over time can be used to understand structural change as well as the complementarity and competitiveness of economies in the world. The so-called revealed comparative advantage or RCA index, invented by Bela Balassa (1965), uses the volume of total exports as an estimator to measure comparative advantage across countries and rank industries or commodities by their relative export performance.

An RCA index of more than 1 indicates that a country has a comparative advantage in those goods. The RCA index suggests that countries tend to export relatively larger quantities of goods in which they gain a comparative advantage. This index additionally reflects the allocation of technology and factor endowments as well as government policy design (Fukase and Martin 2001). The government can identify the industries that have comparative advantages and give strategic assistance to strengthen their position

by promoting exports (Clark, Sawyer and Sprinkle 2005). The government can also choose particular industries to invest in and create the country's comparative advantage for exports. Thus, an RCA index can be a tool to assess national economic policies designed by governments.

Thailand used to be an agriculturally based economy, but shifted its policy from import substitution policy to an export-led growth strategy in light industries and labour-intensive industries in the late 1970s, along with other neighbouring ASEAN economies—Malaysia and the Philippines. The exports of the “classical trio” of textiles, miscellaneous manufactures, and clothing was recognized as bringing about new gains in trade in the 1980s (Naya and Hiemenz 1985). In the 1990s, Malaysia, Thailand and the Philippines started to enjoy higher shares in the world exports of TV sets, domestic electrical equipment, transistors, and radio broadcast equipment (Krein in and Plummer 1994). For the last ten years, Malaysia and Singapore have progressively promoted investment and trade in high-technological industries such as logistics, design and packaging, quality control and R&D supplies, while Thailand and the Philippines have been moving in this direction at a slower pace.

Cambodia, Laos, and Vietnam abolished their centrally-planned economies, and shifted toward market-oriented economies in the late 1980s. They have made significant strides in pursuit of trade liberalization policy, promoted an economic-led growth strategy, and attracted foreign direct investment. With abundant natural resources, and cheap labour, these countries are gradually shifting away from agriculture-based economies toward labour-intensive industrial economies as well as becoming natural resources suppliers for other nearby economies in Southeast Asia. The economic policies of Cambodia, Laos and Vietnam appear similar to those of Thailand and other Southeast Asian economies in their early stage of economic development during the 1980s and 1990s.

Table 4 presents RCA indices of the Mekong-4 in the period 2005-2008. The shading in the table represents a comparison with the period 2000-2004. Thus, the sectors that have made new gains in comparative advantage are shaded in blue, the green represents the sectors that have always had a comparative advantage, and the red represents the sectors that have a new loss.

RCA indices reveal that, of the Mekong-4, Cambodia has the fewest sectors that have a comparative advantage relative to the rest of the

world. Cambodia's exports are based mainly on producing crude rubber, apparel and clothing, footwear, and miscellaneous manufactured articles. Tobacco and mineral industries are the two new gains in comparative advantage for Cambodia. The giant British American Tobacco company has invested and made contract farming for tobacco cultivation in Kampong Cham province (Kongchheng 2010). On the other hand, the country lost its strong advantage in wood manufactures (not including wooden furniture), shown in table 4. In 2010, Cambodia started to gain a comparative advantage in the production of sugarcane, after the Khon Kaen Sugar Industry PLC and Mitr Phol Sugar Corporation, two of the largest sugar companies in Thailand, invested in Cambodia.

Unlike Cambodia, Laos has comparative advantages from several products such as live animals, coffee, crude rubber, wood, mineral (e.g. stone, sand and gravel), coal, wood manufactures, apparel and clothing, and footwear. In addition, Laos has gained new comparative advantages in producing four goods: maize, copper, ore, and electric current, which are mainly exported to its neighbouring country, Thailand.

Vietnam has strong comparative advantages in food and agricultural goods (e.g. fishery industry, rice, vegetable and fruit, and coffee), in primary goods (e.g. crude rubber, coal, and petroleum products), and in miscellaneous manufactured goods (e.g. handbags, furniture, apparel and clothing, and footwear). Vietnam also gained new comparative advantages for a few more industries such as tobacco, hides and skins, wood, leather, and textile yarns, which are considered primary goods and manufactured materials. On the other hand, Vietnam lost its strong position in the world market in two sectors: miscellaneous edible products and oil seeds. Not long ago Vietnam's export policy started to attract foreign direct investment and improve its engagement in the global production networks for electronics, telecommunications, and automobile industries. Vietnam also recently gained new comparative advantages in coal and wooden furniture industries.

Among the four Mekong countries, Thailand is the most diversified economy. Its economy has gained comparative advantages in a greater variety of products and sectors compared to the other Mekong economies that mainly focus on the exportations of primary goods, manufactured materials, and miscellaneous manufactured goods. Two main sectors that Thailand does not have comparative advantages in the world

Table 4: RCA Index over 2005-2008, Comparison with 2000-2004

Name	SITC no.	Cambodia	Laos	Thailand	Vietnam
Live animals	00	0.02	3.3	0.2	0.1
Meat and meat preparations	01	0.003	0.002	1.2	0.1
Dairy products and bird's eggs	02	0.001	0.01	0.3	0.3
Fish, crustaceans, molluscs	03	0.2	0.02	6.0	12.3
Cereals and cereal preparations	04	0.1	1.9	3.5	5.0
Vegetable and fruit	05	0.03	0.9	1.5	2.2
Sugars, sugar preparations	06	0.01	0.02	4.0	0.6
Coffee, tea, cocoa, spices	07	0.02	5.9	0.3	9.4
Feeding stuff for animals	08	0.001	0.03	1.5	0.2
Miscellaneous edible products	09	0.0005	0.02	1.9	0.9
Beverages	11	0.01	0.2	0.3	0.1
Tobacco and tobacco manufactures	12	1.1	0.7	0.3	1.2
Hides, skins and furskins, raw	21	0.04	0.6	0.1	1.0
Oil seeds, nuts, kernels, inedible	22	0.2	0.8	0.1	0.5
Crude rubber	23	4.7	4.4	17.1	11.7
Cork and wood	24	0.5	44.8	0.6	1.3
Pulp and waste paper	25	0.01	0.2	0.3	0.001
Textile fibres	26	0.3	0.3	1.6	0.6
Crude fertilizer and minerals	27	4.0	2.9	0.7	0.9
Metalliferous ores	28	0.02	1.3	0.3	0.2
Crude animal and vegetable materials	29	0.04	1.4	0.5	0.4
Coal, coke and briquettes	32	0.0	1.0	0.01	3.9
Petroleum and petrol products	33	0.0	0.0003	0.4	1.8
Gas, natural and manufactures	34	0.0	0.01	0.1	0.01
Electric current	35	0.0	41.0	0.1	0.003
Animal oils and fats	41	0.08	0.001	0.1	0.9
Vegetable fats and oils (including palm oil)	42	0.2	0.04	0.5	0.2
Organic chemicals	51	0.0003	0.04	0.8	0.1
Inorganic chemicals	52	0.001	0.4	0.3	0.1
Dyeing and colouring materials	53	0.002	0.01	0.4	0.1
Medicinal and pharm. products	54	0.01	0.01	0.1	0.02
Essential oils and resinoids (soap)	55	0.001	0.2	1.1	0.4
Fertilizers	56	0.007	0.004	0.2	0.7
Plastics in primary forms	57	0.001	0.1	2.1	0.2
Plastics in non-primary forms	58	0.001	0.01	0.7	0.4
Chemical materials and products	59	0.08	0.1	0.8	0.5
Leather	61	0.1	0.02	1.4	1.2
Rubber manufactures	62	0.002	0.05	2.7	0.6
Cork and wood manufactures (excluding furniture)	63	0.03	1.4	1.1	0.7
Paper and paper board	64	0.02	0.02	0.6	0.4
Textile yarn and fabric	65	0.4	0.1	1.2	1.4
Non-metallic mineral manuf. (e.g. glass, clay)	66	0.01	0.2	1.3	0.6
Iron and steel	67	0.003	0.03	0.5	0.5
Non-ferrous metals (e.g. copper, lead, tin, zinc)	68	0.01	14.8	0.4	0.1
Metals manufactures	69	0.1	0.03	1.0	0.6
Power-generating machinery	71	0.01	0.03	0.8	0.3
Mach specialized for particular industry	72	0.1	0.1	0.3	0.1
Metal working machinery	73	0.004	0.04	0.4	0.1
Industrial mach. and equipment	74	0.01	0.04	1.1	0.1
Office and data processing machines	75	0.002	0.01	2.5	0.7
Telecom apparatus and equipment	76	0.01	0.02	1.0	0.3
Electrical machinery, apparatus and appliances	77	0.002	0.1	1.6	0.5
Road vehicles	78	0.1	0.1	1.0	0.1
Other transport equipment	79	0.1	0.01	0.5	0.2
Prefabricated buildings	81	0.04	0.04	0.6	0.4
Furniture, and parts (including wood furniture)	82	0.1	0.2	1.0	4.9
Travel goods, handbags	83	0.03	0.1	0.6	3.7
Articles of apparel and clothing	84	27.6	7.3	1.1	5.4
Footwear	85	3.0	1.1	1.1	13.8
Scientific equipment	87	0.02	0.04	0.4	0.1
Photo apparatus and watches	88	0.02	0.002	1.6	0.4
Misc manuf. articles (e.g. baskets, weapons)	89	5.7	0.1	1.2	0.8

Source of data: UN Comtrade Database and the calculation of (Coxhead 2007) for Thailand and Vietnam between 2000-2004. SITC refers to the Standard International Trade Classification

Note: Blue shading indicates a new gain in comparative advantage; green indicates a sustained comparative advantage; and red indicates a new loss of comparative advantage.

market are the tobacco and beverage industries (listed in the table above as SITC-1), and the production of animal and vegetable oils, fats and waxes (SITC-4). Otherwise, the country enjoys comparative advantages in assorted products and sectors, ranging from fishery industry, rice, vegetable and fruit, sugar, textile fibre, crude rubber, textile yarn, rubber manufactures, plastic in primary form, office and data processing machines, telecommunication apparatus and equipment, electrical machinery and parts, footwear, clothing, to furniture, including wooden furniture. Thailand has also improved its stronger position in exporting essential oils and soap, metals manufacturing, industrial machinery and equipment, road vehicles, and clocks, while losing its strong position in the production of handbags and crude fertilizer.

Overall, the economies of Vietnam and Thailand are more diversified than those of Cambodia and Laos. Most Mekong economies have chiefly concentrated trade in primary goods, manufactured materials, and miscellaneous manufactured articles. Thailand is the only economy of the four that now gains a comparative advantage in the export of chemical products, and machinery and transport equipment. None of the Mekong economies has a comparative advantage in the animal and vegetable oils, fats, and waxes sector.

4.2. Intra-Mekong Trade by Sector

This section examines intra-Mekong trade by sector. The UN Comtrade database is used to categorize Mekong's economic structure and trade directions. It is based on the Standard International Trade Classification (revision 3), which is divided into ten product groups. This paper investigates nine out of ten product groups and does not examine SITC-9 (e.g. coins and gold), which is less relevant to the growth and development of the economy. This data does not include informal cross-border trade which was estimated to be around 20-30% of total cross-border trade in the region (Development Analysis Network 2005).

4.2.1. Food and Live Animals (SITC-o)

The products in this category are live animals, dairy products, fish, cereals, vegetables and fruit, sugar, coffee, animal feedstuffs, and other edible products. In 2008, more than 55% and 77% of the trade in this category from Cambodia and Laos respectively was traded with the Mekong-4. Their main trade partner was Thailand. Both countries

import more than they export, leading to a net trade deficit with Thailand in this category. This implies that Cambodia and Laos have insufficient investment of agricultural and farm development to fulfil their domestic demands and thus have limited capacity to generate a sufficient volume of outputs for export. Thailand exports sugar, processed-food products, coffee and coffee substitutes, dairy products, and rice. Laos mostly exports maize, vegetables and fruit to Thailand. However, Laos started to have a net trade surplus with Vietnam in 2008 due to significant exports of coffee and live animals. Cambodia exports only maize to Thailand, while importing various food products from Thailand such as sugar, animal feedstuffs, live animals, processed-food products, and vegetables and fruits. Nevertheless, in 2010 Cambodia started to export sugar to Europe, mainly to the UK as its major market.

4.2.2. Beverages and Tobacco (SITC-1)

Beverages and tobacco are not significantly traded in the Mekong region, compared to other commodity categories. Laos mostly imports its beverage products from Thailand, while Cambodia imports mostly from other members of ASEAN. Outside ASEAN, Mekong countries have traded more in this category with the EU, and very little with China and the United States. All have trade deficits with the EU. In Laos, Thailand and Vietnam, around 90% of the value of their imports in this category are for alcoholic beverages.

4.2.3. Crude and Inedible Materials (SITC-2)

The products in this category are fur skins, oil seed, crude rubber, cork and wood, pulp and waste paper, textile fibres, crude fertilizers, metalliferous ores, and crude animal and vegetable materials. Cambodia and Laos have trade surpluses in this category. This category comprises raw materials to be supplied for the manufacturing sector in Thailand and Vietnam. Wood is the top commodity from Cambodia and Laos to be exported to Vietnam and their third top export commodity to Thailand. Around 80% of Cambodia's total exports in this category are raw materials, mainly mineral (e.g. stone, sand, and gravel), crude rubber, and wood to Vietnam, and ores (including ferrous waste and scrap) to Thailand. Cambodia exported around \$2,500 of this category (SITC 27) to the world in 2000. This figure increased to \$2,490,585 in 2007, according to UN Comtrade database.

Half of Vietnam's total import from Laos in this category was wood, worth US\$ 131 million in 2008. This has allowed Vietnam to gain a

higher competitive advantage in exporting wooden furniture, as discussed in the Revealed Comparative Advantage (RCA) section above. Laos also supplies cheap forestry resources to Thailand, which feeds into various Thai industries. In 2008, the value of Thai imports of wood from Laos was officially recorded at US\$ 57 million.

Thailand and Vietnam depend on natural resources such as ore, wood, and crude rubber from Cambodia and Laos to feed their industries in order to produce finished products that are further exported to other parts of the world. Under this relationship, cheap and abundant natural resources in less developed economies like Cambodia and Laos are exploited to produce value-added goods in Thailand and Vietnam.

4.2.4. Mineral Fuels and Lubricants (SITC-3)

The mineral fuels sector is important in that it represents energy trade in Mekong. The products in this category are coal, natural gas, electric current, and petroleum products including crude oils. All four countries in the Mekong Region are energy dependent countries, dependent on imports from other parts of the world, mostly oil. However, Vietnam and Thailand are also producers of crude petroleum. They export crude oils to other countries such as the United States, Singapore, China, and Australia, and petroleum products to Cambodia and Laos.

Cambodia and Laos display weaknesses compared with Thailand and Vietnam in terms of energy dependency within intra-Mekong trade. Thailand and Vietnam have trade surpluses with Laos and Cambodia in this sector. According to the Energy Statistics Database of the International Energy Agency (IEA), more than 90% of electricity generation in Cambodia was produced by oil. In Laos, petroleum consumption accounted for 17% of the total primary energy supply, while fuelwood represented 56%, electricity and charcoal combined 12%, and coal 3% in 2002 (Sanatem, et al. 2009). Fuel oils are imported from Thailand and partly from Vietnam, to be used mostly in the transportation sector and in Laos additionally in the agricultural sector. Demand for oil consumption in Laos increased around 10% per year (Sanatem, et al. 2009) due to the growing population and higher demand for transportation. Fossil fuels are also significant to agricultural production as well. In rural villages around the region, where electricity supply is not yet available, fuelwood and petrol are major sources of energy. Some villagers in Laos use diesel to generate power. In some border communities, electric current is imported from neighbouring countries such as Thailand.

In intra-Mekong trade, Laos and Cambodia have imported a great deal of energy resources, especially petroleum products, from Vietnam and Thailand. Over 92% of Laos' energy was imported from Thailand, and 7% from Vietnam in 2008. Likewise, 55% and 32% of Cambodia's energy imports especially petroleum products were from Vietnam and Thailand respectively. Thailand also exports petroleum products to Vietnam.

The most significant energy export of Laos is electric current, accounting for 87% of Laos' total exports in this category, mostly traded with Thailand. Laos also exports coal to Thailand. According to IEA Energy Statistics Database, more than 70% of electricity generation in Thailand comes from natural gas (approximately 30% of the natural gas used for Thai electricity generation is imported from Myanmar; and its largest source of total energy supply comes from oil.) Cambodia does not have a comparative advantage in this sector and exports very few energy resources to other countries. Recently, Cambodia has been welcoming foreign oil companies from China, Japan, Indonesia, Korea, Kuwait, Thailand, and the United States to explore its oil resources which are estimated to amount to 2,000 million barrels. Cambodia expects to be able to use its own oil resources in the near future (Klein 2010, Sothea 2010). However, Cambodia and Laos are likely to be increasingly dependent on their Mekong neighbours for energy.

4.2.5. Animal and Vegetable Oils (SITC-4)

The products in this category include for example, cottonseed oil, olive oil, palm oil, sunflower seed oil, maize oil, sesame oil, coconut oil, fish oil, and animal fat. Thailand has an overall trade surplus in animal and vegetable oils with ASEAN, China, the EU, and Mekong countries. Thailand is also one of the largest exporters of palm oil and palm kernel oil to the world, behind only Malaysia and Indonesia. Laos mostly relies on Thailand for its source of animal and vegetable oils. Vietnam exports palm oil, palm kernel oil, and olive oil to Cambodia. However, Cambodia is mostly reliant on other ASEAN sources for animal and vegetable oils. Similar to Vietnam, Cambodia trades six times more with other ASEAN countries than with the Mekong countries in this category.

Overall intra-Mekong trade in this category is low. Cambodia, Vietnam, and Thailand seek to associate with larger traders outside of Mekong, especially with other ASEAN nations.

4.2.6. Chemicals and Related Products (SITC-5)

This category includes organic and inorganic chemicals, dyes, medicinal and pharmaceutical products, essential oils and soaps, fertilizers (not including crude fertilizer which is counted in SITC-2), plastics and other chemical products. In this sector, Vietnam and Thailand by and large trade with partners outside of Mekong, especially with other ASEAN members and China. Thailand trades very little with Mekong countries, accounting for only 2.9% of its total trade in chemicals and related products. The top export commodity of Thailand in this category is plastics in primary form. Around 80% of Laos' total trade in this category in 2008 was traded with Thailand. Vietnam's top export commodity to Cambodia is fertilizer. Among the Mekong-4, Cambodia has the highest share of trade with the EU in chemicals and related products.

4.2.7. Manufactured Goods Classified by Materials (SITC-6)

The products in this group are leather and leather goods, rubber manufactures, wood manufactures, paper, textile yarn and fabric, non-metal manufactures (e.g. glass, pottery, clay, lime), iron and steel, non-ferrous metals (e.g. copper, nickel, aluminium, zinc, tin), and metals manufactures (e.g. nails, household equipment, cutlery). Laos relies on intra-Mekong trade in this category much more than other Mekong countries; 84% of Laos' trade flows within the Mekong region. In contrast, Cambodia trades with China the most. Textile yarn and fabric are the top imported goods from China, Hong Kong, and Vietnam by Cambodia for use in the garment sector. Cambodia and Laos have trade deficits with most of their trade partners in this sector.

Laos has a huge comparative advantage in exporting non-ferrous metals, especially copper and gold. More than 99% of Lao exports in this category are of copper. Copper is its top export commodity to Thailand and its second top export commodity to Vietnam.

Thailand and Vietnam have substantially more trade with partners outside of the Mekong region, particularly ASEAN and China. Similar to Cambodia, Vietnam imports a considerable amount of textile yarn and fabric from China to feed the rapid growth of its apparel and clothing exports to the world. Thailand also imports and exports textile yarn and fabric from Vietnam, China, and other countries. Between Thailand and Vietnam, iron and steel is the most traded. Rubber manufactures, followed by non-metal

manufactures, and textile yarn and fabric, are chiefly exported from the four Mekong countries to China.

4.2.8. Machinery and Transport Equipment (SITC-7)

Machinery and transport equipment refer to both finished and intermediate goods, including parts and components of industrial machinery, computers, electronic appliances, automobiles, and transport equipment. The production of these goods requires technology, knowledge, and skilled workers.

In the 1980s, Japan vigorously outsourced its production to Southeast Asian countries such as Thailand, Malaysia, and Indonesia in order to reduce the negative effect of the Japanese yen appreciation that led to a higher cost of production at home. Rapid growth of the so-called "fragmentation of production" in the global market was evident since the 1990s (Yeats 2001). Multinational corporations in the electronics, computer, and automobiles sectors have moved at least some of their factories to developing countries. If their factories in foreign lands have capacity to produce a high volume and reduce costs of production in transportation and service links, it has been suggested that this will create a new type of vertically integrated supply chain that finally increases intra-industry trade at the global level (OECD 2010).

However, many multinational corporations still preserve their competence in producing high-tech parts and components within their national borders. For example, Japan has a huge trade surplus with several countries in Southeast Asia even though the production and assembly hub is not in Japan. Components produced in Japan require higher technology and have been mandated for use in production in other industries. That technology is likely to be preserved and not transferred. When the tsunami struck Japan in March 2011 the production of automobile factories around the world were interrupted because the high-tech parts and components produced in Japan could not continue their production as normal.

Among the Mekong-4, Thailand is the only country which already has a comparative advantage in this sector, illustrated in Table 4 earlier. This reflects the national economic policy of Thailand that has been promoting the expansion of its industrial hubs to attract foreign investment in this sector.

At present, even though the other three Mekong countries do not have a comparative

advantage in this sector, their engagement in an enlarging East Asian production network is clearly observed. Cambodia and Thailand have increased their trade in this sector within Mekong, while all four countries have more than doubled their trade with China between 2000 and 2008. Laos recorded its fastest growth in trade with China, with its share of total trade in the machinery and transportation equipment increasing from 6% in 2000 to 20% in 2008. But trade with other members of ASEAN has declined in importance for all four Mekong countries over the same period.

4.2.9. Miscellaneous Manufactured Articles (SITC-8)
 This refers to trade in prefabricated buildings, furniture and parts (including wood furniture), handbags, footwear, articles of apparel and clothing, scientific equipment, photo apparatus and watches, and miscellaneous manufactured goods (e.g. weapons, baskets, and umbrellas). Mekong countries have had minimal trade among each other in this category. Significant export destinations in this category are the EU and the United States, which altogether accounted for 70% of Cambodia and Vietnam’s trade in 2008. However, Vietnam decreased its share of total trade in manufactured articles with the EU over the past nine years while significantly increasing it with the United States. Cambodia and Vietnam signed bilateral FTAs with the United States in 2006 and 2007 respectively. Thailand reduced its share of trade in manufactured articles with both the EU and the United States while increasing it with ASEAN-6 and China. Laos also reduced its trade share with the EU in this category substantially between 2000 and 2009, while augmenting it with

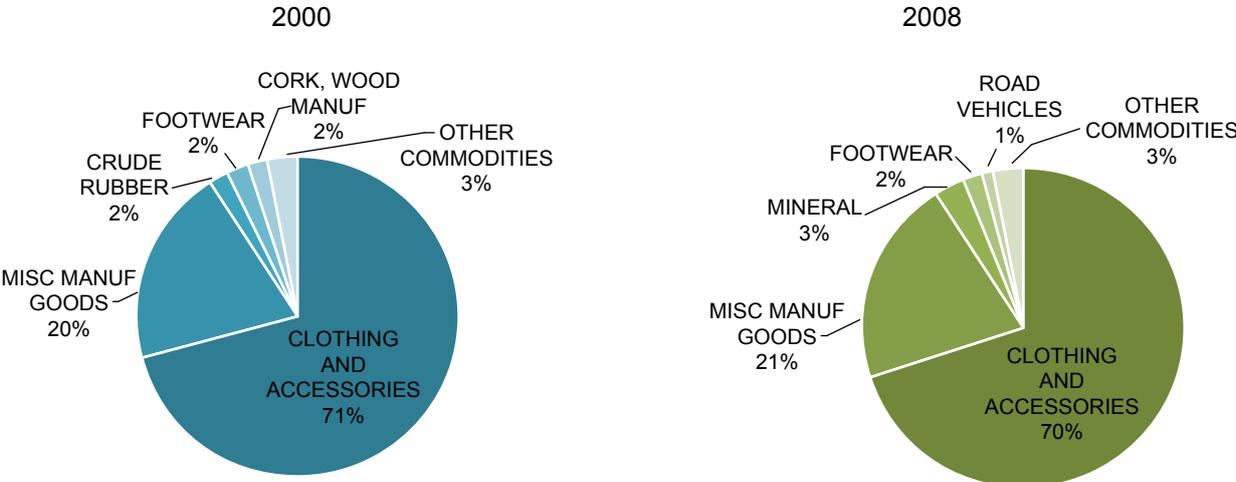
Thailand and the United States.
 In short, the Mekong-4 have experienced trade surpluses with the EU and the United States in miscellaneous manufactured articles such as apparel and clothing, footwear, handbags, and furniture. In return, they have imported mostly scientific equipment, photo apparatus, and watches from the EU and the United States.

4.3. Mekong Top Exported Commodities

Figures 3-6 summarise the big picture of Mekong economies in terms of their similarities and diversities. In 2000, the leading exported goods from Cambodia were apparel and clothing articles, miscellaneous manufactured goods, crude rubber, footwear, and wood manufactures. These five sectors accounted for 97% of Cambodia’s total exports. Just the apparel and clothing sector amounted to 70% of its total exports, as shown in Figures 3a and 3b. Cambodia has the highest comparative advantage in this sector relative to other Mekong economies. In 2008, its economic structure looked not so different from the past, which consistently concentrated on the clothing sector and miscellaneous manufactured goods. Road vehicles including parts and components, and mineral are two new top export commodities from Cambodia.

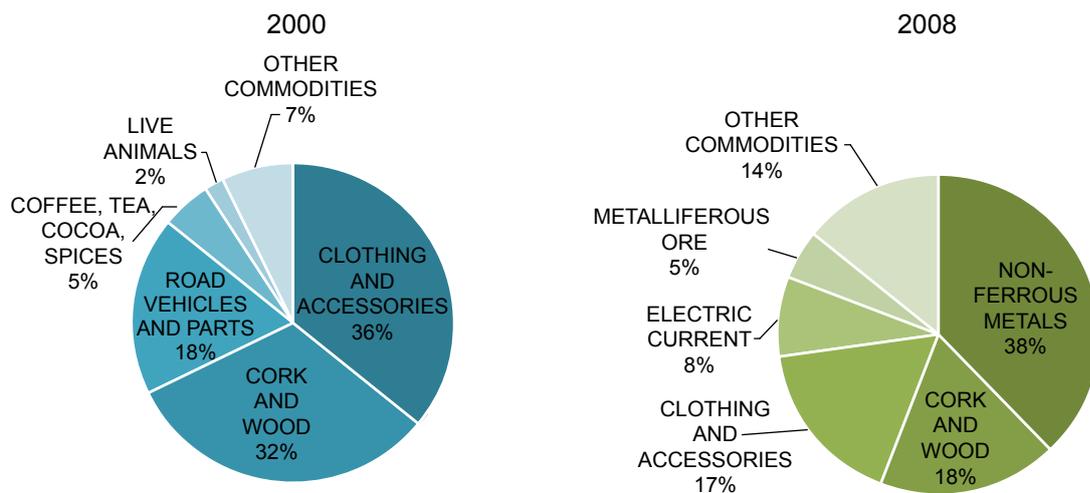
The development of the Lao economy between 2000 and 2008 looks quite different from the Cambodian one. In 2000, Laos used to have coffee and live animals among its leading exported goods, besides wood and manufactured goods, like clothing and road vehicles and parts. In 2008, Laos transformed its economic characteristics to

Figures 3a and 3b: Top Commodities Exported to the World by Cambodia 2000 and 2008



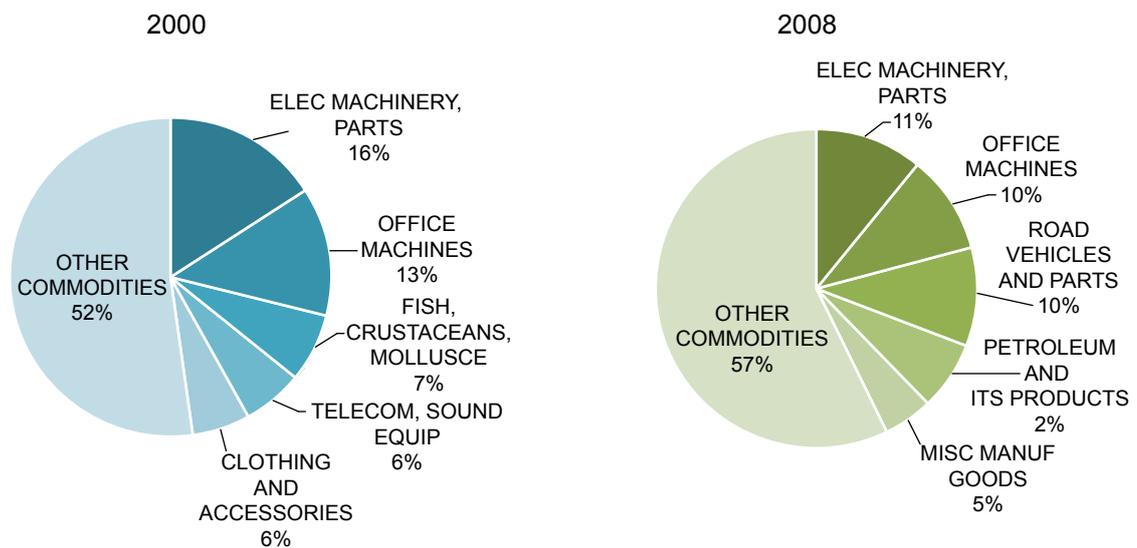
Source of data: UN Comtrade Database

Figures 4a and 4b: Top Commodities Exported to the World by Laos 2000 and 2008



Source of data: UN Comtrade Database

Figures 5a and 5b: Top Commodities Exported to the World by Thailand 2000 and 2008



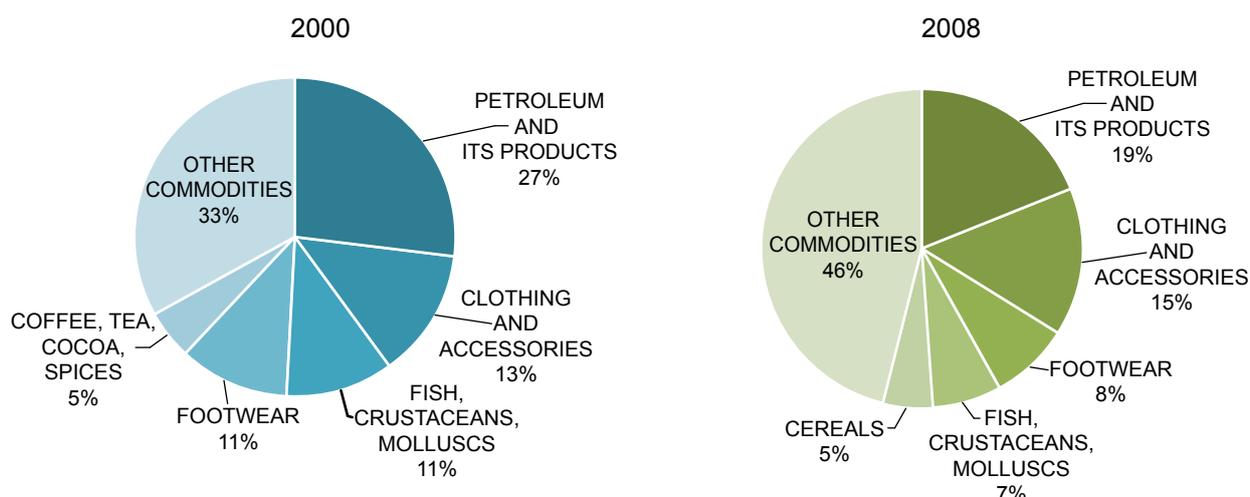
Source of data: UN Comtrade Database

become an energy source and a natural resource supplier for the region and the world. Copper replaced clothing and accessories as the top export commodity for Laos. Electric current became the fourth top export commodity in 2008 and metalliferous ore the fifth. These top commodities of Laos are exported mostly to Thailand. As examined in the previous section, the Lao economy tremendously depends on trade with Thailand, but it is not a reciprocal dependency. The demand in Thailand for goods from Laos is for crude natural resources and energy. Laos diversified its economy to some extent by increasing the share of exports

of “other commodities” from 7% in 2000 to 14% in 2008, as shown in Figures 4a and 4b.

For Thailand, the top three exported commodities in 2008 were in the machinery and transport equipment sector, illustrated in Figures 5a and 5b. The aquaculture industry, which was the third largest export industry in 2000, was overtaken by the road vehicles and parts industry. Petroleum and its products became the fourth top export commodities of Thailand, which are mainly exported to Mekong economies. Thailand raised its share of “other commodities” from 52% in 2000 to 57% in 2008.

Figures 6a and 6b: Top Commodities Exported to the World by Vietnam 2000 and 2008



Source of data: UN Comtrade Database

The top three export commodities in Vietnam in 2008 were in the energy and light manufacturing sectors. Light industries such as clothing and footwear are still the significant driving force for Vietnam's growth strategy. Agricultural goods such as rice and fishery products remained significant relative to other sectors in the Vietnamese economy. Vietnam improved the level of economic diversification in a share of "other commodities," up from 33% in 2000 to 46% in 2008, as shown in Figures 6a and 6b.

4.4. Foreign Direct Investment (FDI) in Mekong

Between 2000 and 2010, the amount of inward FDI into Mekong countries more than doubled. The Mekong-4 received a total inward foreign direct investment (FDI) from the rest of the world of around US\$ 17 billion in 2010, rising from less than US\$ 6 billion in 2000. Among them Cambodia and Laos are still small destinations for FDI relative to Vietnam and Thailand, as shown in Figure 7a.

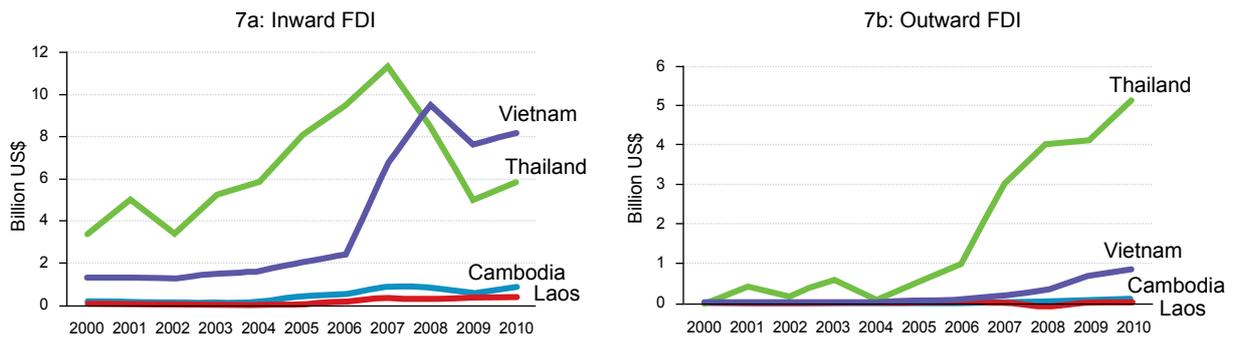
Several years after the Asian financial crisis in 1997, FDI to Thailand has risen again. Vietnam also started to attract a huge amount of inward FDI very quickly. The country received only less than US\$ 2 billion of inward FDI in 2000, but surged to around US\$ 9 billion in 2008 at its peak. In 2008, Thailand's inward FDI took a nosedive, apparently due to the global economic recession. Vietnam also was impacted by the global recession in 2009.

However, in terms of absolute value Vietnam has become the biggest Mekong recipient of FDI, replacing Thailand's top position since 2008. Figure 8 illustrates that Vietnam, Cambodia, and Laos have all accumulated high FDI flows between 2006 and 2010 as percentage of GDP, which consequently brings Thailand to the bottom of the group.

Thailand has increased its outward investment especially to Mekong countries ranging from tourism, energy, agro-processing, light industries to construction. In 2010, Thailand invested more than US\$ 5 billion overseas, as shown in Figure 7b. Two Thai government agencies, TICA and NEDA, are responsible for giving major loans and technical assistance to neighbouring countries. TICA or the Thailand International Development Cooperation Agency, which is under the Ministry of Foreign Affairs, gives training and technical assistance to Cambodia, Laos, Myanmar and Vietnam. NEDA, or the Neighbouring Countries Economic Development Cooperation Agency funded by the Ministry of Finance, also provides soft loans to these countries.

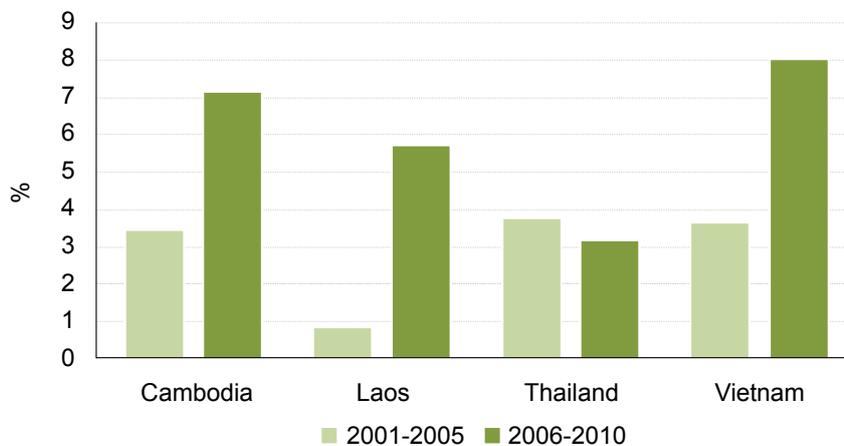
According to the Bank of Thailand Statistics Database, Thai direct investment abroad grew dramatically from US\$ 500 million in 2005 to US\$ 5.5 billion in 2010. Myanmar is the top recipient for Thai direct investment abroad between 2005 and 2010, accounting for around US\$ 5 billion, followed by Singapore (US\$ 2.6 billion) and Malaysia (US\$ 1 billion). Vietnam is ranked at the fourth largest host for Thai outward FDI in ASEAN with the

Figures 7a and 7b: Inward and Outward Foreign Direct Investment Flows in the Mekong-4



Source of data: UNCTAD-Foreign Direct Investment Database

Figure 8: Inward Foreign Direct Investment Flows as percentage of GDP



Source of data: UNCTAD-Foreign Direct Investment Database

accumulated value of around US\$ 500 million. Laos is the fifth (US\$ 400 million) and Cambodia is the eighth (US\$ 100 million). Most outward investment goes into sectors such as mining and quarrying, manufacture of food products, and financial and insurance activities.

According to the UNCTAD Statistics Database, Vietnam invested only US\$ 65 million abroad in 2005, but this figure rose steadily to US\$ 853 million in 2010. Between 1989 and early 2010, Vietnam invested in 575 projects with the total value of 23.7 US\$ billion (Tien 2011). Vietnam's outward investment has been concentrated on mining, energy (e.g. Xekaman 3 Hydroelectricity in Laos), and agriculture including fishery and forestry sectors, as shown in Table 5. Approximately 67% of total direct investment abroad was dominated by 5 state-owned enterprises, PetroVietnam, Vinacomin (coal and minerals), Vietnam Rubber Group, Viettel (mobile phones), Song Da Corporation

(hydropower plants and infrastructures) (Tien 2011). The largest recipient of Vietnam's outward investment is Venezuela, followed by Laos and Cambodia respectively. Cambodia and Laos are the smallest foreign investors in the Mekong-4 due to insufficient domestic savings. Their outward investments were only US\$ 17 million for Cambodia and US\$ 6 million for Laos in 2010.

According to the Investment Promotion Department in the Lao Ministry of Planning and Investment, between 2000 and 2009 top foreign investors in Laos are Thailand, China, and Vietnam. Thailand has invested in 241 projects, worth US\$ 2.65 billion. China has invested in 340 projects, worth US\$ 2.58 billion, and Vietnam has 211 projects with the total investment of US\$ 2.16 billion in Laos. US\$ 12 billion of total investment in Laos mostly goes to electricity generation (US\$ 4.1 billion), mining (US\$ 3.1 billion), agriculture (US\$ 1.1 billion), services (US\$ 1.4 billion), and industries

Table 5: Accumulated Outward Investment by Vietnam from 1989-February 2010

No.	Sector	Number of Projects	Value (US\$ million)
1	Mining	88	16,913
2	Agriculture - forestry and fishery	7	2,113
3	Art and entertainment	59	1,266
4	Electricity, gas, water, air conditioning	3	1,035
5	Information and telecommunications	28	741
6	Manufacturing and processing	110	559
7	Finance, banking and insurance	17	225
8	Real estate	28	395
9	Wholesale and retail - repairing	98	205
10	Professional activity and scientific technology	59	43
11	Others	78	241
Total		575	23,736

Source of data: Foreign Investment Agency, Ministry of Investment and Planning, quoted in Tien (2011)

(US\$ 1.1 billion). France, Korea, and Japan are also important investors in Laos.

In Cambodia, Korea surpassed China as the largest foreign investor in 2010. Its investment grew 750% from the year before with the total investment of around US\$ 1 billion (Economics Today Magazine 2011). Korea has particular interest in rubber plantations and the agro-fuel industry, one Korean company has teamed up with the Men Sarun Company aiming to export ethanol to the EU market (Ullenberg 2009). The top five investors in Cambodia between 1994 and 2010 were China, Korea, Malaysia, the United States, and Thailand. Vietnam was the sixth largest foreign investor in Cambodia (CDC, 2011). From 1994 to 2010, the tourism sector has the largest sum of capital accumulation invested by foreign investors, followed by the services and agricultural sectors, illustrated in Table 6.

As of December 2006, the Cambodian government leased 297,374 hectares of land to foreign investors. One third of the land concessions were for the timber industry. Companies from the United States and China have invested in teak production. One third of the land concessions has been granted for agro-fuels (Ullenberg 2009), for which the main investors are China, Korea, Thailand, and Vietnam. The Cambodian Ministry of Agriculture, Forestry, and Fisheries (MAFF) reveals that in 2011 around 956,690 hectares of land in 16 provinces has been granted for investment. Detailed information on the economic land concessions by sector is unavailable.

Investors from Vietnam and Thailand look for raw materials in neighbouring Mekong countries in order to supply their own food processing industries, bio-fuel industries, manufacturing industries, and food consumption. For example, Vietnam has invested in rice cultivation in areas just over the border with Cambodia for export back to Vietnam. Vietnam has also sought to increase its logging activities in Laos. Logging is banned in Laos, but with the on-going forest clearance there for the construction of several dams, roads and other infrastructure projects, Vietnam has successfully secured its supply of raw material to feed its furniture industry. In the same vein, Thailand has also searched for more natural resources that can feed Thai industries.

As written straightforwardly in the document *Thailand in the 2000s*, “[g]iven the adoption of sub-regional co-production, Thailand will import raw materials from its neighbouring countries, in preference over imports from outside the sub-region” (Office of the Prime Minister 2000). Thailand also sees contract farming as a tool to improve living conditions, for example through employment and income generation in the neighbouring countries through the Ayeyawady – Chao Phraya – Mekong Economic Cooperation Strategy (ACMECS) program. Two types of crops that Thailand is interested in outsourcing are food and biofuel crops (e.g. oil palm, manioc, and sugarcane), and ten cash crops which are “soybean, peanut, castor bean, sweet corn, maize, potato, cashew nut, eucalyptus, green bean and Job’s tears” (Office of the Prime Minister 2000).

Table 6: Accumulated Investment in Cambodia by Sector 1994-2010

Sector	1994-2005		2006-2010		1994-2010	
	No of Projects	US\$ million	No of Projects	US\$ million	No of Projects	US\$ million
1. Agriculture	102	528	72	1,800	174	2,328
2. Mining and industries	626	2,141	300	3,320	926	5,461
2.1. Energy	14	316	17	1,919	31	2,235
2.2. Food processing	47	150	8	260	55	410
2.3. Garment	467	686	179	678	646	1,364
2.4. Mining	16	204	33	146	49	350
2.5. Petroleum	17	289	1	2	18	291
2.6. Shoes	25	50	24	116	49	166
2.7. Wood processing	40	446	7	20	47	466
2.8. Others	-	-	31	179	31	179
3. Services	61	1,374	27	5,486	88	6,860
3.1. Construction infrastructure	19	1,076	5	2,307	24	3,383
3.2. Services	28	164	12	2,386	40	2,550
3.3. Telecommunications	14	134	10	793	24	927
4. Tourism	78	1,024	52	14,224	130	15,248
4.1. Hotel	63	813	7	45	70	858
4.2. Tourism	15	211	45	14,179	60	14,390
Total	867	5,067	451	24,830	1,318	29,897

Source of data: Cambodia Investment Board (CIB), and CDC (2011). The figures in this table refer to projects that have received the approval of the CIB.

Inward FDI flows into Thailand and Vietnam are mostly in industries such as miscellaneous manufacturing, food processing, electronics, telecommunications equipment, and machinery. The investment sources are from outside of Mekong countries, mainly from Japan, ASEAN, Korea, China, the United States, and the EU. The investment strategy of Thailand is to attract high-technology investment into the country while outsourcing labour-intensive industries to neighbouring countries. The government supports the establishment of the so-called Special Border Economic Zones (SBEZs) in Koh Kong (Cambodia), Savan-Xeno (Laos), and Myawaddy, Maulamyaine, and Pa-an (Myanmar). It has stated that:

[t]he establishment of SBEZs will support the [country's] transition from a labor-intensive to a high-tech industry and serve the relocation of labor intensive industrial enterprises relying on raw materials from neighboring countries into those partner countries (Office of the Prime Minister 2000, 485).

5. The Hub-Spoke Relationship: Selected Sectors

This section examines four selected sectors that elucidate the hub-spoke relationship of trade and investment in Mekong - wood and wooden furniture, maize, sugarcane, and hydropower. It discusses the extent of dependency of spoke countries on hub countries for trade and investment, and the heavy social and environmental costs of these investments that are mostly borne by the spoke countries.

The hub-spoke relationship in Mekong is driven by the demand for natural resources or primary goods. The higher demand for natural resources has been stimulated by the global promotion of export-led growth policy, the intertwined regional and global production network, and the growth of borderless foreign investment. These three factors have contributed to the creation and continuation of this trade relationship.

Four sectors are presented below to elucidate the hub-spoke relationship of trade and investment in Mekong - wood and wooden furniture, maize, sugarcane, and hydropower. These four examples are examined to initiate discussions and create space for further debates in the economic development policy in Mekong.

5.1. Forest and Wooden Furniture: What is Gained?

Deforestation was a severe problem in the Mekong during the 1980s and 1990s. Thailand prohibited logging in 1989 due to fatal floods in 1988. Vietnam introduced its logging quota and export ban in 1992 and banned logging in natural forests in 1997, except with government permission (EIA 2008). Since both have closed their forests to logging, Thailand and Vietnam have turned to import timber and wood from Burma, Cambodia, Laos, Malaysia, and Indonesia to supply their furniture and construction industries.

Cambodia in fact banned its logging exports in 1996. However, its policy was not strictly

enforced. As a result, illegal logs were found to be transported to Vietnam even after the Cambodian law was imposed. The Environmental Investigation Agency (EIA) reported that illegal logs from Indonesia were also found in Vietnam, but the certificate indicated the origin was from Malaysia (EIA 2005). When Cambodia and Indonesia finally tightened their forest protection policies, Vietnam and Thailand had to again turn their appetite for timber and wood products to the closest neighbouring country, Laos.

5.1.1. Laos and Forest

Forest resources are essential to people in Mekong countries, especially to communities that live on subsistence agriculture and heavily rely on their food, energy, and medicinal sources from forests. The value of biodiversity in Laos, if calculated in terms of commercial value, has been estimated at US\$ 650 million yearly (Emerton 2005); and around 55% of Lao household income is generated from the non-timber forest products (NTFPs) (Foppes and Kethpanh 1997).

In 2008, around 18% of Lao total export revenue was from wood products, as shown in Figure 4b. This figure does not include illegal logging and trade, which are off the records. In 2003, nine million cubic meters of timber and wood products, valued at over US\$ 2 billion, were traded illegally in the Southeast and East Asian regions (EIA 2008). EIA estimates that at least 500,000 cubic meters of logs are exported from Laos to Vietnam annually. Illegal logging in Laos has alarmingly surged as the UN Environment Programme (UNEP) predicts that the Lao forest area would reduce to 30% by 2020 (UNEP 2006). The Lao Ministry of Agriculture and Forestry revealed that the country's forest coverage plunged to 40.3% of the national's total land area in 2010 (Vientiane Times 2011).

Laos introduced the National Protected Area (NPA) system in 1993, and the government passed a Forestry Law in 1996 at about the same time that Cambodia and Vietnam began to establish their new regulations on logging. The government set a target to implement a plantation policy to increase the "forest" area by 400,000 hectares in 1993, but has reached only 57,281 hectares, reportedly due to mismanagement and malinvestment (World Bank 2005). In 2007, Laos banned the export of raw logs, except with special government permission. Timber must be processed into finished goods before export.

An increasing number of mines, plantations, and dam constructions around the country have contributed to the rising rate of deforestation in

Laos. Approximately 60% of the timber comes from hydroelectric and other infrastructure projects that allow cutting trees and exporting them under special quotas (PROFOR 2011). “Laos’ forest landscape is ... increasingly denuded by infrastructure development, hydropower projects, mines and plantations, leading to further unsustainable and illegal logging” (EIA 2011). Nevertheless, the Lao government has pledged to increase its forest areas from 41% to 65% of the national area by 2015, and 70% by 2020 as part of its 2020 forestry strategy (Vientiane Times 2011).

5.1.2. Vietnam as a Global Hub for the Wooden Furniture Industry

With the strict forestry protection policy at home, Vietnam has increased its investment in logging businesses and imported raw logs and sawn timber from Laos in order to supplement the insufficient amount of raw material needed for its furniture industry.

According to official figures, the import of wood from Laos peaked in 2008 with a value of US\$ 130 million, having surged from 36 million US dollars’ worth in 2000. Vietnam’s imports went down to around US\$ 90 million in the following year due to the global economic recession that started in 2008. The import of wood from Cambodia was also ratcheted up from US\$ 11 million in 2000 to US\$ 73 million in 2007 at its peak, as shown in Figure 9.

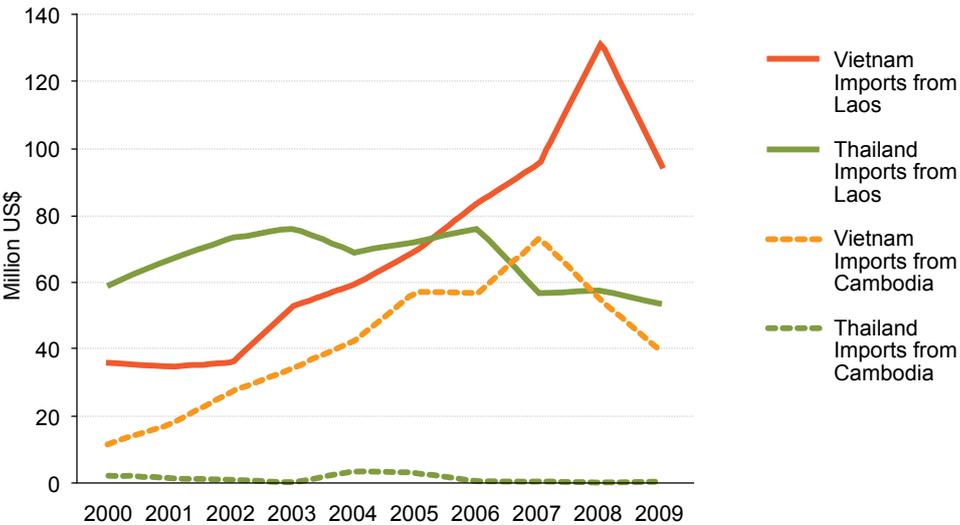
Vietnam’s export revenue of wooden furniture rocketed from US\$ 144 million in 2000 to US\$ 1.6 billion in 2008, exceeding Thai exports in this industry in 2004, as shown in Figure 10. In other

words, trade in wooden furniture in Vietnam grew by 1043% in the past 9 years or 116% yearly. Vietnam’s major export markets are the United States, Japan, the United Kingdom, France, Germany, and China.

The future of Vietnam’s wooden furniture looked very promising when the US government decided in 2005 to impose an import tariff on Chinese wooden furniture in order to counteract dumping by China. Figure 11 illustrates the nosedive in Chinese export of wooden bedroom furniture to the US market after the year 2005. The United States imported around US\$ 1.2 billion of wooden bedroom furniture from China in 2004 compared with US\$ 691 million in 2010 (Higgins 2011). Chinese investors have already relocated factories to Vietnam, which could accelerate the demand of wood and timber from Laos since the location between supply source and factory becomes closer. However, the wave of Chinese investors moving to Vietnam also creates a major concern for the Vietnamese wooden furniture industry in that a sanction or an import tariff might be imposed by the US government if Vietnam is seen as a tax haven for the Chinese to avoid the US tariff (Vietnam Net Bridge 2011).

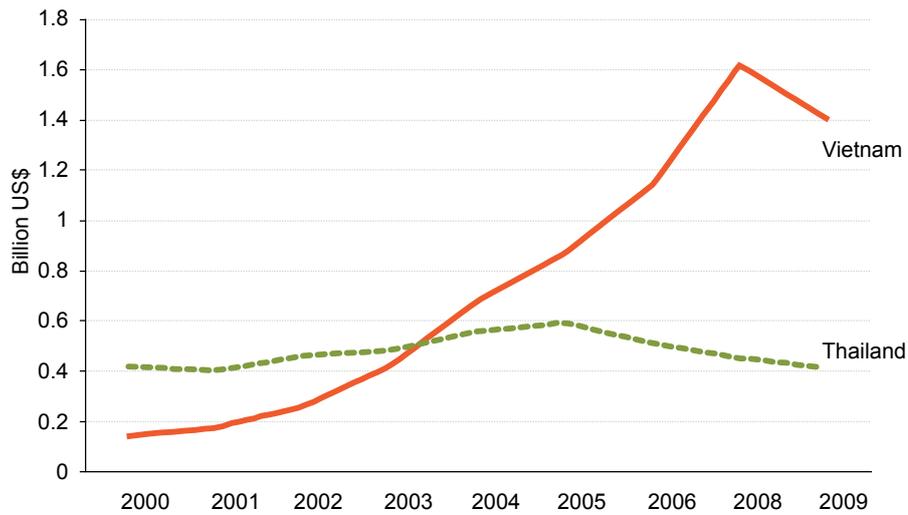
The reports of EIA (2008, 2011) reveal that four large companies, COECCO, Phonesack Group, Nicewood, LVT International have been logging in Laos and illegally transporting logs to Vietnam for more than a decade. Seven crossing points are found to be vital routes for log transportations from Laos to Vietnam, which are Phoukeua – Bo Y checkpoint, Route 15 in Salavane, Dak

Figure 9: Wood Trade in Mekong



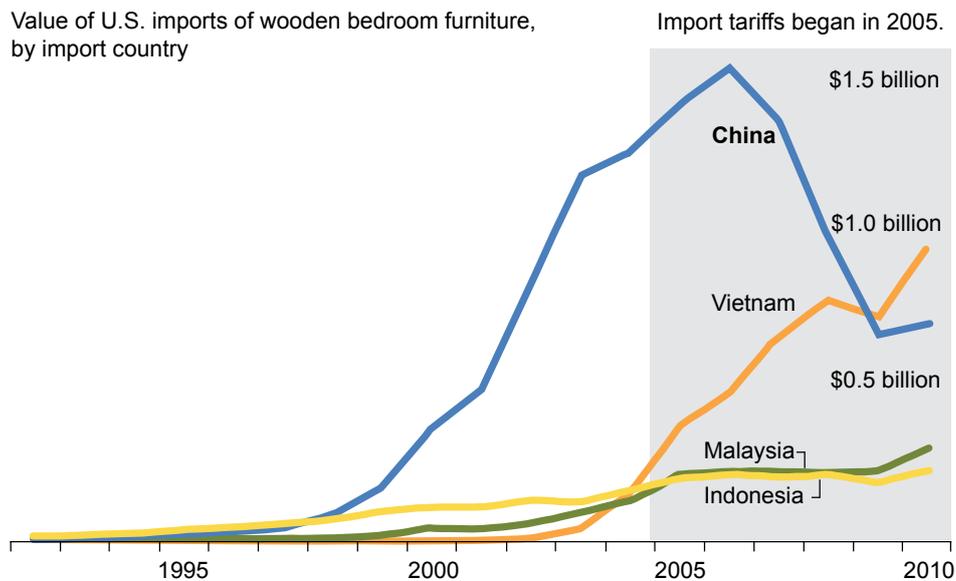
Source of data: UN Comtrade Database

Figure 10: Wooden Furniture Export to the World by Vietnam and Thailand



Source of data: UN Comtrade Database

Figure 11: Import of wooden furniture by the United States



Based on graphic published in The Washington Post (23 May 2011).
Source of data: US Census Bureau.

Cheung crossing in Sekong, Nong Het – Nam Can checkpoint, Naphao – Cholo checkpoint, Khe Sanh – Lao Bao and Nam Phao – Cau Treo checkpoints (EIA 2011). The investigation by the EIA also confirms the high level of corruption in the logging business in Laos.

5.1.3. Gain or Loss for Laos?

The wood processing enterprises and logging companies from neighbouring countries, government officials and military are the winners

in the timber industry. Who loses? People and local communities often do not get compensation or share of benefits from dam clearance and illegal logging concessions, and there is much corruption, which keeps the real extent of the problems from being exposed and addressed. They lose the ground on which they stand, and along with it secure water and food sources, which are in fact their main source for income. The logging industry in Laos does not generate much employment in the country. While the Vietnamese military denies

any involvement in illegal logging in Laos, the Lao government accepts the existence of illegal logging and vows to crackdown on this.

Ironically, Lao furniture factories have complained about the lack of raw material to produce finished goods for export even though half a million cubic meters of logs is exported from Laos every year (EIA 2011). As shown in Table 4, Laos does not have a comparative advantage in furniture, including wooden furniture industry compared to Vietnam and Thailand. On the other hand, the country has a very high comparative advantage in exporting wood as a raw material. The current revenue that is gained from timber exports to hub countries may not be sufficient to offset losses in natural resources, biodiversity, and food security of Lao people over the long run.

5.2. Maize: Potential Diversification of the Economy

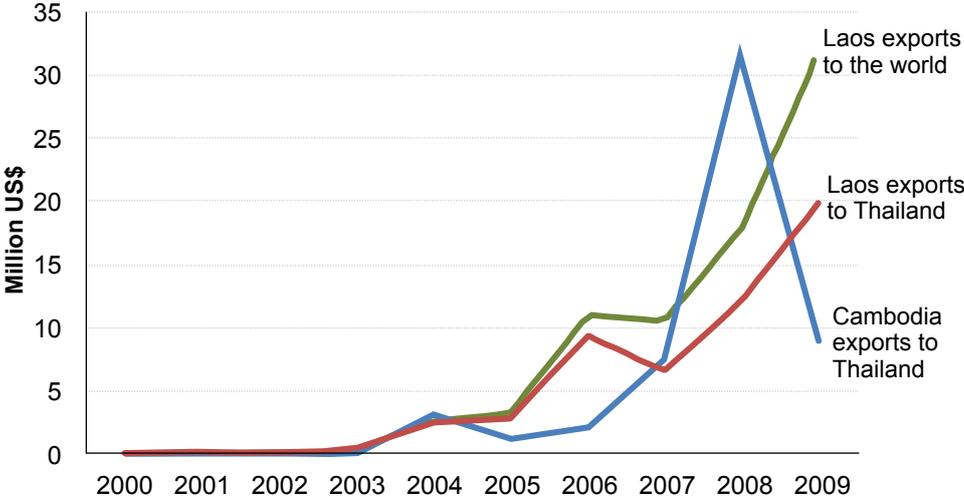
In the Mekong, Thailand and Vietnam buy maize from Cambodia. But Thailand has played a bigger role as a hub country that sources maize from Cambodia in order to feed their industry at home.

Cambodia’s maize production capacity is low due to less developed farming techniques, lack of access to market, lack of capital, and insufficient infrastructure for agricultural development. Most maize plantations in Cambodia, as in Laos, depend on rain-fed cultivation. The area along the western border, Battambang and Pailin Provinces, are considered the top maize growing areas in the country due to land availability and easy access to Thailand.

Maize farmers sell to traders and processing factories through middlemen. These middlemen are mostly local Cambodians, who live in the producer communities and negotiate their profits with Thai traders. In Battambang and Pailin, contract farming is based on verbal trust and usually the price of maize is not fixed or guaranteed (Kongchheng 2010). Often poor farmers do not have bargaining power to negotiate with middlemen for a higher price. The most influential actor in this borderless market are the Thai traders and factories, who are the price makers as well as the loan providers through Cambodian middlemen or collectors (Kongchheng 2010). Cambodian farmers who do not have land title deeds often cannot get a loan from domestic banks.

In Laos, like Cambodia, maize is the second largest crop produced after rice. As much as 99% of the total amount of maize produced in Laos is exported to Thailand, China, and Vietnam (Ministry of Agriculture and Forestry 2007). Lao farmers have increased their income on average from growing cash crops especially from maize. It was found that maize farmers could earn US\$ 960 to \$ 4,000 per household per year (Southavilay et al 2011). Laos has increased its planting area and production of maize to meet with the growing demand for maize from its neighbouring countries. Xayaboury and Bokeo Provinces are among the largest maize producers, most of their outputs are transported across the land border or the Mekong River to Thailand. In both provinces, middlemen sell maize directly to local or Thai traders or to the Maize Production Group in Bokeo.

Figure 12: Maize Exports in Mekong



Source of data: UN Comtrade Database

Charoen Pokphand (CP), the largest agribusiness conglomerate in Thailand, has expanded its maize investment in Cambodia, Laos, Myanmar, and Vietnam, in order to supply animal feed mill production and livestock farming. CP makes its investment through the contract farming system, as the company provides hybrid seeds, technology, and technical assistance for local farmers (Southavilay et al 2011).

Due to a higher demand for maize-based ethanol, the international price of maize increased considerably. The price reached its peak in the year of 2008 when the world price hit US\$ 222 per ton and the domestic price in Laos was US\$ 177 per ton. The gap between international and domestic prices reveals the low quality of maize produced in Laos. Based on a study in Northern Laos, CP paid less to buy Lao maize compared to Thai maize due to high moisture content (Southavilay et al 2011). A decline in the world price of maize can have a direct negative impact on farmers in Laos and Cambodia, who have fixed input costs and may rely on this income alone.

Maize and many other cash crops produced in the Mekong are controlled entirely by foreign investment and demand. Cheap, domestically produced maize could benefit domestic consumers in terms of lowering food prices or providing more access to food or benefit domestic industries to produce value-added goods however, all outputs are shipped abroad. Equally, while maize, sugarcane and cassava can be used as raw materials to produce biofuel there is no existing technological capacity to produce biofuel at commercial scale in Laos and Cambodia (on Laos see Sanatem, et al. 2009). Most significantly, the investment in these types of plantations in Laos and Cambodia are funded and controlled by large buyers such as China, Korea, Thailand and Vietnam, which vigorously demand maize, sugarcane and cassava to expand their livestock industry, strengthen their biofuel industry at home, or export them for a better price to developed countries.

5.3. Booming Sugarcane, Looming Problems

Sugarcane is a booming commodity in Mekong. Cambodia and Laos have become major recipient countries for foreign investment in this sector from Thailand and Vietnam. The growth of sugarcane production in both countries is likely to serve a higher demand for domestic consumption in Vietnam and a higher demand from the EU

market. In this way, Cambodia can attract more foreign investment and expand its expertise in agricultural development and business. However, poor governance and a corrupt relationship between business, government and military have yielded little but grave damage to farmers, ethnic minorities, and indigenous people.

5.3.1. Booming Sugarcane in Cambodia

Cambodia is a net sugar importing country. Thailand is the biggest exporter of sugar to Cambodia. Figure 13 shows that Cambodia imported as much as US\$ 25 million worth of sugar from Thailand in 2002. In 2003, the production of sugarcane plummeted in China, India and Thailand, bringing down the Cambodian imports sugar from Thailand and the world. At the same time, Cambodia also exports sugar to the world but in a small volume. In 2007, Cambodia exported US\$ 103,674 worth of sugar to the world, a figure which jumped to US\$ 5,144,078 in 2010. Cambodia also started to export refined sugar in 2010, mostly to England through the five-year purchasing contract made between Tate & Lyle in England and a Thai sugar company, Khon Kaen Sugar Industry Plc (KSL) (BABC 2010).

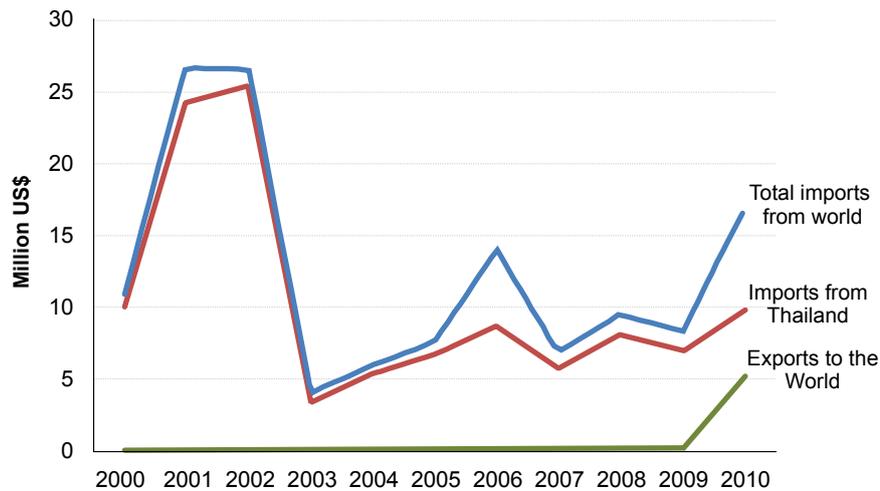
While Cambodia has received an influx of foreign investment in sugar plantations and mills, the country cannot sustain its sugar production to fulfil domestic consumption or demand. Sugar from plantations invested by foreign companies is directly shipped out of the country to either a third country or back to the foreign investors' countries. Thai investors use cheap land and labour in Cambodia to produce and export sugar to the EU market with no tariff through the Everything But Arms (EBA) programme⁶. As the CEO of KSL, Chamroon Chinthammit, revealed during an interview with the Phnom Penh Post,

[w]e plan to produce raw sugar for export to the EU market under the EBA quota first, after that we will consider producing white sugar to serve domestic demand in Cambodia (Phnom Penh Post 2010).

In 2011, the Vietnamese company, Can Tho Sugar Company (Casuco), was awarded a concession of 10,000 hectares in Kampot Province for a sugar plantation and mill. The CEO of the

⁶ The EU Everything But Arms (EBA) programme grants Cambodia, as one of 49 least developed countries (LDCs), unlimited and duty free access to the EU market, and encourages the export of several products including sugar to the EU market.

Figure 13: Cambodian Imports and Exports of Sugar



Source of data: UN Comtrade Database

company disclosed that this project mainly produces sugar to fulfil domestic demand in Vietnam since sugar plantations are already at overcapacity in the Mekong Delta (Vietnamica 2011).

5.3.2. Land Grabbing and Human Rights Violations

In Cambodia, more than 80,000 hectares of land concessions have been granted to sugar companies, and as of September 2010 more than 12,000 people have been forcibly evicted as a result of land concessions for sugar plantations in Koh Kong Province (Sre Ambel and Botumsakor Districts), Kampong Speu Province (Thpong and Oral Districts), and Oddar Meanchey Province (Samraong and Chongkal Districts) (BABC 2010).

In Koh Kong Province, in 2006, two sugar land concessions over a total of 20,000 hectares were granted for a joint venture project between KSL (50%), Ve Wong, a Taiwanese company, (30%), and Ly Yong Phat, a Cambodian Senator and top businessman (20%). In 2010, KSL bought Ly Yong Phat's share and now controls 70% of the plantation business in Koh Kong (Farmlandgrab 2011)⁷. Since then almost 3,000 villagers were

forced to leave their home with no choice and almost no compensation. According to a report by Bridges Across Borders Cambodia, villagers lost their farmland. As a consequence, family members including children are indirectly forced to work in sugar plantations due to lack of food sources and income. Water sources are contaminated from the harmful chemicals used in the plantations. Company guards prevent villagers from entering the remaining forest areas. Military, police, and armed guards threatened villagers and killed their livestock (BABC 2010). Village leaders are accused of inciting unrest in the areas. Many were arrested and jailed for several months before reaching trial. Some were released but others were sentenced. Other villagers were barred from attending the trials and entering court.

People in other provinces have been facing similar threats akin to those seen in Koh Kong Province. Mitr Phol, another major Thai sugar company, was granted 20,000 hectares under three company names. More than 2,000 families were evicted. Armed guards, military, and police sponsored by the Angkor Sugar Company, one of the three joint venture companies, demolished more than 154 houses in Bos Village between 2008 and 2009 (BABC 2010).

A member of the European Parliament from Sweden, Cecilia Wikstrom, visited Cambodia for a fact-finding mission and termed sugar exports from Cambodia as "blood sugar" (Farmlandgrab 2011). The Thai National Human Rights Commission has allowed submissions in the case of Sre Ambel District in Koh Kong Province in 2007, however the case remains unsettled.

⁷ The Bangkok Post reported that last year KSL pledged to expand its business in Cambodia by investing in a US\$ 100 million sugar mill in Koh Kong which would allow Cambodia to produce a total of 2 million tonnes of sugar within five years. Upon this commitment, Prime Minister Hun Sen also promised to help the company fulfil its need for land and 4,000 labourers. In Laos, KSL was also awarded a 30 year land concession and just opened its new mill in Savannakhet, with an investment value of US\$ 40 million in 2010 (Bangkok Post 2010).

Landlessness has been on the rise in Cambodia. According to a survey by Oxfam GB in 2007, 25% rural households were landless. When combined with those who were “land poor” (owning less than 0.5 hectares of land) the figure rose to 63%. (Bridges Across Borders et al 2009). Many people risk losing their land as economic land concessions are issued to attract foreign investment. According to a Cambodian human rights organization, LICADHO, 133,000 people or 10% of Phnom Penh’s population were affected by land grabbing since 1990, and more than 250,000 people from 13 provinces became victims of land eviction since 2003 (IRIN 2010).

5.4. Hydropower: Too Much, Too Risky

Hydropower is one of the primary energy sources used to create electricity. The construction of dams generates pollutants, but to produce electricity there is no air pollution, unlike petroleum and coal power plants. It is thus seen as a green choice for power generation that does not directly release emissions to the atmosphere.

However, large areas of natural forest are cleared to construct dams. Forest clearance from dam constructions and plantations can provide cover for illegal logging activities. Dams interrupt the river systems and affect biodiversity and fish migration patterns. Large dams can also bring about a change in water temperature at the bottom of the reservoir and reduce oxygen in the water, which harms fishes and other aquatic species. In short, the ecosystem is inevitably damaged by the building of a hydropower plant. This concern is expressed in a report by the International Energy Agency,

even if the ‘fuel’ of a hydropower product is water and as such is renewable, the projects are often quite controversial since the construction and operation directly influences the rivers system, whereby adverse impacts become direct and visible ... (IEA 2002, V).

Hydropower is the largest source of energy to produce electricity in Laos, accounting for 99% of the electricity supply (Sanatem, et al. 2009). According to the IEA database, in Vietnam around 38% of electricity generation comes from hydropower, while in Cambodia and Thailand, 5-6% of electricity is generated from hydropower.

5.4.1. Lao Hydropower Expansion Plans

The Lao government aims to depart from the group of least-developed countries (LDCs) by 2020 (UNESCAP 2006). National policies have continued to transform the economy toward a market-based

economy and attract foreign investment to do businesses and build physical infrastructure in the country. The government has set a target to increase its coverage of electricity to reach 41% of Lao household in 2004 and 90% by 2020 (UNESCAP 2006). Hydropower, seen as the most cost-efficient energy source, has thus been boosted to drive and maintain the country’s economic growth at 6-7%. In addition, it helps to reduce the country’s trade deficit and national debt.

With a potential capacity of 23,000 megawatts (MW), including the output from the proposed dams on the Mekong mainstream, to produce electricity, hydropower is considered the most abundant and cheapest energy source for Laos. As of 2004, 671 MW of its total hydropower capacity was utilized (Pholsena and Phoneko 2004).

Since the Lao government does not have enough capital to build many and large dams, several actors ranging from international and regional financial institutions (e.g. Asian Development Bank and World Bank), hydropower importers and investors (Thailand, Vietnam and China), and other investors (e.g. Japan, Korea, Russia, and Norway, and France) are keen to jump into the energy trade and investment pool in Laos.

As of July 2011, Laos has 14 hydropower plants in operation, 9 projects under construction, 25 projects in the planning stage, and 37 projects at the Memorandum of Understanding stage (Department of Energy Promotion and Development 2011). Altogether Laos could have 85 dams by 2020. These mega-projects are expected to lift up people’s standard of living, as well as become a gigantic battery for Laos’ neighbours. Eight dams are planned for construction on the lower Mekong River, of which four would have a capacity of more than 1,000 MW.

If all plans are carried out, the government hopes that hydropower will become the largest source of revenue for the government and an engine for the country’s economic growth. The World Bank projected that the government of Laos would receive an aggregate income of around US\$ 350 million from the sale of hydroelectricity, taxes, royalties, and dividends by 2020 and its revenues could reach US\$ 800 million by 2025 (World Bank 2010).

5.4.2. Hydropower Demand from Neighbouring Countries

Domestic appetites for power and electricity consumption have been rising in Thailand, Vietnam, and China. However, Vietnam and Thailand have tight policies on forest protection.

The construction of large dams in Thailand can be expected to create huge protests from locals, NGOs, and other societal groups.

The United States will not build any more large dams but could only add small-scale dams if necessary (Brower 1992). In the same vein, Energy Policy and Planning Office (EPPO) at the Thai Ministry of Energy unveils that Thailand is not likely to build any more large dams due to environmental concerns. In a report prepared for the National Identity Office, EPPO states,

[h]ydropower resources are difficult to exploit due to the environmental impact on the resource areas... Therefore, future development of hydropower resources will be limited to a few small-scale projects which are considered most economical and environmentally friendly (EPPO 2003).

To avoid damage and social unrest at home, hub countries are willing to become financiers of dams abroad to be able to source cheap electricity and raw materials from Laos. Seeing that Thailand is the biggest customer of Lao's electricity, Thai companies have so far financed several dam projects: Houay Ho, Nam Ngum 2, Nam Theun 2, Tad Salen Hydropower, Theun-Hinboun Hydropower Expansion, and Xayaboury. Vietnam has funded two dams which are Xekaman₁ and Xekaman₃ hydropower projects. Several more dam projects are in the process of negotiation to be funded by Thai, Vietnamese, Chinese, or other investors from Japan, Malaysia, Russia, and South Korea and elsewhere. In addition to the hydropower plants, a Thai company has invested in a lignite power plant (Hongsa Lignite) located in Xayaboury, which will export electricity to Thailand.

According to the Department of Electricity in the Ministry of Industry and Handicrafts, around 70% of the total electricity generated in Laos is for export, and 90% of this is exported to Thailand. The Lao government signed a Memorandum of Understanding (MOU) to supply 1,500 MW to Thailand in 1993 (Pholsena and Phoneko 2004), increasing to 7,000 MW by 2020 (Sanatem, et al. 2009). Investors have tended to fund large dams which have capacity to produce more than 100 MW of electricity (Pholsena and Phoneko 2004), although foreign investors from these investor countries are also interested in smaller dam projects. For example, Nam Phak project which has capacity of 45 MW serving domestic consumers is funded by Électricité du Laos (EDL) and Kobe Green Power from Japan. Nam Beng project with a generating capacity of 34 MW is the investment of China's National Electrical Equipment Corporation alone.

5.4.3. *Visible and Invisible Impacts*

Hydroelectric projects are promoted on the basis that Lao people will be able to use electricity and the government can generate revenues. Roads built as a route to the dam sites may create trade, small markets and jobs that leads to a better standard of living and may increase welfare in the future. On the other hand, existing projects have had impacts that are also visibly detrimental to people, wildlife, and environment.

The Nam Theun 2 hydropower plant is a joint venture between Électricité du Laos (20%), Électricité de France (40%), and the Electricity Generating Public Company (EGCO) from Thailand (35%) with vigorous support from the World Bank. The project forced 6,200 ethnic minority people to leave their lands, without receiving compensation before resettlement as stated in the World Bank's safeguard policy. The dam has further modified the river system, which has affected over 110,000 people in downstream communities. Villagers report the decline in fish catches and the quality of water (International Rivers 2010).

Another project, the Theun-Hinboun hydropower project is a joint venture between Électricité du Laos (60%), Statkraft SF (20%), and MDX-Thailand (20%), with credit from the Asian Development Bank (ADB). Approximately 6,000 people from 25 villages were forced to flee their homes. After building the dam, the river was blocked, leading to losses in fish catches, riverbank gardens, drinking water sources, and impacts on culture in the downstream communities (Shoemaker 1998). The amount of compensation paid to the affected villagers was unfair.

The most recent controversial dam scheduled for construction on the lower Mekong River is to be located in Xayaboury, mainly funded by Ch. Kanchang, a large Thai construction company. It is expected that 95% of its electricity generation will be sold to Thailand. At least 2,200 people are likely to be resettled and more than 202,000 people will be directly affected from the dam construction (International Rivers 2011). Moreover, this construction risks detrimental impacts on fish migration and other aquatic species in Mekong River. Lower Mekong riparian countries have expressed their objections to this construction. Since there are no conclusive studies of the potential impacts on this dam, Vietnam requested a ten-year deferral period for the construction of the Xayaboury dam. A recent Mekong River Commission study has warned that hydropower dams on Mekong River would cause food insecurity and "serious and irreversible" impacts on environment (Ives, 2011).

For the Lao government, electric current is like gold attracting foreign investment rushing into Laos, which should help the Lao government to gain revenue and pay debt. Akin to other natural resource projects in the country, the government also hopes to put revenues from such investments into its poverty eradication fund or other social and economic development projects. With a lack of transparency and accountability in fund management, however, the uncertainty is very high about how Lao government will fairly distribute and inject the revenue to guarantee benefits to Lao people in the long run, and the future of local people may easily be put at risk. Environmentalists and civil society groups argue that building dams will bring about forest clearance, displacement of thousands of local people, long-term and unforeseen negative impacts on biodiversity and environment, as well as losses in food and water resources. Several dam projects, especially megaprojects, can be much too risky for the environment and people's livelihoods that rely on rivers.

Whether or not Laos has the capacity to construct 85 dams by 2020, another significant concern is whether this series of constructions will cause unforeseen environmental complications that cannot be projected. Furthermore, the decommissioning cost of dams is often omitted in the cost-benefit calculation. In the United States, the Elwha and Glines Canyon hydroelectric dams that began to be removed on 15 September 2011 require a huge financial budget. These two dams blocked salmon migration routes resulting in a decline in the salmon population for decades. The US government plans to put a budget of as much as US\$ 325 million into the restoration of the ecosystem, in addition to the US\$ 27 million removal cost (Streater 2011). The whole removal process will take three years to complete.

6. Remarks and Future Agenda for Mekong Economic Cooperation

Intra-Mekong trade has been increasing. Even though the volume of trade is small, the growth rate is significant. The economic structures of the Mekong-4 are diverse. Cambodia is the least diversified economy in the Mekong while the Thai economy is the most diversified. Cambodia concentrates on a few export sectors for revenue - clothing, footwear, wood, and miscellaneous manufactured goods. Laos has changed the structure of its economy and has gained comparative advantages in several agricultural and primary goods such as maize, copper, electric current, and livestock. Its economic structure is likely to depend on Thailand's demand for raw materials. Thailand is Laos' the biggest trade partner, accounting for 60% of Laos' total exports.

Thailand and Vietnam have become significant foreign investors in the Mekong, mostly investing in natural resource extraction, including plantation projects. This creates a new pattern of trade and investment in the region. The more advanced economies can be seen as hubs and the less developed economies as spokes. Hubs provide loans, technology, technical assistance and other capital such as seed and fertilizer, whereas spokes provide cheap land and labour. This relationship creates an unequal gain between hubs and spokes, whereby the spokes are systematically more dependent on trade and investment from hubs, and bear the most social and environmental costs. A hub-spoke trade relationship has been observed in Mekong, especially in four commodities: wood, maize, sugarcane, and hydropower. The most important factor that creates and maintains the hub-spoke system is the export-led growth policy pursued by all Mekong governments encouraging trade to countries with high economic demand. Countries extract their natural resources beyond their domestic demand in order to export. This is believed to lift up the level of national income and overall welfare.

As a consequence of this trade and investment pattern, spokes are expected to increase their exports especially in primary goods, and the governments to earn higher revenue from income taxes, loyalty fees, license fees, and dividends from foreign companies that invest in several projects. On average, national income is expected to be

higher, and better national welfare is projected as a result. However, this is likely to come with an increase in income inequality, some selected sectors can gain more from the government policy to promote and attract foreign investment and trade. Environmental degradation, losses in land and labour rights, and losses in natural resources on which many people depend for their subsistence are other negative impacts from economic cooperation projects in the Mekong with which people in Cambodia, Laos and other countries in the Mekong have been struggling. This situation does not improve the real welfare of people in the Mekong.

In the era of globalization, Mekong economies may not be able to re-impose protectionist policies as a tool to nurture and strengthen their industries at an infant stage in a similar way to the developed countries when they developed their economies fifty years or a century ago. Under the influence of financial institutions, trade and investment openness has become a mandatory component in today's economic policies of developing countries. Every country has pursued an export-led growth policy and friendly foreign investment policies as a way to increase national production and income. The Mekong economies as a group of small nations are no different. The implementation of economic

policies comes with both costs and benefits. Often the governments overlook the negative impacts and have no protection or remedial plan to protect or heal the affected citizens or those who lose out.

A new agenda for the Mekong governments to consider is to take their own citizens as their true partners to develop the national economy together. Governments and citizens should be able to shape national economic policies that benefit people equally, as well as fairly compensate and heal the affected people. The domestic and regional networks of civil society organisations should be able to participate in the formulation of economic policies and the development agenda in the Mekong Region, besides the government officials, military, lobbyists, and local and foreign private enterprises who are currently involved. Therefore, current issues of income inequality, environmental degradation, land grabbing, losses in community property rights and food sources, labour rights, and social and cultural instability must be discussed, debated, and addressed, and a regional agenda must be set to improve economic policies that benefit people in all Mekong countries. Hence, the rights and participation of Mekong citizens in determining their own future in Mekong development are pivotal and must be respected above all.

Data sources:

ASEAN Secretariat
Bank of Thailand Statistics Database
Freedom House, Freedom House Index (FHI)
International Energy Agency (IEA), Energy Statistics
Ministry of Agriculture, Forestry, and Fisheries of Cambodia, Economic Land Concession
Ministry of Planning and Investment of Laos, Foreign Direct Investment Statistics
Transparency International, Corruption Perceptions Index (CPI)
United Nations Comtrade Database
United Nations Conference on Trade and Development Foreign Direct Investment Database
United Nations Development Programme, Human Development Index (HDI)
United Nations Development Programme, Gini Coefficient
World Bank, World Development Indicators (WDI)

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Hubs and Spokes: Emerging Patterns of Intra-Mekong Trade and Investment

Recently trade and investment within four countries of the Mekong (Laos, Cambodia, Thailand and Vietnam) have been expanding. This trend reflects structural changes in the Mekong economies in question, patterns of trade relationships in Mekong, and the economic policies imposed by the Mekong governments.

Sarinna Areethamsirikul argues in this report that a pattern of trade relationships is emerging in these countries, which can be likened to hubs and spokes. The asymmetrical interdependence between the hub and spoke countries, and the unequal gains that are being generated within such a relationship shapes the effects that trade and investment have on people's livelihood, environment, income distribution, labour rights, and land rights in Mekong.

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