Chapter 1

Development Strategies and CADP 2.0

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November 2015

This chapter should be cited as
ERIA CADP research team (2015), 'Development Strategies and CADP 2.0', in ERIA (eds.), *The Comprehensive Asia Development Plan 2.0 (CADP 2.0)*. ERIA Research Project Report 2014-04, Jakarta: ERIA, pp.1-5.

Chapter 1

Development Strategies and CADP 2.0

1-1. The Original Version of the CADP

The original version of the Comprehensive Asia Development Plan (CADP) was submitted to the East Asia Summit in 2010 (ERIA, 2010). It presented a grand spatial design of economic infrastructure and industrial placement in ASEAN and East Asia and claimed to pursue both deepening economic integration and narrowing development gaps.

A unique feature of the CADP was to conceptually integrate infrastructure development with industrialisation. While infrastructure plans certainly need strong engineering support, engineers sometimes do not necessarily pay enough attention to the economic consequences. For example, engineers construct a beautiful road, but they may not really know who would use such road, what kind of cargo would move, and how the road would contribute to industrialisation in the region. Infrastructure does not go alone; it must serve economic activities by both producers and consumers. To think of the quality of infrastructure, we must specify how the infrastructure would be used and what the appropriate technical grade and specification would be.

Since the mid-1980s, we have come into an era with a new type of international division of labour called 'production networks' (Ando and Kimura, 2005) or 'the second unbundling' (Baldwin, 2011). ASEAN and developing East Asia comprise the region where production networks, particularly in machinery industries, have most advanced in the world. The new international division of labour requires a series of infrastructure in a technical grade different from the old type of infrastructure. Production networks call for a cost reduction of service links that connect remotely placed production blocks. The cost is not simply a monetary transport cost; in addition, the time cost and the reliability of logistics links become important. The coordinated development of soft and hard infrastructure also turns out to be essential. The new international division of labour calls for a novel approach in infrastructure development.

The CADP adopted a conceptual approach in infrastructure development with exploiting the recent development of economic theories, namely, the fragmentation

theory and new economic geography. It classified infrastructure projects into three tiers. Tier 1 includes projects that serve countries/regions that are already in production networks and have started forming industrial agglomerations. Tier 2 consists of projects supporting countries/regions that are about to participate in production networks. Tier 3 is comprised of projects in remote areas where the participation in production networks is difficult in the short run but better and more reliable connectivity can generate new business models in agriculture, mining, tourism, and other industries. Based on the conceptual framework that integrates infrastructure development and industrialisation, the CADP proposed 695 infrastructure-related projects with three levels of priorities.

Although the CADP was an indicative plan that was primarily drafted by the Economic Research Institute for ASEAN and East Asia (ERIA) in collaboration with the Asian Development Bank (ADB) and United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP), the proposed concept of connectivity has been well received and has been placed at the centre of infrastructure development in ASEAN and East Asia. It also provided a conceptual framework for the Master Plan on ASEAN Connectivity (MPAC) (ASEAN, 2010) that was drafted in parallel by the ASEAN Secretariat and ERIA. We believe that the CADP has contributed to infrastructure development and economic integration by placing infrastructure development as an essential input for the industrialisation and economic development of ASEAN and East Asia.[1]

1-2. CADP 2.0 for the Extended Development Strategies

Five years have passed since the first version of the CADP was publicised, and now is the time to draft CADP 2.0.

Table 1.1 presents GDP per capita in ASEAN Member States in 2009–2014. Loosely following the income-level classification by the World Bank, figures are highlighted in different colours for low income (less than US$1,000), lower middle income (US$1,000–4,000), upper middle income (US$4,000–12,000), and high income (above US$12,000). Now all ASEAN latecomers have stepped up to the lower middle–income level, the Philippines and Indonesia have moved up close to the upper middle–income level, Thailand

[1] The CADP was expanded in the context of ASEAN–India Connectivity in the following year (Kimura and Umezaki, 2011). The conceptual framework has been adopted in a series of policy research by ERIA, which includes the Myanmar Comprehensive Development Vision (MCDV).

and Malaysia have been in the upper middle–income level, and Brunei Darussalam and Singapore have been at the high income level. We, of course, have to be careful that substantial development gaps exist within a country. Resource endowments also influence GDP per capita. Thus, 'country-average' income levels do not tell the whole story. Nevertheless, the nature of development challenges evolves along the development paths from the most advanced regions of the country.

Table 1.1. GDP per capita in ASEAN Member States (in US dollar, nominal prices)

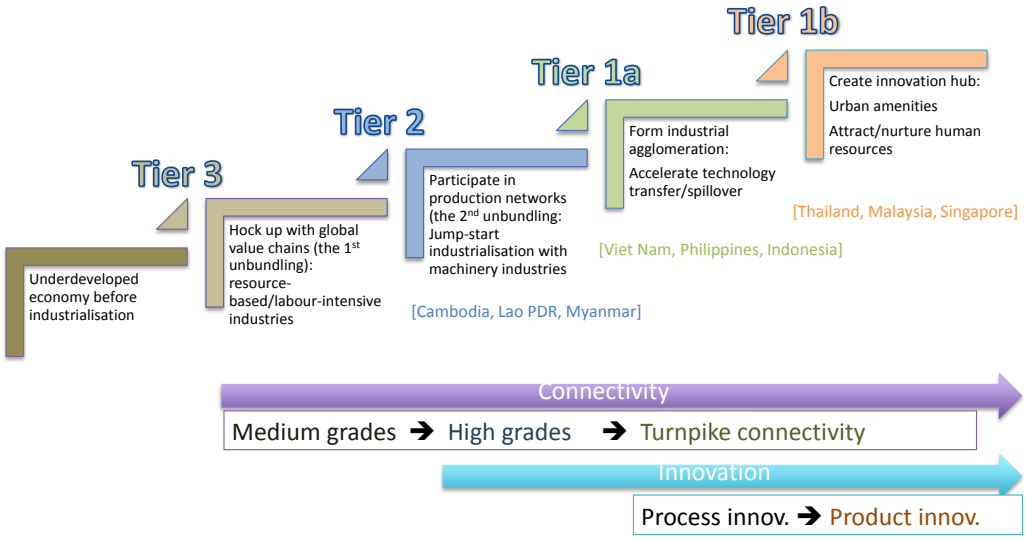
	2009	2010	2011	2012	2013	2014
Singapore	38,577	46,570	53,117	54,578	55,980	56,287
Brunei Darussalam	28,454	32,063	42,431	42,445	44,560	41,424
Malaysia	7,216	8,515	9,962	10,346	10,420	10,784
Thailand	3,947	4,743	5,116	5,391	5,679	5,436
Indonesia	2,359	2,988	3,498	3,564	3,461	3,901
Philippines	1,829	2,127	2,339	2,568	2,707	2,816
Viet Nam	1,232	1,338	1,543	1,755	1,909	2,055
Lao PDR	913	1,079	1,262	1,443	1,613	1,730
Cambodia	735	785	882	952	1,018	1,105
Myamnar	456	686	1,127	1,190	1,209	1,278

Source: ASEAN Secretariat webpage. Available at:
http://www.asean.org/component/zoo/item/macroeconomic-indicators

Figure 1.1 illustrates the unique path of economic development in ASEAN and developing East Asia. By taking advantage of a new type of international division of labour called production networks or the second unbundling, ASEAN and developing East Asia are moving up three unique steps that the other parts of the world have not experienced yet. Coming into global value chains, which can be achieved with Tier 3 policy, is now fashionable everywhere in the world. What our region has achieved is to participate in production networks or the second unbundling. This is the step to go up with Tier 2 policy. Then the region is going into uncharted waters and starts formulating industrial agglomeration, which should be supported by Tier 1a policy. And now forerunners in this

region are facing a difficult issue of how to move up to fully developed economies. Here we need to create an innovation hub, supported by Tier 1b policy.

Figure 1.1. New Development Strategies for ASEAN and East Asia and Quality of Infrastructure



Source: ERIA CADP research team.

Although infrastructure projects in Tiers 2 and 3 policies are still important for some countries and regions, more attention should be given to those in Tier 1 now. It is important to continuously develop middle-distance physical/institutional connectivity, i.e. Tier 2, to participate in production networks while Tier 3 needs to set appropriate technical grades of infrastructure. In addition, CADP 2.0 emphasises the importance of Tier 1a infrastructure to help an industrial agglomeration grow by securing connectivity with neighbouring industrial agglomerations.

Infrastructure is also essential to innovation. Industrial agglomeration and urban amenities are the keys to stimulating and upgrading innovation, particularly after reaching the middle-income level. Infrastructure development for industrial agglomeration and urban amenities in Tiers 1a and 1b policy is expensive though essential to nurturing an innovative society. For industrial agglomerations, suburban or metropolitan development with proper geographical designs is required for local firms or small and medium enterprises (SMEs) to have more opportunities to participate in production networks, enjoy technology transfer/spillover, and achieve innovation, particularly process

innovation. Furthermore, at higher stages of development in which the construction of an innovation hub is essential, urban amenities enhance their importance in attracting and nurturing human resources, and realising a creative society with active product innovation. Therefore, the subtitle of CADP 2.0 is 'infrastructure development for connectivity and innovation.'

CADP 2.0 also emphasises the quality of infrastructure and infrastructure projects. For what is infrastructure developed? The answer should be to serve economic development. How should we design infrastructure? It should be suited for the stages of industrialisation and economic development. Positive and negative indirect effects as well as externalities must be properly assessed. How should we implement infrastructure projects? The implementation must be efficient and non-distortive. How should actors, particularly foreign players, be coordinated? The disclosure of information and transparency among bilateral/regional/multilateral donors and financial organisations are essential. How should we design public–private cooperation to enhance efficiency without corruption of or distortion to the market? To answer this question, we have to go back to the basic argument on the role of government and Pareto-improving policies. All of these are the foundation for the quality of infrastructure and infrastructure projects. CADP 2.0 explicitly discusses these issues and provides guidelines.

At the end, CADP 2.0 presents 120 representative hard infrastructure projects selected from 761 listed projects for connectivity and innovation in Tiers 1, 2, and 3 as well as recommendations on soft infrastructure. The geographical simulation model verifies the effectiveness of these projects along with the development strategies in a spatial setting and stresses the importance of coordination between soft and hard infrastructure.