



**Greater Mekong Subregion  
Regional Investment Framework  
Implementation Plan:**

**Mid-Term Review  
and  
Revised Regional Investment  
Framework  
Implementation Plan 2020**



21<sup>st</sup> GMS  
Ministerial Conference

*Chiang Rai*



**Greater Mekong Subregion  
Regional Investment Framework  
Implementation Plan:  
Mid-Term Review  
and  
Revised Regional Investment Framework  
Implementation Plan 2020**

■  
Chiang Rai, Thailand  
November 30–December 1, 2016



21<sup>st</sup> GMS  
Ministerial Conference  
*Chiang Rai*

The views expressed in this publication are those of the authors and do not necessarily reflect the views and policies of the Asian Development Bank (ADB) or its Board of Governors or the governments they represent.

ADB does not guarantee the accuracy of the data included in this publication and accepts no responsibility for any consequence of their use. The mention of specific companies or products of manufacturers does not imply that they are endorsed or recommended by ADB in preference to others of a similar nature that are not mentioned.

By making any designation of or reference to a particular territory or geographic area, or by using the term “country” in this document, ADB does not intend to make any judgments as to the legal or other status of any territory or area.

Notes:

In this publication, “\$” refers to US dollars.

© 2016 Asian Development Bank

**How to reach us:** GMS Secretariat

Southeast Asia Department

Asian Development Bank

Fax: +63 2 636 2226

**E-mail:** [gms@adb.org](mailto:gms@adb.org)

**Web address:** <http://www.adb.org/countries/gms/main>

to download report: <http://www.adb.org/countries/gms/strategy>

# Contents

|   |           |
|---|-----------|
| Abbreviations .....   | <b>v</b>  |
| I. Introduction .....   | <b>1</b>  |
| II. Mid-Term Review Results .....   | <b>2</b>  |
| III. The Revised Regional Investment Framework Implementation Plan 2020 ..... | <b>5</b>  |
| IV. Sector Reports .....  | <b>9</b>  |
| V. Annexes .....  | <b>29</b> |

## Case Studies

|  |           |
|--|-----------|
| 1: Co-Financing Achieves Greater Gains in Greater Mekong Subregion Economic Corridors .....      | <b>9</b>  |
| 2: Challenges and Opportunities for Multisector Approaches in Low-Carbon Freight Corridors ..... | <b>18</b> |
| 3: Private Sector Joins Hands in Greater Mekong Subregion Tourism .....                          | <b>25</b> |

## Figures

|  |          |
|--|----------|
| Figure 1: Regional Investment Framework Implementation Plan 2014–2018<br>Projects with Financing Available Breakdown by Funding Source, \$ million .....                                 | <b>2</b> |
| Figure 2: Revised Regional Investment Framework Implementation Plan 2020<br>Project Cost Estimates Percent Share by Sector .....   | <b>5</b> |
| Figure 3: Revised Regional Investment Framework Implementation Plan 2020<br>versus Regional Investment Framework Implementation Plan 2014–2018<br>Project Cost Estimates by Sector ..... | <b>6</b> |

## Tables

|  |          |
|--|----------|
| Table 1: Summary of Regional Investment Framework Implementation Plan 2014–2018<br>and Financing Status as of 30 June 2016 .....                       | <b>2</b> |
| Table 2: Summary of Changes and Status: Investment Projects by Sector—<br>Number of Projects and Cost Estimates (\$ million), as of 30 June 2016 ..... | <b>6</b> |
| Table 3: Financing Status of Investment Projects in Revised Regional Investment<br>Framework Implementation Plan 2020 .....                            | <b>7</b> |

|  |           |
|--|-----------|
| Table 4: Financing Status of Transport Investment Projects in Revised Regional Investment Framework Implementation Plan 2020, Breakdown by Country .....         | <b>8</b>  |
| Table 5: Summary of Changes and Status: Technical Assistance Projects by Sector—<br>Number of Projects and Cost Estimates (\$ million), as of 30 June 2016 ..... | <b>8</b>  |
| Table 6: Status of Transport Sector Investment Projects .....  | <b>9</b>  |
| Table 7: Status of Transport Sector Technical Assistance Projects .....  | <b>15</b> |
| Table 8: Status of Energy Sector Investment and Technical Assistance Projects .....  | <b>16</b> |
| Table 9: Status of Agriculture Sector Investment and Technical Assistance Projects .....   | <b>17</b> |
| Table 10: Status of Environment Sector Investment and Technical Assistance Projects .....  | <b>19</b> |
| Table 11: Status of Human Resource Development Sector Investment and<br>Technical Assistance Projects .....  | <b>20</b> |
| Table 12: Status of Urban Development Sector Investment and Technical Assistance Projects .....  | <b>22</b> |
| Table 13: Status of Other/BEZ Sector Investment and Technical Assistance Projects .....  | <b>23</b> |
| Table 14: Status of Tourism Sector Investment and Technical Assistance Projects .....  | <b>26</b> |
| Table 15: Status of Transport and Trade Facilitation Sector Investment<br>and Technical Assistance Projects .....  | <b>27</b> |
| Table 16: Status of Information and Communication Technology Sector Investment<br>and Technical Assistance Projects .....  | <b>28</b> |
| <b>Annex 1: Revised Regional Investment Framework Implementation Plan (RRIF-IP) 2020..</b>   | <b>29</b> |
| Table A1.1: Summary .....  | <b>29</b> |
| Table A1.2: Transport Priority Projects .....  | <b>29</b> |
| Table A1.3: Energy Priority Projects .....   | <b>32</b> |
| Table A1.4: Agriculture Priority Projects .....  | <b>33</b> |
| Table A1.5: Environment Priority Projects .....  | <b>33</b> |
| Table A1.6: Human Resource Development Priority Projects .....   | <b>34</b> |
| Table A1.7: Urban Development Priority Projects .....  | <b>34</b> |
| Table A1.8: Other Multisector/Border Economic Zone Priority Projects .....   | <b>35</b> |
| Table A1.9: Tourism Priority Projects .....  | <b>35</b> |
| Table A1.10: Transport and Trade Facilitation Priority Projects .....  | <b>36</b> |
| Table A1.11: Information and Communication Technology Priority Projects .....  | <b>36</b> |
| <b>Annex 2: Bilateral Energy Projects in the Greater Mekong Subregion .....</b>  | <b>37</b> |
| <b>Annex 3: Sample Detailed Reporting Tables .....</b>   | <b>39</b> |
| Table A3.1: Project Description—Investment .....   | <b>39</b> |
| Table A3.2: Project Progress .....   | <b>40</b> |

# Abbreviations

|         |   |
|---------|---|
| ADB     | = Asian Development Bank  |
| AFD     | = Agence Française de Développement   |
| ASEAN   | = Association of Southeast Asian Nations                                    |
| BEZ     | = border economic zone  |
| BOT     | = build–operate–transfer  |
| CDC     | = communicable disease control  |
| EGAT    | = Electricity Generating Authority of Thailand                              |
| GEF     | = Global Environment Fund   |
| GIZ     | = Gesellschaft für Internationale Zusammenarbeit                            |
| GMS     | = Greater Mekong Subregion  |
| HRD     | = human resource development  |
| ICT     | = information and communication technology                                  |
| JICA    | = Japan International Cooperation Agency                                    |
| KOICA   | = Korea International Cooperation Agency                                    |
| Lao PDR | = Lao People’s Democratic Republic  |
| MOU     | = memorandum of understanding   |
| MPWT    | = Ministry of Public Works and Transport                                    |
| MTCO    | = Mekong Tourism Coordinating Office  |
| MTR     | = mid-term review   |
| NDF     | = Nordic Development Fund   |
| NEDA    | = Neighbouring Countries Economic Development Cooperation Agency (Thailand) |
| PPTA    | = project preparatory technical assistance                                  |
| PRC     | = People’s Republic of China  |
| RIF     | = Regional Investment Framework   |
| RIF-IP  | = Regional Investment Framework Implementation Plan                         |
| RPTCC   | = Regional Power Trade Coordination Committee                               |
| RRIF-IP | = Revised Regional Investment Framework Implementation Plan                 |
| Sida    | = Swedish International Development Agency                                  |
| SOM     | = Senior Officials’ Meeting   |
| SPS     | = sanitary and phytosanitary  |
| TBD     | = to be determined  |
| TTF     | = transport and trade facilitation  |
| TVET    | = technical and vocational education and training                           |
| UNDP    | = United Nations Development Programme                                      |
| WHO     | = World Health Organization   |





# I. Introduction

**T**his document is the mid-term review (MTR) and third progress report of the Greater Mekong Subregion Regional Investment Framework Implementation Plan 2014–2018 (RIF-IP), which focuses on 93 investment and technical assistance projects estimated at about US\$30 billion, prioritized from more than 200 projects included in the Greater Mekong Subregion Regional Investment Framework 2013–2022 (RIF).

This *Regional Investment Framework Implementation Plan: Mid-Term Review and Third Progress Report* not only encompasses project progress and status as of 30 June 2016,<sup>1</sup> but also presents the *Revised Regional Investment Framework Implementation Plan 2020* (RRIF-IP 2020; see Chapter 3 and Annex 1). The revised plan has a pipeline of 107 investment and technical assistance projects estimated at US\$32.7 billion, and extends to the year 2020. It will be put to the Greater Mekong Subregion (GMS) Ministerial Conference for endorsement.

The MTR was suggested by GMS member countries,<sup>2</sup> with the objective of refreshing the RIF-IP and reviewing its relevance in the context of the emerging needs of the GMS countries. It was proposed that projects in the RIF-IP in which immediate progress seems unlikely should be dropped from the priority list<sup>3</sup> in light of extant constraints. This exercise made space to choose other projects from the RIF for inclusion in the RIF-IP which may be better aligned to changing regional priorities and see quicker progress in implementation. It also created room to include new projects from the Asian Development Bank (ADB) project pipeline—with strong regional integration elements—in the revised pipeline of projects.

The reporting process was initiated in May 2016 and projects were discussed during various sector working group meetings held between May and July 2016. The GMS Secretariat gathered sector reports from ADB sector divisions and GMS national secretariats in July 2016 and received additional country reports in August 2016. These reports are summarized in the following sections, with detailed reporting tables published in the online annexes.

---

<sup>1</sup> Including some additional country reports received in August 2016.

---

<sup>2</sup> First proposed by Viet Nam in the Senior Officials' Meeting of 28 April 2016, the MTR was endorsed by all other member countries.

<sup>3</sup> These projects will, however, remain on the RIF list of projects to be considered for later financing, as appropriate.

# II. Mid-Term Review Results

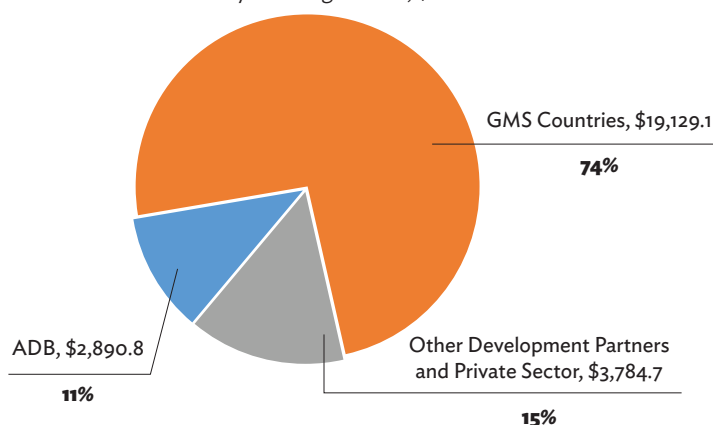
## Strong success measured by financing secured for projects

The review points to a huge success story, as 52 of the original 93 investment and technical assistance projects in the plan have found financing estimated at US\$26 billion (Table 1). In other words, 56% of projects have secured financing, involving 85% of the original estimated cost.

## Strong partnerships in the subregion

Funding sources for the plan’s pipeline of projects highlight the strong partnership with ADB for financing projects. They also show evidence of strong ownership of the program by GMS countries themselves. The investments made by the governments of the People’s Republic of China (PRC) and Thailand constitute the largest source of funds. The role of other development partners like the Japan International Cooperation Agency (JICA), Agence Française de Développement (AFD France), Nordic Development Fund (NDF), Swedish International Development Cooperation Agency

**Figure 1:** Regional Investment Framework Implementation Plan 2014–2018 Projects with Financing Available Breakdown by Funding Source, \$ million



(Sida), and the Global Environment Fund (GEF) has also been very positive and encouraging (Figure 1). Moreover, a number of projects’ financing came from the private sector, which is encouraging and should be continued to be harnessed.

## Need to generate new projects in short and medium terms

With a majority of the plan’s pipeline of projects being covered, there is an urgent need to identify new

**Table 1:** Summary of Regional Investment Framework Implementation Plan 2014–2018 and Financing Status as of 30 June 2016

| Type of project      | RIF-IP 2014–2018 |                              | RIF-IP 2014–2018 with financing |                              |
|----------------------|------------------|------------------------------|---------------------------------|------------------------------|
|                      | No. of projects  | Cost estimate (US\$ million) | No. of projects                 | Cost estimate (US\$ million) |
| Investment           | 61               | 30,344.4                     | 34                              | 25,745.2                     |
| Technical assistance | 32               | 60.3                         | 18                              | 41.8                         |
| <b>Total</b>         | <b>93</b>        | <b>30,404.7</b>              | <b>52</b>                       | <b>25,787.0</b>              |

projects in the short and medium terms. The present exercise for the review of the pipeline of projects led to intensified engagement with sectoral working groups.<sup>4</sup> Integration between the deliberations of the working groups and decisions made by country programming groups seems to be weak. Efforts need to be made to strengthen the link between the two for the plan to see robust new regional projects.

## Primacy of transport sector and need for diversification

The transport sector dominates the pipeline of projects and has seen much progress, which drives the success of the plan. It is time to build on this success in physical connectivity along the transport corridors and move toward projects that strengthen broader economic progress in the region, especially along the economic corridors. Within the transport sector there is a need to develop rural feeder roads to create backward linkages to the transport corridors. Diversified projects to foster competitiveness and closer communities need to be added to the plan's pipeline of projects, perhaps exploring multisector approaches.

---

<sup>4</sup> Working groups with representation at the technical level from all GMS countries, and meeting at least once annually, are functional for the sectors of transport, energy, agriculture, environment, human resource development (HRD), and urban development. Information and communications technology (ICT) and transport and trade facilitation (TTF) do not currently have working groups but work through task forces.

## Role of geography in transport sector projects

The current transport pipeline of projects has few that include Myanmar, presenting an opportunity to extend economic corridors eastwards, which would in turn have positive ramifications in connecting with South Asia. Another impact on the transport pipeline will be seen if the current emphasis on road transport shifts to multimodal transport. Once rail transport, seaports, and airport development projects are included in subsequent revisions to the pipeline, the center of focus will shift away from Lao People's Democratic Republic (Lao PDR) to spread across the subregion.

## The pipeline of projects is not a true reflection of the total regional pipeline

An aberration is seen in the plan with underreporting of projects in the energy sector, where several new projects under bilateral cooperation are not adequately reflected in the pipeline of projects.<sup>5</sup> Similarly, projects being undertaken by other development partners in the region are not fully reflected in the current pipeline. This is because the

---

<sup>5</sup> Numerous relevant energy projects (transmission lines and power plants) with a strong cross-border dimension are currently being implemented, planned to be implemented, or planned to be implemented bilaterally among GMS countries, as reported at the Nineteenth Meeting of the Regional Power Trade Coordination Committee in November 2015 in Bangkok. See Annex 2 for details of existing and planned bilateral energy projects in the GMS.

present pipeline was conceived as an investment “wish list” by GMS countries, not as a mapping of regional projects.

## Challenges are posed by a “young” pipeline of projects and the review methodology

The present review of the pipeline is limited to indicators that measure success against available financing, commencement of feasibility studies, commencement of implementation, and completion of projects. There are no indicators to measure real progress by indicating percentage of work

accomplished under a certain project. Likewise, there is no adequate measure for real outputs to be measured in, say, kilometers of roads built or of transmission lines constructed. The rigorous results monitoring framework for projects undertaken with ADB assistance is not spread across all projects which are being implemented by GMS countries using other funds. This is perhaps because the pipeline is still “young,” with only five projects completed<sup>6</sup> and implementation commenced in 34 projects (including technical assistance). Dialogue needs to be initiated to move toward a more rigorous monitoring and evaluation framework. The idea of online reporting of progress has been on the table for the last couple of years, but needs strong ownership from countries to push ahead.

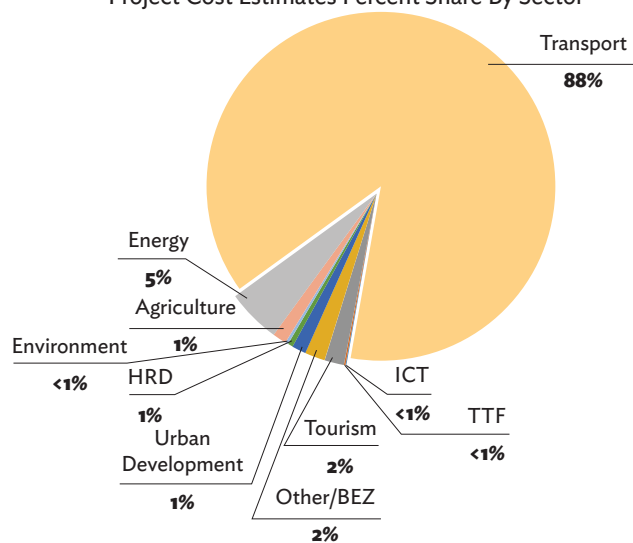
---

<sup>6</sup> Two small bridge projects and three technical assistance projects are reported to be complete.

# III. The Revised Regional Investment Framework Implementation Plan 2020

The following chapter presents a summary of the *Revised RIF-IP 2020 (RRIF-IP)*, which encompasses the projects of the original RIF-IP 2014–2018 as well as an expanded project pipeline to the year 2020. A full listing of the *Revised RIF-IP 2020* projects may be found in Annex 1. The largest number of projects continues to be in the transport sector, which covers roughly 88% of the pipeline. The other main sectors are energy (5%), tourism (2%), other/border economic zones (BEZ) (2%), agriculture (1%), urban development (1%), and human resource development (HRD) (1%). Environment, information and communications technology (ICT), and transport and trade facilitation (TTF) each constitute less than 1% of the pipeline (Figure 2).

**Figure 2:** Revised Regional Investment Framework Implementation Plan 2020  
Project Cost Estimates Percent Share By Sector



The revised plan shows an increase of roughly 19% in the number of projects, with estimated costs increasing by about US\$2.2 billion. The RRIF-IP 2020 has 107 investment and technical assistance projects estimated to cost US\$32.7 billion. Figure 3 shows the changes in the pipeline of projects across various sectors.

In terms of the RRIF-IP 2020 projects' contribution to the GMS basic strategy of connectivity, competitiveness, and community, the majority (about 60%) of projects are geared toward connectivity. These include projects under the transport, energy, and ICT sectors. In support of competitiveness are 26 projects (24%) from the TTF, other/BEZ, and agriculture sectors. Lastly, 17 projects (16%) from the environment, urban development, and HRD sectors contribute to the community strategy.

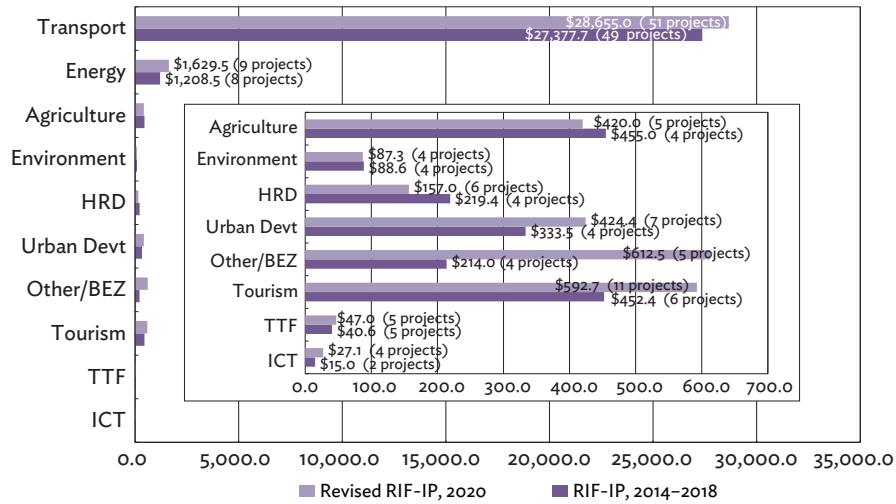
## Summary of status

Tables 2 and 5 show summaries of the overall status of implementation of investment and technical assistance projects as of 30 June 2016.<sup>4</sup> The online annex to this report<sup>5</sup> presents the status of each project included in the pipeline based on information provided by GMS countries and ADB sector divisions. An example of these reporting tables and the details contained is appended as Annex 3.

<sup>4</sup> Including some additional country reports received in August 2016.

<sup>5</sup> See <http://www.adb.org/countries/gms/strategy>

**Figure 3:** Revised Regional Investment Framework Implementation Plan 2020 versus Regional Investment Framework Implementation Plan 2014–2018 Project Cost Estimates by Sector



**Table 2:** Summary of Changes and Status: Investment Projects by Sector  
Number of Projects and Cost Estimates (\$ million), as of 30 June 2016

| Sector                      | RIF-IP 2014-2018      | Dropped/added        | Revised RIF-IP 2020   | Feasibility study commenced <sup>1</sup> | Financing available <sup>2</sup> | Implementation commenced <sup>3</sup> | Completed <sup>3</sup> |
|-----------------------------|-----------------------|----------------------|-----------------------|--|----------------------------------|---------------------------------------|------------------------|
| Transport                   | 42 <sup>4</sup>       | 0/3                  | 42 <sup>5</sup>       | 14                                       | 23                               | 13                                    | 2                      |
| Cost Estimate, (\$ million) | 27,370.5              | 0/410.0              | 28,646.2              | 13,290.0                                 | 24,231.4                         | 13,894.7                              | 56.5                   |
| Energy                      | 4                     | 1/3                  | 6                     | 0  | 2                                | 2                                     | 0                      |
| Cost Estimate, (\$ million) | 1202.0                | 278.0/500.0          | 1,624.0               | 0  | 324.0                            | 324.0                                 | 0                      |
| Agriculture                 | 2                     | 0/0                  | 2                     | 1  | 1                                | 0                                     | 0                      |
| Cost Estimate, (\$ million) | 450.0                 | 0/0                  | 405.0                 | 205.0                                    | 205.0                            | 0                                     | 0                      |
| Environment                 | 2                     | 0/0                  | 2                     | 0  | 1                                | 1                                     | 0                      |
| Cost Estimate, (\$ million) | 80.0                  | 0/0                  | 80.0                  | 0  | 20.0                             | 20.0                                  | 0                      |
| HRD*                        | 2                     | 1/1                  | 2                     | 1  | 2                                | 0                                     | 0                      |
| Cost Estimate, (\$ million) | 215.4                 | 155.4/20.0           | 145.0                 | 125.0                                    | 145.0                            | 0                                     | 0                      |
| Urban Devt*                 | 2                     | 0/1                  | 3                     | 1  | 3                                | 1                                     | 0                      |
| Cost Estimate, (\$ million) | 330.0                 | 0/126.0              | 417.8                 | 80.0                                     | 417.8                            | 211.7                                 | 0                      |
| Other/ BEZ*                 | 2                     | 0/1                  | 3                     | 0  | 2                                | 0                                     | 0                      |
| Cost Estimate, (\$ million) | 210.0                 | 0/250.0              | 610.0                 | 0  | 550.0                            | 0                                     | 0                      |
| Tourism                     | 3                     | 0/2                  | 5                     | 1  | 2                                | 1                                     | 0                      |
| Cost Estimate, (\$ million) | 450.0                 | 0/150.0              | 588.0                 | 130.0                                    | 238.0                            | 108.0                                 | 0                      |
| TTF*                        | 1                     | 0/1                  | 2                     | 0  | 2                                | 0                                     | 0                      |
| Cost Estimate, (\$ million) | 31.5                  | 0/30.0               | 40.0                  | 0  | 40.0                             | 0                                     | 0                      |
| ICT*                        | 1                     | 0/0                  | 1                     | 0  | 0                                | 0                                     | 0                      |
| Cost Estimate, (\$ million) | 5.0                   | 0/0                  | 5.0                   | 0  | 0.0                              | 0                                     | 0                      |
| <b>Total</b>                | <b>61<sup>4</sup></b> | <b>2/12</b>          | <b>68<sup>5</sup></b> | <b>18</b>                                | <b>38</b>                        | <b>18</b>                             | <b>2</b>               |
| Cost Estimate, (\$ million) | <b>30,344.4</b>       | <b>433.4/1,486.0</b> | <b>32,561.0</b>       | <b>14,460.0</b>                          | <b>26,171.2</b>                  | <b>14,558.4</b>                       | <b>56.5</b>            |

\* HRD = human resource development, Urban Devt = urban development, BEZ = border economic zone, TTF = transport and trade facilitation, ICT = information and communication technology

Notes:

<sup>1</sup> Commencement of feasibility study does not necessarily imply availability of financing.

<sup>2</sup> Financing either approved or included for future financing in a country program or equivalent.

<sup>3</sup> Projects in this column are counted under column Financing available.

<sup>4</sup> Total count includes double counting of 3 transport projects.

<sup>5</sup> Total count excludes double counting of 3 transport projects.

## Status of investment projects

This report shows measurable progress since the approval of the RIF-IP 2014–2018 in December 2014 (Table 2). As of June 2016 the RRIF-IP 2020 has 18 investment projects reporting commencement of feasibility studies, 38 projects with financing available or approved, 18 projects reporting implementation commenced, and 2 completed. Overall, 56% of investment projects have identified financing and 26% have started implementation. The sectors reporting progress in programming and identifying financing for investment projects are transport, urban development, and other/BEZ.

## Financing gap

Notwithstanding progress, the financing gap for investment projects, estimated at \$6.4 billion, remains significant. GMS countries, development partners, private sector developers, and ADB should continue to endeavor to consider these regional pipeline projects when planning or assessing future investments in the GMS. ADB has programmed more than US\$3.3 billion of the total pipeline of investment projects, and other sources of financing

such as national budgets, development partners, and private sector developers are also major contributors to the financing of projects in the RIF-IP.

Although 80% of the financing needs of overall investment projects in the pipeline have been identified, projects in the energy, tourism, environment, and ICT sectors still have a financing gap of over 50% (Table 3). Since transport sector projects dominate the pipeline, a breakdown of this sector is provided separately in Tables 4, 6 and 7.

## Status of technical assistance projects

For technical assistance projects, 26 reported available financing, 16 reported commencement of implementation, and 3 reported completion. Overall, 67% of technical assistance projects have available or approved financing, 41% have commenced implementation, and 8% are now complete (Table 5). The sectors that have made progress in programming or identifying financing for these projects are transport, urban development, HRD, TTF, and ICT. Notably, ADB is financing the largest amount for technical assistance projects.

**Table 3:** Financing Status of Investment Projects in Revised Regional Investment Framework Implementation Plan 2020

| Sector/<br>category | Total Investment<br>RRIF-IP 2020 |        | Projects without funding |               |        | Projects with funding |               |        |            |                        |                                |  |
|---------------------|----------------------------------|--------|--------------------------|---------------|--------|-----------------------|---------------|--------|------------|------------------------|--------------------------------|--|
|                     | \$<br>million                    | number | \$<br>million            | % of<br>total | Number | Total                 |               | ADB    |            | Non-ADB)               |                                |  |
|                     |                                  |        |                          |               |        | \$<br>million         | % of<br>total | Number | \$ million | Total<br>\$<br>million | GMS<br>countries<br>\$ million | Other<br>development<br>partners and<br>private sector<br>\$ million |
| Transport*          | 28,646.2                         | 42     | 4,414.8                  | 15            | 19     | 24,231.4              | 85            | 23     | 1,731.6    | 22,499.8               | 18,982.2                       | 3,517.6  |
| Energy              | 1,624.0                          | 6      | 1,300.0                  | 80            | 4      | 324.0                 | 20            | 2      | 0.0        | 324.0                  | 109.0                          | 215.0  |
| Agriculture         | 405.0                            | 2      | 200.0                    | 49            | 1      | 205.0                 | 51            | 1      | 205.0      | 0.0                    | 0.0                            | 0.0  |
| Environment         | 80.0                             | 2      | 60.0                     | 75            | 1      | 20.0                  | 25            | 1      | 0.0        | 20.0                   | 0.0                            | 20.0   |
| HRD                 | 145.0                            | 2      | 0.0                      | 0             | 0      | 145.0                 | 100           | 2      | 145.0      | 0.0                    | 0.0                            | 0.0  |
| Urban               | 417.8                            | 3      | 0.0                      | 0             | 0      | 417.8                 | 100           | 3      | 376.0      | 41.8                   | 31.8                           | 10.0   |
| Others              | 610.0                            | 3      | 60.0                     | 10            | 1      | 550.0                 | 90            | 2      | 550.0      | 0.0                    | 0.0                            | 0.0  |
| Tourism             | 588.0                            | 5      | 350.0                    | 60            | 3      | 238.0                 | 40            | 2      | 238.0      | 0.0                    | 0.0                            | 0.0  |
| TTF                 | 40.0                             | 2      | 0.0                      | 0             | 0      | 40.0                  | 100           | 2      | 40.0       | 0.0                    | 0.0                            | 0.0  |
| ICT                 | 5.0                              | 1      | 5.0                      | 100           | 1      | 0.0                   | 0             | 0      | 0.0        | 0.0                    | 0.0                            | 0.0  |
| Total               | 32,561.0                         | 68     | 6,389.8                  | 20            | 30     | 26,171.2              | 80            | 38     | 3,285.6    | 22,885.6               | 19,123.0                       | 3,762.6  |

\* Breakdown of transport investment projects by country in a separate table.

**Table 4:** Financing Status of Transport Investment Projects in Revised Regional Investment Framework Implementation Plan 2020, Breakdown by Country

| Sector/<br>category | Total Investment<br>RRIF-IP 2020 |        | Projects without funding |               |        | Projects with funding |               |        |            |                        |                                |  |
|---------------------|----------------------------------|--------|--------------------------|---------------|--------|-----------------------|---------------|--------|------------|------------------------|--------------------------------|--|
|                     | \$<br>million                    | number | \$<br>million            | % of<br>total | Number | Total                 |               | ADB    |            | Non-ADB                |                                |  |
|                     |                                  |        |                          |               |        | \$<br>million         | % of<br>total | Number | \$ million | Total<br>\$<br>million | GMS<br>countries<br>\$ million | Other<br>development<br>partners and<br>private sector<br>\$ million |
| Cambodia            | 2,270.5                          | 8      | 510.0                    | 22            | 5      | 1,760.5               | 78            | 3      | 160.0      | 1,600.5                | 0.5                            | 1,600.0  |
| PRC                 | 12,981.9                         | 4      | 344.7                    | 3             | 1      | 12,637.2              | 97            | 4      | 540.8      | 12,096.4               | 12,096.4                       | 0.0  |
| Lao PDR             | 6,805.0                          | 14     | 630.0                    | 9             | 10     | 6,175.0               | 91            | 4      | 0.0        | 6,175.0                | 6,175.0                        | 0.0  |
| Myanmar             | 207.8                            | 4      | 60.0                     | 29            | 1      | 147.8                 | 71            | 2      | 121.8      | 26.0                   | 26.0                           | 0.0  |
| Thailand            | 2,751.0                          | 9      | 2,115.0                  | 77            | 3      | 636.0                 | 23            | 6      | 0.0        | 636.0                  | 636.0                          | 0.0  |
| Viet Nam            | 3,630.0                          | 6      | 755.1                    | 21            | 1      | 2,874.9               | 79            | 5      | 909.0      | 1,965.9                | 48.3                           | 1,917.6  |
| Total               | 28,646.2                         | *42    | 3,659.7                  | 13            | **20   | 24,231.4              | 87            | 23     | 1,731.6    | 22,499.8               | 18,982.2                       | 3,517.6  |

\* Total count of 42 excludes double counting 3 projects: (1) LAO-TRA-02 and THA-TRA-07; (2) LAO-TRA-13 and MYA-TRA-04; and (3) MYA-TRA-02 and THA-TRA-06.

\*\* Total count of 20 excludes double counting 1 project: MYA-TRA-02 and THA-TRA-06. One project, PRC -TRA-03, has partial funding only, at \$14.7 million.

**Table 5:** Summary of Changes and Status: Technical Assistance Projects by Sector  
Number of Projects and Cost Estimates (\$ million), as of 30 June 2016

| Sector                      | RIF-IP 2014-2018 | Dropped/added       | Revised RIF-IP<br>2020 | Financing<br>available <sup>1</sup> | Implementation<br>commenced <sup>2</sup> | Completed <sup>2</sup> |
|-----------------------------|------------------|---------------------|------------------------|-------------------------------------|--|------------------------|
| Transport                   | 10               | 1/0                 | 9                      | 5                                   | 1  | 2                      |
| Cost Estimate, (\$ million) | 7.2              | TBD <sup>3</sup> /0 | 8.8                    | 6.2                                 | 0.2                                      | 4.5                    |
| Energy                      | 4                | 1/0                 | 3                      | 2                                   | 2  | 0                      |
| Cost Estimate, (\$ million) | 6.5              | 1.0/0               | 5.5                    | 2.5                                 | 2.5                                      | 0                      |
| Agriculture                 | 2                | 1/2                 | 3                      | 2                                   | 1  | 0                      |
| Cost Estimate, (\$ million) | 5.0              | 0/10                | 15.0                   | 12.5                                | 2.5                                      | 0                      |
| Environment                 | 2                | 0/0                 | 2                      | 1                                   | 1  | 0                      |
| Cost Estimate, (\$ million) | 8.6              | 0/0                 | 7.3                    | 6.3                                 | 6.3                                      | 0                      |
| HRD*                        | 2                | 1/3                 | 4                      | 4                                   | 4  | 0                      |
| Cost Estimate, (\$ million) | 4.0              | 3.2/10.7            | 11.9                   | 11.9                                | 12.0                                     | 0                      |
| Urban Devt*                 | 2                | 0/2                 | 4                      | 4                                   | 3  | 0                      |
| Cost Estimate, (\$ million) | 3.5              | 0/2.9               | 6.6                    | 6.6                                 | 4.6                                      | 0                      |
| Other/ BEZ*                 | 2                | 1/1                 | 2                      | 2                                   | 0  | 0                      |
| Cost Estimate, (\$ million) | 4.0              | 2.0/0.5             | 2.5                    | 2.5                                 | 0  | 0                      |
| Tourism                     | 3                | 0/3                 | 6                      | 2                                   | 2  | 1                      |
| Cost Estimate, (\$ million) | 2.4              | 0/2.2               | 4.7                    | 1.7                                 | 2.3                                      | 0.2                    |
| TTF*                        | 4                | 2/1                 | 3                      | 3                                   | 2  | 0                      |
| Cost Estimate, (\$ million) | 9.1              | 3.5/1.4             | 6.9                    | 6.9                                 | 5.6                                      | 0                      |
| ICT*                        | 1                | 0/2                 | 3                      | 1                                   | 0  | 0                      |
| Cost Estimate, (\$ million) | 10.0             | 0/12.1              | 22.1                   | 2.1                                 | 0  | 0                      |
| Total                       | 32               | 7/14                | 39                     | 26                                  | 16                                       | 3                      |
| Cost Estimate, (\$ million) | 60.3             | 9.7/41.7            | 91.5                   | 59.3                                | 36.0                                     | 4.7                    |

\* HRD = human resource development, Urban Devt = urban development, BEZ = border economic zone, TTF = transport and trade facilitation, ICT = information and communication technology

Notes:

<sup>1</sup> Financing either approved or included for future financing in a country program or equivalent.

<sup>2</sup> Projects in this column are counted under column Financing Available.

<sup>3</sup> TBD = to be determined.



# IV. Sector Reports

**T**his report uses the RIF-IP 2014–2018 as a baseline. Tables 6–16 give brief status reports for individual investment and technical assistance projects; more detailed status reports for individual projects are available at the GMS website at <http://www.adb.org/countries/gms/strategy>.

## Transport sector

With 88% of total projects (by volume), the transport sector dominates the pipeline. It has seen much progress (see Case Study 1 for examples), and has thus been the major contributor to the success of the pipeline. The role of the PRC and Thailand in

**Table 6: Status of Transport Sector Investment Projects**

| Code/name of project  | Country coverage   | Cost and available financing (US\$ million) | Status as of 30 June 2016   |
|---|--------------------|---|---|
| <b>Cambodia</b>   |                    |   |   |
| 1 <b>CAM-TRA-01</b> Sihanoukville Port Access Road Improvements   | Cambodia           | 40.0  | Project has been cancelled by JICA because the scope of the original project covered only the construction of the multipurpose terminal at Sihanoukville Port and not the road construction. However, the Port Authority still considers it very important and is seeking funding from other development partners.  |
| 2 <b>CAM-TRA-02</b> Road Network Improvement Project (formerly GMS: Deepening Connectivity of Southern Economic Corridor Project) | Cambodia           | 160.0<br>ADB                                | The original project was redefined as a new project. The scope of the original CAM-TRA-02 (GMS: Deepening Connectivity of Southern Economic Corridor Project) has been changed and now consists of two road improvement projects (Provincial Road Improvement Project II and Second Road Asset Management Project) covering around 415 km; the new project is expected to commence in 2017. |
| 3 <b>CAM-TRA-03</b> Phnom Penh–Sihanoukville Highway Corridor Improvements  | Cambodia           | 1,600.0<br>BOT (private sector)             | Feasibility study completed by China Road and Bridge Co., and the study results are currently being analyzed by the Ministry of Economy and Finance; implementation is expected by the end of 2016.   |
| 4 <b>CAM-TRA-04</b> Link Road between NR5 and NR6 near Kampong Tralach North of Phnom Penh  | Cambodia           | 60.0  | No progress made on the project to date. Ministry of Public Works and Transportation will begin to work on this project in 2017 and hopes to start implementation by 2019.  |
| 5 <b>CAM-TRA-05</b> Construction of Poipet (Cambodia)–Klong Loeuk (Thailand) Railway Bridge                                       | Cambodia, Thailand | 0.5<br>Thailand                             | Construction of the bridge, financed by assistance from Thailand, was completed in August 2015. Relatedly, the Cambodian Railway Department is renovating the 6.5 km missing link at Poipet with government funds; this is expected to be completed by August 2016 and will connect Serey Saoporn–Poipet.   |

*Continued on next page*

Table 6 continued

| Code/name of project  | Country coverage                         | Cost and available financing (US\$ million)            | Status as of 30 June 2016  |
|---|--|--|--|
| <b>Investment projects not yet included in the approved RIF-IP</b>  |  |  |  |
| 6 <b>CAM-TRA-06</b> Railway Access to New Phnom Penh Port (53 km)   | Cambodia                                 | 200.0  | <b>Proposed to be added.</b> The study for this project was included in the RIF. Cambodia is proposing that the <i>construction</i> itself be included as an investment project in the RIF-IP, and therefore also in the RIF. Financing is being sought from multilateral/bilateral development partners and/or the private sector.  |
| 7 <b>CAM-TRA-07</b> Southern Siem Reap Bypass Road (193.7 km)   | Cambodia                                 | 200.0  | <b>Proposed to be added.</b> There is a need to construct a new road bypassing Siem Reap to avoid congested roads in the city when traveling along the Southern economic corridor toward the border with Viet Nam. The road will avoid the protected area around Angkor Wat.   |
| 8 <b>CAM-TRA-08</b> Construction of Bus/Truck Driving Test Centre   | Cambodia                                 | 10.0   | <b>Proposed to be added.</b> The estimated project cost involves acquisition of equipment and/or construction of facilities. It may consist of a combination of a technical assistance project and an investment project, with the latter involving the actual setting up of such a center. (The project addresses a definite and recognized need in the region, and a regional technical assistance project involving all countries can be developed by ADB with the same objective.) |
| <b>People's Republic of China</b>   |  |  |  |
| 9 <b>PRC-TRA-01</b> Yunnan Pu'er Regional Integrated Road Network Development   | PRC                                      | 540.0<br>ADB   | Feasibility study completed in June 2014. Two project components (Pu'er City rural road and Ning'er–Jiangcheng–Longfu road) are at various stages of procurement/bidding, while the third component (Menglian–Meng'a road) has completed land acquisition and construction work is ongoing.  |
| 10 <b>PRC-TRA-02</b> Dali–Ruili Railway   | PRC                                      | 4,020.0<br>PRC   | Dali–Baoshan section commenced in 2008, to be completed in 2022; for Baoshan–Ruili section, bidding completed in November 2015 and construction commenced in December 2015. As of May 2016, 37.11% of total investment finished, 41.29% of large/medium bridges completed, 32.74% of tunnel completed; most land acquisition work for Dali–Baoshan section completed; land acquisition for Baoshan–Ruili started.  |
| 11 <b>PRC-TRA-03</b> Further Maintenance and Improvement of Upper Mekong River Navigation Channel from PRC (Landmark 243) and Myanmar to Luang Prabang, Lao PDR | PRC,<br>Lao PDR,<br>Myanmar,<br>Thailand | 359.4<br>PRC 14.7 for preliminary works<br>Balance TBD | First meeting of joint working group on preliminary work held in September 2015 and the 4 countries agreed on work contents and schedule. Public bidding process completed in early 2016. Implementation plan approved by the PRC, Lao PDR, and Myanmar. Preliminary work related to these countries to start in the second half of 2016.  |
| 12 <b>PRC-TRA-04</b> Yuxi–Mohan Railway   | PRC                                      | 8,062.5<br>PRC<br>ADB                                  | Feasibility study approved by PRC government (National Development Reform Commission) in July 2015. Bidding process for the whole line commenced in February 2016 and completed in April 2016. Total of \$375 million invested in 2015. Planned investment in 2016 is \$1.25 billion; as of May 2016, \$66.7 million has been invested.  |
| <b>Lao People's Democratic Republic</b>   |  |  |  |
| 13 <b>LAO-TRA-01</b> Vang Tao Border Crossing Point   | Lao PDR                                  | 15.0<br>Government provincial budget                   | Construction commenced on 14 December 2013. Implementation progress is at 75%.   |

Continued on next page

Table 6 continued

|    | Code/name of project   | Country coverage  | Cost and available financing (US\$ million)   | Status as of 30 June 2016  |
|----|--|-------------------|---|--|
| 14 | <b>LAO-TRA-02</b> Upgrading NR13N and N13S (Portion through Phon Hong–Vientiane–Ban Hai); ASEAN Highway AH11 (NR13S) | Lao PDR           | 320.0   | Feasibility study covering the total length of 106 km completed in December 2014. The environmental and social resettlement plan is being enhanced. MPWT is working with the World Bank to prepare a detailed report to the government.  |
| 15 | <b>LAO-TRA-03</b> Mekong Bridge at Bungkan–Paksan  | Lao PDR, Thailand | 0.0<br>Note: project cost and financing included under project THA-TRA-07 #37 below | With a grant from Neighboring Countries Economic Development Cooperation Agency (NEDA) of Thailand, a feasibility study and detailed design were completed in August 2014. Ministry of Finance is in the process of seeking a soft loan from NEDA to finance the construction cost (\$36 million). (See THA-TRA-07.)                             |
| 16 | <b>LAO-TRA-04</b> Thanaleng Border Crossing Infrastructure Improvement Project                                       | Lao PDR           | 25.0  | Preliminary study on infrastructure improvement needs completed. Some minor traffic-lane expansion was undertaken at the checkpoint. Financing for a feasibility study and construction is being sought.   |
| 17 | <b>LAO-TRA-05</b> Hongsa(Xayaboury)–Chomphet (LuangPrabang)  | Lao PDR           | 90.0<br>NEDA  | Project implementation with loan from NEDA commenced in September 2015. As of 30 June 2016, estimated progress was at 6%. Project is expected to be completed in May 2018.   |
| 18 | <b>LAO-TRA-06</b> Upgrading of NR8 East–West Transport Route; ASEAN Highway AH15 (Ban Lao–Nan Pao)                   | Lao PDR           | 80.0  | Government of Korea (Korea International Cooperation Agency—KOICA) team conducted an implementation survey in April 2016. Department of Roads, MPWT, in collaboration with the team is preparing a record of discussion for the detailed feasibility study. The KOICA grant for this study is expected to be effective in fiscal year 2016–2017. |
| 19 | <b>LAO-TRA-07</b> Xiengkong River Port   | Lao PDR           | 15.0  | Feasibility study completed in April 2010. Project included in Sino–Lao Cooperation 2016–2020 Scheme, and contract for construction and memorandum of understanding (MOU) signed on 30 December 2015. Pending PRC loan approval, implementation could commence in early 2017.  |
| 20 | <b>LAO-TRA-08</b> Ban Mom River Port   | Lao PDR           | 12.0  | Project in Development Plan of International Navigation on the Lancang–Mekong River 2015–2025. Preliminary feasibility study is being finalized by the Department of Waterways. The provincial government is considering using BOT method for this port upgrading project.   |
| 21 | <b>LAO-TRA-09</b> Lalay Border Crossing Point (NR15)   | Lao PDR           | 10.0  | Preliminary feasibility study financed by the provincial government completed in August 2013. Financing for detailed feasibility study and construction has been sought from Organization of Petroleum Exporting Countries.  |
| 22 | <b>LAO-TRA-10</b> Nam Phao Border Crossing Point (NR8)   | Lao PDR           | 8.0   | MPWT plans to propose to KOICA to include the feasibility study of this project in the scope of detailed assistance for NR8 Upgrading Project.   |
| 23 | <b>LAO-TRA-11</b> Na Phao Border Crossing Point (NR12)   | Lao PDR           | 10.0  | MPWT plans to include the feasibility study of this project in the NR12 Upgrading Project, which has sought a soft loan from NEDA.   |
| 24 | <b>LAO-TRA-12</b> Luang Namtha–Xiengkong Lao–Myanmar Friendship Bridge (NR17)  | Lao PDR, Myanmar  | 150.0   | Financing for a pre-feasibility study being discussed with World Bank. Viet Nam has also participated in meetings. Government sent a letter to World Bank in December 2015 to support Viet Nam’s request for financing of the pre-feasibility study. (Also see VIE-TRA-06 #45.).   |
| 25 | <b>LAO-TRA-13</b> Lao PDR–Myanmar Friendship Bridge over Mekong at Xiangkok  | Lao PDR, Myanmar  | 30.0<br>Governments of Lao PDR and Myanmar (50:50 basis)                            | Construction completed in March 2015 and bridge inaugurated in May 2015. (See MYA-TRA-04 #30.)   |

Continued on next page

Table 6 continued

|                 | Code/name of project   | Country coverage  | Cost and available financing (US\$ million)                                   | Status as of 30 June 2016   |
|-----------------|--|-------------------|---|---|
| 26              | <b>LAO-TRA-14</b> Vientiane–Boten Railway Project  | Lao PDR           | 6,040.0<br>PRC  | Feasibility study completed in April 2011. Ground-breaking ceremony held on 2 December 2015. The government is reviewing a draft concession agreement. Signing ceremony of concession agreement between the government and the Lao–China Joint-Venture Railway State Enterprise is scheduled for September 2016. Construction scheduled to begin in October 2016. |
| <b>Myanmar</b>  |  |                   |   |   |
| 27              | <b>MYA-TRA-01</b> East–West Economic Corridor Eindu–Kawkareik Road Improvement   | Myanmar           | 121.8<br>ADB  | Feasibility study and detailed design completed in January 2015. Project approved by ADB and government in November 2015. Loan signed on 8 April 2016. Construction to commence in September 2016. Consultant selection and procurement for civil works completed and ADB concurrence received.   |
| 28              | <b>MYA-TRA-02</b> Mae Sot–Myawaddy Border Crossing Project and Infrastructure Improvements (with Thailand)                 | Myanmar, Thailand | 0.0<br>Note: project cost and financing included under project THA-TRA-06 #36 | Construction commenced in August 2015 under grant financing from government of Thailand (\$116 million—see THA-TRA-06 #36). Bridge and bypass construction is ongoing. Project is expected to be completed in 2017.   |
| 29              | <b>MYA-TRA-03</b> Improvement of Inland Ports  | Myanmar           | 60.0  | Project is to establish 6 inland ports along Ayeyarwaddy and Chindwin Rivers. Feasibility study for Mandalay port completed in February 2014. Government is seeking financing for implementation from JICA. The estimated cost for Mandalay port is \$38.0 million; estimated time required for implementation is about 2 years.                                  |
| 30              | <b>MYA-TRA-04</b> Lao–Myanmar Friendship Bridge over Mekong River at Xiengkok–Kainglap                                     | Lao PDR, Myanmar  | 26.0<br>Governments of Lao PDR and Myanmar (50:50 basis)                      | Bridge completed in March 2015 and inaugurated on 9 May 2015. (See LAO-TRA-13 #25.)   |
| <b>Thailand</b> |  |                   |   |   |
| 31              | <b>THA-TRA-01</b> Bang Yai–Kanchanaburi Intercity Motorway Project (part of Laem Chabang–Bangkok–Dawei [Myanmar] Corridor) | Myanmar, Thailand | 2,000.0   | Feasibility study completed in August 2009; project approved by the Royal Thailand Government Cabinet in July 2015. Source of funding is still to be determined.  |
| 32              | <b>THA-TRA-02</b> Tak–Mae Sot Highway Improvement Project  | Thailand          | 90.0<br>Thai government   | Project involves upgrading the existing road from 2 to 4 lanes, with total length of 76 km. Construction of 4 lanes for 25 km has been completed. Construction of another 24 km is ongoing.   |
| 33              | <b>THA-TRA-03</b> Lomsak–Phetchabun Highway Improvement Project  | Thailand          | 120.0<br>Thai government  | Project involves upgrading the existing road from 2 to 4 lanes, with total length of 92 km. Implementation commenced in April 2016 for 11 km. The remaining part is planned to be allocated in fiscal year 2017.  |
| 34              | <b>THA-TRA-04</b> Kalasin–Nakrai–Kamcha I Highway Improvement Project  | Thailand          | 140.0<br>Thai government  | Project involves upgrading the existing road from 2 to 4 lanes, with total length of 107 km. Implementation commenced 15 May 2015. Budget for fiscal year 2016 is for 13 km. The remaining part is planned to be allocated in fiscal year 2017.   |
| 35              | <b>THA-TRA-05</b> Chiang Rai–Chiang Khong Highway Improvement Project  | Thailand          | 80.0<br>Thai government   | Project involves upgrading the existing road from 2 to 4 lanes, with total length of 103 km. Construction of 4 lanes for 55 km has been completed. The remaining part is planned in the next 5-year plan.   |
| 36              | <b>THA-TRA-06</b> Mae Sot–Myawaddy Border Crossing Project and Infrastructure Improvements                                 | Thailand, Myanmar | 116.0<br>Thai government  | Project construction is ongoing. (See MYA-TRA-02 #28.)  |

Continued on next page

Table 6 continued

|                 | Code/name of project   | Country coverage     | Cost and available financing (US\$ million)                                 | Status as of 30 June 2016  |
|-----------------|--|----------------------|---|--|
| 37              | <b>THA-TRA-07</b> Mekong Bridge at Bungkan–Paksan  | Thailand, Lao PDR    | 110.0   | Feasibility study completed in 2014. Included on a tentative basis, and subject to availability of budget for the Thai part for 50% of the project financing; for the Lao part, the Lao PDR government is considering seeking financing from NEDA. (See LAO-TRA-03 #15.) Detailed design completed in 2015.  |
| 38              | <b>THA-TRA-08</b> Laem Chabang Port Development Project, Phase 3— Feasibility Study  | Thailand             | 5.0   | Feasibility study 98% completed, excluding environmental health impact assessment part. Design and economic and financial study completed. Corporate social responsibility measures launched. Investment is projected to commence implementation in 2025.  |
| (39)            | <b>THA-TRA-09</b> Single Rail Transfer Operator Development Project of Laem Chabang Port   | Thailand             | 90.0<br>Thai government   | Feasibility study completed in September 2011. Project objective is to increase the proportion of container traffic moved by rail from 9% to 20% of port throughput, in line with government's policy to reduce logistics cost. Project has been approved by Thailand government. Implementation is expected to commence in 2018.  |
| <b>Viet Nam</b> |  |                      |   |  |
| 40              | <b>VIE-TRA-01</b> GMS Ben Luc–Long Thanh Expressway (Stage 2)  | Viet Nam             | 1,607.0<br>ADB 286.0<br>JICA 517.6<br>Viet Nam government 48.3<br>TBD 755.1 | Eight of 11 contract packages implemented and remaining 3 packages in procurement. Land acquisition stake-out handed over to local agencies. Compensation and resettlement approved by local agencies. Negotiation of second loan (from ADB) completed.  |
| 41              | <b>VIE-TRA-02</b> GMS Ha Noi–Lang Son Expressway   | Viet Nam             | 1,400.0<br>ADB<br>Viet Nam government<br>Private sector BOT                 | Feasibility study commenced and intended to be completed in second quarter of 2016. Project approved by government of Viet Nam.  |
| 42              | <b>VIE-TRA-03</b> Second GMS Southern Coastal Corridor (also known as SSCP2)   | Viet Nam             | 373.0<br>ADB  | Project has 3 components. For Rach Gia–Ha Tien route component, feasibility study funded by ADB and contract signed between ADB and Snowy Mountains Engineering Corporation; feasibility study not yet approved. Ha Tien international border gate and bridge components included in SSCP2 (on 24 July 2015). Ha Tien bridge feasibility study completed in December 2012. |
| 43              | <b>VIE-TRA-04</b> Second GMS Northern Transport Network Improvement (Luang Prabang–Thanh Hoa) (additional financing)   | Viet Nam<br>Lao PDR  | 140.0<br>ADB  | About 90 km road from border with Lao PDR to Batouc was substantially completed in May 2016. Additional financing for project to improve another 45 km road from Batouc to Cam Thuy approved by ADB in November 2015, with expected completion in 2019. Road construction expected to commence in early 2017.  |
| 44              | <b>VIE-TRA-05</b> National Highway 14D Improvement Project   | Viet Nam             | 110.0<br>ADB  | Concept of the project is under preparation; project preparatory technical assistance (PPTA) commencement is expected in early 2017. Project merged with Northern Mountains Connectivity Project and title changed to GMS Corridor Enhancement Project (\$440 million).  |
| 45              | <b>VIE-TRA-06</b> Northern East–West Corridor: Son La–Dien Bien–TayTrang Border Gate (Viet Nam and Lao PDR) connecting with Luang Namtha (Lao PDR) to Friendship Bridge (Lao PDR–Myanmar) project at Xiengkok–Kainglap | Viet Nam,<br>Lao PDR | TBD   | This project was originally included in the RIF-IP at Subregional Transport Forum-19 in Phnom Penh, but no status was given at Subregional Transport Forum-20 in June 2016 in Nanning. (Guidance from Viet Nam Ministry of Transport is being sought regarding this project.)  |

## Co-Financing Achieves Greater Gains in Greater Mekong Subregion Economic Corridors

The Ben Luc–Long Thanh Expressway (Stage 2) and the Ha Noi–Lang Son Expressway represent over US\$2 billion in investment projects in Viet Nam in the RIF-IP and are key segments of the GMS Southern and North–South economic corridors. By leveraging multiple sources of financing, the government of Viet Nam has secured the funding to implement both these key transport routes.

The Ben Luc–Long Thanh Expressway is a 57.1 km road between Ben Luc and Long Thanh to the south of Ho Chi Minh City, and forms a short link of the GMS Southern economic corridor which increases connectivity and transport networks in southern Viet Nam. The project is divided into a western section of expressway (21.14 km), a middle section (10.71 km), and an eastern section (25.25 km). For the construction, ADB has approved financing for the western and eastern sections, and JICA is financing the middle section. The project was estimated to cost US\$1.608 billion at appraisal, inclusive of local taxes, contingencies, and financing charges during development. Stage 2 of the expressway was included in the RIF-IP at an original estimated cost of US\$623 million, and ultimately secured US\$286 million in financing from ADB, US\$517.6 million from JICA, and US\$48.3 million from the government of Viet Nam in counterpart financing. By leveraging these sources, the government of Viet Nam has successfully secured financing and made significant progress in implementing this key segment of the GMS Southern economic corridor.



**Opening of Ha Noi-Bac Giang section of Ha Noi-Lang Son Expressway**

In another example, the government of Viet Nam is leveraging growing traffic volumes and trade flows to mobilize financing for the Ha Noi–Lang Son Expressway, which is listed in the RIF-IP with an estimated cost of US\$1.4 billion. Ha Noi–Lang Son is a 157.3 km four-lane access-controlled expressway connecting Ha Noi and Huu Nghi in Lang Son Province, a town on the international border with Guangxi Zhuang Autonomous Region, PRC. Huu Nghi is the most important and biggest inland international border crossing in Viet Nam. Between 2014 and 2016 trade and traffic volumes grew significantly, with trade value increasing from US\$2.5 billion to US\$3.5 billion, comprising US\$1.7 billion for export and US\$1.8 billion for import. The traffic volume on NH1, the two-lane highway connecting Huu Nghi with Ha Noi, was 16,000 vehicles per day in Lang Son Province as of July 2015 and is sharply increasing. The Ha Noi–Lang Son Expressway is being developed in three sections: Ha Noi–Bac Giang (50.9 km); Bac Giang–Chi Lang (63.1 km); and Chi Lang–Lang Son–Huu Nghi (43.3 km). The Ministry of Transport arranged a build–operate–transfer (BOT) contract with a private investor to upgrade a bypass of NH1 to expressway in the Ha Noi–Bac Giang section, and another BOT contract to construct the Bac Giang–Chi Lang section, where land acquisition and civil works are under way. ADB is requested to finance construction of the Chi Lang–Lang Son–Huu Nghi section. Thus the government of Viet Nam has attracted financing from ADB and established two sections of the expressway to be managed as public–private partnerships under BOT schemes to implement this project.



**Launching Ceremony for Ben Luc–Long Thanh expressway**

investing in regional connectivity projects has been pivotal in this success. The current pipeline has few transport projects that include investments in Myanmar. The working group on transport needs to identify regional investments piggybacking on the extension of the economic corridors into Myanmar.

Lao PDR has been successful in pulling in various development partners to fund investments in the sector.

**Table 7: Status of Transport Sector Technical Assistance Projects**

|    | Name of project   | Country coverage                             | Cost and available financing (US\$ million) | Status as of 30 June 2016   |
|----|---|--|---|---|
| 1  | <b>VIE-TRA-TA-01</b> Highway 14D Improvement Project  | Viet Nam                                     | 1.0<br>ADB                                  | Project merged with Northern Mountains Connectivity Project and title changed to GMS Corridor Enhancement Project (see VIE-TRA-05 #44).   |
| 2  | <b>REG-TRA-TA-02</b> Second GMS Northern Transport Network Improvement: Luang Prabang (Lao PDR)–Thanh Hoa (Viet Nam)  | Lao PDR,<br>Viet Nam                         | 1.5<br>ADB                                  | Completed.  |
| 3  | <b>VIE-TRA-TA-03</b> Proposed Hoa Lac–Hoa Binh City Expressway PPP Project Feasibility Study  | Viet Nam                                     | 1.0   | No reported updates.  |
| 4  | <b>REG-TRA-TA-04</b> Feasibility Study for Rail Link between Laem Chabang Port and Dawei Deep Sea Port Project  | Myanmar<br>Thailand                          | 3.0<br>Thai government                      | Feasibility study completed in 2015. In process of hiring consultants to undertake detailed design and environmental impact assessment for rail construction project in Thailand (Ban Phu Nam Ron–Laem Chabang Port). Expected to sign a 12-month contract in September 2016. |
| 5  | <b>REG-TRA-TA-05</b> Building Institutional Capacity of Greater Mekong Railway Association  | All GMS countries                            | 0.2<br>ADB                                  | Technical assistance ongoing.   |
| 6  | <b>REG-TRA-TA-06</b> GMS Road Corridors Maintenance   | All GMS countries                            | 1.2   | ADB will discuss further with the governments.  |
| 7  | <b>REG-TRA-TA-07</b> Strategic Study on Development and Management of GMS Motorway Network System   | All GMS countries<br>(proposed by Thailand)  | TBD   | No activities undertaken. Pending a project framework development.  |
| 8  | <b>REG-TRA-TA-08</b> Knowledge Transfer between Thailand and GMS Member Countries on Highway and Bridge Standards and Specifications, including Transport Facilitation Facilities | All GMS countries<br>(proposed by Thailand)  | 0.4   | No activities undertaken. Project framework development is pending.   |
| 9  | <b>REG-TRA-TA-09</b> Promotion and Application of the Northeast Asia Logistics Information Service Network (NEAL–NET) in the GMS  | All GMS countries                            | TBD   | <b>Proposed to be dropped.</b> PRC proposed deletion of the project from the RIF-IP because it is already being undertaken in the Association of Southeast Asian Nations (ASEAN)–China framework; deletion will avoid duplication.  |
| 10 | <b>REG-TRA-TA-10</b> Study on Dry Port Development Plan along International Railway Lines Connecting Thailand with Cambodia, Lao PDR, and Myanmar                                 | Thailand with Cambodia, Lao PDR, and Myanmar | 0.5<br>Thai government                      | Terms of reference being drafted. State Railway of Thailand will be responsible for cost of hiring consultant for project using its own revenue. As of May 2016, no further update.   |

## Energy sector

The energy sector is dynamic in the subregion, but the GMS regional pipeline does not reflect that dynamism. Bilateral cooperation projects in the subregion which do not figure in the current pipeline are shown in Annex 2. The three new projects that are proposed for addition to the pipeline are mainly driven by investments in hydropower in Lao PDR. Another opportunity in the sector is the

establishment of the Regional Power Coordination Committee, which could build on the ongoing work in the subregion on harmonization and standardization and move regional trade in the sector to the next level. It would also be an opportunity to ensure better environmental and social safeguards in the energy sector.

**Table 8: Status of Energy Sector Investment and Technical Assistance Projects**

| Code/name of project   | Country coverage   | Cost and available financing (US\$ million)  | Status as of 30 June 2016   |
|--|--|--|---|
| <b>Investment projects</b>   |  |  |   |
| 1  | <b>REG-ENG-01</b> Lao PDR–Viet Nam Power Transmission Interconnection (Xekaman 1–Pleiku; formerly Hatxan–Pleiku)   | Lao PDR, Viet Nam<br><br>218.0<br><br>Lao PDR: Song Da Group<br><br>Viet Nam: Viet Nam Electricity National Power Transmission Corporation | The interconnection project between Hatxan in Lao PDR and Pleiku in Viet Nam has been changed to interconnection from Xekaman 1 power plant in Lao PDR to Pleiku in Viet Nam. Lao PDR: Xekaman 1 hydropower project is in process of testing Generation Unit 1 and will start generating power for export to Viet Nam by September 2016. Xekaman 1 230 kV transmission line from power house to Viet Nam border completed in June 2016. Department of Energy Policy and Planning of the Ministry of Energy and Mines issued final approval for Dead End Tower (transmission line tower at end of the line on Lao side) for cross-border transmission to Viet Nam. Transmission line is under construction, aiming to meeting the commercial operation date for Xekaman 3 in 2017. The line is being financed by private developers in both Lao PDR and Viet Nam.<br><br>Viet Nam: Construction of transmission line from Lao–Viet border to the new Pleiku 500 kV substation will be implemented by Viet Nam’s National Power Transmission Corporation. No specific update from Viet Nam. |
| 2  | <b>REG-ENG-02</b> Nabong 500 kV Substation Transmission Facility   | Lao PDR, Thailand<br><br>106.0<br><br>Nam Ngum 2 Power Company   | Project implementation commenced.<br><br>Lao PDR: Following committee comment and agreement on design and budget, preparations to start construction of Nabong Substation are under way. Department of Energy Business/Ministry of Energy and Mines are preparing document to rent the substation for Electricite du Laos to operate with Electricity Generating Authority of Thailand (EGAT) for a period of 20 years from 2018 to 2038.<br><br>Thailand: No specific update from Thailand.  |
| 3  | <b>REG-ENG-03</b> PRC–Lao PDR–Thailand 600 HVDC Interconnection  | PRC, Lao PDR, Thailand<br><br>800.0  | There is no progress to date and project was previously deleted, but it is still under consideration as GMS countries recognize its importance and propose including it in the RIF-IP. This will depend on import opportunities by Thailand and export price set by PRC.  |
| 4  | <b>REG-ENG-04</b> Reinvestigation of Thailand–Lao PDR–Viet Nam Interconnection   | Lao PDR, Thailand, Viet Nam<br><br>278.0   | No activity to date. The countries have agreed not to proceed with the project. <b>Proposed to be dropped.</b>  |
| <b>Investment projects not yet included in the approved RIF-IP</b> |  |  |   |
| 5  | <b>REG-ENG-05</b> East–West Corridor Power Transmission and Distribution Project in Lao PDR  | Lao PDR<br><br>50.0  | <b>Proposed to be added.</b> Proposed by Lao PDR during the Twentieth Meeting of the Regional Power Trade Coordination Committee (RPTCC-20) held in June 2016. The project is in the GMS RIF 2013–2022.   |
| 6  | <b>REG-ENG-06</b> Continued Projects in Rural Electrification and Off-Grid Power Development in Northern Part of Lao PDR   | Lao PDR<br><br>50.0  | <b>Proposed to be added.</b> Proposed by Lao PDR during RPTCC-20. The project is in the RIF.  |
| 7  | <b>REG-ENG-07</b> Design and Funding of a Backbone Grid for Lao PDR  | Lao PDR<br><br>400.0   | <b>Proposed to be added.</b> Proposed by Lao PDR during RPTCC-20. The project is in the RIF.  |
| <b>Technical assistance projects</b>                               |  |  |   |
| 1  | <b>REG-ENG-TA8830</b> Harmonizing GMS Power Systems to Facilitate Regional Power Trade (formerly Support to RPTCC in the Completion of Performance Standards, Grid Codes, Market Rules, and Subregional Transmission Expansion Plan) | All GMS countries<br><br>1.5<br>ADB 1.0<br>PRC Trust Fund 0.5  | Implementation of technical assistance is ongoing. Consultants providing support to the Working Group on Performance Standards and Working Group on Regulatory Issues completed the reports. Findings of the two reports were discussed and presented to the two working groups at RPTCC-20 in June 2016. RPTCC-20 adopted the working groups’ recommendations and work plans for 2016–2017.  |

Continued on next page



Table 8 continued

|   | Code/name of project  | Country coverage  | Cost and available financing (US\$ million) | Status as of 30 June 2016   |
|---|---|-------------------|---|---|
| 2 | <b>REG-ENG-TA-02</b> Ensuring Sustainability of Greater Mekong Subregion Regional Power Development (Phase 2) | All GMS countries | 1.0<br>AFD France                           | Implementation is ongoing; engagement of consulting consortium was completed in May 2016.   |
| 3 | <b>REG-ENG-TA-03</b> Development of GMS Coordination Center for Regional Power Trade                          | All GMS countries | 3.0   | Decision referred to Senior Officials' Meeting (SOM) in August 2016; discussions will be at bilateral level between Thailand and the PRC together with Lao PDR, and will revert back to SOM with the outcome. |
| 4 | <b>REG-ENG-TA-04</b> Provision of Continuing Institutional Support for the Subregional Energy Forum           | All GMS countries | 1.0   | Project <b>dropped</b> in June 2015.  |

**Table 9:** Status of Agriculture Sector Investment and Technical Assistance Projects

|                                      | Code/name of project  | Country coverage           | Cost and available financing (US\$ million) | Status as of 30 June 2016   |
|--------------------------------------|---|----------------------------|---|---|
| <b>Investment projects</b>           |   |                            |   |   |
| 1                                    | <b>REG-AGR-01</b> Climate Friendly Agri-Business Value Chains in the GMS  | Cambodia, Lao PDR, Myanmar | 205.0<br>ADB                                | Associated PPTA was approved in May 2015 and a kick-off meeting held in early December 2015. ADB to finance 3 separate loans in 2017 for Cambodia, Lao PDR, and Myanmar. Indicative financing (loan) for Cambodia increased to \$125 million (ADB \$80 million and co-financing \$45 million). Indicative financing (loans) remains the same for Lao PDR at \$40 M (ADB \$30 million and co-financing \$10 million) and Myanmar at \$40 million (ADB \$20 million and co-financing \$20 million). Interested co-financiers are being pursued. |
| 2                                    | <b>REG-AGR-02</b> Enhancing Competitiveness and Trade Facilitation of Agri-Food Products in the GMS             | All GMS countries          | 200.0                                       | Funding still to be identified.   |
| <b>Technical assistance projects</b> |   |                            |   |   |
| 1                                    | <b>REG-AGR-TA-01</b> PPTA for Climate-Friendly Agri-Business Value Chains in the GMS                            | Cambodia, Lao PDR, Myanmar | 2.5<br>ADB                                  | Project preparatory activities are ongoing. Fact-finding consultations for project financing are planned for Cambodia, Lao PDR, and Myanmar between October 2016 and January 2017.  |
| 2                                    | <b>REG-AGR-TA-02</b> PPTA for Enhancing Competitiveness and Trade Facilitation of Agri-Food Products in the GMS | All GMS countries          | 2.5   | Funding still to be identified.   |
| 3                                    | <b>REG-AGR-TA-03</b> Implementing Core Agricultural Support Program II  | All GMS countries          | 10.0<br>ADB                                 | Project combined with REG-AGR-TA-04, with consolidated cost of about \$10.0 million. Consultations with NDF and SIDA are planned for potential co-financing.  |
| 4                                    | <b>REG-AGR-TA-04</b> Implementing Core Agricultural Support Program III   | All GMS countries          | –   | Project merged with REG-AGR-TA-03 (see above).  |

## Agriculture and environment sectors

The two working groups in the sector have achieved a lot under ADB-supported technical assistance projects. An ongoing in-depth assessment of strategy in both sectors may lead to the development of action plans and programming of new projects. For the agriculture sector, these will be presented for guidance to the sectoral ministerial

meeting in early 2017. A sample project in the environment sector is shown in Case Study 2.

## Human resource development sector

In the collective effort to prevent and control the spread of communicable diseases in the GMS, projects like the GMS Health Security Project now

### CASE STUDY 2

## Challenges and Opportunities for Multisector Approaches in Low-Carbon Freight Corridors

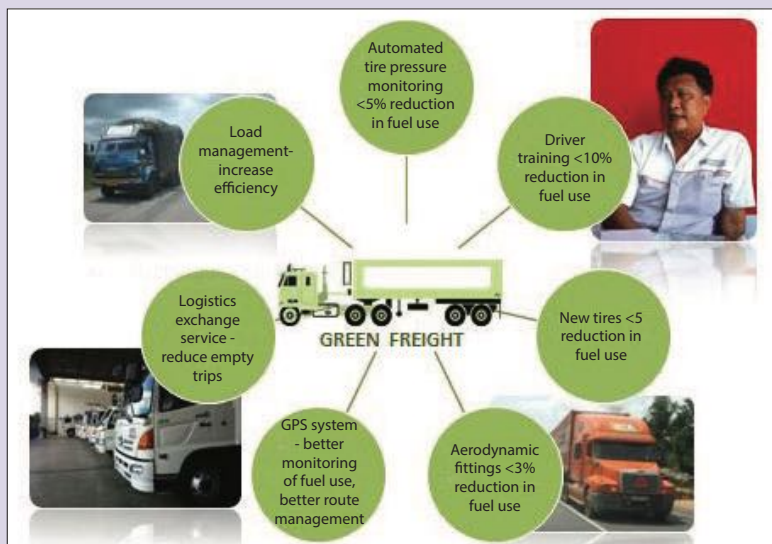
The US\$60 million Low-Carbon Freight Corridors investment project is included in the environment sector of the RIF-IP, and is intended to build on earlier studies conducted in the Green Freight Initiative by the GMS Core Environment Program.<sup>1</sup> The Green Freight Initiative found that improvements in technology, logistics management, and driver capacity focused on small and medium-sized truck companies could significantly reduce greenhouse gas emissions in the road transport sector in the GMS.

The Low-Carbon Freight Corridors project aims to implement and scale up these findings and reduce greenhouse gases from freight transport by developing financial mechanisms to upgrade fleet technologies and renew fleets. The interventions have three components: development of financing for small and medium-sized enterprises in the road transport sector (revolving funds, credit lines) to increase access to low-carbon technologies for trucks; driver training and capacity building for

eco-driving and safety; and development of national logistics management systems to reduce empty running.

Progress has been made, with efforts under way from ADB, Gesellschaft für Internationale Zusammenarbeit (GIZ), and the Mekong Institute to implement some of the Low-Carbon Freight Corridors project. In June 2016 ADB and GIZ co-organized the Green Freight and Logistics in Southeast Asia Regional Workshop, which brought together government, private sector, and development organization representatives to discuss scaling up green freight approaches. During this workshop, GIZ announced a €2.4 million project funded by the European Union, to be implemented by GIZ and the Mekong Institute in 2016–2019. The project's areas of support are measures to increase fuel efficiency; guidelines, agreements, and training related to transport of dangerous goods; green loan initiatives and investment plans; and support for policy and awareness. This project targets national freight and logistics associations (including members), driving schools, and training and educational service providers.<sup>2</sup>

Although progress is being made, it is only on a small scale and the project has not yet achieved the originally envisaged scale and breadth of investment. This is because it involves multiple sectors such as transportation emissions policy, private sector deployment of technologies, and logistics management, and the project has thus far been implemented under the purview of the GMS Working Group on Environment. As the results from these initial efforts take hold, the mode of full-scale implementation of green freight in the GMS will need to be re-examined, and consideration given to how to tackle this multisector project.



<sup>1</sup> <https://www.adb.org/publications/green-freight-greater-mekong-subregion>

<sup>2</sup> <http://www.mekonginstitute.org/what-we-do/ongoing-projects/green-freight-transport-and-logistics/>

**Table 10:** Status of Environment Sector Investment and Technical Assistance Projects

| Code/name of project   | Country coverage                      | Cost and available financing (US\$ million) | Status as of 30 June 2016  |
|--|---------------------------------------|---|--|
| <b>Investment projects</b>   |                                       |   |  |
| 1 <b>REG-ENV-01</b> Global Environment Fund Regional Biodiversity and Forestry Program   | All GMS countries                     | 20.0<br>GEF<br>ADB                          | <p>Cambodia: GEF chief executive approved transfer of fund management to United Nations Development Programme (UNDP); waiting for clearance from GEF/UNDP to move into inception stage.</p> <p>Lao PDR: Disbursement is on track with appraisal plan; 12 subprojects are in implementation but a substantial portion of the portfolio of subprojects is experiencing difficulties. Implementation includes the conduct of capacity-building activities.</p> <p>Thailand: Now in inception phase with the inception workshop held on 23 August 2016. Project kick-off was organized as part of commemoration of World Tiger Day on 29 July 2016. Budget allocation according to the work plan for 2016 is \$2,162,861.</p> <p>Viet Nam: Project became officially effective on 23 February 2016. The central project management unit recruited chief technical advisor and a national specialist on protected area management to develop inception report in May 2016. Inception workshop held mid-July 2016.</p> <p>Regional: Various project activities are ongoing. The most recent achievements included:</p> <ul style="list-style-type: none"> <li>• signing of two MOUs on transboundary collaboration for management of biodiversity landscapes; and</li> <li>• three rounds of transboundary landscape forum.</li> </ul> |
| 2 <b>REG-ENV-02</b> Low-Carbon Freight Initiative  | Cambodia, Lao PDR, Thailand, Viet Nam | 60.0  | Not currently programmed for ADB funding. Needs further discussion with potential partners (like GIZ) to explore project/investment opportunities.   |
| <b>Technical assistance projects</b>   |                                       |   |  |
| 1 <b>REG-ENV-TA-01</b> Core Environment Program and Biodiversity Conservation Corridor Initiative Phase II –Additional Funding | All GMS countries                     | 6.3<br>NDF 5.3<br>GEF 1.0                   | Phase II ongoing since 2012. Technical assistance completion date extended to December 2017. New program management firm (NIRAS Finland Oy) started in April 2016 to perform the role of project implementation unit for the remainder of Core Environment Program Phase II. Following from the Core Environment Program Phase II MTR recommendation of focusing on fewer activities using the program's core competencies, the proposed rural waste management activities to be financed by the PRC Fund (US\$0.5 million) will no longer be pursued under Phase II.  |
| 2 <b>REG-ENV-02</b> Low-Carbon Freight Initiative  | Cambodia, Lao PDR, Thailand, Viet Nam | 1.0   | Not currently programmed for ADB funding. Needs further discussion with potential partners (like GIZ) to explore project/investment opportunities.   |

**Table 11: Status of Human Resource Development Sector Investment Sector Investment and Technical Assistance Projects**

| Code/name of project   | Country coverage                     | Cost and available financing (US\$ million) | Status as of 30 June 2016   |
|--|--------------------------------------|---|---|
| <b>Investment projects</b>   |                                      |   |   |
| 1 <b>REG-HRD-01</b> GMS Health Security Project (formerly GMS Communicable Disease Control Project Phase III)          | Cambodia, Lao PDR, Myanmar, Viet Nam | 125.0 ADB                                   | Associated PPTA commenced in May 2015. ADB Board approval for this loan is scheduled on 31 October 2016 and expected completion date is 31 December 2021.   |
| 2 <b>REG-HRD-02</b> GMS Technical and Vocational Education and Training Development                                    | Cambodia, PRC, Lao PDR, Myanmar      | 155.4                                       | <b>Proposed to be dropped.</b> National-level TVET projects are ongoing and in the future pipelines of GMS countries to strengthen and modernize national TVET institutions and systems and equip TVET graduates with relevant skills to find employment across borders. ADB's technical assistance also supported development of frameworks for mutual recognition of skills and qualifications in GMS countries for machinery, food processing, and logistics, and preparation of a system for mutual recognition of training standards for TVET teachers in these skill areas. |
| <b>Investment project not yet included in the RIF-IP</b>   |                                      |   |   |
| 3 <b>REG-HRD-06</b> Strengthening Local Health Care Support Program  | Viet Nam                             | 20.0 ADB                                    | <b>Proposed to be added.</b> Project complements the GMS Health Security Project and is currently programmed for ADB funding in 2018.   |
| <b>Technical assistance projects</b>   |                                      |   |   |
| 1 <b>REG-HRD-TA-01</b> GMS Health Security Project (formerly GMS Communicable Disease Control Project Phase III)       | Cambodia, Lao PDR, Myanmar, Viet Nam | 1.3 ADB                                     | Implementation commenced on 18 May 2015 and preparatory activities are ongoing in participating countries.  |
| 2 <b>REG-HRD-TA-02</b> GMS Technical and Vocational Education and Training Development                                 | Cambodia, PRC, Lao PDR, Myanmar      | 3.2   | <b>Proposed to be dropped.</b> The regional TVET project will no longer be pursued, as national-level TVET projects are ongoing. See REG-HRD-02 above.  |
| <b>Technical assistance projects not yet included in the RIF-IP</b>  |                                      |   |   |
| 3 <b>REG-HRD-TA-03</b> Strengthening Resilience to Climate Change in the Health Sector in the Greater Mekong Subregion | Cambodia, Lao PDR, Viet Nam          | 4.4 NDF ADB                                 | <b>Proposed to be added.</b> Capacity-development technical assistance approved in May 2015. The project commenced on 1 August 2015 and will finish on 31 December 2018. Details of full project implementation in Cambodia, Lao PDR, and Viet Nam are expected after a regional workshop in August 2016 to discuss investment priorities and capacity-building needs for strengthening resilience to climate change in the health sector in the GMS.   |
| 4 <b>REG-HRD-TA-04</b> Malaria and Communicable Diseases Control in the GMS  | All GMS Countries                    | 4.5 Malaria Trust Fund ADB                  | <b>Proposed to be added.</b> The technical assistance is being implemented from 1 October 2015 to 31 December 2017, and supports the regional coordinating unit based in Vientiane and tasked to handle regional coordination and collaboration on malaria and CDC among GMS countries.   |
| 5 <b>REG-HRD-TA-05</b> GMS HRD Strategic Framework and Action Plan 2013–2017, Phase 2                                  | All GMS Countries                    | 1.75 PRC Fund ADB                           | <b>Proposed to be added.</b> The technical assistance is being implemented from December 2013 to December 2017, and supports the implementation of the GMS HRD Strategic Framework and Action Plan 2013–2017.   |

being prepared for (Cambodia, Lao, Myanmar, and Viet Nam) are engaging other relevant development partners like the World Health Organization (WHO) in project implementation, policy dialogue, information exchanges, and building of regional capacity and cooperation for communicable disease control (CDC). Although not directly participating in this project, other partners play an important role in CDC in the GMS countries, including USAID through its Global Health Security agenda; the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria; the three Disease Funds for maternal and child health care in Myanmar; the WHO for CDC and health system technical support; the Global Alliance for Vaccines and Immunization and UNICEF for immunization; and the World Bank for hospital infection control in Viet Nam. An additional project, the Strengthening Local Health Care Support Program in Viet Nam, scheduled for 2018 implementation, budgeted at US\$100 million, and with strong linkages to GMS health security, is proposed for inclusion in the RIF-IP 2013–2017.

The preparation of a regional investment project and a regional preparatory technical assistance project in technical and vocational education and training (TVET), originally included in the RIF-IP 2013–2022, will no longer be pursued as national-level TVET projects are ongoing and in the pipelines of GMS countries. These national projects seek to strengthen and modernize national TVET institutions and systems, and equip TVET graduates with relevant skills to find employment across borders.

Overall, only the GMS regional health sector investment and technical assistance projects have shown significant implementation progress that can be captured in this report for the HRD sector. Prioritization of national TVET projects resulted in the postponement of the regional TVET project’s design and implementation. Moreover, the complicated and multiple institutional arrangements for TVET within and across countries make regional TVET project concept development difficult. While national TVET programs may have a strong regional focus, Regional reports have not fully captured the work being done nationally to improve regional cooperation and integration. Regional cooperation in the labor migration subsector of the HRD, on the other hand, touches on sensitive political issues and

thus no project has been included in the RRIF-IP. GMS countries’ approach toward cooperation in labor migration is typically on a bilateral basis.

## Urban development sector

The urban development pipeline has mostly focused on several phases of the GMS Corridor Towns Development Project, but also includes a capacity-building technical assistance project on economic zones in border areas. The selected towns and cities in Cambodia, Lao PDR, Viet Nam, and Myanmar<sup>6</sup> are located along the GMS economic and transport corridors, and aim to become centers of economic activity by improving urban services through investment in basic infrastructure such as drainage, sanitation, solid waste management, roads, river-bank protection, and public gardens. Future project pipelines are expected to continue to be multisector and multicountry (covering border areas) in nature. Thus far GMS urban development projects have been primarily financed by ADB; in the future, this pipeline could also include projects financed by other parties or development partners.

In terms of monitoring and progress reporting, the GMS Urban Development Task Force has served as the main institutional mechanism to monitor and report on the implementation of urban development projects. In the Fifth Urban Development Task Force annual meeting on 25–26 August 2016, the task

<sup>6</sup> The selected towns/cities covered under the different phases of the GMS Corridor Towns Development Project are as follows.

|          | Phase 1                                | Phase 2                    | Phase 3                      | Phase 4                              |
|----------|--|----------------------------|------------------------------|--------------------------------------|
| Cambodia | Battambang, Bavet, Neak Loeung, Poipet | Kampot, Sihanouville       |                              | Kampong Cham, Krong Kep, Stung Treng |
| Lao PDR  | Kaysone Phomvihane, Phine, Dansavanh   | Houayxay, Luang Namtha     |                              | Ksan, Thakhek, Xay                   |
| Myanmar  |  |                            | Mawlamyine, Hpa-An, Myawaddy |                                      |
| Viet Nam | Dong Ha City, Lao Bao, Moc Bai         | Bac Giang, Mong Cai, Sa Pa |                              |                                      |

**Table 12:** Status of Urban Development Sector Investment and Technical Assistance Projects

| Code/name of project   | Country coverage                       | Cost and available financing (US\$ million)   | Status as of 30 June 2016   |
|--|--|---|---|
| <b>Investment projects</b>   |  |   |   |
| 1 <b>REG-URB-01</b> Corridor Towns Development Project II  | Cambodia, Lao PDR, Viet Nam            | Total: 211.77<br>Cambodia: 33.0 ADB<br>5.1 government Lao PDR: 37.0 ADB (ADF)<br>10.0 ASEAN Infrastructure Fund<br>5.0 government Viet Nam: 100.0 ADB<br>21.67 government | Feasibility study completed on 30 June 2015. ADB project financing approved on 13 November 2015 for Cambodia and Lao PDR and on 1 December 2015 for Viet Nam. Implementation commenced, and recruitment of implementation consultants is ongoing. |
| 2 <b>REG-URB-02</b> Corridor Towns Development Project III   | Myanmar                                | 80.0 ADB<br>(NEDA, Thailand International Cooperation Agency)   | Feasibility study completed on 15 December 2015. Proposed loan is programmed for 2017 approval. ADB loan fact-finding scheduled in June 2016.   |
| <b>Investment projects not yet included in approved RIF-IP</b>   |  |   |   |
| 3 <b>REG-URB-03</b> Fourth Greater Mekong Subregion Corridor Towns Development Project                   | Cambodia, Lao PDR                      | 126.0 ADB (ADF)<br>ASEAN Infrastructure Fund<br>Governments of Cambodia and Lao PDR   | <b>Proposed to be added.</b> The project is in the ADB 2016–2018 lending program. Associated preparatory technical assistance is planned for Quarter 3 2016 approval of ADB.  |
| <b>Technical assistance projects</b>   |  |   |   |
| 1 <b>REG-URB-TA-01</b> Corridor Towns Development Project II   | Cambodia, Lao PDR, Viet Nam            | 2.38 ADB  | Technical assistance commenced in January 2014 and will complete on 31 December 2016.   |
| 2 <b>REG-URB-TA-02</b> Corridor Towns Development Project III  | Myanmar                                | 1.35 ADB  | Technical assistance commenced in February 2015 and will complete in December 2016.   |
| <b>Technical assistance projects not yet included in the approved RIF-IP</b>                             |  |   |   |
| 3 <b>REG-URB-TA-03</b> Greater Mekong Subregion: Capacity Development for Economic Zones in Border Areas | All GMS Countries                      | 0.9 ADB<br>Regional Cooperation and Poverty Reduction Fund  | <b>Proposed to be added.</b> Technical assistance approved for ADB funding on 12 November 2015. All 6 GMS countries made no objection to the assistance.  |
| 4 <b>REG-URB-TA-04</b> Corridor Towns Development Project IV   | Cambodia, Lao PDR, Viet Nam, (Myanmar) | 2.0 ADB   | <b>Proposed to be added.</b> Technical assistance is proposed for ADB funding approval in Quarter 3 of 2016.  |

force members agreed to monitor and report on the other/BEZ projects as well, given the close linkages of projects in both sectors, particularly BEZ projects. Because many of these projects are multisector and may involve policy, planning, urban development, public works, and even trade and investment, it will be important for the Urban Development Task Force members to continue to play an active role in monitoring projects across these sectors.

## Other and border economic zone projects

There has been reported progress on half the other/BEZ projects, but the remaining two projects have not reported progress and one is proposed to be

dropped because its activities have been taken up in a new regional project under the urban development sector. The other/BEZ pipeline has mostly focused on economic zone development, in particular cross-border projects and border areas of the PRC. In terms of financing, ADB and the PRC government are the identified sources of funds for multisector/BEZ projects; in the future, this pipeline could also include projects financed by other parties or development partners.

For the two past RIF-IP monitoring periods, progress reporting of projects in this sector has been through GMS national coordinators and the SOM, the projects' multisector nature, and because of the absence of any dedicated working group or equivalent to monitor and report on these projects.

**Table 13:** Status of Other/BEZ Sector Investment and Technical Assistance Projects

| Code/name of project  | Country coverage      | Cost and available financing (US\$ million)                                  | Status as of 30 June 2016  |
|---|-----------------------|--|--|
| <b>Investment projects</b>  |                       |  |  |
| 1 <b>REG-OTH-01</b> Joint PRC–Viet Nam Cross-Border Economic Zones  | PRC, Viet Nam         | 300.0 ADB (matching counterpart financing from Guangxi Province is expected) | Project is included in ADB 2016–2018 lending program for the PRC. In January 2016 the PRC Ministry of Finance approved a US\$40,000 grant to Guangxi Zhuang Autonomous Region to support Dongxing's development capacity-building project. Project proposal under preparation by Guangxi Province. |
| 2 <b>REG-OTH-02</b> Construction of Phnom Penh New Port Special Economic Zone   | Cambodia              | 60.0   | Cambodia reports this is still among the top-priority projects of Phnom Penh Autonomous Port, and active engagement of potential investors is being explored for this special economic zone development plan.  |
| <b>Investment project not yet included in the approved RIF-IP</b>   |                       |  |  |
| 3 <b>REG-OTH-03</b> PRC: Yunnan Lincang Border Economic Cooperation Zone Infrastructure Development   | PRC                   | 250.0 ADB  | <b>Proposed to be added.</b> Project is in ADB 2016–2018 lending program. Associated technical assistance is scheduled for ADB approval in last quarter of 2016.   |
| <b>Technical assistance projects</b>  |                       |  |  |
| 1 <b>REG-OTH-TA-01</b> Capacity Building for Cross-Border Economic Zones  | PRC, Lao PDR, Myanmar | 2.0  | <b>Proposed to be dropped</b> because work has been taken up under the urban development sector (see REG-URB-TA-03 Greater Mekong Subregion: Capacity Development for Economic Zones in Border Areas).   |
| 2 <b>REG-OTH-TA-2</b> Joint Feasibility Study on Cross-Border Economic Zones in the PRC and Viet Nam  | PRC, Viet Nam         | 2.0 ADB  | ADB is preparing a regional technical assistance project to help improve coordination between the two countries and finalize the joint master plans. Viet Nam also requested ADB's financial support for cross-border economic zones in Viet Nam.  |
| <b>Technical assistance project not yet included in the approved RIF-IP</b>   |                       |  |  |
| 3 <b>REG-OTH-TA-3</b> Project Preparatory Technical Assistance for Yunnan Lincang Border Economic Cooperation Zone Infrastructure Development Project | PRC                   | 0.5 ADB  | <b>Proposed to be added.</b> The associated loan is in ADB's lending program for 2016–2018, and this project preparatory technical assistance is scheduled for ADB approval in the last quarter of 2016.   |

However, as mentioned, preceding pages, the Urban Development Task Force has agreed to monitor and report on other/BEZ projects given the similarity of work in both sectors, particularly the BEZ projects. This arrangement is foreseen to help facilitate development and implementation of these projects, and it is hoped it will be confirmed at higher levels of GMS institutional mechanisms.

## Tourism sector

Among the three investment projects in the tourism sector, two are ongoing and one is due for processing in 2017. Of the three technical assistance projects, one is complete and two are being implemented as a single project after being merged in 2016. These projects aim to improve access to infrastructure and environmental services in tourist to destinations, build capacity to improve destination management, and strengthen GMS cooperation to implement regional tourism standards and conduct joint marketing. Highlights for the tourism sector are shown in Case Study 3.

The thirty-seventh meeting of the GMS Tourism Working Group held in July 2016 in Sihanoukville confirmed good implementation progress for the first batch of RIF-IP tourism projects, and agreed to add two investment projects and their associated PPTA. The meeting also proposed one additional technical assistance project, to be included in the RRIF-IP's extended period until 2020.

## Transport and trade facilitation sector

The TTF projects in the RIF-IP made satisfactory progress in general. The lone investment project, a follow-up to the first phase of modernization of sanitary and phytosanitary (SPS) agencies for trade facilitation in Cambodia and Lao PDR, is partly replaced by a new proposed AEC Support Program

loan in the case of Cambodia, while for Lao PDR it will be taken up as an extension of the phase 1 SPS project with additional funding. The TTF pipeline has been driven by the TTF Program of Action, mostly in support of expanding and streamlining exchange of traffic rights arrangements; enhanced border management by simplifying and harmonizing customs procedures and operations in participating countries; drafting and revision of bilateral cross-border transport agreements; facilitation of single-window single-stop inspection implementation at checkpoints; an enhanced SPS regime for GMS trade; and strengthened national and subregional institutions for trade facilitation in partnership with the private sector. The Australian government and ADB are the major funders of TTF projects; in the future, this pipeline could also include projects financed by other parties or development partners.

For the past two RIF-IP monitoring periods, and this current period, progress reporting of TTF projects has been through the GMS national coordinators and the SOM, because of the projects' multisector nature, and the absence of any dedicated working group or equivalent to monitor and report on these projects. However, in the future, as may be recommended by the Study on Strengthening the GMS Institutional Framework, the Trade Facilitation Working Group may be revived and assigned to monitor and report on the progress of TTF projects.

## ICT sector

Even though ICT projects constitute a miniscule part of the pipeline, this is a sector with growing potential in the region. With the PRC taking the lead in the ICT-enabled e-commerce sector, there is great potential for projects to be added to the pipeline.



## Private Sector Joins Hands in Greater Mekong Subregion Tourism



Travel and tourism performance in the GMS has remained resilient amid lingering uncertainty in the global economy. International visitor arrivals reached 57.9 million in 2015, up 87% compared to 2010.<sup>1</sup> International tourism currently generates about US\$65 billion in destination expenditure and sustains over 10 million jobs. Richly endowed with diverse natural and cultural tourism assets, the GMS countries continue to prioritize tourism because of its ability to generate income and employment, accelerate regional economic integration, and promote friendship and goodwill among nations.

Established in 2006, the Mekong Tourism Coordinating Office (MTCO) has cooperated with private stakeholders, development partners, and national tourism promotion organizations to organize the annual Mekong Tourism Forum as a cooperative platform to promote public and private tourism investment, exchange knowledge and experiences to support sustainable tourism, and promote the Mekong subregion as a single destination. The 2016 Mekong Tourism Forum was held in Sihanoukville, Cambodia, and featured business opportunities

linked to accommodation, transport, information technology, and tour services. More than 200 prominent tourism industry stakeholders attended. The 2017 Mekong Tourism Forum will be held in Lao PDR.

MTCO and the GMS Tourism Working Group recently collaborated with ADB to prepare the “Experience Mekong” tourism marketing strategy and action plan<sup>2</sup> and update the web-based GMS tourism knowledge management platform ([www.mekongtourism.org](http://www.mekongtourism.org)). This novel web resource features an online library, e-magazines, interactive maps, a video and image gallery, a content contributor program, information on multicountry journeys, and an events calendar with GMS festivals, food fairs, conferences, and tourism trade shows. These enhanced features have earned the website the Hospitality Sales & Marketing Association International Adrian Award (2015) and Pacific Asia Travel Association (PATA) Gold Award 2016 for its innovative design and use of cutting-edge technology.

<sup>1</sup> <http://www.mekongtourism.org/about/tourism-performance/>

<sup>2</sup> <http://www.mekongtourism.org/experience-mekong-tourism-marketing-strategy-2015-2020/>

**Table 14:** Status of Tourism Sector Investment and Technical Assistance Projects

| Code/name of project  | Country coverage                           | Cost and available financing (US\$ million) | Status as of 30 June 2016  |
|---|--|---|--|
| <b>Investment projects</b>  |  |   |  |
| 1 <b>REG-TOR-01</b> GMS Tourism Infrastructure for Inclusive Growth   | Cambodia, Lao PDR, Viet Nam                | 108.0<br>ADB                                | Project start-up activities are complete. Civil works design and capacity building are ongoing in Lao PDR, Cambodia, and Viet Nam. Project is expected to be completed in December 2019.   |
| 2 <b>REG-TOR-02</b> Construction of Sino–Vietnamese Detian–Ban Gioc Waterfalls International Tourism Cooperation Zone | PRC, Viet Nam                              | 200.0                                       | Project cooperation agreement signed between the PRC and Viet Nam during Chinese President Xi Jinping’s state visit to Viet Nam in November 2015. The PRC advised that Guangxi government and counterparts from 4 provinces of Viet Nam discussed in February 2016 how to speed up construction of the cooperation zone. Also, Guangxi and Cao Bang Province of Viet Nam exchanged views on issues of common concern. Currently the highway network to Detian in Guangxi Province is under construction. |
| 3 <b>REG-TOR-03</b> Second GMS Tourism Infrastructure for Inclusive Growth  | Cambodia, Lao PDR, Myanmar, Viet Nam       | 130.0<br>ADB                                | Included in ADB’s Southeast Asia Regional Cooperation Initiative pipeline for processing in 2016–2017 and approval in 2018. Technical assistance is supporting preparation of updated GMS Tourism Sector Strategy 2016–2025.   |
| <b>Investment projects not yet included in the approved RIF-IP</b>  |  |   |  |
| 4 <b>REG-TOR-04</b> Tourism Infrastructure Development in Green Triangle Development Area                             | Cambodia, Lao PDR, Viet Nam                | 75.0  | <b>Proposed to be added.</b> As agreed at the thirty-seventh meeting of the GMS Tourism Working Group (July 2016, Sihanoukville), this project is being added to the expanded RIF-IP 2014–2020 for the tourism sector.   |
| 5 <b>REG-TOR-05</b> Tourism Infrastructure Development in Emerald Triangle Development Area                           | Cambodia, Lao PDR, Thailand                | 75.0  | <b>Proposed to be added.</b> As agreed at the thirty-seventh meeting of the GMS Tourism Working Group, this project is being added to the expanded RIF-IP 2014–2020 for the tourism sector.  |
| <b>Technical assistance projects</b>  |  |   |  |
| 1 <b>REG-TOR-TA-01</b> Strengthening Mekong Tourism Coordinating Office   | All GMS countries                          | 0.2<br>ADB                                  | Completed in March 2016. Technical assistance supported preparation of the GMS Tourism Marketing Strategy and Action Plan 2015–2020, presented as a deliverable at Twentieth GMS Ministerial Conference in September 2015, and a draft agreement on the establishment of the MTCO as an intergovernmental organization. It also supported improvements to the MTCO website.  |
| 2 <b>REG-TOR-TA-02</b> Preparing New GMS Tourism Sector Strategy 2016–2026  | All GMS countries                          | 0.8   | The project has been merged and included as an activity in REG-TOR-TA-03: Preparing the Second GMS Tourism Infrastructure for Inclusive Growth Project (see below).  |
| 3 <b>REG-TOR-TA-03</b> Preparing GMS Tourism for Infrastructure for Inclusive Growth II                               | Cambodia<br>Lao PDR<br>Myanmar<br>Viet Nam | 1.5<br>ADB                                  | The project preparatory technical assistance was approved in March 2016. Consultant engaged to prepare the updated GMS Tourism Strategy was mobilized in Quarter 2 2016. National and regional multistakeholder consultations are under way. It is expected consultants will be mobilized to help prepare the Second GMS Tourism Infrastructure for Inclusive Growth Project by December 2016.   |
| <b>Technical assistance projects not yet included in RIF-IP</b>   |  |   |  |
| 4 <b>REG-TOR-TA-04</b> Preparing Tourism Infrastructure Development in Green Triangle Development Area                | Cambodia, Lao PDR, Viet Nam                | 1.0   | <b>Proposed to be added.</b> The thirty-seventh meeting of the GMS Tourism Working Group agreed to add this preparatory technical assistance to the expanded RIF-IP 2014–2020. The project will develop tourism-related infrastructure under the Green Triangle Development Plan. For Cambodia (northeastern) the project will cover tourism-related infrastructure (airport in Rattan Kiri Province), vocational training school, and small-scale community-based tourism.                              |

Continued on next page

Table 14 continued

|   | Code/name of project   | Country coverage            | Cost and available financing (US\$ million) | Status as of 30 June 2016   |
|---|--|-----------------------------|---|---|
| 5 | <b>REG-TOR-TA-05</b> Preparing Tourism Infrastructure Development in Emerald Triangle Development Area           | Cambodia, Lao PDR, Thailand | 1.0   | <b>Proposed to be added.</b> The thirty-seventh meeting of the GMS Tourism Working Group agreed to add this preparatory technical assistance to the expanded RIF-IP 2014–2020.                                |
| 6 | <b>REG-TOR-TA-06</b> Strengthening the Coordination of Regional Tourism Knowledge and Joint Marketing in the GMS | All GMS countries           | 0.225                                       | <b>Proposed to be added.</b> The thirty-seventh meeting of the GMS Tourism Working Group agreed to add this preparatory technical assistance to the expanded RIF-IP 2014–2020. For possible approval in 2017. |

**Table 15:** Status of Transport and Trade Facilitation Sector Investment and Technical Assistance Projects

|   | Code/name of project   | Country coverage                               | Cost and available financing (US\$ million)                      | Status as of 30 June 2016  |
|---|--|--|--|--|
| <b>Investment projects</b>  |  |  |  |  |
| 1   | <b>REG-TTF-01</b> Modernization of Sanitary and Phytosanitary Agencies for Trade Facilitation Project (SPS Phase II)           | Lao PDR<br>Cambodia                            | 10.0<br>ADB  | Lao PDR SPS Phase I will be extended, with additional financing to cover the Lao PDR SPS II component. The Cambodia SPS II component is proposed to be dropped here, and instead included as a component of the proposed AEC Support Program Loan (see below).   |
| <b>Investment project not yet included in the approved RIF-IP</b>           |  |  |  |  |
| 2   | <b>REG-TTF-02</b> ASEAN Economic Community Support Program   | Cambodia                                       | 30.0<br>ADB  | <b>Proposed to be added.</b> The policy-based loan for Cambodia is proposed for ADB funding approval in 2018. The Cambodia SPS II component from REG-TTF-01 will be included here (see above). Lao PDR, Myanmar, and Viet Nam are proposed to be included in this program in the future, with additional funding.    |
| <b>Technical assistance projects</b>  |  |  |  |  |
| 1   | <b>REG-TTF-TA-01</b> Trade Facilitation through Partnership with Private Sector  | Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam | 1.5<br>ADB   | Project implementation has been ongoing since August 2014 and is expected to close in August 2017.   |
| 2   | <b>REG-TTF-TA-02</b> Support for Implementing Action Plan on Transport and Trade Facilitation in the GMS (Subprojects 2 and 3) | All GMS countries                              | 4.1<br>Australian Department of Foreign Affairs and Trade<br>ADB | Project implementation has been ongoing since October 2014 and scheduled completion is in December 2017.   |
| 3   | <b>REG-TTF-TA-03</b> Modernization of SPS Agencies for Trade Facilitation Project (SPS Phase II)                               | Cambodia, Lao PDR                              | 1.5<br>ADB   | Lao PDR SPS Phase I will be extended with additional financing to cover the Lao PDR SPS II component; no additional preparatory technical assistance needed. Cambodia SPS II technical assistance will be included under the AEC Support Program. This SPS II technical assistance is <b>proposed to be dropped.</b> |
| 4   | <b>REG-TTF-TA-04</b> Strengthening Bilateral Cross-Border Trade Agreements and Coordination Mechanisms                         | All GMS countries                              | 2.0  | <b>Project has been dropped</b> since June 2015.   |
| <b>Technical assistance project not yet included in the approved RIF-IP</b> |  |  |  |  |
| 5   | <b>REG-TTF-TA-05</b> ASEAN Economic Community Support Program, Technical Assistance  | Cambodia                                       | 1.35<br>ADB  | <b>Proposed to be added.</b> This technical assistance project is proposed for ADB funding approval in 2017.   |

**Table 16:** Status of Information and Communication Technology Sector Investment and Technical Assistance Projects

| Code/name of project   | Country coverage       | Cost and available financing (US\$ million)                               | Status as of 30 June 2016  |
|--|------------------------|---|--|
| <b>Investment projects</b>   |                        |   |  |
| 1 <b>REG-ICT-01</b> Time-Division Long-Term Evolution Demonstration Network in the Lao PDR     | PRC, Lao PDR           | 5.0   | Lack of progress is due to unavailable financing and not because the project was cancelled, as reported earlier. |
| <b>Technical assistance projects</b>   |                        |   |  |
| 1 <b>REG-ICT-TA-01</b> Broadband Development Strategies and Implementation Programs of the GMS | All GMS countries      | 10.0  | No status information available.   |
| <b>Technical assistance projects not yet included in the approved RIF-IP</b>                   |                        |   |  |
| 2 <b>REG-ICT-TA-02</b> Workshops on E-Commerce Cooperation and Exchanges in GMS                | All GMS countries      | 10.0  | This is a technical assistance project in the RIF and it is <b>proposed to add</b> it to the RIF-IP.             |
| 3 <b>REG-ICT-TA-03</b> Cross-border International Interconnected Bandwidth Expansion Project   | PRC, Lao PDR, Viet Nam | 2.1<br>State-owned telecom operators (China Unicom, Viettel, and LTC Lao) | This project is not in the GMS RIF 2013–2022 but is a high priority for the PRC, Lao PDR, and Viet Nam.          |

# Annexes

## Annex 1: Revised Regional Investment Framework Implementation Plan (RRIF-IP) 2020

**Table A1.1:** Summary

| Sector            | No. of projects |                      |            | Cost estimate (US\$ million) |                      | Total (US\$ million) |
|-------------------|-----------------|----------------------|------------|------------------------------|----------------------|----------------------|
|                   | Investment      | Technical assistance | No.        | Investment                   | Technical assistance | Cost                 |
| Transport         | 42              | 9                    | 51         | 28,646.2                     | 8.8                  | 28,655.0             |
| Energy            | 6               | 3                    | 9          | 1,624.0                      | 5.5                  | 1,629.5              |
| Agriculture       | 2               | 3                    | 5          | 405.0                        | 15.0                 | 420.0                |
| Environment       | 2               | 2                    | 4          | 80.0                         | 7.3                  | 87.3                 |
| HRD               | 2               | 4                    | 6          | 145.0                        | 12.0                 | 157.0                |
| Urban Development | 3               | 4                    | 7          | 330.0                        | 3.5                  | 333.5                |
| Other/BEZ         | 3               | 2                    | 5          | 610.0                        | 2.5                  | 612.5                |
| Tourism           | 5               | 6                    | 11         | 588.0                        | 4.7                  | 592.7                |
| TTF               | 2               | 3                    | 5          | 40.0                         | 7.0                  | 47.0                 |
| ICT               | 1               | 3                    | 4          | 5.0                          | 22.1                 | 27.1                 |
| <b>Total</b>      | <b>68</b>       | <b>39</b>            | <b>107</b> | <b>32,561.0</b>              | <b>91.5</b>          | <b>32,652.5</b>      |

BEZ = border economic zones, HRD = human resource development, ICT = information and communication technology, TTF = transport and trade facilitation.  
Source: GMS Secretariat's compilation.

**Table A1.2:** Transport Priority Projects

| Name of project   | Country coverage      | Cost estimate (US\$ million) | Available financing  |
|---|-----------------------|------------------------------|----------------------|
| <b>Investment projects</b>  |                       |                              |                      |
| <b>Cambodia</b>   |                       |                              |                      |
| 1 Sihanoukville Port Access Road Improvements                             | Cambodia              | 40.0                         |                      |
| 2 GMS: Deepening Connectivity of Southern Economic Corridor Project       | Cambodia              | 160.0                        | ADB                  |
| 3 Phnom Penh–Sihanoukville Highway Corridor Improvements                  | Cambodia              | 1,600.0                      | BOT (private sector) |
| 4 Link Road between NR5 and NR6 near Kampong Tralach North of Phnom Penh  | Cambodia              | 60.0                         |                      |
| 5 Construction of Poipet (Cambodia)–Klong Loeuk (Thailand) Railway Bridge | Cambodia and Thailand | 0.5                          | Thailand             |

Continued on next page

Table A1.2 continued

|                | Name of project  | Country coverage          | Cost estimate (US\$ million)                       | Available financing                              |
|----------------|--|---------------------------|--|--|
| 6              | Railway Access to the New Phnom Penh Port  | Cambodia                  | 200.0  |  |
| 7              | Southern Siem Reap Bypass Road (193.7 km)  | Cambodia                  | 200.0  |  |
| 8              | Construction of Bus/Truck Driving Test Center  | Cambodia                  | 10.0   |  |
| <b>PRC</b>     |  |                           |  |  |
| 9              | Yunnan Pu'er Regional Integrated Road Network Development Project  | PRC                       | 540.0  | ADB  |
| 10             | Dali–Ruili Railway   | PRC                       | 4,020.0  | PRC  |
| 11             | Further Maintenance and Improvement of the Upper Mekong River Navigation Channel from the PRC (Landmark 243) and Myanmar to Luang Prabang, Lao PDR | PRC, Lao PDR, and Myanmar | 359.4  | PRC 14.7 for preliminary works<br>Balance TBD    |
| 12             | Yuxi–Mohan Railway   | PRC                       | 8,062.5  | PRC<br>ADB                                       |
| <b>Lao PDR</b> |  |                           |  |  |
| 13             | Vang Tao Border Crossing Point   | Lao PDR                   | 15.0   | Government provincial budget                     |
| 14             | Upgrading NR13N and N13S (Portion through Phon Hong–Vientiane Capital–Ban Hai); ASEAN Highway AH11 (NR 13S)  | Lao PDR                   | 320.0  |  |
| 15             | Mekong Bridge at Bungkan–Paksan  | Lao PDR and Thailand      | Amount is counted under Thailand (see project #37) |  |
| 16             | Thanaleng Border Crossing Infrastructure Improvement Project   | Lao PDR                   | 25.0   |  |
| 17             | Muong Ngeune–Chomphet–Luang Prabang  | Lao PDR                   | 90.0   | NEDA   |
| 18             | Upgrading of NR8 East–West Transport Route; ASEAN Highway AH15 (Van Lao–Nan Phao)  | Lao PDR                   | 80.0   |  |
| 19             | Xiengkok River Port  | Lao PDR                   | 15.0   |  |
| 20             | Ban Mom River Port   | Lao PDR                   | 12.0   |  |
| 21             | Lalay Border Crossing Point (NR15)   | Lao PDR                   | 10.0   |  |
| 22             | Nam Phao Border Crossing Point (NR8)   | Lao PDR                   | 8.0  |  |
| 23             | Na Phao Border Crossing Point (NR12)   | Lao PDR                   | 10.0   |  |
| 24             | Luang Namtha– Xiengkok Lao–Myanmar Friendship Bridge (NR17)  | Lao PDR and Myanmar       | 150.0  |  |
| 25             | Lao PDR–Myanmar Friendship Bridge over the Mekong at Xianglok  | Lao PDR and Myanmar       | 30.0   | Governments of Lao PDR and Myanmar (50:50 basis) |
| 26             | Vientiane–Boten Railway Project  | Lao PDR                   | 6,040.0  | PRC  |
| <b>Myanmar</b> |  |                           |  |  |
| 27             | East–West Economic Corridor Eindu–Kawkareik Road Improvement   | Myanmar                   | 121.8  | ADB  |
| 28             | Mae Sot–Myawaddy Border Crossing Project and Infrastructure Improvements (with Thailand)   | Myanmar and Thailand      | Amount is counted under Thailand (see project #36) | Government of Thailand                           |
| 29             | Improvement of Inland Ports  | Myanmar                   | 60.0   |  |

Continued on next page

Table A1.2 continued

|                                      | Name of project  | Country coverage     | Cost estimate (US\$ million)                    | Available financing   |
|--------------------------------------|--|----------------------|---|---|
| 30                                   | Lao Myanmar Friendship Bridge over the Mekong River at Xiengkok-Kainglap   | Myanmar              | 26.0  | Governments of Lao PDR and Myanmar (50:50 basis)                    |
| <b>Thailand</b>                      |  |                      |   |   |
| 31                                   | Bang Yai–Kanchanaburi Intercity Motorway Project (part of the Laem Chabang-Bangkok-Dawei [Myanmar] corridor)   | Myanmar and Thailand | 2,000.0   |   |
| 32                                   | Tak–Mae Sot Highway Improvement Project  | Thailand             | 90.0  | Government of Thailand  |
| 33                                   | Lomsak–Phetchabun Highway Improvement Project  | Thailand             | 120.0   | Government of Thailand  |
| 34                                   | Kalasin–Nakrai–Kamcha I Highway Improvement Project  | Thailand             | 140.0   | Government of Thailand  |
| 35                                   | Chiang Rai–Chiang Khong Highway Improvement Project  | Thailand             | 80.0  | Government of Thailand  |
| 36                                   | Mae Sot–Myawaddy Border Crossing Project and Infrastructure Improvements (Thailand)  | Thailand             | 116.0 (includes amount for Myanmar project #28) | Government of Thailand  |
| 37                                   | Mekong Bridge at Bungkan–Paksan  | Thailand and Lao PDR | 110.0 (includes amount for Lao PDR project #15) |   |
| 38                                   | Tha Laem Chabang Port Development Project, Phase 3— Feasibility Study  | Thailand             | 5.0   |   |
| 39                                   | Single Rail Transfer Operator Development Project of Laem Chabang Port   | Thailand             | 90.0  | Government of Thailand  |
| <b>Viet Nam</b>                      |  |                      |   |   |
| 40                                   | GMS Ben Luc–Long Thanh Expressway (Stage 2)  | Viet Nam             | 1,607.0   | ADB 286.0<br>JICA 517.6<br>Government of Viet Nam 48.3<br>TBD 755.1 |
| 41                                   | GMS Ha Noi–Lang Son Expressway   | Viet Nam             | 1,400.0   | ADB<br>Government of Viet Nam<br>Private sector (BOT)               |
| 42                                   | Second GMS Southern Coastal Corridor   | Viet Nam             | 373.0   | ADB   |
| 43                                   | Second GMS Northern Transport Network Improvement (Luang Prabang–Thanh Hoa) (additional financing)   | Viet Nam and Lao PDR | 140.0   | ADB   |
| 44                                   | National Highway 14D Improvement Project   | Viet Nam             | 110.0   | ADB   |
| 45                                   | Northern East–West Corridor: Son La–Dien Bien –Tay Trang Border Gate (Viet Nam and Lao PDR) connecting the RIF-listed Luang Namtha (Lao PDR) to the Friendship Bridge (Lao PDR–Myanmar) at Xiengkok–Kainglap | Viet Nam and Lao PDR | TBD   |   |
| <b>Technical assistance projects</b> |  |                      |   |   |
| 1                                    | PPTA for National Highway 14D Improvement Project  | Viet Nam             | 1.0   | ADB   |
| 2                                    | Second GMS Northern Transport Network Improvement: Luang Prabang (Lao PDR)–Thanh Hoa (Viet Nam)  | Lao PDR and Viet Nam | 1.5   | ADB   |
| 3                                    | Proposed Hoa Lac–Hoa Binh City Expressway PPP Project Feasibility Study  | Viet Nam             | 1.0   |   |

Continued on next page

Table A1.2 continued

|   | Name of project  | Country coverage                             | Cost estimate (US\$ million) | Available financing    |
|---|--|--|------------------------------|------------------------|
| 4 | Feasibility Study for the Rail Link between Laem Chabang Port and Dawei Deep Sea Port Project  | Myanmar and Thailand                         | 3.0                          | Government of Thailand |
| 5 | Building Institutional Capacity of the Greater Mekong Railway Association  | All GMS countries                            | 0.2                          | ADB                    |
| 6 | GMS Road Corridors Maintenance   | All GMS countries                            | 1.2                          |                        |
| 7 | Strategic Study on the Development and Management of the GMS Motorway Network System   | All GMS countries                            | TBD                          |                        |
| 8 | Knowledge Transfer between Thailand and GMS Member Countries on Highway and Bridge Standards and Specifications, including Transport Facilitation Facilities | All GMS countries                            | 0.4                          |                        |
| 9 | Study on Dry Port Development Plan along International Railway Lines Connecting Thailand with Cambodia, Lao PDR, and Myanmar                                 | Thailand with Cambodia, Lao PDR, and Myanmar | 0.5                          |                        |

BOT= build–operate–transfer, PPP = public–private partnership, TBD = to be determined.

Source: GMS Secretariat's compilation.

**Table A1.3: Energy Priority Projects**

|                                      | Name of project  | Country coverage       | Cost estimate (US\$ million) | Available financing  |
|--------------------------------------|--|------------------------|------------------------------|--|
| <b>Investment projects</b>           |  |                        |                              |  |
| 1                                    | Lao PDR–Viet Nam Power Transmission Interconnection (Hatxan–Pleiku)  | Lao PDR and Viet Nam   | 218.0                        | Lao PDR: Song Da Group<br>Viet Nam: Viet Nam Electricity National Power Transmission Corporation |
| 2                                    | Nabong 500 kV Substation Transmission Facility Project   | Lao PDR                | 106.0                        | Nam Ngum 2 Power Company   |
| 3                                    | PRC–Lao PDR–Thailand 500 kV Interconnection  | PRC, Lao PDR, Thailand | 800.0                        |  |
| 4                                    | East–West Corridor Power Transmission and Distribution Project in Lao PDR  | Lao PDR                | 50.0                         |  |
| 5                                    | Continued Projects in Rural Electrification and Off-Grid Power Development in the Northern Part of Lao PDR   | Lao PDR                | 50.0                         |  |
| 6                                    | East–West Corridor Power Transmission and Distribution Project in the Lao PDR  | Lao PDR                | 400.0                        |  |
| <b>Technical assistance projects</b> |  |                        |                              |  |
| 1                                    | Harmonizing GMS Power Systems to Facilitate Regional Power Trade (formerly Support to RPTCC in Completion of Performance Standards, Grid Codes, Market Rules, and Subregional Transmission Expansion Plan) | All GMS countries      | 1.5                          | ADB 1.0<br>PRC Trust Fund 0.5  |
| 2                                    | Facilitating Regional Power Trading and Environmentally Sustainable Development of Electricity Infrastructure in the GMS (Phase 2)   | All GMS countries      | 1.0                          | AFD  |
| 3                                    | Development of GMS Coordination Center for Regional Power Trade  | All GMS countries      | 3.0                          |  |

RPTCC = Regional Power Trade Coordination Committee.

Source: GMS Secretariat's compilation.



**Table A1.4:** Agriculture Priority Projects

|                                      | Name of Project  | Country coverage   | Cost estimate (US\$ million) | Available financing |
|--------------------------------------|--|--------------------|------------------------------|---------------------|
| <b>Investment projects</b>           |  |                    |                              |                     |
| 1                                    | Climate Friendly Agri-Business Value Chains in the GMS                                     | All GMS countries* | 205.0                        | ADB                 |
| 2                                    | Enhancing Competitiveness and Trade Facilitation of Agri-Food Products in the GMS          | All GMS countries  | 200.0                        |                     |
| <b>Technical assistance projects</b> |  |                    |                              |                     |
| 1                                    | PPTA for Climate-Friendly Agri-Business Value Chains in the GMS                            | All GMS countries* | 2.5                          | ADB                 |
| 2                                    | PPTA for Enhancing Competitiveness and Trade Facilitation of Agri-Food Products in the GMS | All GMS countries  | 2.5                          |                     |
| 3                                    | Implementing Core Agricultural Support Program II and III                                  | All GMS countries  | 10.0                         | ADB                 |

PPTA = project preparatory technical assistance.

Note: \* signifies that the country coverage for this project is still to be confirmed.

Source: GMS Secretariat's compilation.

**Table A1.5:** Environment Priority Projects

|                                      | Name of project   | Country coverage                      | Cost estimate (US\$ million) | Available financing |
|--------------------------------------|---|---------------------------------------|------------------------------|---------------------|
| <b>Investment projects</b>           |   |                                       |                              |                     |
| 1                                    | Global Environment Fund Regional Biodiversity and Forestry Program  | All GMS countries                     | 20.0                         | GEF<br>ADB          |
| 2                                    | Low-Carbon Freight Corridors  | Lao PDR, Viet Nam                     | 60.0                         |                     |
| <b>Technical assistance projects</b> |   |                                       |                              |                     |
| 1                                    | Core Environment Program and Biodiversity Conservation Corridor Initiative Phase II RETA—Additional Funding | All GMS countries                     | 6.3                          | NDF 5.3<br>GEF 1.0  |
| 2                                    | Low-Carbon Freight Corridors  | Cambodia, Lao PDR, Thailand, Viet Nam | 1.0                          |                     |

RETA = regional technical assistance.

Source: GMS Secretariat's compilation.

**Table A1.6: Human Resource Development Priority Projects**

|                                      | Name of project  | Country coverage                     | Cost estimate (US\$ million) | Available financing       |
|--------------------------------------|--|--------------------------------------|------------------------------|---------------------------|
| <b>Investment projects</b>           |  |                                      |                              |                           |
| 1                                    | GMS Health Security Project (formerly Communicable Disease Control Project (Phase III))                  | Cambodia, Lao PDR, Myanmar, Viet Nam | 125.0                        | ADB                       |
| 2                                    | Strengthening Local Health Care Support Program  | Viet Nam                             | 20.0                         |                           |
| <b>Technical assistance projects</b> |  |                                      |                              |                           |
| 1                                    | PPTA for GMS Health Security Project (formerly GMS Communicable Disease Control Project (Phase III))     | Cambodia, Lao PDR, Myanmar, Viet Nam | 1.3                          | ADB                       |
| 2                                    | CDTA for Strengthening Resilience to Climate Change in the Health Sector in the Greater Mekong Subregion | Cambodia, Lao PDR, Viet Nam          | 4.4                          | NDF<br>ADB                |
| 3                                    | Malaria and Communicable Diseases Control (CDC) in the GMS   | All GMS countries                    | 4.5                          | Malaria Trust Fund<br>ADB |
| 4                                    | GMS HRD Strategic Framework and Action Plan (SFAP) 2013-2017, Phase 2                                    | All GMS countries                    | 1.75                         | PRC Fund<br>ADB           |

PPTA = project preparatory technical assistance.  
Source: GMS Secretariat's compilation.

**Table A1.7: Urban Development Priority Projects**

|                                      | Name of project   | Country coverage                       | Cost estimate (US\$ million) | Available financing  |
|--------------------------------------|---|--|------------------------------|--|
| <b>Investment projects</b>           |   |  |                              |  |
| 1                                    | Corridor Towns Development Project II   | Cambodia, Lao PDR, Viet Nam            | 211.8                        | Cambodia:<br>ADB 33.0<br>Government of Cambodia 5.1<br>Lao PDR:<br>ADB 37.0<br>ASEAN Infrastructure Fund 10.0<br>Government of Lao PDR 5.0<br>Viet Nam:<br>ADB 100.0<br>Government of Viet Nam 21.67 |
| 2                                    | Corridor Towns Development Project III  | Myanmar                                | 80.0                         | ADB<br>(NEDA, Thailand International Cooperation Agency)   |
| 3                                    | Fourth Greater Mekong Subregion Corridor Towns Development Project                | Cambodia, Lao PDR                      | 126.0                        | ADB<br>ASEAN Infrastructure Fund<br>Governments of Cambodia and Lao PDR  |
| <b>Technical assistance projects</b> |   |  |                              |  |
| 1                                    | PPTA for Corridor Towns Development Project II                                    | Cambodia, Lao PDR, Viet Nam            | 2.385                        | ADB  |
| 2                                    | PPTA for Corridor Towns Development Project III                                   | Myanmar                                | 1.35                         | ADB  |
| 3                                    | Greater Mekong Subregion: Capacity Development for Economic Zones in Border Areas | All GMS countries                      | 0.9                          | ADB<br>Regional Cooperation and Poverty Reduction Fund   |
| 4                                    | PPTA Corridor Towns Development Project IV  | Cambodia, Lao PDR, Viet Nam, (Myanmar) | 2.0                          | ADB  |

PPTA = project preparatory technical assistance.  
Source: GMS Secretariat's compilation.

**Table A1.8:** Other Multisector/Border Economic Zone Priority Projects

|                                      | Name of project   | Country coverage | Cost estimate (US\$ million) | Available financing |
|--------------------------------------|---|------------------|------------------------------|---------------------|
| <b>Investment projects</b>           |   |                  |                              |                     |
| 1                                    | Joint PRC–Viet Nam Cross-Border Economic Zones  | PRC and Viet Nam | 300.0                        | ADB                 |
| 2                                    | Construction of a Phnom Penh New Port Special Economic Zone                                       | Cambodia         | 60.0                         |                     |
| 3                                    | Yunnan Lincang Cross-Border Economic Cooperation Zone Infrastructure Development                  | PRC              | 250.0                        | ADB                 |
| <b>Technical assistance projects</b> |   |                  |                              |                     |
| 1                                    | PPTA for Joint Feasibility Study on Cross-Border Economic Zones in the PRC and Viet Nam           | PRC and Viet Nam | 2.0                          | ADB                 |
| 2                                    | PPTA for Yunnan–Lincang Cross-Border Economic Cooperation Zone Infrastructure Development Project | PRC              | 0.5                          | ADB                 |

PPTA = project preparatory technical assistance.

Source: GMS Secretariat's compilation.

**Table A1.9:** Tourism Priority Projects

|                                      | Name of project   | Country coverage                         | Cost estimate (US\$ million) | Available financing |
|--------------------------------------|---|--|------------------------------|---------------------|
| <b>Investment projects</b>           |   |  |                              |                     |
| 1                                    | GMS Tourism Infrastructure for Inclusive Growth   | Cambodia, Lao PDR, and Viet Nam          | 108.0                        | ADB                 |
| 2                                    | Construction of the Sino–Vietnamese Detian–Ban Gioc Waterfalls International Tourism Cooperation Zone | PRC (Guangxi), Viet Nam                  | 200.0                        |                     |
| 3                                    | GMS Tourism Infrastructure for Inclusive Growth II  | Cambodia, Myanmar, Lao PDR, and Viet Nam | 130.0                        | ADB                 |
| 4                                    | Tourism Infrastructure Development in the Green Triangle Development Area                             | Cambodia, Lao PDR, Viet Nam              | 75.0                         |                     |
| 5                                    | Tourism Infrastructure Development in the Emerald Triangle Development Area                           | Cambodia, Lao PDR, Thailand              | 75.0                         |                     |
| <b>Technical assistance projects</b> |   |  |                              |                     |
| 1                                    | Strengthening the Mekong Tourism Coordinating Office  | All GMS countries                        | 0.2                          | ADB                 |
| 2                                    | Preparing the New GMS Tourism Sector Strategy 2016–2026   | All GMS countries                        | 0.8                          |                     |
| 3                                    | Preparing the GMS Tourism for Infrastructure for Inclusive Growth II                                  | Cambodia, Lao PDR, Myanmar, and Viet Nam | 1.5                          | ADB                 |
| 4                                    | Preparing the Tourism Infrastructure Development in the Green Triangle Development Area               | Cambodia, Lao PDR, Viet Nam              | 1.0                          |                     |
| 5                                    | Preparing the Tourism Infrastructure Development in the Emerald Triangle Development Area             | Cambodia, Lao PDR, Thailand              | 1.0                          |                     |
| 6                                    | Strengthening the Coordination of Regional Tourism Knowledge and Joint Marketing in the GMS           | All GMS countries                        | 0.225                        |                     |

PPTA = project preparatory technical assistance.

Source: GMS Secretariat's compilation.

**Table A1.10:** Transport and Trade Facilitation Priority Projects

|                                      | Name of project   | Country coverage                               | Cost estimate (US\$ million) | Available financing                                       |
|--------------------------------------|---|--|------------------------------|---|
| <b>Investment project</b>            |   |  |                              |   |
| 1                                    | Modernization of Sanitary and Phytosanitary Agencies for Trade Facilitation Project                           | Lao PDR  | 10.0                         | ADB   |
| 2                                    | ASEAN Economic Community Support Program  | Cambodia                                       | 30.0                         | ADB   |
| <b>Technical assistance projects</b> |   |  |                              |   |
| 1                                    | Trade Facilitation through Partnership with the Private Sector  | Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam | 1.5                          | ADB   |
| 2                                    | Support for Implementing the Action Plan on Transport and Trade Facilitation in the GMS (Subprojects 2 and 3) | All GMS countries                              | 4.1                          | Australian Department of Foreign Affairs and Trade<br>ADB |
| 3                                    | ASEAN Economic Community Support Program, Technical Assistance  | Cambodia                                       | 1.35                         | ADB   |

Source: GMS Secretariat's compilation.

**Table A1.11:** Information and Communication Technology Priority Projects

|                                      | Name of project   | Country coverage       | Cost estimate (US\$ million) | Available financing   |
|--------------------------------------|---|------------------------|------------------------------|---|
| <b>Investment project</b>            |   |                        |                              |   |
| 1                                    | Time-Division Long-Term Evolution Demonstration Network in Lao PDR      | PRC and Lao PDR        | 5.0                          |   |
| <b>Technical assistance projects</b> |   |                        |                              |   |
| 1                                    | Broadband Development Strategies and Implementation Programs of the GMS | All GMS countries      | 10.0                         |   |
| 2                                    | Workshops on E-Commerce Cooperation and Exchanges in GMS                | All GMS countries      | 10.0                         |   |
| 3                                    | Cross-Border International Interconnected Band with expansion Project   | PRC, Lao PDR, Viet Nam | 2.1                          | State-owned telocom operators (China Unicorn, Viettel, and LTC Lao) |

Source: GMS Secretariat's compilation.

## Annex 2: Bilateral Energy Projects in the Greater Mekong Subregion

1. Cambodia–Lao PDR. Existing: 2 points at 22 kV. Planned: 230 kV in 2017–2020.
2. Cambodia–Thailand. Existing: 7 points of 22 kV cross border, 115 kV in 2007. Planned: 7 points of 22 kV and 35 kV cross border.
3. Cambodia–Viet Nam. Existing: 19 points of 22 kV and 35 kV cross border, 230 kV in 2009. Planned: 3 points of 22 kV and 35 kV cross border.
4. PRC–Cambodia. Existing power plant: Stung Atay, 120 MW. Planned power plants: Stung Cheay Areng, 108 MW, MOU 2017; and Sambor, 2.6 GW, MOU 2020. Total installed capacity 2.8 GW.
5. PRC–Lao PDR. Existing transmission lines: 115 kV links, December 2009. Being built: 230 kV AC links Liming–Namo 2, end 2015; Northern Laos power grid Engineering, Procurement and Construction project, end 2015; 500 kV transmission project, MOU signed and approved by Lao government in 2015. Existing power plant: Nam Ngum 5, 120 MW, operation from 2013. Being built: Nam Khan 2, 145 MW, EPC, 2015. Planned: Nam Tha 1, 168 MW, Concession Agreement signed, US\$450 million, March 2016; Sanakham and Pak Beng, 1.57 GW, Project Development Agreement 2018; Lay, 800 MW, MOU; and Nam Ou (1–7), 1.1 GW, 2020. Total installed capacity 3.8 GW.
6. PRC–Myanmar. Existing transmission lines: 2 x 220 kV AC links since December 2008; 1 x 500 kV AC link since October 2010. Existing power plant: Shweli 1, 600 MW, since 2009; Dapein 1, 240 MW, since 2010. Being built: Dapei 2, 140 MW, MOU 2015; Shweli 2, 520 MW, PDA 2016; Saing Din, 47 MW, MOA 2016. Planned: Nam Pawn and Nam Tamhpak, 765 MW, Memorandum of Agreement 2020; Ngaw Chan Kha, 1.2 GW, MOA 2018; Kunlong, 1.4 GW, MOA 2018; Ywathit, 4 GW, MOA 2019; and Mongston, 7 GW, MOU 2023, estimated US\$12.5 billion. Total installed capacity over 33 GW.
7. PRC–Thailand. Transmission project: 3 GW, HVDC line +600 kV, transmission distance about 1,700 km, estimated investment US\$2.5 billion, estimated to be commissioned after 2025.
8. PRC–Viet Nam. Existing transmission lines: 3 x 220 kV and 3 x 110 kV links in operation, started in 2004. Planned: 500 kV links feasibility study, estimated at US\$1.2 billion, carried out by two sides with Central Southern China Electric Power Design Institute. Planned power plant: Vinh Tan 1, (2) 600MW, US\$1.7 billion, BOT contract signed, estimated completion by end 2019.
9. Lao PDR–Cambodia. Existing interconnections: Ban Hat–Chiang Teng, 22kV; and Ban Hat–Kampong Sralau, 115 kV. Planned: Cross-border connection by 2020; and Ban Hat–Stung Treng, 230 kV, 2017.
10. Lao PDR–PRC. Existing interconnections: Pangthong–Mang District, 22kV; Boten Dankham–Bohan, 35 kV; Ngot Ou–Jang Xeun District, 35 kV; Na Mou District, 115 kV. Planned: Cross-border connection by 2020; and Na Mo–Boder (Ban Na, PRC), 500 kV (under study, no date yet).
11. Lao PDR–Thailand. Existing: 17 interconnection projects ranging from 22 kV to 115 kV, 230 kV, and 500 kV. Being built/planned cross-border connections by 2020: Hongsa–MaeMoh, 500 kV (construction started 2015); Paklay–Tha Li, 115 kV and 500 kV (construction started 2016); MK Xayabuly–Loei 2, 500 kV (under construction, 2019); Ban Lak 25–Ubon 3, 500 kV (ongoing, 2018); and Muang Houn–Nan 2, 500 kV (no date yet).
12. Lao PDR–Viet Nam. Existing: 7 interconnection projects for 22 kV, 35 kV, and 230 kV. Planned: Hat Xan–Pleiku, 230 kV (under negotiation, 2016); and Xekaman 1–Pleiku, 220 kV (under construction, 2016). Note: this is already included in the RIF–IP 2014–2018.
13. Myanmar–PRC. Existing: Tapein 1, 240 MW, DUHD, 500 kV transmission line; Shweli 1, 600 MW, Yunnan United Power Development Co. Ltd., Dehong SS, PRC, 220 kV transmission line, 188 km. Planned: Naw Chan Kha, 1,200 MW, MOU, Yunnan Power Investment Company, PRC, 500 kV transmission line; Kun Long, 1,400 MW, Joint Venture Agreement, Hanergy Boshang SS, PRC, 500 kV transmission line, 170 km; and Nao Pa, 1,200 MW, MOA, Hydro China Boshang SS, PRC, 500 kV transmission line, 200 km.
14. Myanmar–Thailand. Planned: Mong Ton Hydro Power Plant, 7,000 MW, MOU, China Three Gorges Corp. and EGAT CSG, ± 500 kV or ± 800 kV transmission line, 1,255 km; Bangkok, ± 500 kV or ± 800 kV transmission line, 875 km; Ywa Thit Hydro Power Plant, 600 MW, MOA, China Datang Overseas Investment Co Ltd; and Htut Gyi Hydro Power Plant, 1,360 MW, MOA, EGAT and SinoHydro Phitsanalok S/S, Thailand, 500 kV transmission line, 320 km.
15. Thailand–Lao PDR. Existing: Theun–Hinboun, contract capacity 220 MW, SCOD March 1998; Theun–Hinboun Expansion, contract capacity 220 MW, SCOD December 2012; Nam Theun 2, contract capacity 948 MW, SCOD April 2010; Nam Ngum 2, contract capacity 597 MW, SCOD March 2011; Commercial Operation Date. Planned: Nam Ngiep 1, contract capacity 269 MW, SCOD January 2019; Xe Pian Xe Namnoy, contract capacity 354 MW, SCOD February 2019; Houay Ho, contract capacity 126 MW, SCOD September 1999; Hong Sa, contract capacity 1,473 MW, SCOD June, November 2015–March 2016; and Xayaburi, contract capacity 1,220 MW, SCOD October 2019.
16. Viet Nam–Cambodia. Existing: Chau Doc–Takeo, 220 kV transmission line, 200 MW. Planned: Stung Treng–Tay Ninh, 220 kV transmission line, 207 MW (pending, no details yet).

17. Viet Nam–PRC. Existing: Xinqiao–Lao Cai, 220 kV, 450 MW; Malutang–Ha Giang, 220 kV, 350 MW; Maomaotiao–Ha Giang, 110 kV, 110 MW; Hekou–Lao Cai, 110 kV, 70 MW; and Fangcheng (Guangxi)–Mong Cai, 110 kV, 25 MW. Planned: Electricity of Vietnam and China Southern Power Grid are studying an extra-high-voltage connection between northern Viet Nam and Yunnan, PRC, 2020.
  
18. Viet Nam–Lao PDR. Existing: Sekaman 3–Thanh My, 220 kV transmission lines, Pmax 248 MW. Planned: Sekaman 1–Pleiku 2, 220 kV, Commercial Operation Date March 2016; Sekaman Xanxay–Sekaman 1, 110 kV, COD July 2016; Sekaman 4/4A–Sekaman 1, 220 kV, COD July 2017; Sekong 3 Upstream–Sekaman 1, 220 kV, COD July 2017; Sekong 3 Downstream–Sekaman 1, 220 kV, COD July 2017; Nam Mo Hydro Power Plant–Ban Ve, 220 kV, in negotiation after 2020; and Luang Prabang–Nho Quan, 500 kV, in negotiation after 2020.

Source: Country Updates on Power Development Plans with Focus on Cross-Border Projects. Nineteenth Meeting of RPTCC, 16–17 November 2015, Bangkok.

## Annex 3: Sample Detailed Reporting Tables

### Cambodia: Transport Sector (as of 31 December 2015)

**Table A3.1: Project Description—Investment**

| Code       | Project  | Description   | Subsector | Cost estimate (\$ Million) | Justification/ additional information   |
|------------|--|---|-----------|----------------------------|---|
| CAM-TRA-01 | Sihanoukville Port Access Road Improvements  | The project will improve the final 9.5 km of NR4 leading to Sihanoukville Port. It may be included in the Sihanoukville Port Special Economic Zone Project, to be financed by Japan.  | Road      | 40.0                       | <b>DELETED.</b>   |
| CAM-TRA-02 | GMS: Deepening Connectivity of Southern Economic Corridor Project (Redefined by Government as Second Provincial Road Improvement Project II) | The redefined project, SPRIP II, will be the rehabilitation of approximately 590 km of roads which are mostly of multimodal transport character and regional integration connecting Cambodia with Viet Nam and Cambodia with Thailand. This will achieve the intended deepening of connectivity by providing hinterland linkages within the GMS Southern economic corridor and will also provide multi-modal connectivity with the existing railway.                          | Road      | 200.00                     | The government redefined the scope of the project to a Second Provincial Road Improvement Project. Feasibility study is to be completed by November 2015, for planned project approval in 2016. |
| CAM-TRA-03 | Phnom Penh–Sihanoukville Highway Corridor Improvements   | The proposed 209 km expressway project is being considered for a build–operate–transfer (BOT) model with a 50-year concession period. The expressway will provide a high-capacity road link between Phnom Penh and the port city of Sihanoukville and the Greater Mekong Subregion Southern Coastal corridor.   | Road      | 1,000.0                    | A feasibility study is being undertaken by a possible developer. A legal basis for a project of this nature is to be developed.   |
| CAM-TRA-04 | Link road between NR 5 and NR 6 near Kampong Tralach north of Phnom Penh   | The proposed link will facilitate traffic movement between the major highways north of Phnom Penh, and also reduce traffic congestion within Phnom Penh. The proposed project will provide a new road which will shorten the distance between NR5 and NR6 to 22 km from 64 km of the existing roads connecting NR5 and NR6, the GMS Corridor, and Asian Highway, respectively. The project will have a new road of 21 km and a bridge of 1.0 km length across Tonle Sap Lake. | Road      | 65.0                       | Project is scheduled for implementation from 2019.  |
| CAM-TRA-05 | Construction of Poipet (CAM)–Klong Loeuk (THA) Railway Bridge  | The proposed bridge, to be financed by Thailand, will replace an existing unserviceable rail bridge at the Poipet–Aranyaprathet border crossing point between Cambodia and Thailand. This will link the complete Sisaphon–Poipet railway, part of the Cambodian Railway's northern line. The project will be completed in 2015 by the State Railway of Thailand.  | Rail      | 0.5                        | Completed in Q4 2015.   |

**Table A3.2: Project Progress**

| Code       | Project  | FS commenced | FS completed | Financing identified | Project approved/by | Implementation commenced | Notes               |
|------------|--|--------------|--------------|----------------------|---------------------|--------------------------|---------------------|
| CAM-TRA-01 | Sihanoukville Port Access Road Improvements  | N            | N            | N                    | N                   | N                        | Previously deleted. |
|            | Narrative: No change from 30 June 2015 update.   |              |              |                      |                     |                          |                     |
| CAM-TRA-02 | GMS: Deepening Connectivity of Southern Economic Corridor Project (Redefined by Government as <b>Second Provincial Road Improvement Project II</b> ) | 13 November  | 13 November  | 2016*                | 2016*               | 2017*                    |                     |
|            | Narrative: No change from 30 June 2015 update.   |              |              |                      |                     |                          |                     |
| CAM-TRA-03 | Phnom Penh–Sihanoukville Highway Corridor Improvements   | August 2014  | 2015         | N                    | N                   | N                        |                     |
|            | Narrative: No change from 30 June 2015 update.   |              |              |                      |                     |                          |                     |
| CAM-TRA-04 | Link road between NR5 and NR6 near Kampong Tralach north of Phnom Penh   | No           | No           | 2019*                | 2019*               | 2019*                    |                     |
|            | Narrative: No change from 30 June 2015 update.   |              |              |                      |                     |                          |                     |
| CAM-TRA-05 | Construction of Poipet (Cambodia)–Klong Loeuk (Thailand) Railway Bridge  | 2014         | 2014         | 2014                 |                     |                          |                     |
|            | Narrative: Completed in Q4 2015.   |              |              |                      |                     |                          |                     |

Project approved/by = date of project approval/approving authority (government, financier, other).

\*Indicates future planned milestones for the project.





## **GMS Regional Investment Implementation Plan: Mid-Term Review and Revised Regional Investment Framework Implementation Plan 2020**

This report presents the mid-term review and third progress report of the RIF-IP 2014–2018. It discusses the status of the 93 priority investment and technical assistance projects as of 30 June 2016. The document also contains the Revised Regional Investment Framework Implementation Plan (RRIF-IP) 2020 which encompasses the projects of the original RIF-IP 2014–2018 as well as an expanded project pipeline to the year 2020.

In terms of progress and status, 52 of the original 93 projects have already secured financing estimated at US\$26 billion, 85% of the original estimated total cost. Moreover, about a third of investment projects have commenced implementation and two projects, both in the transport sector, have been completed.

The RRIF-IP 2020 that emanated from the midterm review of RIF-IP (2014–2018) comprise of 107 investment and technical assistance projects, including carryovers from the previous pipeline and new priority projects, and estimated to have a total cost of US\$ 32.7 billion.

### **About the Greater Mekong Subregion Economic Cooperation Program**

The Greater Mekong Subregion (GMS) is made up of Cambodia, the People's Republic of China (PRC, specifically Yunnan Province and Guangxi Zhuang Autonomous Region), the Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand, and Viet Nam. In 1992, with assistance from the Asian Development Bank (ADB) and building on their shared histories and cultures, the six countries of the GMS launched a program of subregional economic cooperation—the GMS Program—to enhance their economic relations, initially covering the nine priority sectors: agriculture, energy, environment, human resource development, investment, telecommunications, tourism, transport infrastructure, and transport and trade facilitation.

### **About the Asian Development Bank**

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to a large share of the world's poor. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.



#### **GMS Secretariat**

Southeast Asia Department  
Asian Development Bank

**Fax:** +63 2 636 2226

**E-mail:** [gms@adb.org](mailto:gms@adb.org)

**Web address:** <http://www.adb.org/countries/gms/main>