

ECONOMIC AND FINANCIAL ANALYSIS

A. Estimated Costs

1. The SASEC Trade Facilitation Program is based on budget support loans and grants to the three participating South Asia Subregional Economic Cooperation (SASEC) countries backed by conditionalities attached to each of two tranches. These conditionalities or policy actions relate to the implementation of the program described in the report and recommendation of the President, but vary according to the situation and needs of the individual country. As a result, the costs differ, as does the size of financing for each country.

2. The SASEC Trade Facilitation Program is designed to promote policy, regulatory, and institutional reform. In fulfilling the obligations inherent in the policy matrix, the government, and specifically the executing and implementing agencies, will incur capital and operational costs. ADB accepts that technical assistance (TA) funding will be needed to help customs authorities and other parties implement the policies proposed under the program. In this section, indication of costs relates solely to potential capital expenditure likely to be incurred as a result of fully implementing the program.

3. The process of accession to the Revised Kyoto Convention (RKC), particularly as regards compliance with the General Annex, should not in itself require any capital investment, as it is essentially a statement of intent. Bangladesh has acceded the RKC on 28 September 2012, but TA may be required in Nepal and Bhutan to facilitate accession. Accession to the Specific Annexes will require expenditure, particularly regarding automation.

4. The major development costs relate to the modernization of the customs information technology (IT) systems in all three countries. In Bangladesh, the National Board of Revenue is in discussion with a systems designer and the United Nations Conference on Trade and Development (UNCTAD) to upgrade its automated customs data system from ASYCUDA++ to ASYCUDA World. The estimated cost for this development is \$5 million. In addition, there should be some allowance for upgrading and installing new hardware, estimated at \$1.5 million. In Bhutan, ADB is already providing TA to upgrade and modernize the Bhutan Automated Customs System.¹ This is a joint IT system with the Tax Department, thus the costs are shared, and development is being funded by a grant. For the purposes of a cost–benefit analysis, an allowance of \$500,000 has been included for IT hardware and related equipment. The situation in Nepal is more complex given the decision to review its IT requirements despite an ADB loan to implement ASYCUDA World. For cost–benefit purposes it has been assumed that the resulting system would cost about \$4 million to develop and commission.

5. As is the case with the RKC, adoption of the Framework of Standards to Secure and Facilitate Global Trade (SAFE) relates more to how to implement new approaches than to customs procedures. It is recognized that some TA will be required to help the customs authorities implement the standards. The requirements “to perform an outbound inspection of high-risk cargo and/or transport conveyances, preferably using non-intrusive detection equipment such as large-scale X-ray machines and radiation detectors” may be within the remit of costs attributable to the SASEC Trade Facilitation Program.

¹ ADB. 2011. *Technical Assistance to Bhutan for the Development of a Revenue Administration Management Information System*. Manila (TA 7881–BHU); ADB. 2010. *Technical Assistance to Bhutan for Strengthening Public Management*. Manila (TA 7724–BHU).

6. The development of a national single window (NSW) will incur both software development costs (to integrate the IT systems of the participating agencies) and hardware costs (in the form of communication technology equipment). Indications are that automation of processes (e.g., certification) at key government agencies other than Customs is limited, but they will need an interface with the NSW. In the absence of a detailed assessment of the situation in each of these agencies, budget costs of \$1.5 million in Bangladesh (including development of a new trade portal) and of \$500,000 each in Nepal and Bhutan have been assumed to enable the NSW to connect Customs with at least two other border agencies. It should be noted that the full cost of developing a single window that connects all agencies with a subregional interface capability would be much more substantial and require more time.

7. The total capital costs in each country to implement policies proposed under the SASEC Trade Facilitation Program are estimated as follows:

Bangladesh	\$ 8.00 million
Bhutan	\$ 1.00 million
Nepal	\$ 4.50 million

B. Estimated Benefits

8. The program is expected to result in some direct and potentially quantifiable benefits, as well as various nonquantifiable benefits. The direct and potentially quantifiable economic benefits predominantly relate to savings in time at the borders thanks to more efficient, faster processing generated by the introduction of modern customs practices (RKC, SAFE) and enhanced automation (including NSW). The nonquantifiable benefits relate mainly to growth in trade and economic activity in border areas thanks to improvements in the trading environment.

9. OECD research shows that developing countries stand to gain two thirds of total world welfare benefits from trade facilitation. Conversely, revenue loss from inefficient border procedures of developing countries has been estimated at more than 5% of GDP in some cases.² The calculations shown below to indicate the potential magnitude of economic benefits are based on discussions with relevant authorities and members of the trade and transport community in the SASEC area during a recent ADB study,³ with updates to reflect current values.

10. The main quantifiable trade facilitation benefits are considered to be:

- (i) Brokers and freight forwarders spend less time submitting their import/export documents because of the development of easy online lodgment of declarations via web and NSW.
- (ii) Customs officers spend less time processing each declaration thanks to greater automation, which leads to an increase in productivity and to savings in hiring of additional personnel as trade gradually expands.
- (iii) There are overall time savings for trucks passing through land border crossings and being cleared by the various border authorities. This translates into savings in transport costs, which can be passed on to benefit consumers (note: no transshipment savings are included, as these relate to transport facilitation).

² OECD. 2005. *Policy Brief: The Costs and Benefits of Trade Facilitation*. Paris.

³ ADB. 2011. *SASEC: Preparing the Transport Logistics and Trade Facilitation Project*. PADECO.

- (iv) Better software and more efficient structures (SAFE) for the introduction of risk assessments mean that potentially more revenue could be collected by Customs through more effective targeting of undervalued and undeclared shipments.
- (v) Relatively cheaper and better quality tradable goods as standards are effectively met and distribution costs are reduced due to reduction of processing and delivery times

C. Bangladesh

11. The following assumptions were used in quantifying the benefits for Bangladesh:
- (i) Freight forwarders and customs brokers will on average save 0.5 hours on import or export declaration lodgments with direct trader input (DTI) capability—time saved on 5,000 entries per day at wages of \$2 per hour.
 - (ii) With the new software, Customs will receive information online and spend less time filling in applications and checking hard-copy documentation, generating a saving of 30 minutes for imports and 10 minutes for exports—1.5 hours per staff (500 staff) at wages of \$1.5 per hour.
 - (iii) Because of more efficient procedures and risk management, trucks will on average save 1 hour per crossing—4,000 truck movements through land borders per day; a truck's fixed costs at \$4.0 per hour.⁴
 - (iv) The potential increase in customs revenues due to greater reliability of procedures and better assessments is difficult to calculate, but a conservative approach is 1% additional duty collected at the land ports per year (base year: \$400 million in intra-SASEC collections).
 - (v) Benefits will materialize gradually—it is assumed that for the first year only 50% of the potential benefits will be captured, but this will increase until the full benefits are realized in the fourth year after implementation.
 - (vi) The above benefits increase at a rate of 4% per annum.
12. Based on these assumptions, the estimated economic benefits for Bangladesh generated by the program are as shown in Table 1 (intra-SASEC trade only):

Table 1: Estimated Economic Benefits of Trade Facilitation Program in Bangladesh

Year	Time Saved by C&F Agents (\$)	Time Saved by Customs (\$)	Time Saved by Trucks (\$)	Extra Customs Revenue (\$)	Economic Benefits (\$)
2014	1,300,000	292,500	4,160,000	4,000,000	4,875,000
2015	1,352,000	304,200	4,326,400	4,160,000	6,593,000
2016	1,400,000	316,400	4,500,000	4,326,400	8,434,000
2017	1,462,000	329,000	4,680,000	4,500,000	10,971,000
2018	1,520,000	342,000	4,868,000	4,680,000	11,410,000
2019	1,582,000	356,000	5,062,000	4,867,000	11,867,000
2020	1,645,000	370,000	5,265,000	5,062,000	12,342,000

C&F = clearing and forwarding. Note: The potential economic benefits represent only those relating to intra-SASEC trade passing through the land borders

⁴ ADB. 2003. *Technical Assistance for Preparing the Subregional Transport Facilitation Project*. Manila (TA 6139-REG).

13. The main benefits relate to savings in trucks' waiting times at the various border posts and land ports. These delays are significant at most of the borders and thus the time savings suggested are conservative. Other benefits are the additional revenue generated by more focused controls through risk management and capturing the large amount of unrecorded or undertaxed movements. The restriction that most dutiable imports from India have to be routed via Benapole is considered to increase appreciably the risk of smuggling through other borders, to avoid the additional transport costs in India that arise from having to go through this single gateway.

14. It is important to note that 75% of Bangladesh's international trade passes through its seaports. The improvements to trade facilitation that the program proposes to generate will also benefit the trade moving through the seaports, given that the improvements relate to border services that are common to land and maritime trade shipments. Thus, while this is a SASEC initiative, the overall benefits to Bangladesh should be significantly greater than those shown in Table 1.

15. This assessment suggests that the potential economic benefits of the program just from intra-SASEC trade will exceed the required investment costs by year 3. It has been assumed that there will be no economic benefits in year 1, as the actions required under the loan will not be completed and start generating benefits until year 2.

D. Bhutan

16. The following assumptions were used in quantifying the benefits for Bhutan:

- (i) Freight forwarders and customs brokers will on average save 0.5 hours on import and 0.25 hours on export declaration lodgments with DTI capability. The lower time savings reflect the dominance of trade with India and its expedited procedures. The time savings are based on 500 entries per day with broker wages at \$3 per hour.
- (ii) With the new software, Customs will get information online and therefore spend less time on filling in applications, generating a saving of 30 minutes for imports and 10 minutes for exports—500 entries per day at wages of \$2 per hour.
- (iii) Because of more efficient procedures and risk management, trucks will on average save 0.5 hours. There are about 500 truck movements through the land borders per day. A truck's fixed costs are computed at \$4.0 per hour.
- (iv) The potential increase in customs revenues due to greater reliability of procedures and better assessments is difficult to calculate, but a conservative approach is 0.5% additional income collected at the land ports per year (base year: \$5 million in import duties, plus \$50 million in excise and sales taxes on imported products).
- (v) Benefits will materialize gradually; therefore it is assumed that for the first year only 50% of the potential benefits will be captured, but this will increase until the full benefits are realized in the fourth year after implementation.
- (vi) The above benefits increase at a rate of 4% per annum.

Table 2: Estimated Economic Benefits of Trade Facilitation Program in Bhutan

Year	Time Saved by C&F Agents (\$)	Time Saved by Customs (\$)	Time Saved by Trucks (\$)	Extra Customs Revenue (\$)	Economic Benefits (\$)
2014	213,750	140,000	300,000	200,000	425,000
2015	222,000	145,000	312,000	208,000	575,000
2016	231,000	151,000	325,000	216,000	740,000
2017	240,000	157,000	337,000	225,000	959,000
2018	250,000	164,000	350,000	234,000	998,000
2019	260,000	170,000	365,000	243,000	1,038,000
2020	270,000	177,000	380,000	253,000	1,080,000

C&F = clearing and forwarding.

17. The potential economic benefits for Bhutan are much lower than for the other two countries. This is mainly due to the dominance of trade with India and the simplified procedures that apply to this traffic. The delays at their borders are also significantly lower than those occurring in either Bangladesh or Nepal, not only due to the procedures but also because the overall traffic volumes are much smaller. Despite this, the assessment suggests that the potential economic benefits of the program will exceed the required investment costs indicated by year 5. It has been assumed that there will be no economic benefits in year 1, as the actions required under the loan will not be completed and start generating benefits until year 2.

E. Nepal

18. The following assumptions were used in quantifying the benefits for Nepal:

- (i) Freight forwarders and customs brokers will on average save 1 hour on import and 0.5 hours on export declaration lodgments with DTI capability—time saved on 1,000 entries per day at wages of \$3 per hour.
- (ii) With the new software, Customs will receive information online and will spend less time filling in applications, generating a saving of 30 minutes for import and 10 minutes for exports—1,000 entries per day at wages of \$2 per hour.
- (iii) Because of more efficient procedures and risk management, trucks will on average save 1 hour per crossing—1,000 truck movements through land borders per day with a truck's fixed costs computed at \$4.0 per hour.
- (iv) The potential increase in customs revenues thanks to greater reliability of procedures and better assessments is difficult to calculate, but a conservative approach is 0.5% additional duty collected at the land ports per year (base year: \$400 million in total collections).
- (v) Benefits will materialize gradually; therefore it is assumed that for the first year only 50% of the potential benefits will be captured, but this will increase until the full benefits are realized in the fourth year after implementation.
- (vi) The above benefits increase at a rate of 4% per annum.

Table 3: Estimated Economic Benefits of Trade Facilitation Program in Nepal

Year	Time Saved by C&F Agents (\$)	Time Saved by Customs (\$)	Time Saved by Trucks (\$)	Extra Customs Revenue (\$)	Economic Benefits (\$)
2014	625,000	218,500	1,200,000	2,000,000	2,021,750
2015	650,000	227,000	1,248,000	2,080,000	2,733,250
2016	675,000	236,000	1,298,000	2,163,000	3,497,600
2017	700,000	246,000	1,350,000	2,250,000	4,546,000
2018	730,000	255,000	1,400,000	2,340,000	4,725,000
2019	760,000	266,000	1,405,000	2,433,000	4,864,000
2020	790,000	276,000	1,460,000	2,530,000	5,056,000

C&F = clearing and forwarding.

19. The potential economic benefits represent not only intra-SASEC trade passing through the land borders, but also third-country trade that has to move through these same borders. The major benefits are in additional customs revenue generated by more efficient procedures and more effective targeting through risk management. Nepal has a long, porous border with India and the level of unofficial trade is considered significant. The potential savings in trucks' waiting time is appreciable given the present delays at many Nepalese land borders.

20. This assessment suggests that the potential economic benefits of the program will exceed the required investment costs by year 4. It has been assumed that there will be no economic benefits in year 1, as the actions required under the loan will not be completed and start generating benefits until year 2.

F. Nonquantifiable Benefits

21. The main nonquantifiable benefits relate to the general increase in trade generated by the overall improvements to trade facilitation. The removal of non-tariff barriers (NTBs) to trade should stimulate trading activity, not just with neighboring SASEC countries but globally. It is considered that appreciable latent demand for subregional trade could be realized if trading practices were made easier, as proposed by this program.

22. In addition, there is a significant amount of cross-border trade between communities on either side of the borders. While it is recognized that much of this is unofficial and bypasses the legitimate trade processes, there is nevertheless potential for additional legal cross-border trade in an environment where the NTBs are reduced. For example, there is vibrant transparent trade between Bhutan and the neighboring Indian cities, stimulated by the attractive trading agreements between the two countries. There is scope to develop similar increases in such legal trade between SASEC countries as the various NTBs are removed. The value of this type of trade is important as a method of poverty alleviation, especially in rural or semi-rural border communities, because it generates local income and employment.

23. Lastly, if the trading environment becomes easier and more transparent, the incentives for illicit trade weaken. This helps motivate the use of legitimate trade channels, which will generate additional revenue.