

FINANCIAL AND ECONOMIC ANALYSIS

A. Introduction

1. The proposed Horticulture Value Chain Infrastructure Project is a follow-on project to the ongoing Horticulture Value Chain Development Project and its associated additional financing. The proposed project will complement the financing provided under the Horticulture Value Chain Development Project to horticulture enterprises by the establishment of two agro-logistic centers (ALCs) in two key horticulture production regions of Uzbekistan—Andijan and Samarkand. The ALCs will provide a central location through which fruit and vegetable producers and agribusiness enterprises can access market trading areas, cold storage, processing facilities, and complementary services such as banking, product certification, and customs clearance. The focus of the ALCs will be the provision of services to exporters to enable them to realize the significant potential for Uzbek horticulture products in international markets.¹

B. Project Rationale

2. Since 2015, the government has implemented a number of policies within the agriculture sector as a whole that have addressed key issues, such as farm restructuring and the introduction of private usufruct rights on former cooperative and state land. This and other privatization initiatives resulted in the formation of private farms and an increase in the number of households in agriculture, which together are now responsible for much of the recent growth in agricultural output. This has been accompanied by diversification in cropping patterns away from traditional cotton and wheat crops to higher value fruit and vegetable crops. Government policy in respect of the fruit and vegetable sector is to facilitate market-driven development led by the private sector and supported by improved access to finance and improved technologies, especially to facilitate greater value addition and realization of export potential. Specific focus was afforded to agro-processing as part of the broad economic policy and strategy defined in a Presidential Decree of February 2017.² As part of a general strategy for modernization and intensive development of agriculture, the Decree targeted the implementation of investment projects for construction of new processing plants and reconstruction and modernization of existing processing plants, and such plants being equipped with modern high-technology equipment for deeper processing of agricultural products, production of semifinished and finished food products, and the production of packaging.

3. Such positive developments in government policy in the sector have led to the emergence of a network of enterprises engaged in activities both upstream and downstream of production. This includes input supply enterprises engaged in the supply (including the importation) of seeds, fertilizers, and agrochemicals more appropriate to fruit and vegetable production. The supply of other services has yet to develop as effectively. There is a need for improved access to machinery appropriate to fruit and vegetable production. On- and off-farm storage and transport infrastructure is rudimentary and inappropriate for the handling of perishable fruit and vegetable crops. Processing facilities are outdated and incapable of producing fruit and vegetable products appropriate to domestic and international consumer demand. The low quality of value chain infrastructure is reflected in significant post-harvest losses and the failure to realize the potential

¹ Andijan and Samarkand together account for 25% of the total area in Uzbekistan under horticulture crops and for 30% of total national production. It is expected that the project will help increase exports of horticultural produce to 2.5 million tons by 2024 from 1.2 million tons in 2017, and horticultural export revenue to \$1.9 billion from around \$1.0 billion in 2017.

² Government of Uzbekistan. 2017. *Presidential Decree No. UP-4947*. Tashkent. Under this decree, a program of strategy of actions on further development of Uzbekistan was adopted.

for horticulture exports. The exact scale of post-harvest losses is difficult to estimate, but is generally considered to range from 25% to 30% for more perishable crops in transit from farm to consumer. There is a high level of demand for Uzbek products in international markets. However, processors face problems in maintaining product quality to standards required by more lucrative European markets (and increasingly sophisticated markets of the Commonwealth of Independent States [CIS]), and in achieving greater value addition by processing finished rather than semifinished products.

4. By establishing two ALCs in Andijan and Samarkand regions, the project will support the most recent government strategy announcement for the horticulture sector,³ which identifies a number of constraints that need to be addressed to enable horticulture producers, processors, and traders to improve product quality and access to domestic and international markets. The resolution proposes the establishment of horticulture clusters where production and post-harvest services can be consolidated to improve efficiency and realize economies of scale. The reorganization of marketing systems and the introduction of logistic centers is given specific focus.

C. Demand Analysis

5. Horticulture production has grown significantly over the last decade. In 2005, production was estimated at 6.6 million tons. By 2016, production had reached 20.0 million tons, representing an average annual growth rate of 11.8%. This has had a marked impact upon average Uzbek food consumption patterns. While there is likely to be a shift in the pattern rather than a significant increase in the volume of domestic demand, the major source of demand is expected to be exports. Growth in the volume, diversity, and value of exports was considerable between 2005 and 2017. According to Ministry of Agriculture data, the volume of exports increased by 1.8 times and the value 18-fold over the period. In 2016, Uzbekistan exported 65 types of fruit and vegetable products to 43 countries amounting to around 1.0 million tons, an increase of 40% on 2015.⁴

6. Much of the recent growth in exports has been in Uzbekistan's traditional Commonwealth of Independent States markets. However, there is also scope for Uzbek horticulture exports in European markets. However, accessing European markets, especially in the European Union, will require improvement in horticulture quality and safety standards and certification systems. In this context, Uzbekistan must improve its performance compared with its major competitors (the People's Republic of China, Iran, Poland, and Turkey) in terms of price, product variety, design, and packaging. This reflects the preference of importers and consumers for consistent and timely supply, guaranteed quality, product variety (width and depth of product range), visual appearance, and price competitiveness (though increasingly, as markets become more sophisticated, price is relatively less important). These factors form the basis of market loyalty between producers and/or exporters and importers and/or consumers in destination markets.

7. Much of the projected increase in exports is for fresh produce, though there is also significant scope for exports of processed produce. Meeting this projected demand will require significant investment in value chain infrastructure. Uzbekistan's food processing industry needs newer technology and equipment related to cooling, processing, packaging, and storage to improve the quality and longevity of fruit and vegetables. Integrated chains of production need to be introduced to maintain the cold chain and utilize new technologies and best practices

³ Government of Uzbekistan. 2018. *President Resolution No. UP-5388*. Tashkent. Under this resolution, the government set out additional measures to expedite development of horticulture in Uzbekistan.

⁴ Source: Uzagroexport (<http://uzagroexport.uz/2017/01/05/>).

throughout production, transportation, processing, and storage of sensitive categories of fruit and vegetables to improve quality, safety, and efficacy.

D. Financial and Economic Analysis of Andijan Agro-Logistic Center

1. Overview

8. Andijan produces a large variety of fruit and vegetables all year round. The region has abundant water, varied agro-climatic conditions, and surplus agricultural labor which allows for two crops per year in most places with different ripening periods throughout the year. The favorable agro-climatic conditions enable farmers to achieve high levels of productivity without the use of chemical fertilizers and agro-chemicals for pest and disease control. Production is expected to increase by around 30% based on an increase in the area cultivated alone without any projected increase in crop yields. Limited availability of effective value-chain infrastructure results in significant post-harvest losses of fruit and vegetables and other perishable products. It is estimated that around 807,300 tons of produce are lost after harvest. This equates to around 29% of total production. Based on an average value of \$600 per ton, the value of these losses is over \$484 million. The project would help reduce those levels of losses and result in significant value addition.

9. Analysis of the horticulture value chain suggests that there is significant scope for reducing costs related to product loss and transportation; improving linkages between producers, traders and exporters; and realizing the potential to expand exports. There is currently a low level of professionalism and efficiency in the fruit and vegetable value chain. There are around 20 markets in the Andijan region, and these operate as truck-sale areas for wholesale activities on public roads. This gives rise to inefficiencies and food safety and hygiene issues in product handling, storage, and transportation.

10. It is proposed to build a new ALC comprising a wholesale market, post-harvest and cold storage facilities, an export platform, and related services. This will provide infrastructure where commercial transactions can be carried out between producers, wholesalers, distributors, retailers, and exporters. This trading platform is integrated with post-harvest processing, cold storage, customs, and related services (finance, product certification, etc.). The ALC will be located close to Andijan city and will service fruit and vegetable production areas in five surrounding districts and Andijan city itself, which together currently contribute 51% of total production in the Andijan region. Given its location, the ALC could also serve areas in neighboring Fergana and Namangan regions.

2. Revenue and Economic Benefits

11. **Quantified revenue and benefits.** Andijan ALC income comprises the rental of (i) market trading areas to wholesalers and small farmers, (ii) post-harvest processing facilities for a range of fruit and vegetable products, (iii) cold storage and frozen storage rented on a daily and monthly basis, and (iv) floor space in the ALC administration building. Commencing in 2023 when the ALC becomes operational, revenues increase over time in accordance with the phasing of capacity utilization, which varies by type of facility. In the first year, the wholesale and small farmers' market areas, cold and frozen storage facilities, and administration building areas are estimated to reach 75% of capacity. Thereafter, the rental of these areas increases to full capacity (100%) by the sixth year (2028). Rental of processing facilities is projected to commence at a lower level of 50% of capacity in the first year but also rise to full capacity by 2028. Total annual revenue amounts to SUM219,397.3 million (\$26.95 million) at full capacity. The key sources of revenue are rental of

post-harvest processing facilities for fruit and vegetables, which accounts for 51% of total revenue, and rental of cold storage facilities, which accounts for 43% of total revenue.

12. **Unquantified revenue and benefits.** It is envisaged that the Andijan ALC will contribute significantly to the national economy both directly and indirectly. Direct benefits include (i) revenue from the rental of market trading areas to wholesalers and small farmers, (ii) post-harvest processing facilities for a range of fruit and vegetable products, (iii) cold storage and frozen storage rented on a daily and monthly basis, and (iv) floor space in the ALC administration building. These direct benefits are quantified and included in the financial and economic benefit–cost estimations. Indirect benefits are both short and long term. Short-term benefits include the increase in economic activity that will be generated during the construction of the ALC. Long-term benefits include (i) the reduction in post-harvest losses; (ii) the increase in exports of fruit and vegetable products; (iii) efficiencies gained in the fruit and vegetable value chain, which include reduced product handling and associated improved product quality; (iv) more transparent price discovery and formation and stabilization of fruit and vegetable prices throughout the year; and (v) social and environmental benefits of reduced roadside trading from trucks. In addition, the development and operation of the ALC will have significant employment impacts in its local areas. There will also be long-term, permanent employment opportunities in the operation of the ALC and short-term employment opportunities during ALC construction. However, the exact scale of these benefits is not readily quantifiable and will depend upon the actual mix and volume of fruit and vegetables handled by the ALC upon its operation in 2023. Therefore, these benefits are not included in the current analysis.

3. Costs

13. The total cost of establishing the Andijan ALC is estimated at SUM630,057.9 million (\$77.4 million) including physical contingencies (net of taxes and duties). This comprises SUM171,174.6 million (\$21.00 million) in groundworks and infrastructure, SUM400,219.0 million (\$49.24 million) in buildings, and SUM58,664.3 million (\$7.20 million) in plant and equipment. The allocation of project overhead costs to the Andijan ALC amounts to SUM32,596.9 million (\$4.0 million), equal to 43.2% of total project overhead costs, based on the ALC's share in total investment costs of the two ALCs. Operating costs of the Andijan ALC comprise utilities (electricity and water), pallets and boxes for fruit and vegetable storage and transport, public relations, office administration, waste management and cleaning, and ALC maintenance (at 1.0% of investment costs). The total number of staff proposed for the Andijan ALC is around 1,160, the majority of whom will be skilled and semiskilled staff engaged in post-harvest processing. The full complement of staff will be engaged from 2023 onwards when the ALC commences operations. Prior to that, in 2022, key management staff will be engaged for up to 6 months to prepare for the commencement of ALC operations and to undergo capacity building.

4. Financial and Economic Viability

14. Based on a 20-year cash flow of revenue and costs, the financial internal rate of return (FIRR) of the Andijan ALC is 18.4%. Sensitivity analysis, based on switching values, indicates that the investment is highly robust with respect to adverse movements in revenue and costs, resulting from the high FIRR relative to the nominal cost of funds of 5.5% to establish the ALC. A fall in revenue of 49.6% would be necessary for the FIRR to fall to the level of the assumed cost of funds. Similarly, investment costs could rise by 157.1% and operating and staff costs by 290.3% before the FIRR fell to the assumed cost of funds (Table 1).

Table 1: Andijan Agro-Logistic Center Summary Financial Cash Flow and Indicators
(SUM million)

Year	Revenue	Cost				Total Cost	Net Cash Flow
		Investment Cost	Overhead Cost	Operating Cost	Staff Cost		
2019	0.0	0.0	10,463.8	0.0	0.0	10,463.8	(10,463.8)
2020	0.0	131,711.1	8,354.3	0.0	0.0	140,065.4	(140,065.4)
2021	0.0	274,371.7	8,130.4	0.0	0.0	282,502.0	(282,502.0)
2022	0.0	223,976.1	4,084.4	0.0	1,283.7	229,344.1	(229,344.1)
2023	136,515.3	0.0	1,564.1	9,922.3	21,872.0	33,358.4	103,156.9
2024	153,091.7	0.0	0.0	8,198.6	22,360.4	30,559.0	122,532.7
2025	169,668.1	0.0	0.0	9,173.0	22,360.4	31,533.3	138,134.8
2026	186,244.5	0.0	0.0	10,100.5	22,360.4	32,460.9	153,783.6
2027	202,820.9	1,246.2	0.0	10,981.2	22,360.4	34,587.8	168,233.1
2028	219,397.3	0.0	0.0	11,815.2	22,360.4	34,175.5	185,221.7
2039	219,397.3	0.0	0.0	13,237.4	22,360.4	35,597.8	183,799.5
FNPV@5.5%	1,746,604.9	551,879.4	28,841.9	101,937.5	196,765.2	879,424.0	867,180.8
FIRR (%)	18.4						
Switching Value (%)	49.6	157.1			290.3		

() = negative, FIRR = financial internal rate of return, FNPV = financial net present value.

Source: Asian Development Bank.

15. The economic analysis of the Andijan ALC results in an economic internal rate of return of 16.6%, well above the ADB economic cut-off rate of 9.0%, indicating that the ALC is economically viable. Sensitivity analysis also indicates that the economic cash flow is highly robust with respect to adverse changes in benefit and cost streams. Switching values are estimated at 33.5% for benefits, 71.8% for investment costs, and 190.8% for combined operating and staff costs (Table 2).

Table 2: Andijan Agro-Logistic Center Summary Economic Cash Flow and Indicators
(SUM million)

Year	Revenue	Cost				Total Cost	Net Cash Flow
		Investment Cost	Overhead Cost	Operating Cost	Staff Cost		
2019	0.0	0.0	10,463.8	0.0	0.0	10,463.8	(10,463.8)
2020	0.0	144,772.6	8,354.3	0.0	0.0	153,126.9	(153,126.9)
2021	0.0	298,774.8	8,130.4	0.0	0.0	306,905.2	(306,905.2)
2022	0.0	258,856.1	4,084.4	0.0	1,283.7	264,224.2	(264,224.2)
2023	136,515.3	0.0	1,564.1	10,067.0	21,872.0	33,503.1	103,012.2
2024	153,091.7	0.0	0.0	8,415.7	22,360.4	30,776.0	122,315.6
2025	169,668.1	0.0	0.0	9,462.3	22,360.4	31,822.7	137,845.4
2026	186,244.5	0.0	0.0	10,462.2	22,360.4	32,822.6	153,421.9
2027	202,820.9	1,686.9	0.0	11,415.3	22,360.4	35,462.5	167,358.3
2028	219,397.3	0.0	0.0	12,321.6	22,360.4	34,682.0	184,715.3
2039	219,397.3	0.0	0.0	13,960.9	22,360.4	36,321.3	183,076.0
ENPV@9.0%	1,183,029.7	551,927.3	26,819.6	71,876.6	135,928.7	786,552.4	396,477.3
EIRR (%)	16.6						
Switching Value (%)	33.5	71.8			190.8		

() = negative, EIRR = economic internal rate of return, ENPV = economic net present value.

Source: Asian Development Bank.

E. Financial and Economic Analysis of Samarkand Agro-Logistic Center

1. Overview

16. Samarkand produces a large variety of fruit and vegetables all year round. The region has abundant water, varied agro-climatic conditions, and surplus agricultural labor, which allows for two or three crops per year (depending on location) with different ripening periods throughout the year. The favorable agro-climatic conditions enable farmers to achieve high levels of productivity without the use of chemical fertilizers and agro-chemicals for pest and disease control. Production is expected to increase by around 28% based on an increase in the area cultivated alone without any projected increase in crop yields. Limitations in the availability of effective value chain infrastructure results in significant post-harvest losses of fruit and vegetables and other perishable products. It is estimated that around 755,000 tons of produce are lost post-harvest. This equates to 21% of total production in 2015. Based on an average value of \$600 per ton, the value of these losses is over \$450 million. As in the case of Andijan, the project would help reduce those levels of losses and result in significant value addition.⁵

17. Analysis of the horticulture value chain suggests that there is significant scope for reducing costs related to product loss and transportation; improving linkages between producers, traders, and exporters; and realizing the potential to expand exports. The value chain around Samarkand has several links. There is currently a low level of professionalism and efficiency in the fruit and vegetable value chain, epitomized by the existing wholesale market at Yangi Bazar, which in practice is a truck-sale area for wholesale activities on public roads. This gives rise to inefficiencies and food safety and hygiene issues in product handling, storage, and transportation.

18. It is proposed to build a new ALC comprising a wholesale market, post-harvest and cold storage facilities, an export platform, and related services. This cannot be accomplished by remodeling Yangi Bazar given the physical capacity and obsolescence of its infrastructure, its commercial limitations, and serious health risks. The ALC will provide infrastructure where commercial transactions can be carried out between producers, wholesalers, distributors, retailers, and exporters. This trading platform is integrated with post-harvest processing, cold storage, customs, and related services (finance, certification, etc.). The Samarkand ALC is designed to handle production from five districts, which together currently contribute 60% of total production in the Samarkand region.

2. Revenue and Economic Benefits

19. **Quantified revenue and benefits.** The Samarkand ALC income comprises the rental of (i) market trading areas to wholesalers and small farmers, (ii) post-harvest processing facilities for a range of fruit and vegetable products, (iii) cold storage and frozen storage on a daily and monthly basis, and (iv) floor space in the ALC administration building. Commencing in 2023 when the ALC becomes operational, revenues increase over time in accordance with the phasing of

⁵ The economic analysis was conducted using the domestic price numeraire, in which tradable inputs and outputs have been converted by the application of conversion factors, and nontraded inputs and outputs are valued at their domestic prices. The standard conversion factor is estimated at 0.6. Where appropriate, a shadow exchange rate factor of 1.66 has been applied in estimating economic prices. Based on the demand for skilled and semiskilled labor in the ALCs and the scarcity of such labor in the ALC areas, a shadow wage rate factor of 1.0 has been assumed. Detailed methodology and assumptions for both financial and economic analyses are discussed in Section E of the Detailed Financial and Economic Analysis, accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President.

capacity utilization, which varies by type of facility. In the first year, the wholesale and small farmers' market areas, cold and frozen storage facilities, and administration building areas are estimated to reach 75% of capacity. Thereafter, the rental of these areas increases to full capacity (100%) by the sixth year (2028). Rental of processing facilities is projected to commence at a lower level of 50% of capacity in the first year but also rise to full capacity by 2028. Total annual revenue amounts to SUM295,665.3 million (\$36.32 million) at full capacity. The key sources of revenue are rental of post-harvest processing facilities for fruit and vegetable exports, which together account for 62% of total revenue, and daily rental of cold storage facilities, which accounts for 32% of total revenue.

20. **Unquantified revenue and benefits.** It is envisaged that the Samarkand ALC will contribute significantly to the national economy with both direct and indirect benefits similar to those in the Andijan ALC (para. 12). However, the exact scale of these benefits is not readily quantifiable and will depend upon the actual mix and volume of fruit and vegetables handled by the two ALCs upon their operation in 2023. Therefore, these benefits are not included in the current analysis.

3. Costs

21. The total cost of establishing the Samarkand ALC is estimated at SUM834,106.4 million (\$102.5 million) including physical contingencies (net of taxes and duties). This comprises SUM315,518.2 million (\$38.8 million) for groundworks and infrastructure, SUM444,287.0 million (\$54.8 million) for buildings, and SUM74,301.2 million (\$9.1 million) for plant and equipment. The project overhead costs allocated to the Samarkand ALC are SUM45,241.9 million (\$5.6 million), equal to 56.8% of total project overhead costs. Operating costs of the Samarkand ALC comprise utilities (electricity and water), pallets and boxes for fruit and vegetable storage and transport, public relations, office administration, waste management and cleaning, and ALC maintenance (at 1.0% of investment costs). The total number of staff proposed for the Samarkand ALC is around 1,500, the majority of whom will be staff engaged in post-harvest processing. The full complement of staff will be engaged from 2023 onwards when the ALC commences operations. Prior to that, in 2022, key management staff will be engaged for up to 6 months to prepare for the commencement of ALC operations, and to undergo capacity building.

4. Financial and Economic Viability

22. Based on a 20-year cash flow of revenue and costs, the FIRR of the Samarkand ALC is 18.5%. Sensitivity analysis, based on switching values, indicates that the investment is highly robust with respect to adverse movements in revenue and costs, resulting from the high FIRR relative to the cost of funds of 5.5% to establish the ALC. A fall in revenue of 51.7% would be necessary for the FIRR to fall to cost of funds. Similarly, investment costs could rise by 166.1% and operating and staff costs by 336.5% before the FIRR fell to the cost of funds (Table 3).

Table 3: Samarkand Agro-Logistic Center Summary Financial Cash Flow and Indicators
(SUM million)

Year	Revenue	Cost				Total Cost	Net Cash Flow
		Investment Cost	Overhead Cost	Operating Cost	Staff Cost		
2019	0.0	0.0	16,197.3	0.0	0.0	16,197.3	(16,197.3)
2020	0.0	215,253.5	10,966.7	0.0	0.0	226,220.2	(226,220.2)
2021	0.0	351,222.8	10,672.5	0.0	0.0	361,895.3	(361,895.3)
2022	0.0	267,630.2	5,357.9	0.0	1,283.7	274,271.8	(274,271.8)
2023	175,483.9	0.0	2,047.5	11,207.9	26,401.0	39,656.4	135,827.5
2024	199,520.2	0.0	0.0	9,747.9	26,889.4	36,637.4	162,882.9
2025	223,556.5	0.0	0.0	10,968.3	26,889.4	37,857.7	185,698.7
2026	247,592.8	0.0	0.0	12,124.3	26,889.4	39,013.7	208,579.0
2027	271,629.0	1,246.2	0.0	13,215.9	26,889.4	41,351.4	230,277.6
2028	295,665.3	0.0	0.0	14,243.0	26,889.4	41,132.4	254,532.9
2039	295,665.3	0.0	0.0	16,101.2	26,889.4	42,990.6	252,674.7
FNPV@5.5%	2,335,589.0	727,624.0	40,186.4	122,681.7	236,485.4	1,126,977.6	1,208,611.5
FIRR (%)	18.5						
Switching Value (%)	51.7	166.1			336.5		

() = negative, FIRR = financial internal rate of return, FNPV = financial net present value.

Source: Asian Development Bank.

23. The economic analysis of the Samarkand ALC results in an EIRR of 16.8%, well above the ADB economic cut-off rate of 9.0%, indicating that the ALC is economically viable. Sensitivity analysis also indicates that the economic cash flow is highly robust with respect to adverse changes in benefit and cost streams. Switching values are estimated at 35.5% for benefits, 76.5% for investment costs, and 223.9% for combined operating and staff costs (Table 4).

Table 4: Samarkand Agro-Logistic Center Summary Economic Cash Flow and Indicators
(SUM million)

Year	Revenue	Cost				Total Cost	Net Cash Flow
		Investment Cost	Overhead Cost	Operating Cost	Staff Cost		
2019	0.0	0.0	16,197.3	0.0	0.0	16,197.3	(16,197.3)
2020	0.0	237,218.9	10,966.7	0.0	0.0	248,185.6	(248,185.6)
2021	0.0	383,473.8	10,672.5	0.0	0.0	394,146.4	(394,146.4)
2022	0.0	310,709.5	5,357.9	0.0	1,283.7	317,351.2	(317,351.2)
2023	175,483.9	0.0	2,047.5	11,402.5	26,401.0	39,851.0	135,632.9
2024	199,520.2	0.0	0.0	10,039.8	26,889.4	36,929.2	162,591.0
2025	223,556.5	0.0	0.0	11,357.5	26,889.4	38,246.9	185,309.6
2026	247,592.8	0.0	0.0	12,610.8	26,889.4	39,500.2	208,092.6
2027	271,629.0	1,686.9	0.0	13,799.6	26,889.4	42,375.9	229,253.1
2028	295,665.3	0.0	0.0	14,924.1	26,889.4	41,813.5	253,851.8
2039	295,665.3	0.0	0.0	17,074.1	26,889.4	43,963.6	251,701.7
ENPV@9.0%	1,579,444.6	731,875.0	37,457.9	86,749.8	163,341.0	1,019,423.6	560,020.9
EIRR (%)	16.8						
Switching Value (%)	35.5	76.5			223.9		

() = negative, EIRR = economic internal rate of return, ENPV = economic net present value.

Source: Asian Development Bank.