



# Completion Report

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Project Number: 48040-001  
Technical Assistance Number: 9045  
July 2020

## Armenia: Export- and Innovation-Led Industrial Development

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## TECHNICAL ASSISTANCE COMPLETION REPORT

<b>TA Number, Country, and Name:</b> TA 9045-ARM: Export- and Innovation-Led Industrial Development		<b>Amount Approved:</b> \$750,000	
		<b>Revised Amount:</b> Not applicable	
<b>Executing Agency:</b> Ministry of Economy (MOE)	<b>Sources of Funding:</b> Technical Assistance Special Fund: \$500,000; Financial Sector Development Partnership Special Fund <sup>1</sup> : \$250,000	<b>Amount Undisbursed:</b> \$445,598.81	<b>Amount Used:</b> \$304,401.19
<b>TA Approval Date:</b> 15 December 2015	<b>TA Signing Date:</b> 6 January 2016	<b>TA Completion Date</b>	
		<b>Original Date:</b> 31 December 2018	<b>Latest Revised Date:</b> 30 September 2019
		<b>Financial Closing Date:</b> 9 December 2019	<b>Number of Extensions:</b> 1
<b>TA Type:</b> Policy and advisory TA			

### Description

Armenia has an established private sector manufacturing base, but many of its products cannot compete in international markets. Armenia's export basket has become concentrated on minerals and non-precious metals related exports. Exports in just 15 product categories represent 80% of Armenia's merchandise exports.

The financial sector in Armenia provides limited trade-related financial instruments, such as export credit insurance and guarantees. This is a major impediment to Armenian manufacturers' competitiveness and risk-taking when attempting to penetrate new export markets, since they are unlikely to offer supply credit terms like their foreign competitors. In 2014, the Government of the Republic of Armenia created the Export Insurance Agency of Armenia (EIAA) to provide insurance to exporters based in Armenia against financial losses incurred as a result of non-payment by foreign buyers of exported goods and services. The EIAA started its insurance activities in March 2015 but its outreach was so far limited.

In 2011, the government adopted the Export-led Industrial Development Strategy, a set of initiatives to trigger dynamism in manufacturing sectors with export potential and directly target export growth and diversification objectives. The government selected 11 strategic industrial subsectors: brandy, wine, canned food, water, juices, diamond cutting, gold and jewelry, watches, precision engineering, pharmaceuticals, and textiles.

### Expected Impact, Outcome, and Outputs

The expected impact of the TA was promotion of export sectors (industries) with high potential for employment creation. The expected outcome was improved industrial and innovation policies in Armenia. The expected outputs were: (i) new institutional and policy instruments to promote export-oriented industries and innovation piloted, and (ii) the government's capacity to implement industrial and innovation policies strengthened.

### Implementation Arrangements

The TA was administered by Central and West Asia Public Management, Financial Sector, and Trade Division (CWPF) and was transferred to Armenia Resident Mission as a delegated project on 3 January 2017. The TA amount was \$750,000, of which \$500,000 was financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources) and \$250,000 was financed on a grant basis by the Financial Sector Development Partnership Special Fund (FSDPF) (footnote 1).

**Executing and Implementing Agencies.** The executing agency of the TA was the Ministry of Economy (MOE). The implementing agencies were the MOE, the Development Foundation of Armenia (DFA) and the EIAA. During the TA implementation, the DFA underwent structural changes and transformed from a public entity, governed by the board of

<sup>1</sup> Established by ADB. Financing partner: the Government of Luxembourg.

trustees appointed by the government (and funded from the state budget) to a private entity—Business Armenia, with a board of trustees appointed from the private sector representatives (and with no government funding or assets for its operations). Also, the activities related to wine sector promotion was transferred from Development Foundation of Armenia to Wine and Vine Foundation of Armenia (established by the Decree of the Government in 2016, as a public entity separate from DFA). During the TA implementation, the Ministry of Economy was reorganized to the Ministry of Economic Development and Investments (2016–2019) and again to the Ministry of Economy (from 2019).

**Implementation Period.** The TA was planned to be implemented from January 2016 to 31 December 2018. At the request of the MOE, ADB made a minor change in scope and implementation arrangements to extend the TA closing date by nine months until 30 September 2019. The TA was completed on 30 September 2019 and financially closed on 9 December 2019.

**Consulting Services and Procurement.** The TA planned to engage three international consultants (industrial policy economist, innovation policy expert, senior export credit insurance advisor) for a total 11 person-months and two national consultants (senior research economist and legal expert) for a total 12 person-months. During the TA implementation, two minor changes in scope and implementation arrangements were approved in response to government emerging needs and changes in overall government priorities. The first minor change in implementation arrangements was approved on 29 January 2018, to fund the design and development of trade portal for DFA, as requested by the DFA. The second minor change in scope and implementation arrangements was approved on 21 December 2018, at the request of MOE, for (i) extension of the TA completion date; and (ii) recruitment of a consulting firm (instead of recruitment of an international innovation policy expert) for development of a unified strategy for industrial development, covering technology, science and innovation aspects of industrial policy. The TA also planned procurement of software and databases for implementing agencies. The procurement of software and databases were, however, dropped during the TA review mission, at the request of implementing agencies.

Actual inputs delivered by the experts were: 3 person-months for international senior export credit insurance advisor (no variation); 19 person-months for international industrial policy economist (versus planned 4 person-months) and 10 person-months for national senior research economist (versus planned 9 person-months). The actual input delivered by the consulting firm was 18.5 persons-months (as planned). Due to the highly diverse nature of the outputs and deliverables and the wide variety of topics, 15 resource persons were recruited to assist the international industrial policy economist.

All consultants were engaged in accordance with ADB Guidelines on the Use of Consultants (2013, as amended from time to time). ADB engaged all individual consultants using the individual consultant selection method. The firm to develop industrial policy for MOE was recruited using Consultants' Qualification Selection (CQS) method, while the firm to design and develop a trade portal for DFA was recruited using the Single-Source-Selection (SSS) method (a CQS method was used for the recruitment of a firm and the recruitment was advertised on CMS on 30 January 2018, however, as experienced in selection and evaluation process, the technical proposals of all firms were considered non-responsive to the invitation requirements and all three shortlisted firms [out of four] failed to satisfy the minimum qualifying score of 750). The memo to use SSS method was approved on 19 July 2018. The trade portal was turned over to MOE upon completion of TA activities.

### Conduct of Activities

Despite the mixed progress during the implementation, the TA mainly achieved all outputs (one with delay) and with the less than planned utilization of resources. The utilization rate was at 40.6% (31% for FSDPF resources and 73.6% for TASF) and mainly because one of the activities—procurement of software and databases for implementing agencies—was dropped from the list of key activities at the request of executing and implementing agencies. The key activities related to the EIAA have been timely completed and the output and the outcome have been delivered. Achieving of other outputs and outcomes was slow, as the frequent changes in leadership and counterparts at MOE and DFA/Business Armenia, as well as in overall government priorities affected the implementation of key activities related to MOE and DFA/Business Armenia. These delays resulted in an extension of the TA closing date by 9 months.

Output 1a. **Three export promotion instruments (blueprints) delivered and piloted for the DFA (achieved).**<sup>2</sup> Under

<sup>2</sup> A blueprint is a document that proposes the specifications for a specific system or institution to perform certain functions and meet certain objectives. In this case, it is a blueprint for institutional and policy instruments for government support of export-oriented industries and innovation. The document should include governance arrangements, business objectives, and rules required for effective performance, with detailed business model and processes, implementation plans, cost estimates and financing plans, and monitoring and evaluation arrangements.

the output, blueprints for wine, textile and footwear sectors were prepared and delivered. All three blueprints helped assess the industries' competitiveness and design recommendations for investments and policy instruments for export promotion. The blueprints also identified attractive export markets for Armenian wines, textile and footwear industries, described the effective modes of entering the markets and attracting investments, and proposed a comprehensive plan, covering distribution, logistics, marketing, sales, pricing and promotion activities. The findings of the wine sector assessment were presented during international Wine Forum organized by the Wine and Vine Foundation of Armenia (co-financed by ADB from TA resources). The findings of the textile and footwear sector assessments were presented during the workshop with sector representatives. Also, wine sector case study was conducted and prepared for the MOE.

**Output 1b. New export credit insurance products delivered and piloted for the EIAA (achieved).** The consultant (i) delivered an assessment of the market to evaluate potential demand for credit insurance, as well as advice regarding product development and market penetration in Armenia; (ii) advised EIAA on improvements in existing products; (iii) assessed the existing underwriting, risk management, claim settlement and collection procedures; (iv) supported EIAA to develop a business model for new products; (v) delivered a note about recommendations on the regulatory treatment and a potential state guarantee; (vi) created a business model for domestic credit insurance; and (vii) developed a business case strategy with the aim of securing a strategic partnership with an international credit insurer. The EIAA increased its support for export insurance from 18 transactions to more than 100 transactions in 2017.

**Output 1c. Feasibility study to replicate or complement existing initiatives on innovation promotion (achieved).** Under the output, impact assessment of Tumo Center for Creative Technologies was conducted and capacity of the Economic Research Center (ERC) of the MOE to design and implement an economic research program to support the government's industrial and innovation policies was strengthened.<sup>3</sup> The consultant (i) conducted impact assessment of Tumo Center; (ii) delivered a blueprint for ERC (please see also output 2b); and (iii) in cooperation with ERC, prepared and published an economic research paper, titled "The Effects of the Exchange Rate on Exports: the Case of Armenia".

**Output 2a. Industrial policy results framework revised to become more evidence based (achieved).** The following reports were delivered by the firm: (i) science, technology and innovation based industrial strategy and results framework, with a clearly defined time bound action plan (including detailed business models and processes, economic impact analyses and assessment of the industrial transformation effect for the country's economy, implementation plans, toolset, mechanisms, cost estimates and financing plans, as well as monitoring and evaluation arrangements and institutional capacity building measures); and (ii) survey report on current state of the technological capacity of the economy and existing gaps (including proposals on amendments in the existing legislation, proposals on promoting a technological upgrade of Armenian companies in the main sectors of the economy based on the upgrading and optimization needs). The strategy is expected to be approved by the government at the end of 2020.

**Output 2b. Ministry of Economy's research program implemented (achieved with delay).** The research program (blueprint) was developed jointly with the ERC and submitted to MOE on 31 October 2018.

#### Technical Assistance Assessment Ratings

Criterion	Assessment	Rating
Relevance	The TA largely conformed to the government priorities and ADB strategies at the design stage. However, the frequent changes in leadership and counterparts at MOE and DFA, as well as in overall government priorities during the TA implementation affected the TA implementation.	Relevant
Effectiveness	While the TA mainly achieved the planned outputs and outcomes and the consultants' performances were rated as satisfactory, some of the original TA outcome and outputs were too ambitious and too diverse to be achieved. Achieving the output 1a required a broad range of skills and requirements in specific sectors, which could not have been achieved without recruitment of resource persons with narrow skills. Achieving the output 2a required a recruitment of a consulting firm (instead of an	Less than effective

<sup>3</sup> The Tumo Center for Creative Technologies is a nonprofit institution that provides after-school learning students aged 12–18. <http://tumo.org/en/>

Criterion	Assessment	Rating
	individual consultant, as planned), given the complex nature of the assignment.	
Efficiency	Frequent changes in government priorities and in counterpart agencies, as well as contract extensions, delayed delivery of some of the outputs, and delays and cancellations of some of the recruitments all affected the efficiency of the TA.	Less than efficient
<b>Overall Assessment</b>	While the TA largely conformed to the government priorities at the design stage, the implementation and timely achievement of outputs and outcome indicators was challenging. The challenges included: frequent changes in leadership and counterparts at MOE and DFA, number of implementing agencies and other counterparts involved in the implementation and frequent structural changes in these agencies. Highly diverse nature of the outputs and diversity of outcomes and outputs also affected the implementation.	Less than successful
<b>Sustainability</b>	TA outputs were well received by the government. Overall, sustainability of the gains is assessed as mixed. While the outputs related to MOE and EIAA are assessed as most likely sustainable, the outputs related to the DFA are assessed as unlikely sustainable (due to reorganization).	Less than likely sustainable

#### Lessons Learned and Recommendations

Design and/or planning	The TA design and its outputs were an amalgam of diverse activities. Most of these outputs could have been managed under separate TA projects.
Implementation and/or delivery	Too many implementing agencies and different counterparts for different components have contributed to the delays and changes. Diversity and number of implementing and counterpart agencies should be taken into account when designing new TA projects and should be limited to up to two.
Management of staff and consultants	The selection and use of individual consultants with specific skills allowed to timely achieve some of the planned outputs. The previously developed Terms of References (TORs) for the industrial economist and innovation expert were, however, challenging. As it was evident during the implementation, the requirements for industrial economist included a broad range of skills and requirements in specific sectors, which could not have been achieved without recruitment of resource persons with narrow skills. The TOR for individual consultant for innovation was later revised, given the complex nature of the assignment, to allow full and timely delivery of the required output.
Knowledge building	The TA was successful in delivering knowledge products. One international forum and three workshops were organized to present three sector assessments and wine sector case study. The TA delivered a comprehensive innovation strategy, covering innovation, science and technology with clear roadmap and action plan. The TA also helped conduct an impact assessment, prepare and publish a research paper. The TA also funded a study tour for EIAA staff.
Stakeholder participation	The TA relied heavily on stakeholders and partners to deliver its outputs and outcome. Despite some initial delays during the implementation, the strong support of the executing agency towards the end of the TA implementation eventually increased commitment and clearly contributed to the achievement of the outputs of the TA.
Partnership	Staff turnover in implementing agencies created challenges during the project implementation. Strong partnership with executing and implementing agencies, as well as with donor partners, allowed to coordinate the activities and contributed to achieving outputs.
Replication and/or scaling up	All TA outputs have been well received by the government. The sector assessments for wine, textile and footwear, conducted under the TA, can be



	replicated for other sectors of the economy as well. The TA was instrumental for developing and introducing new export insurance products. The model and structure of the innovation strategy developed under the TA, and covering the innovation, science and technology, could be replicated by other government agencies as a template for the strategies in other sectors. The strategy is expected to be approved by the government by the end of 2020.
Post-TA financial resource	The TA outputs have provided a base on which future interventions could be tailored. This includes the government support for implementation of innovation strategy roadmap, resources allocated for new export insurance products, as well as the MOE commitment to maintain and further develop the trade portal as a tool to support investors and exporters.

#### Follow-up Actions

ADB will continue to collaborate closely with the MOE to ensure sustainability of the TA initiatives and outputs and to make best use of the TA results in future operations. TA outputs can be linked with specific opportunities: output 1a and output 2a can be linked with future sovereign and non-sovereign operations; output 1b with the ongoing Regional TA for Promoting Investments and Economic Growth in Central and West Asia, East Asia, and South Asia Subregions<sup>4</sup> and output 1c and output 2b with the Regional TA for Supporting Knowledge Solutions in Central and West Asian Countries.<sup>5</sup> Given this engagement, further TA support may include stand-alone TA projects to advance the government innovation and digital transformation agenda aimed at increasing the use of digital technologies in public services and improve the country's investment climate further aimed at simplifying regulations for businesses, etc.<sup>6</sup>

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<sup>4</sup> ADB. 2018. *Regional Technical Assistance for Promoting Investments and Economic Growth in Central and West Asia, East Asia, and South Asia Subregions*. Manila.

<sup>5</sup> ADB. 2018. *Supporting Knowledge Solutions in Central and West Asian Countries*. Manila.

<sup>6</sup> ADB. 2019. *Armenia: Country Operations Business Plan, 2020–2022*. Manila.

## REVISED DESIGN AND MONITORING FRAMEWORK

<b>Impact of the TA is aligned with</b> Priority 1. Growth of Employment (Armenia Development Strategy, 2014–2025) <sup>a</sup>  A special importance will be given to modern industrial and export promotion with direct interventionist elements aimed at job increase (Armenia Development Strategy, 2014–2025)			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Revised Performance Indicators with Targets and Baselines</b>	<b>Achievements</b>
Armenia's industrial and innovation policies improved	a. At least 100 export attempts supported under new pilot instruments by 2018 (baseline: 0 in 2015)	-	Achieved
	b. The EIAA increased its support to at least 100 export transactions in 2018 (baseline: 18 transactions in May–September 2015)	-	Achieved. The EIAA increased its support for export insurance from 17 transactions to more than 100 transactions in 2017.
	c. The government adopted the revised industrial policy results framework by 2018	c. The government adopted the revised industrial policy and results framework by 2019 (2018 baseline: not adopted)	Partially achieved. A comprehensive industrial policy and results framework were developed and submitted to MOE. The policy is expected to be approved in 2020.
1. New institutional and policy instruments to promote export-oriented industries and innovation piloted	1a. Export promotion instrument piloted by 2018		Achieved. Three export promotion instruments (blueprints) for wine sector, and textile and footwear industries delivered and piloted for the DFA.
	1b. New export credit insurance products piloted by 2018		Achieved. Since 2016, EIAA also insures commercial banks against bad debt losses from short term working capital facilities provided to Armenian exporters in order to finance the production cycle of export contracts.
	1c. Feasibility study to replicate or complement existing initiatives on innovation promotion, delivered by 2017		Achieved with delay. A study (impact assessment) was delivered in 2018.
2. The government's capacity to implement industrial	2a. Industrial policy results framework revised to become more evidence-based by 2017		Achieved with delay. A comprehensive industrial policy and results framework was developed and submitted to MOE. The policy is expected to be approved in 2020.

and innovation policies strengthened	2b. Ministry of Economy's research program implemented starting from January 2018	2b. Ministry of Economy's research program implemented starting from January 2019 (2018 Baseline: not implemented)	Achieved with delay. The blueprint for Ministry of Economy's research center was delivered in November 2018 and is implemented starting from 2019.
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### Key Activities with Milestones

#### 1. New policy and institutional instruments to promote export-oriented industries and innovation piloted.

1.1 Revised. Review existing analysis of industrial and innovation policy results in Armenia, including desk review and initial consultations with stakeholders (March 2019). **(completed)**

1.2 Revised. Review experience with existing initiatives that promote innovation (e.g., Tumo Center for Creative Technologies)<sup>b</sup> (March–April 2019). **(completed)**

1.3 Draft blueprints for new pilot instruments<sup>c</sup> (September 2016). **(completed)**

1.4 Consult with the government agencies, businesses, and other stakeholders, and finalize blueprints for new pilot instruments (December 2016). **(completed)**

1.5 Advise the government during piloting of the new instruments (January 2017–December 2018). **(completed)**

1.6 Revised. Develop a feasibility study to replicate or complement existing initiatives that promote innovation (e.g., Tumo Center for Creative Technologies)<sup>b</sup> (December 2018). **(completed)**

#### 2. The government's capacity to implement industrial and innovation policies strengthened.

2.1 Revised. Review existing industrial policy results framework and economic research program at the Ministry of Economy, including through desk reviews and initial consultations with stakeholders (June 2016). **(completed)**

2.2 Prepare a request for proposal of software and databases for implementing agencies (June 2016). **(completed)**

2.3 Draft blueprint for new economic research program<sup>c</sup> (September 2016). **(completed)**

2.4 Conduct consultations with the Ministry of Economy, research institutions, and other stakeholders, and finalize blueprint for new economic research program (December 2016). **(completed)**

2.5 Advise the Ministry of Economy in the implementation of the new economic research program (January–December 2018). **(completed)**

2.6 Revised. Draft new industrial policy results framework (June 2019). **(completed)**

2.7 Procure software and databases for implementing agencies (July 2016–June 2017). **(dropped)**

### Actual Inputs

Technical Assistance Special Fund: \$500,000;  
Financial Sector Development Partnership Special Fund<sup>d</sup>: \$250,000

Note: The government provided counterpart support in the form of counterpart staff, office facilities, data processing, meeting venues, and other in-kind contributions.

<sup>a</sup> Government of Armenia, Ministry of Finance. 2014. Armenia Development Strategy, for 2014–2025. Yerevan.

<sup>b</sup> The Tumo Center for Creative Technologies is a nonprofit institution that provides after-school learning students aged 12–18. <http://tumo.org/en/>

<sup>c</sup> A blueprint is a document that proposes the specifications for a specific system or institution to perform certain functions and meet certain objectives. In this case, it is a blueprint for institutional and policy instruments for government support of export-oriented industries and innovation. The document should include governance arrangements, business objectives, and rules required for effective performance, with detailed business model and processes, implementation plans, cost estimates and financing plans, and monitoring and evaluation arrangements.

<sup>d</sup> Established by ADB. Financing partner: the Government of Luxembourg.

Source: Asian Development Bank.

## TECHNICAL ASSISTANCE COST

**Table A2.1: Technical Assistance Cost by Activity**  
(\$'000)

Item	Amount		
	Original	Revised	Actual
1. Consultants	305.8	502.3	395.9
2. Goods	26.5	26.5	0.0
3. Training, seminars and/or conferences	150.0	125.0	33.0
4. Surveys	15.0	0.0	15.5
5. Miscellaneous TA administration	11.5	11.5	1.3
6. Pilot testing	0.0	0.0	0.0
7. Contingency	54.7	54.7	0.0
<b>Total</b>	<b>75.0</b>	<b>750.0</b>	<b>445.6</b>

Source: Asian Development Bank estimates.

**Table A2.2: Technical Assistance Cost by Fund**  
(\$'000)

	TASF-Other	FSDPF <sup>a</sup>	Total Cost
1. Original	500.0	250.0	750.0
2. Actual	368.2	77.4	445.6
3. Unused	131.8	172.6	304.4

FSDPF = Financial Sector Development Partnership Special Fund, TASF = Technical Assistance Special Fund.

<sup>a</sup> Established by ADB. Financing partner: the Government of Luxembourg

Source: Asian Development Bank estimates.