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External evaluation of UNCTAD subprogramme 4: Technology and logistics¹

Executive summary

The Trade and Development Board, at its sixty-second annual session, requested the UNCTAD secretariat to conduct an independent evaluation of subprogramme 4 on technology and logistics (SP4). This independent and in-depth evaluation assesses the relevance, effectiveness, efficiency and sustainability of SP4, as implemented by the Division on Technology and Logistics (DTL) in 2012–2016.

The evaluation concludes that the diversified portfolio of SP4 is mostly of high quality and relevant to the needs of its beneficiaries and stakeholders. Overall, capacity-building interventions result in improved knowledge, in turn utilized for further training, policy advice and research. SP4 value added lies in cross-fertilization between the technical cooperation, research and intergovernmental consensus-building pillars, including through the leveraging of a wide range of partnerships. There remains scope to strengthen synergistic efforts, including through interdivisional and external collaboration, especially in the areas of science, technology and innovation (STI), the digital economy (particularly electronic commerce (e-commerce)) and the sustainability aspects of transport, which are of increasing relevance in the light of the Nairobi Maafikiano, adopted at the fourteenth session of the United Nations Conference on Trade and Development (UNCTAD XIV).

In order for DTL to fulfil its expanded mandate to member State expectations, additional resources will be required. A systematic approach to fundraising is needed, accompanied by the effective communication of evidence-based results. Donor preferences have shifted towards funding larger, longer term programmes with clear intervention logics and due attention to the sustainability of outcomes. The integrated approach to reaching the equitable global economic environment envisaged in the 2030 Agenda for Sustainable Development also has implications for results-based management. UNCTAD has

¹ This evaluation was prepared by an independent evaluation team: Mr. Daniel Keller, with Ms. Julie Emond, Ms. Shani Griffith-Jack and Ms. Cecilia Tinonin. Supporting materials for this evaluation are presented in document TD/B/WP(75)/CRP.2.



undertaken positive efforts in strengthening its results-based management framework and ensuring its alignment with the Sustainable Development Goals. However, the overall assessment by the evaluation team is that these efforts are unevenly applied and that gaps remain.

Despite efforts undertaken, there is room to improve the mainstreaming of gender into the SP4 portfolio. This will require additional expertise, continued and targeted capacity-building and coaching, and clear guidance on applying gender mainstreaming in the planning, management and monitoring of technical cooperation projects and research products, in synchronization with organization-wide efforts at UNCTAD.

The evaluation identified a number of conclusions, good practices and lessons learned.

The evaluation recommends the following:

(a) To the Secretary-General of UNCTAD and the Director of DTL:

(1) Given the expanded mandate provided by the Nairobi Maafikiano, consider ways of prioritizing existing resources and restructuring, if necessary, to support UNCTAD work on e-commerce, the digital economy and STI for sustainable development.

(2) Evaluate, improve and enforce the UNCTAD results-based management framework. At the Division level, ensure strict and consistent implementation throughout its portfolio.

(3) Develop and implement a detailed fundraising plan with differentiated strategies by different types of donors, including the private sector.

(b) To the Director of DTL:

(1) Develop and implement an evidence-based results communications strategy, targeting a diverse audience.

(2) Enhance the delivery of technical assistance in the form of sustainable programmatic interventions with clear intervention logics.

(3) Make increasing use of regional approaches where challenges are most effectively addressed through regional organizations.

I. Introduction

A. Background

1. SP4 aims to strengthen the capacity of developing countries² to participate fully in the global economy through the adoption of effective national policies in the areas of trade, STI and information and communications technology (ICT), as well as improved efficiency and the sustainability of trade logistics.³

2. DTL, currently consisting of 103 staff members, implements SP4 through three operational branches, namely Trade Logistics; Science, Technology and Information and Communications Technologies; and Knowledge Development.⁴ Since 1981, it has implemented the Automated System for Customs Data (ASYCUDA), the largest technical cooperation programme of UNCTAD, currently implemented in more than 96 countries and territories. DTL also serves as the secretariat of the Commission on Science and Technology for Development (CSTD).⁵

3. DTL daily activities cover a mix of research and analytical work, support to intergovernmental policy dialogues and implementation of capacity-building programmes, as detailed in the following paragraphs.

4. Through the Trade Logistics Branch, DTL carries out research and analytical work on trade logistics, including trade and transport facilitation. Since 1968, the Branch has produced the annual *Review of Maritime Transport*, one of the flagship publications of UNCTAD.⁶ The Branch provides technical cooperation and tailored legal and policy advice on issues affecting the transport and trade logistics of developing countries. Moreover, the Branch assists developing countries in implementing the Agreement on Trade Facilitation of the World Trade Organization by supporting the establishment and strengthening of national trade facilitation committees.

5. The Science, Technology and Information and Communications Technologies Branch specializes in STI and ICT policies for development. It disseminates its policy research through two flagship publications, namely the *Technology and Innovation Report* and the *Information Economy Report*.⁷ In addition, science, technology and innovation policy (STIP) reviews aim to build capacity to identify gaps and design and implement national STI programmes with regard to effective uses of knowledge and technology for economic growth and sustainable development. In the field of e-commerce, Branch work has evolved into intensive multi-stakeholder dialogues, accompanied by research, capacity-building and advice on e-commerce legislation. Other analytical work has focused on technology and innovation, renewable energy, gender and technology and ICT for women's entrepreneurship.⁸ The Branch acts as the secretariat for and provides substantive inputs to CSTD.

6. The Knowledge Development Branch hosts the capacity-building function that builds upon cross-divisional cooperation. It implements two training programmes, namely Train for Trade and the courses on key issues on the international economic agenda.⁹ Train for Trade offers e-learning modules on a variety of trade-related topics.

² Particularly the least developed countries, landlocked developing countries, small island developing States and other vulnerable economies.

³ A/69/6 (Prog. 10).

⁴ See <http://unctad.org/en/Pages/DTL/Technology,-Innovation-and-Trade-Logistics.aspx>.

⁵ See <http://unctad.org/en/Pages/CSTD.aspx>.

⁶ See [http://unctad.org/en/pages/publications/Review-of-Maritime-Transport-\(Series\).aspx](http://unctad.org/en/pages/publications/Review-of-Maritime-Transport-(Series).aspx).

⁷ See <http://unctad.org/en/pages/publications/Technology-Innovation-Report.aspx> and <http://unctad.org/en/Pages/Publications/InformationEconomyReportSeries.aspx>.

⁸ UNCTAD, 2011, *Applying a Gender Lens to Science, Technology and Innovation* (United Nations publication, New York and Geneva); UNCTAD, 2014, *Empowering Women Entrepreneurs through Information and Communications Technologies* (United Nations publication, New York and Geneva).

⁹ Mandated by paragraph 166 of the Bangkok Plan of Action (2000), and referred to as the Paragraph 166 courses.

In particular, the Port Management Programme under Train for Trade aims to strengthen port communities through training and the sharing of knowledge and expertise among port operators. The Programme targets port communities in 18 developing countries within four language-based networks. The Paragraph 166 courses aim to build the capacities of policymakers, Geneva-based delegates and other stakeholders from developing countries and countries with economies in transition to promote inclusive and sustainable growth and development. Five sessions held biannually at the regional level, in five locations, target primarily mid-level government officials, and an alumni network is maintained.

B. Evaluation scope, objectives and methodology

7. This independent and in-depth evaluation focuses on SP4, as requested by the Trade and Development Board at its sixty-second annual session, in its endorsement of the agreed conclusions adopted by the Working Party on the Strategic Framework and the Programme Budget.¹⁰ The objective of the evaluation was to assess the relevance, effectiveness, efficiency and sustainability of SP4 in 2012–2016.¹¹ The evaluation balances the need for organizational learning with the purpose of ensuring the accountability of UNCTAD towards its member States.

8. The terms of reference of the evaluation¹² and the UNCTAD evaluation policy¹³ informed and guided the evaluation, which complies with the United Nations Evaluation Group norms and standards.¹⁴ The evaluation team was composed of two independent consultants and two member State representatives who participated in their personal capacity. Three of the four team members were women.

9. The scope of the evaluation comprised the assessment of interconnections between the three pillars of UNCTAD in the light of potential economies of scale and scope. No differentiation was made with regard to whether activities were funded through regular budget or extrabudgetary sources. The evaluation placed some emphasis on technical cooperation, as SP4 focuses on the delivery of capacity-building activities (approximately 60 per cent of its budget) and DTL hosts the largest technical cooperation programme of UNCTAD. Furthermore, the evaluation aimed to avoid overlaps with the evaluation by the Office of Internal Oversight Services in 2015, which focused on the UNCTAD research and analysis pillar.¹⁵ In accordance with the terms of reference and subsequent scoping by the evaluation team, gender mainstreaming, equity, partnerships, innovation and results-based management were assessed as cross-cutting issues.

10. To avoid a bias in the selection of technical cooperation programmes and for considerations of evaluability, the evaluation focused on the programmes outlined in the *UNCTAD Toolbox: Delivering Results* that fall within the mandate of DTL, namely STIP reviews, ASYCUDA, Paragraph 166 courses, Port Management Programme under Train for Trade, E-commerce and Law Reform Programme and trade facilitation programme.¹⁶

11. The evaluation adopted a mixed-methods approach, comprising a desk study of over 300 documents (102 of which were analysed in detail) that informed the design of data collection tools, 104 in-depth, semi-structured face-to-face interviews and 42 telephone interviews conducted with internal and external stakeholders.¹⁷ Several executive interviews and focus group discussions with DTL staff were used to gain perspectives on

¹⁰ TD/B/62/11; TD/B/WP/275.

¹¹ Relevant prior and subsequent events up to 30 March 2017 were considered as contextual information.

¹² TD/B/WP(75)/CRP.2, annex VIII.

¹³ UNCTAD, 2011, Evaluation policy, available at http://unctad.org/Sections/edm_dir/docs/osg_EvaluationPolicy2011_en.pdf (accessed on 19 June 2017).

¹⁴ United Nations Evaluation Group, 2016, *Norms and Standards for Evaluation* (New York).

¹⁵ E/AC.51/2015/4.

¹⁶ DTL implements other technical cooperation programmes not included in the *UNCTAD Toolbox*. For example, Train For Trade provides capacity-building not only in port management, but also in trade, investment and sustainable tourism for development (see <https://learn.unctad.org/course/index.php>).

¹⁷ Some stakeholders were interviewed more than once; see TD/B/WP(75)/CRP.2, annexes I and II.

strategic forward-looking aspects. Four field missions to Kenya, Oman, Rwanda and Thailand ensured in-depth assessments in countries where most of the activities in the SP4 portfolio are implemented.¹⁸ Attendance at two Geneva-based events (a CSTD intersessional panel and the first international forum for national trade facilitation committees) allowed for direct observation. Case studies, namely of the *Review of Maritime Transport*, ASYCUDA and the single-window system in Rwanda and STIP reviews in Asia, enriched the evaluation through the illustration of three successful SP4 components, in accordance with the terms of reference of the evaluation.¹⁹

12. Four online evaluation surveys administered in two United Nations working languages (English and French) complemented the qualitative data collection. The surveys reached out to Geneva-based delegates, registered attendees at CSTD sessions, DTL staff, direct beneficiaries of the six SP4 technical cooperation programmes noted above and subscribers to the transport and trade facilitation newsletter (see table).²⁰

Overview of survey response rate, 2017

	Total of target population	Number of responses	Response rate (Percentage)	Number of women (Percentage)
Division on Technology and Logistics staff	103	61	59	25
Transport and trade facilitation newsletter recipients*	2 980	204	7	19
Beneficiaries of the six technical cooperation programmes	2 929	699	24	30
Member State representatives	194	17	9	29
Registered attendees at Commission on Science and Technology for Development sessions	1 116	47	4	23

* This survey was administered along with the survey for beneficiaries of the six technical cooperation programmes.

13. The triangulation of qualitative and quantitative data gathered through different methods ensured an evidence-based assessment. A validation workshop with DTL staff also examined the plausibility of the results obtained and facilitated organizational learning. While maintaining independence in compliance with the UNCTAD evaluation policy, the evaluation team applied a participatory approach, seeking views from all stakeholder groups. Conclusions and recommendations are deductive, based on the evaluation findings. The presentation of the evaluation report to the Working Party in September 2017 will ensure the transparent dissemination of evaluation findings.

C. Limitations

14. Time and financial resources constraints presented limitations to the execution of the evaluation, condensing the evaluation design and data collection phase to the first quarter of 2017. Despite providing high-level results, the UNCTAD strategic framework does not clearly spell out a detailed causal pathway linking SP4 outputs and outcomes to such results. Such practical limitations prevented the team from reconstructing a theory of change for SP4, uplifting the scale of analysis to the assessment of impact and conducting more field missions. Despite these shortcomings, findings were comprehensive, generally consistent and clear and shed light on the main outcomes. All stakeholders actively shared information during open and constructive discussions. The evaluators worked freely and without interference. DTL supported the evaluation process actively, including through assistance with logistical arrangements.

¹⁸ DTL determined the selection of countries based on considerations of locations with the highest coverage of SP4 activities.

¹⁹ TD/B/WP(75)/CRP.2, annexes IV, V and VI.

²⁰ Key survey findings are presented in TD/B/WP(75)/CRP.2, annex VII.

II. Findings

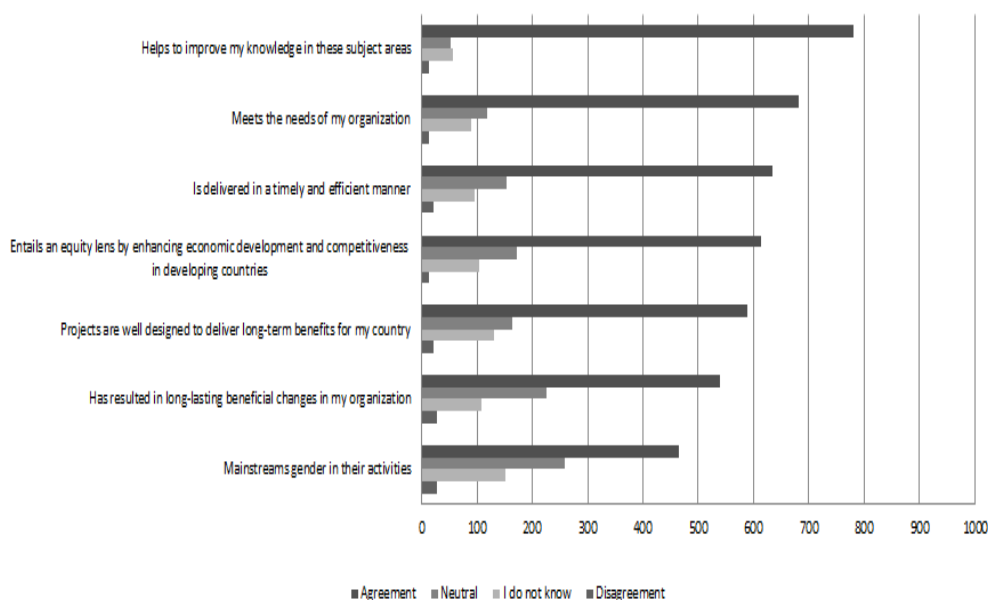
A. Relevance

15. In the period covered by the evaluation (2012–2016), UNCTAD operated under the Doha Mandate and the Nairobi Maafikiano. At UNCTAD XIV, member States, among other things, reiterated the role of UNCTAD in promoting the equitable global economic environment for sustainable development envisaged in the 2030 Agenda for Sustainable Development.²¹

16. In accordance with the Nairobi Maafikiano, DTL incorporated newly formulated outputs in the strategic framework for 2016–2017, such as the Intergovernmental Group of Experts on E-commerce and the Digital Economy.²² Notable efforts to align SP4 with the Sustainable Development Goals include mapping DTL activities to the Goals and identifying Goals of focus against *UNCTAD Toolbox* results frameworks. There remains some potential for some SP4 programmes to reinforce alignment with the Goals including, for example, strengthening the role of external partnerships in innovation (Goal 17) and revisiting the framework for STIP reviews (developed in 2011) to align it with the Goals. In addition, ASYCUDA generates statistical data, which developing countries could use for Goals-related reporting.²³

17. Beneficiaries of technical cooperation programmes confirmed the high relevance of SP4 interventions. Of 903 survey respondents, 681 (68 per cent) agreed that UNCTAD work met their needs (see figure). Among delegates and attendees at CSTD sessions, 81 per cent of survey participants agreed that discussions held during intergovernmental meetings were useful and relevant to national needs and confirmed that all thematic areas were relevant in supporting them in implementing the 2030 Agenda.

Assessment of relevance, efficiency, effectiveness and sustainability of subprogramme 4 assistance by direct beneficiaries of technical cooperation programmes, 2017 (n=903)



²¹ A/RES/70/1; see <http://unctad.org/en/Pages/About%20UNCTAD/UNCTAD-and-the-Global-Goals.aspx>.

²² TD/B/WP(74)/CRP.4/Rev.1.

²³ See recommendation 4 in A Bester, 2016, Results-based management in the United Nations development system, available at <https://www.un.org/ecosoc/en/content/2016> (accessed on 19 June 2017).

1. Science, technology, innovation and information and communications technology for development

18. The Nairobi Maafikiano has 11 operational paragraphs on technology, e-commerce and the digital economy compared with two in the Doha Mandate. The Addis Ababa Action Agenda of the Third International Conference on Financing for Development reiterates the role of UNCTAD as the focal point within the United Nations system for the integrated treatment of trade and development and interrelated issues in the areas of finance, technology, investment and sustainable development.²⁴

19. The areas of e-commerce and the digital economy present an opportunity for UNCTAD to position itself as the global centre of excellence on the development dimension of digitalization, and there is demand from stakeholders for UNCTAD contributions. This is also evidenced by the online survey; 75 per cent of delegates and attendees at CSTD sessions highlighted STI as a crucial area of work, and 80 per cent of survey respondents identified the e-commerce, the digital economy and ICT for development as relevant in supporting the implementation of the 2030 Agenda.

2. Trade logistics

20. The Nairobi Maafikiano reiterates and reinforces the existing mandate of UNCTAD, while defining some new priorities. Most stakeholders interviewed agreed that UNCTAD is well positioned to deliver on these, given its holistic approach in covering trade logistics. This includes an added emphasis on sustainability aspects in its work, as well as on sustainable and resilient transport systems, climate change adaptation for transport infrastructure and operations, port efficiency, the management of transport operations and supportive policy, and legal, regulatory and institutional frameworks.²⁵ UNCTAD is requested to continue and reinforce its work in the field of trade facilitation, with specific reference to the Agreement on Trade Facilitation, and to continue implementing the ASYCUDA programme.²⁶

3. Knowledge development

21. Paragraph 55 (z) of the Nairobi Maafikiano states that UNCTAD should continue capacity-building activities, including Train for Trade. This reaffirms the high policy relevance of the programme. The Paragraph 166 courses disseminate knowledge drawn from all UNCTAD subprogrammes, through a combination of e-learning and face-to-face training, to meet the needs of middle management policymakers in developing countries. Train for Trade, through its Port Management Programme, addresses the practical needs of trade practitioners in trade, investment and development issues. Interviews with beneficiaries of DTL knowledge development interventions confirmed the relevance of the training to their needs and expectations. An evaluation conducted in 2015 showed the high relevance of a Train for Trade project funded by the United Nations Development Account.²⁷ This timely project, a collaboration between Train for Trade and the E-commerce and Law Reform Programme, addressed beneficiary needs in developing e-commerce policy and the challenges of legal frameworks.

B. Effectiveness

22. Beneficiaries of technical cooperation reported a high degree of satisfaction with DTL services. Of 903 respondents, 781 (86 per cent) supported the view that SP4 interventions helped them improve their knowledge (see figure). However, the level of agreement for the statement that such support “has resulted in long-lasting beneficial

²⁴ A/RES/69/313, paragraph 88.

²⁵ TD/519/Add.2, paragraphs 55 (f), 55 (i), 55 (j), 55 (k), 55 (l), 76 (s), 76 (t) and 100 (d).

²⁶ Ibid, paragraphs 38 (j), 38 (p), 38 (s) and 55 (x).

²⁷ DMI Associates, F Théoleyre, E Gonon, DC d'Istria Owen, 2015, External evaluation of UNCTAD project account, available at http://unctad.org/en/PublicationsLibrary/webosg2015d4_en.pdf (accessed on 19 June 2017).

changes in my organization” was much lower (59 per cent). Survey results confirmed that knowledge and skills gained were utilized by beneficiaries to provide further training and capacity-building (33 per cent), policy advice (32 per cent) and research (25 per cent).

1. Science, technology and innovation policy reviews

23. The *UNCTAD Toolbox* identifies the long-term expected impact of STIP reviews as the strengthening of national capacities in the field of STI. In the medium term, expected outcomes are an increase in national actions and programmes to build capacity in STI, and enhanced policies on STI for local industries to compete in the current global economy.

24. Interviews revealed a high degree of satisfaction with the quality of STIP reviews and UNCTAD experts. In Oman, the STIP review process had been instrumental in mobilizing active participation, input and buy-in from a wide array of stakeholders. Applying such a broad consultation process rather than working within the limited boundaries of a think tank is a best practice, which could be more widely replicated. Through its high standing as a neutral, credible and knowledgeable United Nations body, UNCTAD played an important facilitation and advisory role during the process. Oman implemented the recommendation of the STIP review to develop an innovation policy, and this is an intended key direct outcome of UNCTAD support. Inputs gained from interviews with stakeholders in other countries and with UNCTAD experts underlined the importance of preventing a bias towards developing STI policy based on the research needs of academia rather than on creating an enabling framework for technology and innovation-driven improvements, which benefit from the competitiveness of productive sectors.

25. The current STIP review framework developed in 2011 may need to be revised for improved alignment with the Sustainable Development Goals. As strongly confirmed by beneficiaries, the current process lacks a systematic, clearly documented approach complementing the preparation of a STIP review document with support for policy formulation, implementation and monitoring. Ideally, a follow-up review would assess policy implementation after three or four years and provide recommendations for adjustments. This would require funding for longer term interventions, which would also contribute to the longer term sustainability of results. Moreover, capitalizing on the expertise of other agencies working in the field of innovation would be important. The valorization of intellectual property rights and use of patent information for applied research might require cooperation with the World Intellectual Property Organization. Finally, while a framework linking STIP reviews to the UNCTAD intergovernmental machinery exists, it could be better utilized through enhanced communications and the sharing of information through other intergovernmental processes beyond CSTD, such as the Investment, Enterprise and Development Commission.

2. Automated System for Customs Data

26. The objective of ASYCUDA is to increase the efficiency of customs administration, as well as the transparency of transactions. Overall, evidence from interviews indicated many positive outcomes. Its efforts have resulted in multiple benefits, and interviews with customs authorities confirmed more consistent law enforcement and significant increases in State revenues. Interviewees reported that it was easier for them to manage internal processes and coordinate with other authorities linked to the system. ASYCUDA allowed them to generate accurate and timely statistical data for national and international reporting purposes. For example, companies interviewed in Rwanda highlighted that online declarations through ASYCUDA had significantly eased the burden of customs procedures, including reducing time spent on physical visits to customs offices. The single-window system had been a key pillar of administrative reform, and the success of customs reform was reflected in the dramatically improved trading across borders rating of Rwanda in the Doing Business Index of the World Bank.²⁸ Comparing results across different countries that implement ASYCUDA, the evaluation team found that ASYCUDA is an effective tool

²⁸ See www.doingbusiness.org/data/exploreeconomies/rwanda#trading-across-borders.

to support customs reform, where there is strong political commitment and national capacity to enforce the necessary measures.

27. The deployment of ASYCUDA has facilitated a single-window system in many countries and contributed to e-governance, regulatory process re-engineering and compliance with international standards (including those of the International Organization for Standardization and the World Customs Organization). Such benefits, especially those related to streamlined e-governance and regulatory frameworks, are likely to have a longer term impact on economic development in these countries.

28. According to all interviewed beneficiaries, implementing ASYCUDA cost a fraction of the price of similar commercial solutions, which in most cases entailed payment of a recurring maintenance fee to suppliers. UNCTAD makes the source code of ASYCUDA available, and the system can therefore be changed or upgraded without reliance on external service providers.²⁹

29. In some countries that implement ASYCUDA, information technology network problems and an unstable electricity supply have led to connectivity challenges that may be resolved by the development of online and offline options. Some users expressed a wish for additional ASYCUDA applications for smartphones and tablets. Considering such aspects for future versions or software upgrades may be worthwhile. Institutionalizing the capacity to train information technology experts within the training centres of customs authorities, instead of training staff members who are not professional trainers within beneficiary institutions, was found to be a good practice in Rwanda.

3. Paragraph 166 courses

30. The Paragraph 166 courses are a key component of the knowledge management structure of UNCTAD, benefiting from research inputs and collaboration from all Divisions. Besides their capacity-building purpose, the courses are a key tool to promote UNCTAD services. While the medium-term objective is to strengthen capacities in policy formulation in economic and trade-related topics, the envisaged impact, as detailed in the *UNCTAD Toolbox*, is for countries to implement such policies in accordance with UNCTAD recommendations. All interviewed participants confirmed the high quality of training and the distinctive advantage of the courses, namely that international trade is covered comprehensively in a compact manner. Of 44 survey respondents – delegates and attendees at CSTD sessions – who had received such training, 36 (82 per cent) confirmed that course attendance had contributed to understanding key issues on the international agenda, and 32 (73 per cent) stated that it had enabled them to acquire new knowledge that they applied in trade negotiations and policy development. None identified career development as an outcome. The current practice of systematic ex-post monitoring of participant use of course knowledge six months after a course should be considered a best practice. Strengthening the alumni network would help with regard to deeper and lasting engagement with senior policymakers.

4. Train for Trade Port Management Programme

31. This component of Train for Trade aims to improve the efficiency and competitiveness of port management services, as well as enhance strategic decision-making and the application of modern techniques of port management. Feedback from beneficiaries, partner ports and the donor State co-funding the English language network (Ireland) was overwhelmingly positive with respect to the Programme. Examples of positive results include the following: training delivered through a combination of different advanced pedagogical tools is considered useful and practical; the concept of delivering training through mobilizing the resources of three European partner ports may serve as a model for delivering similar technical capacity-building assistance elsewhere in the United Nations system; the high level of usefulness for participating ports and their ownership is evidenced by their willingness to significantly contribute to the costs of training; and

²⁹ The latest version of ASYCUDA runs on a commercial operating platform that requires the purchase of a licence, including a maintenance fee, if users wish to benefit from updates and support.

regional courses provide significant advantages with regard to travel costs for participants and are tailored to specific requests. The representatives of ports interviewed confirmed that the capacities of their staff to fulfil their functions had significantly strengthened. Beyond the formal training sessions, ports considered the opportunity of sharing experiences within and between different networks as an important benefit, and alumni networks were a key value added, with the potential for further leveraging for better visibility and ownership.

32. The unique know-how of Train for Trade in developing e-learning tools and applying them in combination with traditional teaching methods is useful for UNCTAD, and beyond. E-learning tools are increasingly relevant, as training needs are increasing and travel budgets for training are unlikely to increase.

5. E-commerce and Law Reform Programme

33. UNCTAD was among the first United Nations agencies to work on e-commerce for development. Through the E-commerce and Law Reform Programme, launched in 2002, SP4 has provided advice and capacity-building to beneficiary countries to strengthen their awareness of regulatory frameworks for online commercial transactions. Following such interventions, beneficiary countries are expected to draft stronger e-commerce legislation. The regional approach specific to this programme aims to harmonize normative frameworks at the regional level. As at November 2015, UNCTAD had published four reviews of e-commerce legislation harmonization, for the Caribbean, Latin America, Association of Southeast Asian Nations and East African Community. The East African Community was the first African region to adopt a harmonized framework for cyberlaws. The Programme builds on sound cooperation with Train for Trade to enhance e-learning, and has been highly effective in improving the knowledge of participants through the e-commerce module.

6. Trade Facilitation Programme

34. Beneficiaries considered the Trade Facilitation Programme, including support for the implementation of the Agreement on Trade Facilitation, as useful and well-targeted. As multiple international organizations are active in this field,³⁰ UNCTAD has rightly focused on diagnostics, needs assessments, the establishment and strengthening of national trade facilitation committees and assistance to countries in preparing the required documentation. All interviews with beneficiaries confirmed the high quality of UNCTAD support.

35. The Multi-year Expert Meeting on Transport, Trade Logistics and Trade Facilitation is an important platform through which DTL contributes to consensus-building. UNCTAD has also used consensus-building opportunities and its convening role to contribute to accessing technical assistance for national trade facilitation committees. The first international forum for national trade facilitation committees was aimed at empowering the leaders of such committees and providing opportunities for such committees to access funding. A comparative analysis of support offered by the organizations that participated in the forum indicates that a niche for UNCTAD may be the systematic strengthening of national trade facilitation committees over a longer period, while further reinforcing its existing partnerships with other development actors.

7. Cross-fertilization among the three pillars

36. Although there is room to further strengthen synergies among the three pillars within DTL, the evaluation team found that such work is done synergistically, with research and analysis informing consensus-building and technical cooperation activities, which are in turn disseminated through the intergovernmental machinery. Some 53 per cent of survey

³⁰ In January 2017, UNCTAD organized the first international forum for national trade facilitation committees, in collaboration with the International Trade Centre, the World Bank, the World Customs Organization and the World Trade Organization. A recent seminar organized by the International Trade Centre also included UNCTAD, the United Nations Industrial Development Organization, World Customs Organization and the World Trade Organization.

respondents who were beneficiaries of technical cooperation programmes stated that DTL research and analysis had informed their work to a great extent, while 31 per cent stated that it had informed their work somewhat. Further, of survey respondents, 92 per cent of delegates and attendees at CSTD sessions agreed that discussions held during intergovernmental meetings related to DTL areas of work were guided by UNCTAD research and analysis.

37. With regard to the Port Management Programme, final dissertations prepared by course participants are published in a port management series. There is otherwise no systematic use made of information generated within the port network for research purposes.

38. Within the Trade Logistics Branch, the focus of policy research has recently shifted to emerging challenges facing transportation, such as maritime and supply-chain security, the impact of rising oil prices on maritime freight costs and the implications of climate change for maritime transport.³¹ Policy research is complemented by legal advice on request. Interviewed beneficiaries of advice and assistance in policy, legal and regulatory issues provided by the Branch considered it useful and of good quality. Some Branch activities, such as support for national trade facilitation committees, imply an increased need for legal advice, but focused on implementation of the Agreement on Trade Facilitation. Therefore, sharpening the scope of the legal advice provided by the Branch may be needed to ensure that given existing limited resources, demands of high priority and importance can be met.

39. Delegates interviewed and surveyed confirmed that they appreciated DTL support to the UNCTAD intergovernmental machinery. Generally, the quality of expert meetings was appreciated and the preparation of policy digests presented by experts considered useful. Some interviewees considered that the duration of expert meetings was too long, given the other commitments of delegates, and others shared the view that the number of presentations did not leave room for discussion. As a subsidiary body of the United Nations Economic and Social Council, CSTD provides the Council and the General Assembly with high-level advice on relevant science and technology issues. CSTD is one of the few multi-stakeholder commissions under the Council. The main outcomes of CSTD are two resolutions per year. Current and former CSTD members, including chairpersons, appreciated the high quality of substantive input provided by DTL, which they confirmed contributed significantly to the passing of CSTD resolutions. Another example of cross-fertilization among the three pillars is the presentation of STIP reviews at CSTD sessions.

40. The UNCTAD intergovernmental machinery, such as sessions of the Trade and Development Board and CSTD, may be better utilized to disseminate DTL results. Digests of key research reports targeted to different user groups (policy digests or market developments for the private sector), as well as a clear formulation of policy recommendations, would also reinforce outreach. An expansion of the group of stakeholders involved in CSTD would also strengthen it as a forum for sharing best practices with regard to the contribution of STI to the achievement of the Sustainable Development Goals.

41. UNCTAD research and consistent awareness raising over the last 20 years, coupled with multi-stakeholder dialogues, have been instrumental in elevating the visibility of the development dimension of e-commerce, under the UNCTAD mandate. Survey results and interviews reflected a high degree of satisfaction with e-commerce awareness raising and capacity-building activities, including e-trade readiness assessments. Assessing the outcomes of the latter would be premature. Responding to a reportedly significant need for further capacity-building, the Science, Technology and Information and Communications Technologies Branch has begun to develop a more systematic, longer term approach to technical cooperation activities and to reach out to different donors. Planned services include rapid e-trade readiness assessments, and the new eTrade for All platform is aimed

³¹ See <http://unctad.org/en/Pages/DTL/TTL/Legal/LegalDocuments.aspx>.

at matching donors to receiving countries. The first session of the new Intergovernmental Group of Experts on E-commerce and the Digital Economy will be held in October 2017.

C. Efficiency

1. Cost efficiency

42. In both bienniums covered by the evaluation, SP4 ranked fourth in terms of resources allotted through the regular budget.³² In contrast, among the five subprogrammes, SP4 attracted the highest percentage of extrabudgetary funds, which has increased over time.³³ However, it is important to note that ASYCUDA accounts for the majority of extrabudgetary resources.³⁴ In 2015, for example, funding for ASYCUDA accounted for 91 per cent of total DTL extrabudgetary resources, whereas other thematic areas, such as STI, received no funding. In addition, the self-financing of ASYCUDA projects is a significant contributor to the increase in extrabudgetary funds for DTL.

43. While progress towards the achievement of outputs has been generally timely (see figure),³⁵ several factors as noted by DTL staff have affected the overall efficiency of SP4, including a lack of human and financial resources, the unpredictability of funding and administrative burdens, among others.

44. The expanded mandate of UNCTAD on e-commerce and the digital economy, as well as sufficiently facilitating CSTD sessions requires additional resources if the organization is to maintain and extend thematic leadership on STI and ICT for development within the United Nations system. Given the overall context of declining regular budget resources in the United Nations system at large, in addition to exploring options for further efficiency gains, for example through strengthening cross-divisional collaboration and cross-fertilization, the prioritization of resource allocation within UNCTAD may be necessary. The shift in demand for specific services may also require adjustments to the structure of DTL. Specific recommendations in this direction would require an in-depth organizational analysis, which would be beyond the scope of this evaluation.

2. Programmatic approaches and results-based management

45. While some technical cooperation activities are embedded in a clearly defined, longer term cooperation framework (such as ASYCUDA and Train for Trade), others are provided on an ad hoc basis (such as individual training sessions, seminars and expert missions), whenever extrabudgetary funding becomes available. This tends to result in stop-and-go support, whereby some promising initial gains are lost due to lack of follow-up. In addition, among survey respondents, 65 per cent of beneficiaries of technical cooperation agreed that SP4 interventions had been designed to deliver long-term results (see figure). Both beneficiaries and donors interviewed expressed a strong preference for multi-year, programmatic assistance.³⁶ DTL staff with a role in fundraising agreed that donors preferred a programmatic approach, to avoid administrative burdens from small-scale projects (70 per cent). Where possible, individual projects at the national level could be integrated into larger programmes, such as eTrade for All and the Enhanced Integrated Framework.

46. It is pivotal that UNCTAD technical cooperation tools strategically contribute to sustainable, positive long-term changes (outcome and impact), following a clearly defined strategy. This view is corroborated by beneficiaries of technical cooperation (see figure). Such a programmatic approach should be accompanied by a strong planning and monitoring framework. The evaluation assessed the minimum results-based management requirements for technical cooperation that were piloted at UNCTAD from 1 July 2016 for

³² TD/B/WP(75)/CRP.2, annex III, table 1.

³³ Ibid, annex III, figure 1.

³⁴ Ibid, annex III, figure 3.

³⁵ 70 per cent of beneficiaries of technical cooperation programmes confirmed that SP4 assistance was delivered in a timely and efficient manner.

³⁶ See, for example, A/RES/71/243, paragraphs 30, 31 and 32.

a one-year period, and reviewed their implementation against four recently approved projects and the *UNCTAD Toolbox* logical frameworks for DTL programmes. The evaluation team acknowledges positive efforts undertaken by UNCTAD and notes that implementing results-based management takes time and involves an incremental approach. However, an analysis of the UNCTAD minimum results-based management standards shows some gaps that may hinder their practical application, including a lack of coherence among the documents and guidelines, comprising the overall results-based management approach for UNCTAD.

47. The evaluation team also found that the implementation of existing minimum standards in approved DTL projects is uneven and can be further improved. The survey of DTL staff found that the greatest results-based management needs lie in collecting data on indicators in the logical framework, preparing and monitoring the budget, using resources effectively and assessing what worked well and what could have been done better. DTL staff identified addressing resource constraints in a timely manner and information technology-based tools for monitoring and reporting as potential solutions to the challenges identified above.

3. Fundraising

48. Looking ahead, the greatest growth prospects for UNCTAD may not be in regular budget resources, but through systematic and targeted fundraising for extrabudgetary resources to meet increased technical cooperation demands.³⁷ In response to the survey, DTL staff identified fundraising as a priority area for the future and were confident with regard to donor interest in SP4, yet required more in-house support from fundraising experts. Besides enhancing programmatic approaches and results-based management, effectively communicating DTL results to stakeholders through a range of platforms and tools might attract interest in its products and bolster confidence in the capacity of DTL to deliver on, and manage for, results through larger and multi-year projects.

49. DTL has been able to successfully mobilize contributions from its partners (such as through port training, training fees, contributions from partner ports and beneficiary contributions to ASYCUDA). There is also further potential to build upon initial positive experiences in sourcing private-sector funding for certain activities (such as e-commerce activities in Egypt funded by Mastercard), while ensuring that the impartiality of UNCTAD is maintained. Some DTL staff with a role in fundraising reported that there were funding opportunities in their areas of work from the private sector (37 per cent). Enhancing private-sector funding also requires a systematic fundraising approach based on guidelines that are specific to the UNCTAD mandate and activities.³⁸

4. Communications

50. Close communications between DTL and support functions are important to strengthen SP4 messaging. Furthermore, communications on DTL results to an interested public need to be strengthened.

51. The systematic communication of information regarding various DTL products was an area raised during interviews with all stakeholders. Some interviewees were unfamiliar with the range of products that UNCTAD offered, while others indicated that additional information was required from DTL to assist them to effectively inform potential donors and beneficiaries about the work of DTL. While the majority of DTL staff reported using a wide range of tools to communicate with external stakeholders (70 per cent) and viewed communications as one of the Division's core areas of work (87 per cent), an effective communications tool developed at the divisional level showing evidence-based results would be of help. Further, staff noted a need for more training to communicate effectively (60 per cent) and for more support from in-house communications experts (58 per cent).

³⁷ Ibid, paragraphs 26, 27 and 34.

³⁸ See the guidelines on cooperation between the United Nations and the business sector and references therein (<https://business.un.org/en/documents/5292>).

5. Partnerships and internal synergies

52. Exchanging input and collaboration with a good variety of United Nations system organizations, international development partners, regional organizations, non-governmental organizations and other UNCTAD subprogrammes leads to economies of scale and enriches the scope, breadth and depth of SP4 intervention. Examples include, among many others, exchanges of data for research (for example, the International Maritime Organization uses data in the *Review of Maritime Transport*), joint workshops (for example with the United Nations Economic Commission for Europe on transport and climate change) and cooperation with local partners in implementing technical cooperation activities (such as with the German Cooperation for International Development agency and the International Trade Centre in Rwanda, and with Trade Mark East Africa in countries of the East African Community). DTL plans to further expand and strengthen such partnerships, in particular for its work on e-commerce and trade facilitation. This is also in line with the 2030 Agenda. Strategic partnerships with relevant non-governmental organizations, leading experts and academia are an important skill base for bolstering UNCTAD policy research and technical cooperation. They merit further development.

53. Within UNCTAD, SP4 has collaborated intensively with other subprogrammes on the Paragraph 166 courses, leveraging the expertise and staff resources of these subprogrammes. Cooperation with the Statistics and Information Branch under SP1 on user-friendly statistics related to maritime transport, and with SP3 on bio trade, was more limited.

6. Implementation modalities

54. As UNCTAD is not a field-based agency, it needs to find nimble, innovative ways to deliver technical cooperation on the ground. In this regard, the evaluation team has assessed three implementation models as promising, namely delivery as inputs to the interventions or programmes of other development actors (such as with the German Cooperation for International Development agency in Rwanda), delivery within formalized cooperation with organizations that have a strong field presence (such as Trade Mark East Africa and the United Nations Environment Programme in Kenya) and delivery as stand-alone self-managed projects such as ASYCUDA (with a sufficient budget for project support staff, including in the field, monitoring and evaluation).

55. In addition, the evaluation team found emerging evidence through interviews of the need to address challenges (for example in maritime transport, trade facilitation and cross-border trade) by working with regional bodies. It may be therefore prudent to investigate how initial positive experiences with regional approaches (such as with the Organization of Eastern Caribbean States, trade corridors in East Africa and reviews of e-commerce legislation harmonization), in addressing development issues of common concern to a region or group of countries within a region, may be replicated where regional cooperation frameworks such as regional bodies already exist.³⁹

D. Sustainability

56. The high visibility of SP4 mandates in the Nairobi Maafikiano and the views of member States expressed during interviews is evidence of existing political will and ownership in this area. Translating this multilateral consensus to sustained progress at the national level will require national ownership, UNCTAD expertise and donor funding, as there is a lack of national capacity to resource, sustain and invest in such efforts.

57. The evaluation team found good examples of incorporating institutional sustainability considerations into technical cooperation, including the alumni networks under Train for Trade and the focus on organizational strengthening of national trade facilitation committees. Strong national ownership, evidenced by high counterpart contributions, increases the likelihood of sustainability. The ASYCUDA approach in

³⁹ See A/71/292/Rev.1, recommendation 4 on strengthening the regional dimension of the work of the United Nations development system.

building institutional capacity at the national level by supporting the set-up of training centres, for example in Rwanda, also ensures the sustainability of the programme.

58. The key challenge to the sustainability of ASYCUDA lies in its reliance on strictly earmarked extrabudgetary resources, which cannot be utilized for necessary software development and upgrading costs, essential to meet the technological needs of countries in the longer term. At the national level, staff turnover among ASYCUDA information technology experts, who leave for employment in the private sector once they have been trained by UNCTAD, was identified as a disruptive challenge for customs authorities.

59. Certain one-time technical cooperation activities in DTL do not sufficiently respond to the sustainability concerns of donors. The key approach for DTL to address sustainability concerns lies in consistently instituting programmatic approaches (see section C) that promote larger projects with multi-year horizons, incorporating clear sustainability strategies. Another way to enhance the sustainability of outcomes is to ensure cross-fertilization among the three pillars (that is, for research to be incorporated in expert meetings on sustainable transport, and this again in technical cooperation activities), requiring more interbranch and interdivisional cooperation.

E. Cross-cutting issues

1. Gender mainstreaming

60. UNCTAD has recently reinforced its gender mainstreaming efforts, through the appointment of subprogramme gender focal points, training, technical cooperation project clearance checklists and a gender mainstreaming strategy for research. Interviews and desk studies concluded that SP4 has integrated gender aspects into some activities. STI and ICT for development activities offer best practices, including in advocating for the need to use science and technology to support women's development and encouraging the role of women in innovation.⁴⁰ In collaboration with the International Labour Organization, UNCTAD has developed practical guidelines for empowering women entrepreneurs through ICT. Other examples include UNCTAD research on ICT and gender.⁴¹ Women were actively involved in the STIP review processes in Oman and Thailand, and the STIP review in Oman identified the problem of underachievement by boys in primary and secondary schools and targeted gender-balanced outcomes in higher education as a policy priority.

61. As evidenced by the staff survey, DTL has self-assessed its own interventions as moderately effective in gender mainstreaming. The lack of a common understanding of gender mainstreaming and how to apply its principles particularly affects technical cooperation and research. The survey of direct beneficiaries of technical cooperation also validates this finding; in listing response items in order of decreasing level of agreement, respondents ranked gender mainstreaming last (see figure). Therefore, despite significant efforts undertaken to date, room for strengthening gender mainstreaming remains. The evaluation team did not find any synergies with other organizational units on gender mainstreaming, nor any gender-related outcomes at the policy level. Staff highlighted the need for gender-disaggregated data, interdivisional collaboration and support from managers. Practical guidance and supporting documents on how to mainstream gender in their development work are also needed. In particular, there is a need to formulate gender-related objectives in project designs, based on an analysis of how a project may affect both genders, and to monitor such objectives. In other words, possible negative outcomes need to be analysed and, if possible, mitigated.

2. Equity and inclusive development

62. Equity and inclusive development are at the core of the mandate of UNCTAD and embedded into SP4 strategic objectives and activities. Capacity-building for national trade

⁴⁰ UNCTAD, 2011.

⁴¹ UNCTAD, 2014, *Measuring ICT and Gender: An Assessment* (United Nations publication, New York and Geneva).

facilitation committees is aimed at enhancing the participation of developing countries in international trade. Train for Trade builds expertise in developing countries, to enable them to participate in international trade. The basis of the UNCTAD STI mandate is on the opportunities for and risks to developing countries of an unprecedented, ongoing technological revolution. Attention to access to ICT has also been observed in the E-commerce and Law Reform Programme. The majority of surveyed beneficiaries of technical cooperation (67 per cent) confirmed that interventions entailed an equity lens by enhancing economic development and competitiveness in developing countries (see figure). With regard to the contribution of STI for the achievement of the Sustainable Development Goals, there is, however, increased scope for STIP reviews to fully address distributional aspects to ensure inclusivity.

III. Conclusions

63. The evaluation identified the following conclusions:

(a) While all DTL mandates remain relevant in light of the Sustainable Development Goals, and notable UNCTAD-wide efforts have been made to ensure alignment with and contributions to the Goals, there remain possibilities to enhance their integration into DTL workplans.

(b) The Nairobi Maafikiano, in comparison with the Doha Mandate, places more weight on STI, e-commerce, the digital economy and sustainability aspects of transport. Fulfilling the expanded mandate to the expectations of member States as reflected in the Nairobi Maafikiano will require additional resources.

(c) Raising additional extrabudgetary resources will require a more systematic, proactive approach. Donor preferences have shifted towards funding larger, longer term programmes with clear intervention logics. For both beneficiary countries and donors, sustainable approaches are pivotal. Moreover, donors require assurance that the UNCTAD results-based management framework meets their minimum planning and reporting requirements, and require results to be communicated. A systematic application of a strong results-based management framework will also assist DTL managers to identify significant changes, pre-empt challenges and ensure learning.

(d) Despite significant efforts undertaken, room to strengthen systematic gender mainstreaming into the work of SP4, particularly in technical cooperation and research, remains. This requires deepening expertise, continued and targeted capacity-building and coaching and clear guidance on applying gender mainstreaming in the planning, management and monitoring of technical cooperation projects and research products.

64. The evaluation identified the following good practices and lessons learned:

(a) Broad consultations with a wide array of stakeholders with regard to STIP reviews ensure a wide range of perspectives and buy-in. In addition, UNCTAD should broaden its approach to provide support for the implementation of STIP review recommendations, policy monitoring and follow-up assessments of new policies. This could also mitigate the present bias towards the research needs of academic institutions versus the practical technology needs of the productive sector.

(b) As evidenced by the implementation of ASYCUDA in Rwanda, institutionalizing the capacity to train information technology experts within the training centres of customs authorities is a good strategy for enhancing the sustainability of results.

(c) Alumni networks are a key value added for UNCTAD and deserve to be further and better leveraged for enhanced visibility and ownership.

(d) The DTL concept of delivering training through mobilizing the resources of partner ports may serve as a model for delivering other similar technical capacity-building assistance.

(e) Emerging evidence suggests that, where there are regional institutional frameworks to link into, regional approaches are an effective and efficient way to address cross-border challenges.

(f) As UNCTAD is not a field-based agency, the following three models for delivering technical cooperation appear to have worked well: providing inputs to the interventions of other development actors; intervening through formalized cooperation with organizations that have a strong field presence; and directly implementing stand-alone projects, where sufficient funding for field-based support staff and monitoring and evaluation is available.

IV. Recommendations

65. The evaluation recommends the following:

(a) To the Secretary-General of UNCTAD and the Director of DTL:

(1) Given the expanded mandate provided by the Nairobi Maafikiano, consider ways of prioritizing existing resources and restructuring, if necessary, to support UNCTAD work on e-commerce, the digital economy and STI for sustainable development.

(2) Evaluate, improve and enforce the UNCTAD results-based management framework. At the Division level, ensure strict and consistent implementation throughout its portfolio.

(3) Develop and implement a detailed fundraising plan with differentiated strategies by different types of donors, including the private sector.

(b) To the Director of DTL:

(1) Develop and implement an evidence-based results communications strategy, targeting a diverse audience.

(2) Enhance the delivery of technical assistance in the form of sustainable programmatic interventions with clear intervention logics.

(3) Make increasing use of regional approaches where challenges are most effectively addressed through regional organizations.