Piloting the Use of Voluntary Third-Party Assurance Programmes (vTPA) in West Africa

STDF/PG/665

END OF PROJECT ASSESSMENT REPORT

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Independent evaluation by:
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Implementing agency:
ONUDI
ORGANISATION DES NATIONS UNIES POUR LE DÉVELOPPEMENT INDUSTRIEL

Independence of evaluation and conflict of interest statement

This report was produced by Roxane Burstow, an independent consultant and Director of RJB International Consult Ltd. It was commissioned as an independent evaluation by STDF but the opinions and recommendations expressed within are the author's own. The author has no conflicts of interest to declare with regards to this study.

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LIST OF ABBREVIATIONS

ACTMAP – African Trade Capacity Building and Market Access Program
ANSSA – Agence Nationale de la Sécurité Sanitaire des Aliments
ARAC – Accreditation Initiative in the Arab Region
ARC – Agricultural Research Council
ATCMAP – African Trade Capacity Building and Market Access Program
AU – African Union
BMZ – The German Federal Ministry of Economic Cooperation and Development
BRCGS – Brand Reputation Compliance Global Standards
CAADP – Comprehensive Africa Agriculture Development Program
CC – Coordination Committee
CCFICS – Codex Committee on Food Import and Export Inspection and Certification Systems
COVID – Coronavirus Disease
DAC – Development Assistance Committee
DPV – Direction de la Protection des Végétaux
ECOWAP – Economic Community of West Africa Agricultural Policy
ECOWAS – Economic Community of West African States
EMU – Eduardo Mondlane University
EU – European Union
FAO – Food and Agriculture Organization
FBOs – Food Business Operators
FSSC – Food Safety System Certification
GDP – Gross Domestic Product
GESI – Gender Equality and Social Inclusion
GFSI – Global Food Safety Initiative
GlobalG.A.P. – Global Good Agricultural Practices
IFS – International Featured Standards
IICA – Inter-American Institute for Cooperation on Agriculture
ISO – International Organization for Standardization
ITC – International Trade Centre
KII – Key Informant Interviews
LOGFRAME – Logical Framework Approach
NEPAD – New Partnership for Africa's Development
PG – Project Grant
PPG – Project Preparation Grant
PRACAS – Programme d'Accélération de la Cadence de l'Agriculture Sénégalaise
PSC – Project Steering Committee
QMS – Quality Management Systems
REC – Regional Economic Communities
REG – Regional Economic Group
RJB – RJB International Consult
SPS – Sanitary and Phytosanitary
STDF – Standards and Trade Development Facility
UEMOA – West African Economic and Monetary Union

UK – United Kingdom
UN – United Nations
UNIDO – United Nations Industrial Development Organization
US – United States
vTPA – Voluntary Third-Party Assurance
WA – West Africa
WHO – World Health Organization
WTO – World Trade Organization

PROJECT INFORMATION

STDF/PG/665
Title Piloting the Use of Voluntary Third-Party Assurance Programmes (vTPA) in West Africa
Implementing agency The United Nations Industrial Development Organization (UNIDO)
Partners Mali : Agence Nationale de la Sécurité Sanitaire des Aliments (ANSSA) Sénégal : Comité national du Codex Alimentarius/Direction de la Protection des Végétaux
Start date 01/02/2020
End date 30/09/2024 The original end date was 11 October 2023. Two no-cost extensions were granted, initially for 6 months and then until 30 September 2024.
Beneficiaries Mali, Senegal
Budget Project Total Value: USD $ 858,065 STDF contribution: USD $ 779,397 Other contribution: USD $ 78,668 in-kind contribution

1 EXECUTIVE SUMMARY

1. **Project aims and objectives:** The project 'Piloting the Use of Voluntary Third-Party Assurance Programmes (vTPA) in West Africa' (hereafter referred to as vTPA-WA) was a Standards and Trade Development Facility (STDF) project that aimed to test the application of the vTPA approach in Mali and Senegal between 2021 and 2024.

   Its goal was: *to improve national food safety standards and regulations for public health and trade*, and its objective was: *test and evaluate how Codex guidelines on vTPA can be practically used by government authorities in Mali and Senegal to enhance food safety outcomes for consumer protection and fair practices in food trade, based on public-private collaboration*.

2. **Partners and beneficiaries:** The United Nations Industrial Development Organization (UNIDO) was the implementing agency. Key beneficiaries included national agencies such as the National Food Safety Agency (ANSSA) in Mali and the Directorate of Plant Protection in Senegal, as well as private sector actors like Food Business Operators (FBOs), cooperatives, certification bodies, auditors, and consumers. Governance was managed by a Steering Committee, supported by a Coordination Committee. Field-level activities were overseen by a Dakar-based coordinator.

3. **The Evaluation:** Between October 2024 and December 2024, the project evaluator reviewed documents data, as well as conducting virtual interviews with key stakeholders in Mali and Senegal, and in-person interviews with stakeholders attending the WTO SPS Committee Thematic Session in Geneva in November 2024.

Summary of Findings

4. **Relevance:** The project was well aligned with national and regional SPS strategies. The design involved consultations with stakeholders, including regulatory authorities and FBOs. Country selection was based on STDF relationships and beneficiary interest rather than vTPA readiness. The sector focus on mangoes was highly relevant, targeting a key export. While Senegal and Mali faced distinct readiness levels and challenges, a common approach was adopted, resulting in varied outcomes. While there was extensive engagement via the PPG in-country work, beneficiary engagement was more limited at project launch given the impact of COVID-19 which did not allow for in-country engagement. However, awareness and buy-in, especially from regulatory authorities, increased during implementation.

5. **Coherence:** vTPA-WA was coherent with STDF priorities, Codex Committee efforts, and other SPS interventions, adding value without duplication. In Senegal, it complemented other projects, and coherence was increased through jointly delivered activities. The vTPA Partnership Platform facilitated collaboration with other pilots and actors.[1] Attendance at Forums deepened understanding and shared practical insights into vTPA applications and risk-based inspections.

[1] Information on the Platform is available here: https://standardsfacility.org/public-private-partnerships. Collaboration through the Platform also raised additional resources and expertise (from private sector and regulators in developed countries) in support of the project.

6. **Effectiveness:** There were important adaptations in activities during delivery due to limited beneficiary capacity in vTPA, the impact of COVID-19, and Mali's unstable security environment. Key activities included: awareness building through studies and training (with 11 training sessions), establishing a vTPA partnership platform, and country roadmaps. Activities such as developing a national platform for information exchange, a digital application, a voluntary capacity-building program in food safety for FBOs, and selecting SMEs for mentorship did not take place. These were replaced by the development of vTPA tools, with a practical training on the mango value chain being an unexpected result. Gender Equality and Social Inclusion (GESI) was well mainstreamed. While some results were achieved, effectiveness could have been improved through more contextualized support and practical capacity building, as well as participatory approaches to the development of key tools such as the roadmaps.

7. **Efficiency:** Activities were largely delivered within budget and schedule, despite delays due to COVID-19. Efficiency was achieved through resource-sharing, including co-funded mango training in Senegal and cost-sharing for vTPA training in Egypt. Despite Mali's fragile security context, beneficiary engagement remained high, with coordination centralized in Dakar.

8. **Impact:** As a pilot program, its long-term impact on trade is not yet measurable. However, it raised awareness and laid the groundwork for the adoption of vTPA programme, notably in Senegal which is in the process of formalizing the vTPA approach in legislation. While Mali has shown interest in expanding vTPA and making operational changes, it is further behind in uptake. There is evidence that training has influenced food safety practices in both countries. While the project worked effectively with regulatory authorities, FBOs engagement remains more limited.

9. **Sustainability:** Progress has been made integrating vTPA into the national food control management system, particularly in Senegal but sustainability faces challenges linked to certification costs and limited local capacity. Tools like the vTPA readiness check and roadmaps, while providing useful assessments of country-readiness and next steps for independent implementation, have not been developed in a participatory way and there is limited evidence of buy-in.

   The continuation of the vTPA partnership platform is a strong indicator of sustainability with knowledge exchange ongoing with other pilots and participating stakeholders. Beyond the target countries, the vTPA tools provide useful resources for other countries interested in the approach. There is growing interest from the AU and ECOWAS to roll out the approach regionally. Donor support is available for this through the EU-funded ATCMAP initiative.

10. Lessons Learnt

- Selecting countries with a sufficient baseline level of awareness and organization is an important pre-requisite for vTPA roll-out.
- Selecting a common sector (e.g. mango) can help facilitate collaboration between pilot countries and enable a targeted approach to training and roadmap development.
- There is no one-size-fits all approach to capacity building, the amount and type of support should reflect the different levels of need in each country.

- While the use of best practice models (e.g. from Canada, Germany, UK) is helpful, the effectiveness of vTPA systems depends heavily on adapting models to local conditions
- Practical capacity building, and support with immediate needs such as certification, is important for FBO engagement. In-person trainings are critical in the West Africa context.
- Demonstrating the use of vTPA as a tool for targeted, risk-based inspections, as aligned with the Codex Guidelines (to supplement government inspections) is key to build confidence and support broader adoption.
- A participatory approach to roadmap development, including the private sector, would ensure greater buy-in for recommendations.
- The success of the partnership platform demonstrated the usefulness of establishing a network for sharing experience, knowledge, expertise, lessons, and fostering South-South as well as public-private and South-North exchanges.

Recommendations (listed in terms of priority):

1. *UNIDO:* Follow up with beneficiaries on the implementation of roadmap recommendations.

2. *Pilot country regulatory authorities:* Set up national vTPA steering committees to facilitate stakeholder dialogue, address challenges, and oversee progress.

3. *Relevant donors, such as the EU through the ACTMAP project*: Explore the potential for follow on interventions in the target countries building on pilot results: this should be a more comprehensive program of support widening remit to other sectors, combining practical value-chain training, resources supporting certification, policy support for regulatory frameworks, alongside further vTPA capacity building.

4. *Relevant donors and international organizations:* Target other countries in the region with existing capabilities for new pilot projects to ensure more effective and sustainable vTPA outcomes. Côte d'Ivoire, for instance, may be a strong candidate.

5. *UNIDO/ STDF/ Relevant donors:* Continue supporting options for scaling the vTPA approach regionally in West Africa and the wider Africa Region.

6. *STDF:* Consider future economic analysis looking at measuring trade impact of vTPAs, including in the pilot countries.

2 INTRODUCTION

2.1 Purpose and context

11. The project vTPA-WA was a project that aimed to test the application of the vTPA approach in two target countries (Mali and Senegal), implemented between 2021 and 2024.

12. At the time of design, vTPA was used by governments in developed countries (e.g. UK, Canada) to ensure food safety compliance through public-private collaboration. Developing countries were also beginning to explore vTPAs in order to move towards a risk-based food control system to better allocate scarce resources.

13. Despite the potential benefits, regulatory authorities in some countries remained skeptical about its use due to limited trust with the private sector and concerns over its potential impact on their authority. To address these concerns, STDF initiated pilot projects to build capacity and raise awareness on the approach amongst regulatory authorities and FBOs, with the aim of improving risk-based food control systems in selected value chains.

14. The pilot was initially conceived under a Project Preparation Grant (PPG) (STDF/PPG/665) by Senegal, Mali, and Uganda. It was subsequently divided into two sub-regional projects for West Africa (Senegal, Mali) and East Africa (Rwanda, Uganda).[2]

15. As per the proposal, the project aligned with international and STDF objectives to support the implementation of international standards in terms of:

- supporting the Codex Committee's work on guidelines for using data from voluntary third-party assurance programmes (VTPA) in national food control systems;
- testing how vTPA programmes can enhance food safety in selected value chains, in targeted developing countries where this approach has had less application;
- contributing to global discussions at Codex, the WTO SPS Committee, and GFSI G2B forum on integrating vTPA into regulatory practices in developing countries;
- and aligning with previous STDF work by piloting and creating learning tools from innovative projects of regional or international scope involving multiple stakeholders.

16. The expected results of the project were as follows:

Project goal: To improve national food safety standards and regulations for public health and trade.

Project objective: To test and evaluate how Codex guidelines on voluntary third-party assurances (vTPA) can be practically used by government authorities in Mali and Senegal to enhance food safety outcomes for consumer protection and fair practices in food trade, based on public-private collaboration.

[2] A third project was implemented in parallel in Central America (STDF/PPG/682). The East Africa and Central America projects will hereafter be referred to as vTPA-EA and vTPA-CA respectively.

Table 1 Project results and products

Result 1: Increased awareness among regulatory authorities in pilot countries on how to evaluate and utilize data generated by VTPA programmes.	**Product 1.1:** National policy/strategy documents developed in pilot countries for implementing options to evaluate and utilize data from VTPA programmes within national food control systems. **Product 1.2:** Pilot-tested risk-based inspection capabilities for selected value chains.
Result 2: Improved compliance of food sector operators (FSO) with food safety standards in selected value chains through a voluntary capacity-building program.	**Product 2.1:** Development and pilot testing of voluntary food safety capacity-building programs for food sector operators in the pilot countries.
Result 3: Increased awareness among food safety regulators on the application of the VTPA approach in other countries.	**Product 3.1:** Organization of regional and global events on VTPA programmes with participation from pilot countries. **Product 3.2:** Establishment of a partnership platform for coordinating regional interventions and resource mobilization from public and private sectors.

Implementation Context:

17. With increasingly globalized and vertically integrated supply chains, vTPA and certification systems have become important for food safety and quality in international trade. This approach, which relies on third parties to supplement regulatory authority capacity and reduce inspections, has been successfully implemented in a number of developed country contexts such as Canada, Germany, the Netherlands and the UK. However, its adoption remains limited in developing countries.

18. vTPA programmes can help developing countries more efficiently allocate the limited resources of their national food control systems. This can lead to improved food safety, enhanced market access, and strengthened competitiveness in international trade. However, these countries face numerous challenges in implementing vTPA systems, due to limited institutional capacity and resources, as well as a lack of local infrastructure, both for adopting vTPA programmes and integrating vTPA data into their national food control systems.

19. Senegal has seen a recent increase in collaboration between authorities and the private sector, with third-party certifications like GlobalG.A.P. and BRCGS already in use.[3] This has contributed to increases in horticultural exports, with Senegal currently West Africa's second-largest mango exporter. However, it continues experiencing challenges with inspections due to limited resources, underscoring the need for a more robust risk-based inspection framework.

20. In Mali, where agriculture and fishing comprise over 35% of GDP, food safety regulation is hindered by limited capacity, outdated laws, and resource constraints. The economic environment in Mali is less supportive of vTPA systems compared to Senegal with the country still

[3] According to the preliminary study these were the FBO numbers using vTPA at project start in Senegal: 13 companies producing a variety of fruits and vegetables are certified by *GlobalG.A.P.* (including 10 companies certified by ECOCERT, 2 by TUV-NORD INTEGRA, 1 by the Bureau Norme et Audit, and 1 by Eurofins Certification). *British Retail Consortium Standards*: 3 Senegalese companies are BRC certified (including 2 companies certified by Eurofins Certification and 1 by Certima B.V).

needing to building foundational food safety capacity and improve export readiness. Its food control system has limited resources, and lacks a risk-based regulatory approach. While some sectors have adopted vTPA, most certification services are foreign-based, and public labs lack ISO 17025 accreditation.[4]

21. Although both countries have seen an increase in their export volumes, the lack of compliance with international food safety standards remains a major challenge, threatening their competitiveness. Investments are needed to further strengthen regulatory frameworks, local certification, and infrastructure to meet growing export demands and align with international standards.

22. The project aimed to bridge this gap, raising awareness of vTPA's potential to supplement the capacity of competent authorities, leveraging data generated by vTPA programmes to guide their inspections, and optimizing their limited resources.

Alignment with national, regional and international priorities and obligations:

23. In Senegal it supported the National Food Safety Strategy (2018-2035) which emphasizes private sector responsibility for food safety, particularly through self-monitoring and Quality Management Systems (QMS), as well as the PRACAS (Program for Accelerating the Pace of Senegalese Agriculture) stressing adherence to SPS standards for export growth.

24. It aligned with Mali's National Food Safety Policy, developed in 2002, which led to the creation of ANSSA. [5] The project aimed to optimize limited regulatory resources and foster stronger collaboration between food regulators and private sector operators, to enhance ANSSA's inspection capacity.

25. Regionally it aligned with the Economic Community of West African States's (ECOWAS) Economic Community of West Africa Agricultural Policy (ECOWAP); and the Comprehensive Africa Agriculture Development Program (CAADP), a component of the African Union's New Partnership for Africa's Development (AU/NEPAD) which prioritizes food and food safety, with regulations like SPS C/REG. 21/11/10 focusing on harmonizing food safety frameworks and raising private sector awareness on SPS issues to enhance market access. It also contributed to UEMOA's aim to promote Codex-aligned standards to enhance market access across West Africa.

26. In addition, the project supported the UN Sustainable Development Goals (SDGs) through a strengthened horticultural sector including SDG2 (zero hunger: end hunger, achieve food security and improved nutrition and promote sustainable agriculture) and SDG12 (responsible consumption and production: ensure sustainable consumption and production patterns).

[4] According to the preliminary study these were the FBO numbers using vTPA at project start in Mali: (in the fresh fruits and vegetables sector): as of March 18, 2021, 4 companies involved in the production and export of fresh mangoes were certified by Global.G.A.P. (respectively by Ecocert SA and Tuv Nord Group Integra.)

[5] The creation of a National Food Agency was seen as a significant advancement for food safety management in Mali and a model for other African nations.

2.2 Implementing partners and beneficiaries

27. **Implementing partner:** The United Nations Industrial Development Organization (UNIDO) was responsible for the management, implementation, and coordination of the project, overseeing activities across both countries.

28. **Main beneficiaries:** Mali: ANSSA, the Malian Agency for Standardization and Quality Promotion, the National Directorate of Agriculture, the National Directorate of Industry, and the Directorate General of Trade and Competition. Senegal: the National Codex Committee, the Directorate of Plant Protection, the Directorate of Domestic Trade, the National Hygiene Service, and the Senegalese Standardization Association.

29. **Private Sector:** including FBOs, farmer organizations, SMEs, and cooperatives (e.g., Mali's National Federation of Private Sector Processors and Senegal's Horticulture Cooperative Federation)

30. **Other:** local auditors, certification bodies, distributors, and retailers; codex members (informing CCFICS work on regulatory approaches to third-party assurances; national and international consumers (benefiting from safer food in improved sectors)

31. Governance structure:

- Strategic Level: A Project Steering Committee (PSC), comprised of high-level representatives from key government departments, supervised the project's management and implementation in each country. The PSC was supported by a Coordination Committee (CC) which also included private sector stakeholders. Regular meetings were held to review progress and realign activities as necessary.
- Project Management Level: The project was managed by the Division of Sustainable Food Systems within UNIDO, with a designated Project Manager working closely with the PSC to ensure effective execution. A project coordinator handled daily project coordination.
- Field Level: A field coordinator based in Dakar was hired to oversee daily project activities in both Mali and Senegal.
- Advisory: An advisory group with representatives from beneficiary countries, as well as regulators and donors from developed countries (e.g., Canada, UK, US) was set up. The group also involved international organizations like IICA, FAO, and the Codex Secretariat. This group intended to meet during conferences (e.g., GFSI/G2B or Codex meetings) to discuss project outcomes, identify synergies with ongoing projects, and share best practices. However, COVID impacted the original approach, with the consultations moving online and to other fora (e.g. Vienna Food Safety Forum).

3 METHODOLOGY OF THE ASSESSMENT

32. The STDF/PG/665 project evaluation took place from October 2024 to December 2024. Evidence collection included: a document review; key informant interviews (KII) conducted virtually, and in-person attendance at the WTO SPS Thematic Session (Geneva,12th November 2024). The

evaluation framework provided questions to guide semi-structured interviews with stakeholders. Findings were logged in an evaluation matrix against the evaluation questions.

33. The document review and interviews were carried out in French by the Evaluator. However, interview transcripts and the assessment report were drafted in English as per contracting requirements. A one-page summary of the draft assessment report was provided in French and circulated to the beneficiary for comment.

Document Review:

34. A review of all relevant documentation was completed. This included applications and progress reports (e.g. PPG, PG, seven (7) bi-annual progress reports, final report), as well as technical studies (e.g. preliminary studies, GESI study etc.) and documents related to the training delivered. A full list is provided in Annex A.

Key Informant Interviews (KIIs):

35. The Evaluator interviewed a total of eleven (11) people, including government authorities and private sector representatives in Mali and Senegal, as well as UNIDO and STDF project representatives for the vTPA-WA. These took place virtually between the 8th October - 4th November, 2024.

36. Additionally, the SPS Committee Thematic Session was attended in person in Geneva to gather lessons from pilot projects in West Africa, Central America, and East Africa. A further six (6) KIIs took place in the margins of the event on the 12th – 13th November.

37. A total of seven (7) women and ten (10) men were interviewed.

Data Limitations:

The main limitations were as follows:

38. The budget allocated for the evaluation was insufficient to conduct a fully comprehensive assessment. Travel to Senegal or Mali was therefore not possible and interviews were conducted virtually. This also limited the scope of the evaluation, with only five (5) interviews originally factored in.

39. Connection issues affected the quality of some of the interviews which had to be supplemented with a follow up survey.

40. Due to the nature of the project as a pilot, its impact was centered around awareness and capacity building, therefore data on the project's impact on trade was not available.

41. The project worked primarily with the main regulatory agencies in both countries (i.e. ANSSA and DPV). While private sector representatives were interviewed, their engagement on the project and buy-in to the vTPA approach was comparatively shallow.[6]

42. Key documents such as the roadmaps and final report were not shared with the Evaluator until the day before draft report submission which led to delays in the analysis.

[6] They mostly took part in selected trainings, and there was a lack of consistency in terms of the representatives involved during implementation.

4 FINDINGS AND ANALYSIS

43. The findings are aggregated and presented below by evaluation criteria (based on DAC criteria[7]).

4.1 Relevance

The project was well aligned with national and regional SPS strategies. The design involved consultations with stakeholders, including regulatory authorities and FBOs, with country selection based on STDF relationships and beneficiary interest rather than vTPA readiness. The focus on mangoes was highly relevant, targeting a key export sector. While Senegal and Mali faced distinct readiness levels and challenges, a common approach was adopted, resulting in varied outcomes. Initial beneficiary engagement was limited due to COVID-19, but awareness and buy-in, especially from regulatory authorities, increased during implementation.

44. Overall, the project objectives and activities were well aligned with national and regional SPS strategies (see Section 0) – as well as the stated priorities of beneficiaries in both countries.

45. The project was designed in consultation with a broad range of stakeholders representing regulatory authorities and FBOs through the Project Preparation Grant (STDF/PPG/665) and resulting PG. Initially conceived under a Project Preparation Grant (PPG) (STDF/PPG/665) by Senegal, Mali, and Uganda, it was later divided into two sub-regional projects for West Africa (Senegal, Mali) and East Africa (Rwanda, Uganda) for practical and linguistic reasons.8

46. The engagement of Mali and Senegal in the project was demand-driven and based on the interest of regulators in both countries. It followed on from the STDF PPG, which was requested by and involved both countries. The selection of the two beneficiary countries was not based on an extensive assessment of vTPA readiness in both countries.

47. The selection of the horticultural sector as the target value chain was seen as highly relevant for both countries.[9] The focus on the mango sector was informed by preliminary studies which identified it as a key product, notably for exports. Selecting a common sector was seen as positive for fostering trade between the two countries. Focusing on one value chain helped facilitate a targeted approach to training for horticulture sector actors as well as roadmap development and is a positive take-away from the pilot.

48. The two countries offered distinct contexts and levels of readiness for vTPA adoption, with Senegal more advanced. The country motivations for participating in the pilot differed.[10] Both

[7] The standard evaluation criteria laid out by the OECD Development Assistance Committee. See https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm
[8] A 3rd project was implemented in parallel in Central America (STDF/PPG/682). The East Africa and Central America projects will hereafter be referred to as vTPA-EA and vTPA-CA respectively.
[9] We note that the small-scale fisheries sector was initially selected for Mali at the PPG stage, but this was later changed to horticulture, aligning with Senegal.
[10] Mali focused primarily on building foundational food safety capacity and improving export readiness in the horticulture sector. Senegal aimed to strengthen its already established export-oriented horticulture sector by enhancing risk-based inspections and SPS controls.

countries, however, faced common challenges, such as the lack of locally based certification and a shortage of qualified auditors. Notwithstanding the different contexts, the same approach was taken and joint activities developed. This ultimately led to varied results.

49. Despite extensive consultations at PPG and PG stage, the project scope and vTPA concept were not fully understood by beneficiaries at the outset, which led to a disconnect in terms of expectations and affected initial engagement. Requests were received for activities beyond the project's remit (such as certification support and specific training on value chains). However, awareness deepened during implementation as did beneficiary buy-in to the potential benefits of the vTPA approach, notably from regulatory authorities.

50. Support from FBOs was more mixed throughout. In the case of Senegal, evidence suggests that their recommendations were not well integrated in original project design. A lack of continuity among private sector participants taking part in training in Mali impacted their sustained engagement during implementation.

4.2 Coherence

vTPA-WA was coherent with STDF priorities, Codex Committee efforts, and other SPS interventions, adding value without duplication. In Senegal, it complemented other projects, and coherence was increased through jointly delivered activities. The vTPA Partnership Platform facilitated collaboration with other pilots and actors. Attendance at Forums deepened understanding and shared practical insights into vTPA applications and risk-based inspections.

51. The project was highly coherent with STDF's priorities,[11] and aligned with CCFICS efforts to develop guidelines for and test vTPA. There is evidence to suggest that it added value to the target countries and aligned with other SPS interventions nationally, regionally and internationally. The vTPA pilot tested a novel approach in the region, and hence there was no duplication or overlap with existing SPS initiatives.

52. In Senegal, the project complemented other ongoing SPS-related initiatives, including an FAO project and Canadian Food Inspection Agency activities, through coordinated training sessions and awareness-raising efforts. Synergies were also leveraged with a German-funded UNIDO value chain initiative focused on mangoes, which co-funded training on phytosanitary compliance. This increased stakeholder engagement in the project.

53. While Mali had existing SPS interventions (e.g. on food safety infrastructure and aflatoxins funded by the FAO and WHO), there were reportedly no jointly delivered activities with the vTPA-WA, though their objectives were highlighted as complementary.

54. The project consistently shared lessons learnt and leveraged synergies with other vTPA pilots and relevant SPS initiatives. This was formalized from the outset through the vTPA Partnership

[11] Including its work on "Public-Private Partnerships to enhance SPS capacity" and "The implementation of SPS Measures to facilitate safe trade - Selected Practices and Experiences in Malawi, South Africa and Zambia" which explored the benefits of third-party certification.

Platform which served as a collaborative hub, bringing together stakeholders from STDF, implementing agencies, beneficiaries, and certification bodies.

55. Joint activities, including training sessions and conferences, deepened participants' understanding of vTPA and its practical applications across various contexts, including best practice examples. Events such as the Vienna Food Safety Forum and the vTPA Forum in Egypt attended by regulators from Mali, Senegal, and other pilot countries provided practical insights into risk-based inspections and leveraging vTPA data, allowing them to share experiences.

56. Given the location, the Egypt Forum was also attended by beneficiaries from a separate Enhancing Accreditation Value Chain in the Arab Region (ARAC)[12] project managed by UNIDO that included some activities around vTPA.

4.3 Effectiveness

There were important adaptations during delivery due to limited beneficiary capacity in vTPA, the impact of COVID-19, and Mali's unstable security environment. Key activities included: awareness building through studies and training (eleven training sessions took place), establishing a vTPA partnership platform, and country roadmaps. Activities such as developing a national platform for information exchange, a digital application, a voluntary capacity-building program in food safety for FBOs, and developing SME criteria for mentorship did not take place. These were replaced by the development of vTPA tools, with a practical training on the mango value chain being an unexpected result. GESI was well mainstreamed. While some results were achieved, effectiveness could have been improved through more contextualized support and practical capacity building, as well as participatory approaches to the development of key tools such as the roadmaps.

Result 1: Increased awareness among regulatory authorities in pilot countries on how to evaluate and utilize data generated by vTPA programmes.

Product 1.1: National policy/strategy documents developed in pilot countries for implementing options to evaluate and utilize data from vTPA programmes within national food control systems; Product 1.2: Pilot-tested risk-based inspection capabilities for selected value chains:

57. Activities under Result 1 including studies, training and mentoring activities were largely achieved, though two activities conceived in the original logframe e.g. establishing a national information platform and digital application did not take place.

58. Initial workshops were held presenting the outcomes of the preliminary studies, which reviewed existing control systems and capability in the targeted value chains (e.g. horticulture/ mango) in both countries and were used to inform the project approach. This was followed by two national workshops aimed at raising vTPA awareness for regulatory authorities and FBOs.

[12] ARAC was launched on June 12, 2011 to be the Arab Cooperation Accreditation Body for the planning, development and coordination of the accreditation infrastructure in the Arab region (22 Arab countries) to support inter / intra Arab trade, improve the competitiveness, provide trust in Arab goods and services and protect health and safety of the public and the environment. Further information here: https://arabaccreditation.org/

59. Mentoring was delivered in the form of online exchanges with regulators from other countries, who introduced implementation of Codex directives for vTPAs, and risk-based evaluation systems (e.g. the Canadian model) to regulators and FBOs. Representatives from regulatory authorities were also invited to attend a regional Forum on vTPAs in Egypt in person.

60. While positive feedback was obtained on the capacity building overall, it was noted that attendance at webinars – delivered due to COVID-19 - was low, especially in the initial stages.[13] There was some resistance to the use of European models and the lack of contextualized materials. It was noted that international experts delivering the sessions had a limited understanding of production constraints in the target countries, and in some instances lacked fluency in French.

61. The effectiveness of the training was also compromised by its theoretical nature, with FBOs noting that observing certification processes like IFS and BRCGS in action would have been more useful,[14] and highlighting challenges around certification (including high compliance costs) as a more pressing need. This underscores the need for a more comprehensive program of support combining resources supporting certification, alongside awareness building of vTPA.

62. Finally, practical roadmaps were developed for both countries, outlining next steps for wider vTPA adoption. The same consultant was used for both roadmaps to ensure synergies. This was developed based on the vTPA readiness check. Short consultations took place with regulatory authorities, however FBOs were not consulted, and a broader participatory approach was not taken.[15] There were delays in finalizing the roadmaps, and it is unclear whether there was buy-in to its recommendations from key stakeholders.

63. Activities including establishing a national platform for information exchange between authorities and vTPA stakeholders, and developing a digital application to enhance regulatory decision-making did not take place due to the absence of digital management information systems on performance monitoring based on risk-based inspection practices.

Result 2: Improved compliance of FBOs with food safety standards in selected value chains through a voluntary capacity-building program.

Product 2.1. Voluntary Capacity Building Programs for Food Safety Developed in Pilot Countries and Tested Among Food Sector Operators in Selected Value Chains; Product 2.2 Development of vTPA tools (Model Food Safety Scheme, vTPA Assessment Tool, Training materials on risk-based assessment)

64. While Result 2 led to some achievements, its activities were not completed as per the original logframe. The voluntary capacity-building program in food safety for FBOs was replaced by the development of vTPA tools and the criteria for selecting SMEs for mentorship and linking them

[13] Attendance to webinars was comparatively higher in other pilots such as vTPA-CA.
[14] We note that the vTPA-CA and vTPA EA pilots participated in more practical exercises such as a study trip to the UK on implementing Codex guidelines for vTPA which allowed participants the opportunity to observe certification processes first-hand. Participants were introduced to the risk-management system used in the UK and the role of RedTractor a major vTPA owner in the UK. However, given language barriers this was not available to the vTPA-WA beneficiaries and delivered in the form of webinars instead.
[15] Unlike the approach taken for the development of the vTPA-CA roadmaps in Belize and Honduras.

with larger enterprises was not developed. A practical training on the mango value chain was added as a new activity leading to unexpected results see section: 4.7Other unexpected results.

65. Activities included developing a risk-based study analyzing the inspection systems in both countries which revealed that, while structured phytosanitary inspection systems exist for mangoes, they do not consider food safety. This was followed by training on risk-based systems, highlighted by respondents as beneficial.

66. A vTPA toolkit was developed to assist competent authorities in evaluating food safety systems based on Codex guidelines. The tools were presented in Egypt along with practical exercises to teach regulators how to assess vTPA programmes and utilize the resulting data. Upon completion, participants were tasked with presenting implementation recommendations to their organizations.[16]

67. Finally, two sessions were held, delivered virtually and in-person, presenting international and national vTPA certification programmes (BRCGS, FSSC, IFS, GLOBALG.A.P., and Red Tractor). The in-person event delivered on the 16 - 20 May 2022 in Dakar, Senegal was attended by over 80 participants, highlighting the importance of the in-person approach in the West Africa context.

Result 3: Increased awareness among food safety regulators on the application of the VTPA approach in other countries.

Product 3.1: Regional and global events; Product 3.2: Partnership Platform

68. Result 3 was achieved as per the original logframe and arguably the most successful. Many joint initiatives took place bringing together stakeholders through Forums in Cairo and Vienna, allowing South-South and North-South exchanges with regulators from other pilot countries and beyond.

69. Additionally, the vTPA Partnership Platform established by UNIDO held seven (7) meetings during implementation. This led to partnerships with vTPA certification schemes and international regulators that were instrumental in the delivery of subsequent training and sharing of best practice. The platform is expected to continue beyond project end.

70. Representatives were invited to share experiences during the WTO SPS Committee Thematic Session, with the Mali regulatory authority presenting outcomes of the project (Senegal did not attend) allowing for further knowledge building.

Key risks:

71. The COVID-19 pandemic delayed the project start by 10 months with only limited activities taking place in the first year. During this time, capacity-building sessions were carried out virtually. This was challenging to deliver online, especially for certification[17] and inspection training. To address this, the project explored developing an online platform to facilitate blended learning, combining remote sessions with occasional in-person interactions, and reallocated travel budgets to

[16] Mali was the only country to successfully complete this task.
[17] Trainings related to certification included: May 2022 in Senegal - ABCs of a scheme and training from scheme owners (IFS, BRCGS, FSSC); virtual awareness session with scheme owners (FSSC, IFS, GlobalG.A.P., Red Tractor) in May 2021; GlobalG.A.P. training in person in May 2023 Mali.

support this. The shift to virtual formats led to reduced engagement, particularly in Senegal. This picked up when in-person activities resumed.

72. Mali's challenging environment affected implementation, especially following the coup d'etat in 2021 which led to an institutional restructure. This led to cancellation of activities in Mali in 2022, with most training taking place in Senegal. In spite of this, ANSSA remained engaged and committed throughout.

4.4 Efficiency

Activities were largely delivered within budget and on schedule, despite delays due to COVID-19. Efficiency was achieved through resource-sharing, including co-funded mango training in Senegal and cost-sharing for vTPA training in Egypt. Despite Mali's security issues, beneficiary engagement remained high, with coordination centralized in Dakar.

73. The vTPA-WA project was largely implemented on time, though there were two no-cost extensions. The first was due to COVID-19, with many activities adjusted and postponed due to its impact. The second allowed finalization of the end-of-project assessment and roadmaps.

74. The budget requested from STDF was US$ 779,397. The total project value was US$ 858,065. Total expenditure was US$ 778,349.96 (with only US$ 1,047.04 remaining unspent).

75. Respondents highlighted that there were few delays in the disbursement of funds and that resources were used effectively. This was supplemented by in-kind contributions from ANSSA and the DPV in support of project activities.

76. There were a number of costs saved during delivery for instance:

- A mango value chain training in Senegal was co-funded through a separate UNIDO project supported by The German Federal Ministry of Economic Cooperation and Development (BMZ) following interest from the vTPA-WA beneficiaries. The BMZ project covered some participant costs (approx. ten participants) as well as communication costs.
- A training delivered in Senegal where experts from IFS an FSSC covered their own participation costs.

77. Total cost savings are estimated at US$ 23,730.[18] Other partners like GlobalG.A.P., also supported the program through capacity building, although their contributions have not been fully quantified.

[18] The high-level training delivered in Senegal where experts from IFS an FSSC covered their own costs represented a contribution of approx. US$ 22,044. The remaining US$ 1686 savings are attributable to the mango training supported by the UNIDO project funded by BMZ.

78. A wider benefit is the availability of the vTPA toolkit resulting from the project that can be accessed by other developing countries interested in the vTPA approach and supported by UNIDO.

79. Due to the volatile security situation in Mali, most activities and training sessions were carried out in Senegal, with project coordination centralized in Dakar. Despite these challenges, Mali's engagement remained high. Low personnel turnover during delivery (with only one major change being the main contact at the DPV after inception) contributed to the project's overall efficiency.

4.5 Impact

Designed as a pilot program, vTPA-WA's long-term impact on trade is not yet measurable. However, it raised awareness and laid the groundwork for the adoption of vTPA systems, notably in Senegal which is in the process of formalizing vTPA in legislation. While Mali has shown interest in expanding vTPA and making operational changes, it is further behind in adoption. There is evidence that training has influenced food safety practices in both countries. While the project worked effectively with regulatory authorities, FBO engagement remains more limited.

80. The project goal was to "*improve national food safety standards and regulations for public health and trade*." However, assessing the long-term impact of the project is not yet possible, notably as it was a pilot.[19] Changes in SPS compliance, trade opportunities, and food safety outcomes are typically not achieved in the short to medium term. But, although direct improvements in compliance or export gains may not yet be apparent, there is evidence that – through awareness raising - the project has laid the groundwork for greater adoption of vTPA.

81. For instance, Senegal has taken concrete steps towards formalizing the use of vTPA within its legislation. Building on the initial foundation of awareness and use of vTPAs,[20] the project helped Senegal consolidate its risk-based approach to food safety management, as well as strengthening relationships with vTPA certifiers. As a result, Senegal is reportedly revising its outdated health and safety legislation to align wih international regulations and facilitate a more effective adoption of the approach by relevant authorities. [21] Revisions are being applied to its phytosanitary legislation, which includes a new phytosanitary law and at least three implementing regulations. While this effort extends beyond vTPAs, specific elements of vTPAs will be incorporated into the new law to support the promotion of self-monitoring systems.

82. While Mali is less advanced, the project has successfully generated interest in expanding the use of vTPA, including in other value chains (e.g. the meat sector). While no regulatory changes are currently planned, ANSSA plans to incorporate changes related to vTPA to its upcoming

[19] We note that no in-depth economic analysis has yet been done on vTPA programmes globally to map out benefits.
[20] Even before the project, Senegal integrated questions related to vTPA certification into its inspection processes, with FBOs reportedly needing to comply with vTPA programmes for export by overseas buyers.
[21] A national consultant has already been hired, and they are in the process of recruiting an international consultant, with discussions ongoing with the AFA to review all of Senegal's safety legislation. They expect the legislation to be in place by end of 2025.

operational plan. Updates to the national food safety policy are expected to be a slower due to frequent leadership changes and an uncertain security situation. [22]

83. Data suggests an increase in companies using vTPA in both countries.[23] At end of project the certified FBOs in the mango sector were:

- Senegal: 33 in Global.G.A.P.;
- 3 in BRCGS (with 4 not working with mango).

- Mali: 550 in GlobalG.A.P.[24];
- FSSC 1 firm that was recently suspended.

Although the project was aimed at improved regulatory practices rather than promoting certification, the training provided related to certification (including GlobalG.A.P.) in Senegal and Mali did build awareness so it is possible to attribute at least partial causality of this increase to the project.

84. The training has led to changes in the practices of actors in both countries. The DPV in Senegal has reportedly consolidated its risk-based system, organizing relationships with FBOs more systematically, defining procedures, self-regulation systems, and inspection schedules. Mali has taken practical steps to address its fragmented food safety activities. This includes requiring control services and laboratories to report directly to ANSSA, [25] and exploring risk-based approaches.[26]

85. We note that the project worked more closely with regulatory authorities, with FBOs, though key stakeholders, reporting less sustained engagement during the project. Evidence suggests that only a limited number of inspectors received training in Mali[27] and there was a lack of continuity in actors trained. Private sector disengagement was also noted in Senegal.

4.6 Sustainability

[22] The last update took place in 2002.
[23] As per Section 2.2 according to the preliminary study these were the FBO numbers using vTPA at project start. Senegal: 13 companies producing a variety of fruits and vegetables are certified by *GlobalG.A.P.* (including 10 companies certified by ECOCERT, 2 by TUV-NORD INTEGRA, 1 by the Bureau Norme et Audit, and 1 by Eurofins Certification). *British Retail Consortium Standards*: 3 Senegalese companies are BRC certified (including 2 companies certified by Eurofins Certification and 1 by Certima B.V). Mali: (in the fresh fruits and vegetables sector): as of March 18, 2021, 4 companies involved in the production and export of fresh mangoes were certified by Global.G.A.P. (respectively by Ecocert SA and Tuv Nord Group Integra.)
[24] The GlobalG.A.P. numbers are from 3 producer groups in Mali, which attests to the high level of FBO organization in-country.
[25] This will help ensure a more streamlined approach, as to date control inspections for plant-based goods fall under the Ministry of Agriculture, animal products under the Ministry of Livestock, with the Health Ministry coordinating these efforts. While some departments have been quick to adapt, others have been more hesitant. Bi-annual follow-up meetings are planned to monitor progress.
[26] To support this ANSSA has created an internal role for certification management, is developing partnerships with eight national vTPA owners, and continuing collaboration with certification bodies like Global GAP.
[27] With training focused on the Bamako, Sikasso, and Koulikoro regions.

Progress was made integrating vTPA into the national food control management system, particularly in Senegal, but sustainability faces challenges linked to certification costs and limited local capacity. Tools like the vTPA readiness check and roadmaps while providing guidance for independent implementation, were not developed in a participatory way and there is no evidence of buy-in. Knowledge exchange is ongoing with other pilots and participating stakeholders, through the vTPA partnership platform. Beyond the countries, vTPA tools are scalable, with growing interest from the AU and ECOWAS to roll out the approach regionally. Donor support is available for this through the EU-funded ATCMAP

Country level:

86. As highlighted in Section 4.5, some measures have been put in place in the countries' food security systems including changes to legislative frameworks to formalize the use of vTPA, notably in Senegal. However, achieving meaningful progress in both countries will require additional resources, and challenges remain. These include the high cost of certification; a lack of certification bodies and certified companies in the pilot countries; and continued mistrust between the public and private sectors with regards to data sharing.[28]

87. The tools developed, such as the vTPA readiness check and implementation roadmaps, provide practical steps for countries to independently continue the approach. These tools function as an "exit strategy," offering guidance for implementation beyond the project end.

88. The roadmap revealed that in Senegal risk-based controls have already improved resource efficiency in compliance verification. Food safety is fully integrated into inspections. For mangoes, this includes monitoring pesticide levels and hygiene factors such as water quality and bacterial contamination. In the peanut sector, aflatoxin levels are regularly checked through mandatory sampling by phytosanitary inspectors, with samples analyzed in accredited laboratories before a phytosanitary certificate is issued. Regulators are developing infrastructure, such as databases and data collection tools, to strengthen risk-based systems and integrate vTPA as a resource for official food control. QMS have been widely adopted, particularly in horticulture like mango production, with over 30 certified producers, providing a solid basis for applying vTPA in food regulation. Several service providers are active on the ground, supporting key certifications with standards like BRCGS and GlobalG.A.P.

89. Future efforts for sustainability in Senegal should focus on continuing dialogue with third-party providers, including system owners and certification partners, to develop workflows for utilizing vTPA data and integrating it into official controls. As per the roadmap recommendations, next steps would involve conducting a follow-up needs assessment to identify high-adoption sectors, existing tools, gaps, training needs, and obstacles (regulatory, infrastructural, operational) with two key pillars for improvement suggested: i. enhancing regulatory frameworks for vTPA[29] (which

[28] Data sharing between the private and public sectors remains a contentious issue, with regulatory authorities concerned about data reliability and the impact of vTPAs on their mandate.
[29] Aligning them with Codex standards and incorporating risk-based approaches with stakeholder involvement. Implementing gradual improvements through decrees, including guidance on inspections, use of vTPA results in compliance checks, and adjustments to enable adoption within existing legal frameworks.

as mentioned is already underway) and strengthening and expanding vTPA in horticulture.[30] The set-up of a national vTPA steering committee is recommended to oversee progress.

90. The roadmap revealed that, at project close, Mali's legislative food framework has limited regulatory scope and resources, still lacks a risk-based approach, and local infrastructure aligning with QMS is underdeveloped. Key next steps for sustainability include: i. create incentives for vTPA adoption across the food regulatory framework, notably horticulture; ii. stakeholder collaboration between private/ public sector and alignment to regional certification bodies; iii. update regulatory enforcement measures to integrate broader deployment of vTPA programmes; iv. launch a vTPA pilot in mango production with larger producers to demonstrate benefits and encourage adoption across other export-focused horticulture sectors.[31]

91. While the roadmaps provide useful insights into the countries' vTPA readiness and next steps for sustainability of the results achieved through the pilots, we note that they were not developed through a participatory process involving public and private sector actors, and their recommendations have not been officially endorsed by the countries. As a result, there is limited evidence of beneficiary commitment or buy-in to adopt and implement their recommendations, although the new legislation in Senegal which incorporates vTPA is a step in this direction.

Regional and global level:

92. The pilots were designed to be scaled up beyond the two target countries. The tools developed under the program have broad applicability and were presented to the WTO SPS Committee Thematic Session as valuable resources for any country or organization interested in adopting the vTPA approach.

93. The partnership platform established during the project will continue to operate after project close. The platform is expected to benefit from ongoing in-kind contributions and support from partners such as FSSC 22000 and IFS. It will ultimately evolve into or integrate with the newly established community centred around the vTPA Benchmarking Initiative launched by UNIDO.[32] This sustained collaboration will help extend the use of vTPA to additional value chains across Africa and other regions.

94. Regional interest in vTPA continues to grow, with the AU and ECOWAS exploring its adoption as a broader strategy. Scaling the vTPA approach regionally offers significant benefits, particularly for resource-constrained countries. Implementing vTPA initiatives through regional bodies can streamline processes, reduce costs, and improve efficiency by leveraging shared certification

[30] By addressing gaps in standards like GlobalG.A.P., exploring alternatives for processing sectors, and developing a trusted national vTPA system in horticulture. Enhance IT systems for efficient data sharing and invest in continued training of regulatory staff to adopt risk-based inspections effectively.

[31] Detailed recommendations: i. enhancing regulatory support update laws to mandate risk-based controls, streamline inspections, and include vTPA results in compliance evaluation; ii. stakeholder collaboration: facilitate dialogue to prioritize vTPA adoption, develop local certification services, and align with regional accreditation; iii. strengthening enforcement: regularly review and update regulations to support vTPA adoption, train regulatory staff, and improve compliance efficiency; iv. pilot initiatives: implement vTPA pilots in mango production, targeting key stakeholders to demonstrate impact and replicate success in other sectors.

[32] This initiative seeks to fill the gap in global best practice governance for vTPA programmes by defining standardized best practices, processes, and terminology. Ultimately, it aims to establish a comprehensive global governance framework for benchmarking, ensuring the credibility and consistency of vTPA programmes. This framework will enhance the development of universally recognized and reliable vTPA programmes, delivering benefits to all stakeholders across the industry.

bodies and economies of scale. We note however, that Mali recently left ECOWAS so would be excluded from any initiatives taken by that REC.

95. The regional potential has attracted interest from donors. Discussions are underway to expand vTPA as a tool for the wider Africa region through the EU-funded ATCMAP initiative (African Trade Capacity Building and Market Access Program) which will be led by UNIDO and ITC.[33] The project aims to strengthen SPS systems at the national level while regionalizing SPS functions by aligning local practices with international standards, such as Codex. Additionally, it will support SMEs by offering affordable certification options.[34] This wider approach is expected to yield significant wins and enhance sustainability of results.

96. There is also interest in the vTPA approach in the Middle East, including through the ARAC project managed by UNIDO that incorporates activities around vTPA.

4.7 Other unexpected results

97. Although not initially included in the workplan, training on the mango value chain was co-funded through a separate UNIDO project supported by BMZ. This was delivered in response to strong stakeholder request to help producers and auditors enhance their production and control quality. The training assumed that, to achieve objectives, it was essential to first strengthen the self-monitoring systems of mango value chain operators. This would in turn generate data for use by competent authorities and support higher quality production. The practical training, delivered in Senegal to both Mali and Senegal participants, was seen as highly beneficial, and helped revive interest from stakeholders (notably in Senegal) who had become disengaged.

5 CROSS-CUTTING

5.1 Gender

98. The project placed a strong emphasis on gender equality and social inclusion (GESI), recognizing the role women play in agri-food value chains. A gender analysis was carried out during inception leading to the inclusion of gender indicators in the project's framework, as well as sensitization of beneficiaries.

99. Recommendations from the gender analysis were actively implemented, and commitment to gender inclusivity was reflected in activities. The project consistently met or exceed the target of 30% female participation in training and workshops.[35] A female expert was recruited as a trainer to lead awareness sessions on risk-based inspection for inspectors representing a first for DPV

[33] More information on the program here: https://www.unido.org/news/eu-sadc-unido-and-itc-drive-new-trade-competitiveness-and-market-access-agenda-southern-africa.
[34] We note that the success of local schemes, such as Kenya's flower certification program, demonstrates the feasibility of creating systems aligned with international standards.
[35] For instance, a training on good agricultural practices in August 2022 had 39% female participation, and monitoring showed that of the 35 inspectors trained in Mali and Senegal, 6 were women.

and ANSSA. A post-session survey revealed that respondents saw the benefits in choosing private certifications that included social aspects.

5.2 Environment, Biodiversity and Climate change

100. There was no evidence of environmental issues integrated in the application, design, expected results (logframe) and project activities.

6 LESSONS LEARNT

101. Selecting countries with a sufficient baseline level of awareness and organization is critical for vTPA adoption as demonstrated in the Mali and Senegal experiences.[36] Security challenges in Mali further emphasized the importance of assessing external conditions during country selection.

102. Since capacity levels differed between the countries, the amount and type of support should reflect the different levels of need in each country.

103. Selecting a common sector (in this case horticulture and mango) can help facilitate collaboration between pilot countries and enable a targeted approach to training and roadmap development.[37]

104. While the use of best practice models (e.g. from Canada, Germany, UK) is helpful in enhancing understanding of the approach, the effectiveness of vTPA systems depends heavily on adapting models to local conditions, regulatory frameworks, and industry practices.

105. Demonstrating the use of vTPA as a tool for targeted, risk-based inspections, as aligned with the Codex Guidelines (to supplement government inspections) is key to build confidence and support broader adoption.

106. Practical capacity building, and support with immediate needs such as certification, is key for FBO engagement.[38] In-person trainings are critical in the West Africa context.

107. A participatory approach to roadmap development would ensure greater buy-in to recommendations, this should include consultations with both public and private sectors representatives, and integrate a process to follow up on suggested next steps.

108. The success of the partnership platform and jointly delivered pilot activities demonstrated the usefulness of establishing a network for sharing experience, knowledge, expertise, lessons, and fostered South-South exchanges.

[36] Progress depends on a combination of factors including country selection, value chains (with those already using vTPA to be prioritized), baseline capacity, and existing infrastructure. For example, the lack of local certification bodies can affect uptake. Countries that have already taken steps to put a risk-based inspection system in place (e.g. Senegal, and Honduras in the parallel pilot project) have demonstrated higher levels of vTPA adoption, including starting to make relevant regulatory changes following project implementation.
[37] However, the seasonal nature of mango production limited year-round engagement, and it was felt that diversifying sectors in future phases would increase the program's resilience and broaden market opportunities.
[38] The mango chain training in particular helped strengthen self-monitoring systems in the mango value chain, particularly in Senegal, and fostered exchanges between FBOs who were already using vTPAs with those still reticent to adopt it.

7 RECOMMENDATIONS

Following on from the findings and lessons, this report makes several recommendations, directed primarily at STDF, IICA and the broader donor community. These are listed in order of priority.

#	Action	Timing	Responsible Party
1	Follow up with beneficiaries on the implementation of roadmap recommendations.	Within 6 months	UNIDO
2	Set up national vTPA steering committees to facilitate stakeholder dialogue, address challenges, and oversee progress.	Within 1 year	Pilot country regulatory authorities
3	Explore the potential for follow on interventions in the target countries building on pilot results and roadmap recommendations: this should be a more comprehensive program of support widening remit to other sectors, combining practical value-chain training, resources supporting certification, policy support for regulatory frameworks, alongside further vTPA capacity building.	Potential Future Phase	Relevant donors (such as the EU through the ACTMAP project)
4	Target other countries in the region with existing capabilities for new pilot projects to ensure more effective and sustainable vTPA outcomes. Côte d'Ivoire, for instance, may be a strong candidate.	Potential New Project	Relevant donors and international organizations
5	STDF to continue supporting options for scaling the vTPA approach regionally in West Africa and the wider Africa Region. This would be achieved through STDF sharing learning and recommendations from these pilots to inform and catalyse / scale further initiatives funded by other donors (e.g. WB, AFDB, GIZ), as well as continuing to advocate the use of PPPs as a way to support resource efficiency within public services.	Ongoing	UNIDO/ STDF/ Relevant donors
6	Consider future economic analysis looking at measuring trade impact of vTPAs, including in the pilot countries.	Longer-term	STDF