Piloting the Use of Voluntary Third-Party Assurance Programmes (vTPA) in Central America

STDF/PG/682

END OF PROJECT ASSESSMENT REPORT

December 2024

Independent evaluation by:
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Implementing agency:

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

AHPND – Acute Hepatopancreatic Necrosis Disease
ANDA – Association of Honduran Shrimp Producers
ARSA – Agency for Sanitary Regulation
ASC – Aquaculture Stewardship Council
BAHA – Belize Agricultural Health Authority
BBS – Belize Bureau of Standards
BELTRAIDE – Belize Trade and Investment Development Service
BPA – Best Practices Approach
BRC – British Retail Consortium
BSS – Belize Bureau of Standards
CA – Central America
CAC – Codex Alimentarius Commission
CACU – Central American Customs Union
CARICOM – Caribbean Community
CCFICS – Codex Committee on Food Import and Export Inspection and Certification Systems
CFIA – Canadian Food Inspection Agency
COVID – Coronavirus Disease
CXG – Codex Guidelines
DAC – Development Assistance Committee
EA – East Africa
EU – European Union
FAS – Foreign Agricultural Service
FBO – Food Business Operator
FSA – Food Standards Agency
FSSC – Food Safety System Certification
GAP – Good Agricultural Practices
GDP – Gross Domestic Product
GESI – Gender Equality and Social Inclusion
GFSI – Global Food Safety Initiative
GFSO – Global Food Safety Organization
GMP – Good Manufacturing Practices
HACCP – Hazard Analysis and Critical Control Points
IFAD – International Fund for Agricultural Development
IFS – International Featured Standards
IICA – Inter-American Institute for Cooperation on Agriculture
ISO – International Organization for Standardization
KII – Key Informant Interview
LSQA – Certification and Quality Assurance Body
MSME – Micro, Small, and Medium Enterprises
NQC – National Quality Council
OIRSA – International Regional Organization for Plant and Animal Health
PG – Project Grant
PPG – Project Preparation Grant
PPP – Public-Private Partnership
RA – Regulatory Authority

RJB – RJB International Consult
RRP – Resilient Rural Program
SENASA – National Service for Agricultural Health and Agri-Food Safety
SICA – Central American Integration System
SPS – Sanitary and Phytosanitary
STDF – Standards and Trade Development Facility
UK – United Kingdom
UN – United Nations
UNIDO – United Nations Industrial Development Organization
US – United States
USAID – United States Agency for International Development
USDA – United States Department of Agriculture
WA – West Africa
WTO – World Trade Organization

PROJECT INFORMATION

STDF/PG/682
Title Piloting the Use of Voluntary Third-Party Assurance Programmes (vTPA) in Central America
Implementing agency The Inter-American Institute for Cooperation on Agriculture (IICA)
Partners Belize: Belize Agricultural Health Authority (BAHA) Honduras: The National Service for Plant, Animal Health and Agri-food (Servicio Nacional De Sanidad e Inocuidad Agroalimentaria SENASA)
Start date 12/10/2020
End date 11/12/2024 The original end date was 11 October 2023. There was one no-cost extension to 31st October 2024 due to COVID-19 An additional 2-month no cost extension was granted until 11 December 2024.
Beneficiaries Belize, Honduras
Budget Project Total Value: USD $942,612 STDF contribution: USD $619,916 Other contribution: USD $322,696 in-kind contribution

1 EXECUTIVE SUMMARY

1. **Project aims and objectives:** The project 'Piloting the Use of Voluntary Third-Party Assurance Programs (vTPA) in Central America (hereafter referred to as vTPA-CA) was a Standards and Trade Development Facility (STDF) project that aimed to test the application of the vTPA approach in Belize and Honduras between 2020 and 2024.

   Its objective was: to test, pilot and learn from the use of vTPA programmes; to improve food safety outcomes in selected value chains in developing countries (i.e. Belize and Honduras) using the approach set down in the Codex guidelines.

2. **Partners and beneficiaries:** The Inter-American Institute for Cooperation on Agriculture (IICA) was the implementing agency. Key beneficiaries included national agencies such as the Belize Agriculture Health Authority (BAHA) and National Service for Agricultural Health and Agri-Food Safety (SENASA) in Honduras, as well as private sector actors. Governance was managed by a Project Steering Committee and Country-Level Steering Committees at the national level.

3. **The Evaluation:** Between November 2024 and January 2025, the project evaluator reviewed document data, and conducted in-person interviews with key stakeholders in Belize and Honduras as well as in-person interviews with stakeholders attending the WTO SPS Committee Thematic Session in Geneva in November 2024.

   Summary of Findings:

4. **Relevance:** The project aligned with national and regional SPS strategies and beneficiary priorities, developed through consultations under the STDF Project Preparation Grant (STDF/PPG/682). It was highly relevant for Honduras, given SENASA's ongoing work on risk-based inspections and existing use of vTPA. Belize played a leading role in the substantive discussions, particularly within the SPS Committee and GFSI G2B discussions, which led to Belize's interest in the project. Notwithstanding this interest, evidence suggests that the relevance of vTPAs for Belize was initially affected by a decline in its industries leading to fewer inspections. Activities were tailored to each country during implementation. Belize focused on developing a risk-based inspection program, while Honduras mapped and evaluated its existing vTPA schemes for the identified sectors. Engagement from FBOs was mixed, with larger Honduran companies seeing benefits in reduced inspections, while Belizean FBOs showed less support.

5. **Coherence:** The project aligned with STDF priorities and Codex Committee on Food Import and Export Inspection and Certification Systems (CCFICS) guidelines for vTPA testing, without duplicating existing SPS initiatives. It complemented SPS-related activities in Belize, and built on existing work, including establishing a risk-based inspection system in Honduras. At the regional level, the project was coherent with the work of regional bodies, and it also engaged with private sector actors involved with vTPA through GFSO in Argentina, Mexico, and Chile. Participation in vTPA Forums in Egypt and Vienna, as well as lessons from other STDF-supported vTPA regional pilots, further strengthened its impact and practical application.

6. **Effectiveness:** The project achieved most of its objectives. Outputs 1.1 and 1.2 (Regulatory) were prioritised to build Regulatory Authority (RA) capacity and included national food safety assessments, mentoring from international regulators, and study visits to the UK and Canada. The Canadian model was recognized as a better fit for the region, and roadmaps with practical steps on integrating vTPA into food safety systems were developed collaboratively. Outputs 1.1 and 1.2 (Regulatory) focused on developing national policy papers/ strategies, as well as risk-based inspection policy and updated inspection operating procedures, Output 2.1 (FBO) focused on sector surveys, value chain mapping, and training activities, though connections between FBOs and buyers were not established. Output 3.1 (Dissemination) fostered engagement through international forums. A study visit to Canada shaped the risk-based approach, and vTPA tools aided roadmap development. Delays stemmed from the pandemic, hurricanes, and operational challenges. Gender inclusion improved during the project, but environmental considerations were not addressed.

7. **Efficiency:** The vTPA-CA project was largely implemented on time, despite initial delays due to COVID-19. No delays in fund disbursement were reported. In-kind contributions from BAHA and SENASA supported activities, and cost savings were achieved through conducting virtual sessions with GFSI, and other contributing partners. While personnel turnover in Belize required reorientation of new staff to vTPA project, overall project management received positive feedback. Additionally, knowledge sharing with other STDF pilot projects, such as the vTPA toolkit from the vTPA-West Africa project, benefited roadmap development in Belize and Honduras.

8. **Impact:** While assessing long-term trade impacts was challenging, qualitative improvements were noted, particularly in Honduras, where capacity-building efforts strengthened risk analysis, reduced inspection frequencies for high performing FBOs, and supported plans to update its National Instrument in line with roadmap proposals, as well as potential future digitalization with IICA support. In Belize, progress was made with the development of a risk-based inspection system and the recent approval of a National Quality Council, expected to enhance quality infrastructure. However, challenges in regulatory controls and achieving export readiness persist.

9. **Sustainability:** Roadmaps provided guidance for implementation of the vTPA approach (presented as an incremental three step process including: 1. a risk-based inspection model, 2. vTPA evaluation approach, and 3. relevant updates to the legal framework) and there is evidence that their recommendations have been taken forward. Progress was made integrating vTPA into food control systems, with Honduras planning updates to its regulatory framework (step 3) and Belize adopting a risk-based inspection system (step 1). In Belize, however, sustainability (and future vTPA uptake) faces challenges due to the country's small industry size, with more support needed to build BAHA's capacity. In light of this, the approach may not be as suitable for Belize. Regionally, vTPA approaches could be scalable through mechanisms like SICA and CACU, with plans for a regional digital platform being developed to harmonize vTPA efforts across Central America.

10. Lessons Learnt:

- Selecting countries – and priority sectors - with a sufficient baseline level of awareness and organization is important for vTPA adoption. The Honduras experience demonstrated the benefits of having a risk-based inspection system already in place and existing use of vTPA to move forward with the approach.
- The initial workplan applied the same approach for both countries, based on activities in other regional pilots, but was later adjusted to the country context. More targeted support in line with existing capacity and vTPA readiness proved effective.
- A participatory approach to roadmap development—engaging public and private sector representatives—secured greater buy-in and facilitated the implementation of recommendations.
- Starting the roadmap development process earlier in project delivery and using a two-phased approach for its implementation allowed for follow-up of its recommendations and yielded better results.
- One of the broader challenges with new and innovative projects is identifying consultants with the relevant technical skills to support the work. This proved to be a challenge during delivery.
- Sharing lessons learnt with the wider Central and Latin America region was key during delivery. This included ongoing mentoring by countries (e.g. Argentina, Colombia). Additionally, contracting an expert with experience developing risk-based inspection systems throughout the region allowed for lessons from other countries to be integrated in deliverables. The same consultant supported both countries resulting in efficiencies, and synergies being leveraged.
- Exposure to different best practice models is important when developing a national vTPA approach. Various models were reviewed including the Dutch, German, UK and US models. The Canada model was eventually used as a template as it was considered a more effective starting point for vTPA implementation in the two project countries.[1]
- Practical capacity building, such as study visits to the UK (which included visits to food processing factories) and Canada, as well as visits to certified packinghouses in Honduras were critical for participants to gain hands-on experience of food control systems, and understand how government agencies applied the vTPA programme approach in practice. Meetings with vTPA programme owners were also organized within the contexts of these learning trips.
- Given resource constraints, smaller FBOs (notably in Belize) could benefit from collective schemes used by larger producers, which provide training and resources for certification

[1] Adopting an approach of vTPA schemes with full equivalency with official inspections was too challenging.

to their members. Regional collaboration could also help create associations and frameworks that benefit multiple industries.

- The success of the mentoring, learning visits, and jointly delivered pilot activities demonstrated the usefulness of combining best practice approaches and South-South as well as North South exchanges for capacity building. Unfortunately, the beneficiaries were unable to actively participate in the vTPA Partnership Platform established for knowledge sharing under the vTPA-WA project. This was primarily due to the platform's virtual format, which posed challenges given connectivity limitations in Belize. Additionally, as the platform was developed in English, language barriers further restricted engagement for Spanish-speaking beneficiaries.
- A wider benefit was knowledge sharing and practical tools made available from other pilot projects. The vTPA toolkit developed by UNIDO in the vTPA WA project (vTPA-WA) was used to develop the roadmaps in both countries.

Recommendations:

1. *IICA:* 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. *IICA:* Continue supporting options for scaling the vTPA approach regionally, including developing a regional digital platform to harmonize vTPA across Central America.

4. *Partner countries/ IICA/ International Donors:* Explore the potential for follow on interventions in the target countries building on pilot results and roadmap recommendations (this should include continued strengthening of the risk-based inspection model in Belize, as well as potentially widening the remit to other sectors in Honduras).

5. *IICA/ STDF:* Consider future economic analysis looking at measuring trade impact of vTPAs, including in the pilot countries, as well as a regional study.

6. *IICA/ STDF:* Expand pool of trusted consultants with specialized vTPA experience to support the delivery of relevant future initiatives.

2 INTRODUCTION

2.1 Purpose and context

11. The project vTPA-CA was a project that aimed to test the application of the vTPA approach in two target countries Belize and Honduras, implemented between 2020 and 2024.

12. vTPA programmes are food safety management systems, often developed by the private sector but also promoted by governments in some countries (e.g., India, Thailand). Studies have shown their use in countries (like the UK, Netherlands, Canada, and the US) helps authorities focus inspections on high-risk products/FBOs, increasing resource efficiency, and improving food safety outcomes. vTPA programmes foster public-private collaboration, offering benefits such as greater efficiency, adaptability, and improved compliance. As per CCFICS guidelines, governments retain oversight for national food control systems vTPAs even when encouraging the use of vTPA and/ or use associated data to inform risk-based inspections.[2]

13. Developing countries have historically raised concerns that vTPA programmes overlook their unique circumstances, posing challenges related to accountability, affordability for small businesses, and the potential creation of a dual certification system. To address these concerns and test the approach, STDF funded pilot projects (based on applications approved by the Working Group) to build capacity and raise awareness of vTPA 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) for Central America (STDF/PPG/682), submitted by the Belize Agricultural Health Authority (BAHA) and the National Service for Plant, Animal Health and Agri-food (Servicio Nacional De Sanidad e Inocuidad Agroalimentaria SENASA) in Honduras. Parallel pilot projects were developed and implemented in STDF/PG/ 665 West Africa (vTPA-WA) and STDF/PG/842 East Africa (vTPA-EA).

15. 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 Principles and Guidelines for the Assessment and Use of Voluntary Third-Party Assurance Programmes (Cxg 93-2021)[3] for using data from voluntary third-party assurance programs (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;

[2] See CCFICS principles and guidelines: https://openknowledge.fao.org/server/api/core/bitstreams/26fb6c82-3699-4164-931d-3e743d1bf03a/content
[3] Idem.

- and aligning with previous STDF's work on Public Private Partnerships (PPPs) 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 objective: Its objective was: to test, pilot and learn from the use of vTPA programmes; to improve food safety outcomes in selected value chains in developing countries (i.e. Belize and Honduras) using the approach set down in the Codex guidelines.

Project Outcomes and Outputs:

Table 1 Outcomes and outputs

Regulatory component	*Outcome 1: Conducive enabling environment in place in pilot countries for regulatory authorities to assess and use data/information generated by vTPA programmes*	Output 1.1: National policy papers / strategies drafted in pilot countries on implementation options for potential assessment and use of data generated by vTPA programmes as part of the national food control system Output 1.2: Risk-based inspection policy and updated inspection operating procedures for the selected value chain formulated
FBO component	*Outcome 2: Improved food safety compliance in FBOs in selected value chains in the pilot countries following capacity development*	Output 2.1: Voluntary food safety capacity building programme developed, customized and piloted among food business operators from selected value chains
Dissemination and learning component	*Outcome 3: Improved awareness about how to assess and use data generated by vTPA programmes to help improve food safety outcomes in developing countries*	Output 3.1: Food safety regulators and private sector stakeholders have more in-depth knowledge on global best practices on the assessment of vTPA programmes and utilization of generated data to improve food safety outcomes, based on the experiences and lessons learned through the regional pilot project

Project Activities: these included technical studies and policy papers, study visits, capacity building workshops and field visits, roadmaps, mentoring, attendance at vTPA Forums etc. See Section 4.2: Effectiveness for further detail.

Implementation context

17. In Belize, the agriculture and food sector contributed approximately US$264.7 million (2018) to the economy, with agriculture generating 77% of total exports.[4] Food safety was overseen by BAHA, the Ministry of Health, and the Belize Bureau of Standards (BSS).[5] At the time of PG development, aside from food sectors/ establishments highlighted in

[4] Source: Project Preparation Grant (PG).
[5] BAHA mainly oversees the primary production establishments (e.g., meat, poultry, egg, coconut, bean, seafood, etc.); the Ministry of Health oversees restaurants, hotels, food outlets and stores, bakeries, supermarkets, and warehouses. The Belize Bureau of Standards acts as the Codex focal point for the country and establishes best practices for labelling, verification of measurements and calibration of equipment and other national standards and technical guidance for food establishments.

18. **Table 2** below, most producers were not certified by a vTPA scheme (including establishments within the meat, poultry, egg, coconut, bean, or seafood production chains). Additionally, Belize did not have an established risk-based inspection system, and there were no in-country certification agencies.

Table 2 Food establishments with vTPA food safety programmes in Belize[6]

Food sector/establishment	Product Type	Private Standard
Citrus Products of Belize Limited	Juices, juice concentrates	ISO 22000
Bowen & Bowen Ltd.	Soft drinks	FSSC 22000
Marie Sharp's Fine Foods Ltd.	Pepper sauces, Jams & Jellies	IFS
Banana Growers' Association	Bananas	Global GAP
Belize Sugar Industries	Sugar	SQF
Silk Grass Enterprises	Coconut oil, fruit juices	SQF
TexBel Processors Investments Ltd.	Beverages	SQF

19. It was noted that selected export businesses prioritize use of these vTPA programmes (and related certifications), over and above national (voluntary) standards, , as adhering to these programmes is more effective for accessing global markets, notably for larger producers and/ or those that are part of associations.[7] The cost of certification is often prohibitive for smaller producers, requiring significant investment both for initial certification and ongoing compliance.

20. In Honduras, agriculture plays a vital role in the economy. The sector contributes over 14% directly to the GDP and accounts for more than 72% of total exports. Honduras leads Central America in aquaculture shrimp production, a sector with significant socio-economic impact. Shrimp exports exceed US$250 million annually.[8]

21. Unlike Belize, Honduras had already taken steps to build a risk-based inspection system prior to the project launch, including through the United States Department of Agriculture (USDA) Food for Progress Program. A number of companies already used vTPAs and Kiwa, a certification body, operated locally.[9] . While large producers received support for certification from clients, notably in the shrimp sector, smaller companies and suppliers bore the full burden of compliance.

Table 3 Establishments using vTPA schemes in Honduras[10]

Number of establishments using vTPA schemes	**Use of vTPA programmes by establishments (%) vTPA programmes**
Fresh produce: 14 establishments	Global GAP (29%) Primus GFS (36%) No vTPA (33%)

[6] Source: Project Technical Deliverable 2: Risk Based Inspection vTPA Central America, and KII data.
[7] The banana sector in Belize consists of a single association with 19 farms, where membership is mandatory for any farm wishing to export. Compliance with the association's management system, including Global GAP certification, is required, either individually or under the collective certificate. There are no similar associations in other industries aside from the banana sector in-country.
[8] Source: Project Preparation Grant (PG).
[9] Kiwa is a certification body which the project team became aware of during the UK study visit has operations in Central America, they were engaged in various ways, including virtual meetings, a presentation at the FBOs Workshop, and conducting a mock audit.
[10] Source: Project Technical Deliverable 4: Risk Based Inspection vTPA Central America.

Shrimp: 4 establishments	BPA (25%) Global GAP (25%) ASC (100%) BRC (50%) IFS (25%)

Alignment with national, regional and international priorities and obligations:

22. In Belize the project aligned with the National Quality Policy, the Food and Agriculture Policy and the National Food Safety Policy which, although in draft at the time, emphasized a need to improve food safety. It also reflected the Micro, Small and Medium Size Enterprise (MSME) Policy and Strategy, and the National Entrepreneurship Strategy which references improving the capacity of relevant service providers to support enterprises in receiving certification to access export markets as well as improving the quality of goods on the domestic market.

23. In Honduras. it aligned with the National Food Safety Policy which aims to create a National Food Safety Control System with updated and harmonized food safety regulations, under a risk-based approach, as well as highlighting the need to include the private sector in this endeavor. It built on the formal agreement with the "Agencia de Regulación Sanitaria" (Agency for Sanitary Regulation, ARSA) for increased collaboration, and use of vTPAs within that framework. The pilot was timely as Honduras planned to update its national food safety regulations within 2-3 years and assess the relevance of vTPA programmes in future policies and regulations.

24. Regionally it reflected the aims of the International Regional Organization for Plant and Animal Health's (OIRSA) 2015 -25 Strategic plan to promote effective participation of representatives from public institutions of food safety in the tasks of Codex Alimentarius, especially in the following committees: food hygiene, veterinary drug residues, food inspection and certification, pesticide residues and contaminants.

25. In addition, the project supported the United Nations (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).

2.2 Implementing partners and beneficiaries

26. **Implementing partner:** IICA was responsible for the management, implementation, and coordination of the project, overseeing activities across both countries.

27. **Main beneficiaries:**

Government agencies

Belize: BAHA; BBS; the Extension Services of the Ministry of Agriculture; the Pesticides Control Board and the Public Health Inspectorate of the Ministry of Health.

Honduras: SENASA and ARSA.

Private Sector: Diverse private sector stakeholders involved in the selected value chains, with a particular focus on micro and small and medium-sized enterprises. Private sector stakeholders to benefit include farmer organizations and cooperatives, as well as FBOs working in the selected value chains.

Other: auditors, assessment and certification bodies, distributors, retailers) who benefitted from improved food safety knowledge and expertise in FBOs.

28. **Governance structure:**

A Project Steering Committee was established to oversee the implementation and progress of the project. This committee included key stakeholders, specifically representatives from the applicant organizations and the implementing organization. The committee convened regularly—virtually or, where feasible, in person alongside project workshops, meetings, or related events—to:

- Monitor and review project implementation,
- Address unexpected challenges and emerging issues,
- Share experiences from country-level activities, and
- Facilitate coordination and information exchange.

The STDF Secretariat was invited to participate in these meetings, as appropriate and where possible, to ensure synergies with the ongoing parallel pilot project in West Africa. Additional stakeholders, such as UNIDO (the implementing agency for the West Africa pilot project), were invited as observers when relevant and beneficial.

At the national level, a Country-Level Steering Committee supervised the management and implementation of project activities. This committee included representatives from relevant government departments and the private sector. An IICA representative based in Belize City oversaw activities in Belize

3 METHODOLOGY OF THE ASSESSMENT

29. The STDF/PG/682 project evaluation took place from November 2024 to January 2025. Evidence collection included: a document review; key informant interviews (KII) conducted in person and virtually; a survey; 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.

30. The document review and interviews were carried out in both English (Belize) and Spanish (Honduras) by the Evaluator. The assessment report was drafted in English as per contracting requirements. A one-page summary of the draft assessment report was provided in Spanish to Honduras beneficiaries for their comments.

Document Review:

31. A review of all relevant documentation was completed. This included applications and progress reports (e.g. PPG, PG, inception report, 5 bi-annual progress reports), as well as technical deliverables. A full list is provided in Annex A.

Key Informant Interviews (KIIs):

32. The Evaluator interviewed a total of 22 people (including 13 women and 9 men), including government authorities and private sector representatives in Belize and Honduras, as well as IICA and STDF project representatives. These took place in person in the two countries with field visits organized to coincide with both project closing workshops. Interviews took place on:

- Honduras: 5th and 6th December 2024
- Belize: 9th and 10th December 2024

33. Further interviews took place virtually with IICA representatives based in Costa Rica. A survey supplemented interview data.

34. Additionally, the SPS Committee Thematic Session was attended in person in Geneva in November 2024 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, including with the Belize beneficiary BAHA, representatives from IICA, as well as the vTPA-WA and vTPA-EA beneficiaries.

35. A full list of consulted stakeholders is provided in Annex B.

Data Limitations:

The main limitations were as follows:

36. 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.

37. The project worked primarily with the main regulatory agencies in both countries (i.e. BAHA and SENASA). While private sector representatives were interviewed, their engagement on the project and buy-in to the vTPA approach was comparatively shallow as some only attended one or two capacity building sessions and were not actively involved throughout delivery.

38. Project reporting was inconsistent with less detail provided in earlier project reports. COVID-19 caused delays in activity implementation, which impacted early reporting. The later introduction of a structured reporting template helped improve clarity and consistency. Reports were supplemented with data from interviews.

39. A low number of survey responses were received, notably given its circulation coincided with the Christmas break. A follow up was sent in January, however, few additional responses were received.

4 FINDINGS AND ANALYSIS

40. The findings are aggregated and presented below by evaluation criteria (based on DAC criteria[11]).

4.1 Relevance

The project aligned with national and regional SPS strategies and beneficiary priorities, developed through consultations under the STDF Project Preparation Grant (STDF/PPG/682). It was highly relevant for Honduras, given SENASA's ongoing work on risk-based inspections and existing use of vTPA. Belize played a leading role in the substantive discussions, particularly within the SPS Committee and GFSI G2B discussions, which led to Belize's interest in the project. Notwithstanding this interest, evidence suggests that the relevance of vTPAs for Belize was initially affected by a decline in its industries leading to fewer inspections. Activities were tailored to each country during implementation. Belize focused on developing a risk-based inspection program, while Honduras mapped and evaluated its existing vTPA schemes for the identified sectors. Engagement from FBOs was mixed, with larger Honduran companies seeing benefits in reduced inspections, while Belizean FBOs showed less support.

41. 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. As per the project documentation, the project was designed in consultation with a broad range of stakeholders representing regulatory authorities and FBOs through the Project Preparation Grant (STDF/PPG/682)[12] and resulting project.[13]

42. The engagement of Belize and Honduras 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. Nicaragua was initially also considered, and exploratory discussions were held, but it ultimately did not confirm participation. In addition to the two beneficiary countries, the request was supported by Mexico and Chile at PPG stage. However, engagement from the Mexico and Chile authorities was low during delivery. [14]

43. Different sectors were chosen for both countries.[15] In the case of Belize, it initially identified the grains, fruit and vegetable sector in the PPG phase which was changed to poultry, beans and coconut after additional consultations. This was subsequently broadened to all sectors to

[11] The standard evaluation criteria laid out by the OECD Development Assistance Committee. See https://www.oecd.org/dac/evaluation/daccriteriaforevaluatingdevelopmentassistance.htm

[12] PPG application here: https://standardsfacility.org/PPG-682

[13] These are listed as Federación de Agroexportadores de Honduras (FPX); Asociación Nacional de Acuicultores de Honduras (ANDAH) and Fundación para el Desarrollo Rural (FUNDER) for Honduras.

[14] Ultimately, the engagement was lower than the initial level of ambition, as many of the individuals who initially supported the initiative left their respective institutions. Both in Chile and Mexico, proposals were developed to support the implementation of the vTPA programme. However, with changes in government, these proposals lost political momentum.

[15] Unlike the vTPA-WA which selected a common sector to help foster trade between the countries, as well as facilitate a targeted approach to training for sector actors and roadmap development.

benefit a wider range of producers interested in the approach.[16] The sector update was informed by a value chain mapping and a sector survey conducted in both countries.

44. In Honduras shrimp and fresh produce chains were selected as target sectors given it is the main exporter of shrimp in Central America, and the importance of fruits (i.e. melons and watermelons) and vegetables for the economy. These priority sectors were maintained throughout delivery.

45. The project was seen as relevant by Honduras from the outset given SENASA's ongoing work establishing a risk-based inspection system, and its existing use of vTPA in the priority industries. Interviews confirmed that collaboration took place with the National Codex Committee in Honduras that validated the design and has stayed updated on progress throughout.

46. The project was arguably less relevant to the Belize context. It was noted that at the time of design, Belize had been dealing with issues around pests and diseases[17] and several industries were in decline resulting in fewer inspections for BAHA. Honduras also faced issues related to bacterial threats and pests like fruit flies and thrips to its shrimp and fruit industry during delivery. However, while the project may not have directly addressed these problems, it was seen as highly relevant at tackling transversal issues and contributing to addressing broader food system challenges. The use of vTPA to supplement resources was therefore seen as less applicable. Inspections did increase during implementation with stakeholders recognizing there may be more need for vTPA to help manage resources in the future. While the onus for BAHA remains to expand its coverage carrying out more inspections rather than using vTPA to fill the gaps, the project provided a useful learning experience, and the implementation of the risk-based inspection system was highly valued.

47. The two countries offered distinct contexts and levels of readiness for vTPA adoption with Honduras more advanced. Notwithstanding this, the same approach was initially taken and joint activities developed.[18] However, the approach was updated following the initial risk-based inspection assessment, and refined during implementation with project activities, including capacity building, policy papers and guidelines, adapted to the specific country contexts.

48. In Belize, the priority was placed on developing a risk-based inspection program, including providing guidance to BAHA on the creation of a quantitative GMP checklist and the identification of risk factors to evaluate food establishments. In Honduras, SENASA mapped and evaluated vTPA schemes for the shrimp and fresh produce supply chains, comparing their equivalency with SENASA's checklist.

49. Interviews revealed that the project scope and vTPA concepts were not fully understood by some beneficiaries in Belize at the outset, which affected initial engagement. This was exacerbated by personnel changes at BAHA. Engagement eventually increased during delivery, notably during

[16] We note that the inception report included a recommendation by STDF to decrease the number of value chains (2 maximum per country), although this guideline was ultimately not followed for Belize.
[17] Including acute hepatopancreatic necrosis disease (AHPND) in shrimp.
[18] This aligned with the approach and activities adopted across all three regional vTPA pilot projects.

the development of the risk-based inspection system. There was strong and consistent buy-in from SENASA in Honduras over the course of implementation.

50. Engagement from FBOs was more mixed. None of the private sector respondents interviewed confirmed that they were involved in project design, with some only attending one or two trainings during implementation. In Honduras, the relevance was more evident for larger companies already utilizing vTPAs, as they recognized the potential for reduced frequency of official inspections. In Belize, there was less support for the project from FBOs given the small size of its industry, producers' focus on domestic markets, and as FBOs often prioritize use of vTPA programmes to access global markets.[19]

4.2 Coherence

The project aligned with STDF priorities and Codex Committee on Food Import and Export Inspection and Certification Systems (CCFICS) guidelines for vTPA testing, without duplicating existing SPS initiatives. It complemented SPS-related activities in Belize, and built on existing work, including establishing a risk-based inspection system in Honduras. At the regional level, the project was coherent with the work of regional bodies, and it also engaged with private sector actors involved with vTPA through GFSO in Argentina, Mexico, and Chile. Participation in vTPA Forums in Egypt and Vienna, as well as lessons from other STDF-supported vTPA regional pilots, further strengthened its impact and practical application.

51. The project was highly coherent with STDF's priorities,[20] and aligned with Codex Committee on Food Import and Export Inspection and Certification Systems (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 Belize, the project complemented other ongoing SPS-related activities, such as those supporting small and medium producers. This included the Resilient Rural Program (RRP) funded by the International Fund for Agricultural Development (IFAD), as well as two BELTRAIDE projects supporting SMEs with access to finance funded by the CARICOM Development Fund. Additionally, it aligned with the BSS "Standards and Conformity Assessment Framework" that focused on standards, technical regulations and conformity assessment (CA) in the agro-processing sector and related services, as well as the "Grow Safe, Belize" campaign for the promotion and adoption of best practices in pest and pesticide management. Lastly, the Consumption Pattern Survey conducted by the Ministry of Tourism identified some of the same vegetables from the sectors that the project would support.

[19] Some markets such as the US do not require BAHA certification. In these cases, firms often who have their own controls, independent of BAHA's regulatory authority. In establishments regulated by BAHA, inspections take place periodically based on availability of inspectors with penalties not always applied for non-compliance which makes enforcement challenging.
[20] 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.

53. It also built on Honduras interventions notably the SENASA voluntary program recognizing FBOs that implement food safety assurance programs (e.g. HACCP, GMPs, GAPs, etc.) which saw FBO participation increase from 140 FBOs in 2013 to 400 FBOs in 2019. Additionally, a project funded by the United States Department of Agriculture (USDA) Food for Progress Program worked specifically on strengthening the national food control system including developing technology, investing in laboratory equipment, and applying a risk-based approach.

54. At the regional level, Honduras was one of the countries selected in a separate regional STDF intervention for a food safety risk analysis capacity building program in Latin America.[21] The implementing agency IICA collaborated with the Central American Customs Union (CACU) on a program to reduce trade barriers and, through the USDA/FAS-funded project Engagement with Latin American Trade, supported food safety initiatives in the region. IICA shared lessons learnt from the vTPA CA program with CACU, which contributed to promoting and integrating the vTPA topic into CACU's broader agenda.

55. Through this pilot project, Belize and Honduras engaged proactively with private sector actors in the region (notably Argentina, Mexico and Chile), which have entered into partnerships with the GFSI. This was achieved through online exchanges with Argentina, Colombia and Mexico throughout delivery. Additionally, the consultant contracted for the roadmap development brought extensive experience working on other risk-based inspection systems in the region. Engagement with regulators outside of the region also took place, for instance via GFSI G2Bs and study tours.

56. The project leveraged synergies with other STDF vTPA regional pilot projects. For instance, both countries participated in a vTPA Forum, organized for STDF pilot projects stakeholders and other relevant actors on the margins of the UNIDO/STDF/Australia Vienna Food Safety Forum in 2023, with Belize also attending the vTPA Forum in Egypt in 2022.[22] These joint initiatives helped deepen participants' understanding of vTPA and its practical applications across various contexts, including gaining exposure to best practice examples and different country vTPA models.

[21] STDF/PPG/716 Analysing food safety risk in Latin America: https://standardsfacility.org/PPG-716.
[22] And subsequently sharing lessons learnt with Honduras inspector who were unable to attend.

4.3 Effectiveness

The project achieved most of its objectives. Outputs 1.1 and 1.2 (Regulatory) were prioritised to build Regulatory Authorities capacity and included national food safety assessments, mentoring from international regulators, and one study visit to the UK. The Canadian model was recognized as relevant and suitable for the needs of the region, and roadmaps with practical steps on integrating vTPA into food safety systems were developed collaboratively. Output 2.1 (FBO) focused on sector surveys, value chain mapping, and training activities in the final year of delivery, though connections between FBOs and buyers were not established. Output 3.1 (Dissemination) fostered engagement through international forums. A study visit to Canada shaped the risk-based approach, and vTPA tools aided roadmap development. Delays stemmed from the pandemic, hurricanes in Belize in 2022, and operational challenges. Gender inclusion improved during the project, but environmental considerations were not addressed.

57. The following summarizes progress by output (see: Table 1 Outcomes and outputs Table 1 for outcome and output description), including some of the challenges faced. Overall, the project achieved the majority of its objectives, with most planned activities completed. See full list of activities with status (complete/ partially complete/ incomplete at Annex D

Outcome 1: Conducive enabling environment in place in pilot countries for regulatory authorities to assess and use data/information generated by vTPA programmes

Output 1.1 - National policy papers / strategies drafted in pilot countries on implementation options for potential assessment and use of data generated by vTPA programmes as part of the national food control system
Output 1.2: Risk-based inspection policy and updated inspection operating procedures for the selected value chain formulated

58. This output was largely achieved. The project kicked-off with an initial assessment of the national food safety systems, reviewing the existing institutional framework, as well as vTPA programmes used in both countries. Results were then presented in national workshops. This informed the approach taken, including the value chains selected and development of the risk-based inspection frameworks. Mentoring was delivered through regular online exchanges with private sector actors involved with vTPA through GFSI from other countries (e.g. Argentina, Canada, Colombia, Mexico, UK).[23]

59. Various capacity building activities took place including an awareness raising and gap mapping workshop. This included a visit to a certified packinghouse covering multiple stages of the supply chain, including a farm, warehouse, and packing plant.[24] A study visit was organized to the UK to learn from the FSA model and vTPA owners (e.g. Red Tractor) during which participants visited food processing factories.[25] This was highlighted as a useful way to gain hands-on experience of food control systems by all respondents who participated.

[23] 49 people mentored with a 40% of female participation (20 female, 29 male).

[25] Attendees: Two female representatives from SENASA Honduras, one female and one male from BAHA and the Belize bureau of Standards, and one female from IICA.

60. Following an assessment of other country models, it was determined that implementing an approach closer to the Canadian model would better align with the realities of the Central American region and focus countries given the challenges of achieving full vTPA equivalency in these contexts. A second study visit was subsequently organised to meet with the Canadian Food Inspection Agency (CFIA) in Canada (see Section **Error! Reference source not found.**).[26] Evidence suggests this was useful in developing the countries' own models.

61. The roadmap development process aimed to integrate vTPA into the countries' food safety controls. A two-phased approach was adopted, during which an action plan with practical measures to take based on different levels of vTPA readiness (steps 1 – 3) was established.[27] Importantly, a participatory approach was taken to develop the document with consultations taking place with both RAs and FBOs. Collaborative spaces were created with various sectors,[28] following the CXG 93-2021 (Codex) guidelines and the UNIDO/ STDF vTPA assessment tool.[29] As well as receiving positive feedback from RAs, several FBOs highlighted that the sessions helped to foster increased public private collaboration. This led to strong buy-in to the roadmap's recommendations from key stakeholders. The final roadmap document was divided in three sections: vTPA generic implementation approaches; roadmap proposals for Belize and Honduras; status of each country and suggestions for the next steps.

62. The two-phased approach allowed time to follow up on recommendations, with both countries showing progress in implementing suggested actions (see Section: 4.5).

Outcome 2: Improved food safety compliance in FBOs in selected value chains in the pilot countries following capacity development

Output 2.1 - Voluntary food safety capacity building programme developed, customized and piloted among food business operators from selected value chains

63. This output was partially achieved, with activities targeting FBOs ramping up in the final year of the program. During inception, an initial sector survey was developed to establish selection criteria for FBO participation.30 This was subsequently updated with a second survey completed due to the pandemic and climate change, which contributed to the identification of FBO participants for the target sectors in Honduras. Value chain mapping was also conducted on compliance issues along the value chain to inform the sector selection and approach.

64. Two activities were not fully implemented. This included the delivery of joint training-of-trainers (ToT) programs which was consolidated into a single activity with more limited scope. Inspectors from Belize participated in the vTPA Forum held in Egypt, an event not attended by participants

[26] Attendees: Two female representatives from Honduras, one female and one male from Belize, one male consultant, and one female from IICA.
[27] As mentioned, BAHA focused on the first step of the vTPA roadmap i.e. developing a risk-based inspection model, and SENASA focused on evaluating existing vTPA schemes for the shrimp and fresh produce chains and checking equivalency with SENASA's checklist.
[28] The 'collaborative spaces' refers to the participatory process through which the roadmaps were developed. This process included the active involvement of the public sector, with representatives from the main inspection institutions in each country, certification bodies, and food business operators (FBOs).
[29] This was inspired by best practices from the UK and Canada.
[30] From the private sector, there were 14 FBOs represented/part of the project, of which 9 were represented by men and 5 by women.

from Honduras. Following their participation, the Belizean inspectors conducted training sessions to equip the Honduran inspectors with the knowledge and skills acquired during the forum.

65. While delivering training to selected FBOs and establishing linkages between FBOs and buyers was also incomplete. It was noted that training for selected FBOs was conducted through GFSI; however, linkages between FBOs and buyers did not take place, as no direct connections with buyers were established.[31]

66. Capacity building for FBOs took place throughout implementation, with an FBO workshop on the use of vTPA taking place in Honduras in 2024 (with participation from public sector representatives). Feedback on the workshop was mixed, with one FBO suggesting that a larger-scale event would have been more effective. Some respondents noted that capacity-building activities would have been more impactful if conducted closer to production areas.[32]

Outcome 3: Improved awareness about how to assess and use data generated by vTPA programmes to help improve food safety outcomes in developing countries

Output 3.1 - Food safety regulators and private sector stakeholders have more in-depth knowledge on global best practices on the assessment of vTPA programmes and utilisation of generated data to improve food safety outcomes, based on the experiences and lessons learned through the regional pilot project.

67. This output was partially achieved. Numerous joint initiatives were implemented, bringing stakeholders together through forums held in Cairo and Vienna, fostering exchanges with regulators from other pilot countries and beyond. Feedback indicated that the Vienna forum was especially impactful, as it showcased different models in practice, prompting beneficiaries to start considering the Canada model.

68. The planned regional workshop on the use of vTPA programmes linked to the CCFICS guide, under the South-South cooperation framework, did not take place. This was largely due to conflicting agendas given the participation of key contact points in other committees and forums, which made scheduling such an event challenging. There was also a shift in political prioritization of the topic in some countries in the region. Instead, the activity was replaced with facilitating the participation of representatives from Ecuador and Paraguay in the SPS Committee session in November 2024 to gain insights into the pilot project. Representatives from Belize and Honduras were invited to share experiences during the session, with BAHA and SENASA presenting outcomes of the project. Other opportunities to share experiences were leveraged when the project was presented at the Codex Alimentarius Commission (CAC) on how to pilot Codex standards following its conclusion.

Key risks:

[31] The linkage between FBOs and buyers could not be fully achieved due to the pilot nature of the project, which required prioritizing capacity building for both the public and private sectors. Establishing commercial connections also demands market readiness, trust-building, and alignment with buyer requirements—processes to which the project contributed, but which were more evident towards the end of the project.

[32] While sessions were held in places like Comayagua, there were no sessions in key production areas like San Pedro or Chumaseca.

69. The COVID-19 pandemic delayed the project start by 12 months with only limited activities taking place in the first year. During this time, capacity-building sessions were carried out virtually which impacted beneficiary engagement.

70. The effects of hurricanes (in 2022) in Belize led to delays in implementation. Operational issues including changes in IICA and BAHA management affected knowledge transfer, and challenges contracting international consultants also impacted activities being delivered on time.

4.4 Efficiency

The vTPA-CA project was largely implemented on time, despite initial delays due to COVID-19. No delays in fund disbursement were reported. In-kind contributions from BAHA and SENASA supported activities, and cost savings were achieved through conducting virtual sessions with GFSI, and other contributing partners. While personnel turnover in Belize required reorientation of new staff to vTPA benefits, overall project management received positive feedback. Additionally, knowledge sharing with other pilot projects, such as the vTPA toolkit from the vTPA-WA project, benefited roadmap development in Belize and Honduras.

71. The vTPA-CA project was largely implemented on time, though there was one no-cost extension due to COVID-19, with the project timeframe extended to October 2024. As a result, adjustments were made to the annual budget to take into account the extended duration and its correlation in the implementation of activities. An additional 2-month no cost extension was granted until 11 December 2024.

72. The budget requested from STDF was US$619,916. This was supplemented by in-kind contributions from BAHA and SENASA (e.g. training, technical expertise) in support of project activities totaling US$322,696. The total project value was US$942,612. While the final financial report was still undergoing internal approval during the evaluation process, the total expenditure amounts to $473,093.68 with an unspent balance of US$146,822.32. This variance is due to cost savings from the technical support provided by various partners, as well as adjustments made due to external factors. In the early years of the project, COVID-19 restrictions limited in-person activities, leading to the virtual implementation of many engagements. Additionally, toward the project's later stages, certain activities—such as the regional workshop, which represented a significant expense—were adapted due to shifts in vTPA priorities across other countries in the hemisphere, resulting in a lower budget execution. Respondents did not flag any delays in the disbursement of funds.

73. Efficiencies were achieved through contracting a single consultant to provide technical assistance to both countries, as well as conducting virtual sessions with GFSI. Virtual and in-person sessions were held with the Canadian Food Inspection Agency, GlobalG.A.P., Global Standards México, Más Control Consulting Colombia, La Anónima Argentina, Kiwa Centroamérica, and LSQA Centroamérica. All partners covered their own costs.

74. A wider benefit was knowledge sharing with other pilot projects, including the vTPA toolkit supported by UNIDO resulting from the STDF vTPA-WA project that was made available to both Belize and Honduras, and was used during roadmap development.

75. While positive feedback was received on project management overall, it was highlighted that initial progress was slow due to the COVID-19 pandemic as well as low awareness of vTPA. Personnel turnover, including changes of main points of contacts with the Belize beneficiary and the implementing agency (including in the days after the project was contracted), also affected the project's overall efficiency as new staff needed to be resensitized to vTPA's benefits.

76. There was high engagement from the main country points of contact related to project planning. While this demonstrated interest and commitment, it also led to several delays on planning of initial activities given difficulty to convene meetings and absence of some country contacts due to illness. Interviews also indicated a lull in activities for a 6-month period following the UK study visit. Given the number of stakeholders involved and country-led approach, additional time was required to reach a consensus on way forward and next steps. However, the collaboration with CFIA, the Canada study tour and work with GFSI helped the project get back on track.

77. The project dealt with an innovative and complex topic, so the necessary capacities didn't exist. This resulted in difficulties in the drafting of project objectives, logframes and ToRs for consultants.

4.5 Impact

While assessing long-term trade impacts was challenging, qualitative improvements were noted, particularly in Honduras, where capacity-building efforts strengthened risk analysis, reduced inspection frequencies for high performing FBOs, and supported plans to update its National Instrument in line with roadmap proposals, as well as potential future digitalization with IICA support. In Belize, progress was made with the development of a risk-based inspection system and the recent approval of a National Quality Council, expected to enhance quality infrastructure. However, challenges in regulatory controls and achieving export readiness persist.

78. The project goal was to "improve compliance with national food safety standards and regulations for public health and trade." We note that assessing the long-term trade impact of the project is challenging notably as it was a pilot. In light of this, the evaluation has focused on assessing qualitative changes with regards to improvements in risk-based inspection systems, consideration of reform or revisions / updates to regulatory frameworks and, where available, on reviewing available data (e.g. data on rejections, and increases in firms using vTPAs[33]).

79. Initially, the project considered including a component to evaluate the impact of certification on producers and examine market dynamics. However, the scope of this component was deemed too small to be able to complete a meaningful analysis. Ultimately, other aspects were prioritized, with more emphasis placed on activities increasing vTPA awareness and capacity

[33] Although we note an increase in vTPA use was not the objective of the project

building. It was decided that, while this activity wouldn't be feasible within the project's timeframe, it might be better suited for a follow-on project phase or a potential regional-level analysis.

Impact in Honduras:

80. The project helped Honduras regulatory authorities consolidate its risk-based approach to food safety management, as well as solidify its approach to vTPA including strengthening relationships with vTPA certifiers. As a result, Honduras is reportedly planning on updating its National Instrument (e.g. regulatory reforms) in line with the roadmap proposals (Roadmap Step 3). It has also identified the need to include digital solutions for the automation of its risk-based inspection processes, following the additions already made and in line with the roadmap (with potential support from IICA). The initiative seeks to achieve two objectives. Firstly, it aims to implement digital solutions that assist in determining inspection frequency and support the planning of inspections. Secondly, it also focuses on establishing digital processes for the delivery of risk-based inspections.

81. There is evidence to suggest that the implementation of the risk-based approach in Honduras has resulted in tangible changes in terms of lower frequency of inspections. One respondent stated that their inspection frequency changed from annual to once every three years, given their low-risk classification. This change benefits the public sector by enabling more efficient resource allocation, allowing inspections to focus on higher-risk FBOs. At the same time, it reduces the number of inspections, lowering costs and improving efficiency for the private sector.

82. In terms of increased market access, one respondent suggested that the project support had been important in facilitating his firm's shrimp exports to the Chinese market. The respondent implied that capacity building linked to certification (which was delivered through sessions with GFSI) and support by SENASA through the project helped them with China's evaluation process.[34] However, no relevant data was shared related to increased exports, and the organization in question was already well established as a shrimp exporter prior to the project launch. Another respondent working in horticulture stated that, while the project had not yet led to increased market opportunities, it had helped producers have a better understanding of and meet client demands in certification. In the long term this could open new markets as food safety compliance increases.

83. In terms of increased capacity, evidence suggests that in the Honduran shrimp sector, capacity in risk analysis improved. Lessons learnt through trainings were shared by a participating producer with the Association of Honduran Shrimp Producers (ANDA). This included risk analysis and risk management information, particularly related to how companies could reduce inspection frequency by meeting certification standards.

[34] Increased exports to the Chinese market could also be attributed to new trade agreements put in place during project delivery. For instance, in February 2024, Honduras and China signed an Early Harvest Agreement, which came into effect on 1 September to speed up FTA negotiations. As part of this agreement, in July, Honduras shipped its first two containers of 36 tonnes of shrimp to China duty-free https://fundacionandresbello.org/en/news/honduras-%F0%9F%87%AD%F0%9F%87%B3-news/honduras-and-china-sign-11-million-agreements-to-boost-bilateral-trade/.

84. However, these improvements were only confirmed by large producers within the shrimp sector who already made use of vTPAs prior to the project. Evaluating overall impact in terms of increased capacity across all sectors that is directly attributable to the project is challenging.

85. In terms of increases of FBOs using vTPAs in Honduras since project launch:

- Fruits and vegetables: of the 14 establishments, the percentage for Primus remains at 36%. The percentage for GlobalG.A.P. has increased by 7%, rising from 29% to 36%, due to two companies recently obtaining certification. Additionally, one of the existing establishments has chosen not to renew its GlobalG.A.P. certification.
- Shrimp: One establishment is no longer operational which previously held the IFS certification. For the remaining three establishments that hold certifications, the percentages are as follows: BPA (25%), Global GAP (25%), ASC (100%), and BRC (50%).

86. No data was shared related to rejections given time constraints to extract this data.

Impact in Belize:

87. While Belize is at a lower level of vTPA readiness, the project has led to the country developing a risk-based inspection system (Roadmap Step 1) which is a significant achievement. This includes the implementation of a quantitative checklist to support the monitoring of non-compliances.[35] This was developed over a two-year timeframe with one respondent suggesting that this would have taken four years had the project not been in place.

88. While no regulatory changes are currently planned, the recent approval of a National Quality Council (NQC) is expected to enhance its quality infrastructure and involve third-party partners in implementation strategies.[36] The goal of the NQCis to improve on the culture for quality in Belize among MSMEs, larger industries and consumers and increase local industries export readiness.

89. There is no evidence that the project has resulted in increased market access for Belize. Interviews suggest issues with existing markets such as the EU have historically been less about risk-based inspection and more about Belize's outdated regulations. In terms of new markets, a recent equivalence evaluation by a trading partner and provider of development assistance emphasized the need for stronger regulatory oversight. Although these issues have not significantly impacted trade, improving regulatory controls over food establishments would increase the value of Belize's guarantees and enhance market confidence.

90. The project improved BAHA's capacity with practical exercises in risk-based inspection highlighted as useful. For instance, a visit to a certified farm and packinghouse in Honduras

[35] The framework has introduced a percent score system to measure compliance and categorize findings as critical, major, or minor. This structured approach, inspired by the Honduran risk-based model, is being progressively adopted and is expected to greatly improve food safety.

[36] The BBS is the beneficiary of the Standards Partnership Programme funded by the UK Foreign, Commonwealth & Development Office (FCDO) and implemented by the British Standards Institute (BSI). The BSI project will provide direct support to public and private sector stakeholders in the implementation of the Belize National Quality Policy which was approved at the National Level in 2022. The NQP supports the implementation of the National Quality Infrastructure System, which is comprised of standards, metrology, conformity assessment, and accreditation. https://www.breakingbelizenews.com/2024/11/01/belize-bureau-of-standards-hosts-national-quality-policy-workshop/

allowed for comparison with the RA checklist with the third-party checklist. Unfortunately, the visit was limited to regulators, despite the benefits it could have offered the private sector.

91. It was confirmed that the number of facilities with private certification did not increase since the start of the project. There was one rejection received during delivery.[37]

92. IICA shared lessons learnt from the vTPA CA programme with CACU, which contributed to promoting and integrating the vTPA topic into CACU's broader agenda.

4.6 Sustainability

Roadmaps provided guidance for implementation of the vTPA approach (presented as an incremental three step process including: 1. a risk-based inspection model, 2. vTPA evaluation approach, and 3. relevant updates to the legal framework) and there is evidence that their recommendations have been taken forward. Progress was made integrating vTPA into food control systems, with Honduras planning updates to its regulatory framework (step 3) and Belize adopting a risk-based inspection system (step 1). In Belize, however, sustainability (and future vTPA uptake) faces challenges due to the country's small industry size, with more support needed to build BAHA's capacity. In light of this, the approach may not be as suitable for Belize. Regionally, vTPA approaches could be scalable through mechanisms like SICA and CACU, with plans for a regional digital platform being developed to harmonize vTPA efforts across Central America.

Country level:

93. There was active commitment and close engagement of the regulatory authorities from the outset to ensure sustainability. The PG also highlighted measures to ensure commitment from the private sector including through financial contribution.[38] However, this was not taken forward.[39]

94. The development of the roadmap and action plan provided practical steps for countries to independently continue the approach, offering guidance for implementation beyond the project end. As mentioned in Section: 4.5, there is evidence of these recommendations being actively implemented for both countries.

95. We note that Honduras had already laid the groundwork establishing its risk-based inspection systems and could focus on integrating the vTPA component (Roadmap Step 2) in key sectors which had existing capacity in using vTPA systems. This provided a strong foundation on which

[37] The rejection was by the US FDA for frozen lobster due to possible microbiological contamination.

[38] Including: the inclusion of a financial contribution from participating private sector entities;[38] the use of a badge or label linked to the use of a vTPA program to assist with branding (thereby creating an additional incentive for participating FBOs); selection criteria for farmers/FBOs wishing to participate in the project to include a commitment to invest resources to improve food safety.

[39] The certification bodies, such as Kiwa and LSQA, funded their own training, providing financial support for the project. Furthermore, the in-person participation of FBOs also constituted a financial contribution. However, obtaining additional contributions proved difficult due to the pilot nature of the project, which we could say focused on capacity building and aims to enable more concrete adoption through the implementation of the roadmaps.

to build, and the update to its National Instrument will ensure the sustainability of results. The National Codex Committee has been engaged on developments throughout.[40]

96. Evidence suggests that the risk-based system is now in use in Belize, and it is addressing gaps in quality infrastructure (including through the NQC as mentioned). A lack of political will has historically delayed progress, but policymakers are now recognizing the growing importance of compliance for export markets. The roadmap has provided practical steps to consolidate its vTPA approach, including ultimately integrating it into its legal framework.[41] This will be key to enforcing compliance and ensuring future sustainability.

97. However, while the move to a risk-based system is a positive step, adoption of vTPAs in the Belize context remains uncertain. Interviews suggest that, given the small size of Belize's industry and low level of exports, there is less of an imperative for third party certification and the emphasis should be on increasing BAHA's capacity to conduct inspections. This could affect Belize progressing to the next step. A cost-benefit analysis demonstrating how vTPAs could support increased exports could help with future uptake.

98. There is also a need to build further awareness on the benefits of certification for FBOs across various sectors. One of the key concerns is around additional costs for businesses, especially for smaller producers and those already exporting without using vTPAs.[42] These FBOs could benefit from collective (or regional) schemes used by larger producers, like those in the Banana Association, which provide training and resources for certification.

Regional and global level:

99. Scaling the vTPA approach regionally benefits resource-limited countries by streamlining processes, reducing costs, and enhancing efficiency through shared certification bodies and economies of scale. Belize and Honduras are part of the Central American Integration System (SICA), which provides a mechanism to further disseminate and share the experiences of the pilot project within the region. An improved, practical understanding of the use of vTPA programmes, based on evidence, is also expected to be very relevant to the Central American Customs Union (CACU).

100. It was noted that countries like Costa Rica and Guatemala where there are more certification bodies likely have more advanced systems, and countries exporting to the same markets face similar client demands for certification. Therefore, carrying out a regional study could provide valuable insights.[43]

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[40] SENASA planned to present findings to the National Codex Committee at the ordinary meeting in January 2025, but other topics of interest were prioritized. It will be included as an agenda item in the next regular meeting in March 2025.

[41] Recommendation 5 of the roadmap: identify the legal document for the regulatory framework of the new inspection model.

[42] Certification is very costly, and businesses are often required to comply with multiple schemes depending on the market. Evidence suggests BAHA coordinates export inspections but does not inspect farms, leaving a gap in quality control at the farm level. The Ministry of Agriculture aims to address this by introducing standards like GlobalG.A.P. for exporters, but certification costs make it inaccessible for smaller producers. Without legal requirements, many see certification as an unnecessary expense, a challenge BSS is working to overcome.

[43] A regional perspective could explore different supply chains and look at issues such as laboratory capabilities. Laboratories often use certification such as ISO 17025, so it would be useful to evaluate differences between countries with private and official labs that use vTPAs versus those that do not, and what market opportunities arise from these differences. This could lead to potential new project ideas.

101. Efforts are currently being made to develop a regional digital platform to harmonize regional vTPA across Central America. IICA is looking for seed funding internally to put together a proposal to present to STDF. Other donors such as the EU and USAID have also indicated interest in the approach.

4.7 Other unexpected results

102. A study visit to Canada to learn about the Canadian model took place in addition to the UK visit. This was because the UK model was viewed as too advanced to be applied to the Central America context. While the CFIA Learning Visit was not initially planned, it led to an important outcome. All respondents highlighted that the Canada risk-based inspection system was a more appropriate model, and used this as a template in the development and review of their own risk-based approach.

103. The project successfully included the participation of certification bodies, both in person and virtually through Kiwa. Additionally, it worked with LSQA, another certification body that has a strong presence in the aquaculture supply chain in the region. This facilitated connections with local GFSI groups in Mexico, Colombia, and Argentina, creating opportunities for shared learning and collaboration.

104. To promote South-South learning, the project ensured the participation of two countries from the region that showed interest in the thematic session on the application of the Codex Principles and Guidelines for the evaluation and review of third-party voluntary assurance programs by the SPS Committee: Paraguay and Ecuador. Additionally, Mali, a beneficiary country of another pilot project, also participated in this thematic session funded by the vTPA-CA.

105. A vTPA toolkit was developed under the parallel vTPA-WA project to assist competent authorities in evaluating food safety systems based on Codex guidelines. The tools were presented at a UNIDO event in Egypt along with practical exercises to teach regulators how to assess vTPA programmes and utilize the resulting data. The tools were subsequently used by Belize and Honduras in the development of the roadmaps.

106. Unfortunately, the beneficiaries were unable to actively participate in the vTPA Partnership Platform established for knowledge sharing under the vTPA-WA project. This was primarily due to the platform's virtual format, which posed challenges given connectivity limitations in Belize. Additionally, as the platform was developed in English, language barriers further restricted engagement for Spanish-speaking beneficiaries.

5 CROSS-CUTTING

5.1 Gender

107. The project did not place strong emphasis on gender equality and social inclusion (GESI) from the outset. A survey mapped in general terms the levels of gender inclusion within the organizations participating in the project. However, there was no evidence of a comprehensive

gender analysis carried out, no inclusion of gender indicators in the project's framework, or GESI sensitization of beneficiaries during capacity building.[44]

108. Consistent gender equality and social inclusion (GESI) reporting did not start until 2023, following an assessment presented by STDF.[45] At this point, measures were taken by IICA to engage with the Gender and Youth Program,[46] and discussions were held with other IICA project coordinators working on STDF projects to strengthen the project approach towards gender-related issues. Subsequently, steps were taken to ensure equitable representation among participants, as well as promoting gender equity in the selection of expert presenters for workshops directed at the FBOs.

5.2 Environment, Biodiversity and Climate change

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

6 LESSONS LEARNT

110. Selecting countries – and priority sectors - with a sufficient baseline level of awareness and organization is important for vTPA adoption. The Honduras experience demonstrated the benefits of having a risk-based inspection system already in place and existing use of vTPA to move forward with the approach.

111. The initial workplan applied the same approach for both countries, based on activities in other regional pilots, but was later adjusted to the country context. More targeted support in line with existing capacity and vTPA readiness proved effective.

112. A participatory approach to roadmap development—engaging public and private sector representatives—secured greater buy-in and facilitated the implementation of recommendations.

113. Starting the roadmap development process earlier in project delivery and using a two-phased approach for its implementation allowed for follow-up of its recommendations and yielded better results.

114. One of the broader challenges with new and innovative projects is identifying consultants with the relevant technical skills to support the work. This proved to be a challenge during delivery.

115. Sharing lessons learnt with the wider Central and Latin America region was key during delivery. This included ongoing mentoring by countries (e.g. Argentina, Colombia). Additionally, contracting an expert with experience developing risk-based inspection systems throughout the

[44] For instance, in terms of the benefits of choosing certification that includes social aspects as was carried out in the parallel vTPA WA project by UNIDO. However, we note that the STDF did not have a Gender Action Plan when the project was launched, and gender analysis was not required. UNIDO carried out the gender analysis on its initiative.
[45] STDF Gender Action Plan: https://standardsfacility.org/sites/default/files/STDF_Gender_Action_Plan_E_final.pdf
[46] A program within the Directorate of Technical Cooperation at IICA, which provided support for the inclusion of gender and youth in the implementation of the project.

region allowed for lessons from other countries to be integrated in deliverables. The same consultant supported both countries resulting in efficiencies, and synergies being leveraged.

116. Exposure to different best practice models is important when developing a national vTPA approach. Various models were reviewed including the Dutch, German, UK and US models. The Canada model was eventually used as a template as it was considered a more effective starting point for vTPA implementation in the two project countries.[47]

117. Practical capacity building, such as study visits to the UK (which included visits to food processing factories) and Canada, as well as visits to certified packinghouses in Honduras were critical for participants to gain hands-on experience of food control systems, and understand how government agencies applied the vTPA programme approach in practice. Meetings with vTPA programme owners were also organized within the contexts of these learning trips.

118. Given resource constraints, smaller FBOs (notably in Belize) could benefit from collective schemes used by larger producers, which provide training and resources for certification to their members. Regional collaboration could also help create associations and frameworks that benefit multiple industries.

119. The success of the mentoring, learning visits, and jointly delivered pilot activities demonstrated the usefulness of combining best practice approaches and South-South as well as North South exchanges for capacity building. Unfortunately, the beneficiaries were unable to actively participate in the vTPA Partnership Platform established for knowledge sharing under the vTPA-WA project. This was primarily due to the platform's virtual format, which posed challenges given connectivity limitations in Belize. Additionally, as the platform was developed in English, language barriers further restricted engagement for Spanish-speaking beneficiaries.

120. A wider benefit was knowledge sharing and practical tools made available from other pilot projects. The vTPA toolkit developed by UNIDO in the vTPA WA project (vTPA-WA) was used to develop the roadmaps in both countries.

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	IICA

[47] Adopting an approach of vTPA schemes with full equivalency with official inspections was too challenging.

2.	Set up national vTPA steering committees to facilitate stakeholder dialogue, address challenges, and oversee progress.[48]	Within 1 year	Pilot country regulatory authorities
3.	Continue supporting options for scaling the vTPA approach regionally, including developing a regional digital platform to harmonize vTPA across Central America.	Potential New Project	IICA
4.	Explore the potential for follow on interventions in the target countries building on pilot results and roadmap recommendations (this should include continued strengthening of the risk-based inspection model in Belize, as well as potentially widening the remit to other sectors in Honduras).	Potential Future Phase	Partner countries/ IICA/ International Donors
5.	Consider future economic analysis looking at measuring trade impact of vTPAs, including in the pilot countries, as well as a regional study.	Longer-term	IICA/ STDF
6.	Expand pool of trusted consultants with specialized vTPA experience to support the delivery of relevant future initiatives.	Ongoing	IICA/ STDF

[48] This recommendation resulted from the vTPA WA roadmap development process and would be useful in the two vTPA CA target countries as well.