



USAID
FROM THE AMERICAN PEOPLE



EAT | Enabling
Agricultural Trade

ASSESSMENT OF THE ENABLING ENVIRONMENT FOR CROSS-BORDER TRADE OF AGRICULTURAL INPUTS Thailand, Vietnam, and Cambodia

OCTOBER 2014





ASSESSMENT OF THE ENABLING ENVIRONMENT FOR CROSS-BORDER TRADE OF AGRICULTURAL INPUTS Thailand, Vietnam, and Cambodia

OCTOBER 2014

DISCLAIMER

The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development nor the United States Government.

CONTENTS

LIST OF ACRONYMS.....	1
EXECUTIVE SUMMARY	3
INTRODUCTION.....	5
OBJECTIVES OF THE STUDY.....	5
METHODOLOGY.....	6
STRUCTURE OF THIS REPORT	8
REGIONAL FINDINGS	9
RECOMMENDATIONS	11
THAILAND	17
SEED TRADE.....	18
FERTILIZER TRADE.....	19
PESTICIDE TRADE.....	20
FISH FRY TRADE	21
RECOMMENDATIONS.....	22
VIETNAM.....	24
SEED TRADE.....	26
FERTILIZER TRADE.....	26
PESTICIDE TRADE.....	28
FISH FRY TRADE	29
RECOMMENDATIONS.....	29
CAMBODIA.....	31
SEED TRADE.....	32
FERTILIZER TRADE.....	34
PESTICIDE TRADE.....	35
FISH FRY TRADE	36
RECOMMENDATIONS.....	37
ANNEXES	40
ANNEX 1: SUMMARY SURVEYS FOR THAILAND	40
ANNEX 2: SUMMARY SURVEYS FOR VIETNAM.....	40
ANNEX 3: SUMMARY SURVEYS FOR CAMBODIA.....	40



LIST OF ACRONYMS

AEC	ASEAN Economic Community
AEO	Authorized Economic Operators
ASEAN	Association of Southeast Asian Nations
ATIGA	ASEAN Trade in Goods Agreement
CAMCONTROL	Cambodia Import Export Inspection and Fraud Repression Directorate-General
CARDI	Cambodia Agricultural Research and Development Institute
DAHP	Cambodia's Department of Animal Health and Production
DAL	Cambodia's Department of Agricultural Legislation
DOA	Thailand's Department of Agriculture
DOF	Thailand's Department of Fisheries
DUS	Distinctness, Uniformity, and Stability test
FCL	Full container loads
FIA	Cambodia's Fisheries Administration
GDA	Cambodia's General Directorate of Agriculture
GDP	Gross Domestic Product
GLP	Good Laboratory Practices
GVN	Government of Vietnam
HC	Health certificate
ICT	Information and Communication Technology
IPR	Intellectual Property Rights
KPM	Aquatic Animal Health Certificate (Thailand)
LCL	Less-than-container loads (that is, less than a full container load)
LMI	Lower Mekong Initiative
MAFF	Cambodia's Ministry of Agriculture, Forestry and Fisheries
MARD	Ministry of Agriculture and Rural Development
NSW	National single window
NTB	Non-tariff barrier
NTM	Non-tariff measure
OAR	Thailand's Office of Agricultural Regulation
OCR	Optical Character Recognition
OECD	Organisation for Economic Co-operation and Development
PC	Phytosanitary certificate
PPD	Vietnam's Plant Protection Department
PVN	PetroVietnam Group (an SOE)
RGC	Royal Government of Cambodia
RIA	Regulatory impact assessment
RTG	Royal Thai Government
SOE	State-owned enterprise
UPOV	International Union for the Protection of New Varieties of Plants
USD	United States Dollar
VAT	Value Added Tax
VCIS	Vietnam Customs Information System
VCU	Value, Cultivation, and Use test
VINACHEM	Vietnam National Chemical Group (an SOE)
VNACCS	Vietnam Automated Cargo Clearance and Port Consolidated System
VNACCS/VCIS	Vietnam's online "single window" platform for submitting customs declaration forms



EXECUTIVE SUMMARY

This study assesses the agribusiness-enabling environment for cross-border trade in the Lower Mekong region of Asia by focusing on specific indicators of four key agricultural inputs: seed, fertilizer, pesticide, and fish fry. The study covers Thailand, Vietnam, and Cambodia—three of the six countries that make up the Lower Mekong Initiative (LMI), a multinational effort launched in 2009 between the US Government and the governments of the three studied countries, Laos, and Myanmar.¹ The purpose of LMI is to foster integrated cooperation and capacity building in the Lower Mekong region and further policy goals as the region works towards economic integration under the Association of Southeast Asian Nations (ASEAN) Economic Community (AEC) by 2015.²



The information offered in this study was gleaned from a combination of research, surveys, and interviews. This three-pronged approach enabled the assessment team to examine and understand the extant country-level and regional issues in Thailand, Vietnam, and Cambodia with respect to (1) administrative (in) efficiency, (2) transaction costs, and (3) strength of the legal and regulatory framework, all with the ultimate objective of better informing agriculture sector decision-makers about the prevailing constraints to trade, investment, and economic growth.¹²

Overall, the assessment team found considerable variation across inputs and countries with respect to the time needed, cost, and complexity of the trade-related activities measured in this study. Each of the three studied countries has strengths and weaknesses. More specifically:

- » The legal framework for obtaining the **licenses and permissions to operate as an importer or exporter** diverged across countries. Vietnam had the most streamlined and efficient system, and Cambodia had the lowest official costs. In all countries, pesticide traders had to spend considerably more time and money to set up their businesses than did traders of seed, fertilizer, or fish fry.
- » **License and document preparation for importing** a shipment of inputs takes, on average, the least amount of time in Cambodia and the most amount of time in Vietnam, and Vietnam requires the highest number of documents.
- » Costs for **license and document preparation for importing** a shipment are lowest in Thailand and highest in Cambodia. Of the four inputs studied in this report, document preparation is the most expensive for fertilizer in Vietnam and Cambodia and for pesticide in Thailand. Costs in Vietnam fall between Thailand and Cambodia for all input types except fish fry, for which it is the most expensive among all three countries.
- » Among the studied countries, Thailand has the lowest costs for moving a shipment of inputs through **customs clearance processes**. Vietnam costs more than twice as much as Thailand, and Cambodia four times as much. The most expensive customs clearance process is for fertilizer shipments into Cambodia.

¹ This assessment was also to be conducted in Myanmar and Laos; however, agreement with those governments was not received in time to include them.

² ASEAN was established on August 8, 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration (Bangkok Declaration). Today, Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei Darussalam, Vietnam, Laos, Myanmar, and Cambodia make up the ten member states of ASEAN. The ASEAN Economic Community (AEC) will establish ASEAN as a single market and production base making ASEAN more dynamic and competitive with new mechanisms and measures to strengthen the implementation of its existing economic initiatives; accelerating regional integration in the priority sectors; facilitating movement of business persons, skilled labor, and talents; and strengthening the institutional mechanisms of ASEAN. With the signing of the "Naypyidaw Declaration" in May 2014, ASEAN members recognized the importance of realizing these goals by 2015. See "Getting in the way," *The Economist*, print edition (May 17–24, 2014).

- » **Export requirements** for agricultural inputs are typically less cumbersome than import requirements, taking less time, money, and number of procedures to complete. For the four inputs covered in this study, export requirements can be completed in less time and at lower cost in Vietnam than in Thailand. Cambodia exports negligible amounts of the studied inputs. As reportable data on exports are lacking, Cambodia's export requirements are not covered in this study.

Thailand, Vietnam, and Cambodia are in different stages of development. Notwithstanding particular variations, all three countries can better facilitate cross-border trade of agricultural inputs. All three still face gaps to fully meet the requirements for membership in ASEAN, including gaps in integrating customs procedures under national single windows (NSWs) and ASEAN single window. Each can improve the transparency of rules and procedures for obtaining export and import permissions and licenses and make trade rules and other trade-related information more readily available to all interested parties. Reducing these impediments would make private sector participation in trade less difficult, costly, and risky. In addition, addressing the following common challenges could facilitate increased private sector trade in inputs:

- » Varying levels of coordination among oversight agencies;
- » A lack of automated processes for obtaining licenses, permissions, and certifications and for making online payments;
- » Burdensome requirements mandating multiple levels of approvals before trade documents are issued; and
- » An unclear and/or incomplete legal framework, especially in Cambodia.

With respect to product registration, ASEAN requirements call for a standardized trade process among member states through harmonized trade policy and trade facilitation measures. For the three countries studied, harmonizing product registration requirements could—and should—create a faster or expedited process for approving input products that are already registered or field tested in another country and for instituting mutual equivalence agreements for sanitary and phytosanitary measures.

In preparing to join the AEC by 2015, Thailand, Vietnam, and Cambodia all face immediate needs for individual country-level and coordinated regional action to improve access to agricultural inputs. To that end, this report offers recommendations to address the main constraints to trade, offering suggestions for “quick wins” as well as areas requiring longer-term efforts. Positive legal and regulatory reforms and trade facilitation improvements will help streamline trade processes, reduce regulatory compliance costs, and increase cross-border trade of seed, fertilizer, pesticide, and fish fry.

INTRODUCTION

The Lower Mekong Initiative (LMI) is a multinational effort launched in 2009 between the U.S. Government and the governments of Thailand, Vietnam, Cambodia, Laos, and Myanmar.³ The purpose of LMI is to foster integrated cooperation and capacity-building in the Lower Mekong region and to promote policy goals as the region works towards economic integration under the Association of Southeast Asian Nations (ASEAN) Economic Community (AEC) by 2015.⁴

LMI is focused on six Pillars: Agriculture and Food Security, Connectivity, Education, Energy Security, Environment and Water, and Health, Gender and other and cross-cutting issues.⁵ The Agriculture and Food Security Pillar supports partner countries' efforts to enhance agricultural growth and food security. Although the agriculture sector in some LMI countries is well-studied, much can be done to improve the enabling environment—the system of government policies, laws, regulations, and institutions—that impacts the operational success of firms at the micro-level and drives economic growth and food security at the macro-level.

This study concentrates on a subset of business enabling environment issues relating to cross-border trade of four of the Lower Mekong regions' key agricultural inputs: seed, fertilizer, pesticide, and fish fry⁶ and is the first agreed-upon activity under LMI's Agriculture and Food Security Pillar. Of the LMI countries, this study focuses on Thailand, Vietnam, and Cambodia.⁷

³ This assessment was also to be conducted in Myanmar and Laos; however, agreement with those governments was not received in time to include them.

⁴ ASEAN was established on August 8, 1967 in Bangkok, Thailand, with the signing of the ASEAN Declaration (Bangkok Declaration). Today, Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei Darussalam, Vietnam, Laos, Myanmar, and Cambodia make up the ten member states of ASEAN. The ASEAN Economic Community (AEC) will establish ASEAN as a single market and production base making ASEAN more dynamic and competitive with new mechanisms and measures to strengthen the implementation of its existing economic initiatives; accelerating regional integration in the priority sectors; facilitating movement of business persons, skilled labor, and talents; and strengthening the institutional mechanisms of ASEAN. With the signing of the "Naypyidaw Declaration" in May 2014, ASEAN members recognized the importance of realizing these goals by 2015. See "Getting in the way," *The Economist*, print edition (May 17–24, 2014).

⁵ USAID, "Lower Mekong Delta Initiative (LMI)," <http://www.usaid.gov/vietnam/lower-mekong-initiative-lmi>.

⁶ Fish fry is defined as recently hatched, juvenile fish. For the purposes of this report, it should be pointed out that fish fry are considered an input into aquaculture production systems where they grow into larger, mature fish for sale and consumption.

⁷ This assessment was also to be conducted in Myanmar and Laos; however, agreement with those governments was not received in time to conduct the survey.



ACCESS TO AGRICULTURAL INPUTS: A KEY POLICY OBJECTIVE IN THE LOWER MEKONG REGION

All LMI countries are agriculture-based. The agriculture sectors of Thailand, Vietnam, and Cambodia, on average, account for 22% of GDP and employ 50% of the population.

Expansion and increased productivity in the agriculture sector are essential to generate jobs, reduce poverty, and achieve inclusive economic growth. The appropriate use of improved agricultural inputs such as seed, fertilizer, and pesticide has been shown to increase crop yields.

Facilitating cross-border trade of agricultural inputs improves input availability, helps ensure a dependable supply, and reduces costs for farmers.

OBJECTIVES OF THE STUDY

This study is designed to support data-driven policy change in agriculture and trade facilitation by providing cross-country comparable data on trade-related practices and regulations related to agricultural inputs. This study highlights country-level and regional issues relating to administrative (in)efficiency, compliance costs, and implementation of the legal and regulatory framework. The findings are intended to help policymakers in LMI countries and USAID missions in the region to improve elements of the legal, regulatory, and institutional system that facilitate cross-border trade of agricultural inputs, increase access to regional and international markets, and build capacity for integration into the AEC.

This study should not be considered a formal evaluation of compliance with AEC accession requirements. However, it can help to inform aspects of countries' readiness to join the AEC. Topics covered in this study align with many requirements set

forth in the ASEAN Trade in Goods Agreement (ATIGA) signed in May 2010.⁸ Common themes include: trade facilitation through integrating customs procedures, such as establishing country-level and ASEAN single windows; harmonizing trade standards, technical regulations, and conformity assessment procedures; transparent import and export licensing and permissions; developing mutual recognition agreements; trade facilitation through eliminating non-tariff barriers; and developing platforms for electronic transactions. This study includes those topics as they relate to cross-border trade in seed, fertilizer, pesticide, and fish fry, as well as other topics.

METHODOLOGY

The methodology for this study utilizes written surveys and in-person interviews to gather data on select trade-related agribusiness practices, procedures, and regulations. Each of the surveys covered a different input: seed, fertilizer, pesticide, and fish fry, and each survey contained a similar set of indicators. The surveys were distributed across the three focus countries to generate a robust and comparative dataset for gauging the relative performance of the agribusiness enabling environment in each country.

INDICATORS

This study uses eight specific indicators to focus on the most relevant enabling environment issues affecting the trade of each agricultural input—specifically, the regulations and administrative procedures that apply to the import and export of agricultural inputs. These indicators are standardized and quantifiable to allow comparative analysis of collected data and thereby quantify the regulatory steps and “costs” (in terms of time⁹, monetary cost,¹⁰ and number of procedures¹¹) associated with cross-border trade of agricultural inputs. The indicators can be broken down into two types:

1. Discrete indicators that capture the time, cost, and number of procedures required to fulfill legal and regulatory requirements for importing or exporting specific agricultural inputs.

2. Legal structure indicators, which assess objective characteristics of a country's legal and regulatory framework against best practices.¹²

Lower time and cost to complete an administrative process generally reflect more efficient government administration; conversely, a higher legal index score tends to indicate a stronger legal framework.¹³

The eight indicators used in this study capture key aspects of the system of laws and regulations that affect the performance and competitiveness of traders and in turn the markets that they can reach, providing insight into aspects of trade policy, domestic agriculture policy, and trade facilitation. These indicators identify whether a country utilizes best practices for supporting trade, such as (a) coordinating actions of traders and government regulators during agribusiness set-up, (b) cross-border movement of goods, and (c) product registration. Data collected in this study also measure the availability of trade-related information, simplification and harmonization of documents, and the use of automated processes. **The data in this study will enable decision-makers to encourage trade by making targeted improvements to trade processes and trade-related regulatory requirements.** The eight indicators used in this study are briefly described in Table 1.

⁸ The study utilized the recently prepared ASEAN 2015 Trade in Goods - Implementing Agency Preparedness Inventory, drafted for Cambodia by the World Bank, which provides implementing agencies with a checklist of requirements for ATIGA compliance.

⁹ “Time” is defined as the number of calendar days required to complete a procedure in practice from the date of initial request until a document or approval is received.

¹⁰ “Cost” is defined as the total amount of official fees and taxes (excluding bribes, if any) as a percentage of GDP per capita. GDP per capita figures used in this report come from The World Bank's World Databank, 2013 World Development Indicators for “GDP per capita (current USD)” and are as follows: \$5,779 for Thailand, \$1,911 for Vietnam, and \$1,008 for Cambodia.

¹¹ A “procedure” is defined as a distinct interaction between a trader (or the trader's representative) and an external party. Internal business processes are not measured.

¹² In assessing the legal and regulatory framework, this study draws on a considerable body of empirical evidence, which demonstrates that government regulation is an important determinant of economic growth and the ease of doing business. This study also draws from the Enabling Agricultural Trade (EAT) project's Agribusiness Regulation and Institutions (AGRI) Index, identifying barriers to trade that can be addressed through legal, regulatory, or administrative changes. Unique to this study is the inclusion of qualitative tools that capture context-specific particulars that are important to understanding each unique survey indicator; input sector; and country environment.

¹³ Each legal and regulatory system is complex, and it is simplistic to assume that a faster/cheaper process is always preferable. Where this is known not to be the case, context and analysis are provided in order to better explore which practices lead to more favorable trade outcomes.

TABLE 1: SURVEY INDICATORS

Operating as an importer/exporter	(1) Licenses and Permissions for an Importer or Exporter – Measures the time, cost, and number of procedures required for an input trader to obtain all necessary licenses and permissions to be fully operational and appropriately registered as an importer or exporter of the input.
Importing and exporting a shipment	(2) License and Document Preparation for Import – Measures the time, cost, and number of documents required for obtaining customs clearance from customs authorities, border authorities, health and technical control agencies, and other government ministries. (3) Customs Clearance for Import – Measures the time, cost, and number of typical customs clearance procedures, including any relevant cargo inspections or quarantine requirements. (4) Trade Facilitation Index – Measures the extent to which the legal framework facilitates the international trade of agricultural inputs, such as the use of risk management systems, audit-based controls, coordinated physical inspections of imported goods, and whether documents can be submitted in advance of a shipment’s arrival. (5) License and Document Preparation for Export – Measures the time, cost, and number of all applicable documents required for obtaining customs clearance from customs authorities; airport, port, or border authorities; health and technical control agencies; and other government ministries. (6) Legal Framework for Certification for Export Index – Measures the extent to which the legal framework enables an efficient phytosanitary or health system that facilitates the export of seed (including fish fry), including the availability of information for obtaining certification, the destination country’s phytosanitary or health certificate requirements, and whether any mutual equivalence agreements on phytosanitary or health measures are in place. Certificates include a phytosanitary certificate (seed survey only) and health certificate (fish fry survey only).
New product registration	(7) New Product Registration – Measures the time, cost, and full sequence of procedures necessary for the importer or exporter of the input to register a new product and receive approval to begin marketing the product. (8) Product Registration Index – Measures the legal framework for registration, such as whether or not international standards are followed to test and review agricultural inputs, and whether current regulations allow for a faster or expedited registration process for products that have been registered or field tested in another country (seed, fertilizer, and pesticide surveys only).

DATA COLLECTION

Short surveys of less than ten pages for each of the four studied inputs were sent to contributors in Thailand, Vietnam, and Cambodia. A standardized business case scenario was presented in each survey to ensure comparability across countries. In order to obtain reliable data on legal and regulatory issues from agribusinesses and the professionals that work with them, the assessment team sought to identify and work with the best-suited contributors from the private and public sectors of each country.¹⁴ The targeted contributors vary by input and include firms that import and export agricultural inputs, government regulators, trade associations, customs brokers, and freight forwarders.¹⁵ Five to ten surveys were received per input per country, with the private sector representing 50–60% of total survey responses.¹⁶

In order to better understand local context, the data collected from the written surveys were complemented with semi-structured, in-person interviews. These interviews enabled deeper qualitative analysis of the constraints identified by the contributors in the surveys and helped elicit additional—and more complete—information beyond that covered in the survey questions. A comprehensive interview guide was prepared in advance of fieldwork and utilized throughout field visits. The interviews proved crucial to obtaining the participation of contributors in Vietnam and Cambodia, who were less responsive via email and hesitant to share the requested information in writing, because they deemed the information sensitive.¹⁷

¹⁴ A three-person team based in Washington, D.C. worked in partnership with 2–4 member teams based in each LMI country to prepare a comprehensive list of key contributors.

¹⁵ This study focuses on formal entities operating legally in each country, and the survey results present only data pertaining to firms that operate formally. When relevant to understanding trade dynamics, anecdotal information regarding informal entities is presented in the text.

¹⁶ The market size and level of development of each sector influenced the number of private sector stakeholders that could respond to the survey. Larger and more competitive markets offered a larger pool of potential contributors. For example, in Cambodia there are no registered seed, fertilizer, pesticide, or fish fry exporters and only 3–4 registered fish fry importers. This limitation reduced the pool of targeted respondents targeted and restricted the analysis in Cambodia to imports only.

¹⁷ To encourage frank responses to survey questions, anonymity was ensured to all survey respondents and interviewees. Therefore, the names of the contributors are not listed in this report.

Two-person assessment teams of international consultants traveled to Thailand, Vietnam, and Cambodia to conduct interviews with survey respondents and other key stakeholders. Local consultants were contracted in each country to facilitate the fieldwork via scheduling meetings and arranging interpreters and translators for the duration of the visit. Fieldwork spanned nine business days, during which the assessment team met with more than 40 organizations or agencies per country; more than half of which were traders, agribusinesses, or private-sector representatives.

THE ASSESSMENT TEAM

- » **Ydun Donahoe**, Project Lead and Assessment Team Lead – Thailand and Cambodia, Enabling Agricultural Trade (EAT)/Fintrac Inc.
- » **Ganyapak Thanesnant**, Project Coordinator and Assessment Team Lead – Vietnam, EAT/Fintrac
- » **Russell Brott**, Consultant, EAT/Fintrac
- » **Paul Dodds**, Consultant, EAT/Fintrac

STRUCTURE OF THIS REPORT

This report is separated into four sections. Regional findings are presented first, followed by country-specific findings for each of the three focus countries. The Regional Findings section highlights regional constraints to trading across borders and provides actionable recommendations for regional-level reforms. The section presents common themes observed across countries and inputs and includes a presentation of comparative time and cost data for key indicators. The country sections for Thailand, Vietnam, and Cambodia each present select survey indicator data, followed by analysis according to input type and actionable country-specific recommendations.

All data presented in this report are primary data and have been collected through written surveys and interviews. In the interest of brevity, this report focuses on the most salient findings for select indicators for each input and country. A full data set, which includes all indicators, can be found in Annexes 1–3 of this report.

REGIONAL FINDINGS

Thailand, Vietnam, and Cambodia share common constraints to the agribusiness enabling environment for cross-border trade of agricultural inputs. This shared weakness also presents shared opportunities to manage trade more efficiently and safely for the benefit of all. Coordinated actions can support regional AEC integration objectives and can facilitate trade among countries in the Lower Mekong region.

This report presents both input-level data points and averages across inputs. Table 2 highlights the regulatory costs (in terms of time, money, and procedures) associated with select processes required to trade each of the studied agricultural inputs across borders in Thailand, Vietnam, and Cambodia.



TABLE 2: COSTS TO COMPLETE SELECT TRADE-RELATED PROCESSES IN THAILAND (TH), VIETNAM (VN), AND CAMBODIA (KH)

ACTIVITY	SEED			FERTILIZER			PESTICIDE			FISH FRY		
	TH	VN	KH	TH	VN	KH	TH	VN	KH	TH	VN	KH
INDICATOR 1:	LICENSES AND PERMISSIONS TO BE AN IMPORTER AND EXPORTER											
Time (days)	42	44	386	86	19	98	736	129	268	22	8	60
Cost (% of GDP/capita)	2	14	23	10	105	24	1084	365	56	<1	<1	24
Procedure (#)	4	2	3	3	2	4	3	3	4	2	1	2
INDICATOR 2:	LICENSES AND DOCUMENTS FOR IMPORT											
Time (days)	10	7	6	3	2	6	13	9	7	6	17	4
Cost (% of GDP/capita)	3	8	14	3	10	24	4	10	21	<1	8	6
Procedure (#)	11	9	10	8	12	7	9	12	10	7	8	5
INDICATOR 3:	CUSTOMS CLEARANCE FOR IMPORT											
Time (days)	32	27	11	3	10	10	2	14	11	1	14	<1
Cost (% of GDP/capita)	3	23	31	8	25	34	13	25	26	<1	1	5
INDICATOR 5:	LICENSES AND DOCUMENTS FOR EXPORT¹⁸											
Time (days)	19	6	-	5	3	-	4	2	-	2	13	-
Cost (% of GDP/capita)	2	1	-	18	<1	-	1	<1	-	<1	<1	-
Procedure (#)	7	6	-	6	9	-	7	10	-	6	7	-

¹⁸ As previously noted, data on formal exports from Cambodia were unavailable due to negligible volumes of exports of the four agricultural inputs studied in this report.

Data on all four inputs are averaged to give a higher-level picture of overall regulatory costs. Table 3 highlights the simple average of regulatory costs (in terms of time, money, and procedures) associated with select processes required for cross-border trade across all four of the studied agricultural inputs in Thailand, Vietnam, and Cambodia.

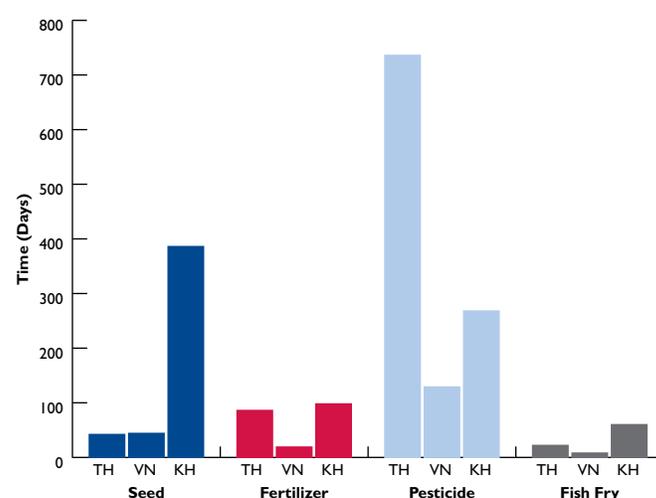
TABLE 3: AVERAGE OF REGULATORY COSTS FOR ALL FOUR INPUTS (SEED, FERTILIZER, PESTICIDE, AND FISH FRY)

ACTIVITY	TH	VN	KH
INDICATOR 1: LICENSES AND PERMISSIONS TO BE AN IMPORTER AND EXPORTER			
Time (days)	222	50	203
Cost (% of GDP/capita)	274	121	32
Procedure (#)	3	2	3
INDICATOR 2: LICENSES AND DOCUMENTS FOR IMPORT			
Time (days)	8	9	6
Cost (% of GDP/capita)	2	9	16
Procedure (#)	9	10	8
INDICATOR 3: CUSTOMS CLEARANCE FOR IMPORT			
Time (days)	9	16	8
Cost (% of GDP/capita)	6	19	24
INDICATOR 5: LICENSES AND DOCUMENTS FOR EXPORT			
Time (days)	7	6	-
Cost (% of GDP/capita)	5%	< 1%	-
Procedure (#)	7	8	-

Licenses and Permissions for an Importer and Exporter (Indicator 1). Stringent requirements for obtaining the necessary licenses and approvals to operate as a trader of agricultural inputs tend to make trade more time-consuming, costly, and complex. Among the studied countries, Vietnam has overall the fewest required processes for business registration, and traders there can begin operating in less time (see Figure 1) and for lower costs than traders in Thailand and Cambodia. Pesticide regulation is more onerous overall across indicators and countries (see Table 2). For instance, it takes four and a half

times longer and costs 22 times more to obtain the licenses and permissions to operate as a pesticide trader than as a trader of seed, fertilizer or fish fry.

FIGURE 1: TIME TO OPERATE AS AN IMPORTER/EXPORTER (INDICATOR 1)



Licenses and Documentation for Importing a Shipment of Agricultural Inputs (Indicator 2).

Governments typically require a variety of documents to verify the contents, value, ownership, health, and safety of agricultural goods moving across borders. Commonly required import documents include a commercial invoice, packing list, bill of lading, phytosanitary certificate, aquatic animal health certificate, and customs import declaration.

On average, Thailand requires fewer documents to import agricultural inputs than Vietnam—typically two fewer documents per shipment. For each shipment of agricultural inputs, the Government of Vietnam (GVN) requires an average of ten documents to be presented at the point of entry for imports and eight documents at the point of exit for exports, the highest of all countries (see Table 3).

Customs Clearance for Import (Indicator 3).

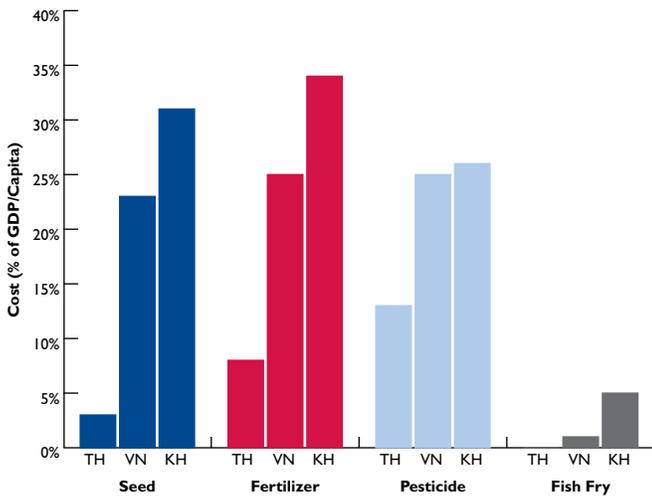
Customs clearance is a large component of the total time and cost to import agricultural inputs in all three countries. Traders naturally prefer to clear customs as quickly as possible, but a balance must be struck to ensure that proper controls are in place. For example, Cambodia is the fastest country for clearing a shipment of agricultural inputs, taking just eight days, but Cambodia lacks qualified staff to conduct appropriate health, safety, and quality checks.

As reflected in Table 3, customs clearance is more expensive in Cambodia and Vietnam (costing an average of 24% and 19% of per capita gross domestic product (GDP), respectively) than in Thailand (costing an average of only 6% of per capita GDP). This disparity points to opportunities to reduce costs at the border in Cambodia and Vietnam.

For Cambodia, the average cost for customs clearance for import across all of the analyzed inputs increases from 24% (as indicated in Table 3) to 48% if unofficial fees are included. Unofficial fees for basic trade procedures, approvals, and documents were typically standard and predictable in Cambodia, and in many cases their inclusion offers a more realistic picture of actual costs.¹⁹ Unofficial fees in Thailand and Vietnam are reportedly low.

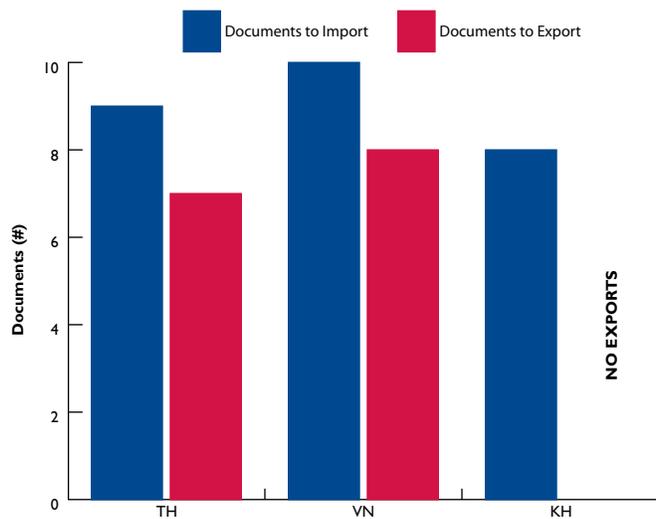
Fish fry is the least expensive of the four inputs to clear customs (see Figure 2), costing an average of 2% of GDP per capita across the three studied countries. Generally speaking, fish fry is less regulated than the other inputs.

FIGURE 2: COST FOR CUSTOMS CLEARANCE FOR IMPORT (INDICATOR 3)



License and Documentation for Exporting a Shipment of Agricultural Inputs (Indicator 5). Across all three countries, license and document requirements for export are typically less cumbersome than those for imports, as depicted in Figure 3. Exporting takes on average two fewer procedures, one and a half fewer days, and costs 7% of per capita GDP less than importing.

FIGURE 3: AVERAGE NUMBER OF DOCUMENTS TO IMPORT/EXPORT ACROSS INPUTS (INDICATORS 2 & 5)



On average, Vietnamese traders spend nearly two days longer than traders in Thailand to prepare required documentation for export. Cambodia has a relatively small domestic agricultural input industry. The lack of a formal business sector means that there are negligible exports of seed, fertilizer, pesticide, and fish fry leaving Cambodia. As a result, data on Cambodia's export documentation practices are unavailable and this report does not include them.

RECOMMENDATIONS

INVEST IN ONLINE TRADE SYSTEMS TO REDUCE THE TIME AND COSTS FOR CROSS-BORDER TRADE.

According to ASEAN, information on import and export requirements should be readily accessible, available online, and searchable,²⁰ and countries should have an automated system for sharing information about permit and license issuance with other agencies that also regulate trade. None of the three focus countries has established automated processes for issuing permits or licenses online, and procedures for sharing that information with other agencies that also regulate trade are incomplete.

The Royal Thai Government (RTG) and the Royal Government of Cambodia (RGC) require traders to come in person to submit import permit applications with supporting documents in hard copy, taking from a few hours up to three days for each permit. Traders in Vietnam can submit the customs

¹⁹ For this reason, unofficial fees for Cambodia are discussed throughout this report.

²⁰ ATIGA Article 12.

declaration form online via the VNACCS/VCIS²¹ or “Vietnam Single Window” system (established in April 2014) instead of in person, saving them at least one day per shipment.

Implementing an e-payment system, as envisioned in the e-ASEAN preparedness goal, would further speed up trade and reduce unofficial payments.²² Respondents reported small and infrequent unofficial “facilitation” payments in Thailand and Vietnam. In Cambodia, however, respondents consistently cited high unofficial payments. Particularly burdensome were pesticide shipments through Phnom Penh, where traders routinely pay US\$500 and occasionally up to US\$1,000 per shipment.²³ In fact, to clear a shipment of pesticides in Cambodia, unofficial payments are nearly double the official charges, as illustrated in Table 4.

TABLE 4: COSTS FOR CUSTOMS CLEARANCE FOR IMPORT OF PESTICIDE – CAMBODIA (INDICATOR 3)

Variable:	Official	Unofficial	Total Cost
Cost (USD)	\$262	\$500	\$762
Cost (% of GDP/capita)	21	50	71

To prepare for accession to the AEC, all ASEAN member states must develop a national single window (NSW) for trade and link that platform with the ASEAN single window. Linking with the ASEAN single window will provide streamlined, automated business processes that reduce the overall time, cost, and complexity of cross-border trade. With respect to Thailand, Vietnam, and Cambodia in particular, implementing an automated system for sharing permit and license information with the general public and in-country agencies that regulate trade would improve transparency and reduce administrative burdens and wait times in each country.

Furthermore, ATIGA requires that information on policies, laws, regulations, administrative rules, licensing, certification, qualification and registration requirements, and guidelines related to trade

²¹ “VNACCS” stands for the Vietnam Automated Cargo Clearance and Port Consolidated System. “VCIS” stands for the Vietnam Customs Information System.

²² eASEAN Framework Agreement signed by ASEAN leaders at ASEAN Informal Summit in Singapore in November 2000. The four objectives of the e-ASEAN Framework Agreement are (a) to develop, strengthen and enhance the competitiveness of the ICT [Information and Communication Technology] sector; (b) reduce the digital divide within and among ASEAN member countries; (c) promote cooperation between the public and private sectors; (d) develop ASEAN Information Infrastructure. (For more information visit www.asean.org.)

²³ Actual payment value depends on the amount of imported goods, the official title of the custom officials who work on the documents, and the relationship the trader has with them.

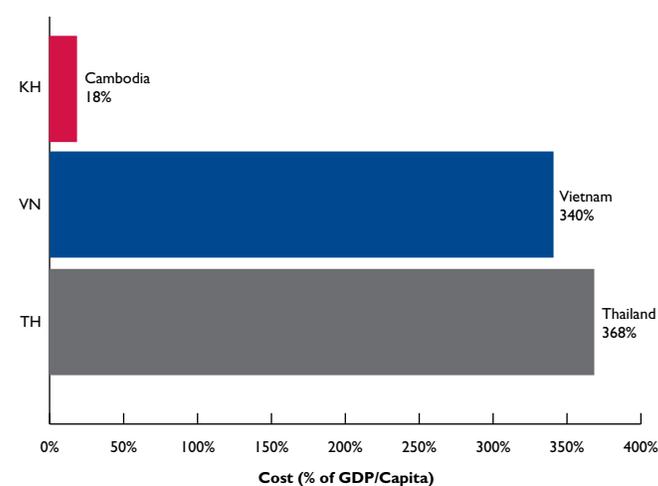
in agricultural goods must be made available to all interested parties at no or reasonable cost.²⁴ As part of that goal, the public as well as government offices in Thailand, Vietnam, Cambodia—and other countries with Indic²⁵ alphabets—would benefit from using reliable, open source OCR²⁶ conversion programs to improve the searchability of trade documents.

INSTITUTE AN EXPEDITED REGISTRATION PROCESS FOR AGRICULTURAL INPUT PRODUCTS THAT HAVE ALREADY BEEN REGISTERED OR FIELD-TESTED IN A NEIGHBORING COUNTRY.

The registration processes for agricultural input products should be harmonized at a regional level. By doing so, access to new products can be expedited and market size expanded.

Traders in the three focus countries report that registering a new agricultural input product (such as a new seed variety) is costly and time-consuming. New seed varieties in Vietnam, for example, must undergo standard Distinctness, Uniformity, and Stability (DUS) and Value, Cultivation, and Use (VCU) tests, and must do so under two separate jurisdictions (Northern and Southern), doubling the regulatory burden for the applicant. Figure 4 displays the average cost for new product registration in each country across all four inputs. If the unofficial costs reported in Cambodia are included, the cost increases from 18% to 61.6% of per capita GDP, making Cambodia markedly more costly than Vietnam and Thailand.

FIGURE 4: AVERAGE COST FOR NEW PRODUCT REGISTRATION ACROSS INPUTS (INDICATOR 7)



²⁴ ATIGA Article 47(a).

²⁵ “Indic” refers to a group of several languages derived from a common source (Brahmi from India). Although the South Asian Indic languages are similar in that they are written in script characters, there are also significant differences.

²⁶ “OCR” means Optical Character Recognition.

The benefits of regional harmonization apply to agricultural policy as well as process. Allowing faster or expedited registration of agricultural input products that are already in use in a neighboring country supports regional trade by decreasing the time and cost for accessing new agricultural technologies. For example:

- » Cambodia accepts existing field-test data for fertilizer, which saves traders months of time otherwise required to conduct new field testing.
- » Vietnam has bilateral agreements with the European Union and Japan for registering seed varieties, under which the GVN accepts foreign DUS test results. Traders save one year and US\$2,000 for each variety registered. By establishing a similar agreement among AEC member states, Vietnamese farmers would have even more access to new seed varieties as they become available, particularly for plant species endemic to Southeast Asia.

The AEC is currently reviewing seed policy frameworks of its members with the goal of regional harmonization. The AEC should also consider harmonizing fertilizer and pesticide policy across member states.

MAKE IMPORTING AND EXPORTING EASIER AND MORE EFFICIENT BY REDUCING THE NUMBER, COMPLEXITY, AND APPROVAL TIME FOR REQUIRED TRADE DOCUMENTS.

Reducing the number, complexity, and time to obtain required documents to import and export makes trade easier and more efficient. In general, a greater number of documents increases the total time and cost to trade. All three focus countries fall short in this regard: each requires numerous documents in order to import and export agricultural inputs; those documents are often duplicative, repetitive, and involve multiple government agencies. Many times, the import documents required are original (and copies of original) licenses and registrations that the government should already have access to within its own system.

Among the three countries, it takes four to seven days longer and requires two additional documents to import into Vietnam than into Cambodia or Thailand. With respect to exporting agricultural inputs, respondents identified phytosanitary certificates (PC) for seed and health certificates (HC) for fish fry as the most problematic to obtain. In Thailand, obtaining a PC for export of seed takes 15 days and costs US\$74. By contrast, traders in Vietnam can obtain PCs in five days for approximately US\$18, saving them both time and money. Cambodia is

reportedly unable to provide traders with credible PCs and HCs at all, which limits Cambodia's ability to participate in regional trade.

Regarding HCs in particular, Thai fish fry exporters must obtain an Aquatic Animal Health Certificate. Typically, this means spending half a day in person at the national office in Bangkok, where exporters must present their business license number, document the source of the fish in the form of a Fry Movement Document, and provide buyer information. Since this procedure must be followed for each shipment, significant costs accrue over the course of a year:

Thailand, Vietnam, and Cambodia should publish reliable, up-to-date information about obtaining a PC for export and allow exporters to request a PC online.²⁷ Mutual recognition of PCs and HCs would improve regional trade flows and support ASEAN objectives for improving harmonization and mutual recognition of conformity assessments.

CONDUCT REGULATORY IMPACT ASSESSMENTS TO AVOID OR REDUCE BURDENSOME REGULATORY REQUIREMENTS.

For any economic sector, high compliance costs restrict business entry and reduce competitiveness. This is observed in all three countries studied. For example, all three require that before any input product can be traded legally, it must first be formally registered and a Product Registration Certificate issued.

The data collected for this report show that new product registration is extremely costly, and that registration of a new pesticide product is the most costly. In Thailand, it costs 1,062% of per capita GDP to register a new pesticide product, which is significantly higher than in Vietnam (758% of per capita GDP) and Cambodia (20% of per capita GDP; 89% including unofficial fees). The cost differential between Cambodia and the other countries is attributable to less stringent lab and field-testing requirements.

The largest cost component of Thailand's registration system is a recent "re-registration" requirement. The RTG requires that all previously registered pesticides and all new pesticides entering the market be tested at an accredited lab following Good Laboratory Practices (GLP) in accordance with OECD

²⁷ ATIGA calls for transparent import and export licensing permissions, such as maintaining a centralized list of all requirements.

guidelines.²⁸ However, there are no GLP labs in Thailand, so firms must use overseas labs; this adds 6–12 months and US\$22,000–125,000 to the overall cost. However, if the pesticide manufacturer has already obtained this test elsewhere, the RTG will accept the results.

To avoid burdensome regulation, governments should consider conducting a regulatory impact assessment (RIA) in advance of any legislation to determine if a proposed rule is the least trade-restrictive option to achieve the desired objective.²⁹ One advantage of the RIA process, when linked with formalized and timely input from the private sector, is more precise government regulation in line with international principles. The concept of an RIA is known and increasingly well-established in Vietnam and gradually more so in Cambodia. Thai interviewees had not heard of an RIA, or of using a sunset clause in a law or

regulation. Governments should consider employing RIAs as part of their analytical toolkit, and obtaining private sector input, when developing new rules governing trade.

MODERNIZE TRADE POLICIES TO EXPEDITE THE MOVEMENT OF GOODS ACROSS BORDERS.

Policies to expedite the movement of goods across borders will lead to improved access to and availability of inputs, more dependable input supply, and lower input costs. Coordinated and efficient trading systems can improve the speed and effectiveness of customs clearance.³⁰

Table 5 presents the scores measured by this study's trade facilitation index. As reflected in Table 5, across inputs and countries, some but not all of the documentation required to clear customs may be submitted in advance of a shipment's arrival at the port, and few documents may be submitted electronically.³¹

Experience in other countries has demonstrated that governments can promote trade by establishing formal processes—such as audit-based controls and trusted trader programs—to recognize authorized operators and give them expedited customs clearance treatment. However, as indicated by the red areas in Table 5, some such formal processes are not fully utilized in the three countries studied. Thailand and Vietnam have expedited input clearance systems. Thailand has such a system in place to facilitate pesticide imports, and Vietnam has

²⁸ "Good Laboratory Practice" or "GLP" refers to a system of quality management controls aimed at ensuring the uniformity, consistency, reliability, reproducibility, quality, and integrity of chemical tests. According to the UK's Medicines and Healthcare products Regulatory Agency:

Good Laboratory Practice (GLP) embodies a set of principles that provides a framework within which laboratory studies are planned, performed, monitored, recorded, reported and archived. These studies are undertaken to generate data by which the hazards and risks to users, consumers and third parties, including the environment, can be assessed for... agrochemicals [], feed additives and contaminants, [and] biocides. GLP helps assure regulatory authorities that the data submitted are a true reflection of the results obtained during the study and can therefore be relied upon when making risk/safety assessments. <http://www.mhra.gov.uk/Howweregulate/Medicines/Inspectionandstandards/GoodLaboratoryPractice/Structure>.

The Organisation for Economic Co-operation and Development (OECD) has developed internationally accepted principles and guidelines for GLP.

²⁹ ATIGA Article 75.6 states: "Follow a standard analytic practice, such as regulatory impact assessment (RIA), to determine if a proposed rule is the least restrictive option to achieve the desired, legitimate objective."

³⁰ ATIGA Article 56 suggests following risk management principles to determine control measures in order to better facilitate customs clearance and release of goods.

³¹ ATIGA Article 55.

TABLE 5: RESULTS OF TRADE FACILITATION INDEX QUESTIONS (INDICATOR 4)

INDEX QUESTIONS	SEED			FERTILIZER			PESTICIDE			FISH FRY		
	TH	VN	KH	TH	VN	KH	TH	VN	KH	TH	VN	KH
1. Documents Submitted in Advance?	–	√	–	–	–	–	–	–	–	–	–	×
2. Documents Submitted Electronically?	–	–	×	–	–	×	–	–	×	–	–	×
3. Risk Management System?	√	√	√	√	√	√	√	√	√	√	√	×
4. Risk Management Electronic?	√	√	√	√	√	√	√	√	√	√	√	×
5. Audit-based Controls?	×	×	×	×	√	×	√	√	×	×	×	×
6. Simultaneous Physical Inspections?	×	×	×	×	×	×	√	×	×	√	×	√
7. Shipment Allowed to Enter the Country?	√	√	√	√	×	√	√	√	√	√	√	√

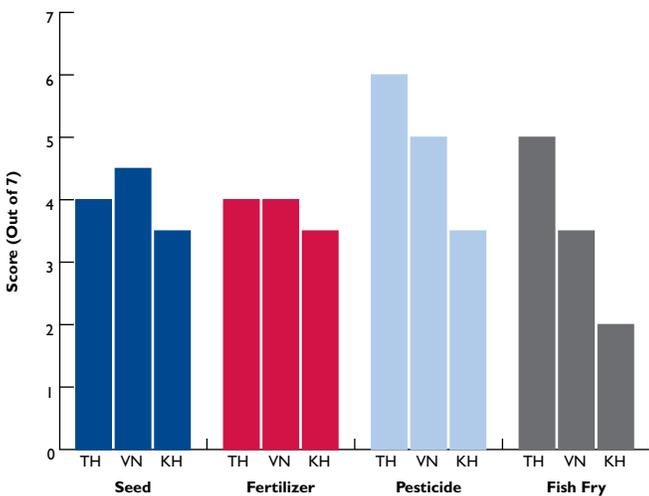
Index Key: Green (All/Yes), Grey (Some), Red (None/No) | Full questions and responses can be found in Annexes 1–3.

implemented audit-based controls for fertilizer and pesticide.³² The GVN has also implemented the Authorized Economic Operator (AEO) Programme, which classifies traders into categories based on risk levels. Preliminary results for the limited number of approved AEOs indicate shortened clearance time for imports and exports.

Cambodia and Thailand allow all input shipments to enter and be stored at the importer’s facilities while samples are analyzed. In Vietnam, fertilizer shipments must be cleared before they are permitted to leave the port, causing companies to incur demurrage charges of US\$50 per day for up to seven days per shipment.

Figure 5 shows the trade facilitation scores (Indicator 4) per input and per country. In general, Cambodia scored lowest and Thailand highest on the Trade Facilitation Index. Notably, none of the countries attained the highest trade facilitation index score (7); this indicates ample room—and opportunities—for improvement in all countries and for all four inputs.

FIGURE 5: TRADE FACILITATION INDEX SCORE (INDICATOR 4)



All four countries can improve their index scores—that is, encourage cross-border trade and move closer to regional trade facilitation goals—by taking the following steps:

- 1. Implementing trusted trader programs** to reward reliable, low-risk traders.
- 2. Better coordinating inspections** at the location of entry.
- 3. Instituting risk management systems** at the input level, such as Thailand’s system for pesticide imports. This would reduce the frequency of physical inspections to only those inputs that are deemed most at risk.
- 4. Requiring fewer physical inspections.** This would reduce the average time and cost for border clearance.

DEFINE LEGAL AUTHORITY AND IMPROVE COORDINATION BETWEEN OVERSIGHT AGENCIES TO IMPROVE IMPLEMENTATION AND ENFORCEMENT OF THE LAW.

Clearly defined legal authority and tight coordination among implementing institutions can expedite trade. Yet overlapping and confusing jurisdictional claims are common across Thailand, Vietnam, and Cambodia.

In Thailand, confusion over jurisdictional authority has resulted in three separate government agencies being involved in the regulation of pesticide. Accordingly, the enforcement of pesticide trade rules is largely ineffective; many interviewees reported that sub-standard products are smuggled across borders and that too many products on the market are “illegal” or “adulterated.”

Vietnam has significantly revised its regulations for each type of input five times during the previous five-years, and in 2013 revised the principal laws and/or regulations governing seed, fertilizer; crop protection chemicals, and trade. The resulting regulatory language and scheme is reportedly vague and complex, leading to the inconsistent and unpredictable implementation of the new rules by border officials, which creates delays.

³² ATIGA Article 59 recommends creating a formal process for recognizing authorized operators to receive expedited customs clearance treatment.

In Cambodia, officials in the Ministry of Agriculture, Forestry and Fisheries (MAFF) report that portions of the procedures for registration of new seed varieties derive from Sub-decree No. 69 “On the Standards and Management of Agricultural Materials,” even though the sub-decree has been repealed and replaced by the more recent Law on Seed Management and Plant Breeder’s Rights (Seed Law).

These few examples demonstrate that cross-border trade would be promoted—and made easier for the public and private sectors—simply by clarifying legal authority and better coordinating implementation of new or revised laws.

ESTABLISH A SUPPORTIVE LEGAL FRAMEWORK AND IMPLEMENTING REGULATIONS THAT FACILITATE CROSS-BORDER TRADE.

Insufficient legal and regulatory protections are detrimental to traders. Consequences include increased risk and uncertainty in operating a trading business and reduced incentive to invest in the agricultural inputs critical to a country’s economy. Examples from Thailand and Cambodia reveal how unsatisfactory regulatory requirements can impede the flow of goods.

In Thailand, the law requires that fertilizers remain sealed until test results from sampling are approved; testing takes around 30 days. In practice, however, the RTG allows fertilizer imports to be sold prior to obtaining test results as a way to facilitate trade and reduce costs for companies. Companies reported satisfaction with this system; in the past, they had to wait for the test results before selling (such as is the case for seed), which cost them more in storage fees. If it makes sense to the RTG to allow fertilizers to bypass a round of inspection, then the policy should be formalized so companies are not technically operating outside the law.

Cambodia lacks complete regulations for some of the main laws governing the trade of inputs, including the Seed Law, the Law on Fisheries (Fisheries Law), and the Law on Management of Pesticides and Fertilizers of 2008 (Law of 2008).³³ For example, the Law of 2008 provides for licensing the private sector to (a) conduct lab tests and (b) manage control plots for testing fertilizers during product registration and post-entry inspection. However, government sources confirmed that six years after the law’s enactment, no applications, procedures, or regulations yet exist for any of this. Thus the RGC retains its monopoly over lab testing and test farms and has little incentive to reduce the long wait times that impede agribusiness.

These examples point to the following regional conclusions:

- » Implementing institutions should (a) **address out-of-date regulations** that don’t reflect administrative practice and (b) **enact implementing regulations where they are lacking**.
- » **Adequate, complete, and predictable laws and regulations** can improve trader compliance and border management and controls, thereby promoting optimum gains for the trading community.

³³ These regulations were reportedly in draft form at the time of the assessment, although copies of the draft regulations could not be obtained.

THAILAND³⁴

Thailand has experienced strong economic growth during the past few decades. Although the agriculture sector represents a smaller percentage of GDP (12%)³⁵ than in the past, agriculture remains an important sector, employing more than a third of the population.³⁶



Thailand has an export-driven economy and has increasingly positioned itself as an important regional economic hub with an open economy to trade. Consistent with this strategy, the policy and regulatory environment is generally considered to be conducive to cross-border trade. For example, export processes are reasonably predictable and timely (taking at least one less day for document preparation for export as compared with for import; see Table 3), especially for fish fry most commonly moved through BKK airport (taking just two days for license and document preparation for export; see Table 2). However, challenges affecting the trade of inputs were reported:

- » As reflected in Table 3, Thailand is the least expensive country for paperwork and permissions to import a shipment (on average 2% of per capita GDP) and to clear customs (6%). However, the costs for export are higher than for imports (by 3% of per capita GDP) and higher on average than Vietnam (by 6%), although this is largely due to the high cost to export fertilizer (18% of per capita GDP; see Table 6).
- » Generally, government fees for services and documents are very low and may not cover operation costs.
- » Thailand's customs clearance process for import seems efficient and professional, but much work is needed to get line ministries up to speed with NSW efforts. Coordination and information sharing among the various

agencies involved in import quarantine control has been noted to be lacking. For example, inspections by customs and inspections by the Department of Agriculture (DOA) are not well coordinated.

- » Full implementation of trade facilitation improvements has yet to occur in practice. Specifically, Thailand falls short because of (1) the lack of audit-based controls, such as trusted trader programs, and (2) the limited number of documents that traders are able to submit, in person or through customs' online system, in advance of a shipment's arrival.
- » New product registration costs across inputs are similar for Thailand and Vietnam (368% and 340% of GDP per capita, respectively, as illustrated in Figure 4 above) but both are much higher than Cambodia (18%). As reflected in Table 6, Product registration costs in Thailand are actually very low for fertilizer and moderate for seed. Pesticide registration, however, is hugely expensive.
- » The penalties for violating legal requirements are in need of strengthening: fines are typically low and high prison sentences prescribed by law are rarely imposed in practice, which may not provide a sufficient deterrent from violation.
- » Some required lab tests for fertilizer, seed, and pesticide lead to delays during import, export, and product registration.

³⁴ Unless otherwise specified, all data presented in this report are primary data collected through surveys and interviews. Only a subset of indicators is discussed in this analysis. For more detail on any individual indicator, please refer to Annex 1: Summary Surveys for Thailand.

³⁵ The World Bank's World Databank, World Development Indicators, "Agriculture, value added (% of GDP)" for 2013.

³⁶ The World Bank's World Databank, World Development Indicators, "Employment in Agriculture (% of total employment)" for 2012.

Table 6 shows time, cost, and number of procedures for select survey indicators and all input types. This section next analyzes constraints to trade in Thailand for seed, fertilizer, pesticide, and fish fry and concludes with recommendations.

TABLE 6: THAILAND DATA³⁷

ACTIVITY	SEED	FERTILIZER	PESTICIDE	FISH FRY
INDICATOR 1:	LICENSES AND PERMISSIONS TO BE AN IMPORTER AND EXPORTER			
Time (days)	42	86	736	22
Cost (% of GDP/capita)	2	10	1084	<1
Procedure (#)	4	3	3	2
INDICATOR 2:	LICENSES AND DOCUMENTS FOR IMPORT			
Time (days)	10	3	13	6
Cost (% of GDP/capita)	3	3	4	<1
Procedure (#)	11	8	9	7
INDICATOR 3:	CUSTOMS CLEARANCE FOR IMPORT			
Time (days)	32	3	2	1
Cost (% of GDP/capita)	3	8	13	<1
INDICATOR 5:	LICENSES AND DOCUMENTS FOR EXPORT			
Time (days)	19	5	4	2
Cost (% of GDP/capita)	2	18	1	<1
Procedure (#)	7	6	7	6
INDICATOR 7:	NEW PRODUCT REGISTRATION			
Time (days)	568	75	863	-
Cost (% of GDP/capita)	35	7	1062	-
Procedure (#)	5	3	7	-

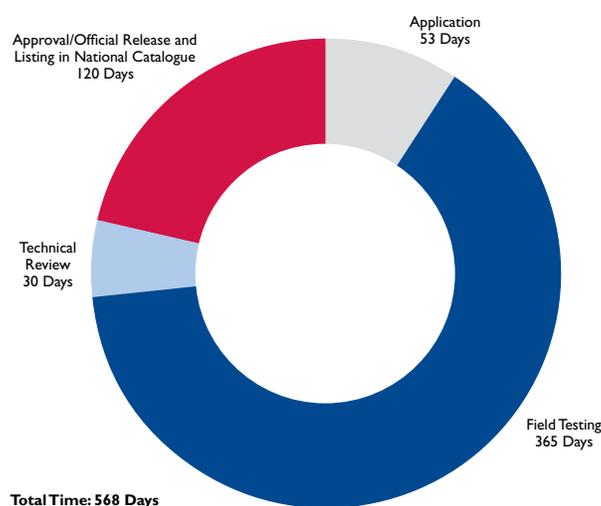
SEED TRADE

Efforts to become a regional “seed hub” are undermined by the legal framework for seed variety registration and protection. Costly and lengthy registration procedures reduce the return on investment for a company that seeks to introduce a seed variety already in use in another country or to develop a proprietary seed variety. In many countries, including Vietnam, once a new variety has been released it must be published in the national gazette before it can be marketed. Thailand has expedited the registration process by simultaneously publishing notification of the new variety on its website as well as on the online Government Gazette.³⁸ Figure 6 provides an overview of required procedures and associated time in Thailand.

³⁷ GDP per capita figures used in this report come from The World Bank’s World Databank, 2013 World Development Indicators for “GDP per capita (current US\$)” and are as follows: \$5,779 for Thailand, \$1,911 for Vietnam, and \$1,008 for Cambodia.

³⁸ Cambodia employs best practice by not requiring a new seed variety to be published in a national catalogue or gazette. The gazette requirement in Vietnam, however, delays the sale of a new variety by 49 days.

FIGURE 6: PROCEDURES FOR SEED VARIETY REGISTRATION – THAILAND (INDICATOR 7)



In order to improve Thai agricultural production, the RTG must continue to encourage the introduction of new seed varieties and better support its policy of promoting the production and distribution of high-quality seed. To do so, the RTG must align itself with the standards of the International Union for the Protection of New Varieties of Plants (UPOV)³⁹ and better define and protect plant breeder's rights.

With respect to new seed, many countries use registration systems to catalogue new varieties and confer protection for plant breeders. Thailand has a Plant Variety Protection Act but it is not clear what protections the Act actually affords. RTG approval is not required to introduce and market a new variety, other than obtaining a "por por" number to prove that a variety meets mandatory germination and purity standards established for "controlled" plants. In practice, breeders note the lack of benefits from variety registration in Thailand, though some breeders continue to register new varieties with the DOA mainly for infringement purposes. Breeder's rights for grains extend for a maximum of 12 years as compared with the 20 years of protection afforded under the UPOV treaty. Once the seed loses protection, there is a risk that the seed will be "nationalized" by act of law, and the original importer will then have to pay royalties to the RTG.⁴⁰

Greater coordination and strengthened capacity of government agencies regulating seed imports can make trade less costly and more predictable.

Thailand is a net exporter of seed, ranking as the 24th largest seed exporter in the world,⁴¹ and it has clearly invested in making itself an export-oriented economy. However, importing agricultural inputs such as seed into Thailand tends to be slower and less predictable than exporting seed out. For example, it takes five days to obtain the import permit for a seed consignment, which is only one of 11 documents required to import seed. Reducing the time it takes to obtain the import permit would offer savings to traders.

³⁹ "UPOV" stands for International Union for the Protection of New Varieties of Plants. According to the UPOV website: "The mission of UPOV is to provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society. The UPOV Convention provides the basis for members to encourage plant breeding by granting breeders of new plant varieties an intellectual property right: the breeder's right." <http://www.upov.int/overview/en/upov.html>. As of the date of this writing, of the countries covered in this report, only Vietnam is a UPOV member, but Thailand and Cambodia have observer status.

⁴⁰ Although stakeholders expressed concern over this possibility, there have been no known instances to date.

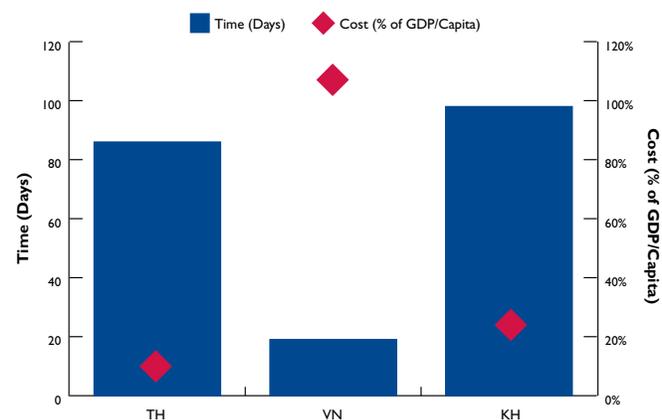
⁴¹ "Seed Industry in Thailand: Constraints to adoption, trade and market development," presentation by Makasiri Chaowagul and Orachos Napisintuwong Artachinda, Agricultural Transformation in Asia: Policy Option for Food and Nutrition Security Conference (September 25–27, 2013).

Customs clearance procedures operate relatively smoothly in Thailand. Yet quality and standards inspections for shipments of seed appear to add a significant amount of time to the import of seed, and 100% of seed shipments are inspected. Inspections could be better coordinated to reduce the highly variable amount of total time—from 16 to 34 days—that it now takes to test and approve imported seed for sale. Three different agencies conduct various tests, suggesting an overall lack of capacity with respect to seed quality testing services; this results in delays and increased storage costs for importers. Full container loads (FCL) of seed may enter Thailand while testing is being conducted and remain in quarantine at the seed company's warehouse. Less-than-container loads (LCL), however, must remain at DOA storage facilities at the port until the germination test results are obtained. The importer must pay demurrage charges on containers during this time, and has less control over the quality of storage facilities at the port. Such rules make it more costly and more risky for LCL-imported seeds.

FERTILIZER TRADE

Constraints to business entry restrict growth in the fertilizer sector. Comparing the three countries, and as reflected in Figure 7, it costs less to start a fertilizer business in Thailand (10% of per capita GDP) than in Vietnam or Cambodia, but it takes much more time to start that business in Thailand than in Vietnam (about 80 days versus 20). Thailand might well need to reduce the time it takes to obtain a fertilizer supplier license—and thus ease business entry—in order to meet domestic demand. Thailand has the fastest growing fertilizer industry in Asia, having grown at 8% per year from 2006–2012, a rate that is expected to reach 11% during 2012–2017.⁴²

FIGURE 7: TIME AND COST TO BE LICENSED AS A FERTILIZER SUPPLIER (INDICATOR 1)



⁴² P. Heffer and M. Prud'homme, "Asia Fertilizer Industry Outlook to 2017," 81st IFA Annual Conference, Chicago (May 2013).

At the same time, such growth has put pressure on the understaffed administration and created concerns about the proliferation of poor quality or adulterated fertilizer, false advertising, and government price controls. Efforts to address inadequate protections against substandard, expired, and improperly labeled products on the market would improve the confidence of the private sector to enter the market.

Requirements for fertilizer registration make it difficult for companies to adapt to a dynamic trading environment.

The legal framework in Thailand reportedly does not provide any easy or clear way to register a proprietary fertilizer product, which might leave Thailand behind in accessing improved technologies.⁴³ Similar to seed, fertilizer product registration is tied to multiple variables. A certificate of registration for fertilizer, for example, covers one specific combination of formula, trade name, trademark, and source. A change in any of these variables means that the company must inform the DOA and go through the registration process again, from scratch (75 days), at a cost of US\$381 per registration. Domestic companies have noted that this situation results in an excessive number of product licenses and higher costs, which could be avoided if the RTG allowed companies to apply for discrete changes to one or more components of a fertilizer product registration (such as a change to the product label) instead of requiring companies to repeat the entire registration process.

The lack of accredited private laboratories causes traders to incur long wait times for testing results.

It typically takes 2–3 months to register a product in Thailand, but this time can be reduced by as much as three weeks if applicants are willing to pay over two times more to use a private lab rather than the RTG laboratory. The availability of accredited private laboratories also contributes to efficient customs clearance for fertilizer shipments into Thailand, which at three days is the fastest of the three countries studied.

Offering private sector lab testing options for seed and pesticide could reduce time and costs associated with those inputs. Such a system could be emulated by other countries that do not yet have accredited private laboratories for testing agricultural inputs, such as Cambodia.

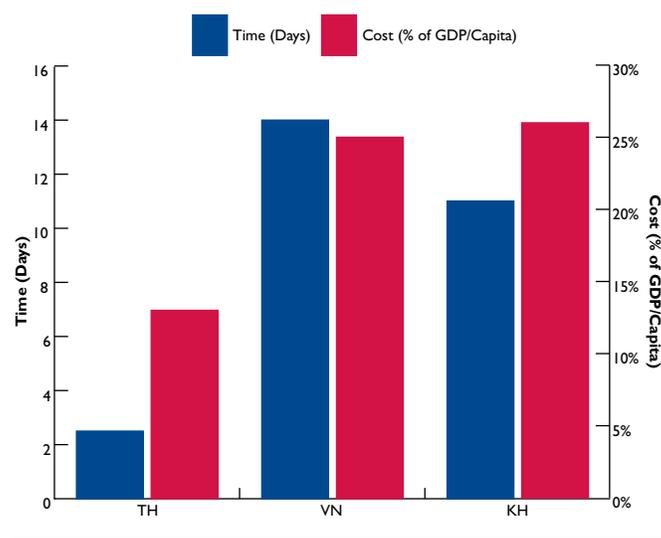
⁴³ For example, to introduce a proprietary product on the market, fertilizer association members stated that the owner would need to meet with the analysis team of the Fertilizer Committee of the DOA to present the product and ask the team to study the new product. The membership, powers, and terms of office of this committee are described in Section 5 of the Fertilizer Act [No.2] B.E. 2550. The last two Fertilizer Committees in Thailand had set up a sub-committee working group for this purpose, yet the Committees did not approve any new products. As of July 2014, there is no working group for new fertilizer products.

PESTICIDE TRADE

The input-level risk management system utilized for pesticide imports saves traders significant time.

Thailand uses a risk management system for pesticide imports under which 90% of pesticide imports bypass sampling, allowing the typical pesticide import to clear customs in 2½ days, the fastest of all three countries (see Figure 8).⁴⁴ Implementing input-level risk management systems for other inputs would save traders time and get products to farmers faster.

FIGURE 8: TIME AND COST FOR CUSTOM CLEARANCE FOR IMPORT OF PESTICIDE (INDICATOR 3)



The proliferation of trade names creates confusion for consumers and oversight agencies.

Similar to fertilizer, pesticide usage in Thailand has increased significantly in recent years. Thailand now ranks fourth out of 15 Asian countries in annual pesticide use.⁴⁵ Based on data obtained from the Office of Agricultural Regulation (OAR), 265 active ingredients for pesticide were imported into Thailand in 2010. Current legal instruments loosely control trade names, and some single-ingredient pesticides may have as many as 300 different trade names, making it difficult to monitor usage and maintain a chemical inventory. More than 20,000 pesticide formulations are sold on the market. Given that the proliferation of trade names can be confusing for both consumers and oversight agencies, efforts to limit the number of trade names per formula along with better end-user education may be a more effective strategy for improving consumer awareness about the products they are buying and the price they should pay.

⁴⁴ However, for the 10% of shipments that are sampled and tested, it typically takes two hours at the port to take samples and then two weeks for content verification, in addition to 1–3 months to do physical, toxicological, and suspension tests.

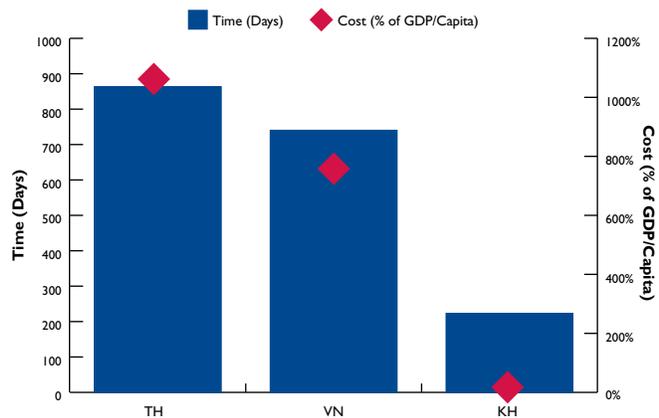
⁴⁵ Panuwet, Parinya. "Agricultural Pesticide Management in Thailand: Situation and Population Health Risk," *Environmental Science and Policy* (2012).

The pesticide regulatory framework does not allow for faster and expedited pesticide registration for products already registered or field-tested in another country.

Thailand's overall framework for regulating hazardous substances has multiple problems and merits review. First, pesticides for crop production are covered under the general Hazardous Substance Act B.E. 2535 (1992) (as amended) rather than being governed by a specialized law for pesticides. Second, in 2009, changes in pesticide registration made registration more difficult by requiring expensive tests for even standard pesticides, which has led to substantial delays (390 days) and additional expense of at least US\$22,000 (see Figure 9 for data comparing Thailand with Cambodia and Vietnam).⁴⁶ Although chemicals such as pesticides pose health and environmental risks and therefore warrant government controls, the current RTG approach makes imports difficult without mitigating the risks of pesticide trade. In fact, the 2009 changes in Thailand's pesticide regulation may act as a non-tariff measure (NTM)⁴⁷ by imposing seemingly unreasonable regulatory requirements and standards that restrict imports. Those regulatory changes may also lead to greater concentration, favoring bigger importers with the ability to pay the large startup costs of registration. Despite its complexity, the pesticide regulatory framework still struggles to protect Thai consumers against bad products. In part, this is because its complexity has, according to some private sector respondents, led to an increase in smuggling.

As shown in Figure 9, of all three countries studied, Thailand has the longest and most expensive process for registering a new pesticide. In fact, those registration costs make up over 95% of the costs associated with setting up operations as a pesticide trader. Moreover, the rules for registering a known pesticide for use do not differ significantly from those for entirely new pesticides. Often, another trader may already have obtained approval for the same manufacturer, country of origin, and active ingredients. The RTG should consider if there is a middle ground: rather than repeat the lengthy (863 days) and expensive (1,062% of per capita GDP)⁴⁸ registration process to register the same pesticide—a seemingly restrictive system—pesticide suppliers might instead be required to report only changes in trade name or product formulation, as long as the active ingredients have already been officially approved.

FIGURE 9: TIME AND COST FOR NEW PESTICIDE REGISTRATION (INDICATOR 7)



FISH FRY TRADE⁴⁹

The fish fry import and export business is a relatively small sector of Thailand's economy and is focused primarily on exports. Exports are concentrated in an estimated ten facilities and linked nurseries clustered around metropolitan Bangkok.

Local supplies of grouper, sea bass, ornamental carp, and shrimp are supplemented with imported fry from the Philippines, Indonesia, and the U.S. There are limited imports of tilapia fish fry because local nurseries provide adequate supply.

Thailand's fish fry export industry has grown over the past ten years, with the RTG's encouragement. Costs to import and export are extremely low because most permits and inspections to move goods across borders are entirely free of charge to the trader. It costs less than 1% of per capita GDP in Thailand to get the documents and permissions to import or export a shipment of fish fry, lower than in Vietnam and Cambodia. The Department of Fisheries (DOF) is drafting a new fisheries law that is intended to further improve import and export, with the objective of making Thailand ASEAN's seafood hub. To achieve this goal, the DOF intends to (a) build up an aquatic broodstock bank to gather and breed genetically improved species, (b) improve aquaculture farm certification systems to harmonize with international standards, and (c) strengthen port control systems to reduce the trade of illegal or unregulated fishery products. Streamlined procedures and harmonization with international standards are in place, but more can be done to make Thailand ASEAN's seafood hub.

⁴⁶ Please reference Annex I: Summary Surveys for Thailand, "Toxicology and Health Risks Testing at GLP labs following OECD standard" in the Pesticide Product Registration Section D.

⁴⁷ According to the United Nations Conference on Trade and Development (UNCTAD): "NTMs are policy measures, other than ordinary customs tariffs, that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both;" <http://www.unctad.info/en/Trade-Analysis-Branch/Key-Areas/NTM/>. NTMs can therefore constitute impediments to trade.

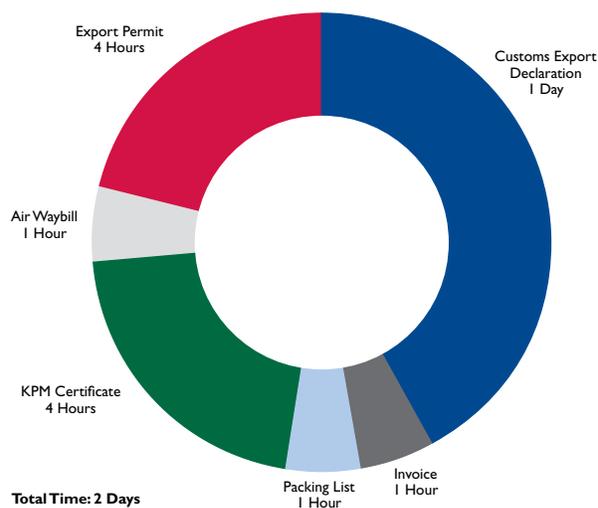
⁴⁸ More than three-quarters (78%) of the cost to register pesticide is due to the requirement for all pesticide products to undergo toxicology and health risks testing at Good Laboratory Practices (GLP) labs following OECD standards.

⁴⁹ An introductory paragraph for fish fry briefly explains the basic profile of the sector in Thailand, and is provided for Vietnam and Cambodia later in this report.

Requirements for in-person visits to government offices to obtain health certificates and export permits are costly to traders. Quality and safety checks, quarantine procedures, and health certifications are well-developed and functioning. Minimal issues were reported by the private sector for import, export, customs clearance, and business licensing for fish fry. The use of a “fish fry movement” document, for example, appears to provide adequate traceability and risk management, and without that document, the exporter cannot receive the Aquatic Animal Health Certificate (KPM certificate). However, the exporter must get the Aquatic Animal Health Certificate in person from the national office in Bangkok. An active exporter can spend half a day (typically four hours) to obtain this document, although it requires no inspection of the fish and is based solely on existing knowledge within the Department of Fisheries (DOF) from prior facility inspections and animal tests. Allowing for electronic document submission of the KPM Certificate, export permit, and other required trade documents would save importers up to two days per shipment.

See Figure 10 for the full list of required documents and related time requirements to export fish fry from Thailand.

FIGURE 10: EXPORT DOCUMENTS FOR FISH FRY – THAILAND (INDICATOR 5)



RECOMMENDATIONS

For the four inputs studied, the Thai system governing imports and exports presents a mixed picture, ranging from very efficient and appropriate to needing review, possible reform, and additional resources.

IMPROVE RISK MANAGEMENT SYSTEMS TO REDUCE THE TIME REQUIRED TO MOVE GOODS ACROSS BORDERS.

Improving risk management systems for seed and fertilizer would help reduce inspection rates and make the import and export process faster and more predictable. Currently, seed and fertilizer imports are by law subject to 100% inspection rates, keeping imported seed off the market for up to one month.

Inspection selectivity programs for seed and fertilizer could reduce inspection rates without reducing risk. For example, the use of risk profiles that estimate risk through specific information, such as the type of good, trader history and compliance record, and destination and origin countries, is a standard trade facilitation practice for other goods that could be applied for seed and fertilizer. A more targeted approach would incorporate an AEO program (reduced inspection rates for trusted traders) as a risk reduction strategy and would incentivize traders to conduct trade responsibly, as is practiced in Vietnam. Ultimately, the standard application of risk management principles would reduce the rate of inspections and therefore the associated time and cost delays during customs clearance.

MAKE TRADE-RELATED INFORMATION AVAILABLE TO EXPORTERS AND IMPORTERS.

Trade-related information, such as forms required to import and export from Thailand, are often not publicly available—in Thai or in English.⁵⁰ In fact, private sector seed exporters rely on destination country sources (such as their receiving agent) to determine the applicable destination requirements. This support can and should be provided by the DOA as part of trade promotion efforts. The DOF provides a positive example: exporters of fish fry access information on destination country requirements and how to obtain health certificates from the DOF.

⁵⁰ Publishing trade rules in English is noted under ATIGA Article 15.

AVOID POLITICALLY MOTIVATED PRICE-SETTING WITHOUT A CLEAR LEGAL BASIS.

Government interventions have the potential to impact cross-border and private sector trade. RTG is reportedly exerting price controls over both pesticide and fertilizer companies. These controls were announced to the private sector as a short-term measure when the major companies were called to a meeting and told by the DOA how much they should decrease prices. Although respondents said that they did not plan to decrease their imports in response to the price cuts, from a rule of law perspective, it is troubling that the legal basis for this politically motivated forced price cut was not made clear to the private sector. Nonetheless, it was obvious that compliance is mandatory and will be monitored.

ADDRESS CAPACITY CONSTRAINTS AT DOMESTIC LABORATORIES TO REDUCE WAIT TIMES FOR PRODUCT CLEARANCE.

Product clearance in Thailand requires a lab test. The technical staff running RTG labs seems to be providing professional if slow service, at money-losing rates. This leads to substantial wait times for test results.

Although the RTG provides some subsidies, they are not sufficient to maintain staff levels and equipment or allow for cost recovery. RTG labs are reportedly unable to provide some more sophisticated tests for newer chemicals, a problem especially for pesticides and for hybrid seeds. Moreover, even though the RTG has not invested sufficiently in its lab capacity, it still claims a monopoly on testing most imports and exports.

Given these circumstances in Thailand, it is no surprise that private sector respondents reported that wait times at domestic laboratories are a particular problem during import and new product registration. Those respondents also expressed an interest in receiving better, quicker service and are willing to pay more for it.

To promote cross-border trade, these systemic blocks to modernization must be identified and addressed. The RTG should consider regulatory change to permit higher fees for fast-track RTG lab services, along with creating a mechanism to accredit privately owned labs to conduct product tests. Higher prices, especially those for lab tests, could enable cost recovery, decreased wait times, and the ability to test new, modern formulas.

VIETNAM⁵¹

The agricultural sector remains an important component of Vietnam's economy and employs nearly half of the population.⁵² Government of Vietnam (GVN) policies in recent years have focused on fostering free trade and open markets with a growing private sector and greater competition.



The GVN has also made improvements in trade facilitation.^{51,52} For example, since 2006, Vietnam has reduced the typical time required to export and import goods.⁵³ Across all inputs, the financial costs to prepare licenses and documentation for export are extremely low, at no more than 1% of per capita GDP—thus facilitating the movement of Vietnam's inputs to markets abroad. Some of the main export documents required for seed and issued by government agencies, such as the Certificate of Origin and Certificate of Analysis, are provided to traders free of charge.

Despite these advances, challenges remain for Vietnam's enabling environment for cross-border trade of agricultural inputs. For example:

- » Business licensing has been noted to be unclear and confusing, characterized by overlapping agency roles and corruption.
- » It takes 25 days and 28% of per capita GDP to import agricultural inputs into Vietnam, making Vietnam the slowest country as compared with Thailand (18 days) and Cambodia (14 days), and falling between Thailand and Cambodia in terms of average cost to import

agricultural inputs. However, Thailand is the cheapest for imports, offering cheaper customs clearance and document requirements for all four inputs.⁵⁴

- » Product registration takes nearly two years in Vietnam, which is more than four months longer than Thailand and more than 17 months longer than Cambodia.
- » Vietnam could benefit from improvements to its legal system for product registration by developing rules for automatic acceptance or reciprocity with countries following common procedures for variety testing, registration, and/or release as well as a facilitated registration process for fertilizer and pesticide that has already been registered outside of Vietnam.
- » Efforts have been made to update legal and regulatory frameworks for trade in inputs to conform with international standards, though those frameworks remain somewhat fragmented. Respondents indicate that the GVN does not follow international standards for testing and reviewing fertilizer.

⁵¹ Unless otherwise specified, all data presented in this report are primary data collected through surveys and interviews. Only a subset of indicators is discussed in this analysis. For more detail on any individual indicator, please refer to Annex 2: Summary Surveys for Vietnam.

⁵² The World Bank, World Databank, World Development Indicators for 2012.

⁵³ For further details, see "Vietnam: RATE Assessment Country Summary," USAID MARKET Project (February 2013).

⁵⁴ This calculation includes average time and cost for all four studied inputs for Indicators 2 and 3 for documents and customs clearance for import. Terminal handling receipts, a significant portion of the cost to import a shipment of agricultural inputs (Indicator 2), were lower in Vietnam than in Cambodia and Thailand, offering traders cost savings per shipment. Traders in Vietnam benefit from comparatively lower fees charged by customs brokers as well (see Table 3 for average regulatory costs across inputs in Vietnam, Thailand, and Cambodia). However, such fees vary based on cargo type, the terms of the agreement, frequency of shipments, and other factors.

TABLE 7: VIETNAM DATA⁵⁵

ACTIVITY	SEED	FERTILIZER	PESTICIDE	FISH FRY
INDICATOR 1:	LICENSES AND PERMISSIONS TO BE AN IMPORTER AND EXPORTER			
Time (days)	44	19	129	8
Cost (% of GDP/capita)	14	105	365	<1
Procedure (#)	2	2	3	1
INDICATOR 2:	LICENSES AND DOCUMENTS FOR IMPORT			
Time (days)	7	2	9	17
Cost (% of GDP/capita)	8	10	10	8
Procedure (#)	9	12	12	8
INDICATOR 3:	CUSTOMS CLEARANCE FOR IMPORT			
Time (days)	27	10	14	14
Cost (% of GDP/capita)	23	25	25	1
INDICATOR 5:	LICENSES AND DOCUMENTS FOR EXPORT			
Time (days)	6	3	2	12
Cost (% of GDP/capita)	1	<1	<1	<1
Procedure (#)	6	9	10	7
INDICATOR 7:	NEW PRODUCT REGISTRATION			
Time (days)	899	487	740	-
Cost (% of GDP/capita)	157	105	758	-
Procedure (#)	5	5	3	-

» The GVN has taken the stance that seed, fertilizer, and pesticide need to be tested in the regions where they will be sold, whether or not existing data already exist from public or private sources, a process generally lasting two to three years. Traders report that this is costly and slows the introduction of important technologies that support agricultural growth.

» Problems with poor quality of seed, fertilizer, pesticide, and fish fry negatively impact both production and cross-border trade of inputs.

» According to interviews, a lack of quality storage facilities within Vietnam poses a challenge to trade in agricultural inputs.

Table 7 shows the time, cost, and number of procedures for select survey indicators and all input types. This section next analyzes constraints to trade in Vietnam for seed, fertilizer, pesticide, and fish fry and concludes with recommendations.

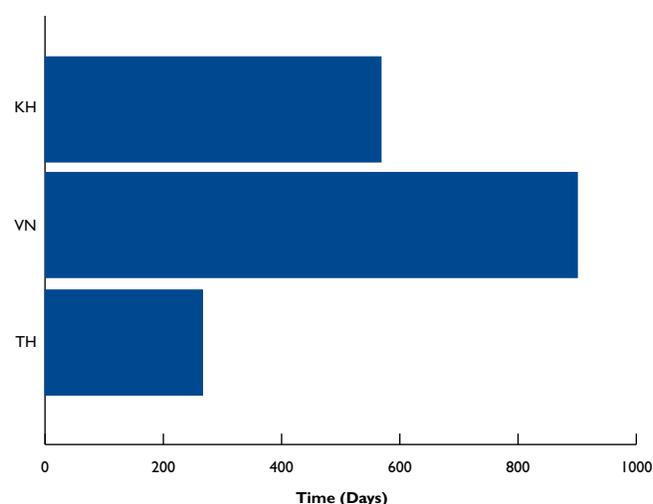
⁵⁵ GDP per capita figures used in this report come from The World Bank's World Databank, 2013 World Development Indicators for "GDP per capita (current US\$)" and are as follows: \$5,779 for Thailand, \$1,911 for Vietnam, and \$1,008 for Cambodia.

SEED TRADE

State control over the number of approved seed varieties constrains farmer choice. The Government's seed policy and related administration, while purportedly designed to minimize the risk that farmers might obtain poor quality seed, has the effect of greatly limiting the selection of seeds available to farmers. Specifically, the GVN has plans to reduce the number of varieties released to about five to six for each region and season, restricting market choice considerably. This stance is contrary to international best practice, under which regulators let the market determine which varieties are successful in a country. Moreover, by limiting the number of approved varieties, the GVN may reduce trade or push traders outside the formal sector if they want varieties the GVN cannot offer.

High costs for variety registration push traders outside the formal system. By reducing the cost and complexity of the variety registration process, companies are encouraged to operate legally. Presently, the variety registration process in Vietnam is long, burdensome, and costly and compared with Thailand and Cambodia, takes the longest (899 days) and costs the most (157% of per capita GDP). Figure 11 shows that Vietnam is also the slowest of the three countries to register new seed varieties. A major time component for new variety testing is DUS and VCU testing, taking on average 700 days. A few mutual recognition agreements allow the GVN to accept VCU data from the EU and Japan, though further harmonization with regional trade partners does not appear to be a priority. Reportedly, at least 50% of the seed on the Vietnam market has not been approved through the official registration process.

FIGURE 11: TIME FOR NEW SEED REGISTRATION (INDICATOR 7)



Communications between government labs and customs officials increases the time and cost of customs clearance. Preparing the licenses and documents required to import seed into Vietnam takes seven days and costs 8% of per capita GDP, placing Vietnam in the middle between Thailand (10 days; 3%) and Cambodia (5 days; 14%) (See Table 8). Consignments are allowed to enter the country during the inspection process but the imported seed must remain in storage and cannot be circulated in the market until phytosanitary test results are finalized.

TABLE 8: TIME AND COST TO IMPORT SEED

ACTIVITY	TH	VN	KH
INDICATOR 2: LICENSES AND DOCUMENTS FOR IMPORT			
Time (days)	10	7	5
Cost (% of GDP/capita)	3	8	14
INDICATOR 3: CUSTOMS CLEARANCE FOR IMPORT			
Time (days)	32	27	11
Cost (% of GDP/capita)	3	23	31

Phytosanitary testing takes 15 days. Nearly half of that 15-day waiting period is attributable to slow communication and coordination between the laboratories and customs. Improved communication and coordination could reduce the waiting period by up to five days.

FERTILIZER TRADE

SOE dominance of the sector raises concern over efficiency and compliance with the AEC. Regional AEC goals are aimed at equitable economic development. Those goals include promoting the creation of small- or medium-sized enterprises and fostering local innovation and employment by mitigating the extant market dominance by foreign multinationals and state-owned enterprises (SOEs).

In Vietnam, significant progress has been made in transitioning to a market economy, though the GVN remains actively involved in the supply and trade of fertilizer, both as a regulator and a market actor. Two large SOEs dominate the fertilizer market: VINACHEM (Vietnam National Chemical Group) and

PVN (PetroVietnam Group). Such involvement could pose a problem in the context of the AEC, where a market-based economy plays a central role.

The present regulatory system requires consignments to be stored at the port, forcing importers to pay high demurrage charges. Many authorities are in charge of fertilizer import and export control. The Ministry of Industry and Trade is responsible for issuing fertilizer-specific business and trade licenses. The Northern and Southern Centers for Fertilizer Testing are responsible for issuing the list of registered fertilizer products, while multiple private companies are responsible for fertilizer analysis and testing.

Unlike seed, fertilizer consignments entering northern or southern ports in Vietnam must be left at the port until customs can verify product quality. Due to port bottlenecks, companies face demurrage charges of US\$50 per container per day for about seven days, which raises the price of fertilizer products. One importer noted that the delays tend not to be the fault of customs, instead blaming the lack of capacity within other, less-competent border agencies, though respondents refrained from naming specific agencies. Of the ten days it takes to clear customs, seven are spent on quality/standards testing. The time required for this procedure has increased in recent years, with the Centre of Fertilizer Assessment and the state-owned VINACHEM now in charge. Reducing delays and allowing fertilizer to be stored at the importer's warehouse would save fertilizer traders up to US\$350 per shipment, a savings of 18% of per capita GDP, and bring costs in line with Thailand.

FIGURE 12: CUSTOMS CLEARANCE FOR IMPORT OF FERTILIZER (INDICATOR 3)

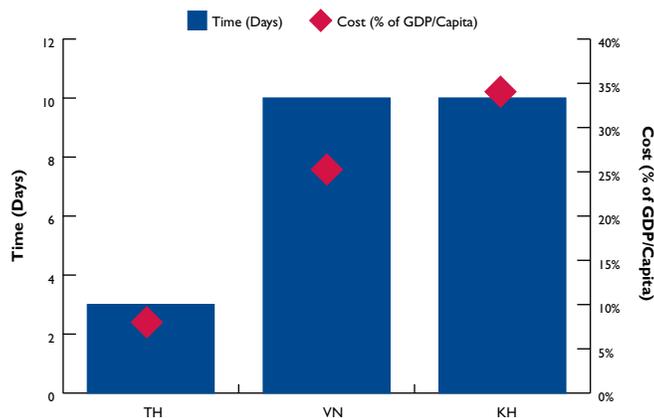
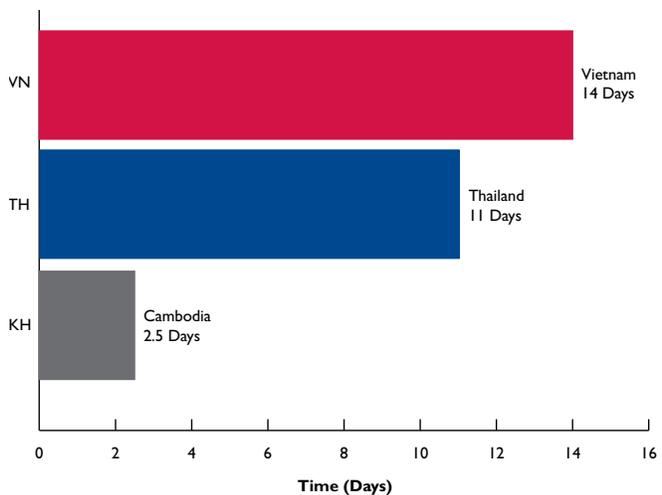


Figure 12 displays comparative time and cost data for a fertilizer shipment to clear customs in Thailand, Vietnam, and Cambodia.

Costly, existing policy instruments are not addressing problems in the fertilizer market. The dominant issue in Vietnam's fertilizer market is product adulteration and counterfeiting. In 2013, "substandard fertilizers" accounted for 30% of the total volume of fertilizers sold in the market, and 51% of fertilizer products did not meet the quality described on their labels.⁵⁶ Reportedly, fines are too small and enforcement is too infrequent to effectively address adulteration and other quality problems. In an attempt to weed out low-quality producers, the GVN has temporarily banned fertilizer product registration and approvals from the beginning of 2013 through early 2015. When the ban ends, fertilizer registration fees will increase.

FIGURE 13: TIME FOR CUSTOMS CLEARANCE FOR IMPORT OF PESTICIDE (INDICATOR 3)



Though technical regulations and standards are needed, restricting the introduction of new technologies in the interim may hurt traders and farmers, and so far, the recent ban has not alleviated the problems with counterfeit or adulterated products. The GVN should consider more precise policy instruments that do not impede product innovation. For example, compliance could be improved by strengthening the deterrence capacity of the government bodies responsible for enforcing fertilizer quality. Increasing fines as part of a counter-adulteration program could be complemented by increased frequency of enforcement activities.

⁵⁶ Vietnam Economic News, April 11, 2014, accessed September 4, 2014. http://ven.vn/en-us/tightening-fertilizer-management_t221c192n47702.aspx.

PESTICIDE TRADE

Capacity issues at the port increase import delays during the high season. Vietnamese farmers purchase US\$400 million of pesticides per year, making Vietnam the third largest pesticide market in ASEAN. With hardly any domestic pesticide production—about 80% of pesticide products are imported—alleviating current capacity constraints at the border would significantly benefit traders and the farmers they supply, particularly during the high season when the need is most acute.

Vietnamese authorities, with mixed results, tightly regulate the import of crop protection chemicals, including pesticide. Minor infractions slow the import process, and during the main production season the port is often backlogged, delaying the arrival of consignments by two to three weeks. Capacity issues at the port may help explain why it takes 14 days to clear customs, longer than in Thailand (11 days) and Cambodia (2½ days). Creating an appropriate, consistent regulatory regime with improved capacity for implementation could improve port processes and reduce bottlenecks that inhibit trade, and in doing so, help farmers eliminate crop-damaging pests—and ultimately boost yields.

Inter-agency document control and coordination can be improved to make import procedures less time-intensive. Although interviewees described the export process as well-facilitated by the GVN,⁵⁷ preparing for import takes six times longer than export. This time lag is mainly attributable to the requirement that for each shipment, importers must obtain a certificate from the Ministry of Agriculture and Rural Development (MARD) confirming that the pesticide product has been properly registered and approved for import. The trader must present this certificate to customs for each shipment. Better coordination between the MARD and customs would save companies up to seven days per shipment.

Another time-consuming component for imports is quality analysis. Before April 2014, more than ten centers in Vietnam could be used for quality analyses. Currently, two centers can analyze pesticides and the tests take seven to ten days, a large proportion of the 14-day interval needed to clear customs (see Figure 13). For example, the Southern Plant Protection Chemical Testing Center must now conduct quality tests at its own laboratories. During the testing period, importers are not

allowed to hold consignments at their own warehouse; this restriction increases port fees and exacerbates consignment control issues.

The pesticide product review process is long and cumbersome. Pesticide product registration is a difficult process, which is in part attributable to an intentional government policy: the GVN aims to ensure pesticide quality by requiring multiple layers of approvals. Similar to seed, field testing for pesticide takes about 700 days to complete and involves ten tests in two different production areas (north and south) over two seasons. The main impediment is the Pesticide Advisory Council, which is made up of GVN officials and scientists and generally meets two to three times per year, creating significant wait times between meetings. The wait time will be longer in 2014 when the Council will meet only once, as the GVN prepares for the 2015 rollout of the new Plant Protection Law (as discussed in the following subsection).

Once the Council issues a recommendation, the MARD determines final authorization and issues an updated list of registered pesticides. Before a pesticide can be traded or used, it must be registered at the MARD's Plant Protection Department (PPD). Only after MARD issues an updated list of registered pesticides can companies sell their product on the market. This approval process adds one month to the registration process in Vietnam.

The draft Plant Protection Law may not be the least trade restrictive option. A new Plant Protection Law, which includes provisions for pesticide management, will go into effect on January 1, 2015. Private companies expressed a number of concerns about the draft law, noting that the criteria for evaluating new products for registration could exclude up to 60% of potentially viable products from the Vietnamese market. The GVN contends that with fewer products on the market (there are currently 4,800 products on the market),⁵⁸ it will be able to better control what farmers buy. However, this mandate for tighter control may reduce trade volumes and limit the flow of innovative (and less toxic) products to farmers. A regulatory impact assessment (RIA) for the draft law would have helped to determine if the proposed law would achieve its objective in the least trade-restrictive way.⁵⁹

⁵⁷ Vietnam exports (mostly re-exports) crop protection chemicals to regional and other international trade partners. License and document preparation for exporting pesticide takes just 1½ days and costs less than 1% of per capita GDP.

⁵⁸ European Commission, "Final Report of an Audit Carried Out in Vietnam in order to evaluate controls of pesticides in food of plant origin intended for export to the EU" (2014).

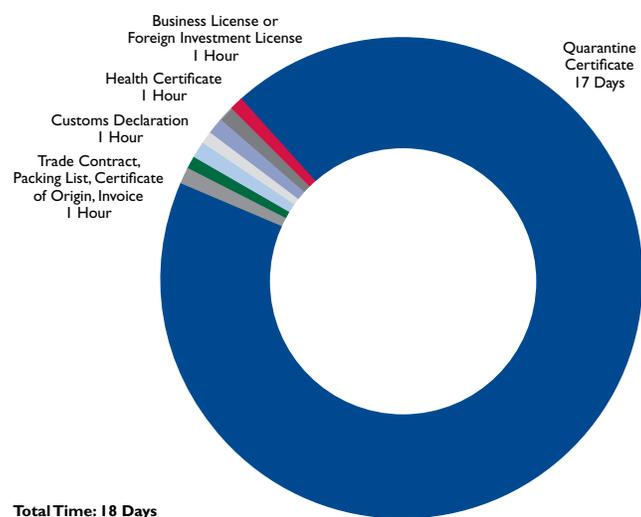
⁵⁹ To our knowledge, an RIA was not available during the time of this assessment.

FISH FRY TRADE

Vietnam has long been self-sufficient in *Pangasius*⁶⁰ fish fry but remains dependent on imports of fry species that are new to Vietnam's aquaculture sector and/or that contain new genetic material needed to strengthen local production. The vast majority of Vietnam's 2013 fish fry imports were giant river prawn (18 million fry), spiny lobster (541,000 fry), and tilapia (300,000 fry). Informal trade in fish fry is acknowledged by Vietnamese authorities but assumed to be negligible. Obtaining the required permissions to operate as a fish fry trader requires the least amount of time (8 days), costs less than 1% per capita GDP (the same is true in Thailand), and is the easiest of all three countries. By contrast, at 14 days, customs clearance for fish fry imports is the slowest of all three countries.

Document preparation and customs clearance is costly for importers of fish fry. Compared with the other three inputs in Vietnam, document preparation for fish fry import is the most time consuming. The largest time and cost component of this process obtaining a quarantine certificate for aquatic products, which takes 17 days (more than 90% of the total time required) including wait time (see Figure 14). Offering the option to apply for and receive the quarantine certificate online reduce the time spent visiting government offices and the incentives to pay, and opportunities to collect, facilitation payments.

FIGURE 14: TIME REQUIRED TO OBTAIN DOCUMENTS AND PERMISSIONS TO IMPORT FISH FRY – VIETNAM



The customs clearance process takes 14 days, including seven days for health and safety inspections and three days for quality assurance. During this period, fish fry losses occur; this gives importers an economic incentive to offer facilitation payments to avoid inspection and speed up the process. The information gathered for this report indicates that Vietnam lacks the domestic lab-testing capacity to adequately service the aquaculture sector. Building that capacity by accrediting private labs could speed up the current testing and inspection regime that ties up perishable goods in quarantine.

Developing electronic transactions for health certificates and quarantine registration would reduce fish fry losses and save time and costs to import.

RECOMMENDATIONS

Despite many improvements to Vietnam's legal and regulatory framework for cross-border trade, private operators may not be reaching their full potential. The GVN should consider other ways to improve the enabling environment for cross-border trade, as outlined below.

INCREASE THE PREDICTABILITY OF THE LEGAL AND REGULATORY REGIME.

As described in the Regional Findings section of this report, many of the principal laws and regulations for seed, fertilizer, crop protection chemicals, and trade have been recently revised, and there have been many regulatory revisions per input. Together, these revisions have created new administrative procedures and new requirements for agribusinesses that, according to interviewees, have led to unpredictability and confusion. For example, a new Customs Law came into effect in June 2014 (Law No. 54/2014) and regulations are still in draft stage, implying a period of uncertainty for the trading community. This constantly evolving, multi-tiered legal framework is difficult to navigate by agribusinesses and oversight agencies alike.

More detailed and well-informed legal and regulatory strategies at the ministry level prior to implementation could limit future revisions to the legal and regulatory framework and could help minimize future interpretative differences that currently plague trader interactions with provincial and local officials.

⁶⁰ *Pangasius* is a genus of medium-large to very large fresh-water shark catfishes that are native to south and southeast Asia, and are extensively farmed. *Pangasius* has emerged as a viable commercial commodity, and is now a significant component of global whitefish supplies. (See: Food and Agriculture Organization of the United Nations, Cultured Aquatic Species Information Programme, "Pangasius hypophthalmus." http://www.fao.org/fishery/culturedspecies/Pangasius_hypophthalmus/en.)

STRENGTHEN INTELLECTUAL PROPERTY RIGHTS TO IMPROVE ACCESS TO SEED, FERTILIZER, AND PESTICIDE.

Counterfeit products and a lack of enforcement are a major concern across the seed, fertilizer, and pesticide markets in Vietnam. Adulterated pesticide and repackaged seed are common, and insufficient understanding of intellectual property rights (IPR) in the courts further exacerbates this issue. Nearly a third of the 60,000 intellectual property violations discovered in 2013 are said to have involved fertilizer.⁶¹ Intellectual property protections specific to pesticide are absent from the current legal framework.⁶²

Companies interviewed for this report noted that the legal framework for crop protection chemicals lacks three important areas of IPR: data protection, protection of confidential business information, and the patenting of mixtures. Including these additional protections in the draft Law on Plant Protection could boost trade and improve the quality of products used by farmers.

BUILD ON RECENT IMPROVEMENTS IN THE TRADING SYSTEM BY FAST-TRACKING THE IMPLEMENTATION OF THE NSW.

Customs Law 54/2014 established an electronic platform for customs, and customs authorities insisted that under the new law, all documents could be now accessed and submitted online. Private traders and logistics companies, however, have confirmed that hard copies with a stamp are still required in practice.

The VNACCS/VCIS or “Vietnam Single Window” system was established in April 2014, and by the end of the year, it will reportedly allow trade and transport-related parties to complete all legal requirements concerning import, export, and transit in standardized form. To accelerate the pace of customs clearance using the NSW, the GVN should increase stakeholder training and integrate user feedback to improve the user experience. That way, the NSW system will better facilitate trade and link Vietnam into the regional trading system.

ENHANCE TRANSPARENCY OF TRADE POLICY REFORMS.

Numerous obstacles to effective trade policy exist in Vietnam. First, government institutions are required to collect public feedback on laws and regulations but are not required to release those comments. Second, government agencies are required to publish laws, regulations, and other legal information online, yet there is no central online depository for such documents and published versions are often outdated. The GVN should release comments on all draft laws and regulations to encourage private sector participation in policymaking. By doing so, the GVN would align with ATIGA goals for members to develop and implement national mechanisms to engage the private sector.

REDUCE THE FINANCIAL COSTS OF TRADE BY INTEGRATING CUSTOMS PROCEDURES.

Across all inputs, document preparation and customs clearance for imports into Vietnam entails a large investment in time (on average nine days)—the longest of all three countries—and involves the most procedures (ten). Travel and wait times would be reduced if the GVN allowed traders to submit notarized or certified copies of original commercial documents. With respect to fertilizer in particular, customs-specific steps to expedite the movement of product would enable faster and more transparent import processes. Those steps include (a) requiring fewer cargo inspections for low-risk traders, (b) coordinating inspections at the border; and (c) allowing fertilizer consignments to enter the country and remain in storage while samples undergo laboratory analysis—since as already noted, quality and standards inspections for fertilizer take seven days, 70% of the total time needed to clear customs.

Streamlining fertilizer imports should be a priority for Vietnam. Ever-increasing fertilizer demand, coupled with the fact that domestic fertilizer production meets about 80% of demand, demonstrates a significant dependence on imports. Therefore, to maximize agricultural production, targeted trade facilitation measures are critical for ensuring that Vietnam's farmers have a sufficient supply of fertilizer.

⁶¹ VINACHEM Fertilizer Market Update, accessed August 5, 2014 at http://www.vinachem.com.vn/Desktop.aspx/News-EN/Market-and-product/Vietnams_Fertilizer_Market_Update/.

⁶² The current legal framework includes the Law on Plant Protection and Quarantine (2013) and Circular 03/2013. During the assessment, respondents noted that a draft Law on Plant Protection and Quarantine was in process.

CAMBODIA⁶³

Cambodia's economy is based largely on the agriculture sector, which contributes 33% to national GDP.⁶⁴ Cambodia's economy grew rapidly between 2004 and 2012, at 8% per year,⁶⁵ and is projected to grow 7.4% in 2015,⁶⁶ which exceeds the projected Southeast Asian sub-regional GDP of 5.0%.⁶⁷ Yet Cambodia remains a low-income country, with more than 20% of the population living at the national poverty line.⁶⁸



Although the survey methodology and data tables for this study focus exclusively on official payments, the reader should nevertheless note the prevalence of unofficial payments in Cambodia—for which government-issued fee schedules and receipts are not available. In fact, all private sector respondents in this study stated that informal payments are a major concern for agribusiness in Cambodia. Many of those respondents also provided specific numbers for unofficial fees. Therefore, the discussion below takes unofficial payments into account wherever failing to do so would substantially understate the cost of trade.⁶⁹

In Cambodia, formal exports of seed, fertilizer, pesticide, and fish fry are negligible. Government officers confirmed that there are no export permits issued for these inputs. Without any practical experience in the export arena, the official procedures, licenses, and documents for exporting are not listed, and therefore this analysis is limited to imports.

Additional challenges to Cambodia's agribusiness enabling environment for cross-border trade of inputs include the following:

- » Required lab tests for seed and fertilizer lead to delays, and testing results are rarely shared with applicants.
- » Implementing regulations for key laws are needed, as well as the resources and training to administer them. For example, Cambodia lacks complete regulations for some of the main laws governing the trade of inputs, including the Seed Law, Law on Fisheries (Fisheries Law), and Law on Management of Pesticides and Fertilizers of 2008 (Law of 2008).⁷⁰
- » Few laws or regulations are available on government websites.
- » Annual quotas are assigned to importers of all studied inputs, a costly practice for which the legal basis is unclear.
- » The largest cost component of document preparation for import is unofficial payments to obtain a customs permit, at 20% of per capita GDP (US\$200).
- » Across all four inputs, traders in Cambodia spend on average 6½ months to complete the regulatory requirements for obtaining a license to operate as a trader. This process takes three fewer weeks than traders in Thailand but four times longer than traders in Vietnam. Table 2 shows that compared with Thailand and Vietnam, obtaining operating licenses takes the longest in Cambodia for all inputs except pesticide.

⁶³ Unless otherwise specified, all data presented in this report is primary data collected through surveys and interviews. Only a subset of indicators is discussed in this analysis. For more detail on any individual indicator, please refer to Annex 3: Summary Surveys for Cambodia.

⁶⁴ Wokker, C., P. Santos, R. Bansok, and K. Griffiths, "Irrigation Water Productivity in Cambodian Rice System," IFPRI (2011). Paper presented at the International Association of Agricultural Economists (IAAE) Triennial Conference, Foz do Iguaçu, Brazil (August 18–24, 2012).

⁶⁵ World Bank, Cambodia Overview, accessed 10/14/2014 at <http://www.worldbank.org/en/country/cambodia/overview>.

⁶⁶ Asian Development Bank, "Asian Development Outlook 2014," Manila, Philippines (2014).

⁶⁷ Id.

⁶⁸ World Bank, Cambodia Country Data, accessed 9/17/2014 at <http://data.worldbank.org/country/Cambodia>.

⁶⁹ All unofficial payments are reported in more detail in the summary surveys found in Annex 3: Summary Surveys for Cambodia. It should also be noted that respondents knew more about total costs including unofficial fees than they did about the breakdown of official charges.

⁷⁰ These regulations were reportedly in draft form at the time of this assessment, although copies of the draft regulations could not be obtained.

TABLE 9: CAMBODIA DATA⁷¹

ACTIVITY	SEED	FERTILIZER	PESTICIDE	FISH FRY
INDICATOR 1:	LICENSES AND PERMISSIONS TO BE AN IMPORTER AND EXPORTER			
Time (days)	386	98	268	60
Cost (% of GDP/capita)	23	24	56	24
Procedure (#)	3	4	4	2
INDICATOR 2:	LICENSES AND DOCUMENTS FOR IMPORT			
Time (days)	5	6	7	5
Cost (% of GDP/capita)	14	24	21	6
Procedure (#)	10	7	10	5
INDICATOR 3:	CUSTOMS CLEARANCE FOR IMPORT			
Time (days)	11	10	11	0
Cost (% of GDP/capita)	31	34	26	5
INDICATOR 7:	NEW PRODUCT REGISTRATION			
Time (days)	226	82	223	-
Cost (% of GDP/capita)	19	17	20	-
Procedure (#)	3	3	4	-

- » Although on paper Cambodia seems the least expensive country by far to obtain the required licenses and registrations to operate as a trader (32% of per capita GDP), unofficial payments are extremely steep. They range from 600% to 1,000% of GDP per capita for seed, fertilizer, and pesticide, and many of those payments are made to the Department of Agricultural Legislation (DAL) on top of official charges.
- » Cambodia's product registration and testing protocols are not harmonized with other countries. Domestically, the General Directorate of Agriculture (GDA) and the relevant departments or agencies conduct field testing and technical review for each new product, but will do so exclusively at RGC field stations. Private sector players are eager for faster and more professional options. The GDA could improve Cambodia's system for registering and protecting new varieties by developing a way to accept testing data from the breeder.

Table 9 shows time, cost, and number of procedures for select survey indicators and all input types. This section next analyzes constraints to trade in Cambodia for seed, fertilizer, pesticide, and fish fry and concludes with recommendations.

SEED TRADE

The issuance of permits and licenses is not transparent. Generally, government rules for issuing permits and licenses, including the quantity needed and the procedure for obtaining them, should be simple, transparent, and predictable so as not to become an obstacle to trade. However, in Cambodia, it is difficult or impossible to get information about the issuance of permits and licenses for most inputs.

The RGC declined to provide specific company names and permitted import quantities but did informally provide some details in an interview. The RGC advised that as of August 2014, there were 32 active import permits, seven of which were held by the Cambodia Agricultural Research and Development Institute (CARDI) for the import of rice seed for experimental purposes. Of the remaining 25 import

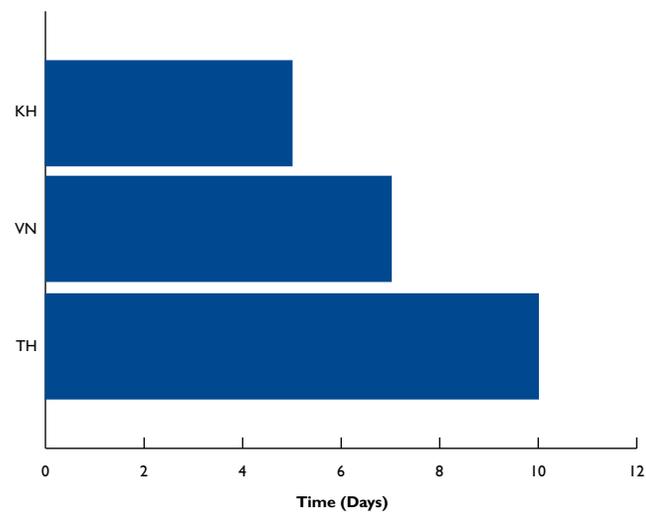
⁷¹ GDP per capita figures used in this report come from The World Bank's World Databank, 2013 World Development Indicators for "GDP per capita (current US\$)" and are as follows: \$5,779 for Thailand, \$1,911 for Vietnam, and \$1,008 for Cambodia.

permits, 14 are held by private sector companies, eight of which have permits for importing maize seed, with one firm reportedly controlling 70% of the maize seed market.⁷²

There are far too few qualified technical officers able to undertake quality inspections during import.

Of the three countries studied, Cambodia is the fastest for license and document preparation for importing seed (see Figure 15). In addition, as reflected in Table 2 of this report, moving seed imports through customs is by far the fastest in Cambodia, taking 11 days.

FIGURE 15: TIME FOR LICENSE AND DOCUMENT PREPARATION FOR SEED IMPORT (INDICATOR 2)



However, there is ambiguity in the legal framework and an apparent discrepancy between what is required by law and actually happens in practice. More specifically:

- » As discussed in the Regional Findings section of this report, Cambodia’s Seed Law and Sub-decree No. 69 are both mentioned as primary authority for regulating aspects of Cambodia’s seed sector. These overlapping authorities confuse traders.

- » Further complicating the compliance landscape are the overlapping inspection mandates contained in Sub-decree No. 15 (which relates to phytosanitary inspection) and Sub-decree No. 118 (which relates to plant protection and sanitary and phytosanitary issues). Reportedly, all 23 border crossings have agricultural checkpoints, but according to both private sector importers and government staff, inspections are rarely performed. Permanent Ministry of Agriculture, Forestry and Fisheries (MAFF) officers are based at just three or four checkpoints, and MAFF rarely sends staff to the other checkpoints.⁷³

The incomplete and confusing legal framework, coupled with the observation that most seed is traded without adequate government oversight or seed quality monitoring, represent obstacles to AEC accession.

Constraints in the variety registration system make reaching regional goals for mutual recognition unlikely in the near term. Highly variable time and costs were reported for registering seed varieties. Simply stated, registration time and cost depend on the amount of unofficial fees paid to government officials, and in turn the speed at which those officials are willing and able to move the application through the system. A typical unofficial fee for product registration is reportedly 630% of GDP per capita, which is 27 times the amount reported as official fees.

As noted above, field testing is conducted by the government at government field stations. Private company respondents reported that testing methods are unclear, and the test results are rarely provided to them. The authority in charge of registering seed varieties does not accept testing data from the breeder. Current regulations do not allow for a faster or expedited registration process for seed varieties that have already been registered or field-tested in another country, and Cambodia is not party to a regional agreement prescribing common procedures for variety testing, registration, and/or release. The RGC should create clear regulations for seed quality certification and specify additional or more complete guidelines for seed testing.

⁷² Maize is the most widely traded seed type, and maize seed is imported primarily from Vietnam and Thailand. Rice seed seems to be widely traded, though largely informally. This dynamic comes as no surprise given the present market situation: CARDI, a public agency, is responsible for producing foundation rice seed and for overseeing seed varieties in Cambodia but provides the market with ten varieties of rice seed. It is estimated that CARDI meets 20–25% of seed demand, with the rest filled through imports of low-quality seed from abroad, such as from Vietnam. Respondents asserted that Vietnam has more than 100 different rice varieties and described a huge Cambodian demand for many Vietnamese and Thai rice seed varieties.

⁷³ Respondents reported that inspectors are now stationed at select airports and that they did not know how those specific checkpoints were selected.

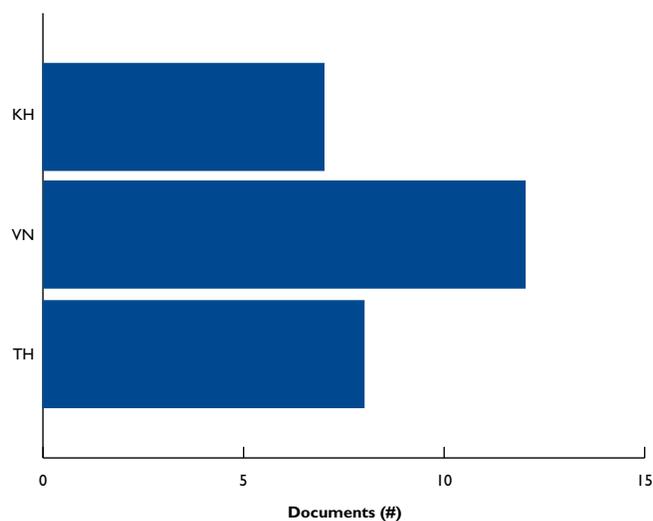
FERTILIZER TRADE

A lack of transparency around legal and regulatory decisions reduces trader confidence in the fertilizer sector.

In practice, it is ten times more expensive to obtain the required licenses and permissions to operate as a fertilizer trader in Cambodia than in Vietnam. Including unofficial fees, licensing and product registration costs more than 1,000% of Cambodia's per capita GDP. Because the required procedures apply to all fertilizer importers, regardless of size, the system favors larger importers with lower per-unit compliance costs.⁷⁴

It takes a trader 98 days to complete the four required procedures to become a fully operating fertilizer importer; the longest and most complex among the focus countries. The import license is the most controversial and costly component of operating a fertilizer company, because it allocates an annual import quota. The RGC reports that all requested import quantities are approved. Companies, however, report that at times they are given quotas lower than the amount requested and believe the quota system could be used to allocate market share unfairly. This speculation might well have merit, since the quota allocation process lacks transparency and quotas are not made public.

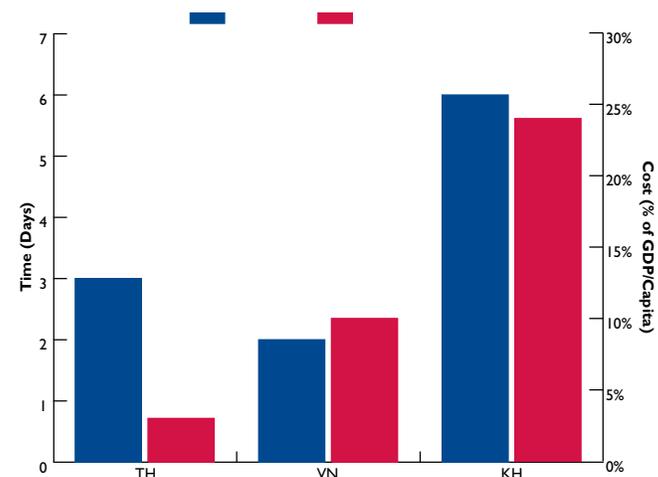
FIGURE 16: NUMBER OF DOCUMENTS TO IMPORT FERTILIZER (INDICATOR 2)



No automated processes for issuing permits exist and few notarized or certified copies of original trade documents are accepted, making trade more difficult.

As reflected in Figure 16, Cambodia is the simplest in terms of the number of requirements to import a shipment of fertilizer. But as shown in Figure 17, the time and cost involved is the highest of the countries studied (6 days; 25% of GDP per capita, plus an additional 16% of GDP per capita for unofficial fees).

FIGURE 17: TIME AND COST TO IMPORT FERTILIZER (INDICATOR 2)



Coordination and information sharing among the various agencies involved in customs clearance, specifically between the MAFF and customs, slows down the movement of goods. When companies apply for an import license, they must identify the border crossing(s) they will use throughout the license year. If they identify more than one entry point, they must file their original license with customs in Phnom Penh and apply for a separate permission to import each shipment. The central office does not often communicate with the border post; thus the trader must visit both locations in person to get the required approvals—and pay the unavoidable unofficial fees. Automating this process would save traders at least three to five days per shipment.

⁷⁴ There are currently approximately 20 licensed importers of fertilizer, although only five are notably active.

PESTICIDE TRADE

Porous borders and scarce enforcement increase the influx of sub-standard pesticide and fertilizer products.

Pesticide trade and regulation is handled similarly to fertilizer, involving the same laws and agencies, and is subject to many of the same regulatory challenges. Counterfeit, adulterated, and poor-quality products dominate the pesticide and fertilizer markets, as exemplified through various statistics:

- » It is estimated that up to 40% of fertilizer on the market is adulterated, by (a) mixing low- and high-quality products and selling and branding the mix as a higher quality fertilizer; (b) repackaging low-quality fertilizer with improper labels that indicate a higher-quality product, or (c) selling short-weight bags.⁷⁵
- » Private sector representatives interviewed for this study estimated that more than 60% of the fertilizer and pesticide used in Cambodia is illegally traded.
- » In 2012, a study showed that 87% of pesticides used in Cambodia were not registered with the Ministry, 5% were banned by the Ministry, and 6% were banned by the World Health Organization. Of the banned pesticides, only 13% had any Khmer⁷⁶ writing on them.⁷⁷

The RGC has historically had tighter lists of banned pesticides than neighboring countries but porous borders and infrequent enforcement has led some stakeholders to call Cambodia a dumping ground for fertilizer and pesticide.⁷⁸ In addition, among the countries analyzed in this report, Cambodia is the most costly for obtaining the required documents and approvals for importing pesticide and for clearing customs (see Table 2).⁷⁹ Since Cambodia does not impose a value added tax (VAT) or import duty on pesticides or fertilizer, one of the common reasons for smuggling has been removed—but this underscores the perceived difficulties and expense of importing legally. It is

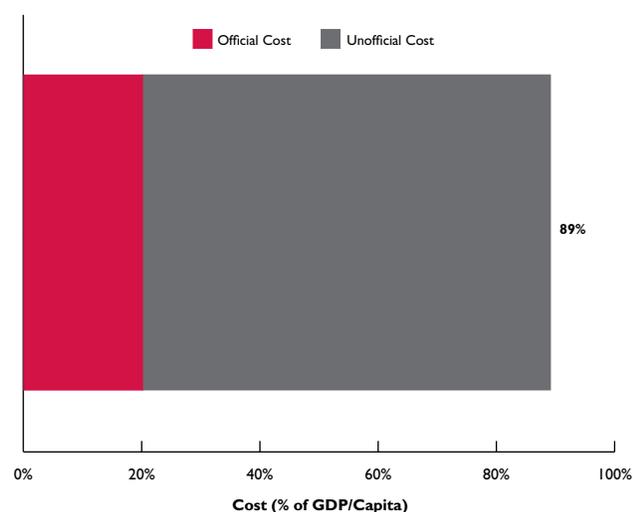
logical that traders would be incentivized to operate through informal channels when the threat of enforcement is not a sufficient deterrent.

Corrupt practices during business start-up make pesticide trade less competitive. The Department of Agricultural Legislation (DAL) is a powerful department within MAFF. The DAL is responsible for many fundamental aspects of trade licensing and product registration for agricultural inputs. It appears that most unofficial payments are commonly paid directly to DAL officials. Typically, these side payments are made as a sort of guarantee to ensure that the application package is accepted, makes its way to the right people and testing centers, if applicable, and is processed in a more reasonable amount of time than via the official route. DAL officials act as facilitators, playing an instrumental role in the application and approval process, often taking an application from employee to employee to ensure the process is completed.

Information about the names of pesticide licensees and their quota allocations is kept secret by DAL. However, one DAL officer estimated that there were 30 registered pesticide licensees but did not provide any more clarity or details about company names, company size, or trading partners.

Officially, it costs 56% of per capita GDP to become an operating pesticide importer in Cambodia, by far the lowest of the countries studied (see Table 9). However, when unofficial

FIGURE 18: OFFICIAL AND UNOFFICIAL COSTS OF PESTICIDE PRODUCT REGISTRATION – CAMBODIA



⁷⁵ De Carteret, Daniel and Kimsay, Hor, "Fake fertilizer cuts crop yields," The Phnom Penh Post (March 2013).

⁷⁶ Khmer is the official language of Cambodia.

⁷⁷ Chhorn Long Heng, "Cambodia debates draft law on pesticides and agricultural inputs in 2010," accessed 10/14/2014 at <http://longhengchhorn.blogspot.com/2010/07/cambodia-debates-draft-law-on.html>.

⁷⁸ Ministry of Environment, "National Profile on Chemicals Management in Cambodia" (2004), available at http://www.un.org/esa/dsd/dsd_aofv_ni/ni_pdfs/NationalReports/cambodia/Full_Report.pdf.

⁷⁹ Compared with Thailand and Vietnam, Cambodia is also the most costly for obtaining required documents and approvals for seed and fertilizer imports and for clearing customs.

fees are included, the actual cost surges to more than 750% of per capita GDP, making Cambodia more than twice as expensive as Vietnam but still less expensive than Thailand.

Similarly, the official cost of pesticide product registration is relatively cheap compared with Vietnam and Thailand, at 20% of per capita GDP per registration (see Table 9). Yet the official costs largely understate the actual costs of 89% per capita GDP, which include unofficial payments required to process each registration. In fact, unofficial costs make up 77.5% of the total cost, as illustrated in Figure 18. Most traders pay unofficial fees in order to reduce wait time. At 223 days to register a new pesticide product, registration in Cambodia takes 500 days less than in Vietnam and 700 days less than in Thailand (as illustrated in Figure 9).

Strategic reforms to reduce incentives and opportunities for corruption during licensing could offer massive financial savings for interested firms and boost competitiveness in the sector.

FISH FRY TRADE

Fish fry is currently produced in 13 government hatcheries and numerous small-scale private hatcheries. Total production from government-run hatcheries in 2009 was 69.8 million fingerlings, composed mainly of five species.⁸⁰ Private sector and RGC-run hatcheries face similar challenges: they lack modern facilities, technical expertise, and good-quality broodstock to maintain fish seed quality.⁸¹

Trade rules and information are rarely available, leaving interested parties uninformed about opportunities to supply local markets with quality fish fry.

Representatives of Cambodia's Fisheries Administration (FiA) stated that around 55% of all fry are currently imported. A 2005 FiA study reported that "[t]he legal system for importing fish from Thailand and Vietnam is not used in practice. Most fish products are imported through unofficial border crossings and only a small quantity comes through official international crossings. Informal fees are substantial."⁸² Multiple respondents confirmed that the informal market remains dominant, with most imports coming from Vietnam, and that informal fees remain significant.

The MAFF's opaque system of granting import quotas as well as unclear administrative requirements for obtaining import permits may exacerbate illegal trade. The Department of

⁸⁰ FAO Fisheries Profile: Cambodia (2011).

⁸¹ World Fish Center, "Aquaculture for the Poor in Cambodia: Lessons Learned" (2010).

⁸² Ing Kim Leang, "Importation of Fish into Cambodia," FiA Working Paper 6, p.iv. (2005).

Planning is responsible for import approvals for fry, but representatives of the Department did not know how many fry are actually imported under various quotas. They were also unable to disclose license, quota, or permit information about the sector when requested, indicating a lack of expertise or interest in fish fry and a lack of transparency about market actors.

Clear and enforceable trade regulations that deal specifically with fish fry do not yet exist. The Fisheries Law deals with aquaculture as an afterthought and provides little guidance on its regulation. The law contains one short chapter dealing with Aquaculture Management (Chapter 10) and only one paragraph in this chapter (Article 58) that deals with importing fish for aquaculture. Although Article 58 states that importing can only take place with permission of the head of the FiA and only after quality control and analysis of a specimen by the FiA laboratory, practice reportedly differs from this requirement.

Article 67 of the Fisheries Law governs commercial imports of fishery products in general and requires a license issued by the head of the FiA for any commercial imports. This process takes 30 days and costs around US\$1,000, though a fee schedule for fish fry quotas or other formal fees for licensing to confirm this cost could not be found.

Table 10 illustrates that Thailand and Vietnam are more efficient, in terms of time and cost, than Cambodia for obtaining the required licenses and permissions to operate as a fish fry importer (Indicator 1). There was no expedited procedure in Cambodia for applicants that want to import small amounts.

TABLE 10: FISH FRY TRADE

ACTIVITY	TH	VN	KH
INDICATOR 1: LICENSES AND PERMISSIONS TO OPERATE AS A TRADER			
Time (days)	22	8	60
Cost (% of GDP/capita)	<1	<1	24
Procedure (#)	2	1	2

Jurisdictional conflict over issuing health certifications and managing quarantine procedures precludes safer and more predictable treatment of fish fry imports. Legal authority and levels of coordination between agencies is unclearly delineated, which creates uncertainty and

increases the burden of compliance for agribusinesses. According to FiA interviews, auditors found no clear competent authority for issuing fish health certificates. However, both FiA and the Department of Animal Health and Production (DAHP) claim that authority. The DAHP says it has the authority to issue all animal health certificates for export according to Sub-decree I 6 of 2003 and interprets fish to be included under the definition of “animal.” The more recent Fisheries Law did not address the issue adequately, and there remains a jurisdictional conflict between the FiA and the DAHP over which agency should issue fish health certificates for export. The current understanding is that the FiA is responsible for health certificates for fish for human consumption and DAHP for fish for aquaculture.

This jurisdictional struggle is also related to the issue of quarantine management. Better coordination between FiA and DAHP and clearly delineated legal authority for quarantine, inspection, and certification is needed to ensure the safety of imported fish fry and other fish products for human consumption. Building this capacity would reduce confusion in the marketplace, enable the more efficient use of resources, and position Cambodia to provide more credible health certificates for export (if Cambodia decides to develop fishery exports in the future).

RECOMMENDATIONS

This report has identified numerous areas for regulatory and institutional reform in Cambodia. The following agenda for action offers additional solutions to address the challenges in Cambodia’s enabling environment for cross-border trade of agricultural inputs.

Publish the number and scope of import quotas and clearly establish reasons for setting limits. Eliminating non-tariff measures (NTMs) is a core principle of the ASEAN framework on trade facilitation. During the fieldwork for this assessment, the level of secrecy around the quota values held by various companies raised concern that the quota system might be used as an NTM or non-tariff barrier (NTB).

For all four inputs studied, import licenses assign a quota to each company and product. The quota identifies a set amount of product that an importer may bring into Cambodia during a 12-month period. The value of the quota is proposed by each company on a product-by-product basis, and once approved by MAFF the quota is listed on a company’s import license. The assessment team was not able to uncover a clear legal basis for these annual quotas, but quotas are nevertheless an established part of the process. The Law of 2008 does not explicitly mention quota limitations but it does mention record-keeping requirements relating to the import and export of fertilizer in Article 65. However, the law offers no details about what these records must entail. Unlike in Thailand, where the quotas seemed to be used for tracking purposes, most Cambodia respondents reported paying large fees for their annual licenses (fixed fees, variable quota-related fees, and unofficial fees) and expressed suspicion that the system may be used to allocate market share to insiders, especially for fertilizer quotas. However, in contrast with fertilizer, seed and pesticide importers reportedly receive the quotas for which they apply.

It was not possible to determine if Cambodia’s quota system is in fact an NTM, but awareness seems warranted about its potential to be used as such. Publishing trade rules in English and providing trade rules to the public should be implemented immediately, along with publishing any limits on quotas granted and the rationale for how quotas are granted.

Simplify the layers of administrative approvals and checks to speed up standard trade processes.

Government policies, laws, regulations, and institutions heavily influence how agribusinesses operate. Trade costs can be

reduced—and the overall trade environment improved—by simplifying the activities, practices, and formalities involved in order to prepare and present the data required to trade goods.

The RGC has prioritized the increase of cross-border trade as critical to economic development, adopting a 12-point action plan in June 2004 for improving the investment climate and facilitating trade. In 2006, the RGC followed this action plan by establishing the Private Sector Development Committee, an institution with broad public and private sector representation charged with developing government policy on trade facilitation.⁸³ As a result of the Committee's work, all shipments are allowed to clear the port and be held in the importer's warehouse until test results are available, which saves companies from paying demurrage fees similar to those paid in Vietnam.

The customs clearance process, however, still suffers from multiple constraints. A risk management system for classifying goods does not exist for seed, fertilizer, pesticide, or fish fry. Most shipments are inspected, sampled, and held off the market until test results are known, sometimes taking up to 30 days for fertilizer and pesticide shipments. Multiple layers of approvals from different agencies are required, and traders must go in person to each office to get signatures, slowing down the clearance of imported inputs.

Efforts by the RGC to achieve key policy objectives while minimizing the cost of private sector compliance can help create a competitive business environment and a dynamic agricultural sector. Risk management techniques are a useful means to pursue multiple goals at the same time: enforcement, security, and trade facilitation. The implementation of a trusted trader program would also save time by allowing faster clearance for pre-approved, low-risk shipments by reliable importers. Such systems would help minimize the incidence and complexity of import and export formalities and create a pathway for expediting the clearance of goods as competitive and ASEAN integration pressures mount.

Improve technical capacity at the border in order to provide proper monitoring and control processes.

A few years ago, MAFF inspectors were removed from all but three to four of the 23 border entry points in the country by order of the Prime Minister, making border clearance less

time-consuming.⁸⁴ However, this speed came at a cost: multiple respondents said that all four types of inputs now usually pass through the Cambodian border without effective inspection by anyone trained to determine if the products comply with the specifications in their license or the requirements of international standards.

Respondents consistently mentioned confusion and concern about the function and value of the Cambodia Import Export Inspection and Fraud Repression Directorate-General (CAMCONTROL). They also reported variable experiences based on the point of entry and type of good imported: time, cost, procedures, and inspections are likely to change based on the border crossing.

With respect to specific inputs, seed and fish fry now enter Cambodia without well-trained oversight, according to respondents. For pesticides and fertilizer, the MAFF has enacted recent regulations that require traders to obtain warehousing and distribution licenses as a condition to granting permission to import. Because the MAFF inspects every shipment of imported fertilizer and pesticides before permitting their sale, the overall result is that the MAFF has in effect simply changed the required inspection sites—or “moved the border.” As a result, inspections at the border have diminished, and inspections at warehouses are now the norm.

Respondents noted substantial, recurring unofficial payments for obtaining warehousing and distribution licenses—around US\$5,000 per year—with no noted benefits. Given the magnitude of unofficial payments, the persistence of fake and illegally traded products on the market, and the fact that traders do not see copies of inspection results, it is unclear if proper checks are made at all—at the border or the warehouse.

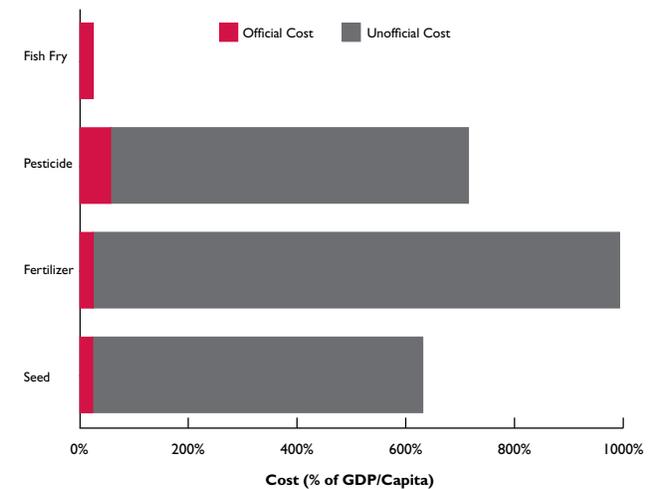
⁸³ United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), 2011, “UNESCAP Asia-Pacific Trade Facilitation Forum 2011” in Seoul, Republic of Korea.

⁸⁴ Respondents reported that inspectors remain at select airports only. Interviewees were unaware of the process by which these checkpoints were selected.

Address the absence of a functioning legal or regulatory framework. A properly functioning legal and regulatory framework for trade creates a more even playing field for importers and exporters, offering equal treatment for starting a business and giving officials less room to abuse power. However, an incomplete regulatory framework, as in Cambodia, can in practice cause trade to be less costly for market players who play by Cambodia's unwritten rules than for traders in other, more formalized regulatory systems. Cambodia's system is incomplete, but effectively faster and simpler in many trade-related activities. For example, Cambodia is the fastest of the three focus countries to clear customs for seed and fish fry as well as the fastest to register new seed and pesticide products. Thus, a pesticide registration that can take over two years in Thailand can be pushed through in Cambodia in four to six months. Cambodia is also the simplest country in which to do business, with the fewest number of procedures and documents required for operating a business, getting licenses and permissions to import, and registering new products. Figure 19 displays the breakdown of official and unofficial payments to obtain the required licenses and permissions to operate as an input supplier. Although Cambodia's official pesticide registration fees are small compared with unofficial fees, total fees are still cheaper than Thailand's or Vietnam's by a factor of 12 and 10.

Despite these seeming “benefits” of the informal system in Cambodia, this system was in fact the number one complaint of traders. Traders mentioned the need for a better functioning legal and regulatory framework with published fee schedules and clear operational timetables. The RGC should begin posting fee schedules and communicating legal and regulatory changes transparently and in a timely manner via government websites, and should also create—and hold government officials accountable for meeting—realistic maximum timetables for standard processes. Implementing a predictable, transparent legal framework that clearly sets forth the scope and applicability of regulatory requirements will promote long-term investment and growth in the cross-border trade of agricultural inputs.

FIGURE 19: OFFICIAL AND UNOFFICIAL COSTS FOR LICENSES AND PERMISSIONS TO OPERATE AS A TRADER – CAMBODIA



ANNEXES



ANNEX 1: SUMMARY SURVEYS FOR THAILAND

- a. Seed Survey
- b. Fertilizer Survey
- c. Pesticide Survey
- d. Fish fry Survey

ANNEX 2: SUMMARY SURVEYS FOR VIETNAM

- a. Seed Survey
- b. Fertilizer Survey
- c. Pesticide Survey
- d. Fish fry Survey

ANNEX 3: SUMMARY SURVEYS FOR CAMBODIA

- a. Seed Survey
- b. Fertilizer Survey
- c. Pesticide Survey
- d. Fish fry Survey

Nate Kline, Chief of Party
EAT/Fintrac
+1.202.621.7349
nkline@fintrac.com

Kelley Cormier
USAID
+1.202.712.4492
kcormier@usaid.gov

This report was produced by the USAID/Enabling Agricultural Trade (EAT) project, implemented by Fintrac Inc.

Photos by Fintrac Inc.

www.eatproject.org