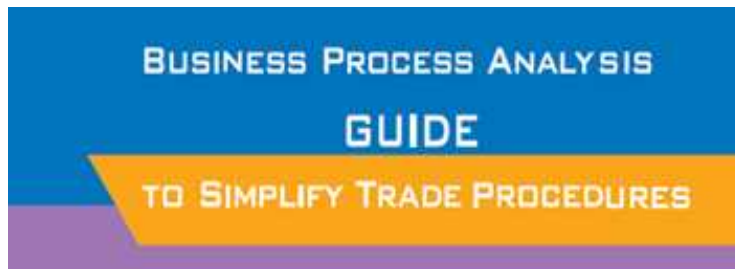


Business Process Analysis to Identify Trade Bottlenecks

*Nepal Trade Facilitation Workshop:
Towards a National Single Window**

Kathmandu, Nepal

8 February 2011



Dr. Somnuk Keretho
Director, Institute for IT Innovation
Kasetsart University, Bangkok



* organized by
Ministry of Commerce and Supplies, Department of Customs, Government of Nepal
UNITED NATIONS ECONOMIC AND SOCIAL COMMISSION FOR ASIA AND THE PACIFIC (ESCAP)

Under the auspices of the
United Nations Network of Experts for Paperless Trade in Asia and the Pacific

Objectives of this presentation

- 1. What is “Business Process Analysis” (BPA)?**
- 2. Its Importance/Its Benefits**
- 3. How to conduct BPA?**
- 4. A Case Example – Export procedures of an agriculture product**
- 5. Lessons Learned to be shared**

What is Business Process Analysis?

A **business process** is a sequence of steps performed for a given purpose.

Business Process Analysis is a study of existing business processes within one or across several organizations.

- Its primary goal is **to understand** the current **business processes** (their **attributes** and **relationships among them**).

What is Business Process Analysis?

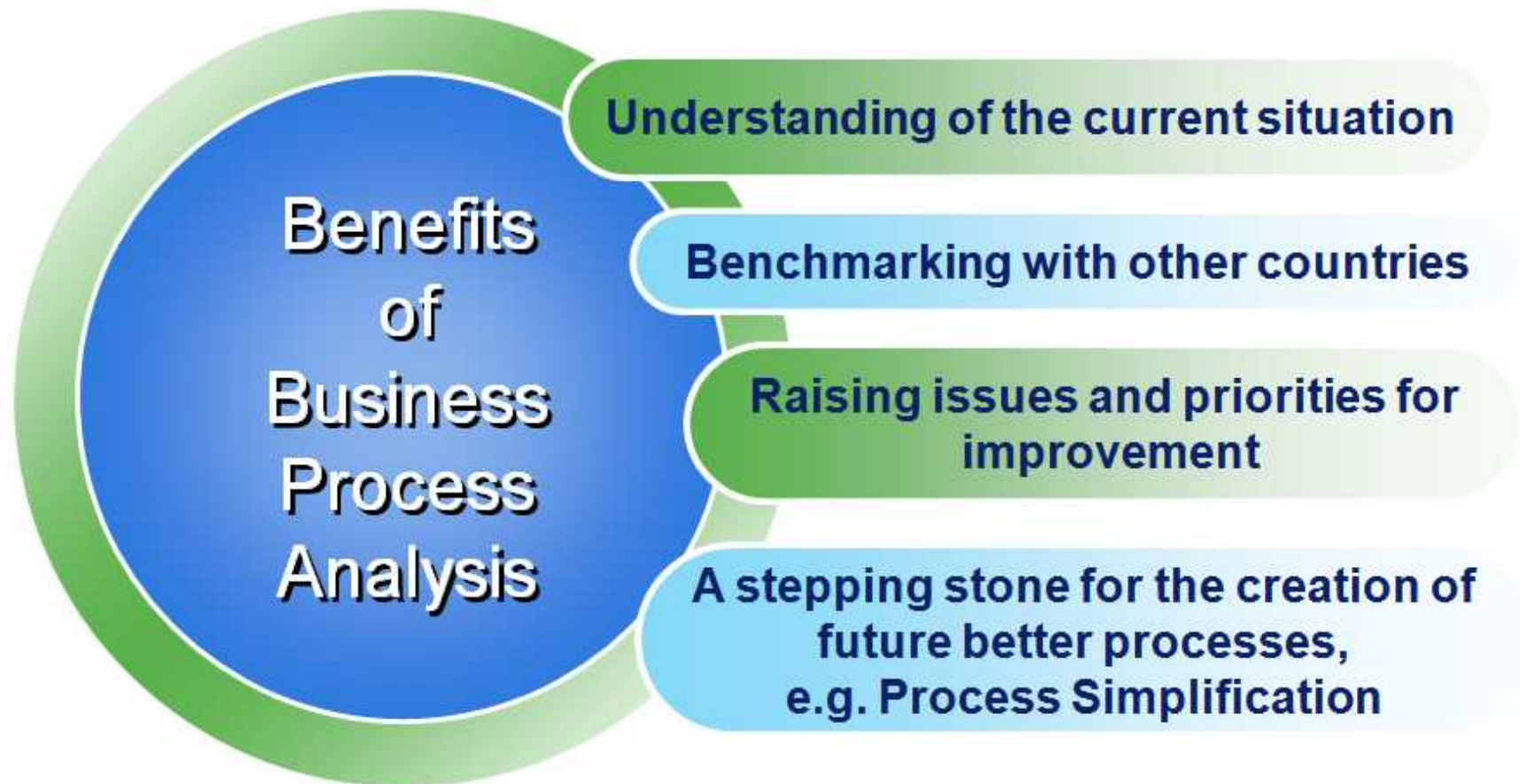
Business Process Analysis is a study

- to **understand** attributes of **business processes**, and **their relationships**






(e.g. number of steps, time & costs needed)

Benefits of “Business Process Analysis”?



Process Analysis helps benchmarking our country efficiency on trading across borders

Some indicators help our policy makers to understand
the important issues of improving our country competitiveness

Indicator	 Trading Across Borders in Nepal	 Trading Across Borders in Thailand	 Trading Across Borders in Singapore
Documents to export (number)	9	4	4
Time to export (days)	41	14	5
Cost to export (US\$ per container)	1960	625	456

Nepal's rank in 2011: 164
Nepal's rank in 2010: 161
Change in rank: -3
(Trading-Across-Border Ranking among 183 countries)

Reference - World Bank's Doing Business – Trading Across Border (3 Feb 2011) www.doingbusiness.org

The costs and procedures involved in exporting (and importing) a standardized shipment of goods are studied. Every official procedure involved is recorded - starting from the final contractual agreement between the two parties, and ending with the delivery of the goods.

Documents for exporting a standardized cargo*

Nepal

Nature of Export Procedures	Duration (days)	US\$ Cost
Documents preparation	14	285
Customs clearance and technical control	4	300
Ports and terminal handling	4	275
Inland transportation and handling	19	1100
Totals	41	1960

Export documents

- Bill of lading
- Cargo release order
- Certificate of insurance
- Certificate of origin
- Commercial invoice
- Industry registration certificate
- Packing list
- Permanent account number (with VAT Registration and Income Tax Registration)
- Single administrative document

Thailand

Nature of Export Procedures	Duration (days)	US\$ Cost
Documents preparation	8	270
Customs clearance and technical control	1	50
Ports and terminal handling	3	85
Inland transportation and handling	2	220
Totals:	14	625

Export documents

- Certificate of origin
- Commercial invoice
- Customs export declaration
- Terminal handling receipts

* More documents will be needed for agriculture or dangerous goods.

Definition of “Business Process Analysis”

Business Process analysis is:

- A study of existing process 1) in normal situation and 2) in situations where exception takes place in order to gain insights on
 - *Who involved*
 - *Procedures and documents required, and*
 - *Related rules and regulations*
- An approach that facilitates
 - The development of *measurable and quantitative process indicators (e.g. number of steps, time & costs needed)*
 - The prioritization of initiatives for process improvement
 - Performance improvement

How to conduct “Business Process Analysis”?

Phase I – Scope setting

Step 1 – Define a project scope

Step 2 – Develop a detailed work plan and secure resources

Phase II – Data collection and process document

Step 3 – Acquire background information

Step 4 – Conduct interviews and document captured data

Phase III - Problem analysis and recommendations

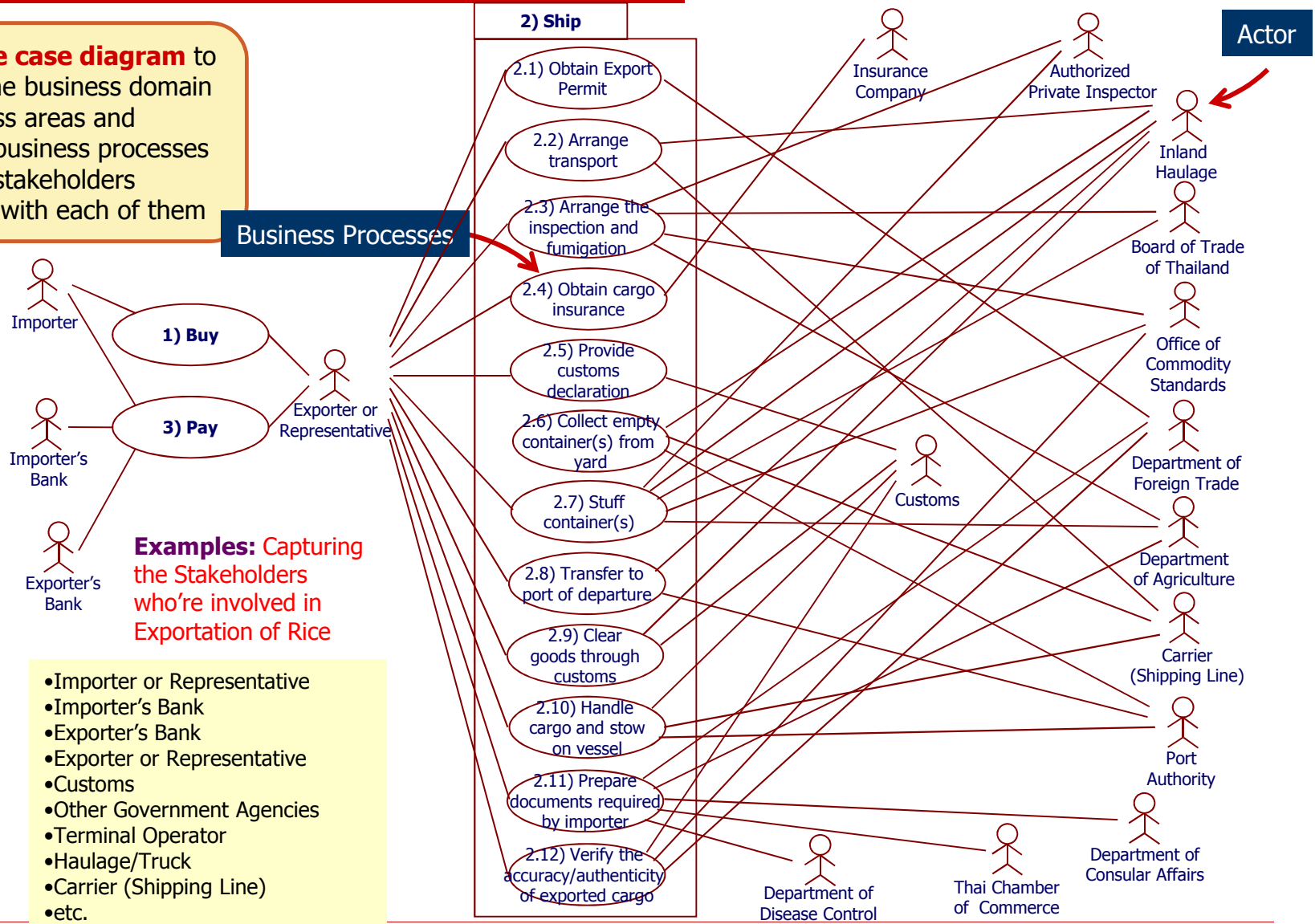
Step 5 – Analyze the as-is processes and identify bottlenecks

Step 6 – Develop and propose recommendations

Define the Scope for Process Analysis

Scope Example – Exportation of Rice

Draw a **use case diagram** to illustrate the business domain with process areas and high-level business processes as well as stakeholders associated with each of them



Process Document

Exportation of Rice (existing)

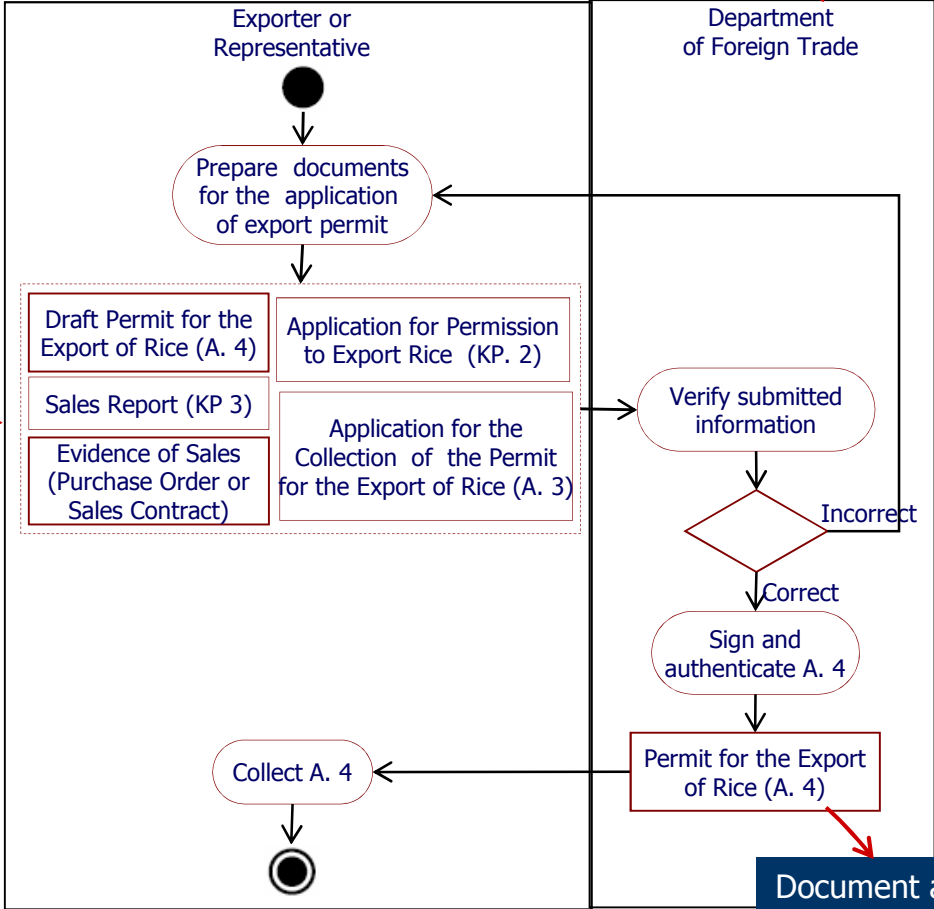
For each process, draw an **activity diagram** that describes activities and associated documentary requirements

Swimlane shows a boundary of activities to be carried out by a responsible actor.



Sequence of actions carried out to achieve a specific goal

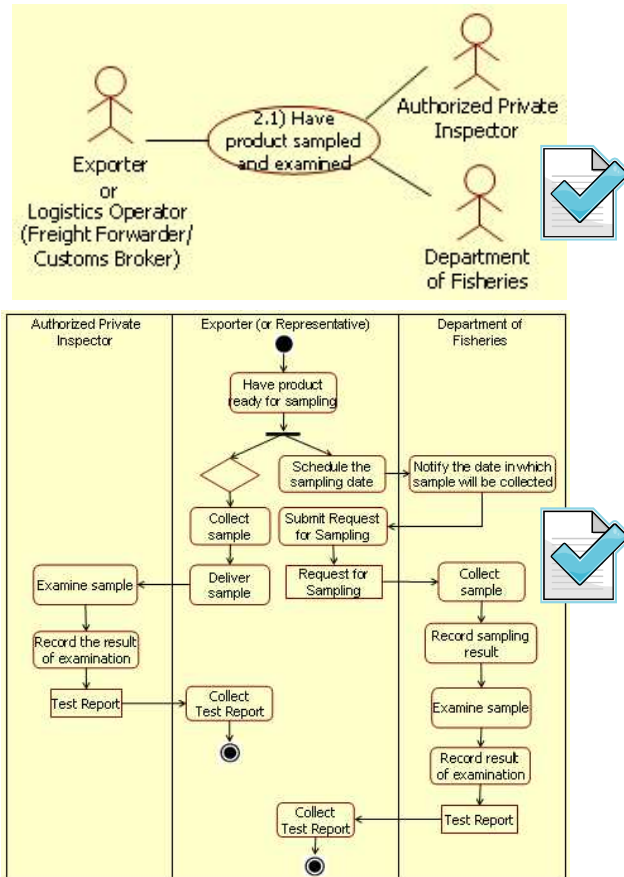
Obtain export permit



Document associated with each action

Verification and Validation

e.g. through several rounds peer reviews of experts, practitioners and stakeholders



Reviewing and Approving

Stakeholders



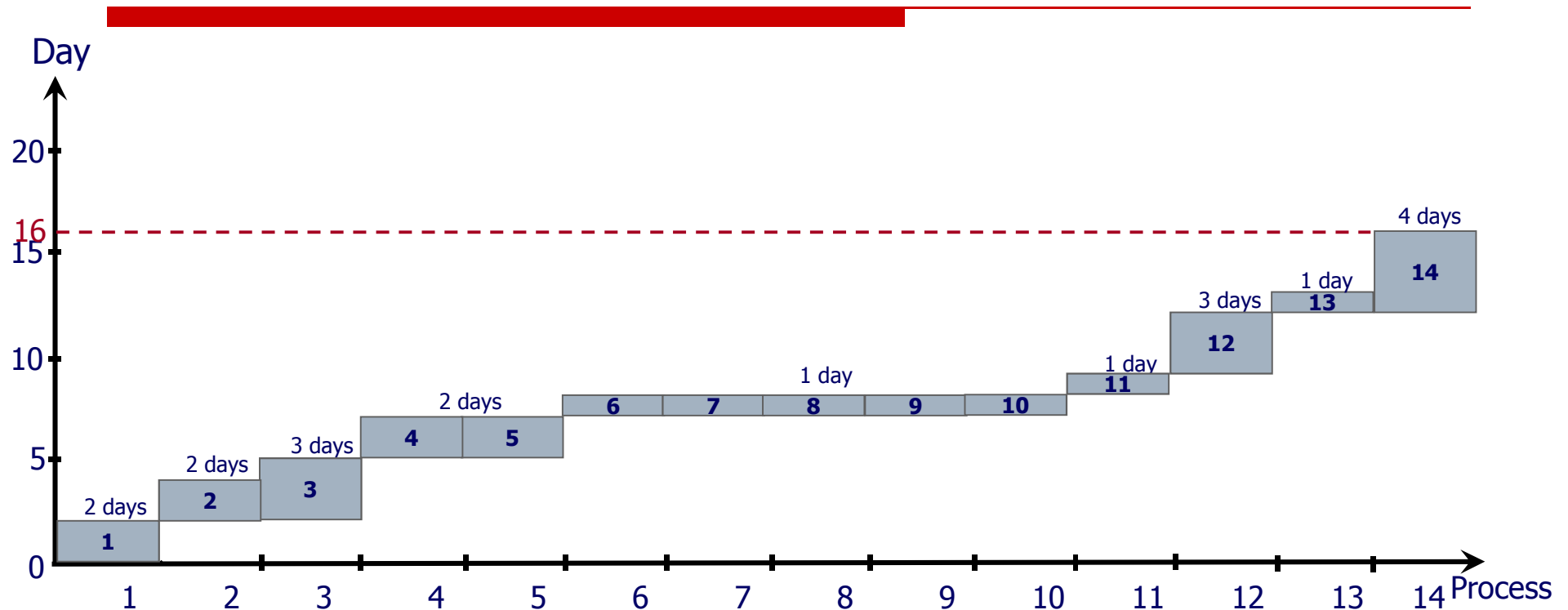
Documents related to Exportation of Rice

(from purchase order until the product container leaving the sea port)

1. Proforma Invoice (35)
2. Purchase Order (39)
3. Commercial Invoice (50)
4. Application for Letter of Credit (24)
5. Letter of Credit (32)
6. Packing List (25)
7. Cargo Insurance Application Form (20)
8. Cover Note (23)
9. Insurance Policy (24)
10. Booking Request Form – Border Crossing (24)
11. Booking Confirmation – Border Crossing (31)
12. Booking Request Form – Inland Transport (16)
13. Booking Confirmation – Inland Transport (18)
14. Bill of Lading (40)
15. Empty Container Movement Request (TKT 305) (19)
16. Request for Port Entry (TKT 308.2) (27)
17. Equipment Interchange Report (EIR) (24)
18. Container Loading List (18)
19. Container List Message (32)
20. Outward Container List (34)
21. Master Sea Cargo Manifest(17)
22. House Sea Cargo Manifest (37)
- 23. *Export Declaration (75,39)***
24. Good Transition Control List (22,3)
- 25. *Application for Permission to Export Rice (KP. 2)***
26. Sales Report (KP 3) (21)
- 27. *Application for the Collection of the Permit for the Export of Rice (A. 3)***
- 28. *Permit for the Export of Rice (A. 4) (32)***
- 29. *Application for Certificate of Standards of Product (MS. 13/1) (44)***
- 30. *Certificate of Analysis (17)***
- 31. *Certificate of Product Standards (MS. 24/1) (45)***
- 32. *Certificate of Fumigation (21)***
- 33. *Application for Phytosanitary Certificate (PQ. 7) (29)***
- 34. *Phytosanitary Certificate (34)***
- 35. *Application for Certificate of Origin***
- 36. *Certificate of Origin (38)***

Time-Procedure Chart

Exporting Jasmine Rice from Thailand

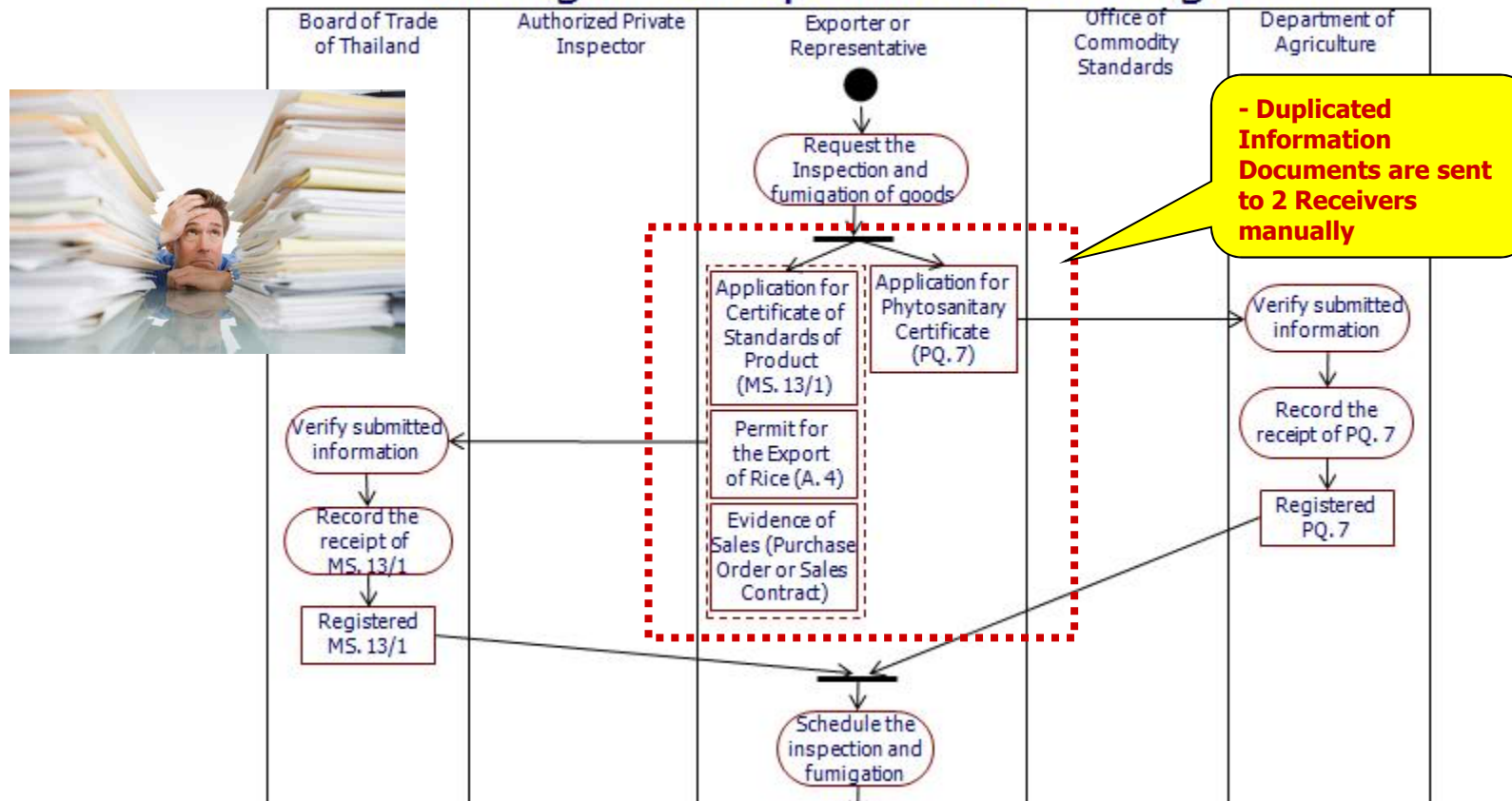


1. Buy - Conclude sales contract and trade terms
2. Obtain export permit
3. Arrange transport
4. Arrange the inspection and fumigation
5. Obtain cargo insurance
6. Provide customs declaration
7. Collect empty container(s) from yard

8. Stuff container(s)
9. Transfer to port of departure
10. Clear goods through customs
11. Handle container at terminal and stow on vessel
12. Prepare documents required by importer
13. Verify the accuracy/authenticity of exported cargo
14. Pay - Claim payment of goods

Analysis the as-is processes and Identify bottlenecks: Exportation of Rice (existing)

Arrange the inspection and fumigation



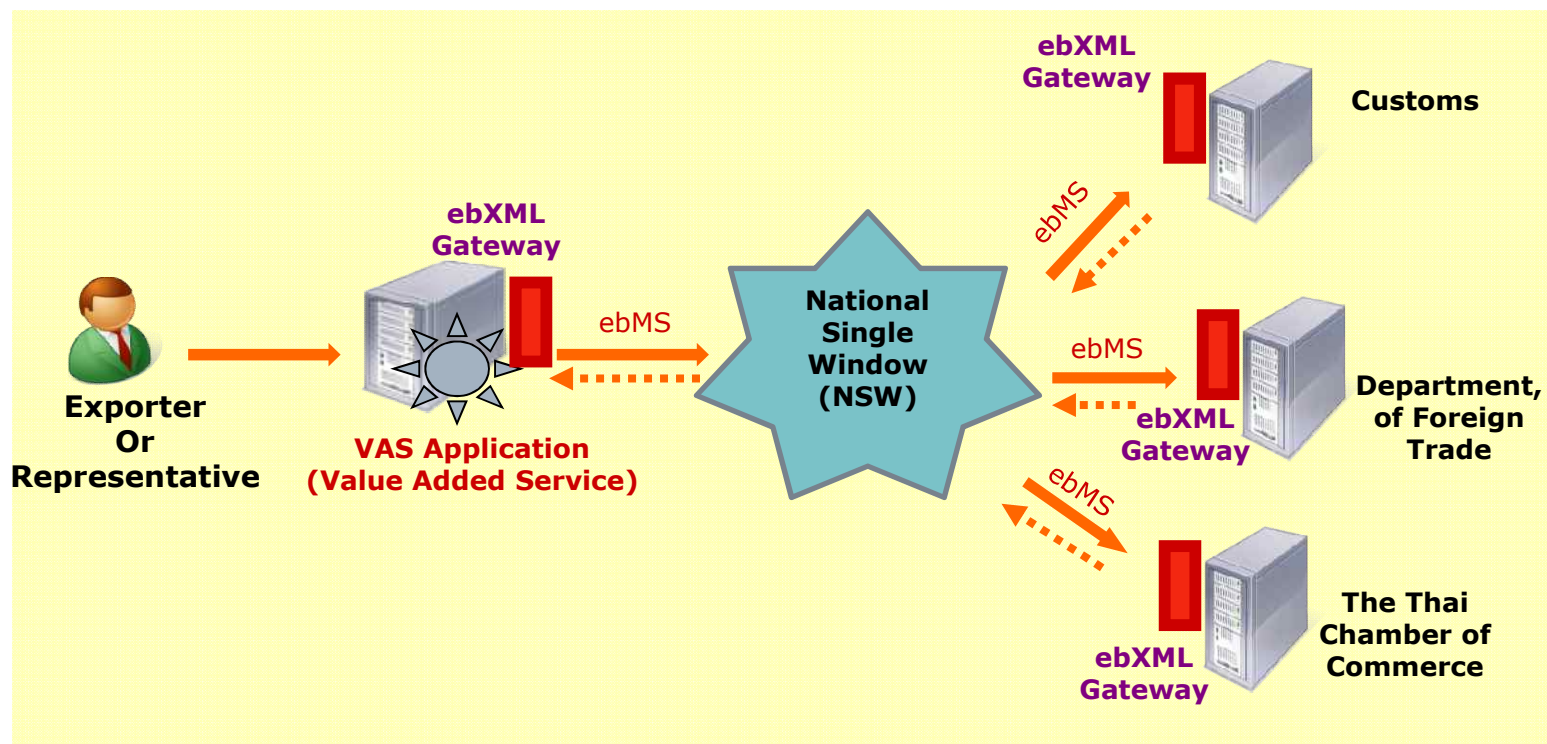
Problems :

- Duplicated Information
- High Cost and Time for sending and receiving documents
- Data Inconsistency

Recommendation Development

Exportation of Rice Process (Automate)

(e.g. reducing the number of steps, or number of documents, ...establishing a system that supports e-document submission, and e-document exchange between agencies)

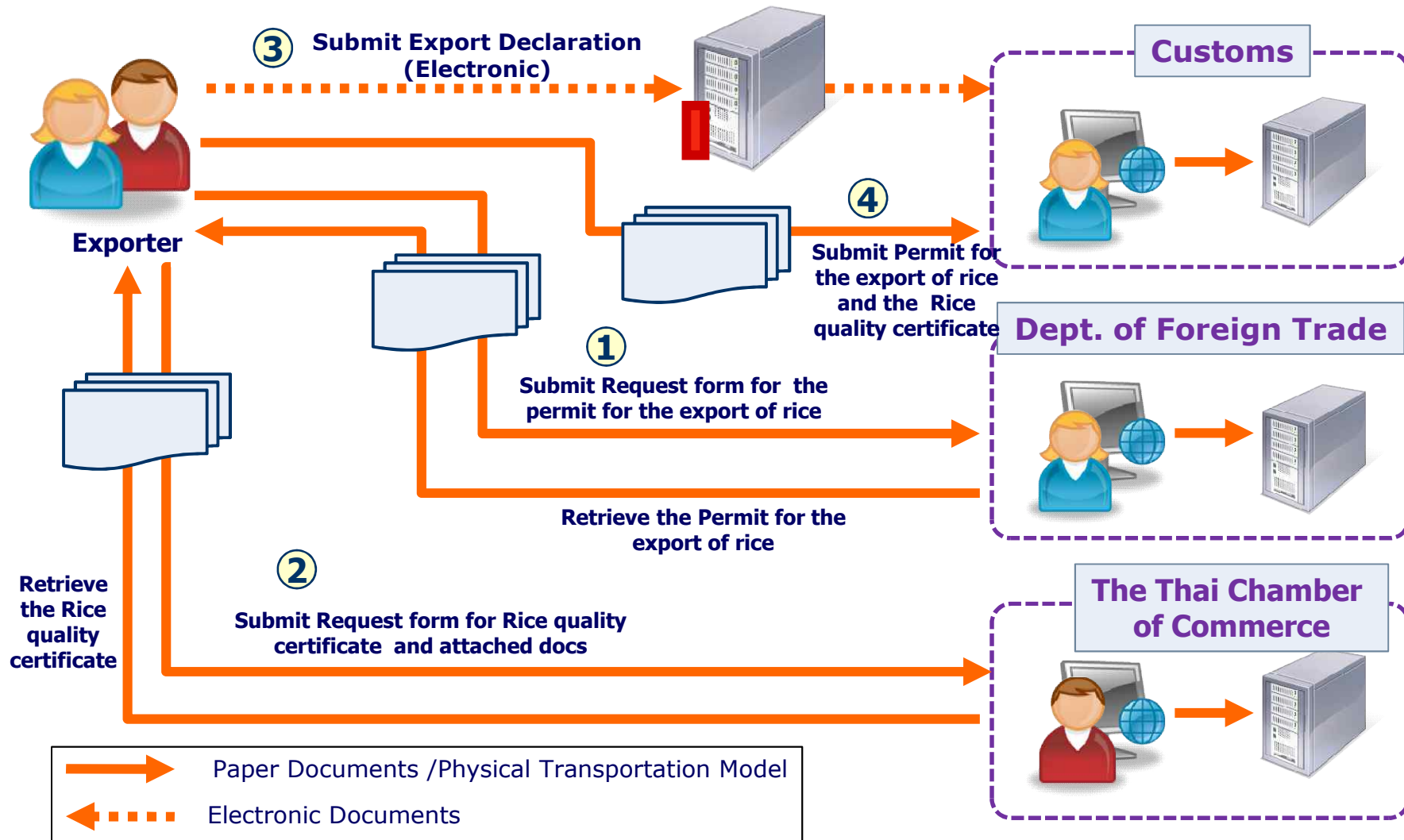


Business to Government (B2G) – *One to Many*

- **Government to Government (G2G) Data Exchange**
- **Automatic e-Document Workflow**
- **National Single Window Exchange**

Analyze the as-is processes

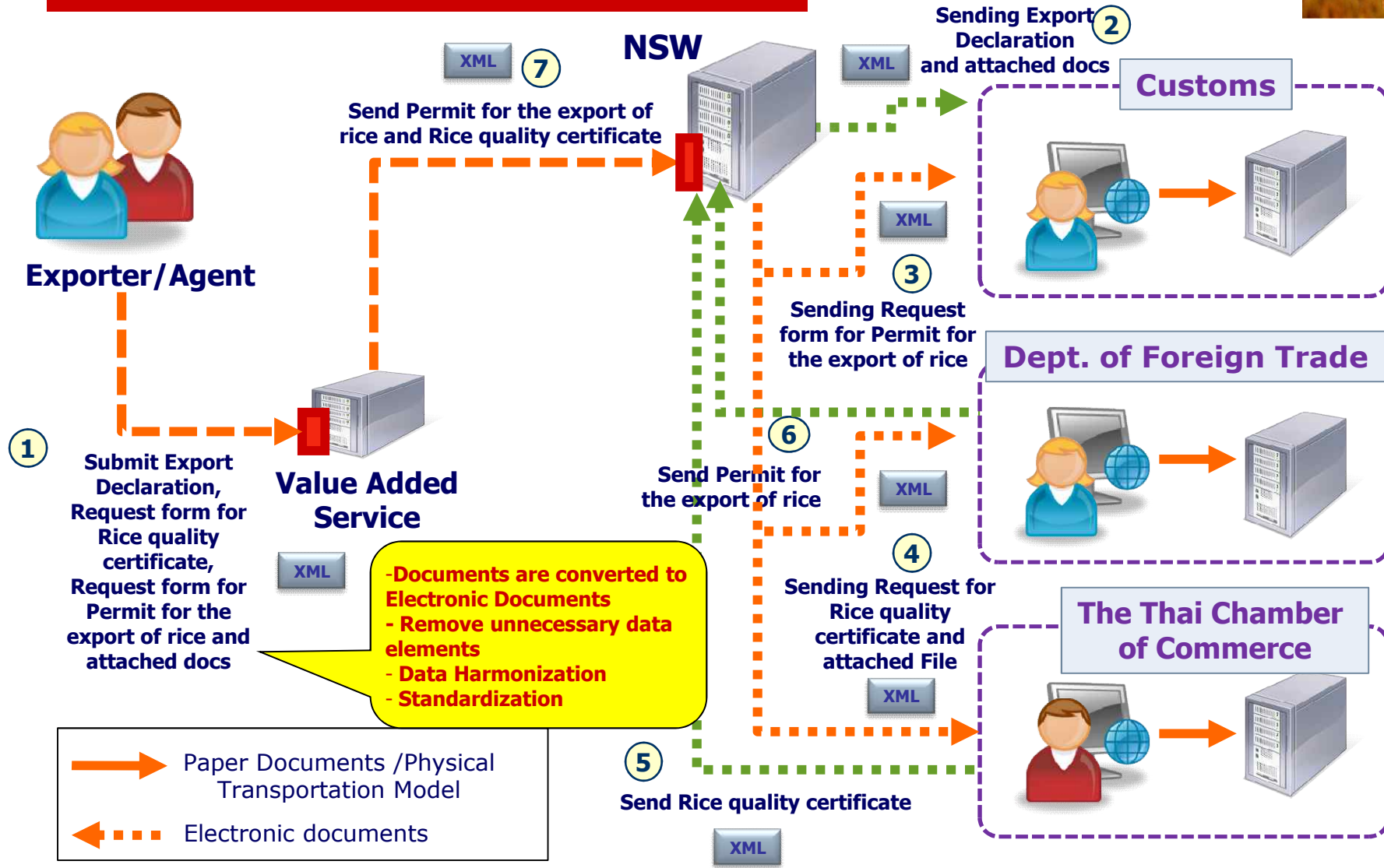
Example – Existing Process for Exportation of Rice



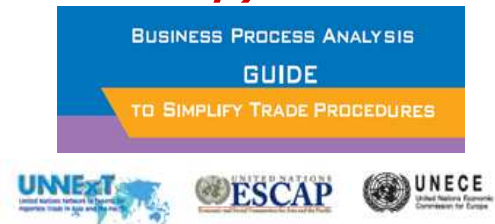
Visit 3 different locations
with 2 paper forms, one e-form
reducing to
No physical visit
& paperless documents

Propose Recommendation

Example – New Process for Exportation of Rice



Lessons Learned/Recommendations

- ❑ Conduct Business Process Analysis to identify TF bottlenecks on a regular basis (e.g. annually)
- ❑ Recommend the BPA Guide by

- ❑ Visualize those processes with diagrams (pictures), e.g. Activity Diagram using UML notations, tables showing indicators, time-procedure chart, etc.
- ❑ Verify and validate the process analysis results for correction and completeness
- ❑ Use creativity & collaboration to recommend & implement trade facilitation improvement (e.g. as suggested in UN/CEFACT Recommendation 18)

Recommendations for setting up a BPA project

- ❑ Convey the necessity of conducting of trade facilitation process analysis, especially with the top policy makers
- ❑ Secure adequate resources to conduct BPA
- ❑ Identify clearly the roles of stakeholders
- ❑ Determine a capable lead agency
- ❑ Start small, and then evolve
- ❑ Profit from past experience
- ❑ Invest in training
- ❑ Use the BPA results for real improvement





Thank you

Dr. Somnuk Keretho
Director
Institute for IT Innovation
Kasetsart University
Bangkok, Thailand
sk@ku-inova.org

