



## MILLENNIUM CHALLENGE CORPORATION (MCC) CUSTOMS PROGRAM

# Final Time Release Study

## JORDAN CUSTOMS ADMINISTRATION MODERNIZATION PROGRAM

*Submitted to:*

**USAID/Jordan**

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Report prepared by Interdisciplinary Research Consultants (IdRC), sub-contractor to ARD, Inc.

## 1.0 PROJECT BACKGROUND

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The objective of the Jordan Customs Administration Modernization Program (CAMP) is to assist the Government of Jordan (GOJ) to achieve its trade facilitation goals by improving the efficiency and effectiveness of the customs system over two years. It is also assisting Jordan to improve its scores on the Millennium Challenge Corporation (MCC) Trade Policy scorecard, thereby helping the country achieve MCC Compact Status. The main counterparts for the Program are the Jordan Customs Department (JC) and the Aqaba Special Economic Zone Authority (ASEZA) Customs. The Program is funded by the MCC, administered by the U.S. Agency for International Development (USAID), and closely monitored by The Ministry of Planning and International Cooperation (MOPIC).

The Customs Administration Modernization Program has four main components. These are:

- Implementation of the Border Management Task Force (BMTF) Recommendation #2: establishment of a single window system for the border clearance of imports and exports;
- Upgrading and integration of Customs information and communications technology (ICT) infrastructure, including support for the implementation of ASYCUDAWorld;
- Capacity strengthening and training of Customs officials;
- Improvement of Customs' external communication and relations with the trade and ability to meet the private sector's legitimate need for Customs information.

One of the focal points in international trade is the country's borders and the performance of Customs and other border agencies, in particular their efficiency in clearing goods. In the modern business environment of just-in-time production and delivery, it has become ever more important for traders to be guaranteed fast and predictable release of goods. Since Customs is the foremost agency at the border and plays a prominent role in the release of goods, Customs should strive to reduce the complexity of clearance procedures and to limit information requirements to what is really necessary. Modern Customs administrations have recognized that streamlining and simplifying clearance procedures is of benefit to their importers, their exporters and their national economies.

Streamlining the clearance process while assuring compliance and appropriate duty collection requires efficient management of risk and simplified procedures. To ensure that procedures are applied in an effective manner, they have to be reviewed and updated at regular intervals. To determine the level of effectiveness of Customs operations and procedures, many Customs administrations conduct regular reviews and audits to assist them in streamlining their operations. One of the methods used for the review of clearance procedures is to measure the average time taken between the arrival of goods and their release. This helps Customs to identify both the problem areas and potential corrective actions to increase efficiency.

## **2.0 STUDY OBJECTIVE**

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The overall objective of this activity was to investigate whether improvements introduced at the various National Customs and ASEZA Customs Centers as a result of the previous Time Release Studies have been effective in terms of reducing the time required for the release of goods.

This objective was conducted by repeating the same study at the same centers included in the previous study in order to conduct a “before-and-after” comparison to quantify changes in time release, if any.

This study also aimed at identifying which technical interventions introduced as a result of the first studies were effective, and identifying what additional improvements would be needed to further improve the efficiency of operations at the various customs centers.

The specific objectives of the study were as follows:

- Use the World Customs Organization (WCO) Guide to Measure the Time Required for the Release of Goods, including checklists and sample forms contained in that document, to quantify the average time for goods to clear through Customs and identify problems or bottlenecks in the process.
- Work collaboratively with designated counterparts at Jordan Customs and ASEZA Customs to complete the Time Release Study.
- Define scope and design of study based on the WCO Guide, including planning and methodology, duration, timing, geographical scope, types of goods, choice of traffic, choice of Customs offices; development and testing of survey form.
- Use the study findings to quantify the improvements resulting from the introduction of the technical interventions mentioned above. It was anticipated that the times required for releasing goods, defined as the time between the arrival of goods at the port/ airport/ land border until their release to the importer or a third party on his behalf, would be less than those measured in the previous study.
- Determine the extent of improvement in the speed of the goods clearance process.
- Develop further recommendations outlining corrective measures to resolve any remaining bottlenecks.

### 3.0 METHODOLOGY

To achieve the objective of this study, a methodology similar to that used in the previous study was used, which is summarized in the following sections.

#### 3.1 Identification of Target Population

For comparing the results, the target population was taken to be the population surveyed during the previous study. Tables 1 and 2 show the overall statistics for the years 2005 through 2007, which was provided by the Data Management Departments at Jordan and ASEZA Customs, respectively.

Table 1. Kingdom's National Customs Transactions in 2005-2007

Center	2005	2006	2007	Average	%
King Abdullah	22,451	24,929	30654	26,011	<b>2.91%</b>
Aqaba	110,639	113,237	117301	113,726	<b>12.72%</b>
Amman	99,167	104,410	115600	106,392	<b>11.90%</b>
Omari	228,944	179,630	133609	180,728	<b>20.21%</b>
Mdawara	26,860	17,322		22,091	2.47%
Airport	130,870	140,782	151593	141,082	<b>15.78%</b>
Zarqa Free zone	101,538	114,712	21526	79,259	<b>8.86%</b>
Karama	128,080	40,972		84,526	9.45%
King Hussein Bridge	5,053	5,551		5,302	0.59%
Jordan Valley	18,702	15,774		17,238	1.93%
Jaber	115,324	114,452	123356	117,711	<b>13.17%</b>
<b>Total</b>	<b>987,628</b>	<b>871,771</b>		<b>894,065</b>	<b>100.00%</b>

Table 2. ASEZA Customs Transactions in 2006-2008

Transaction	2006	2007	2008	AVG.	%
<b>AA9</b>	14317	14285		14301	30.5
<b>ST9</b>	<b>9190</b>	2280	2290	2285	4.9
	<b>9290</b>	291	257	274	0.6
	<b>9390</b>	335	524	429.5	0.9
	<b>9490</b>	309	312	310.5	0.7
	<b>9590</b>	1619	1974	1796.5	3.8
	<b>9690</b>	5119	5004	5061.5	10.8
	<b>9690(2)</b>	73	24	48.5	0.1
<b>Transit (TR8)</b>	7974	11915	12012	10633.67	22.7
<b>AT9+SE9</b>	15996	12334	6693	11674.33	24.9

As can be seen in Table 1 above, the Customs Centers of Aqaba, Amman, Omari, Airport, Zarqa Free Zone, and Jaber account for over 85% of the Customs transactions in those three years. Therefore, this second study was also focused on the same centers, which would enable the conduct of direct comparisons of the before-and-after times required for the release of goods.

In ASEZA, the previous time release study addressed only the Rabia, Cargo, and Passenger Terminal Customs Centers. The follow-up study however addressed three additional Centers: Dora, Port, and Storage Centers. Before-and-After comparisons for the later three Centers were not possible since they were not included in the previous study.

### 3.2 Sample Definition and Sampling

As with any survey, time constraints usually prohibit the investigation of an entire population (in this case all the customs transactions identified above). For the purposes of this survey, the *sample unit* (i.e., the entity that represents one data point) was taken as one customs transaction.

The *study sample size* was defined as the minimum required number of sampling units that are needed to build sound statistical conclusions and inferences.

This was determined by Jordan Customs' desired level of statistical confidence and tolerance for statistical error. The minimum sample size required to draw inferences on the population was calculated using the following formula:

$$SS = \frac{Z^2 \times (p) \times (1 - p)}{c^2}$$

where:

SS = sample size

Z = Z-value (e.g. 1.96 for 95% confidence level)

p = percentage picking a choice, expressed as decimal (0.5 used for sample size needed)

c = confidence interval, expressed as decimal (e.g., .07 = ±7)

The sample size would be further corrected to account for the finite population using the following formula:

$$\text{New SS} = \frac{SS}{1 + \frac{SS - 1}{\text{Population}}}$$

Applying the above formula to the population identified above, using a 95% level of confidence with a ±5% confidence interval, results in a minimum sample size requirement of 384. This sample of 384 was further stratified according to three criteria; geographic location, type of Customs transaction, and lane. The same methodology was followed for ASEZA Customs and a sample of 200 transactions was included in the survey.

A description of those stratifications follows.

#### 3.2.1 Geographic Stratification

The sample calculated as above was distributed over the study Centers as the actual distribution of transactions in those Centers as shown in Table 3 and Figure 1 below (which is the same distribution used in the previous survey). This guaranteed that the proportional size of the sub-sample corresponded to the proportional size of transactions in each of the studied Centers in relation to the overall size.

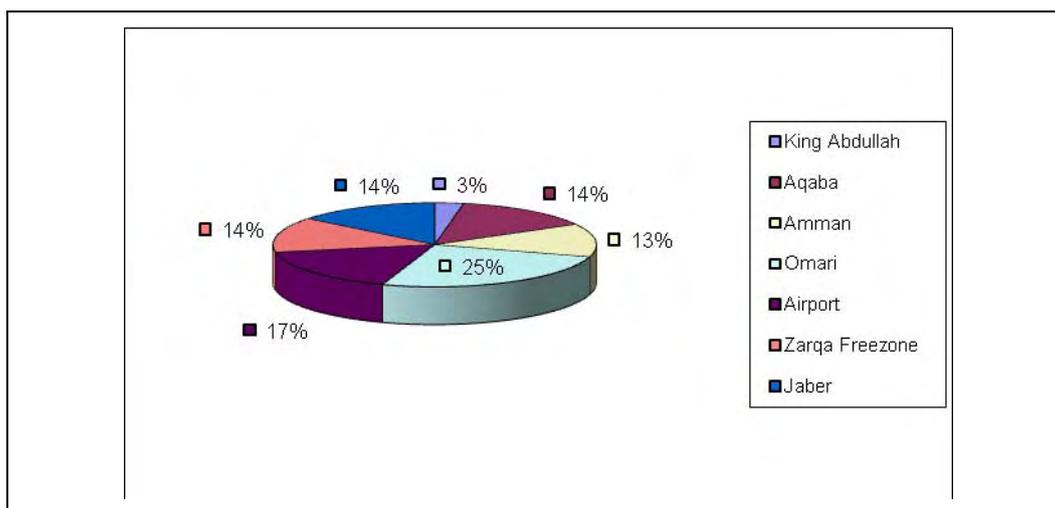


Figure 1. Geographic Distribution of Customs Transactions

Table 3. Geographic Distribution of National Customs Transactions

Center	2005	2006	2007	Average	%	Minimum Sample
King Abdullah	22,451	24,929	30,654	26,011	3.0%	11
Aqaba	110,639	113,237	117,301	113,726	14.0%	54
Amman	99,167	104,410	115,600	106,392	12.7%	49
Omari	228,944	179,630	133,609	180,728	25.5%	98
Airport	130,870	140,782	151,593	141,082	17.0%	65
Zarqa Free zone	101,538	114,712	21,526	79,259	13.5%	52
Jaber	115,324	114,452	123,356	117,711	14.4%	55
<b>Total</b>	<b>808,933</b>	<b>792,152</b>	<b>693,639</b>	<b>764,908</b>	<b>100%</b>	<b>384</b>

### 3.3 Survey Tool Design

The WCO standard survey tool for Time Release Studies that was used in the previous survey was also used in this survey. The survey tool had been slightly modified in coordination with Jordan Customs to reflect actual conditions in the field. Generally, the WCO survey tool measures time requirements for the following 19 stages of a Customs transaction process:

1. Arrival of Goods and Start of Unloading	11. Start of Inspection and End of Inspection
2. Start of Unloading and End of Unloading	12. Lab. Analysis
3. Lodgment of Declaration	13. Veterinary
4. Acceptance of Declaration	14. Agriculture
5. Request and Document Presentation	15. Medical/Health
6. Start Document Control	16. Assessment of Duty
7. End Document Control	17. Payment (if required before release)
8. Finding Inspector	18. Release
9. Unloading and Classifying	19. Removal from Customs Control
10. Finding Inspector again	

For each stage, the WCO survey tool captures the beginning and the end of the stage.

### **3.4 Pre-Testing the Survey Tool**

The survey tool had been pre-tested in the previous time release study, and minor modifications were made following the pre-test. The final English version of the survey tool is presented in Appendix I.

### **3.5 Data Collection**

Using the developed study sample and the Customs Centers contact information provided by the Jordan Customs, six two-person IdRC enumerator crews commenced with the data collection process for National Customs, while four two-person enumerators collected the data for ASEZA. The crews were rotated among the various locations to minimize data collection bias and were supervised by a field coordinator.

Based on the sample distribution illustrated earlier, the data collection crews chose transactions at random. The data collection process was done by accompanying the freight forwarding agents and recording the times of the beginnings and the ends of the various stages outlined above. Where possible, the data collection crews tried to be inconspicuous to the Customs officer in order to preserve the quality of the data. The teams worked in pairs, with one data logger measuring times and the other data enumerator filling out the survey tool.

### **3.6 Collation of Data**

A data manager was responsible for reviewing and collating data as completed surveys arrived daily. The data manager built and produced a database of all the collected surveys in a manner that allowed easy manipulation for analyses. The Data Manager collated and screened the data upon arrival. In addition, the Data Manager met with the enumerators on a daily basis prior to leaving for the field to provide them with instructions on how to improve the process in a manner that controlled the quality and facilitated data entry. All data were computerized using MS Excel.

### **3.7 Data Analyses and Inferences**

The IdRC team analyzed the collated data mainly via the calculation of average times for each stage of the various types of transactions in the various study areas. The data were categorized according to the lane that they were classified in (i.e., Green, Yellow, or Red). The average release time for each of the 19 stages was calculated and compared to those calculated in the previous study. The analyses were conducted for each Center, as presented in the following section.

## **4.0 RESULTS AND FINDINGS**

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### **4.1 Results for National Customs Centers**

Table 4 presents the main findings of the study in terms of release time for the previous survey for the National Customs Centers. As can be seen in the Table, release time, in minutes, for each Center was calculated for each of the 19 stages of Customs transactions.

The results also present the average release time for each lane (i.e., Green, Yellow, and Red). The analysis did not investigate the release time at the sub-sub level (i.e., TR8, IM4, EX3, etc.) because of the relatively small sizes of the sub-samples, which prohibits the establishment of statistically meaningful inferences and conclusions. The raw data are included in the Annex, and a CD containing those data is attached to this report.

Based on the results of this previous study, the following improvements were developed and introduced by the Customs Administration Modernization Program.

#### **Al-Omari**

- The problem of a crowded Customs yard was addressed through the award and signing of a contract for expansion and improvement of the yard. The contract called for increasing the size of the yard, installing new ramps, and increasing the number of gates.
- The Public Security Directorate was encouraged to follow the same working hours as Customs, which also improved its communication and cooperation with Customs.

#### **Amman**

- The Center reintroduced monthly Partnership Council Meetings, where facilitation matters are regularly discussed with the private sector. During such meetings, Customs requested that brokers work longer hours. However, there has been little change: only a few work outside a 9:00 – 9:30 a.m. to 3:00 p.m. schedule as a result of this request.
- Transport company or owner delay in removal of cleared goods from Customs control was recommended for action at the national level, through time limits and sanctions for non-compliance.

#### **Aqaba**

- The delay in “finding an inspector” stage was addressed by: 1) increasing the number of Inspectors from 28 to 30; 2) creating a new clearance unit at the Container Terminal; and 3) consolidating inspection in one area instead of three.
- In order to reduce storage time of cleared goods, the storage fees at Aqaba Container Terminal were raised.
- The Center addressed the need for Inspector training on high-technology equipment. So-far, one course has been conducted, and coordination with import/export companies to establish additional workshops continues.

#### **Jaber**

- Delays in the loading and unloading of goods have been addressed. A contract for this work has been signed with a new company that includes performance indicators and fines for poor performance. The new company is doing well, with no major problems or complaints. New loading/unloading ramps also have been installed.
- In order to address the problem of broker errors, Customs has been meeting with them on an almost daily basis to address this matter and on occasion to levy fines against individual brokers for their repeated mistakes. Improved performance has been noted.

- The need for additional x-ray and weighing machines has been met. The Center now has three x-ray machines operating on a 24-hour basis, and now has one weighing machine for entry and one for exit.

### **Queen Alia Airport**

- The delay in unloading goods from incoming planes is being addressed by Royal Jordanian (RJ) Airlines. They are procuring new equipment and have arranged for pre-arrival manifests to be transmitted electronically. RJ also is updating its warehouse by installing vertical shelving and procuring new loading/unloading equipment. RJ also has moved to a two-shift 24 hour schedule.
- Progress has been made to address the slow inspection of goods. Regarding express shipments, 90% are released directly after unloading, with random inspection of 10%. Cargo headed for the Free Zone is released directly, with the declaration lodged upon arrival at the Free Zone. And a special clearance for transit cargo has been created.
- Addressing the problem of slow removal of goods from Customs control, Royal Jordanian has, at Customs' request, reduced the number of days of free storage of cleared goods to three and has increased storage fees beyond the grace period.

### **Sahab**

- The broker delay in the lodgment of declarations has been referred to Customs Headquarters as it requires national policy change. However, the Center is now releasing selected low-risk goods prior to final closing of the declarations.
- The Center has followed through with its plan to address broker error at Partnership Council meetings. As a result of stressing this issue with brokers, there now are fewer mistakes, but it is still a problem.

### **Zarka**

- Final sketches for yard expansion have been approved, a bid has been awarded, and the new ramps already are in place.
- To address the problem of transporter delay in the removal of goods, benefits have been delivered for companies that cooperate (examinations of escorted goods halted, exit permits often issued after departure of goods), and significant improvements have been noted. (Furthermore, on a National level, the escorting of transit vehicles by Customs is being replaced by placement of global positioning system (GPS) tracking devices on transit vehicles.)
- Progress has been made in getting the Public Security Directorate to set up its Security Point within the Customs yard. Once this station is fully established, the Center will hire a professional cargo handling firm to work within the Free Zone.
- In order to address the problem of slow removal of cleared goods, higher storage fees have been established within the Free Zone, and progress has been noted.

Table 5 presents the main findings of the study in terms of release time for the new survey at hand. As with the results shown in Table 4, this table also gives release time in minutes for each Center, calculated for each of the 19 stages of the Customs clearance process.

**Table 4. Overall Average for the Previous Study Time Release Results for the Various Customs Centers**

Before	Zarka			Sahab			Airport			Aqaba			Abdullah			Jaber			Omari			DO5
	G	Y	R	G	Y	R	G	Y	R	G	Y	R	G	Y	R	G	Y	R	G	Y	R	
Lodgment of Declaration & Acceptance of Declaration	N/A	15.46	7.91	2.33	1.3	1.43	2.26	3.32	3.15	44.86	30.1	38.57	4.67	16	11.8	6.25	5.2	7.5	9.23	16.97	16.07	13.45
Request & Document Presentation	N/A	N/A	N/A	N/A	52	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Document Presentation & Start Document Control	N/A	3.48	20.63	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13	4.33	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Start Document Control & End Document Control	N/A	24.08	17.56	2	1.71	1.9	2.23	5.43	2.43	N/A	N/A	N/A	1.67	22.5	1.6	10	5.9	15	N/A	N/A	N/A	N/A
Finding of Inspector	N/A	2.88	10.31	N/A	2.91	2.79	N/A	1.69	2.05	60	60	65	3	N/A	2	N/A	15.31	7	4	4.43	4.57	4.56
Unloading and Classifying	N/A	30.00	36.11	N/A	10.91	15.25	N/A	19.85	19.41	N/A	100	75.56	8	N/A	9	N/A	N/A	N/A	N/A	43.33	31.1	N/A
Another Time Finding of Inspector	N/A	9.00	5.00	N/A	4.45	4.33	N/A	1.69	1.95	N/A	N/A	N/A	N/A	N/A	1.5	N/A	N/A	N/A	N/A	33.29	8.27	N/A
Start of Inspection & End of Inspection	N/A	21.85	27.83	N/A	12.64	15	N/A	21.69	21.48	70	51	202.5	5	N/A	8	N/A	37.36	42.5	4	8.93	8.43	3.56
Lab. Analysis													35	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Veterinary	N/A	16.67	13.29	3	2.05	2.17	2.38	2.57	2.55	10	51	327.22	3.5	N/A	2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Agriculture	N/A	N/A	N/A	N/A	N/A	7.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.54	3.5	7.5
Medical/Health	N/A	N/A	N/A	N/A	10.00	1.5	2.33	3.14	2.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Assessment of Duty	N/A	10.77	6.54	2.33	3	5.24	2.48	2.73	2.64	31.88	96.52	69.05	5	2.5	3.5	7.5	7.86	10.83	5.15	7.73	7.62	
Payment (if required before release)	N/A	N/A	N/A	2	2	1.88	3.43	3.41	3.36	7.5	8.76	14	1	1.5	2.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Release	N/A	15.77	16.35	2.33	1.5	1.84	4.3	2.59	2.86	8.6	18.44	12.39	2.33	3	3.6	8.75	5.94	7.5	7.62	8.23	8.07	
Removal from Customs Control	N/A	22.52	15.00	17.67	7.5	15	28.48	25.09	26.9	29	88.63	78.35	14	12.5	11.2	8.75	30	9.17	14.92	23.93	23.07	
<b>Total Average (Before)</b>	<b>0.00</b>	<b>172.48</b>	<b>176.53</b>	<b>31.66</b>	<b>111.97</b>	<b>81.83</b>	<b>47.89</b>	<b>93.20</b>	<b>91.28</b>	<b>261.84</b>	<b>504.45</b>	<b>882.64</b>	<b>83.17</b>	<b>71.00</b>	<b>61.33</b>	<b>41.25</b>	<b>107.57</b>	<b>99.50</b>	<b>50.46</b>	<b>150.34</b>	<b>114.70</b>	<b>42.33</b>

**Table 5. Overall Average for the Present Study Time Release Results for the Various Customs Centers**

After	Zarka			Sahab			Air Port			Aqaba			Abdullah			Jaber			Omari			DO5
	G	Y	R	G	Y	R	G	Y	R	G	Y	R	G	Y	R	G	Y	R	G	Y	R	
Lodgment of Declaration & Acceptance of Declaration	4.33	3.77	3.88	2.00	6.78	6.45	1.87	2.19	2.08	56.25	76.10	61.57	N/A	1.67	1.75	8.38	3.55	3.33	16.00	19.49	19.00	N/A
Start Document Control & End Document Control	3.33	3.72	4.83	3.00	9.90	7.20	1.04	1.50	1.50	N/A	N/A	N/A	N/A	2.40	3.50	2.25	2.82	2.74	N/A	N/A	N/A	N/A
Finding of Inspector	2.00	2.30	2.45	N/A	10.75	10.52	N/A	N/A	N/A	N/A	60.00	53.67	N/A	3.17	10.50	N/A	N/A	N/A	2.50	2.72	2.33	1.17
Unloading and Classifying	14.00	7.33	8.48	N/A	35.00	28.42	N/A	N/A	N/A	N/A	91.67	134.45	N/A	N/A	N/A	N/A	25.00	26.30	N/A	N/A	22.10	7.56
Another Time Finding of Inspector	2.00	2.05	2.20	N/A	12.71	8.26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.10	1.33
Start of Inspection & End of Inspection	8.67	9.09	10.25	N/A	10.40	17.62		10.00	8.67	N/A	25.00	39.20	N/A	11.50	16.25	N/A	7.86	10.00	4.00	3.53	11.91	4.67
JISM	17.67	11.50	8.78	2.00	13.90	13.07	1.00	5.20	2.80	N/A	23.33	30.00	N/A	7.80	6.50	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Agriculture	11.00	15.43	3.00	N/A	N/A	6.40	N/A	3.00	17.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	129.71	5.00	4.47	N/A	N/A
Medical/Health	12.00	16.50	15.25	N/A	N/A	16.00	N/A	3.33	2.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other	N/A	N/A	N/A	N/A	N/A	N/A	1.00	4.00	4.75	N/A	N/A	N/A	N/A	N/A	N/A	N/A	15.22	16.38	N/A	N/A	N/A	N/A
Assessment of Duty	4.33	4.24	4.68	23.00	11.00	13.41	2.00	2.94	3.57	4.75	21.06	27.94	N/A	4.50	8.75	2.50	3.55	5.00	N/A	N/A	N/A	N/A
Payment	4.00	6.96	7.45	N/A	11.83	13.50	1.79	2.00	2.22	6.88	16.26	21.78	N/A		N/A	3.13	4.45	4.91	8.00	7.41	8.42	N/A
Release	3.00	6.33	6.86	N/A	17.11	15.51	1.57	2.00	2.18	20.00	20.00	42.50	N/A	1.00	1.00	3.25	3.82	5.09	11.67	7.28	8.20	6.57
Removal from Customs Control	4.00	10.13	8.73	5.00	30.55	29.71	N/A	N/A	N/A	150.00	67.50	80.00	N/A	N/A	N/A	20.00	23.13	27.12	51.67	49.21	45.17	4.87
<b>Total Average (After)</b>	<b>90.33</b>	<b>99.35</b>	<b>86.84</b>	<b>35</b>	<b>169.93</b>	<b>186.07</b>	<b>10.27</b>	<b>36.16</b>	<b>47.51</b>	<b>237.88</b>	<b>400.92</b>	<b>491.11</b>	<b>N/A</b>	<b>32.03</b>	<b>48.25</b>	<b>39.50</b>	<b>89.39</b>	<b>230.58</b>	<b>98.83</b>	<b>94.11</b>	<b>121.23</b>	<b>26.16</b>



Figure 2 graphically depicts the differences between the total averages in the Table 3 and 4. As can be seen in the Figure, there is an improvement in the all Customs Centers except the following:

- Declarations through all lanes at the Amman Customs Center,
- Declarations through the Red Lane in Jaber Customs Center, and
- Declarations through the Green and Red Lane in Omari Customs Center.

Tables 6 through 12 present the average proportion of release time for each of the various stages for the present and previous studies. The Tables also present the percentage change in time release between the two studies. A positive value indicates that the average release time at the given stage has increased when compared to the previous analysis. However, a negative value indicates that the average release time has dropped at the present study when compared to the previous one.



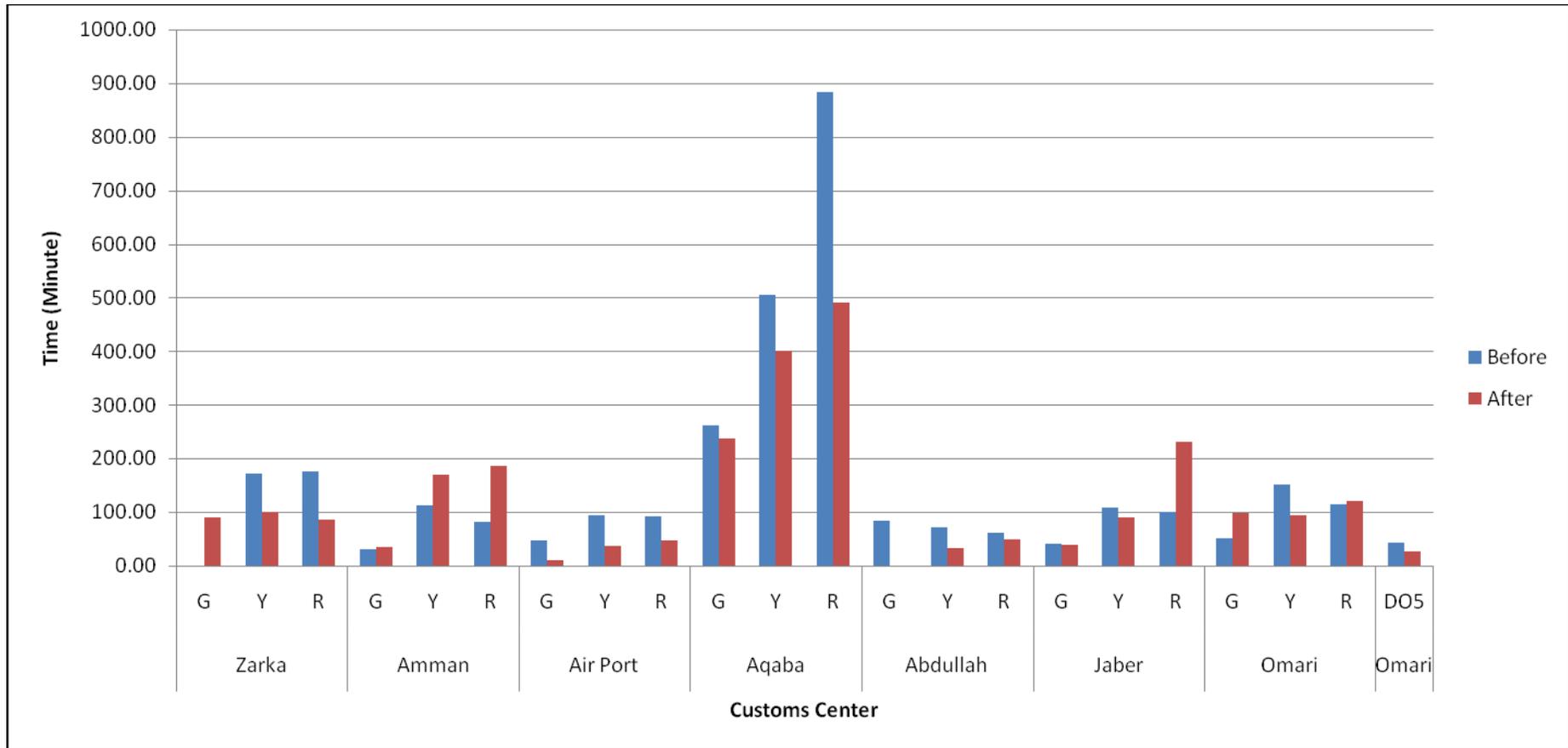


Figure 2. Total Average Release Times for the Present and Previous Study Time for the Seven Customs Centers

**Table 6. Average Proportion of Release Time for the Zarqa Customs Center With Respect To the Present and Previous Study**

After	Green			Yellow			Red		
	Before	After	% Change	Before	After	% Change	Before	After	% Change
Lodgment of Declaration & Acceptance of Declaration	N/A	4.33		15.46	3.77	-75.6%	7.91	3.88	-51.0%
Start Document Control & End Document Control	N/A	3.33		24.08	3.72	-84.5%	17.56	4.83	-72.5%
Finding of Inspector	N/A	2.00		2.88	2.30	-20.1%	10.31	2.45	-76.2%
Unloading and Classifying	N/A	14.00		30.00	7.33	-75.6%	36.11	8.48	-76.5%
Another Time Finding of Inspector	N/A	2.00		9.00	2.05	-77.3%	5.00	2.20	-56.0%
Start of Inspection & End of Inspection	N/A	8.67		21.85	9.09	-58.4%	27.83	10.25	-63.2%
JISM	N/A	17.67		16.67	11.50	-31.0%	13.29	8.78	-33.9%
Agriculture	N/A	11.00		N/A	15.43		N/A	3.00	
Medical/Health	N/A	12.00		N/A	16.50		N/A	15.25	
Other		N/A			N/A			N/A	
Assessment of Duty	N/A	4.33		10.77	4.24	-60.6%	6.54	4.68	-28.4%
Payment	N/A	4.00		N/A	6.96		N/A	7.45	
Release	N/A	3.00		15.77	6.33	-59.8%	16.35	6.86	-58.0%
Removal from Customs Control	N/A	4.00		22.52	10.13	-55.0%	15.00	8.73	-41.8%
Total Average	0.00	90.33		169.00	99.35	-41.2%	155.90	86.84	-44.3%



**Table 7. Average proportion of release time for the Amman Customs Center with respect to the present and previous study**

After	Green			Yellow			Red		
	Before	After	% Change	Before	After	% Change	Before	After	% Change
Lodgment of Declaration & Acceptance of Declaration	2.33	2.00	-14.2%	1.3	6.78	421.4%	1.43	6.45	351.2%
Request & Document Presentation	N/A	0.00		52	0.00	-100.0%	6	0.00	-100.0%
Start Document Control & End Document Control	2	3.00	50.0%	1.71	9.90	478.9%	1.9	7.20	278.9%
Finding of Inspector	N/A	N/A		2.91	10.75	269.4%	2.79	10.52	277.2%
Unloading and Classifying	N/A	N/A		10.91	35.00	220.8%	15.25	28.42	86.3%
Another Time Finding of Inspector	N/A	N/A		4.45	12.71	185.7%	4.33	8.26	90.9%
Start of Inspection & End of Inspection	N/A	N/A		12.64	10.40	-17.7%	15	17.62	17.4%
JISM	3	2.00	-33.3%	2.05	13.90	578.0%	2.17	13.07	502.2%
Agriculture	N/A	N/A		N/A	N/A		7.5	6.40	-14.7%
Medical/Health	N/A	N/A		10.00	0.00	-100.0%	1.5	16.00	966.7%
Other		N/A		0.00	0.00				
Assessment of Duty	2.33	23.00	887.1%	3	11.00	266.7%	5.24	13.41	156.0%
Payment	2	0.00	-100.0%	2	11.83	491.7%	1.88	13.50	618.1%
Release	2.33	0.00	-100.0%	1.5	17.11	1040.7%	1.84	15.51	743.1%
Removal from Customs Control	17.67	5.00	-71.7%	7.5	30.55	307.3%	15	29.71	98.0%
Total Average	31.66	35	10.5%	111.97	169.93	51.8%	81.83	186.07	127.4%

**Table 8. Average proportion of release time for the Airport Customs Center with respect to the present and previous study**

After	Green			Yellow			Red		
	Before	After	% Change	Before	After	% Change	Before	After	% Change
Lodgment of Declaration & Acceptance of Declaration	2.26	1.87	-17.3%	3.32	2.19	-34.1%	3.15	2.08	-33.9%
Start Document Control & End Document Control	2.23	1.04	-53.2%	5.43	1.50	-72.4%	2.43	1.50	-38.3%
Finding of Inspector	N/A	N/A		1.69	0.00	-100.0%	2.05	0.00	-100.0%
Unloading and Classifying	N/A	N/A		19.85	0.00	-100.0%	19.41	0.00	-100.0%
Another Time Finding of Inspector	N/A	N/A		1.69	0.00	-100.0%	1.95	0.00	-100.0%
Start of Inspection & End of Inspection	N/A	N/A		21.69	10.00	-53.9%	21.48	8.67	-59.7%
JISM	2.38	1.00	-58.0%	2.57	5.20	102.3%	2.55	2.80	9.8%
Agriculture	N/A	N/A		N/A	3.00		0.00	17.75	
Medical/Health	2.33	0.00	-100.0%	3.14	3.33	6.2%	2.50	2.00	-20.0%
Other		1.00			4.00			4.75	
Assessment of Duty	2.48	2.00	-19.4%	2.73	2.94	7.6%	2.64	3.57	35.0%
Payment	3.43	1.79	-47.8%	3.41	2.00	-41.3%	3.36	2.22	-34.0%
Release	4.30	1.57	-63.5%	2.59	2.00	-22.8%	2.86	2.18	-23.7%
Removal from Customs Control	28.48	0.00	-100.0%	25.09	0.00	-100.0%	26.90	0.00	-100.0%
Total Average	47.89	10.27	-78.5%	93.20	36.16	-61.2%	91.28	47.51	-47.9%

**Table 9. Average proportion of release time for the Aqaba Customs Center with respect to the present and previous study**

After	Green			Yellow			Red		
	Before	After	% Change	Before	After	% Change	Before	After	% Change
Lodgment of Declaration & Acceptance of Declaration	44.86	56.25	25.4%	30.10	76.10	152.8%	38.57	61.57	59.6%
Start Document Control & End Document Control	N/A	N/A		N/A	N/A		N/A	N/A	
Finding of Inspector	60.00	0.00	-100.0%	60.00	60.00	0.0%	65.00	53.67	-17.4%
Unloading and Classifying	N/A	N/A		100.00	91.67	-8.3%	75.56	134.45	77.9%
Another Time Finding of Inspector	N/A	N/A		N/A	N/A		N/A	N/A	
Start of Inspection & End of Inspection	70.00	0.00	-100.0%	51.00	25.00	-51.0%	202.50	39.20	-80.6%
JISM	10.00	0.00	-100.0%	51.00	23.33	-54.2%	327.22	30.00	-90.8%
Agriculture	N/A	N/A		N/A	N/A		N/A	N/A	
Medical/Health	N/A	N/A		N/A	N/A		N/A	N/A	
Other		N/A			N/A			N/A	
Assessment of Duty	31.88	4.75	-85.1%	96.52	21.06	-78.2%	69.05	27.94	-59.5%
Payment	7.50	6.88	-8.3%	8.76	16.26	85.6%	14.00	21.78	55.6%
Release	8.60	20.00	132.6%	18.44	20.00	8.5%	12.39	42.50	243.0%
Removal from Customs Control	29.00	150.00	417.2%	88.63	67.50	-23.8%	78.35	80.00	2.1%
Total Average	261.84	237.88	-9.2%	504.45	400.92	-20.5%	882.64	491.11	-44.4%

**Table 10. Average proportion of release time for the Abdullah Customs Center with respect to the present and previous study**

After	Green			Yellow			Red		
	Before	After	% Change	Before	After	% Change	Before	After	% Change
Lodgment of Declaration & Acceptance of Declaration	4.67	N/A		16.00	1.67	-89.6%	11.80	1.75	-85.2%
Document Presentation & Start Document Control	N/A			13.00	0.00	-100.0%	4.33	0.00	-100.0%
Start Document Control & End Document Control	1.67	N/A		22.50	2.40	-89.3%	1.60	3.50	118.8%
Finding of Inspector	3.00	N/A		N/A	3.17		2.00	10.50	425.0%
Unloading and Classifying	8.00	N/A		N/A	N/A		9.00	0.00	-100.0%
Another Time Finding of Inspector	N/A	N/A		N/A	N/A		1.50	0.00	-100.0%
Start of Inspection & End of Inspection	5.00	N/A		N/A	11.50		8.00	16.25	103.1%
Lab. Analysis	35.00			N/A			N/A	N/A	
JISM	3.50	N/A		N/A	7.80		2.00	6.50	225.0%
Agriculture	N/A	N/A		N/A	N/A		N/A	N/A	
Medical/Health	N/A	N/A		N/A	N/A		N/A	N/A	
Other		N/A			N/A			N/A	
Assessment of Duty	5.00	N/A		2.50	4.50	80.0%	3.50	8.75	150.0%
Payment	1.00	N/A		1.50		-100.0%	2.80	0.00	-100.0%
Release	2.33	N/A		3.00	1.00	-66.7%	3.60	1.00	-72.2%
Removal from Customs Control	14.00	N/A		12.50	0.00	-100.0%	11.20	0.00	-100.0%
Total Average	83.17	N/A		71.00	32.03	-54.9%	61.33	48.25	-21.3%

**Table 11. Average proportion of release time for the Jaber Customs Center with respect to the present and previous study**

After	Green			Yellow			Red		
	Before	After	% Change	Before	After	% Change	Before	After	% Change
Lodgment of Declaration & Acceptance of Declaration	6.25	8.38	34.0%	5.20	3.55	-31.8%	7.50	3.33	-55.6%
Start Document Control & End Document Control	10.00	2.25	-77.5%	5.90	2.82	-52.2%	15.00	2.74	-81.7%
Finding of Inspector	N/A	N/A		15.31	0.00	-100.0%	7.00	0.00	-100.0%
Unloading and Classifying	N/A	N/A		N/A	25.00		N/A	26.30	
Another Time Finding of Inspector	N/A	N/A		N/A	N/A		N/A	N/A	
Start of Inspection & End of Inspection	N/A	N/A		37.36	7.86	-79.0%	42.50	10.00	-76.5%
JISM	N/A	N/A		N/A	N/A		N/A	N/A	
Agriculture	N/A	N/A		N/A	N/A		N/A	129.71	
Medical/Health	N/A	N/A		N/A	N/A		N/A	N/A	
Other		N/A		N/A	15.22			16.38	
Assessment of Duty	7.50	2.50	-66.7%	7.86	3.55	-54.9%	10.83	5.00	-53.8%
Payment	N/A	3.13		N/A	4.45		N/A	4.91	
Release	8.75	3.25	-62.9%	5.94	3.82	-35.7%	7.50	5.09	-32.2%
Removal from Customs Control	8.75	20.00	128.6%	30.00	23.13	-22.9%	9.17	27.12	195.8%
Total Average	41.25	39.50	-4.2%	107.57	89.39	-16.9%	99.50	230.58	131.7%

**Table 12. Average proportion of release time for the Omari Customs Center with respect to the present and previous study**

After	Green			Yellow			Red			DO5		
	Before	After	% Change	Before	After	% Change	Before	After	% Change	Before	After	% Change
Lodgment of Declaration & Acceptance of Declaration	9.23	16.00	73.3%	16.97	19.49	14.9%	16.07	19.00	18.2%	13.45	0.00	-100.0%
Start Document Control & End Document Control	N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A	
Finding of Inspector	4.00	2.50	-37.5%	4.43	2.72	-38.5%	4.57	2.33	-48.9%	4.56	1.17	-74.3%
Unloading and Classifying	N/A	N/A		43.33	0.00	-100.0%	31.10	22.10	-28.9%	N/A	7.56	
Another Time Finding of Inspector	N/A	N/A		33.29	0.00	-100.0%	8.27	4.10	-50.4%	N/A	1.33	
Start of Inspection & End of Inspection	4.00	4.00	0.0%	8.93	3.53	-60.5%	8.43	11.91	41.3%	3.56	4.67	31.1%
JISM	N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A	
Agriculture	5.54	5.00	-9.7%	3.50	4.47	27.6%	7.50	0.00	-100.0%	N/A	N/A	
Medical/Health	N/A	N/A		N/A	N/A		N/A	N/A		N/A	N/A	
Other		N/A			N/A			N/A			N/A	
Assessment of Duty	5.15	0.00	-100.0%	7.73	0.00	-100.0%	7.62	0.00	-100.0%	N/A	N/A	
Payment	N/A	8.00		N/A	7.41		N/A	8.42		N/A	N/A	
Release	7.62	11.67	53.1%	8.23	7.28	-11.5%	8.07	8.20	1.6%	8.05	6.57	-18.4%
Removal from Customs Control	14.92	51.67	246.3%	23.93	49.21	105.6%	23.07	45.17	95.8%	12.71	4.87	-61.7%
Total Average	50.46	98.83	95.9%	150.34	94.11	-37.4%	114.70	121.23	5.7%	42.33	26.16	-38.2%

## 4.2 Results for ASEZA Customs Centers

Table 13 presents the main findings of the study in terms of release time for the previous survey for the ASEZA Customs Centers. As can be seen in the Table, release time, in minutes, for each Center was calculated for each of the 19 stages of the Customs clearance process. Table 14 shows those results as revealed by the present study.

**Table 13. Overall Average for the Previous Study Time Release Results for the Three ASEZA Customs Centers**

Stage	Cargo customs center				Rabia customs center			Passenger Terminal		
	R	G	B	N/A	R	G	B	R	G	B
Arrival of Goods & Start of Unloading	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30.2	N/A	N/A
Start of Unloading & End of Unloading	N/A	N/A	N/A	N/A	N/A	N/A	N/A	146.6	N/A	N/A
Arrival of Goods & End of Unloading	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arrival of Goods & Lodgment of Declaration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lodgment of Declaration & Acceptance of Declaration	53.8	121.6	55.9	50.3	70.3	135.7	50	64.5	N/A	N/A
Request & Document Presentation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Document Presentation & Start Document Control	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Start Document Control & End Document Control	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Finding of Inspector	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Unloading and Classifying	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Another Time Finding of Inspector	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Start of Inspection & End of Inspection	59.2	148.8	73.3	00	366.5	10	15	67.5	N/A	N/A
Lab. Analysis	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
JISM	61.4	110	98.1	00	494.6	35	20	225	N/A	N/A
Agriculture	105	195	71.3	00	N/A	N/A	N/A	8.8	N/A	N/A
Medical/Health	105	150	71.25	00	N/A	N/A	N/A	N/A	N/A	N/A
Assessment of Duty	155.45	26.97	139.73	153	282.9	246.8	183.8	33.58	N/A	N/A
Payment (if required before release)	15	15.13	18.09	30	10.7	15	15	17.84	N/A	N/A
Release	N/A	N/A	N/A	N/A	N/A	N/A	N/A	23.44	N/A	N/A
Removal from Customs Control	N/A	N/A	N/A	N/A	N/A	N/A	N/A	34.64	N/A	N/A
<b>Total time (min)</b>	<b>554.85</b>	<b>767.67</b>	<b>527.67</b>	<b>233.3</b>	<b>1225</b>	<b>442.5</b>	<b>283.8</b>	<b>652.1</b>	<b>N/A</b>	<b>N/A</b>

Table 14. Overall Average for the Present Study Time Release Results for the Six ASEZA Customs Centers

Stages	Rabia			Cargo customs center				Passenger Terminal	Storage	Dorah	Air Port (Aqaba)	
	G	B	R	G	B	R	N/A	N/A	N/A	N/A	G	B
Lodgment of Declaration & Acceptance of Declaration	42.5	77.5	133.9	42.5	65.0	62.6	139.6	36.4	200.5	24.2	57.7	52.5
Start Document Control & End Document Control	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A
Finding of Inspector	N/A	N/A	N/A	N/A	N/A	60.0	N/A	N/A	N/A	N/A	N/A	N/A
Unloading and Classifying	N/A	N/A	N/A	N/A	N/A	72.2	N/A	N/A	N/A	N/A	N/A	N/A
Another Time Finding of Inspector	N/A	N/A	N/A	N/A	N/A	26.7	N/A	N/A	N/A	N/A	N/A	N/A
Start of Inspection & End of Inspection	N/A	10.0	12.4	N/A	N/A	79.1	N/A	N/A	N/A	25.0	N/A	N/A
JISM	N/A	N/A	35.0	1.0	35.0	127.3	N/A	N/A	N/A	N/A	N/A	N/A
Agriculture	N/A	N/A	27.5	N/A	N/A	72.5	N/A	7.5	N/A	N/A	N/A	N/A
Medical/Health	N/A	N/A	35.0	N/A	N/A	85.0	N/A	N/A	N/A	N/A	N/A	N/A
Other	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Assessment of Duty	N/A	N/A	N/A	50.0	32.5	71.8	N/A	N/A	N/A	N/A	N/A	N/A
Payment	13.0	5.0	14.7	30.5	10.0	27.2	N/A	14.3	25.0	N/A	5.3	5.0
Release	15.0	N/A	5.0	N/A	N/A	N/A	N/A	8.0	N/A	N/A	N/A	N/A
Removal from Customs Control	22.5	N/A	5.0	N/A	N/A	N/A	N/A	66.2	N/A	N/A	N/A	N/A
<b>Total Average</b>	<b>93.1</b>	<b>92.5</b>	<b>268.6</b>	<b>124.0</b>	<b>142.5</b>	<b>684.3</b>	<b>139.6</b>	<b>132.3</b>	<b>225.5</b>	<b>49.2</b>	<b>63.0</b>	<b>57.5</b>

Figure 3 graphically depicts the differences between the total averages in the Table 13 and 14.

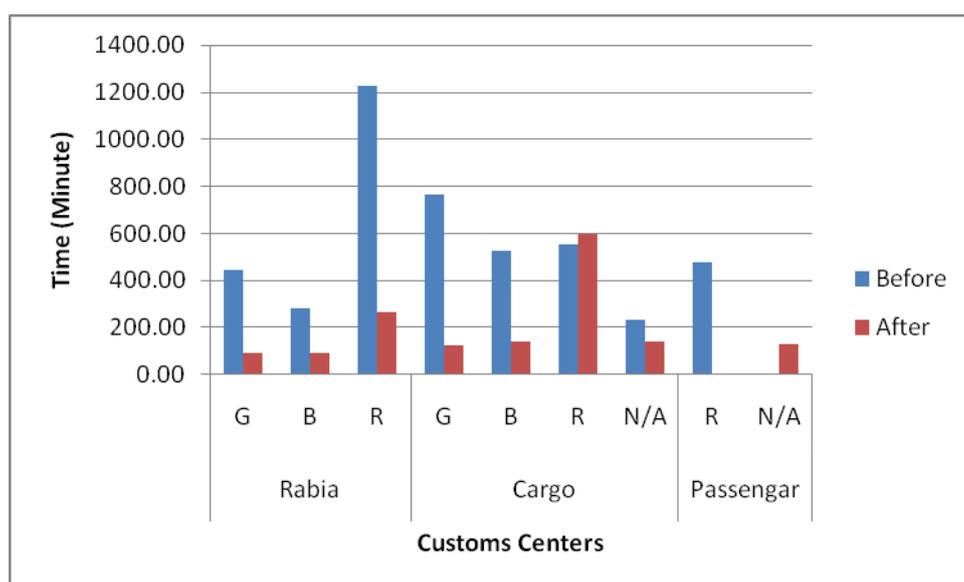


Figure 3. Total Average Release Times for the Present and Previous Study Time for three ASEZA Customs Centers

As can be seen in the Figure, there is an improvement in all ASEZA Customs Centers, except for red lane declarations through the Cargo Customs Center.

Tables 15 through 17 present the average proportion of release time for each of the various stages for the present and previous studies. The Tables also present the percentage change in time release between the two studies. A positive value indicates that the average release time at the given stage has increased when compared to the previous analysis. However, a negative value indicates that the average release time has dropped for the present study when compared to the previous one.

**Table 15. Average proportion of release time for the Rabia Customs Center with respect to the present and previous studies**

After	Green			Blue			Red		
	Before	After	% Change	Before	After	% Change	Before	After	% Change
Lodgment of Declaration & Acceptance of Declaration	135.7	42.5	-68.7%	50	77.5	55.0%	70.3	133.9	90.5%
Start Document Control & End Document Control	0	0		0	0		0	0	
Finding of Inspector	0	0		0	0		0	0	
Unloading and Classifying	0	0		0	0		0	0	
Another Time Finding of Inspector	0	0		0	0		0	0	
Start of Inspection & End of Inspection	10	0	-100.0%	15	10	-33.3%	366.5	12.4	-96.6%
JISM	35	0	-100.0%	20	0	-100.0%	494.6	35	-92.9%
Agriculture	0	0		0	0		0	27.5	
Medical/Health	0	0		0	0		0	35	
Other	0	0		0	0		0	0	
Assessment of Duty	246.8	0	-100.0%	183.8	0	-100.0%	282.9	0	-100.0%
Payment	15	13		15	5		10.7	14.7	
Release	0	15		0	0		0	5	
Removal from Customs Control	0	22.5		0	0		0	5	
<b>Total Average</b>	<b>442.5</b>	<b>93.1</b>	<b>-79.0%</b>	<b>283.8</b>	<b>92.5</b>	<b>-67.4%</b>	<b>1224.9</b>	<b>268.6</b>	<b>-78.1%</b>

**Table 16. Average proportion of release time for the Cargo Customs Center with respect to the present and previous studies**

After	Green			Blue			Red		
	Before	After	% Change	Before	After	% Change	Before	After	% Change
Lodgment of Declaration & Acceptance of Declaration	121.6	42.5	-65.0%	55.9	65	16.3%	53.8	62.6	16.4%
Start Document Control & End Document Control	0	0		0	0		0	0	
Finding of Inspector	0	0		0	0		0	0	
Unloading and Classifying	0	0		0	0		0	72.2	
Another Time Finding of Inspector	0	0		0	0		0	0	
Start of Inspection & End of Inspection	148.8	0	-100.0%	73.3	0	-100.0%	59.2	79.1	33.6%
JISM	110	1	-99.1%	98.1	35	-64.3%	61.4	127.3	107.3%
Agriculture	195	0	-100.0%	71.3	0	-100.0%	105	72.5	-31.0%
Medical/Health	150	0	-100.0%	71.3	0	-100.0%	105	85	-19.0%
Other	0	0		0	0		0	0	
Assessment of Duty	27	13	-51.9%	139.7	32.5	-77.3%	155.5	71.8	-53.4%
Payment	15.1	10	-33.8%	18.1	10	-44.8%	15	27.2	81.3%
Release	0	0		0	0		0	0	
Removal from Customs Control	0	0		0	0		0	0	
<b>Total Average</b>	<b>767.5</b>	<b>124</b>	<b>-83.8%</b>	<b>527.7</b>	<b>142.5</b>	<b>-73.0%</b>	<b>554.8</b>	<b>597.6</b>	<b>7.7%</b>

**Table 17. Average proportion of release time for the Passenger Terminal Customs Center with respect to the present and previous studies**

After	All		
	Before	After	% Change
Lodgment of Declaration & Acceptance of Declaration	64.5	36.4	-43.6%
Start Document Control & End Document Control			
Finding of Inspector			
Unloading and Classifying			
Another Time Finding of Inspector			
Start of Inspection & End of Inspection	67.5		
JISM	225		-100.0%
Agriculture	8.8	7.5	
Medical/Health			
Other			
Assessment of Duty			
Payment	17.8	14.3	-19.7%
Release	23.4	8	-65.8%
Removal from Customs Control	34.6	66.2	91.3%
<b>Total Average</b>	<b>475.3</b>	<b>132.3</b>	<b>-72.2%</b>

## **5.0 BOTTLENECKS AND RECOMMENDATIONS**

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### **5.1 National Customs**

As can be seen from the results in the previous sections, most of the Customs Centers recorded significant reductions in the time release of goods, and some of the lanes in the different Customs Centers reduced the release time by over 70%. As can be seen in the previous table and from data enumerators' field observations, several of the bottlenecks were solved by using simple managerial measures. This section summarizes the differences between the averages in the different stages in each of the Customs Centers for the present and previous time release studies. The results are presented for each Center.

#### **Zarqa Customs Center**

Generally for this Center, the overall release time decreased by more than 40% for both Yellow and Red lanes, largely due to the implementation of ASYCUDAWorld in this Center. Also, there has been an improvement in the quality of the yards, and the inspectors have become more efficient in the inspection. Drivers from the transport companies now remove the goods from the Customs yard as soon as they obtain the release permissions.

#### **Amman Customs Center**

There were still significant delays during the Lodgment of Declaration stage in the yellow and red lanes. It was noticed that in many cases, the brokers still wait to gather a certain number of declarations before starting the processing for them all at once. Therefore, the declarations that are submitted to the broker first are unnecessarily delayed. This was still seen to be a very common practice. It is believed that this bottleneck could be easily removed by improving the procedures followed by the brokers. This could be done by setting a maximum number of declarations that a single broker can submit at one time.

Delays were also observed at this Center as a result of improper document presentation. This is mainly the responsibility of the broker/goods owner. It is believed that this could also be avoided by improving the capacity and the efficiency of brokers.

Again, the Removal from Customs Control stage also appears to cause delays (especially for the yellow and red lane goods). As mentioned earlier, this could be resolved by imposing strict penalties on the transport companies and/or owners for such delays.

Finally, the following was also noticed, which also contributes to the increased time release requirements:

- The yards in Amman Customs are already crowded, the unloading ramps are small, and there was no apparent queuing system for preparing for inspections. It is believed that once the new Customs Center in southern Amman is developed, the operation will be more efficient;
- The annual number of declarations at Amman Customs has significantly increased over the past year. This also contributes to the increased processing time.

#### **Airport Customs Center**

Things were relatively more organized at the Airport Customs Center compared to the other Centers. Release time in the green lane was reduced by more than 70%. In addition, Airport Customs expedites yellow lane transactions in the most cases. For the inspection stage they reduced the time in the red lane by more than 50% by

installing new equipment and building new racks and making the Customs' yard more organized. Also, drivers from the transport companies now remove the goods from the Customs yard as soon as the release permission is obtained.

However, the biggest bottleneck which has not been solved yet is the period for the start and the end of unloading prior to the lodgment of declaration. This is mainly attributed to the long waiting times prior to the beginning of unloading. The airport has an excellent electronic ticketing/queuing system; however, there were still excessive delays.

#### **Aqaba Customs Center**

The overall improvement in this center was shown in the decrease of the total averages for the green, yellow and red lanes by 9%, 20% and 44% respectively. Generally, the inspection stage for all lanes decreased, including by more than 50% in the yellow lane and 80% in the red lane. However, by definition, inspections should only be conducted for red lane goods. Further, the payment stage and the release stage increased in average time due to the shortage of employees in this section.

#### **King Abdullah/Sahab Customs Center**

The lodgment of declaration stage was significantly decreased at this Center, and the total average was decreased to 55% and 21% for yellow and red lanes, respectively. It was observed that the finding of inspector, inspection, and assessment of duty stages increased in average time because there is a shortage in employees and the area that has to be covered by the inspectors is relatively large.

#### **Jaber Customs Center**

This Center reduced average time in the inspection stage by more than 70% as the inspection became more efficient. However, the removal from Customs stage is still consuming a lot of time in the green and red lanes.

#### **Omari Customs Center**

The major improvement at this Center is attributed to an overall reduction of time in the yellow lane due to major reductions surrounding inspections and assessment of duty. However, the time required for removal from Customs control increased in all lanes.

### **5.2 ASEZA Customs**

As can be seen from the results in the previous sections, most of the Customs Centers recorded significant reductions in the time release of goods, and some of the lanes in the different Customs Centers reduced the release time by more than 80. As can be seen in the previous table and from data enumerators' field observations several of the bottlenecks were solved by using simple managerial measures. This section summarizes the changes in average time for the different stages for each Customs Center between the present and previous time release studies. The results are presented for each center.

#### **Cargo Customs Center**

Generally for this Center, the total average release time dropped for the green and blue (or "yellow") lanes by more than 83% and 73%, respectively, but there are still some problems with the "Lodgment of Declaration & Acceptance of Declaration" stage for blue and red lanes, and it is still found to be time consuming. The data enumerators indicated that the brokers still wait to gather a certain number of declarations before starting the processing for them all at once. Therefore, the declarations that are submitted to the broker first continue to be unnecessarily delayed.

The inspection area in the Cargo Customs Center has started to eliminate actual inspection of goods in the blue lane; therefore, the average time for clearance in the blue lane has decreased. Although inspection is a sensitive stage that should not be jeopardized, the introduction of better equipment to assist officers in the inspection of red lane goods is believed to have great potential.

### **Rabia Customs Center**

The overall improvement at this Center led to reductions in the total averages for the green, blue and red lanes by 79%, 67% and 78% respectively. The highest reduction was in the inspection stage for red lane which exceeded 90%.

There were still significant delays during the Lodgment of Declaration stage in blue and red lanes. The cause, however, is the same as before: the brokers wait to gather a certain number of declarations before starting the processing for them all at once. Therefore, the declarations that are submitted to the broker first are unnecessarily delayed.

### **Passenger Terminal**

Generally for this Center, the total average release time dropped by more than 72% due to the reduction in the percentage of goods sent to the red lane, reducing the number of shipments subject to full physical inspection. Furthermore, processing time for all stages was improved and the average time for each dropped significantly.

### **Storage Department**

The biggest bottleneck observed in this center was the lodgment of declaration stage. It was noted that there are only two stages for this center which are Lodgment of Declaration stage and Payment stage. The data enumerators indicated that, as at other Centers, the brokers here wait to gather a number of declarations before processing them all at once. Therefore, the declarations that are submitted to the broker first are unnecessarily delayed.

### **Dura**

This center is small and the number of declarations is relatively small. The total average time for release is not high relative to other Centers.

### **Aqaba Airport**

In general, the total average release time was relatively small and didn't consume much time relative to other Centers due to the small number of declarations.

## ANNEXES

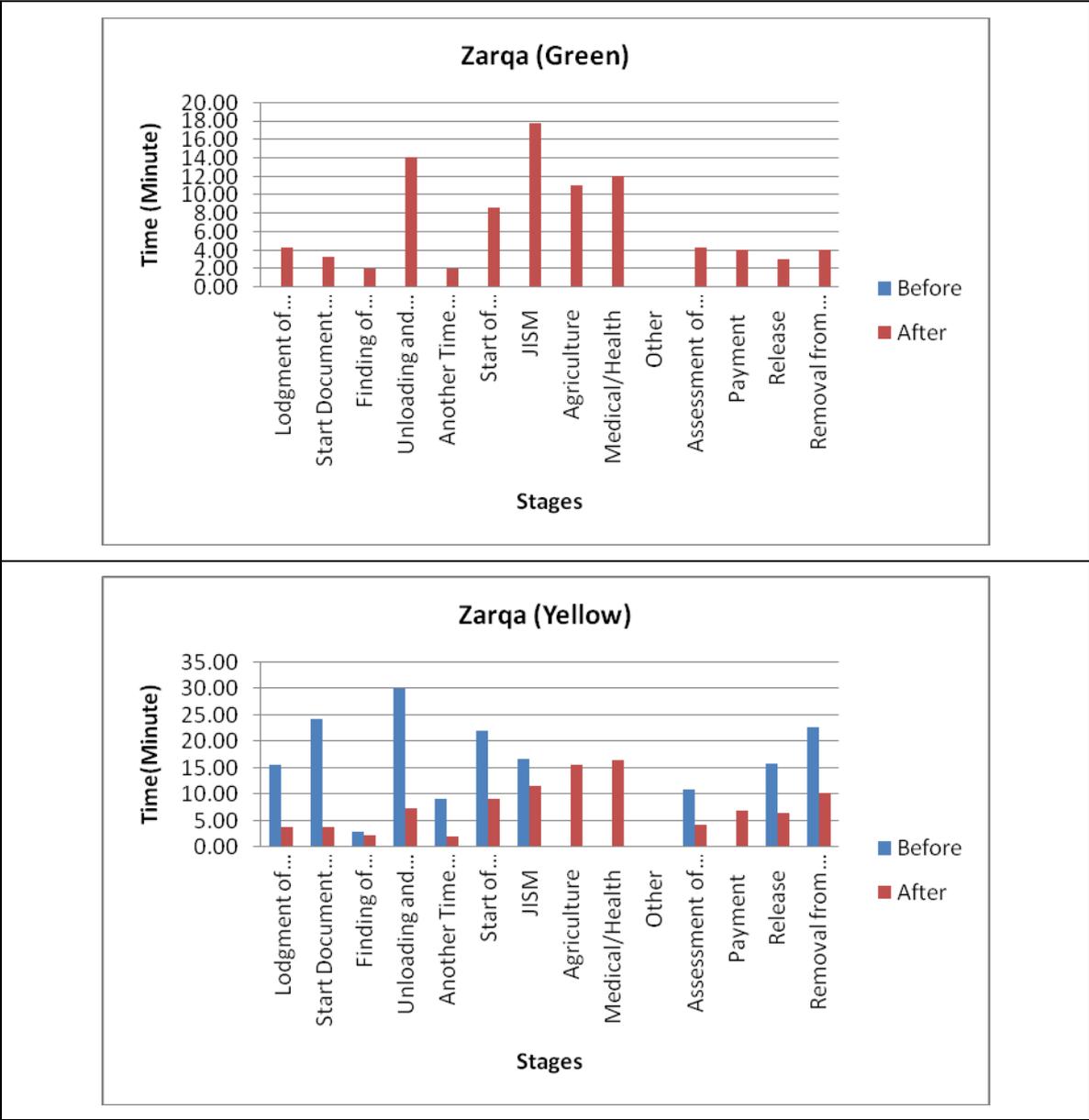
## ANNEX I: SURVEY TOOL

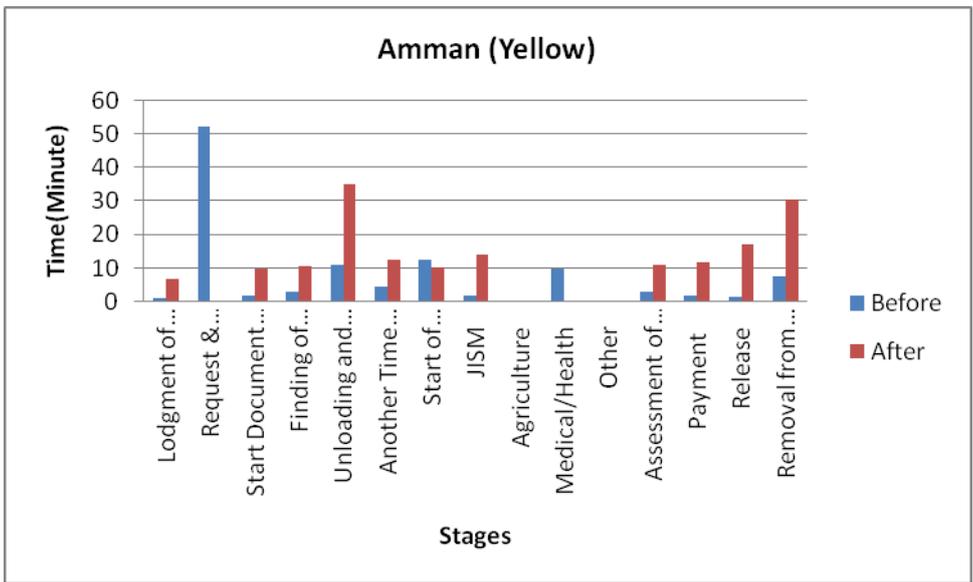
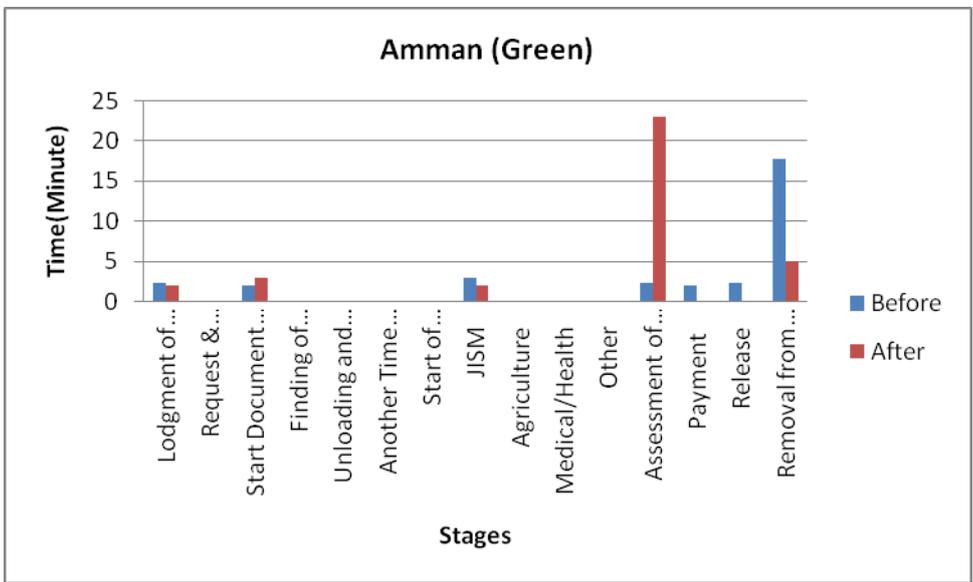
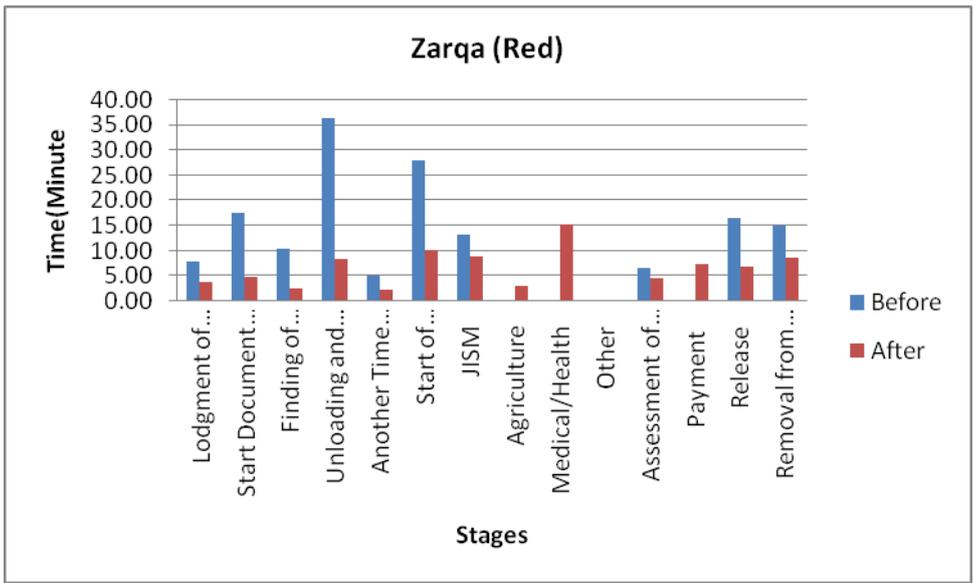
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3	إسم الناقل <input type="text"/>
4	طريقة النقل <input type="checkbox"/> جوا <input type="checkbox"/> بحرا <input type="checkbox"/> سكة حديد <input type="checkbox"/> طريق <input type="checkbox"/> نهر <input type="checkbox"/> أخرى
5	نوع الوثيقة <input type="checkbox"/> فاتورة نقل جوي <input type="checkbox"/> فاتورة نقل بحري <input type="checkbox"/> مذكرة إرسال <input type="checkbox"/> منافست <input type="checkbox"/> مذكرة ودیعة <input type="checkbox"/> ملف متعدد الاشكال <input type="checkbox"/> وثائق مدمجة
6	رقم وثيقة النقل <input type="text"/>
7	رقم البيان الجمركي <input type="text"/>
8	رمز المصرح <input type="checkbox"/> مخلص <input type="checkbox"/> مندوب <input type="checkbox"/> صاحب البضائع
9	اسم ورقم ضريبي للمصرح الاسم <input type="text"/> الرقم الضريبي <input type="text"/>
10	نوع البيان الجمركي <input type="checkbox"/> نموذج المعاينة <input type="checkbox"/> أخرى (فاتورة, وثائق شحن)
11	عنوان التعريف HS <input type="text"/> تصنيف البضائع <input type="checkbox"/> منخفضة <input type="checkbox"/> متوسطة <input type="checkbox"/> عالية القيمة الوزن <input type="text"/> المصدر <input type="text"/>
12	الوضع الجمركي <input type="checkbox"/> خاضع للرسوم <input type="checkbox"/> غير خاضع للرسوم <input type="checkbox"/> معلق الرسوم/معفى / إعانة
الجزء الثاني	
13	وصول البضائع التاريخ <input type="text"/> الوقت <input type="text"/>
14	بداية التفريغ التاريخ <input type="text"/> الوقت <input type="text"/>
15	انتهاء التفريغ التاريخ <input type="text"/> الوقت <input type="text"/>
16	الإيصال الى المخزن التاريخ <input type="text"/> الوقت <input type="text"/>
الجزء الثالث	
17	تسجيل البيان التاريخ <input type="text"/> الوقت <input type="text"/>
18	قبول البيان التاريخ <input type="text"/> الوقت <input type="text"/>
19	الوثائق المرفقة نعم <input type="checkbox"/> لا <input type="checkbox"/>
20	استكمال الوثائق إن دعة الحاجة نعم <input type="checkbox"/> لا <input type="checkbox"/>
21	طلب وثائق نعم <input type="checkbox"/> لا <input type="checkbox"/>
22	وقت الطلب التاريخ <input type="text"/> الوقت <input type="text"/>
23	وقت تقديم الوثائق التاريخ <input type="text"/> الوقت <input type="text"/>
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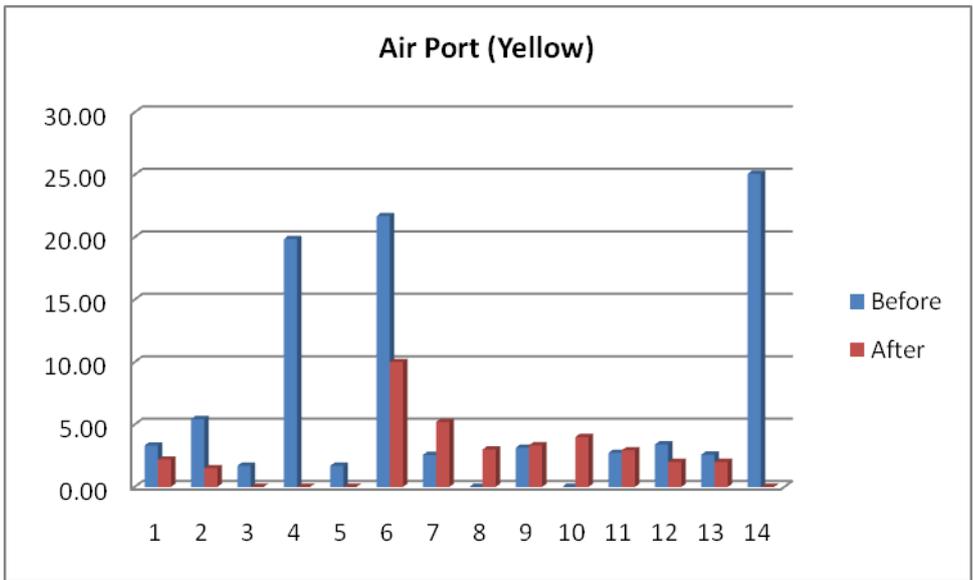
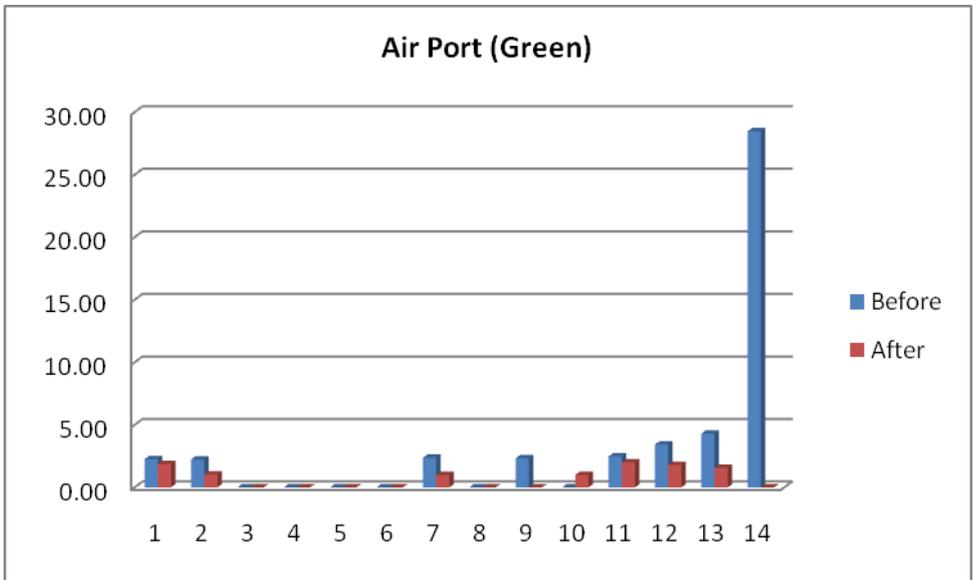
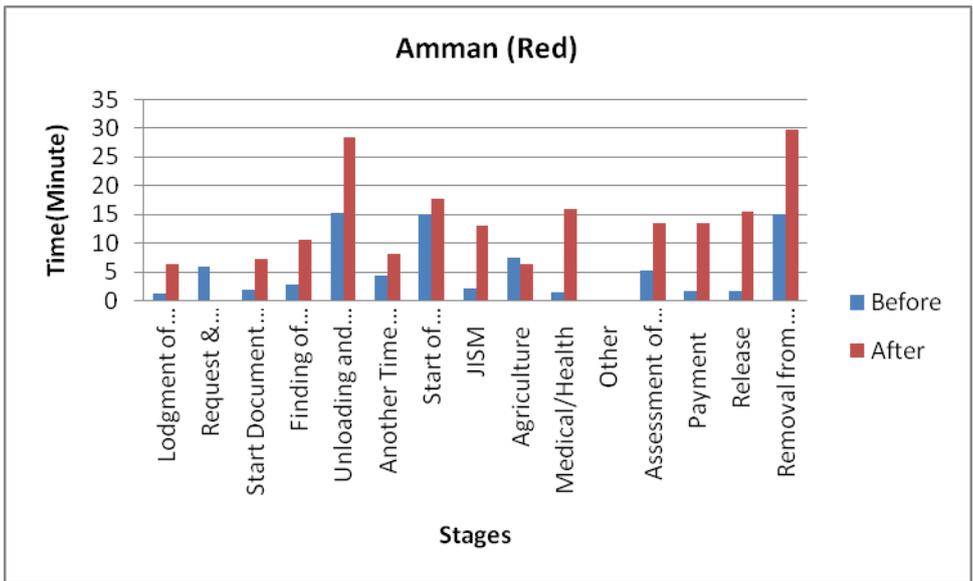
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عشوائي <input type="checkbox"/>	كيفية المعاينة	<input type="checkbox"/>	29	لا <input type="checkbox"/>	نعم <input type="checkbox"/>	معاينة فعلية	28
جرد كامل <input type="checkbox"/>				بدأت	انتهت	بحث عن المعائن	
عشوائي <input type="checkbox"/>	اختيار المعاينة	<input type="checkbox"/>		بدأت	انتهت	تفريغ و فرز	
تحليل مخاطر <input type="checkbox"/>	على اساس	<input type="checkbox"/>		بدأت	انتهت	بحث عن المعائن مرة أخرى	30
نهاية المعاينة	التاريخ	الوقت	32	بداية المعاينة	التاريخ	الوقت	31
الوقت	التاريخ	بداية التحليل	34	لا <input type="checkbox"/>	نعم <input type="checkbox"/>	مختبر للتحليل	33
استلام نتيجة التحليل	التاريخ	الوقت	36	نهاية التحليل	التاريخ	الوقت	35
<b>الجزء الخامس</b>							
				لا <input type="checkbox"/>	نعم <input type="checkbox"/>	تداخل مع الجهات الأخرى	37
انتهت	التاريخ	الوقت	39	بداية	التاريخ	الوقت	38
انتهت	التاريخ	الوقت	41	بداية	التاريخ	الوقت	40
انتهت	التاريخ	الوقت	43	بداية	التاريخ	الوقت	42
انتهت	التاريخ	الوقت	45	بداية	التاريخ	الوقت	44
<b>الجزء السادس</b>							
انتهى	التاريخ	الوقت	47	بداية	التاريخ	الوقت	46
بداية	التاريخ	الوقت	49	<input type="checkbox"/>	نقدا	<input type="checkbox"/>	48
انتهى	التاريخ	الوقت		<input type="checkbox"/>	امر بنكي	<input type="checkbox"/>	
تاريخ الاستحقاق				<input type="checkbox"/>	أخرى(حدد)		
خروج من حوزة الجمارك	بداية	التاريخ	الوقت	بداية	التاريخ	الوقت	50
انتهى	التاريخ	الوقت	51	انتهت	التاريخ	الوقت	

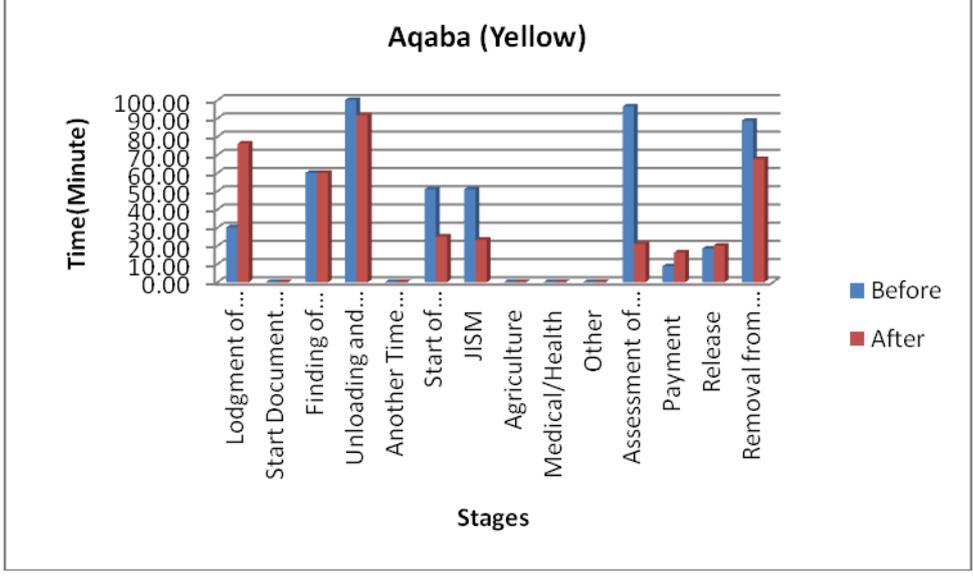
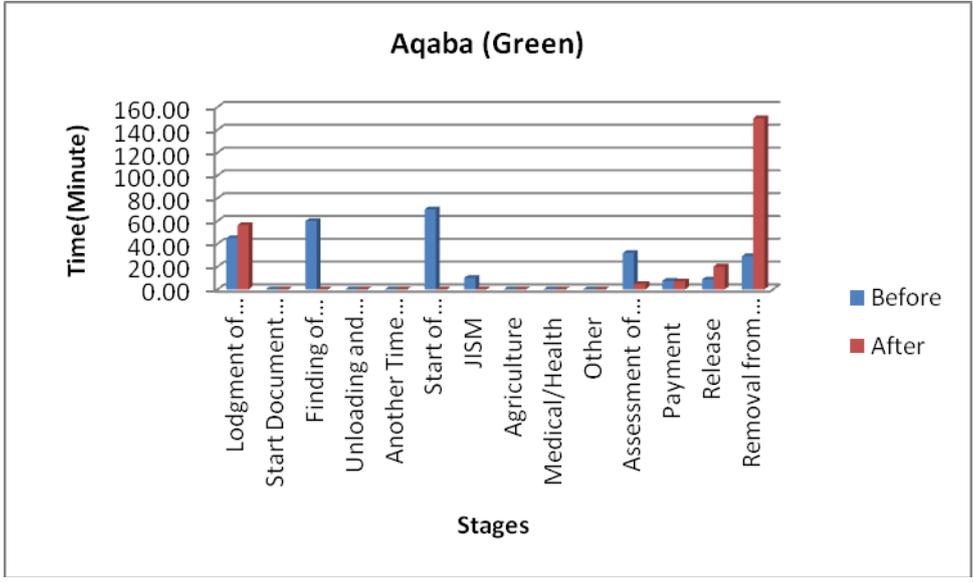
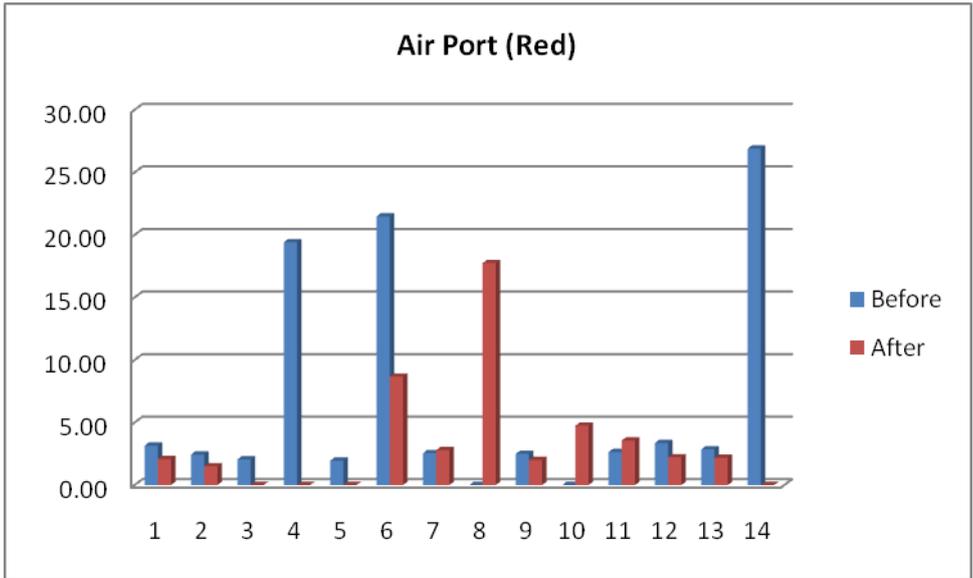
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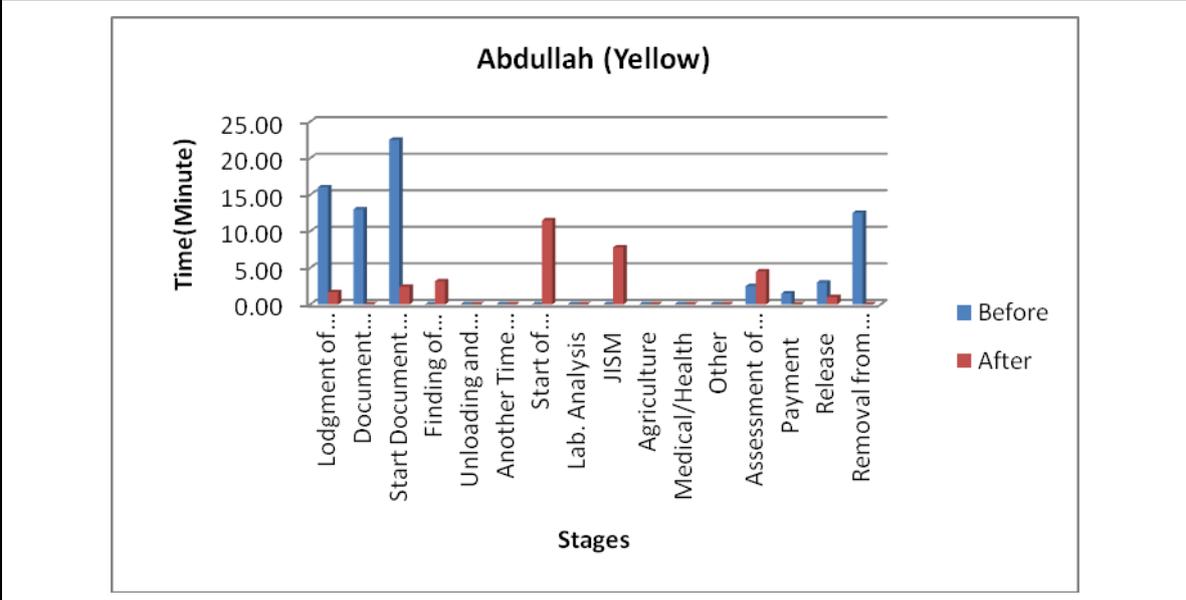
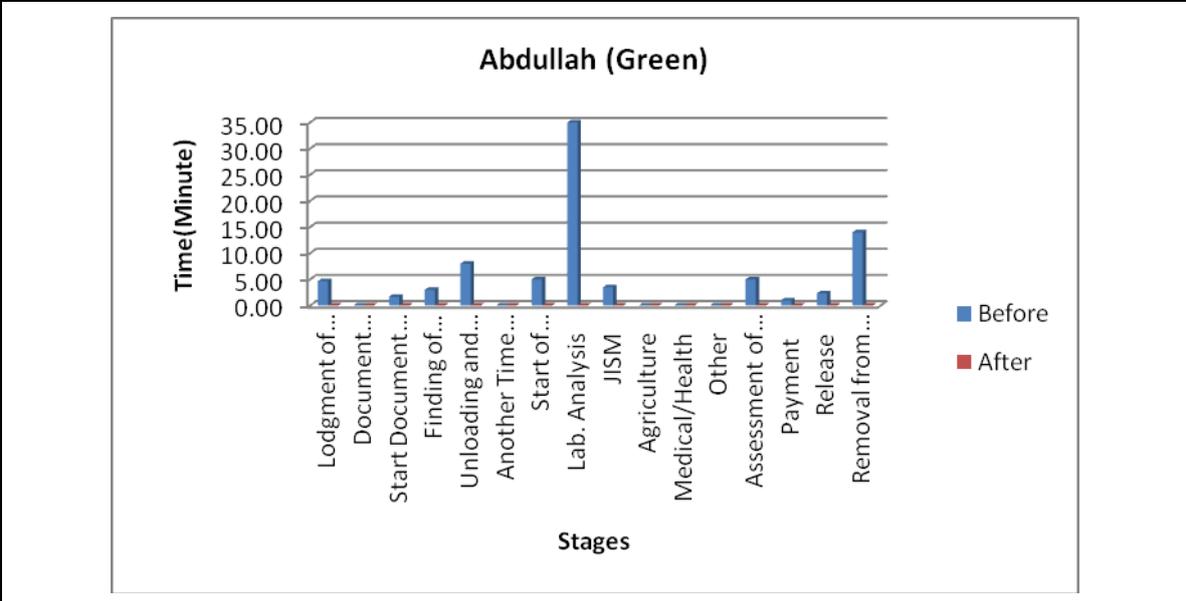
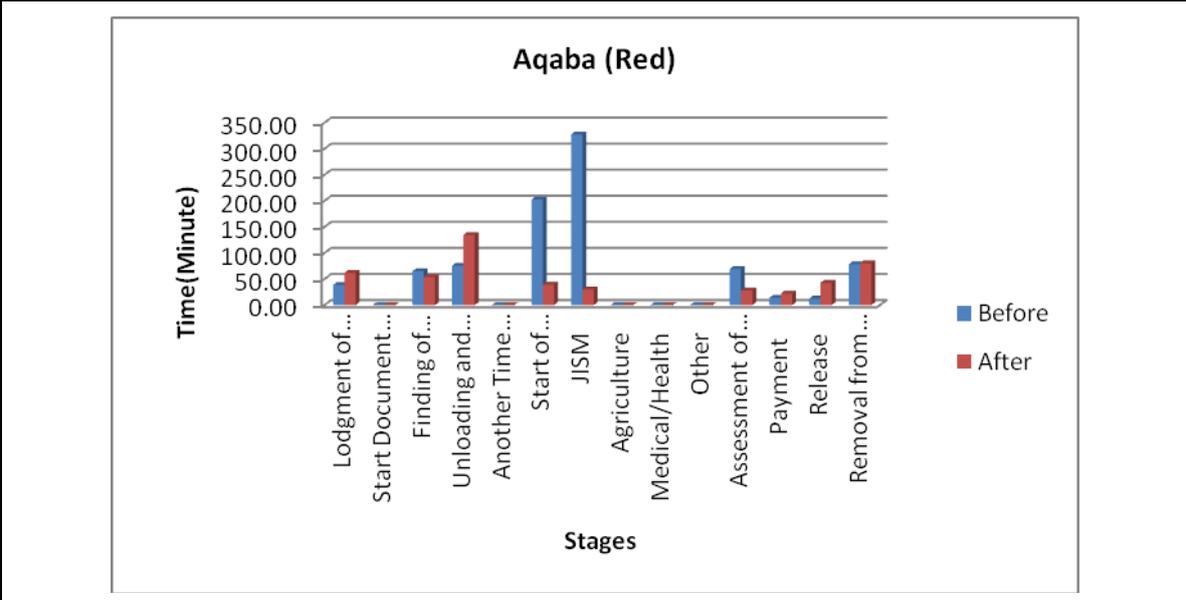
### **ANNEX III: GRAPHICAL DIFFERENCE OF TIMES-NATIONAL**

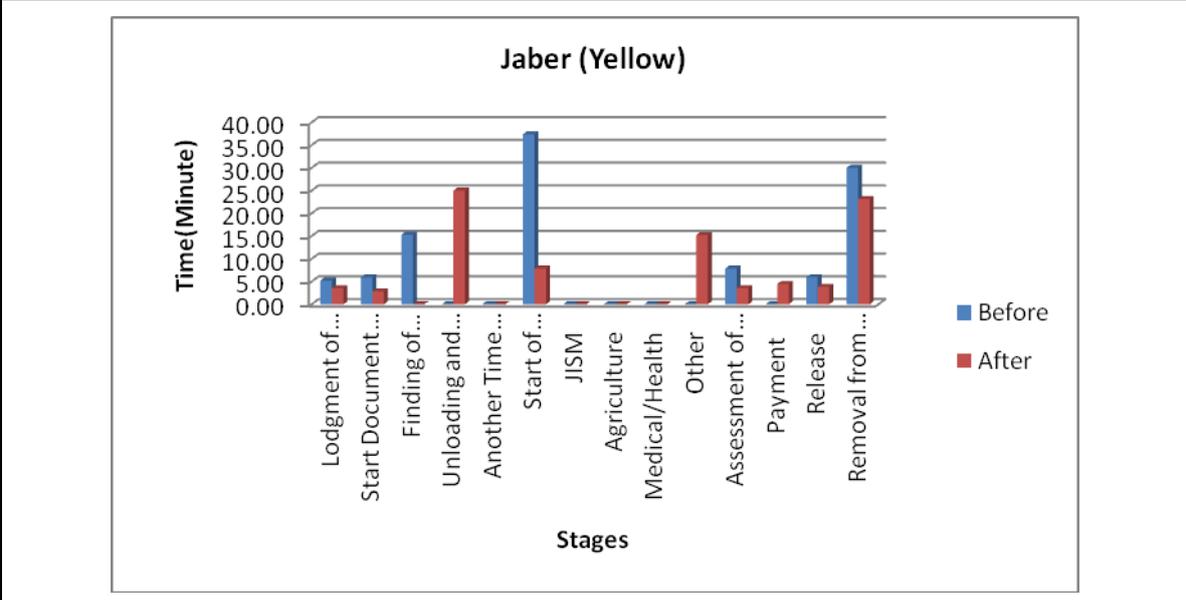
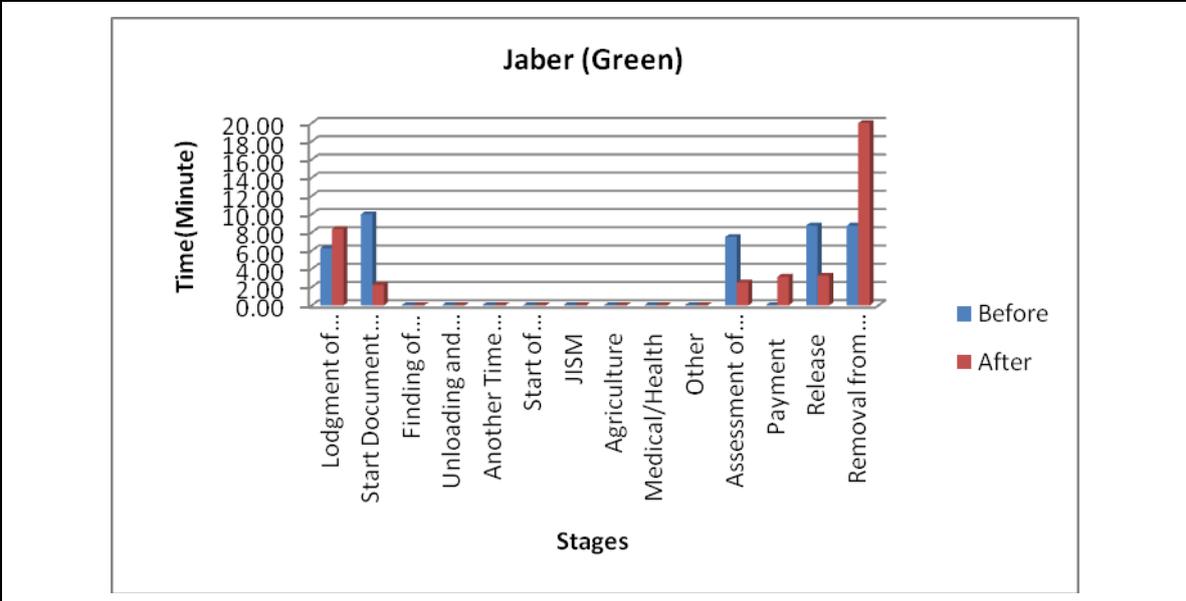
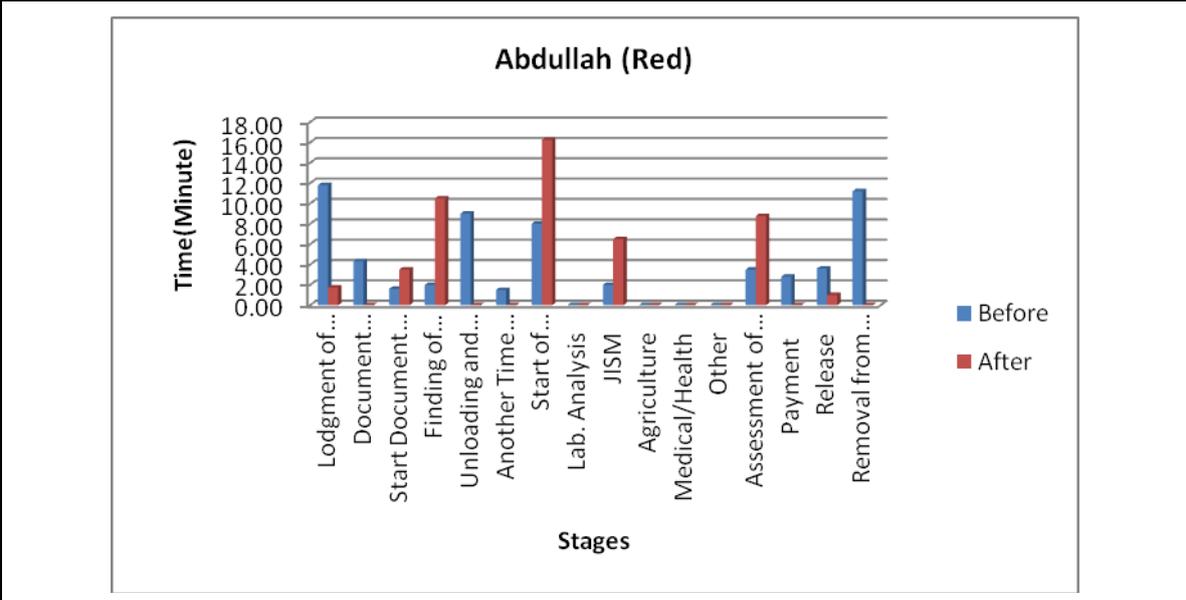


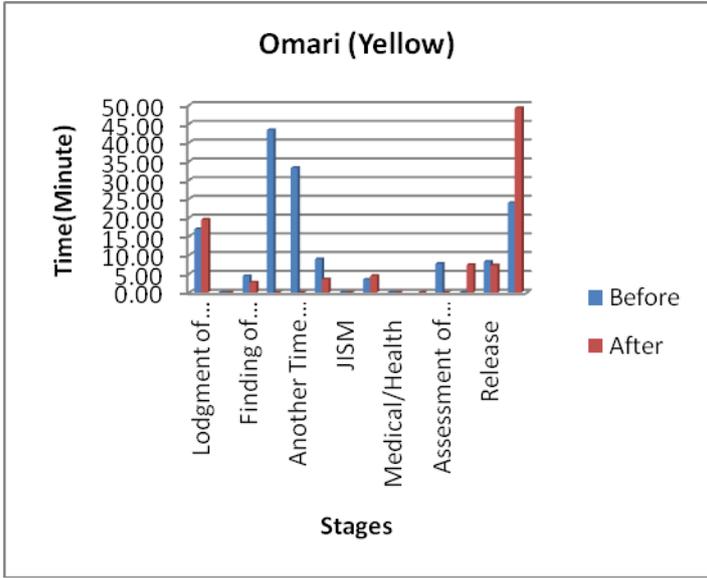
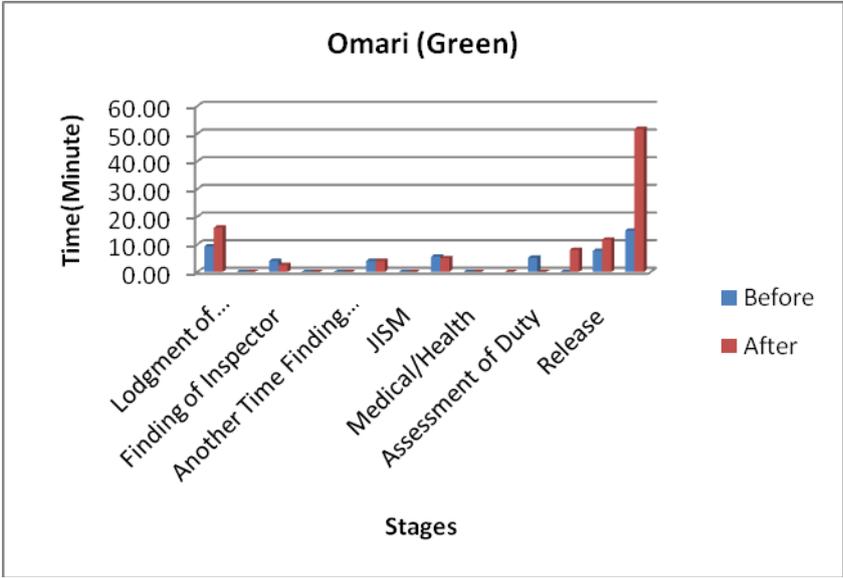
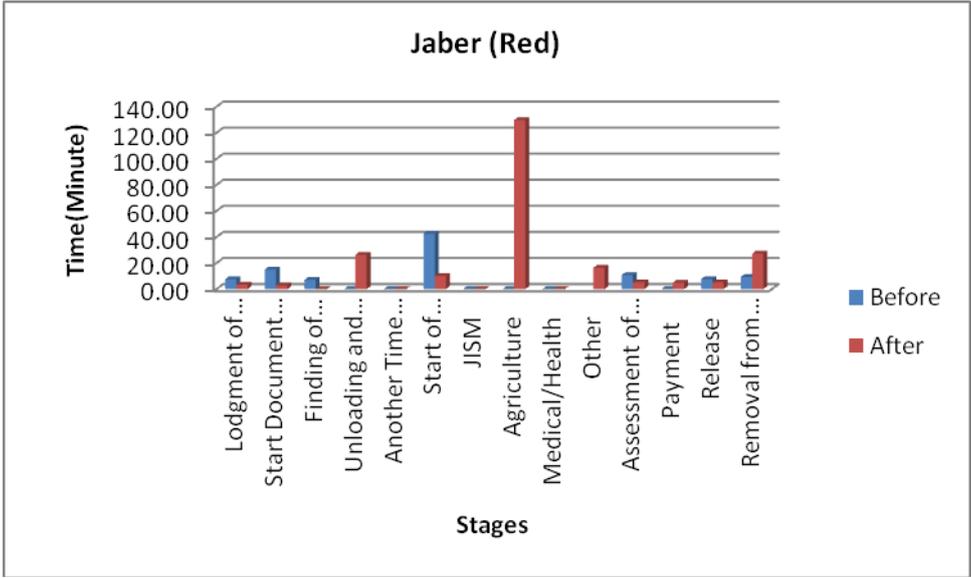


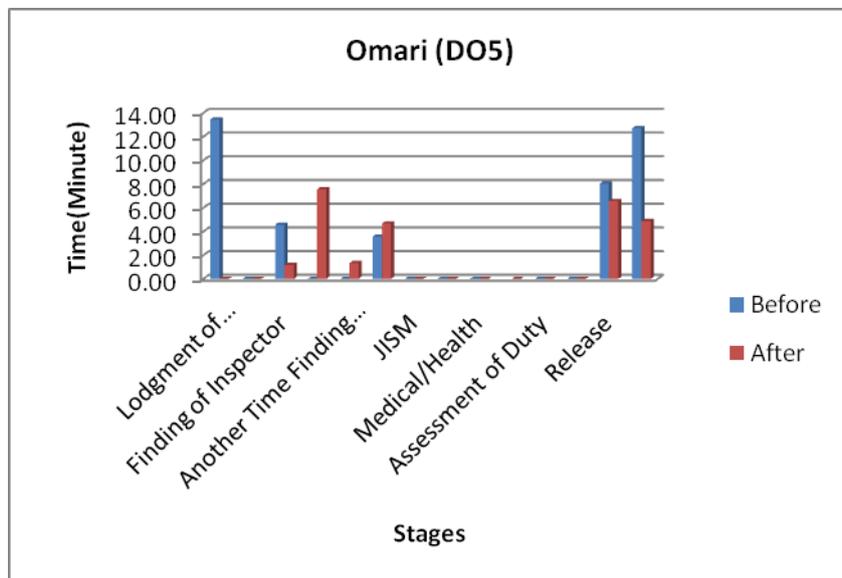
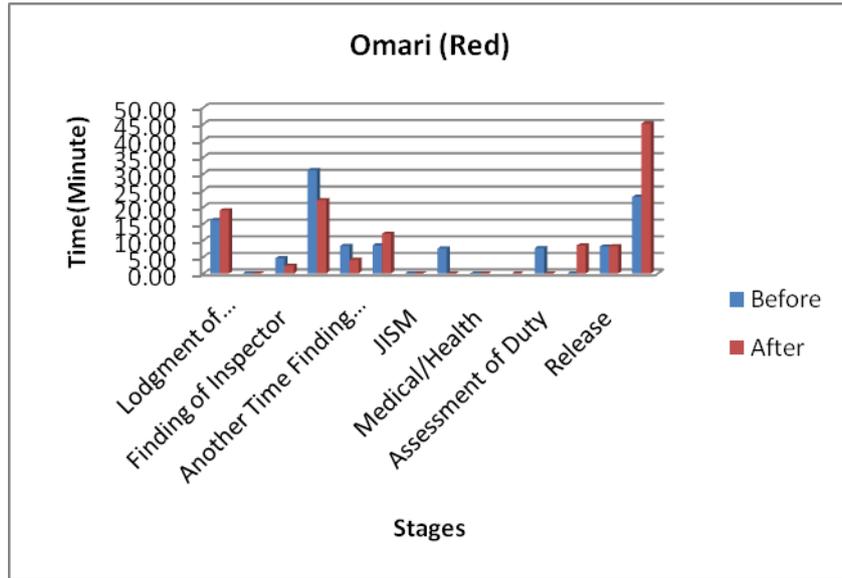












## ANNEX IV: GRAPHICAL DIFFERENCE OF TIMES-ASEZA

