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# **Background Paper on Effective Supply Chains and Integrated Regional Value Chains Within the SDGs Framework**

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## Introduction

This background paper is drafted based on a mapping of available relevant data on trade within the SDGs framework and value chain widening and supply chain strengthening as compiled in the Outline Structure Report within the Chapter “Review of existing literature on trade within the SDGs framework and identification of key data”.

The paper is organized around the following sections. Section 1 presents the conceptual framework defining the value chain and supply chain concepts, highlighting the link between trade and sustainable development and examining the role of the agri-food value chain in enhancing sustainable development, supporting local development, and alleviating poverty. Section 2 offers a set of supply chain case studies and a general analysis and assessment for the Arab region. Section 3 looks into the value chain in relation with developing regional integration and section 4 concludes and offers a set of recommendations.

### I. Conceptual Framework

Trade promotes technology transfer, enhanced competition, and the exploitation of economies of scale. As a matter of fact, trade openness leads to increased competition allowing an optimal allocation of resources and stimulating production efficiency via the growth of specialization and income levels. This supports sustainability and efforts to eradicate poverty.

The 2030 Agenda for Sustainable Development is a commitment to eradicate poverty and achieve “sustainable development by 2030 world-wide, ensuring that no one is left behind”. Among the 17 SDGs of the 2030 Agenda, we will focus on those related to:

- Developing trade, particularly:

- Goal 2. b “correct and prevent trade restrictions and distortions in world agricultural markets including their elimination of all forms of export subsidies (DOHA Declaration on Trade);
- Goal 17.11 - Significantly increase the exports of developing countries; and
- Goal 17.12 - Realize timely implementation of duty-free and quota-free market access, including transparent, simple and market-facilitating preferential rules of origin applied to imports from LDCs”.

- Enhancing high value added and labor intensive sectors and inclosing of MSMEs in High-Value Agro-chains through improving their access to markets, training and financing (Goal 8) and developing and operationalize by 2020 a global strategy for youth employment and implement the Global Jobs Pact of the International Labor Organization (Goal 8 b); and

- Widening value chain through developing vertical integration and forward linkages with Services:

- “Build resilient infrastructure including regional and Trans border, promote inclusive and sustainable industrialization and foster innovation” (Goal 9) ;
- “Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of well managed migration policies” (Goal 10.7);
- “Enhance scientific research upgrade the technological capabilities of industrial sectors in particular developing countries, including, by 2030, increasing the number of research and development workers per 1 million” (Goal 9.5);

- “By 2030, provide access to safe, accessible and sustainable transport systems for all” (Goal 11.2);
- “By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses” (Goal 12.3);
- “Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest...”(Goal 10.b);
- “By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domestic animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels” (Goal 2.5); and
- “Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity”.

Those SDGs have been prioritised, in Annex II, in accordance with the various levels of development of Arab countries determining the type of interventions of the value chain.

As factor driven economies is lacking diversification and integration to the Arab Value Chain, and related data is missing, we concentrate our analysis in this paper on efficiency driven and oil importing countries.

## 1. The Value Chain and Supply Chain Concepts

### 1.a Supply Chain

Supply chain encompasses the flow and storage of the raw materials; semi-finished goods and the finished goods from point of origin to its final destination.

The supply chain management is a cross-functional system that manages the movement of raw materials, within the organization and the movement of finished goods out of the firm along with full customer satisfaction side by side.

### 1.b Value Chain

Value Chain refers to the model developed by Michael Porter used to describe the range of activities that consist of adding value to the raw materials to create a finished product. The value chain analysis consists of looking at every production step i.e. designing, producing, and delivering a quality product to the customer. The overall objective is to maximize the value for the least possible cost and to create a competitive advantage.

For the purpose of value chain analysis, Porter splits business activities into two main categories: the primary activities that cover inbound logistics, manufacturing operations, outbound logistics and marketing and sales and services; and the support activities that facilitate the efficiency of the primary activities and include procurement, technology development, human resource management and infrastructure.

While, supply chain activities concern the transfer of materials from one place to another aiming to increase customers’ satisfaction, value chain activities add value to the product aiming to create a competitive advantage.

### 1.c “Producer Driven” and “Buyer-Driven” Value Chains

Both industrial and commercial firms have been promoting globalization by establishing two types of value chains (Gereffi, 1994 & 1999), the “producer driven” and the “buyer-driven” value chains.

In “producer-driven” value chains, large transnational manufacturers play the central roles in coordinating production networks (including their backward and forward linkages). This is typical of capital and technology intensive industries such as chemical industries, the automotive, aircraft, computer, semiconductors and heavy machinery industries. The lead firms usually belong to international oligopolies.

“Buyer-driven” value chains are those in which large retailers, marketers and brand manufacturers play the pivotal roles in setting up decentralized production networks in a variety of exporting countries, typically developing countries. This is typical of labor-intensive industries that produce consumer goods such as food preparations, garments, footwear, toys and consumer electronics.

Unlike “producer-driven” chains, where profits come from scale, volume and technological advances, “buyer-driven” chains generate profits from high-value research, design, marketing and financial services. In analyzing the inclusion in the Global Value Chain/Regional Value Chain we will focus, globally/regionally, both on the backward connections that track linkages with suppliers of raw materials, components, and intermediary products and forward linkages with distributors and retailers.

Linkages between sub-sectors (industries) in a national economy are tracked within the Input and Output Matrix (Leontief Matrix).

Linkages between industries and related services providers will be tracked when analyzing the performance of the supply chain (logistics and transportation), the administrative services, involving business environment such as customs procedures, and quality standards and control.

As far as Arab countries are concerned, the inclusion into the regional value chain is very weak because oil exporting economies are not diversified, mostly factor driven and present producer driven chains limited to oil by products traded outside the Arab region; while oil importing economies, particularly Agadir countries, are mostly integrated to the EU value chain with non-significant partnership between them.

The few cases of identified complementarities and potential regional integration have been analyzed in the Agadir studies and concerned textile and garments, automotive and agri-food sectors.

The analysis of the value chain versus regional integration will be focused on the agri-food sector as it is the most integrated in the Arab region and with the highest impact on local development and poverty alleviation.

## 2. The Role of the Agroindustry Value Chain in Enhancing Sustainable Development

This section is based on a mapping of existing literature and relevant data and quantitative analysis on agroindustry value chain in enhancing Sustainable Development Goals and identifies relevant studies initiated by UNIDO, FAO and the ATU “Agadir Technical Unit”.

### The UNIDO Study on Agro-Value Chain Analysis and Development

This study highlighted particularly a big gap in terms of processing capabilities between the developing and developed countries. The United Nations Industrial Development Organization estimated that the value-added of processed agricultural products is 4.5 times less important in developing countries than in industrialized ones. Thus, there is an important room for developing countries to widen their value chain and increase employment through enhancing trade.

The degree of integration in the global value chain is assessed based on case studies concerning relevant projects performed by the UNIDO.

### The FAO Study - Developing Sustainable Food Value Chains Guiding Principles-2014

The FAO study entitled “Developing sustainable food value chains Guiding Principles-2014” contributes to the achievement of FAO’s Strategic Objective Four: “Enable inclusive and efficient agricultural and food systems”. It sets out the overall framework and a set of principles to guide sustainable food value chain development in practice.

The study includes a Model for Sustainable Smallholder Inclusion in High-Value Agro-chains. The intervention instruments for overcoming these constraints are grouped under four key “pillars”: (1) Access to market, (2) Access to Training, (3) Collaboration and cooperation building and (4) Access to finance.

Over the past three decades, high-value markets have become more sophisticated, consolidated and regulated, making it increasingly difficult for small producers to participate in these value chains. Determining how to effectively insert small- and medium-sized producers in the global high-value chain requires a thorough understanding of how the Global market work.

The degree of integration in the global value chain is assessed based on case studies concerning relevant projects performed by the FAO.

### The ATU Study - Designing of an SME Development Program and Loan Guaranty Fund for Agadir countries:

The ATU “Agadir Technical Unit” study ([www.agadiragreement.org](http://www.agadiragreement.org)) provided solutions on how effectively insert small- and medium-sized producers in the global high-value chain and how support SMEs of Agadir countries in developing economic integration and intra-trade between Egypt, Morocco, Tunisia and Jordan”.

The study conducted a quantitative analysis of the International, regional and national market for each Agadir country, identifying priority sectors and products that may be an engine for developing intra-trade and economic integration between Agadir countries as well as export to the EU.

The study includes an action plan enabling MSME inclusion in the Regional and EU Value Chains in accordance with SDGs Goal 8: “Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”, specifically through Targets 8.2 “Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high value added and labor intensive sectors” and 8.3 “[...] Encourage

the formalization and growth of micro, small, and medium sized enterprises, including through access to financial services”.

### The ATU Agri-Food Study:

The regional strategy “Opportunities for cumulating of origin & complementarities in the agri-food sector in the member states of the Arab Mediterranean Free trade Agreement of Agadir” includes identification of opportunities for accumulation of origin to widen value chain developing intra trade and economic integration between developing countries, a trade cooperation program, an export development plan to the EU and a trade facilitation enhancing program.

The study in part 1 conducted a quantitative analysis of the International, regional and national market for each Agadir country, identifying priority subsectors for each of the four product ranges of the agri-food value chain that may be an engine for developing intra-trade and economic integration between Agadir countries.

## II. Supply Chain Streamlining

This section focuses on supply-chain analysis by looking primarily at cross-border issues, logistics (including transportation) and services. It also includes recommendations relevant to production and export.

### 1. Cases of KSA, Egypt, Sudan and Jordan as Studied in the Aid for Trade Project

Within the Aid for Trade project, a survey was conducted on trade and transport facilitation in Egypt, KSA, Jordan, and Sudan, quantitative assessment has been made and a formulation of an action plan bridging the identified gaps regarding trade facilitation and transportation and enhancing Arab intra trade and economic integration.

The study identified that irregularity of shipping lines, the lack of enforcement of GAFTA rules of origin, the low productivity of port operations and the cumbersome customs clearance procedure are behind the high cost and duration of transportation between the surveyed countries.

The high cost of freight and the high level of transportation time, are hampering the advantages of proximity between Arab countries.

Implementing Trade and transport facilitation measures with reference to best international practices will reduce by 2 to 4 times the overall cost of transportation and by 3 to 6 times the transport duration, enabling just in time delivery of exports .

The reduction of transport cost and time will enhance the intra-trade competitiveness between the surveyed countries.

In addition, increasing traffic through developing cross borders’ logistic platforms, transshipment and transit between the four countries is critical for lowering the transport cost and time, developing regular

shipping lines and boosting intra-trade in MENA countries.

The below graph describes the interconnection between trade and transport facilitation measures, promoting transshipment and regular shipping lines within PPP investment and developing intra-trade between the surveyed countries.

It was, also, find out that Sokhna, Noueibah and Adabia Ports in Egypt and Al Omari Border Crossing in Jordan are well positioned to play a hub role for developing trade between the four countries, Far East Trade and for joining Western Europe and North Africa to the Middle East.

Such comparative advantage will allow an excellent opportunity for developing transit and transshipment operations that higher transport traffic and lower the transport cost and time and boost trade between the surveyed countries, therefore.

Figure 1 shows how alleviating trade Facilitation -TF's bottlenecks facilitates the creation of regular transport lines enabling outreach of PPP investment in transshipment port and regular transport lines

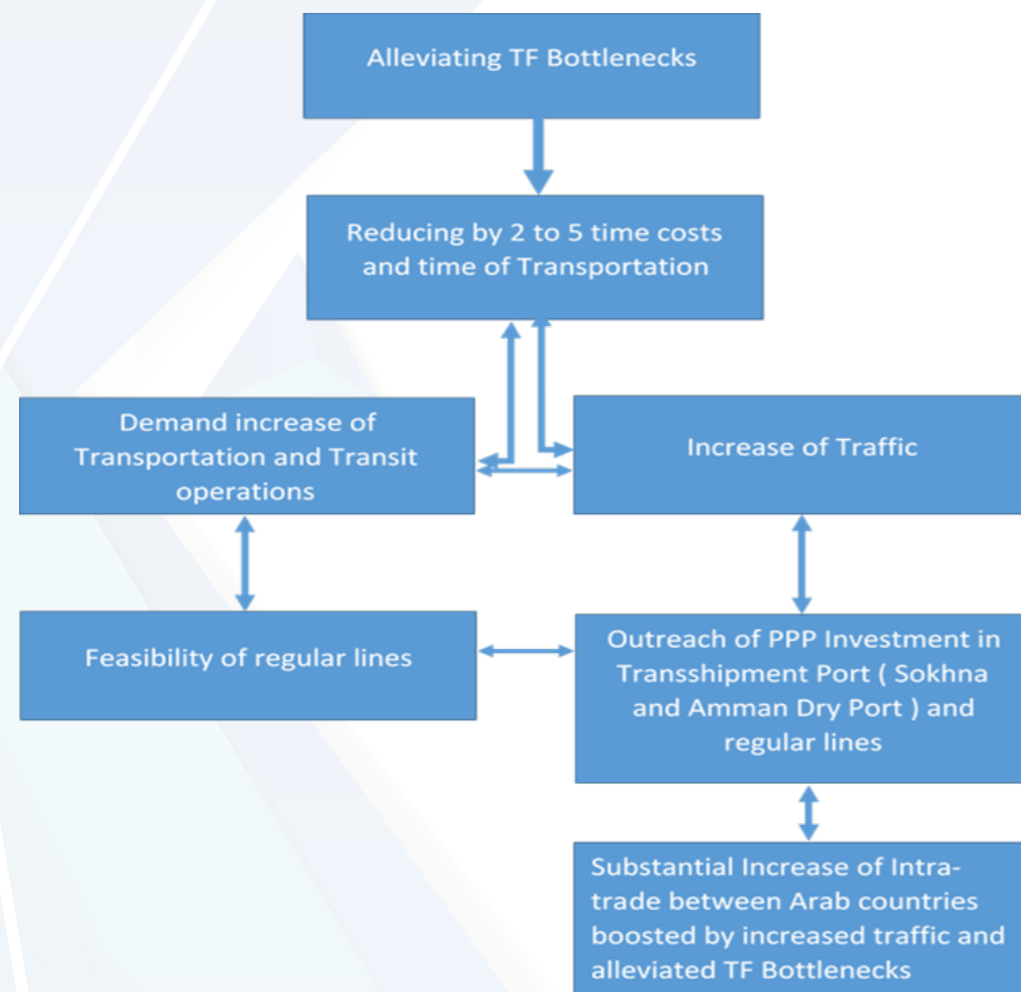


Figure 1. Alleviating trade facilitation bottlenecks

Although, the conducted survey shows how streamlining existing infrastructure and customs procedure in the cross border of Qustol/Askeit in Sudan would develop complementarities and added value chain

and export between Egypt and Sudan.

The following transitional measures for Sudan were indicated:

- “Eliminate duties on imported goods originating Egypt, KSA and Jordan to boost intra-trade, is critical for developing Sudanese exports and alleviating US embargo impact on the life of citizens;
- Streamline existing infrastructure and create one single window in the Customs cross border; and
- Harmonize customs clearance and quality inspection procedure between Egypt and Sudan as well as developing customs clearance and quality inspection in the warehouse of the importer/exporter to reduce transportation time to 3 or 4 days maximum”.

It is worth noting that according to the Sudanese government, the opening of the border post at Qustol/Askeit had reduced costs of transportation of Sudanese goods from Khartoum to Cairo from US\$ 1,000 per truck to US\$ 500 according to Sudanese officials. More importantly, Egypt also adopted pertinent measures of facilitation, including issuance of new regulations to facilitate the transit of Sudanese goods.

Building on these successful results, it may be possible to outreach needed stakeholders’ commitment and financing to implement the needed road infrastructure to change the location of the border crossing from Qustol to Arkeen, located at 140 Km from Abu Simbel taking into account that at Qustol a costly ferry transportation from Abu Simbel to reach the border post is required.

Accordingly, it is needed to initiate dialogue between Egyptian and Sudanese concerned stakeholders within a focus group addressing the main problems of Qustol/Askeit border crossing, finding out the best location as well as needed actions for creating in Arkeen or in an alternative place in Egypt or Sudan, a logistic platform and an economic development zone based on.

Such economic development zone will contribute highly in expanding export and production, developing local economy, improving revenues of citizens and alleviating poverty thereof.

It will reduce, equally, the smuggling between the 2 countries and will expand the land traffic as well. Accordingly, it will contribute hugely in boosting Sudanese exports, solving existing conflict and alleviating the US embargo impact against Sudan particularly with regard increased poverty and lack of inputs for developing industries.

Thus, the developing of this economic development zone will contribute in implementing the 2030 Agenda SDGs, particularly those dedicated to Least Developed Countries. This will need the intervention of economic zone planning, supply chain and trade facilitation experts for the design of a Feasibility Study as it was done for the border crossing region between Tunisia and Libya and that between Jordan and Syria as well.

## 2. Cases of Tunisia, Morocco, Jordan and Egypt

This case study is based on the ATU (Agadir Technical Unit) Study “Reducing the cost of transportation for developing intra-trade & complementarities in the member states of the Arab Mediterranean Free trade Agreement of Agadir (Tunis, Morocco, Jordan, Egypt)” that include a feasibility study for

developing maritime transport lines between Agadir countries, and recommendations for enhancing trade facilitation and logistics.

Among the conclusion and recommendations of the Study it is worth noting that the maritime transport mode Roll-on/roll-off (RoRo) is the most used mode of transportation for developing nearshoring and offshoring activities between European and Mediterranean countries.

This enables the use of door to door (from the warehouse of the importer to that of exporter) mode of transportation enabling just in-time delivery of goods.

According to the Strategic Study on “Reducing the cost of transportation between Agadir countries“ (www.agadiragreement.org) most Tunisian and Moroccan exports of garments and automotive components are forwarded to European countries door to door and through RoRo.

As Maghreb countries, could no more compete with China in the mass consumer segment, most of Tunisian and Moroccan exports are fresh food products, fashion sensitive garments, electronic and automotive components for European industries enabling their supply just in time with needed inputs and semi-finished products.

As the main comparative advantage of such exports are reduced delivery time enabling just in time supply of EU manufacturing companies, Tunisia and Morocco are performing their exports operations through RoRo from the warehouse of the exporter to the warehouse of the importer (door to door).

The Agadir Study shows that time to export to the EU performed by Tunisia and Morocco is two to six days. It is shorter than that of Turkey and very close to the one achieved by Holland with the rest of the EU countries.

This accomplishment is due to the availability of regular maritime lines and special facilities that make possible to do all the customs procedures in the importer’s and exporter’s warehouses.

In Jordan and Egypt, through the Arab Bridge Company, this duration is 3 to 7 days, as an average which can be decreased to one day if there were special facilities that allow the accomplishment of all the customs procedures in the warehouse of the exporter and that of the importer.

Door to door shipping, gives Tunisia and Morocco a real chance to export to the EU countries within a maximum duration of 5 days. This enables the clients and the traders to work in a continuous flow, and reduces the storage cost. Whereas, exporting using the containers takes more than 21 days as it was noticed in major intra trade operations between Agadir countries.

The feasibility study conducted with regard the setting up of a RoRo shipping line linking Alexandria to Zarzis and Marseilles will enhance the efficiency and time of the trip. It will reduce the marine transportation time to 2 or 3 days in comparison to the current time that is used by the current available lines which amounts to 15 days. This allows a competitive delivery time, especially the goods benefiting from the accumulation of origin under the Agadir Agreement between Tunisia and Egypt.

### 3. General Analysis and Assessment of the Arab Region with Regard Cross-Border Issues, and Logistics

The above studies have been based on the World Bank and WEF reports as well as a detailed quantitative assessment and a qualitative evaluation based on a survey targeting the private sector.

The World Economic Forum (WEF) Competitiveness Report adopted, with regard market efficiency, the level of tariff duties, the contribution of trade (import and export) into the GDP and the quality of infrastructure, particularly that of transport to evaluate the degree of competitiveness of an economy. While the World Bank Doing Business Report tracked cross borders issues as well as time and costs for Exports and Imports from each Arab countries for each stage to export/import:

- Customs clearance and inspections;
- Documents preparation;
- Inland transportation and handling; and
- Ports and terminal handling.

The above mentioned Agadir transport and the UNDP trade facilitation studies covered a representative sample of Arab countries: on the one hand, Tunisia, Morocco, Jordan and Egypt with a focus on Libya to study the opportunity of transit trade between Tunisia and Libya; and on the other hand, Saudi Arabia, Sudan, Egypt, and Jordan with a focus on UAE for benchmarking.

These studies highlighted that high cost of freight and the high level of transportation time, are hampering the advantages of proximity between Arab countries and hence is the most important bottleneck for developing regional value chain.

Implementing Trade and transport Facilitation measures with reference to best international practices will reduce by 2 to 4 times the overall cost of transportation and by 3 to 6 times the transport duration enabling just in time delivery of exports.

In addition, increasing traffic through developing, cross borders’ logistic platforms transshipment and transit trade between the four countries is critical for lowering the transport cost and time, developing regular shipping lines and boosting intra-trade in MENA countries.

Sokhna, Noueibah and Adabia Ports in Egypt and Al Omari Border Crossing in Jordan and Arkeen (or other identified location) in Sudan are well positioned to play a hub role for developing trade between the four countries, Far East Trade and for joining Western Europe and North Africa to the Middle East.

Such comparative advantage will allow an excellent opportunity for developing transit trade and transshipment operations that increase transport traffic, stimulating needed investment in maritime regular lines, logistic platforms and port infrastructure that reduce hugely the transport cost and time and hence boost trade between the surveyed countries as well as regional value chain.

The creation of economic zones around those cross borders’ logistic platforms will contribute to alleviate smuggling, reduce poverty, control cross borders corridors, and regulate migrant movements within a region knowing a high increase of conflicts.

Similarly, the setting up in the free zone of Zarzis of a logistic and transshipment zone will enable to

develop a transit trade between Egypt, Jordan, Tripoli, Tunisia and Algeria particularly of agri-food products, will boost local development in the South of Tunisia. It will contribute, equally, on alleviating unemployment and developing security in this cross-border region.

As it was noticed in Sokhna Port, the success of the proposed logistic platform and the economic development zone will need the implementation of Public-Private Partnership initiatives. These can include the adequate cooperation between the Port Authority in charge of port infrastructure and private companies in charge of managing the port operations; the state of the art handling equipment with high productivity limiting the stay duration of vessels in the port to one day; having the IT system grouping all operators in a single network enabling exchange of manifest since vessel departure from port of origin and prior clearance of goods; a single window grouping customs and security authorities, quality inspection and port authority and operators; and the alleviation of social issues when implementing the logistic platform through paying high salaries and delivering training to their staff that sustain productivity enhancement.

Thus, the developing of this economic development zone will contribute to implementing the 2030 Sustainable Development Agenda specifically through affecting the following Goals/Targets:

- Goal 17.17 Encourage and promote effective public, private and civil society partnerships, building on the experience and resourcing strategies of partnerships;
- Goal 17.11 - Significantly increase the exports of developing countries and Least developed zones;
- Goal 17.12 - Realize timely implementation of duty-free and quota-free market access, including transparent, simple and market-facilitating preferential Rules of origin applied to imports from LDCs;
- Goal 9 - Build resilient infrastructure including regional and Trans border, promote inclusive and sustainable industrialization and foster innovation;
- Goal 10.7 - Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well managed migration policies; and
- Goal 11.2 - By 2030, provide access to safe, accessible and sustainable transport systems for all.

Therefore, the conducted studies on analyzing cross borders issues, logistics and services within Gulf countries (Saudi Arabia and UAE), Sudan as a least developed country, and Tunisia, Morocco, Egypt and Jordan as Middle Income countries, came up with an accurate assessment of the supply chain in the Arab region.

Further study and collection of available data on intra trade between other Arab countries may identify the need for developing additional economic zones and logistic platforms on cross borders that should be upgraded in the Arab region.

#### 4. The Guiding Principles for Developing Transparency and the participation of the Private Sector

The above-mentioned studies noticed the lack of participation of the private sector in the Arab surveyed countries, and the public sector still have a dominant position in managing the supply chain.

The guiding principles that should be considered when designing or streamlining the institutional model for the management of the supply chain:

- Customer focus: Through developing dialogue with private sector representatives that may be involved in the development of port and transport operations and logistic platforms and the management of port operations and development should be market oriented and in a competitive way to avoid misallocation of resources and under investments;
- Fair competition should be enforced to avoid monopoly and dominant position;
- Private sector partnership: It is essential that the people operating in concerned public institutions are responsive to the needs of the private sector development through enhancing dialog with the private sector. The Board of Directors must therefore integrate important members from the private sector that could influence the Board decisions. It is, also, important to develop private and PPP projects enhancing the quality of the supply chain in Arab countries;
- Accountability through publication of quantifiable annual targets: It is important to set up a monitoring and evaluation unit and to publish annual targets each year for the business community to be fully on board with the project missions;
- Transparency through clarity and simplicity of procedures;
- Operational freedom to execute mandate: Government institutions in charge of designing and setting up PPP'S PROJECTS should be given the freedom operationally to execute their mandates in complete independence of intervention with respect to project budget and predetermined key performance indicators;
- Outsourcing construction, engineering and consulting services: As the public sector is not the relevant party to undertake construction, engineering and consulting services, such activities should be outsourced among private companies. Specialized consultants, civil engineers and real estate developers will be the most suitable parties to deliver these services and evaluate contractors' capability and capacity and suggest appropriate solutions; and
- Positive 'mind-set' in operational culture: It is important that public supporting institutions' staff will be supportive to the private sector rather than working with a "regulatory" attitude towards the private sector. Selected staff must be proactive individuals who will strive to support businesses. Additional training and mentoring should be provided to foster the attitude of positive mind-set.



### III. Agri-food Value Chain and Regional Integration

#### 1. Case Study on Developing Agri-Food Value Chain for Developing Regional Economic Integration

The following case study is based on the findings of a regional strategic study developed by the ATU “Agadir Technical Unit”.

The regional strategic study “Opportunities for cumulating of origin & complementarities in the agri-food sector in the member states of the Arab Mediterranean Free Trade Agreement of Agadir” includes an assessment of the impact of the main Trade Agreements concluded by Agadir countries with the WTO, EU, US, and Arabic countries -GAFTA, a trade cooperation program, an export development plan to the EU and a trade facilitation enhancing program.

The first part of the study conducted a quantitative analysis of the International, regional and national market for each Agadir country, identifying priority sub-sectors and products that may be an engine for developing intra-trade and economic integration between Agadir countries as well as export to the EU.

The study found out that the value-added of processed agricultural products is 5 to 10 times less important in Agadir countries than in industrialized ones. Thus, there is an important room for them to widen their value chain and increase employment through enhancing trade.

Being more exporters of similar raw materials than of differentiated manufactured products, Agadir countries are in a competitive position hampering integration possibilities. They are by far more integrated within the EU Value Chains than within the regional ones.

Enhancing Trade facilitation and freeing of trade between Agadir countries and identified complementarities would enable economic integration thanks to the abundance and diversity of agricultural supply in the Agadir area.

The study identified the abundance of exotic fruits, citrus, olives frozen potatoes, fruits and vegetables and concentrated juice in Egypt, olives and citrus in Morocco and olives, citrus and dates in Tunisia. Complementarity in the above-mentioned products allows: i) the diversification of the production of food preparations and the optimal utilization of the production capacity; ii) developing economies of scale and thereby reducing production costs; and iii) optimal valorization of raw materials and reduction of waste.

This is likely to improve the competitiveness of Agadir countries’ exports of agri-food products, boost the investment in food preparations’ projects and hence, increase the level of integration in the food industry’s value chain.

#### The Development of the Value Chain through the Freeing of Trade

For the development of the regional value chain, the Agadir agri-food study identified the following priority sub-sectors: the fruit and vegetable sector (including fresh fruit and vegetables of range 1 and frozen ones of range 2); the fruit and vegetable-based preparations of range 3; sophisticated food

preparations and juices and cereal derivatives of range 4.

These sub-sectors provide inputs as well as value-added to the food industry and hold a potential for additional export capacity.

These sectors represent, also, an important basis for the achievement of complementarity between Agadir countries and contribute to the improvement of intra-regional trade. Also, they offer the possibility to develop the exports to the EU through the cumulation of origin and to boost the domestic investment and outreach Foreign Direct Investment-FDI from European countries.

The development of manufactured products under this chapter 20 (product of range 3) is possible through the availability of the supply of local raw materials of range 1 or frozen fruits and vegetables of range 2, imported from Agadir countries (Section 07 and 08.), the exploitation of the cumulation of origin between Agadir countries and export to the EU; and the exports to the EU through large retailers’ brands.

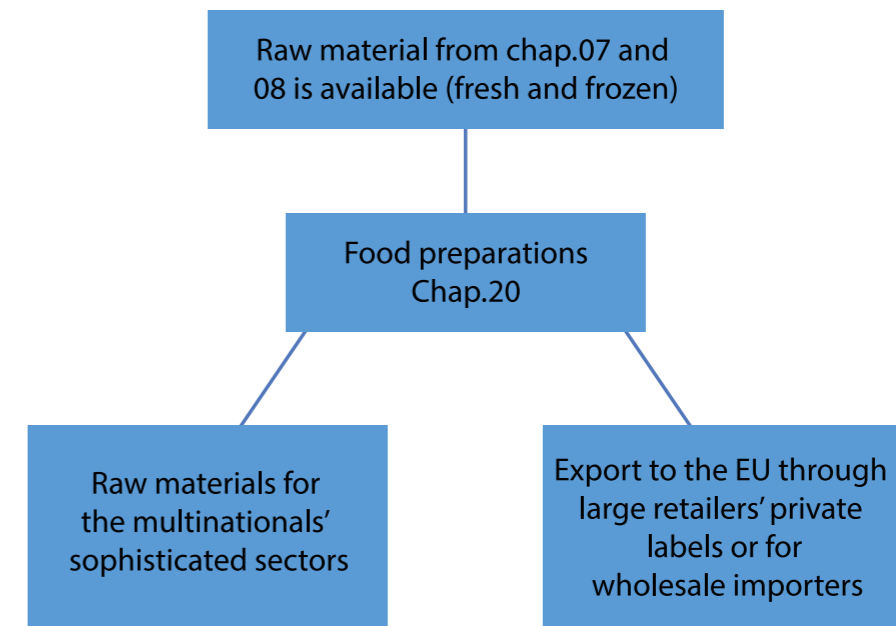


Figure 2. Food preparation development process

The development of sophisticated food preparation of range 4 under chapter 21 (NHS code) is possible through: The availability of supply of frozen fruit and vegetables available on the local market or imported from the Agadir region (Section 07 and 08.) or that of vegetable and fruit-based preparations (Ch. 20); The exploitation of the accumulation of origin between Agadir countries and the export to the EU; The export to the EU through subcontracting for multinational corporations; and the attraction of foreign direct investment for the manufacturing of sophisticated food products

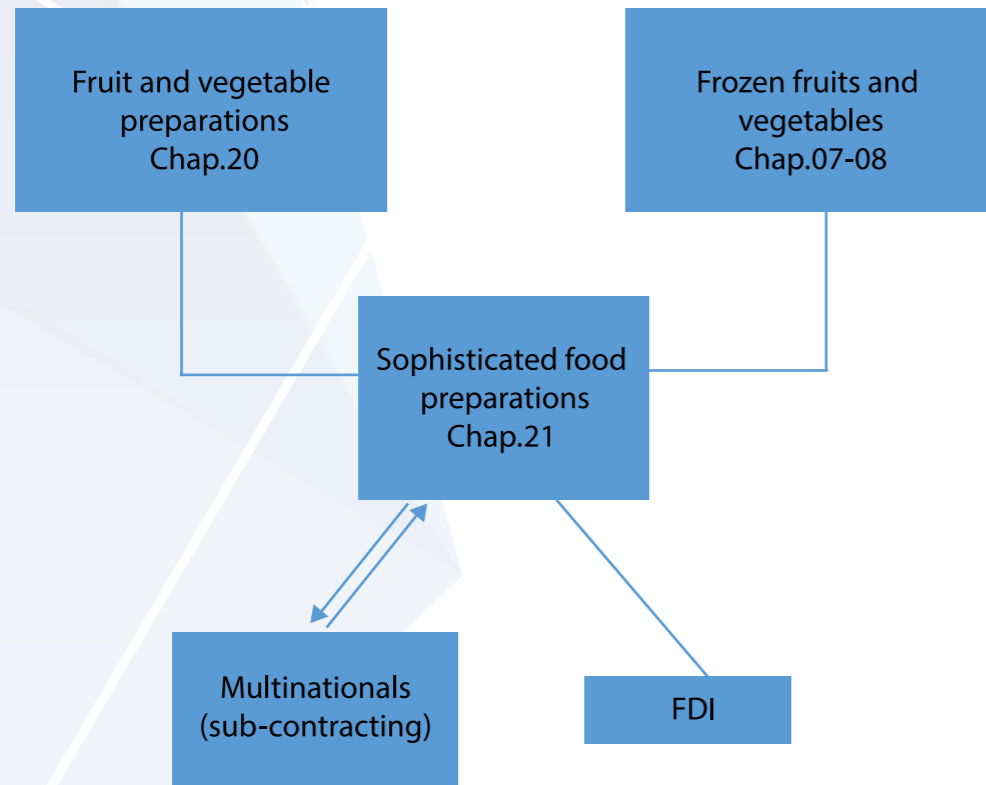


Figure 3. Sophisticated food preparation development process

Conducted analysis in the Agadir study confirmed that if Egypt would have the same conditions for development of the food industry as those of Turkey, in terms of abundance of the production of raw materials and optimum utilization of the processing capacity, the potential increase of the Egyptian exports could be as high as five times its current level and ten times if the country would meet the existing development conditions in Italy.

Likewise, the potential to increase the Moroccan exports is estimated to be nine times the current level. It is the same for Tunisia and Jordan if the conditions would be met for the realization of a common market of Agadir countries for fruits and vegetables and their derivatives.

### The Development of the Value Chain through the Development of Investment

The development of investment covers the intermediate products such as frozen potatoes, frozen fruits and vegetables, frozen juice concentrations, tomato paste using related hot break and cold break techniques to produce high quality ketchup.

In addition, it covers advanced products of the fourth range based on potatoes, rice and cereals through the integration of the sector starting from the production of seeds up to the production of frozen potatoes. This represents an opportunity for Agadir countries to source the inputs they need from the Agadir region. It applies for the manufacturing of potato chips, snacks, potatoes derivatives, cereal-based food supplements, takeaways and any other potatoes-based, cereal-based or vegetable-based advanced products.

Also, the distribution of products and the sectorial integration enable the exploitation of the productive capacities all year around, the decrease of the waste rates and the creation of economies of scale.

Based on a detailed quantitative analysis of the international regional and national market for each Agadir country and product (see Annex I), the below table estimated the impact of the industrial integration between Agadir countries in the vegetables and fruits products and their preparations as followings:

The impact of the industrial integration on the exports of chapter 20	2 049 056
The impact of the industrial integration on the exports of chapter 21	661 688
The total impact on exports	2 710 744
The impact of the integration on investment	1 355 372

Figure 4. Industrial integration exports' impact

Unit: 1000 USD

To calculate those indicators the following data has been taken into consideration:

(\*) the increase of the exports for the year 2022 if we assume that the annual growth rate will be equal to that of the period 2009-2013

(\*\*) the potential growth of the market share to a level similar to that of Turkey in comparison with the specialization level of the value chain of Turkey on the level of specialization in the value chain of each Agadir country

(\*\*\*) the potential exports in 2022 come from the achievement of Agadir countries of the same specialization level of Turkey

Also, it is worth noting that each invested dollar in the food manufacturing industry results on average in 2 dollars of exports per the project sheets provided on the website of the industry and innovation promotion agency of Tunisia APII ([www.tunisianindustry.nat.com](http://www.tunisianindustry.nat.com)).

The Agadir Agri-food Study identified the following ideas of integration enabling projects:

- The development of oriental food products based on legumes such as garbanzo beans, eggplants, broad beans as well as the products of the fourth category such as salads and takeaways;
- The development of the advanced products based on olives, hot sauces (harissa), grilled salad, the core of artichokes and other vegetables in addition to the takeaway salads based on other vegetables;
- The development of the advanced products based on tomatoes, concentrated tomatoes and tomato sauces;
- The development of the investment to produce ketchup through the development of bilateral investment in cold breaking and hot breaking required for the manufacturing of high quality ketchup;
- The development of diet products for kids based on cooked vegetables, fruits and cereals which provides several products and enables the exploitation of the full capacity all year round;
- The development of various jam-based products and jelly-based products from tropical frozen fruits and Egyptian tropical fruits thus enabling the exploitation of the full capacity all year round

- The development of various products based on fruit juices and beverages from frozen ; concentrations such as lemon concentration from Egypt which enables the exploitation of the full capacity all year round, helps to improve the profitability of the manufacturing units, encourages the investment in the sector and reduces the waste rates;
- The development of front-end food products such as the sweets and cakes which use the vegetables and fruits;
- The development of organic products and specific ones free from gluten, cholesterol and sugar
- The development of terroir products;
- The development of the food additives and flavors through the development of the foreign investment in Agadir countries; and
- Foreign investment will contribute to a large extent to the transfer of technology for the development of seeds and medicinal herbs.

### The impact of the development of the Value Chain on implementing SDGs

The above mentioned development of investment would impact in the same proportion the employment and particularly that of young graduates that may increase by twenty times. In fact, we noticed that the integration in the Global Value Chain and the upgrading of the technology will require to multiply by 5 to 10 times the number of executives through the development of vocational training and the recruitment of young graduates. As, per best international practices, the ratio of senior and middle management should be around 25 % of the total staff whereas it is less than 5 % in the surveyed countries.

Thus, such achievements will contribute in implementing the SDGs particularly that alleviating poverty, inclosing MSMEs in the Global Value Chain, securing jobs for all, particularly for young graduates that are the critical challenge facing the Arab world.

Therefore, It is required the inclusion of MSMEs into the Global Value Chain through developing forward and backward linkages with big companies, European distributors' private labels and international trademarks. That will need a large program of cooperation and partnership disseminating and implementing the Corporate Social Responsibility principles. Such program will help access of MSMEs to Market, Financing and Technologies.

The free movement of goods is, also, an essential pillar to achieve complementarity between the countries of the agreement in the sectors that were identified through the implementation of a customs union specialized in fruit and vegetables as a first step to achieve complementarity and a common market among Arab countries. The aims of the establishment of the proposed customs union are:

- The elimination of the customs duties and taxes that have a similar effect in the countries of the agreement and the establishment of unified customs duties towards third countries;
- Conducting international negotiations as a united front representing the agricultural sector;

- The ability to negotiate with the EU and the USA the dismantling of customs duties and quota barriers on the exports of fruit and vegetables;
- The establishment of a framework conducive for trade facilitation and the harmonization of quality control systems that include the implementation of conformity assessment and acceptance of industrial products' (ACAA) agreements; and
- A favorable ground to create the Arab fruit and vegetables group such as the European group for coal and steel which has been the basis for the creation of the European Union.

Finally, it is worth noting that the above expected achievements would depend on the degree of the implementation of a streamlined supply chain enabling the export just in time between them and to the EU.

## 2. Assessment of Government's Commitments with Regard to Developing Regional Integration

The above analysis shows that the reasons behind very weak integration are the Lack of the participation of the private sector in the decision process; the lack of information on export potential, complementarities and opportunities of cumulation of origin; the limited access of MSMEs to market, technology, and financing impeding their inclusion into the Global value chain; the restrictions to trade impeding integration and development of synergies; and the weak supply chain and related services (transport facilities, e-services and single windows) impeding the advantages of proximity between Arab countries.

It was noticed in the above-mentioned studies that Jordan and Egypt are the most integrated countries to the Arab Value Chain within the surveyed countries due to the fact that both are members of WTO, Agadir Agreement and Free Trade Agreement with the EU and the US and implemented advanced reforms with regard trade liberalization and dismantling of trade restrictiveness, both have efficient supply chain within the cross borders of Sokhna, and Noueibah Ports in Egypt and Al Omari Border Crossing in Jordan; and in both countries there are private companies interested in the integration process.

It was also noticed that the Government's commitments with regards to developing regional integration depends mainly on<sup>1</sup>:

- The disseminated information on complementarities' opportunities;
- The degree of liberalization of the economy;
- The degree of compliance with WTO rules particularly with regard the Trade Facilitation Agreement;
- The Quality of the supply chain;
- The inclusion of MSMEs in the GVC; and
- The importance of the private sector in the decision making process and their advocacy power in favor of increased cooperation and regional integration.

<sup>1</sup> Such parameters may be tracked through adapting indicators developed in the World Bank Doing Business Report and the WEF competitiveness Report and "The Inclusive Growth and Development Report 2017".

## IV. Conclusion and Recommendations

### 1. On Supply Chains

The streamlining of the supply chain is a major challenge for developing exports and economic integration of Arab countries. That will allow an excellent opportunity for developing transit trade and transshipment operations that higher transport traffic, allowing performing needed investment in maritime regular lines, logistic platforms and port infrastructure that lower the transport cost and time and boost trade between the surveyed countries.

The creation of economic zones around cross borders' logistic platforms will contribute to alleviate smuggling, reduce poverty, control cross borders corridors, and regulate migrant movements within a region knowing a high increase of conflicts.

Developing on supply chain issues, dialogue, international technical assistance and commitments of Governments of Developed countries together with those of Arab countries, international and regional organizations, is critical for facilitating the implementation of 2030 Agenda on Sustainable Development. (Goals 9, 10.7 and 9.5)

The dissemination of the findings of the conducted Survey, within the Aid for Trade project on trade and transport facilitation in Egypt, KSA, Jordan, & Sudan among national, regional and international stakeholders, will enhance the commitments of the International community with regard the implementation of the above-mentioned recommendations.

### 2. On Trade Facilitation

The free movement of goods is an essential pillar to achieve complementarity between Arab countries in the fruit and vegetable sub-sectors through the implementation of a customs union specialized in fruit and vegetables and by products as a first step for establishing a common market. The analysis of the value chain of the afore mentioned products confirmed that if Egypt would meet development requirements of the food industry as those of Turkey, in terms of abundance of the production of raw materials, market size and optimum utilization of production capacities, the potential increase of the Egyptian exports could be as high as five times its current level and ten times if the country would meet the existing development conditions in Italy.

Likewise, the potential to increase the Moroccan exports is estimated to be nine times the current level. It is the same for Tunisia and Jordan if the conditions would be met for the realization of a common market of Agadir countries for fruit and vegetables and their derivatives.

To this end, it is needed to outreach international donors for implementing a pilot program to develop partnership and harmonize the procedure and the legislation related to foreign trade and the technical inspection of products for fruit and vegetables for Arab countries, with those applied in the EU. The underlining objectives are:

√ The development of a partnership program aiming at developing the investment and exports between on the one hand Arab countries and between Arab countries and the EU on the other and developing a network linking professional associations, technical centers and food-focused training centers of Arab countries with their counterparts in the EU; and

√ The preparation of the conditions for the establishment of the customs union for vegetables and fruit and their derivatives grouping Arab countries.

### 3. The Inclusion of MSMEs in the Global Value Chain

The development of economic integration depends on how effectively insert micro-small- and medium-sized producers in the global high-value chain and how regional and national support should be provided to MSMEs in developing backward and forward linkages enhancing economic integration within Arab countries.

The creation at the regional level of a Grant Matching Fund and Loan Guarantee Fund to support forward and backward linkages operations will facilitate the insertion of MSMEs in the Global Value Chain. The Grant Matching Fund will support upgrading activities of MSMEs enabling to boost their export under private label through developing partnership with retailers and distribution chains and under brand name for multinational companies. The Loan Guarantee Fund will facilitate their access to financing. Therefore, within the implementation of SD Goal 8, it is recommended to outreach international donors for the creation of such funds.

### 4. Supporting the LEAS efforts in Facilitating Arab Integration

It is important to submit for discussion in the fourth coming meeting of the Economic and Social Council of the Arab League the following suggestions:

- Assist organizing with Arabic countries, developed countries and international cooperation organizations' leaders' awareness meetings on developing economic integration versus implementation of the SDGs;
- Conducting a study compiling the findings of related researches and studies to formulate a comprehensive action plan for developing intra-trade between Arab countries and realizing GAFTA: This study will overview previous studies and will compile related findings to identify TF and logistic gaps, just in time export development bottlenecks' and formulate an Action Plan for enhancing transport and transit between Arab countries and KPIs for tracking improvements';
- Help creating a trade facilitation committee grouping concerned institutions in Arab countries in charge of implementing the Trade Facilitation Action Plan; and
- Formulate proposals to draft policies and regulations at the Global and Regional level improving supply chain, and inclosing MSMEs in the Global Value Chain and enabling the implementation of SDGs.

Such proposals may include:

- The formulation of a Small Business Act for Arab Countries, similar than that of the EU enacting positive discrimination for Arab Small companies applying for public procurement of other Arab countries and special treatment with regard import and export procedures;
- The draft of regulations targeting the enforcement at the Global, regional and national levels of the best international practices with regard Corporate Social Responsibility;
- EU-WTO-Arab focus groups facilitating the negotiation of free trade agreements with regard Agri-food products such as I' ALECA; initiating special regulations enabling Sudan, Yemen and Mauritania to outreach the SDGs dedicated for Least Developed countries; and advocating decisions that broaden and strengthen the participation of Arab countries in the institutions of global governance (SD Goal 16-9) and enhance commitments around the implementation of the above-mentioned projects.

## ANNEX I Quantitative Analysis on the Value Chain

Source: The Agadir agri-food Study

Based on a quantitative analysis of the International, regional and national market for each Agadir countries identifying priority sub-sectors and products, the report of the first phase of the agri-food study has demonstrated that the market shares of each Agadir country for the chapters 20 and 21 (food preparations and miscellaneous food preparations) are weak and may account for 1/10 of its shares of vegetables and fruits of the chapters 07 and 08.

This suggests that there is a strong possibility for Agadir countries to fully integrate the value chain of the food manufacturing industry on the basis of vegetables and fruits and to offer high value-added products like those of Turkey, which have managed to secure a market share in food preparations exceeding their shares of fruits and vegetables.

Therefore, assuming that Agadir countries would reach the level of industrial integration of Turkey for the next 7 years 2016-2022 doubling their market shares on the food products' global market. On the basis of this assumption, the expected outcomes will be 3828 million dollars for the total increase of exports in Agadir countries and 1914 million dollars for the increase of investments as determined through the following analysis:

### Turkey

Exports and market share of Chap. 07/08 /20 are as followings:

Turkey to World	Description	2009	2010	2011	2012	2013	Market Share 2013	Growth of Market Share%
'07	Vegetables	1020784	1108532	1070709	966600	1039117	1.59%	-0.128%
'08	Fruit and nuts	3001830	3494049	3908978	3807748	3969136	4.14%	-0.086%
'20	Food preparations	1276344	1491632	1653775	1722464	1800601	3.09%	0.052%

Unit: 1000 dollars  
Source: Trade Map

The below table reported the market share of food preparation of chapter 20 related to that of chapters 07 & 08:

Turkey	Description	2010	2011	2012	2013
Exported Value	food preparations	1491632	1653775	1722464	1800601
Market Share 20	food preparations	3.20%	3.00%	3.13%	3.09%
Market Share Aggregation 07/08		3.27%	3.18%	3.03%	2.87%
Level of Value Chain Integration		98%	94%	103%	107%

Unit: 1000 dollars  
Source: Trade Map

The below table reported the market share of food preparation of chapter 21 related to that of chapters 07 & 08:

Turkey	Description	2010	2011	2012	2013
Exported Value	Miscellaneous preparations	554816	715741	717898	764247
Market Share 21	Miscellaneous preparations	1.10%	1.24%	1.22%	1.19%
Market Share Aggregation 07/08		3.27%	3.18%	3.03%	2.87%
Level of Value Chain Integration		34%	39%	40%	41%

Unit: 1000 dollars  
Source: Trade Map

### Egypt

Exports and market share of Chap. 07/08 /20 are as followings:

Egypt to World	Description	2009	2010	2011	2012	2013	Market Share 2013	Growth of Market Share%
'07	Vegetables	805910	834298	986031	804306	1040216	1.59%	-0.017%
'08	Fruit and nuts	1005769	955071	1020609	990338	1010035	1.05%	-0.112%
'20	Food preparations	185058	236348	271403	314294	340273	0.58%	0.041%

Unit: 1000 dollars  
Source: Trade Map

The below table reported the market share of food preparation of chapter 20 related to that of chapters 07 & 08:

Egypt	Description	2010	2011	2012	2013
Exported Value	Food preparations	236348	271403	314294	340273
Market Share 20	Food preparations	0.51%	0.49%	0.57%	0.58%
Market Share Aggregation 07/08		1.27%	1.28%	1.14%	1.18%
Level of Value Chain Integration		40%	38%	50%	50%

Unit: 1000 dollars  
Source: Trade Map

The below table reported the market share of food preparation of chapter 21 related to that of chapters 07 & 08:

Egypt	Description	2010	2011	2012	2013
Exported Value	Miscellaneous preparations	164129	136520	144308	215170
Market Share 21	Miscellaneous preparations	0.33%	0.24%	0.24%	0.33%
Market Share Aggregation 07/08		1.27%	1.28%	1.14%	1.18%
Level of Value Chain Integration		26%	18%	21%	28%

Unit: 1000 dollars  
Source: Trade Map

### Morocco

Exports and market share of Chap. 07/08 /20 are as followings:

Morocco to World	Description	2009	2010	2011	2012	2013	Market Share 2013	Growth of Market Share%
'07	Vegetables	593314	601252	741087	672198	828095	1.26%	0.011%
'08	Fruit and nuts	516331	575178	743440	601504	699905	0.73%	-0.010%
'20	Food preparations	194394	199169	203388	188972	194439	0.33%	-0.026%

Unit: 1000 dollars  
Source: Trade Map

The below table reported the market share of food preparation of chapter 20 related to that of chapters 07 & 08:

Morocco	Description	2010	2011	2012	2013
Exported Value	Vegetable, fruit, nut food preparations	199169	203388	188972	194439
Market Share 20	Vegetable, fruit, nut food preparations	0.43%	0.37%	0.34%	0.33%
Market Share Aggregation 07/08		0.84%	0.95%	0.81%	0.88%
Level of Value Chain Integration		51%	39%	42%	38%

Unit: 1000 dollars  
Source: Trade Map

The below table reported the market share of food preparation of chapter 21 related to that of chapters 07& 08:

Morocco	Description	2010	2011	2012	2013
Exported Value	Miscellaneous preparations	61592	60672	60612	64524
Market Share 21	Miscellaneous preparations	0.12%	0.10%	0.10%	0.10%
Market Share Aggregation 07/08		0.84%	0.95%	0.81%	0.88%
Level of Value Chain Integration		15%	11%	13%	11%

Unit: 1000 dollars  
Source: Trade Map

### Jordan

Exports and market share of Chap. 07/08 /20 are as followings:

Jordan to World	Description	2009	2010	2011	2012	2013	Market Share 2013	Growth of Market Share%
'07	Vegetables	377196	439580	479250	471102	476054	0.73%	-0.012%
'08	Fruit and nuts	72726	91731	126613	185178	198537	0.21%	0.025%
'20	Food preparations	34630	33538	46487	42773	43113	0.07%	-0.001%

Unit: 1000 dollars  
Source: Trade Map

The below table reported the market share of food preparation of chapter 20 related to that of chapters 07& 08:

Jordan	Description	2010	2011	2012	2013
Exported Value	Vegetable, fruit, nut, etc food preparations	33538	46487	42773	43113
Market Share 20	Vegetable, fruit, nut, etc food preparations	0.07%	0.08%	0.08%	0.07%
Market Share Aggregation 07/08		0.38%	0.39%	0.42%	0.39%
Level of Value Chain Integration		19%	22%	19%	19%

Unit: 1000 dollars  
Source: Trade Map

The below table reported the market share of food preparation of chapter 21 related to that of chapters 07& 08:

Jordan	Description	2010	2011	2012	2013
Exported Value	Miscellaneous preparations	101305	92621	85301	101761
Market Share 21	Miscellaneous preparations	0.20%	0.16%	0.14%	0.16%
Market Share Aggregation 07/08		0.38%	0.39%	0.42%	0.39%
Level of Value Chain Integration		53%	41%	35%	41%

Unit: 1000 dollars  
Source: Trade Map

### Tunisia

Exports and market share of Chap. 07/08 /20 are as followings:

Tunisia to World	Description	2009	2010	2011	2012	2013	Market Share 2013	Growth of Market Share%
'07	Vegetables	38121	54151	73575	58392	61631	0.09%	0.004%
'08	Fruit and nuts	225047	253022	262472	259807	299563	0.31%	-0.006%
'20	Food preparations	23434	23450	56056	53223	44334	0.08%	0.006%

Unit: 1000 dollars  
Source: Trade Map

The below table reported the market share of food preparation of chapter 20 related to that of chapters 07 & 08:

Tunisia	Description	2010	2011	2012	2013
Exported Value	Food preparations	23450	56056	53223	44334
Market Share 20	Food preparations	0.05%	0.10%	0.10%	0.08%
Market Share Aggregation 07/08		0.22%	0.21%	0.20%	0.21%
Level of Value Chain Integration		23%	47%	48%	37%

Unit: 1000 dollars  
Source : Trade Map

The below table reported the market share of food preparation of chapter 21 related to that of chapters 07& 08:

Tunisia	Description	2010	2011	2012	2013
Exported Value	Miscellaneous preparations	16237	14676	40404	29613
Market Share 21	Miscellaneous preparations	0.03%	0.03%	0.07%	0.05%
Market Share Aggregation 07/08		0.22%	0.21%	0.20%	0.21%
Level of Value Chain Integration		15%	12%	34%	22%

Unit: 1000 dollars  
Source : Trade Map

**The impact on the development of exports:**

The increase of exports expected for the year 2022 will be the result of 2 factors: First: the increase of exports originating from the increase of the Global demand and Second: the increase of exports originating from the development of investments and productivity coming from the industrial integration between Agadir countries which will be provided by the optimal use of the production capacities.

The estimation of the growth of exports coming from the increase of the world demand

On this basis, the Consultant estimated in the table below the value of the exports of food preparations (chapter 20) based on fruits and vegetables for 2022 as a result of the increase of the world demand with a growth rate of 8% and we assumed that it equals the global growth rate of the same products during the period 2009-2013.

Exports in thousand Dollars	Egypt	Jordan	Tunisia	Morocco
Exports of chapter 20 (year 2013)	340 273	43 113	44 334	194 49
Exports of chapter 20 (year 2022)	680 546	86 226	88 668	388 878

Concerning the fourth range of food preparations (chapter 21), we have considered the growth of 9% and we have supposed that it equals the global growth rate of the same products during the period 2009-2013

Exports in thousand Dollars	Egypt	Jordan	Tunisia	Morocco
Exports of chapter 20 (year 2013)	215 170	101 761	29 613	64 524
Exports of chapter 20 (year 2022)	473 374	223 874.2	65 148.6	141 952.8

**The growth of the exports coming from the industrial integration**

In this regard, the Consultant estimated the potential exports for the year 2022 generated from the achievement of the integration between Agadir countries.

On this basis, the consultant multiplied the exports of the year 2022 coming from the increase of the global demand by the multiplier growth rate of the market shares of Agadir in the global market enabled by the economic complementarity.

This percentage= the specialization level of the value chain of Turkey/the specialization level of the value chain of each country of Agadir

As a reminder, the level of specialization of Turkey for chapter 20 that was estimated in the first report equals the percentage of the Turkish market in terms of food preparations based on fruits and vegetables (chapter 20) out of its market share of fruits and vegetables (chapters 07 and 08)

On this basis, the following tables estimate the growth of the market share of each Agadir country in the global market.

**Chapter 20**

	Egypt	Jordan	Morocco	Tunisia
Percentage of specialization in the value chain	50%	19%	38%	37%
Percentage of specialization in the value chain for turkey	107%	107%	107%	107%
The potential multiplied growth of market share	2.1	5.6	2.8	2.9

**Chapter 21**

	Egypt	Jordan	Tunisia	Morocco
Percentage of specialization in the value chain	28%	41%	22%	11%
Percentage of specialization in the value chain for turkey	41%	41%	41%	41%
The potential multiplied growth of market share	1.5	1	1.9	3.7

The market share growth represents the economic multiplier which results from the development of the integration rate in the industrial integration matrix of Leontief.

The potential impacts of the industrial integration for chapter 20 (food preparations of third range)

Unit: 1000 USD	Egypt	Jordan	Tunisia	Morocco	Agadir total
Exports of chapter 20 year 2013	340 273	43 113	44 334	194 439	
Exports of chapter 20 year 2022 (*)	680 546	86 226	88 668	388 878	
(**) the potential growth multiplier of market share	2.1	5.6	2.9	2.8	
The potential export of the year 2022	1 456 368	485 589	256 418	1 094 999	
The value of the increase of exports as a result of industrial integration	775 822	399 363	167 750	706 121	2 049 056



### The potential impact of the industrial integration for the chapter 21: miscellaneous (fourth range) food preparations

Unit: 1000 USD	Egypt	Jordan	Tunisia	Morocco	Agadir total
Exports of chapter 21 (year 2013)	215 170	101 761	29 613	64 524	
Exports of chapter 21 (year 2022) (*)	473 374	223 874.2	65 148.63	141 952.8	
(**) the potential growth multiplier of market share	1.5	1	1.9	3.7	
The potential export of the (year 2022)	693 155	223 874	123 782.34	525 225.36	
The value of the increase of exports as a result of industrial integration	219 781	0	58 633.71	383 272.56	661 688

Porter: The competitive advantage, 1985

## ANNEX II Quantitative Analysis on the Value Chain

The SDGs may be prioritised in accordance with the various levels of development of Arab countries determining the type of interventions of the value chain.

Such levels may be defined in accordance with the WEF competitiveness report 2016-2017 classification:

- Factor driven economies including two sub-categories: Oil exporting countries such as Algeria, Libya, and Kuwait, and Least and in conflict situation countries such as Sudan, Mauritania, Libya and Yemen;
- Efficiency driven economies: Agadir oil importing countries: Morocco, Tunisia, Jordan, Egypt and Lebanon and Oil exporting countries: KSA, and Oman; and
- Innovation Driven economies: Qatar and UAE

For factor driven economies special attention should be given to the following SDGs:

- “Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries’ share of global exports by 2020” (Goal 17.11)
- “Realize timely implementation of duty free and quota free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access” (Goal 17.12)
- “Develop quality, reliable, sustainable and resilient infrastructure, including regional and Trans border infrastructure, to support economic development and human well-being with a focus on affordable and equitable access for all” (Goal 9.1)
- “Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry’s share of employment and gross domestic product, in line with national circumstances, and double its share

in least developed countries” (Goal 9.2)

- “Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks to enhance agricultural productive capacity in developing countries, in particular least developed countries” (Goal 2.a)
- “Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of well managed migration policies” (Goal 10.7)

### For efficiency driven economy, priority should be given to the following SDGs

- Enhancing high value added and labor intensive sectors and inclosing of MSMEs in High-Value Agro-chains through “improving their access to markets, training and financing” (Goal 8) and “developing and operationalize by 2020 a global strategy for youth employment and implement the Global Jobs Pact of the International Labor Organization” (Goal 8 b);
- Widening value chain through developing vertical integration and forward linkages with Services:
  - “Build resilient infrastructure including regional and Trans border, promote inclusive and sustainable industrialization and foster innovation” (Goal 9);
  - “By 2030, provide access to safe, accessible and sustainable transport systems for all” (Goal 11.2);
- “By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses” (Goal 12.3);
- “Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest...” (Goal 10.b); and
- “By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domestic animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels” (Goal 2.5).

### For innovation driven economies, special attention should be given to the following SDGs:

- “Enhance scientific research upgrade the technological capabilities of industrial sectors in particular developing countries, including, by 2030, increasing the number of research and development workers per 1 million” (Goal 9.5); and
- “Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism” (Goal 17.6).<sup>2 3</sup>

ii This findings have been based on quantitative analysis conducted by the UNDP and the Agadir transport studies  
iii This findings have been based on quantitative analysis conducted by the Agadir transport study

