

**JOBS
WORKING
PAPER**
Issue No. 43

Value Chain Development for Jobs in Lagging Regions: Let's Work Program in Tunisia

Overview of the Approach, Impact, and Findings [P157321]

Michael Weber and Jade Salhab



Value Chain Development for Jobs in Lagging Regions: Let's Work Program in Tunisia

Overview of the Approach, Impact, and Findings

(P157321)

Michael Weber and Jade Salhab

The Let's Work Partnership in Tunisia is made possible through a grant from the World Bank's Jobs Umbrella Trust Fund, which is supported by the Department for International Development/UK AID, and the Governments of Norway, Germany, Austria, the Austrian Development Agency, and the Swedish International Development Cooperation Agency.

 Austrian
Development Agency

 Federal Ministry
Republic of Austria
Finance



© 2019 International Bank for Reconstruction and Development / The World Bank.

1818 H Street NW, Washington, DC 20433, USA.

Telephone: 202-473-1000; Internet: www.worldbank.org.

Some rights reserved

This work is a product of the staff of The World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Nothing herein shall constitute or be considered to be a limitation upon or waiver of the privileges and immunities of The World Bank, all of which are specifically reserved.

Rights and Permissions



This work is available under the Creative Commons Attribution 3.0 IGO license (CC BY 3.0 IGO) <http://creativecommons.org/licenses/by/3.0/igo>. Under the Creative Commons Attribution license, you are free to copy, distribute, transmit, and adapt this work, including for commercial purposes, under the following conditions:

Attribution—Please cite the work as follows: Michael Weber and Jade Salhab 2020. “Value Chain Development for Jobs in Lagging Regions: Let’s Work Program in Tunisia (P157321): Overview of the approach, impact, and findings” World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO.

Translations—If you create a translation of this work, please add the following disclaimer along with the attribution: This translation was not created by The World Bank and should not be considered an official World Bank translation. The World Bank shall not be liable for any content or error in this translation.

Adaptations—If you create an adaptation of this work, please add the following disclaimer along with the attribution: This is an adaptation of an original work by The World Bank. Views and opinions expressed in the adaptation are the sole responsibility of the author or authors of the adaptation and are not endorsed by The World Bank.

Third-party content—The World Bank does not necessarily own each component of the content contained within the work. The World Bank therefore does not warrant that the use of any third-party-owned individual component or part contained in the work will not infringe on the rights of those third parties. The risk of claims resulting from such infringement rests solely with you. If you wish to re-use a component of the work, it is your responsibility to determine whether permission is needed for that re-use and to obtain permission from the copyright owner. Examples of components can include, but are not limited to, tables, figures, or images.

All queries on rights and licenses should be addressed to World Bank Publications, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: pubrights@worldbank.org.

Images: © World Bank. Further permission required for reuse

Acknowledgements

This report was prepared by Michael Weber (Senior Economist, Jobs Group) and Jade Salhab (Senior Private Sector Specialist, Finance, Competitiveness and Innovation), with support from Keratilwe Thebe Tsatsimpe (Consultant). It summarizes multiple reports and activities conducted under the “Let’s Work Program in Tunisia” between 2015-2018 as listed in the annex.

Contributors to the Program’s outputs include Emiliano Duch (Lead Private Sector Specialist), who designed and led the overall training component; Henri Varlet (Consultant), who co-lead the training program; Nadia Sehnaoui Boulifa (Consultant), who coordinated the training delivery; Sonia Sanchez-Quintela (Consultant), who coordinated the survey work and co-authored with Keratilwe Thebe Tsatsimpe (Consultant) the reports on the value chain and jobs surveys conducted on Olive oil and Medicinal and Aromatic Plants (MAPs); Faten Khamassi (Consultant), who co-tutored the training program and co-authored the deep-dive studies on the Olive Oil and Tomato value chains; Sihem Bellagha (Consultant), who also co-authored the deep-dive studies on the Olive Oil and Tomato value chains; Houssein Bel Hadj (Consultant), who co-tutored the training program and co-authored the deep-dive study on the MAPs value chain; Fatma Laabidi (Consultant), who also co-authored the deep-dive studies on the MAPs value chain; Tindaro Paganini, who combined the strategic market segmentation and deep dive studies conducted under the program in a single report on three value chains (Olive Oil; Tomato, and MAPs); Ramzi Zammali (from MFC pole) who co-tutored the training, and Zouhour Karray (Program Manager at the World Bank) who supported the training in a mentoring capacity within the groups, as well as Vida Bobic (Consultant), Anam Rizvi (Consultant), David Megill (Consultant), Valerie Evans (Consultant), and Ami Shrestha (Consultant), who contributed to the design and analysis of the value chain and jobs surveys on Olive oil and Medicinal and Aromatic Plants (MAPs).

The report was carried out under the guidance of Jesko Hentschel (Country Director Morocco, Algeria, Tunisia, Libya and Malta, MNC01), Michael Rutkowski (Global Director, HSJDR), Najy Benhassine (Regional Director, EMNDR), Antonius Verheijen (Country Manager, Tunisia, MNCTN), Ian Walker (Manager, HSPJB), and Jean Pesme (Practice Manager, EMNF1).

The team is grateful to the peer reviewers Ifenyinwa Onugha (Private Sector Specialist, ETIMT), Miles McKenna (Associate Economist, CCEDR), and Paul Miller (Olive Oil Specialist) as well as Johanne Buba (Senior Economist, HSPJB) and Thomas Farole (Lead Economist, HSPJB) for their valuable comments to this report.

The team would like to express its gratitude to all partner institutions whose support was essential to delivering the training and the reports. In particular, the team would like to highlight the support and contribution of the Ministry of Agriculture, Water Resources, and Fishing; the Ministry of Industry and SMEs (including its related Agrofood Technical Center - CTAA - and the Industrial Cluster of Conserved Foods – GICA); the Agency for Promotion of Industry and Innovation (APII); the Ministry of Development, Investment and International Cooperation; the Authority for the Development of Center-West (ODCO); and the Authority for the Development of North-West (ODNO), for assigning motivated participants to the training program. The team also thanks MFC Pole, the Tunisian techno park dedicated to the textile

and garment industry, and the Exports Promotion Center (CEPEX) for allowing the program to use its facilities throughout the training period.

This program is part of the Let's Work Program coordinated by the World Bank Group for more and better private sector jobs in countries like Bangladesh, Mozambique, and Tunisia. Let's Work is a global partnership that unites organizations dedicated in the effort to provide effective solutions to the global job crisis by harnessing the potential of the private sector to help create more and better jobs, in a vision that seeks fairness and inclusiveness (see <https://www.jobsanddevelopment.org/lets-work/>).

RELATED PUBLICATIONS:

1. Olive Oil in the North-West of Tunisia: Findings from a Value Chain and Jobs survey
2. Medicinal and Aromatic Plants in the North-West of Tunisia: Findings from a Value Chain and Jobs survey
3. Olive Oil, Medicinal & Aromatic plants, and Tomatoes in North-West Tunisia: a roadmap to developing competitive advantage on strategic markets

Publications for the Value Chain Development for Jobs in Lagging Regions: Let's Work Program in Tunisia (P157321) package can be downloaded on [the World Bank Group Jobs and Development Publications Website](#).

Contents

Acronyms and abbreviations	vii
Introduction	1
Objectives and rationale of the technical assistance project	2
Project design and implementation.....	3
Findings from survey and strategic market segmentation on pilot value chains	5
Olive oil	5
Medicinal and Aromatic Plants	8
Tomato.....	11
Conclusions	12
Institutional structure and organization of the taskforce.....	14
ANNEX	16

Acronyms and abbreviations

Acronym	Definition
APIA	Tunisia's agency for investment promotion in agriculture
APII	Tunisia's Industrial development agency
CEPEX	Tunisia's export development Agency
CRI	Cluster and value chain Reinforcement Initiatives
FDI	Foreign Direct Investment
FTE	Full-time equivalent
FY	Fiscal Year
IBRD	International Bank for Reconstruction and Development
MAPs	Medicinal and Aromatic Plants
NW	North West
ODCO	Tunisia's agency for regional development in the center west
ODNO	Tunisia's agency for regional development in the North west
Program	Value Chain Development for Jobs in the Lagging Regions – Let's Work Program in Tunisia
TA	Technical Assistance
VC	Value Chain
WBG	World Bank Group

Introduction

In Tunisia, economic development has been characterized by significant regional imbalances, as coastal regions develop faster and interior regions lag. Together, Tunisia's North West (NW) and Center West (CW) regions are home to about 47 percent of the poor. Agriculture provides the bulk of employment and income opportunities in these two regions, and income levels remain low. Well-paying jobs and other income opportunities are limited, and overall economic prospects are threatened by unsustainable agricultural and natural resource management practices, as well as by climate change.

The World Bank Group (WBG) aims to support structural change in the Tunisian economy, especially lagging regions, through value chain and cluster development analysis to increase competitiveness as well as employment opportunities. The ultimate objective is to create more and better jobs in small and medium-size enterprises that are competitive in a diversified range of markets. Efforts are therefore not restricted to the largest players but aim to offer fair competition-based opportunities to local actors and smallholders. The analysis is based on the notion that in value chains, as a given product or service moves through the different stages of production, value is added, and jobs are created. Market and institutional failures, however, can constrain the development of value chains as they reduce investments, preclude links, and thereby lessen the potential for job creation.

To that effect, the WBG's Finance, Competitiveness and Innovation and Social Protection & Jobs Global Practices have partnered to deliver the technical assistance (TA) 'Value Chain Development for Jobs in the Lagging Regions – Let's Work Program in Tunisia' ("Program"). The TA is part of the Let's Work Program¹ coordinated by the World Bank Group for more and better private-sector jobs in countries such as Tunisia, Mozambique, or Bangladesh.

The TA provided analytical reports on targeted value chains with a jobs lens, built the capacity of core members of the Tunisian "Taskforce for Value Chain and Cluster Development"² (the "Taskforce"), facilitated subsequent WB lending operations, and attracted active interest and support from stakeholders in the donor community. The outputs produced by the TA were shared and used by with clients including the Taskforce and have directly impacted the related lending projects on VCs in lagging regions in Tunisia. They are expected to lead to further follow-up work that incorporate the policy recommendations derived from the TA. In addition to building capacity of the core members of the taskforce, the Program has informed the design of four world bank investment projects (IPF) in Tunisia³,

¹ Let's Work is a global partnership that unites organizations dedicated to providing effective solutions to the global job crisis by harnessing the potential of the private sector to help create more and better jobs, in a vision that seeks fairness and inclusiveness (see <https://letswork.org/>).

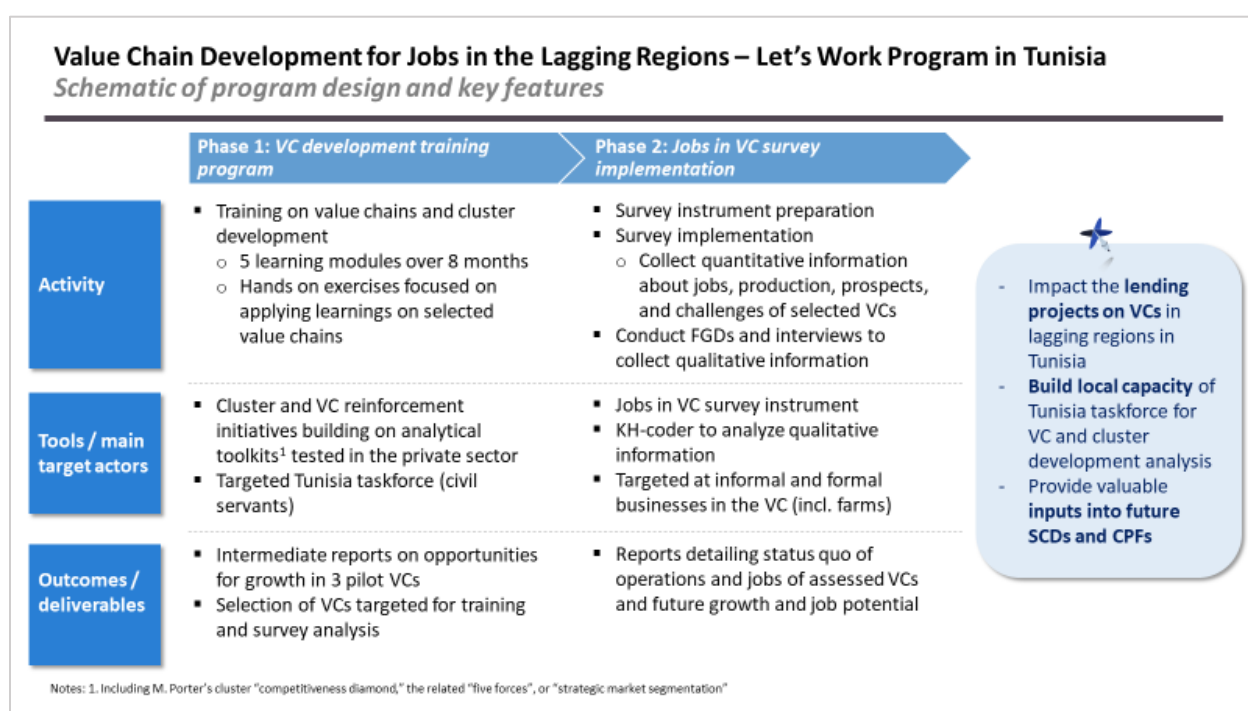
² The Taskforce is a dedicated team of practitioners hailing for Tunisia's 6 private sector development and support agencies: Cepex (export promotion agency), APII (industrial development agency), APIA (agency for investment promotion in agriculture), TIA (FDI promotion agency), ODNO (Regional development agency for the north-west of Tunisia), and ODCO (regional development agency for the center-west of Tunisia). It was created by decree in 2018 and is supported by four ongoing WBG financed operations.

³ The Productive Inclusion Opportunities for Young Women and Men Project (P158138); the Irrigated Agriculture Intensification Project (P160245); the Integrated Landscape Management Project in the Lagging Regions of Tunisia (P151030), and the Tunisia Third Export Development Project (P132381).

which are now partnering in financing the taskforce's operational costs as well as the implementation of the investment plans it will elaborate to unleash the potential of 15 targeted chains. In fact, the operational work on the VCs became a natural extension of the work covered under this TA (in addition to other complementary WB funded TAs). Last, client and donor community members have been regularly informed throughout the TA and started or expanded their own value chain activities during the project implementation period (e.g. Swiss SECO, GIZ, EU).

This report briefly describes the approach adopted by the technical assistance in Tunisia before presenting key findings from the effort. The next sections cover the program's objectives and rationale for the TA, findings from the survey and strategic market segmentation activities, and concludes with a reflection of project achievements and lessons learnt from the piloting of the analytical and operational tools deployed in this project. Figure 1 provides a schematic of the program design and its key features.

Figure 1: Let's Work Program in Tunisia- Program Design and Key Features



Objectives and rationale of the technical assistance project

The objective of this assistance was to pilot new approaches centered around the development of high potential⁴ value chains and better job creation. Aligning with the focus of WB operations under preparation at the time, the project targets pilot value chains that could provide opportunities to poor or vulnerable groups, including women and youth in selected lagging regions. Particularly, the project tests two tools to help inform value chain development policies: i) cluster and value chain reinforcement initiatives (CRIs), which build on a rich analytical toolbox well tested in the private sector (including M.

⁴ Such potential can be found in any sector or subsector. In the case of this TA, the team and counterparts focused on value chains in agribusiness (olive oil, Medicinal plants and tomatoes), illustrating how such high potential can be identified for any of the products in a given region.

Porter's cluster "competitiveness diamond," the related "five forces", or "strategic market segmentation"); and ii) value chain and job focused surveys, with related benchmarking against similar value chains in comparator economies. These piloted tools were meant to simultaneously inform World Bank lending operations under preparation at the time, while also building capacity among counterparts to leverage these tools during the implementation of these operations.

The VCs chosen for the training and/or survey were identified in consultation with the counterparts in the Government of Tunisia and are linked to WBG financed operations currently under implementation.

The capacity building program was first to be implemented so that the empirical work (VC and Jobs survey design and implementation) would become a natural follow up activity. Starting with this component ensured that beneficiary agencies and counterparts understood, both, what VC analysis with a Jobs lens entails, and the development work that can be done on targeted VCs. In addition, it ensured that the WB does not lead sector selection and sector development in countries which it supports; instead, it takes-on pilot cases, and provides support to governments in response to their choices and objectives.

Project design and implementation

The TA was implemented over two main phases from FY16-19. The TA started with an inception phase focused on the preparation of the training and survey work. The first main component provided comprehensive capacity building on VC and cluster development for Tunisia's relevant civil servants⁵, and delivered intermediate reports on opportunities for growth in three pilot value chains (to inform the design and substance of WBG financed lending operation under preparation at the time, such as the Integrated Landscape Management Project in Tunisia's lagging regions - P151030). These were: Olive oil (OO) and Medicinal and Aromatic Plants (MAPs)⁶ in the North-West region of Tunisia; and Tomatoes in Center West region of Tunisia⁷. A combination of all components (strategic market segmentation and survey-based empirical analysis) revealed promising potential for growth and jobs in the Olive Oil and Medicinal and Aromatic Plants (MAPs). The second component involved the implementation of a jobs in value chains survey and involved mapping two value chains with a selected survey firm and conducting both a quantitative and qualitative survey/interviews per value chain.

- **The "Value Chain Development training program" was conducted by the World Bank in Tunis from April 5th, 2016 until November 14th 2016.** The program comprised five in-class training weeks (5 learning modules) spread over an eight-month period. The training was accompanied by hands-on exercises for the participants over the training period. Participants were organized into teams focused on a given value chain, enabling the trainees to apply the coursework on a practical case, relevant to the regions of focus. The tutors of the course (with some support by consultants) were then asked to extend and deepen the value chain diagnostic produced by trainees (particularly the strategic market segmentation) with their own experience and analysis. The tutors then provided reports on three of the value chains used as exercise material during the training. The choice of VCs was made to align with the focus of operations under preparation (to

⁵ The training was rooted in the CRI technical and methodological approach, often used by the Bank's global units when providing support on this area of development.

⁶ The strategic market segmentation was conducted only on rosemary given the high diversity of plant species in Tunisia's MAPs sector.

⁷ Only a strategic market segmentation, without the jobs survey, was conducted for Tomatoes.

be informative to the government in a timely fashion). Recommendations built on a rapid strategic market segmentation and identified policy actions that could make targeted value chains more competitive, creating better jobs.

- **The “Jobs in Value Chains Survey” was used to collect quantitative data about the distribution of jobs across firms, production functions, and the main constraints to job creation in two of the three value chains targeted in the first component** (the two that were most relevant to the north-west lagging region of focus). It was complemented by qualitative information collected through interviews and focus group discussions across actors in the targeted value chains. Data was collected between October 2017 and January 2018. The principal target population included formal and informal businesses including farms along the different nodes of the respective value chains. VC performance in the region was benchmarked to examples from other, leading countries in the same sector to determine potential productivity gaps and improvements areas for the sector’s global competitiveness in order to lead to more and better jobs.

The survey aimed at better understanding existing value chains and their challenges to inform policies in support job creation (in complement to the training program and its CRI approach). A particular focus of the tasks was integrating microenterprises into competitive value chains. The survey instrument was structured in four modules: (i) customers and markets, (ii) production structure, (iii) supply chain, as well as (iv) workforce and skills.

- **Customers and markets:** Identified how the market is structured in order to understand how changes among certain actors of the value chain are likely to impact others.
- **Production structure:** Identified the production structure of the firm, including the relative use of labor, capital, and other inputs and the relationship between outputs/production and labor use.
- **Supply chain relationships:** Identifies the supply chain links and the opportunities and barriers to deepening local links which is critical for understanding the multiplier effect in the value chain.
- **Workforce and skills:** Identified the structure of the current workforce of relevant or typical firms at each stage of the value chain and the barriers to expanding the workforce.

Findings from survey and strategic market segmentation on pilot value chains

Taking a step back and looking at the findings of the two separate activities, the team finds high informality with low quality jobs throughout both VCs, which would require qualitative changes in these VCs in order to contribute more significantly to quality-job creation (reducing informality). That said, all analyzed VCs show high potential for growth which, if well leveraged, could lead to more and better jobs. Below are some of the combined highlights (survey and strategic market segmentation) of findings in each of the sectors analyzed⁸. It should be recalled that the value chain and jobs survey analysis focused on the shedding insights on the status quo based on actors in the value chains whereas the strategic market segmentation focused on potential future market opportunities (an outside-in assessment). The lessons learnt in the subsequent section shares a reflection on how these two can be brought closer together in future projects.

Olive oil

The olive oil VC in Tunisia suffers from productivity constraints translating into low yields despite high input usage relative to peers (e.g. percent of utilized land for current output). Tunisia is the fifth main exporter and accounts for 5 percent of the world's total olive oil exports. However, Tunisia seems to experience some inefficiencies in its olive production practices with low yields in tonnes olives per hectare (0.8 vs. 2.5-3 of Italy, Spain and Greece). Also, the ratio of percent olive oil production of agricultural output to percent utilized agricultural land is lower in Tunisia (~0.2) than in Spain and Greece (~0.6 each) and Italy (~0.4). Though this is a challenge for more bulk olive oil focus, the current production characteristics might be favorable to more organic and gourmet olive oil production as they are more environmentally sustainable compared to high-input high-yielding irrigated new farms. Irrespective of whether Tunisia continues with current bulk olive oil exports or emphasizes organic and gourmet olive oil exports, it still needs to address other constraints such as quality bottling, packaging, and service at high standards - logistics – which affect consistency of production levels.

The NW region is a key contributor to the OO VC in Tunisia. It represents 41 percent of Tunisia's production of organic virgin olive oil and extra-virgin olive oil, with a total average production of 90,000 metric tons per year. Cultivation of olive trees account for 80 percent of total area devoted to tree crop plantations. Tunisia produces, among others, two autochthonous olive varieties, Chétoui and Chemali, and its olive oil tends to be favored by export markets because of its high quality and organic nature. 40 percent of Tunisia's total olive growing areas are organic olive-growing, covering 125,000 hectares, the

⁸ On the survey analysis' value addition when discussing findings that may appear established in their general formulation: This TA identifies among others the structure and jobs related characteristics of the VCs chosen and provides numbers and empirically validates common perceptions about the VCs under investigation to better inform policy recommendations. Typical constraints, such as the often cited 'need for finance', are ranking top as they are often mentioned by respondents across different nodes of the VC. At the same time, the survey work allows to shed more light on such common perceptions to enable a deeper understanding. For example, regarding the financial constraint, the analysis identifies that in the case of MAPs, land access is the seemingly underlying problem as smaller sized players find it more difficult to secure land for harvesting given that the current land auction mechanism favors bigger players. Respondents see their growth as the solution and, consequently, the financial resources needed for growth as their main constraint. However, the auction mechanism appears to be the more immediate and underlying constraint for MAPs production when combining the quantitative and qualitative (focus groups, interviews) survey results.

third largest in the world. More than 70 percent of the production is of extra virgin quality, especially within the first month of the life of the oil.

The survey revealed that the OO VC has over 215,000 jobs in the NW region, the bulk of which is in agriculture. However, most work is temporary, low-skilled and has low access to benefits, especially social protection. Very few full-time trained employees are hired throughout all the nodes (highest share in manufacturing at ~50 percent). Across the VC, employment is characterized by low levels of education and work experience, based on the profile of new hires in the last 3 years (over 70 percent of workers across all nodes have primary education or less). Women ownership of operations is highest in the manufacturing node (albeit only ~8 percent) and in terms of employment, women are most represented in the distribution node. Youth feature among permanent workers throughout the nodes, ranging between 15 and 20 percent in agriculture to distribution. Monthly wages of full-time general employees are similar between firms in the three nodes, ranging at ~TND 1,000-1,500 and highest in agriculture. With respect to gender, women tend to be paid less than men for performing similar work; TND 12-15 per day compared to TND 20-25 per day for men. Workers receive in-kind benefits but often lack access to social protection benefits associated with formal employment (e.g. healthcare). Of labor constraints, cost of wages (though low) are considered the main labor-related issue facing firms.

Figure 3: Workforce split - olive oil

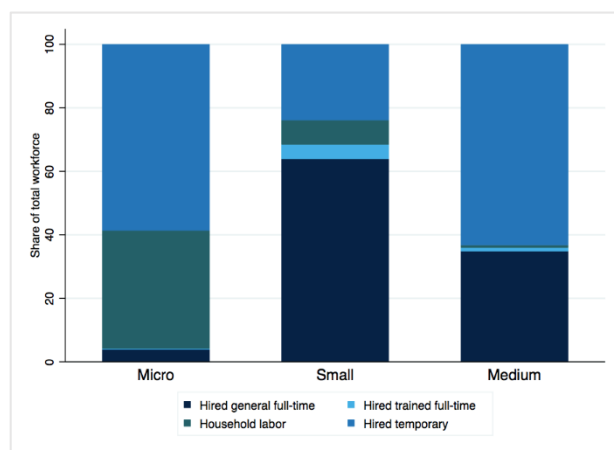
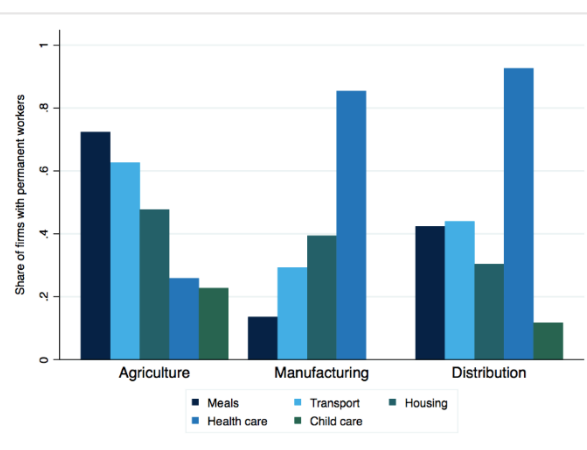


Figure 2: Benefits permanent workers - olive oil



The survey also revealed the relative importance of investments in capital over labor for output growth. Based on the hypothetical case of doubling output, the survey asked respondents about their hypothetical investments in capital and labor (permanent general labor and trained labor). The reported elasticities throughout the agriculture, manufacturing, and distribution nodes are suggestive of a production function with diminishing returns to scale. Further, the relationship of the production factor elasticities measured as the ratio growth multiples⁹, provides insights into the dynamics of capital and labor to achieve output growth. Across the value chain, for both general and trained permanent labor, output growth in the olive

⁹ This captures the ratio of labor multiples to capital multiples given a doubling of output. If the relative input multiple range is (0,1) then output growth in the value chain requires relatively more capital; however, if it is >1 it requires relatively more labor. These ratios enable a joint interpretation of the capital and labor related elasticities derived from separate question modules of the survey. For labor, the elasticity questions only focused on increases in permanent labor (trained or general), not temporary or household labor.

oil VC requires relatively more capital except for general labor in the agriculture node where respondents stated the need for relatively more labor for doubling outputs (Table 1). .

Table 1: Input growth multiples and their ratio in the OO VC

	Agriculture	Manufacturing	Distribution
Effective increase (input growth multiples)			
Capital	3.9	5.4	5.7
Labor - permanent (general)	5.8	3.3	3.6
Labor - permanent (trained)	2.1	2.0	2.8
Ratio of labor-capital multiples			
Permanent (general) : capital	1.46	0.61	0.62
Permanent (trained) : capital	0.54	0.37	0.49

Additionally, the strategic market segmentation and benchmarking analysis reveal that, given the NW regions' competitive advantages, strong potential growth prospects would benefit from upgrading and repositioning olive oil exports on the highest-end quality segments of the global OO market (i.e. Gourmet and premium olive oil). Upgrading focuses on adding value by moving to bottled exports in the current markets (and any potential new emerging extra-virgin olive oil importers). Repositioning focuses on emerging and growing premium and gourmet olive oil importers. Given the specialized skills required when producing for these market segments, the potential jobs that could be created would likely be of better quality. That is, higher paid with a higher share of permanent positions, implying greater access to benefits as was seen in the jobs profile of the VC analysis.

To increase the likelihood of success for this opportunity, Tunisia's NW region will have to address current inefficiencies and constraints to production. Most significantly, based on both the survey and strategic market segment analysis, constraints to accessing finance and markets, challenges in transportation and logistics; and packaging inefficiencies and quality of bottles currently available in Tunisia. These are critical, especially for a potential focus on expanding and diversifying olive oil exports.

A stronger focus on gourmet and high-value bottled exports would need to be accompanied by the following policy actions¹⁰:

- a) improved legal and institutional framework to enhance market access;
- b) implementation of a market development strategy for gourmet olive oil products, and promotion of quality brands of olive oils of Tunisian origin;
- c) improved VC logistics – from the harvest to oil mills – to ensure the quality of the oil;
- d) development of agricultural production technologies and improved olive yields per hectare;

¹⁰ At the time of publication of this report, the Taskforce for Value Chain and Cluster Development of Tunisia (the Taskforce), had i) facilitated a structured public private dialogue with the olive oil producers in the northwest of Tunisia based on similar analytics than the ones taught in the training (including strategic segmentation), ii) prepared a detailed list of needed policy reforms - as recommended by point "a" below - compiled in a 'white paper for reforms', iii) elaborated a strategy for gourmet olive oil - as recommended in point "b" below - and started engaging stakeholders to promote these; and iv) prepared a detailed action plan to implement the strategy, including detailed proposals on line items "c", "d", "e" and "f" below. These actions are expected to be implemented by at least two World Bank financed investment projects in Tunisia.

- e) development of export promotion and strengthening the coordination between support organizations;
- f) introduction of financial products accessible to the various actors; and
- g) improvement of applied economic research.

Ultimately, what will matter is the perceived quality of Tunisia's olive oil exports from consumers. The above list of policy measures is necessary to achieve a quality standard well above minimum standards used by the ONH and IOC; and maintain it over the required minimum 12 months of shelf life.

Medicinal and Aromatic Plants

The analysis has revealed potential for growth in the MAPs VC in the NW region. MAPs are increasingly appreciated worldwide showing great promise with increases in prices driven by demand growing faster than supply over the last decade and a half. Exports totaled USD 3.07 billion in 2016 and rose to USD 3.12 billion in 2017. An estimated 3,000 species of MAPs are traded worldwide to produce pharmaceuticals, dietary supplements, cosmetics, natural health products, personal care products, and flavorings. Production and trade can be analyzed by splitting MAPs into three categories: essential oils, medicinal plants, and condiment with all three being produced from wild and cultivated MAPs. In 2018, India (top MAP exporter, USD ~859 mn), the United States (largest importer of essential oils, ~USD 1.38 billion) and China (leader in medicinal plant exports, USD ~822 million) are some of the major countries in the sector. Tunisia does not feature in the list of the top 10 MAPs exporter countries (aggregated categories) but is the third largest supplier of rosemary in the United States and has price competitiveness across both conventional rosemary essential oils and organic rosemary essential oil.

The current institutional frameworks pose a high risk on the sectors environmental sustainability. Wild MAPs constitute 90 percent of the entire production. This poses a high environmental sustainability risk as, in forests, there are generally no tracking systems or feasible controls to avoid overharvesting, habitat loss, or illegal trade. The inadequate implementation of the regulatory framework to preserve wild MAPs represent a serious obstacle for sustainable development of the sector. Further, the current legal framework for forest exploitation is unable to avoid overharvesting or unskillful harvesting.

There are around 2,000 MAPs species in Tunisia with potential for natural ingredients, essential oils and aromas for cosmetics, food or para-pharmaceutical products. The MAPs sector accounts for about 0.8 per cent of the total agricultural production and about 1 percent of exports, providing 0.9 percent of the total days of work in the agriculture sector. Based on the survey, 5 main MAPs are top grown by farms: rosemary (~60 percent of farms), thyme (~50 percent of farms), mint, myrtle, and mastic (~20 percent of farms). These are largely (~58 percent of farms) passed on in the form of dried flowers/leaves to the manufacturing node. Manufacturers sell five types of MAPs-based products of which essential oils (~45 percent of firms) and soaps and cosmetics (~42 percent of firms) are the ones which most manufacturers sell.

In Tunisia, the MAPs sector is characterized by a large number of small actors in predominantly informal work arrangements upstream (producers, collectors) and more structured organization downstream (operators, wholesalers). MAPs companies are mainly export-oriented although there is an increasing interest in MAPs in the domestic market as well. The survey revealed that all nodes of the MAPs VC are profitable with manufacturing returning the highest profits (TND ~390,000, 37 and 25 times more than

agriculture and distribution, respectively), sales and profit margin (78 percent compared to 50 percent each for distribution and agriculture).

The estimated total number of full-time equivalent (FTE) jobs in the NW region's MAPs VC is ~4,210, the bulk of which is in manufacturing. Most labor in agriculture is temporary which results in a relatively lower FTE number compared to manufacturing that holds the highest share of permanent employees (45 percent across trained and general employees). On average, for each firm/establishment across the nodes, household labor account for most of the employment (90 percent in agriculture, 79 percent in distribution, and 36 percent manufacturing). By far, full-time equivalent (FTE) and permanent jobs are most common in the manufacturing node (45 percent across trained and general) while only 13 percent in distribution and 2 percent in agriculture (where there were no skilled permanent employees recorded). With respect to quality of labor and jobs, based on new hires in the last 3 years, while agriculture and distribution node firms on average have a higher number of unskilled or lowly educated workers, the manufacturing node has a fairer mix of skilled/unskilled and highly/lowly educated workers. Monthly wages of permanent employees are similar between firms in the three nodes, ranging between TND 450 to TND 600. The highest wages can be found in manufacturing. With respect to gender, women tend to have lower job stability and are mostly employed in temporary and seasonal roles esp. in agriculture. Women are also paid less than men, even when doing more work. Women ownership is highest in the manufacturing node and in terms of employment, women are also most represented in the manufacturing node. Only the distribution and manufacturing nodes have youth representation in permanent jobs and youth account for 15-20 percent of permanent workers. The cost of wages is the main labor-related obstacle firms face, especially in the agriculture and distribution node. In manufacturing, workers lacking skills is the main issue.

Figure 4: Workforce type - MAPs

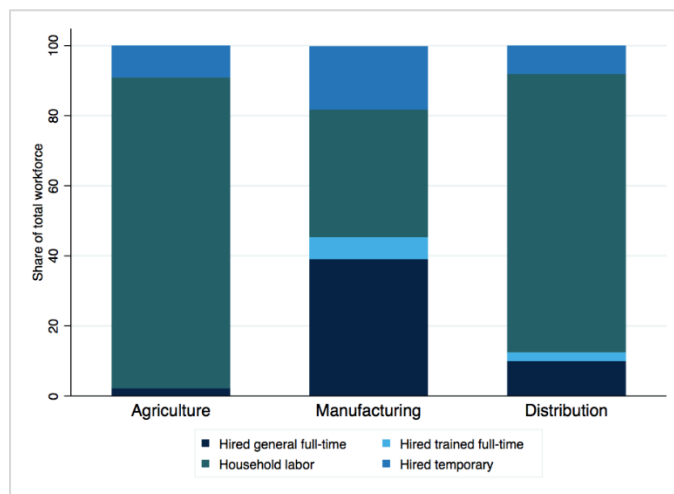
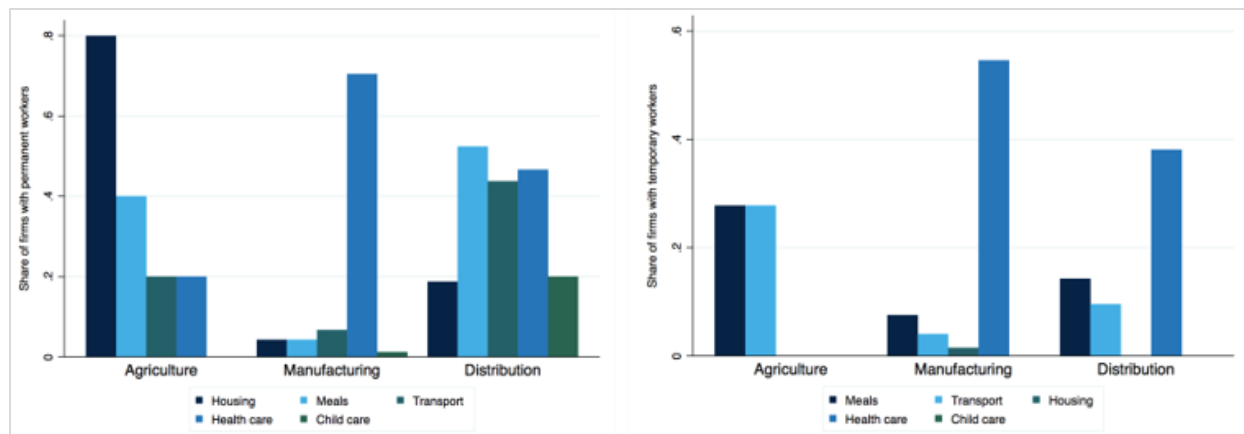


Figure 5: Benefits for permanent and temporary workers by node



Actors were optimistic about the potential to increase current production from existing resources (e.g. land), particularly for the manufacturing and distribution nodes. In agriculture, most respondents stated that they could double production. However, based on responses on the elasticities of capital relative to labor when doubling production, most actors see a stronger need to invest into capital rather than permanent or trained labor. . Between general and trained labor, there tends to be a higher increase in general labor for every additional increase in capital spend in the agriculture and manufacturing node; however, for the distribution node there tends to be a higher increase in trained labor for every additional increase in capital spend. For general labor, the *ratio of labor-capital multiples*¹¹ is about the same in the distribution and manufacturing node suggesting general labor to capital inputs will grow at similar proportions across these nodes. Surprisingly, in the MAPs VC, the node that generally requires more capital for growth compared to labor is the agriculture node (lowest ratio across both general and trained than other nodes), especially with respect to trained labor (Table 1).

Table 2: Input growth multiples and their ratio in the MAPs VC

	Agriculture	Manufacturing	Distribution
Effective increase (input growth multiples)			
Capital	6.4	2.7	4.2
Labor - permanent (general)	2.7	1.6	2.4
Labor - permanent (trained)	1.0	1.1	3.6
Ratio of labor-capital multiples			
Permanent (general) : capital	0.42	0.59	0.57
Permanent (trained) : capital	0.16	0.43	0.84

To seize their growth potential, the NW MAPs sector would need to first address the current constraints to production. The most prevalent constraint is access to finance (an important constraint given the

¹¹ This captures the ratio of labor multiple to capital multiple given a doubling of output. If the relative input multiple range is (0,1) then output growth in the value chain requires relatively more capital; however, if it is >1 it requires relatively more labor. These ratios enable a joint interpretation of the capital and labor related elasticities derived from separate question modules of the survey. For labor, the elasticity questions only focused on increases in permanent labor (trained or general) not temporary or household.

capital-intensive nature of growth) while access to land, electricity (costs and quality), and access to markets/licensing and permits featured as secondary constraints for the agriculture, manufacturing, and distribution nodes respectively. Qualitative interviews revealed different, though related, challenges such as low product quality due to lack of skills, access to water, lack of sector organization, and access to resources/land management.

As the MAPs sector includes a diversity of plants (> 2000 as earlier indicated), the strategic market segmentation focused on rosemary as 80 percent of forest cover is rosemary and myrtle and most farms have rosemary, to illustrate potential market opportunities when disaggregating the MAPs products.

Training participants determined that to shift from a from an industry that supplies simple commodities to one that supplies higher value-added product lines would help address the pressure exerted on the existing aquifers of rosemary, and the strong demand of the international markets. It was determined that (a) fresh rosemary for gastronomy, (b) fresh rosemary as a functional food and natural health product, and (c) the natural extract of rosemary as a functional food and natural health product are segments in which Tunisian products could develop the most competitive advantage.

To pursue such a growth path with the needed respect for environmental constraints, Tunisia will need to combine the i) optimization of harvesting spontaneous plants, ii) the introduction of domestication of traditionally spontaneous species, and iii) the development of the rosemary crop in certified organic areas. In this context six strategic areas of policy action were identified to achieve sustainable growth objectives:

- a) reform of the forests code¹²
- b) domestication of spontaneous MAPs and planting of cultivated MAPs
- c) better access to strategic markets
- d) processing and innovation
- e) coordination of producers and collaboration with industries, and
- f) improved access to financing

Tomato¹³

While Tunisia has traditionally focused most of its production on double concentrate tomato (DCT), a market-orientation shift would help sustain its competitiveness. Tunisia holds 0,7 percent of tomatoes world production. In 2017, the country was the 16th largest producer of tomatoes in the world (with 1,28 million metric tons of production) and second in the Middle East and North Africa region, after the Arab Republic of Egypt (7,29 million metric tons). Tunisia uses 75 percent of its production for processed tomato DCT in comparison with the 30 percent worldwide. Exports of Tunisian DCT have fallen during the past decade (60 percent), and more drastically since 2010 (75 percent). Traditionally targeted markets (Algeria and Libya) have reduced their imports from Tunisia, and DCT prices on the international market have been declining because of the entry of China and India as major producers. Consequently, the

¹² At the time of publication of this project, critical aspects of this reform, such as organized community access to this resource, was being piloted with the support of the Tunisia Integrated Landscape Management Project, a WB financed project to which this technical assistance is associated.

¹³ The analysis on the tomato VC in Tunisia is solely focusing on findings from the strategic market segmentation work under the TA as no VC and Jobs survey was conducted on tomatoes.

strategic market segmentation found that a market-oriented shift might be necessary to sustain the competitiveness of the Tunisian tomato industry.

The exercised focused on Kairouan and Sidi Bouzid governorates account for almost 30 percent of Tunisian tomato production. The region is home to 33 percent of the processing capacity of tomatoes—four canning plants—DCT and dried tomatoes (GICA 2010). The area devoted to seasonal tomatoes is 4,500 hectares (around 16% share of the overall area devoted in Tunisia), with yields well above the Tunisian average: between 70 and 75 metric tons per hectare. In the cluster, more than 3,000 farmers live from the production of tomatoes.

Within these governorates, it was concluded that the most attractive segment is fresh tomato for demanding consumers in export markets. In this market segment, largely concentrated in Western Europe but also covering Russia, consumers and buyers are more demanding in terms of quality, freshness, and flavor of the fruits. A differentiated and more complex production process requires more selection and upstream research, quality control, and very efficient logistics. To succeed in this international market, fresh tomatoes must meet precise and very different consumption needs including taste and authenticity, freshness and look, differentiated packaging, and traceability.

To increase competitiveness in this segment and focus on markets that demand higher value addition, the exercise recommended the following policy actions:

- a) improve supply logistics (cold chain) services to allow better access to markets for small holders and producers;
- b) support investment in off-season tomato production for export, in lieu of low value-added production (maintaining or even reducing total water use);
- c) support related tomato production technologies
- d) create a research program on tomato varieties with capacity building for farmers, technicians, and engineers;
- e) support investments in packaging; and
- f) elaborate and implement a strategy to promote and connect the fruit and vegetable distribution platforms in Europe.

Conclusions

The Program has achieved its objectives over the reporting period. It directly contributed to establishing an inter-ministerial Taskforce for value chain and cluster development in Tunisia that adopts the CRI approach. Its most immediate and direct contribution to the effectiveness of the Taskforce was by imparting hard and soft skills: 27 civil servants were trained by this TA among whom 11 were evaluated as “ready to conduct value chain analysis and development work” by the end of the training program; 6 of these worked as the core members of the Taskforce. More broadly, the training program enabled participants from different institutions to better understand value chains using a jobs lens and identify potential synergies for future inter-governmental collaboration. A follow up activity to this TA is currently being implemented by a WB/IFC project that trains the next generation of recruits of the Taskforce with the same training material from this TA. The TA has also informed the ongoing WBG-financed operations supporting the Taskforce, and the Taskforce’s own analytics and efforts to reinforce the competitiveness and job-creation potential of Olive Oil (e.g. gourmet olive oil), Medicinal and Aromatic (fresh rosemary for gastronomy), and Tomato (fresh for demanding customers) value chains.

Lessons learnt from the TA. One key takeaway was that robust capacity building programs such as the ones conducted under this TA can be powerful tools for project preparation and client engagement. The program was instrumental in informing both, ongoing and upcoming operational projects and fostering a close exchange among key Tunisian agencies and administrations, as well as donors, on value chain development and job creation issues. More concretely, the TA has created knowledge and formed teams that are now involved in the implementation of lending operations. Beyond the analytical outputs on the VCs in focus, the process of bringing together teams across multiple agencies with a joint objective and engaging them on real cases (internationally and locally), has been a corner stone in promoting the subsequent institutional reform of creating a dedicated Taskforce to support their common objective of competitiveness-reinforcement and job-creation. The impact of collaboration across multiple agencies could further be leveraged by ensuring that future taskforces are composed such that recommendations stemming out the value chain development training program could go further to assign roles and responsibilities to MDAs and other actors for identified action points, providing a thought-starter for future implementation.

Additionally, future TAs could further integrate and deepen the two components with a jobs lens in lagging regions. The survey component could be tailored to the respective VC analytics conducted under a CRI, and help: i) validate perceptions and alleged facts of the VCs and verify the gaps identified through the strategic market segmentation; ii) inform what can be done to surmount constraints identified; and iii) assess the possible impacts of policy interventions for growth and better job creation. To systematize and scale up this approach, governments' specialized agencies for empirical and quantitative work (e.g. INS, ITCEQ in the case of Tunisia) could receive dedicated capacity building and resources to conduct or supervise these informative surveys. They could do so in close coordination with the work of agencies engaged in reinforcing the competitiveness of value chains or clusters (e.g. the Taskforce in this case).

Under this TA, the survey instrument for Tunisia was only developed during the project runtime and not closely integrated in the capacity building program. While the capacity building work informed the survey design, the two perspectives have substantive complementarities that could be further exploited. Going forward projects that follow this TA's approach could fully engage the participants and experts engaged in CRIs in the design and analysis of the surveys from the outset.

Box 1: Maintaining the momentum and looking forward: Value Chain Development for Jobs in Lagging Regions in Tunisia

In parallel to the technical assistance documented in this report, four World Bank operations have adopted value chain development activities in Tunisia =. The government of Tunisia created a joint “Value chain and cluster development taskforce” to increase the efficiency and effectiveness of the support for job creation, enhanced competitiveness, and economic growth in targeted lagging regions.

Institutional structure and organization of the taskforce

The Taskforce brings together a trained team of specialists to leverage an analytically rigorous yet strongly participatory approach. The Taskforce is composed of civil servants from four key Tunisian MSME support agencies (APIA, APII, CEPEX, TIA) as well as two (sub)regional development institutions (ODNO - and ODCO).

Although geographically decentralized, the Taskforce is institutionally hosted within Tunisia’s export promotion center, CEPEX and operates on a multilateral memorandum of understanding to be signed between the agencies involved before project launch. This memorandum of understanding specifies the governance mode of the Taskforce (its chairman, advisory board, and operations manual), as well as its objectives and performance indicators.

Work methodology and specific activities of the taskforce

Main beneficiaries of the Taskforce’s work are vulnerable farmers, producers, self-employed service providers, and/or micro firms in lagging regions. These groups are typically unable to access higher value-added markets, or achieve higher productivity, due to failures of coordination and information. In order to insure proximity to these beneficiaries, a large part of the Taskforce is decentralized, based in local offices within the targeted lagging regions.

The Taskforce provides a package of support services to beneficiaries including: i) identify and analyze higher value-added markets for targeted products and services; ii)facilitate public-private dialogues (PPDs) to allow champions and motivated players to develop market-based strategies and competitive advantages; iii) identify investments and common services (such as cold chain services and packaging and marketing services) needed to tackle value chain–level market failures, decrease intermediation costs on local MSMEs, and increase their access to strategic market segments with higher value added and returns; and iv) identify policies (via the PPD) that can strengthen the competitiveness of the chain or improve the business climate for the targeted value chains or regions as a whole.

At the time of publication of this report, the Taskforce had already facilitated a structured public private dialogue with olive oil producers in the northwest of Tunisia, prepared a detailed list of needed policy reforms compiled in a ‘white paper for reforms”, elaborated a strategy for gourmet olive oil, and prepared a detailed action plan to implement the strategy. These actions are expected to be implemented by at least two World Bank financed investment projects in Tunisia. This pilot exercise showcases the high-capacity and quality of work the Taskforce could provide on any value chain it would be asked to reinforce or develop in the coming years.

Sustainability of the agenda

By focusing on building the capacity of the Taskforce, this technical assistance has helped provide Tunisia with the capacity to produce solid recommendations for the development of a large number of value chains for job creation going forward. The approach of this activity went beyond a mere analysis with policy recommendations for a selected few value chains derived by a set of experts but to build capacity and have a lasting impact. However, the sustainability of the efforts taken in this activity will depend on keeping and expanding the mandate and funding of the Taskforce.

Tunisia could further reinforce the sustainability of the Taskforce as well as the sustainability of the wider effort of value chain development and job creation. The first step to ensure said sustainability has already been achieved during the conception of the Taskforce: by ensuring that its members remain civil servants (on the payroll of their parent agency), and regulating that arrangement through a government decree, the government mitigated the risks associated with a dependency on recruited consultants. However, the operational costs of the Taskforce (such as logistics, equipment and fees for punctual supporting expertise) remains covered by WBG financed projects in Tunisia. Although it ensures funding of the Taskforce's operations for 3-5 years, this dependency on World Bank financing could and should be gradually reduced. Two concrete actions could help achieve that:

- Enlarging the range of partners to include other donors active in the value chain and cluster development space in Tunisia (e.g. GIZ, the EU, SECCO, or UNIDO). The enlargement of the scope of partners would not only reduce duplications in funding, but it would also reinforce the efficiency and effectiveness of the taskforce, as well as its credibility towards the private sector. This suggestion could be operationalized either through an umbrella Trust Fund for Value Chain Development for Job creation in Tunisia, or through an interagency agreement between the Taskforce and the leading ministry/agencies of relevant donor-funded projects (e.g. the case with the GIZ funded projects and the Ministry of industry, who are already partners of the Taskforce under such an agreement).
- Enshrining the Taskforce more permanently in one of the MSME development agencies such as CEPEX and integrating its operational costs in the budget of that agency. Multiple agencies, such as CEPEX, are currently undergoing institutional reforms to reinforce their impact; these reforms could examine the possibility of integrating the Taskforce as a permanent body in the agencies, while maintaining the strong accent on inter-agency membership and cooperation.

These two measures are likely to be increasingly and more favorably considered as the Taskforce continues to perform well, identifying critical reforms and investments that boost jobs and competitiveness in Tunisian products and services, and providing a platform for cooperation on value chain development across sectors and projects.

ANNEX

This overview on the approach, impacts, and findings of the World Bank activity ‘Value Chain Development for Jobs in Lagging Regions (P157321)’ is based on four reports that summarize the main outcomes financed under the “Let’s Work Program in Tunisia”, namely:

- (i)** Deep-dive report on value chain & jobs survey on medicinal and aromatic plants in the north-west region of Tunisia (authors: Michael Weber, Jade Salhab, Sonia Sanchez Quintela, Keratilwe Thebe Tsatsimpe)
- (ii)** Deep-dive report on value chain & jobs survey on the olive oil value chain in the north-west region of Tunisia (authors: Michael Weber, Jade Salhab, Sonia Sanchez Quintela, Keratilwe Thebe Tsatsimpe)
- (iii)** Deep-dive report on Findings from the pilot strategic market segmentation on value chains in north-west region of Tunisia (editors: Jade Salhab, Michael Weber, Tindaro Paganini)
- (iv)** Background report on the value chain and cluster development capacity building program (authors: Henri Varlet, Sonia Sanchez Quintela)

Most Recent Jobs Working Papers:

40. [The Future of Work in Agriculture - Some Reflections](#) [2020]
Luc Christiaensen, Zachariah Rutledge, and J. Edward Taylor
39. [Theoretical Underpinnings of Jobs Diagnostics](#) [2020]
Ulrich Lachler and Dino Merotto
38. [Measuring Jobs-Linked Externalities in Private Investment Projects a Fragility, Conflict, and Violence Perspective](#) [2020]
Federica Ricaldi and Peter Mousley
37. [Inclusive Value Chains to Accelerate Poverty Reduction in Africa](#) [2020]
Johan Swinnen and Rob Kuijpers
36. [Uganda: A review of the World Bank Jobs Portfolio](#) [2019]
Vismay Parikh and Timothy Clay
35. [Jobs Challenge in Slavonia, Croatia - A Subnational Labor Market Assessment](#) [2019]
Luc Christiaensen, Celine Ferré, Rubil Ivica, Teo Matkovic, and Tara Sharafudheen
34. [Support to Jobs for Youth in Niger a Retrospective Evaluation of Jobs Projects 2007-2018](#) [2019]
Boureima Gado et al.
33. [Migration and Jobs: Issues for the 21th Century](#) [2019]
Luc Christiaensen, Alvaro Gonzalez, and David Robalino
32. [The Cashew Value Chain in Mozambique](#) [2019]
Carlos Costa [with contributions by Christopher Delgado]
31. [The Cassava Value Chain in Mozambique](#) [2019]
Carlos Costa [with contributions by Christopher Delgado]

[Click here for full Jobs Paper Series](#)



Address: 1776 G St, NW, Washington, DC 20006

Website: <http://www.worldbank.org/en/topic/jobsanddevelopment>

Twitter: @WBG_Jobs

Blog: <https://blogs.worldbank.org/jobs/>