







#### **CLUSTER**

advanCing youth and women sociaL inclUSion in The mEditerRanean (C\_A.3.1\_0014) - WP3 (O.3.1)

### Market needs analysis form [Tunisia]

CGDR (PP7) 12/07/2022 ABDESSALEM MOHAMED Sr Manager











#### Summary

Introduction	3
Project target sectors	3
Market Needs Analysis	4
Blue Economy	4
Green Economy	6
Circular Economy	9
Sustainable Agriculture	11
Results and data of the A 3.2.1 – Sectors Needs Analysis – SEAs profiling	14
References	12

























#### Introduction

The governorate of Nabeul, was selected to take part in "CLUSTER «project, mainly because it fits with the targets of the project in the 4 specific sectors focused on.

With only 4% of the agricultural lands of the country, Nabeul is participating up to 15% of the national agricultural production value.

The main activities related to circular economy are in three following fields:

- Recycling waste water: potentially 27.7 million M3 of recycled quantities of water, actually only 5 million are used for irrigation of golf field, public gardens, and rarely used in agriculture.
- Recycling household waste with more economic efficiency. Actually, 0% of collected quantities are recycled; all is directly buried in public dumps.
- Industrial scrap recycling, glass recycling and spoiled electronic equipment.

In sustainable agriculture, the governorate counts 1458 ha of certified bio agricultural productions, most of them are in olive oil production and aromatic produce from flowers distillation. The governorate counts 5 biological olive oil mills, 7 units producing biological aromatic, 6 shops selling biological products.

The governorate is actively participating to blue economy, with 4 harbours fishing its contribution and with 716 boats (for coastal and deep sea fishing) is up to 17% of national fish production creating 3000 jobs, recently 5 aquaculture fish producing with capacity of 653 tons (sea bream and sea bass) are implemented.

Nabeul is also internationally known for the touristic activity, it counts 158 hotels offering 52 000 beds capacity, representing 22% of national touristic capacity and 80000 direct and indirect jobs.

#### **Project target sectors**

**Green economy** is a system of economic activities connected with the production, distribution, and consumption of goods and services that results in better human wellbeing in the long term to avoid exposing future generations to significant environmental risks and the ecologic shortage.

**Circular economy** refers to strategies that limit the environmental impact and waste of resources and increase efficiency at all product economy stages.

**Blue economy** encompasses all industries and sectors related to oceans, seas and coasts, whether they are based directly in the marine environment (e.g. shipping, seafood, energy generation) or on land (e.g. ports, shipyards, coastal infrastructures).

**Sustainable agriculture** is a type of agriculture that focuses on producing long-term crops and livestock while having minimal effects on the environment, trying at the same time, to find a good balance between the need for food production and the preservation of the ecological system within the environment.

























#### **Market Needs Analysis**

#### **Blue Economy**

#### Skills and competencies people young should have to work within the sector

- The first skill to have is the devotion of the young person to wok in this field.
- To have a complete idea about all the activities related to blue economy and how are clusters working together inside this sector.
- To know that Blue economy is not only activities on the shore, some connection with activities on land far away from the sea are related to blue economy.
- Getting a clear idea about the natural and potenciel resources such as fish stocks available, alternative potentials such as aquaculture, seewed cultivation and process.
- Alternative actions to be adopted in case of limitation of some resources, such as pleasure tourism, diving sport...
- National strategies for the blue economy, in all related activities (transport, tourism, management of fish stock and especially fish rest strategies.
- Possibilities of training (the gouvernorate of Nabeul disposes of a sectorial training center in naval mechanics)
- To ba familiar with multi country programs existing such as ONUDI blue economy, Westmed, green funds, world bank programs.

#### Needs οf the SMEs operating within the sector

- To be informed about National strategies already available for several activities related to blue economy
- Possibilities to benefit from financial subsidies, immaterial benefits according to fiscal advantages and workforce recruitement mentioned in the investment code.
- Local, regional and national opportunities related to activities in blue
- Regulation measures that guide the activities related to blue economy
- Working together in clusters in different fields connected to blue
- New measures to protect natural resources both in the coastal activities and on earth in order to respect them and act in consequence such as over exploitation of fish stocks, submarine and coastal erosion.
- Better coordination with administrative and technical authorities to facilitate the activities of SME, in terms of respect of normative classification of the activities according to reglementation orders.

























#### Potential in terms of business development and job creation

- Potential activities may be developed in Nabeul, to create alternative economic activities allowing job creation. Among these potential activities we can enumerate:
- Alternative tourism in different manners such as diving sports and producing special equipements, tourism of pleasure related to Marina of Hammamet, culinary activités around the specific local agricultural production, marine sports competition in the mediterranean including other marina in Tunisia (Monastir, Bizerte, sidi bousaid, Jerba)
- Fry production and fish food supporting the activities of aquaculture that are actually in progressive implementation
- Mechanical activities related to boat mechanical and electronic equipements reparing, in order to improve the potential training center in Kelibia in this field and the existing fish port in Kelibia and all the other fich ports along the coast.
- Seaweed cultivation and processing as an alternative activity that support the tourism health and body care (Hammamet touristic station) and other touristic stations along the coast and on land.

## Impact of the Covid-19 pandemic on the sector

The pandamic has impacted all activities related to blue economy, especially touristic services since that all the country is locked up with prevention measures in 2020 to slow down the pandimic transmission. The most impacted activities are :

- Touristic jobs in direct and indirect activities related to the sector such as, commercial and selling hand made items wich impacted all the jobs related (inputs and outputs).
- Transport activities
- Craft production, and especially in Nabeul known for potery arts and stone works

## Policies adopted concerning the development of the sector

- Effective reglementation securing the coastal domain ( DPM domaine public maritime),
- Legislation protecting stock fish ( rest period) and technical specification about seasonarity for fish species capture, material and equipements including fishing nets qualities and coastal and deep sea fishing standards.
- Legislation concerning transport maritime concerted in the framework of bilateral needs with the European Union (three dimensions : security in harbors-safety of the boat trafic and preservation of the marin ecosystem.
- Protection of the coastal area by sewage treatment plants to preserve important cities along the coast.

























Any other observation relating with the sector at the country, regional or Mediterranean

The climate change is impacting all the ecosystems around the mediterrenean, and espeially cities close to the shore.

- The majority of people is living in cities close to the sea, industriel activities and residence pollution may intensify damage caused to coasts and submerine biodiversity.
- -Naturel resources and mainly waterin good quality is becoming a big problem for people living in cities. The gap between resources available and exploitation is widining.

So a coordinated action in terms of saving the sea from pollution and desertification is urgently needed.

#### **Green Economy**

level

Skills and competencies young people should have to work within the sector

- The meaning of this economic activity and the extensions to all economic sectors in connection.
- To be devoted to wok in this field.
- Getting a clear idea about the natural and potenciel resources related to green economy such water, soil, forestry, green energy, household garbidge management.
- To be convinced of the utility of these activities on general well being of the population and natural resources .
- Economic project evaluation procedure, and business model to present in the case of circular economy
- National strategies dedicated to green economy, in all related activities (transport, agriculture, industries and especially in global economic transitions strategies in energy and ecological fields.
- All legislation organizing the green economy in all sectors related to this topic.
- Official administrative structures dealing with green economy and how to obtain perticulary certificates needed allowing to act in this economy.
- Possibilities of training in public sectoral centers specialized in green economy in Tunisia.
- To have a complete idea about all the activities related to green economy and how are clusters working together inside this sector.
- To know that green economy cover activities in other environmental sectors, green tourism and general human beeings.
- Getting a clear idea about the actual threats of common agriculture practicies on natural resources, biodiversity and health

To get information about any other projects implemented locally or at national level concerning green economy

























### Needs of the SMEs operating within the sector

- To be informed about real opportunities to work in the green economy sector .
- National strategies concerning green economy in different fields related to this economic sector.
- Guideline for projects to be implemented in the field.
- Official guidelines organizing the mutual relationship between entreprises to work or already working in this sector and the public administration for real transparency.
- Possibilities to benefit from financial subsidies, immaterial benefits according to fiscal advantages and workforce recruitement mentioned in the investment code.
- Regulation measures that guide the activities related to green economy
- Working together in clusters in specific fields related to green economy New measures to protect natural resources in order to respect them and act in consequence.

#### Potential in terms of business development and job creation

We can mention 4 large potential activities that can be developed in this green economy:

- Activities related to safegarding potential national resources, especially water, soil, coastal resources, biodiversity, targeting ecotourism as alternative to beach tourism.
- energy upgrading of industries in the gouvernorate(water, enrgy, clean technologies) and develop wind power energy to step up actual projects in this field.
- Adopt agricultural activities preserving the usage of chemical fertilizers ( to be substituted by ecological fertilizers by integration of livestock in the agricultural rotation), pesticides ( to be substituted by biological material) and promote label certification of green products

Managing urban activities ( household, industrial and trading wastes) and develop economic projects permetting to save human wellbeing and create jobs.

## Impact of the Covid-19 pandemic on the sector

The pandamic has impacted all activities related to green economy, from shortage obseved in getting inputs due to stopping all activities in general and mainly transport since that all the country is locked up with prevention measeres in 2020 to slow down the pandimic transmission. The most impacted activities are :

- Household wastes were not removed in time, consequence of Landfills locking and all Waste collection and transfer system.
- reduced supply of shops and workers mobility due to locking of transport

Some positive impacts observed related to decrease in water consumption, air pollution in urban areas related to car traffic reduction.

























#### Policies adopted concerning the development of the sector

[Policies have gradually evolved, in line with international and national developments.

- Since the 1960s, policies were focused on preserving natural resources espacially water, soil and forest.
- From the 1970s, several agancies and institutions were created (such as national sanitation office in 1973, national agency for environmental protectio in 1988, national agency for coastal protection in 1988, international center for environmental technoogies in 1996, national bank of gena in 2003, national waste management agency in 2005
- very strict legislation in favor of the protection of the environment and ecology.

Specific funds to promote activities in green economy such as enrgy transition fund, specific subsidies to encourage irrigation water economy, implementation of the Tunisian solar plan

#### other Any observation relating with the sector at the country, regional Mediterranean

level

Many efforts are mase in order to promote green economy concerning legislation level, financial level and technical level.

- We consider that the implementation of theese strategies are still insufficient. Prices of biological products in agriculture are so high and this kind of agriculture is in small scale (family level).
- The implementation of energy transition national programs is not quit as the ambitions (for solar or wind enrgy), eventhough Tunisia is amoung the countries whose enrgitic balance is negative and progressing coutinualy.

The climate changes has severe consequences on managing natural resources. This is in addition to observed movement of population to live on crowded coastal urban cities where pressure on natural weak resources are to be agravated

























#### **Circular Economy**

# Skills and competencies young people should have to work within the sector

- The meaning of this economic activity and the extensions to all economic sectors in connection.
- To be devoted to wok in this field.
- Getting a clear idea about the natural and potencial resources such as residuals from industry activities, spoiled spare machines, household garbidge. Engraving material from building, recycling asphalt, all kind of spinoff from agricultural activities .
- To be convinced of the utility of these activities on general well being of the population and natural resources
- Economic project evaluation procedure, and business model to present in the case of circular economy
- National strategies elaborates for circular economy, in all related activities (transport, agriculture, industries and especially in global economic transitions strategies in energy and ecological fields.
- Possibilities of training in sectoral centers in Tunisia
- To be familiar with multi country programs existing such as ONUDI blue economy, Westmed, green funds, world bank programs.

### Needs of the SMEs operating within the sector

- To be informed about National strategies already available for several activities related to circular .
- Listing of project opportunities in the fields related to this topic
- Guideline for projects to be implemented in the field.
- Possibilities to benefit from financial subsidies, immaterial benefits according to fiscal advantages and workforce recruitement mentioned in the investment code.
- Regulation measures that guide the activities related to circular economy
- Working together in clusters in different fields connected to circular economy
- New measures to protect natural resources in order to respect them and act in consequence.
- Better coordination between administration, technical authorities and entreprises to facilitate the activities of SME, in terms of respect of normative classification of the activities according to reglementation orders.

#### Potential in terms of business development and job creation

- A large Potential activities can be developed in circualr economy such as:
- Recycling of many spoiled industrial machines.
- Recycling of garbidge households
- Recycling waste material residual of building activities.
- Recycling of asphalt and side walk materials.
- Recycling all by products of agriculture activities.
- Glass, paper, cardboard, steel, plastic, coming from industrial and commercial activities.

























	Fabric scrap from sewing factories, Tunisian industry is mainly based on this patients.
	this activity.
	Recycling to tires and spoiled old car parts.      Producing gas and energy from bourshold garbidge.
	Producing gas and energy from household garbidge
	<ul> <li>Recycling of medical and dangerous spoiled equipements ( actually, hard difficulties to manipulate these waste.</li> </ul>
Impact of the Covid-	The pandamic has impacted all activities related to circular economy, from
19 pandemic on the	collecting raw materials, industrial stop activities in general and mainly
sector	recycling entreprises since that all the country is locked up with
	prevention measeres in 2020 to slow down the pandimic transmission.
	The most impacted activities are :
	- Activities related to collect all spoiled materials.
	- Landfills and all projects related to Waste collection and transfer
	system
	- Transport activities related to this industry
	- Recycling activities in units who in short of inputs of raw matirial
Policies adopted	- Since 1992, with the instauration of the ministry in charge with the
concerning the	invironmental challanges, so manys institutions and commitees have
development of the	been created (ANGED national agency for waste management, APAL
sector	agency for coast protection, Agenda 21 calling for all municipalities to
	adopt an environmental strategy with consultation of citizens and administrative authorities.
	- Industrial units upgrade program including management of by
	production and spoiled material. This strategy is in not implemented
	yet due to the fact that the industrial landfill programmed is not active
	untill now.
	- Special legislation for energy-saving housing. The implementation of
	this law is not usually respected due to the consequences on higher
	prices of housing.
Any other	Numeros projects ideas to be implemented in the circular economy are
observation relating	proposed by private sector or social associations. citiziens, industrial
with the sector at	managers and municipalities are claiming solutions for recycling and
the country,	treating waste, spoiled machines and by productions in different economic
regional or	sectors; unfortunatly bureaucracy and short financial involvment are
Mediterranean level	limiting these ambitious projects.

























#### **Sustainable Agriculture**

### Skills and competencies young people should have to work within the sector

- The meaning of sustainable agriculture and the extensions to all economic sectors in connection, and especially green economy.
- To most important for young people is his devotion to work in this field.
- Getting a clear idea about soustaineble resources, the know how to practice a non conventional agriculture rules, the environment of activities and entreprises working in sustainble agriculture.
- To be convinced of the utility of this kind of agriculture in general well being of the population and natural resources to be protected (water, soil, forests, biodiversity.
- Economic project evaluation procedure, and business model to develop and present to financial instances in the case of sustainble agriculture
- National strategies elaborated for sustainble economy, such as water and irrigation economy, soil protection, using local seeds to avoid the usage of chemical fertilizers pesticides and the agriculture mechinary croping
- Possibilities of training in speciel sectoral centers in Tunisia -To be familiar with subsidies and allouances to encourage this agriculture.
- -To have clear idea about commercialization of products issued from sustainble agriculture

#### Needs of the SMEs operating within the sector

- To be informed about National strategies already available about water mobilization and its economy, mapping of agriculture activities according to climatic and natural resouces avaible
- Listing of project opportunities in the fields related to this topic
- Guideline for potential agricultural activities with respect of land, water possibilities
- Know how related to innovation in the sustainble agriculture activities.
- Possibilities to benefit from financial subsidies, immaterial benefits according to fiscal advantages and workforce recruitement mentioned in the investment code dedicated to sustainble agriculture
- The need to working together in clusters in different fields related to sustainble agriculture in order to fit the needs of this kind of agriculture ( doing the same as neighbers) to minimize costs and findout large possibilities do sell the products.

























	Now measures to protect natural recourses in order to
	<ul> <li>New measures to protect natural resources in order to respect them and act in consequence, espesially for crop mechinary</li> </ul>
	- Better coordination between administration, technical
	authorities and entreprises to facilitate the activities of SME,
	in terms of respect of normative classification of the activities
	according to reglementation orders.
Potential in terms of	Regarding the climate changes on all over the world and its
business development and	impact on agriculture, large opportunities can be hold to
job creation	encourage sustainble agriculture, among them:
	- Recover local seeds more resilient to ecologic factors on
	the country.
	- Widespread technological research results on local seeds
	productivity
	- Minimize usage of intensive mechanical croping
	devastating the soil quality - Develop new strategy to mobilize rainfull resources and
	limit overexploitation of underground water.
	- Encourage integrated husbandury in agriculture activities to
	ameliorate land productivity and use less fertilizers.
	- Protect lands from urbanism invasion and impliment
	restrictions according to mapping agricultural activities
Impact of the Covid-19	The impact of Covid pandemic is affecting all economic sector
pandemic on the sector	and has increased the unemployment figures. But sustainble
·	agriculture is affected more over by climate changes than
	pandemic. In this sens, the over exploitation of water
	resources has started decades before; the usage of intensive
	chemical fertilizers and pesticides, and seeds sensitive to
	local climate, all these factors affected sustainble agriculture
	from decades and is continuing despite the efforts made to
	reduce these effects.
Policies adopted concerning	The most policy decisions for sustainble agriculture are:
the development of the	- A Gene bank for local seeds is created but for vommercial
sector	and economic reasons, coming back in sue of these seeds is
	actually not benefit.
	- Mapping of agriculture activities according to specific local
	conditions, but the implementation of this decision is so
	limited, if it is not respected.
	- Decade strategies from 1990s to mobilize rainfull and
	build more dams where conditions allow. Actually more than 85% of rainfull is collected in dams, and an integrated
	system of managment of these resources is in use by the
	connection of dams in the North of the country. The region
	of Nabeul, known for diversity of its agriculture activities is
	suffering from shortage of local water resources balance,
	Janering nom shortage or local water resources balance,

























	and actually it benefits from irrigation compensation by a chanal from dams in the North.  - Stragies for soil consevation concerning the most affected lands, especially in the North, in order to protect dams from silting.  Financial insentives and subsidies to economy of irrigation technics.
Any other observation relating with the sector at the country, regional or Mediterranean level	Sustainble agriculture is a high challange, considering the more and more intensive effect of climate changes. The coastal regions, so crowded due to the fact that it's a region of intense economic activity. People come to live in and it is attractive also for touristic activities.  But theses regions, and the gouvernorate of Nabeul is highly affected in this sens, are seeing their local potential resources areover exploited. More over groundwater is subject to seawater infiltration pressure. This phenomena is common to all coastal regions around the mediterranean.

























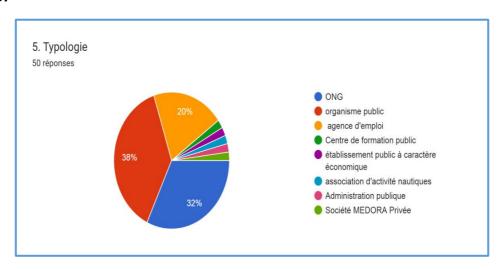


#### Results and data of the A 3.2.1 – Sectors Needs Analysis – SEAs profiling

In order to know the needs of social economic actors in the region of Nabeul, a specific questionnaire was delivered to the most active social partners, concerned with the unemployment in general and particularly with NEETS. We kept in mind to get a variety of opinions, so that the questionnaire has touched a large several social actors.

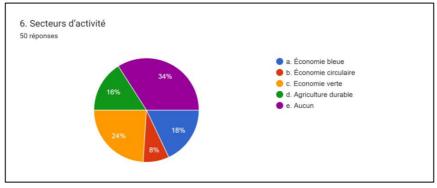
We got answers from 50 entities active in the region from 60 questionnaires delivered. The results are commented as follow:

#### **Typology**



Targeting the profile of various social economic entities concerned by youth employment in general and particularly in the 4 economic sectors related to blue, green, circular economies and sustainable agriculture; we were able to reach 50 SEAs, who answered the questionnaire. Most of them are in social public administration representing 38% of the answers, the NGOs representing 32%, which we consider high degree of this category involved in economic sector. Even though these NGOs are recently created and need longer experience. In total administrative actors, NGOs and employment agencies represent 90% of answers.

#### **Activity sector**





















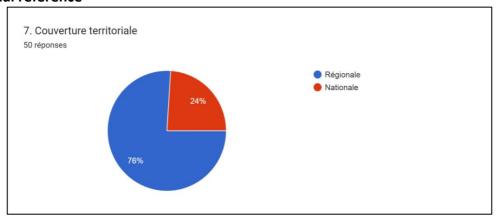




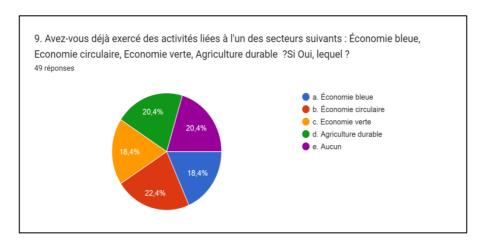


The majority of the social actors consider themselves acting nether in blue, green, circular economies nor in sustainable agriculture, even though the 4 the selected sectors are represented in the answers with 24% in green economy, 18% in blue economy, 18% in sustainable agriculture and 8% in circular economy. Meanwhile, this sector is under represented, the concept is recent and activities in this sector are not so clear in terms of limits with other sectors.

#### **Territorial reference**



Three quarters of the SEAs participating in the investigation are acting in the regional area. The others are representation of national entities.



The majority of SEAs have declared already practiced activities related to the 4 economic targeted (79.6%), with roughly in same proportions. But considering the relationship with questionnaire delivered to NEETs profiling, we noted that so few young people were already familiar with these sectors. This would lead to the lack in spreading out the activities of SEAs to large public.

To the question: " Which economic sectors are required by the local labor market?", the reactions are as follows:

















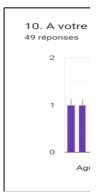






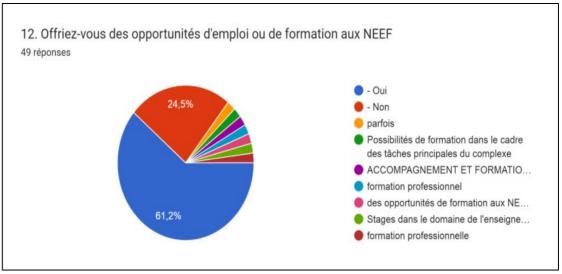






It is clear that all economic sectors are solicited, due to the specific diversity that characterizes the governorate.

#### **Employment and training opportunities**



The answers registered for possibilities of employment or training opportunity appear to be positive (61.2% declare offering employment or training possibilities) for the next step of the project, concluding contracts for several NEETS identified to get a job or training possibility. But this should be carefully examinated when combined with answers to activities that the enterprise can participate to in the project. So few answers would participate in training or employment possibilities. This may due















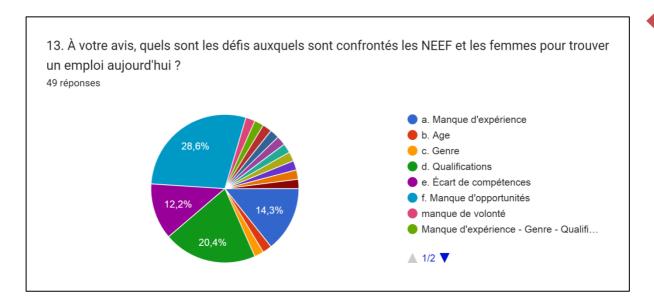


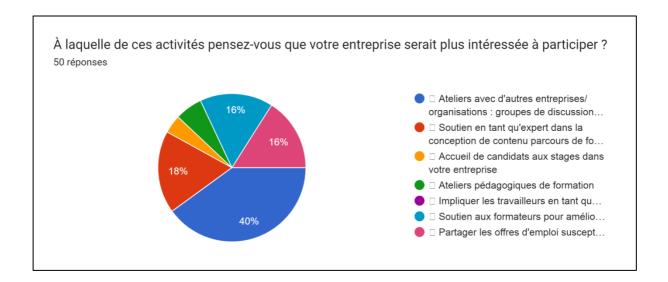






























**CLUSTER** 







#### References

- ENPI CBC MED EGREJOB PROJECT,
  - ✓ EGREJOB [Alice Vozza], Key Partners Features, ITC-ILO Florence, June, 2014
  - ✓ ARL, Italy Egrejob Traning path, F. Pasini, ARL (Sardinia, Italy), Florence, June, 2014
  - ✓ WP5 Green Jobs Feasibility: Research Methods, ILO [Alice Vozza & Cristina Martinez], Malaga, Feb., 2015
  - ✓ Skills for a green economy in EuroMediterranean countries: Results from the EGREJOB business survey, ILO [Alice Vozza & Cristina Martinez], Terrassa, October, 2015
  - ✓ RESEARCH GUIDELINES FOR COUNTRY/REGION DATA COLLECTION AND ANALYSIS, ITC-ILO, [Alice Vozza & Cristina Martinez], Terrassa, October, 2015
  - ✓ EGREJOB 2<sup>nd</sup> AWSeminar Tunisia GJs Training, The experience case of Evidences from «Photovoltaic Energy Installation and **Maintenance**» MAHMOUD ABDELMOULA (CGDR, Tunisia), Beirut 24-25 September 2015
  - ✓ "Skills for a Green Economy in the Governorate of Sousse and the region of Greater Tunis (Tunisia): A case study of plastic waste management and renewable energies ", ITC-ILO, CGDR, Tunis, 2015
  - ✓ <a href="http://cgdr.nat.tn/fr/espacecommunication/etudes">http://cgdr.nat.tn/fr/espacecommunication/etudes</a>
  - ✓ EGREJOB 3<sup>nd</sup> AW Seminar, "The role of Local and Regional authorities in promoting Green Economy and Green « Economie verte et rôle des autorités locales et régionales selon le Plan Stratégique de Développement (2016-2020) : Cas de la Tunisie », N. BEL HAJ, (CGDR, Tunisie)
  - ✓ TREND REPORT SESSION N 3, NOVEMBER 2015, TERRASSA
  - ✓ TREND REPORT SESSION N 1, FEBRUARY 2015, MALAGA
  - ✓ Green Job Chart, CITTALIA, Beirut, October 2014
  - ✓ CAPITALISATION PLAN, CITTALIA, Beirut, October 2015
  - ✓ EGREJOB **ECONOMY PRIORITIES** "Inclusive development" economic "Environmental sustainability", Malaga, Feb., 2015



























✓ Steps set research on skills for green jobs, ITC-ILO, Turin, 12 September 2014

- ✓ ENPI CBC MED EGREJOB PROJECT,
- ✓ Rapport de Mission Prospective, Compétences pour Emplois Verts, Gouvernorat de Sousse, Tahar ABDESSALEM, 31 mars 2015, Tunis
- ✓ ENPI CBC MED EGREJOB PROJECT,
- ✓ Rapport sur les politiques d'économie verte inclusive et la transformation structurelle en Tunisie, T. ABDESSALEM, novembre 2014, Tunis
- ✓ WP4.1 ETEC Guidelines, L. Righi, Beirut, October 2014
- L'inventaire de l'emploi des jeunes en Tunisie : Trente ans de politiques de l'emploi (IEJ), BIT – Genève, 2015

https://www.ilo.org/wcmsp5/groups/public/--ed emp/documents/publication/wcms 444914.pdf

- MONITORING THE TRANSITION TO A LOWCARBON ECONOMY a strategic approach to local development, LEED PROGRAM, EU, OECD, 2015 www.oecd.org
- Le chômage des jeunes : Déterminants et caractéristiques, ITCEQ, Notes et Analyses,

http://www.itceq.tn/files/emploi/chomage-des-jeunes-determinantscaracteristiques.pdf

- Skills for Green Jobs A global View, O. Strietska-Ilina, ILO, Geneva, 2011
- Mediterranean Youth, NEETs and Women Advancing Skills, Employment and Awareness in the Blue and Green Economy (MYSEA) WP3 - Analyse de la situation A.3.5.1 -Territorial data analysis PP4 – UTSS, Tunis, Tunisia https://www.enicbcmed.eu/sites/default/files/2022-05/MYSEA PPX SS Training%20Logistics JUST2.pdf
- RGPH, INS, 2014, Tunis, Tunisia http://www.ins.tn/enquetes/recensement-general-de-la-population-et-de-lhabitat-
- Enquête Agricole de Base, MARHP, 2020, Tunis, Tunisia

https://www.google.com/search?sxsrf=ALiCzsYSgjqe3swOgVqjwouAEFJqkUTIBg:165667796 4654&q=%EF%82%A7%09Enqu%C3%AAte+Agricole+de+Base,+MARHP,+2020,+Tunis,+Tunisi a&spell=1&sa=X&ved=2ahUKEwi1j9ys1tf4AhVuQvEDHaasBwgQkeECKAB6BAgBEDQ

















up