

THESIS SUMMARY

Nesrine Mansouri



Hungarian University of Agriculture and Life Sciences Károly Róbert Campus Institute of Agronomy Bachelor's education in Agricultural Engineering

UTILIZATION OF RENEWABLE ENERGY SOURCES IN TUNISIA

Insider consultant: Dr. Gábor Koncz

Associate professor

Insider consultant's

Institute: Institute of Rural

Development and Sustainable Economy

Created by: Nesrine Mansouri

Gyöngyös 2024

SUMMARY

To sum up everything that has been stated so far, Tunisia faces significant challenges in its energy supply and demand dynamics. The country heavily relies on fossil fuels, particularly natural gas, which poses risks to its energy security due to declining domestic production. Tunisia's energy deficit has been increasing, leading to a high import dependency rate. The country's heavy dependence on fossil fuels also hinders its transition to a low-carbon future and makes it economically and socially vulnerable to volatile international energy prices.

The governance of Tunisia's electricity sector is managed by the Ministry of Energy, Mines, and the Energy Transition, which oversees infrastructure, policy implementation, and renewable energy planning. However, the country lacks an independent regulator. The state-owned company, STEG, holds a monopoly on electricity generation, transmission, and distribution. ANME, a public institution, focuses on promoting energy efficiency and renewable energy deployment.

Tunisia has made efforts to address its energy challenges through an energy transition strategy. Tunisia's energy transition strategy includes several key initiatives. One of the main goals is to increase the share of renewable energy in the country's energy mix. This involves promoting the development of solar, wind, and biomass energy projects. Tunisia has significant potential for solar and wind energy generation, and it has already made progress in implementing renewable energy projects, such as the installation of solar power plants and wind farms.

In addition to renewable energy, Tunisia is also focusing on improving energy efficiency to reduce energy consumption and reliance on imports. This includes implementing energy-saving measures in buildings, promoting energy-efficient appliances, and encouraging industries to adopt more efficient technologies. The National Agency for Energy Conservation (ANME) plays a crucial role in promoting energy efficiency and providing support for energy-efficient practices.

Tunisia has also been working on diversifying its energy sources by exploring other options such as nuclear energy. The country has expressed interest in developing nuclear power as a means to meet its growing energy demands. However, the nuclear energy plans are still in the early stages, and there are several challenges and considerations to address, including safety, environmental impact, and public acceptance.

It is worth noting that the success of Tunisia's energy transition strategy depends on various factors, including policy implementation, attracting investment in renewable energy projects,

technological advancements, and public awareness and participation. The government's commitment to sustainable energy development and the collaboration between different stakeholders, including the public and private sectors, will be crucial in achieving the desired outcomes.

Overall, Tunisia recognizes the need to transform its energy sector to reduce its dependence on fossil fuels, improve energy security, and mitigate the impacts of climate change. The country's energy transition strategy, with its focus on renewable energy, energy efficiency, and diversification, provides a roadmap for achieving these goals. However, it will require sustained efforts, investments, and a supportive policy framework to successfully transition to a more sustainable and resilient energy system.

The growing consumption of energy has caused serious damages to the planet. It is, therefore, necessary to use renewable energy in order to protect our environment and follow the path of sustainable development. Tunisia is a net importer of energy with a huge potential of renewable energy. That's why Tunisia has accorded a great importance to its promotion.

But we must note that efforts are insufficient, and that the renewable energy market faces several obstacles. In fact, the Tunisian experience is far from the successful experiences of other countries such as Germany, Spain, and Denmark. Tunisia has all the necessary conditions, a great potential of renewable energy, a very qualified labour but the government support and the institutional and regulatory instruments still insufficient.