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ENSURING THE SUSTAINABILITY OF AGRICULTURAL INPUTS TO COMBAT FOOD INSECURITY IN OIC MEMBER COUNTRIES

Prof. Dr. Celal TAŞDOĞAN



Current Challenges Among OIC Member Countries in Agriculture

- ✕ Low mechanization and unmodern inputs
- ✕ Incomplete methods and high water usage
- ✕ Lack of modern financing methods and inefficient markets
- ✕ Lack of sufficient infrastructure, road networks, irrigation systems and electricity facilities
- ✕ Inadequacies in adopting technology and agricultural innovations
- ✕ Lack of adequate legal framework

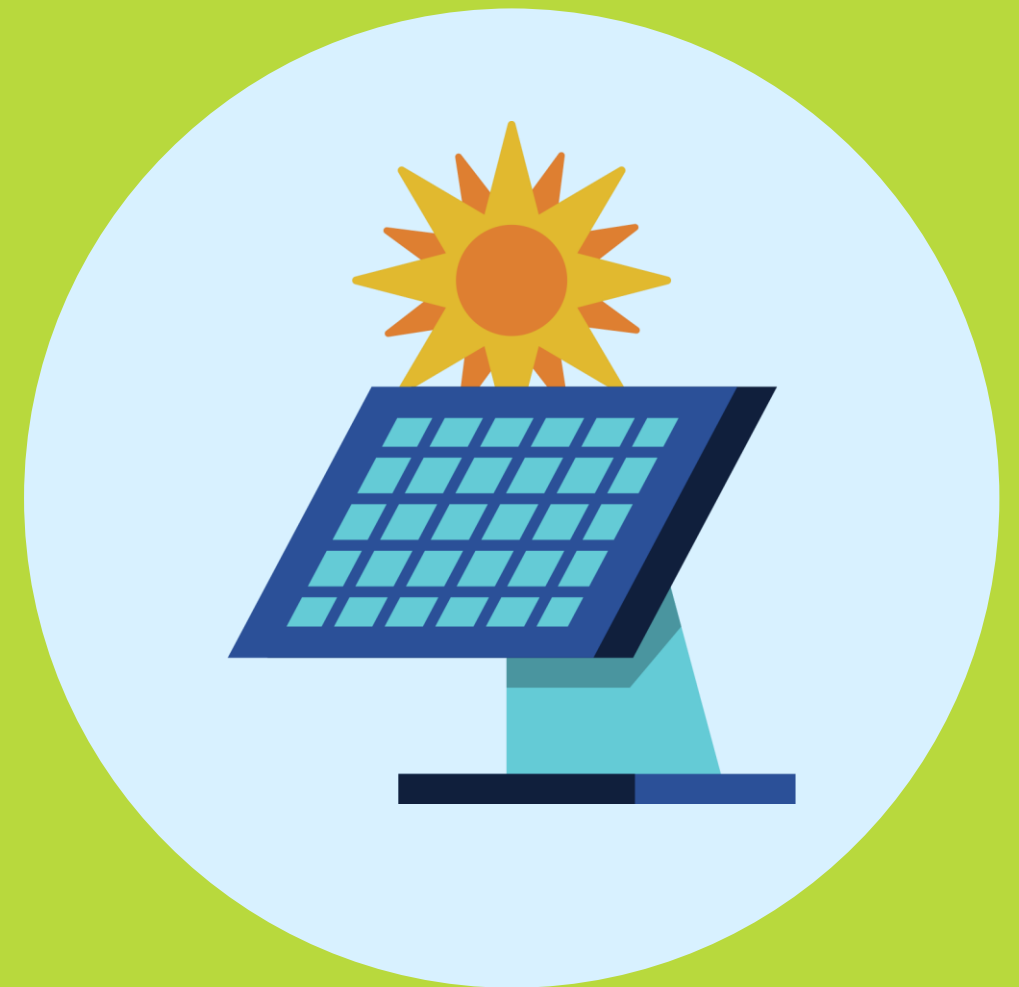


Sustainable agricultural practices should be implemented in order to overcome the problems of agricultural productivity and food insecurity.



Sustainability Indicators

- Fertilizers
- Pesticides
- Cropland
- Livestock Patterns
- Land Use
- Credit to Agriculture
- Agricultural Investment
- Agricultural Employment
- Irrigation Systems
- Water Scarcity
- Climate Change





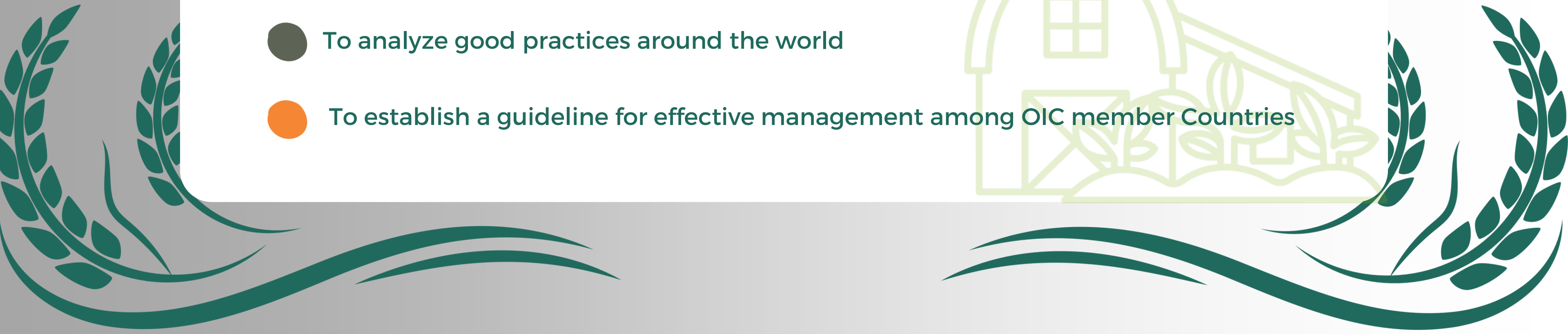
External Factors Affecting Agriculture

- X Increasing input and energy prices
- X Disruptions in the supply chain
- X Difficulties in international trade



Objectives of the Study

- To assess main agriculture inputs for sustainable food security in OIC Member countries
- To pinpoint structural issues regarding food security
- To analyze good practices around the world
- To establish a guideline for effective management among OIC member Countries





Scope of the Study





Introduction and Current Landscape

- Literature review on the concept of sustainability of agricultural inputs and food security
- Descriptive analyses of food insecurity and sustainability of agricultural inputs among OIC members and the global economy
- Expansion of the analysis with the evolution of aforementioned concepts over time and selected good practices
- Evaluation of OIC member countries on the basis of club convergence analyses with sustainability indicators





Parametric Tests

Macroeconomic data will be analyzed using methods including club convergence to establish a clear understanding of current landscape. Convergence clubs are useful for examining economic development in a specific country, relative to other countries with country groups based on measurable factors.

Nonparametric Tests

Nonparametric tests will be utilized in analysis regarding the data obtained from field visits and surveys.



Club Convergence

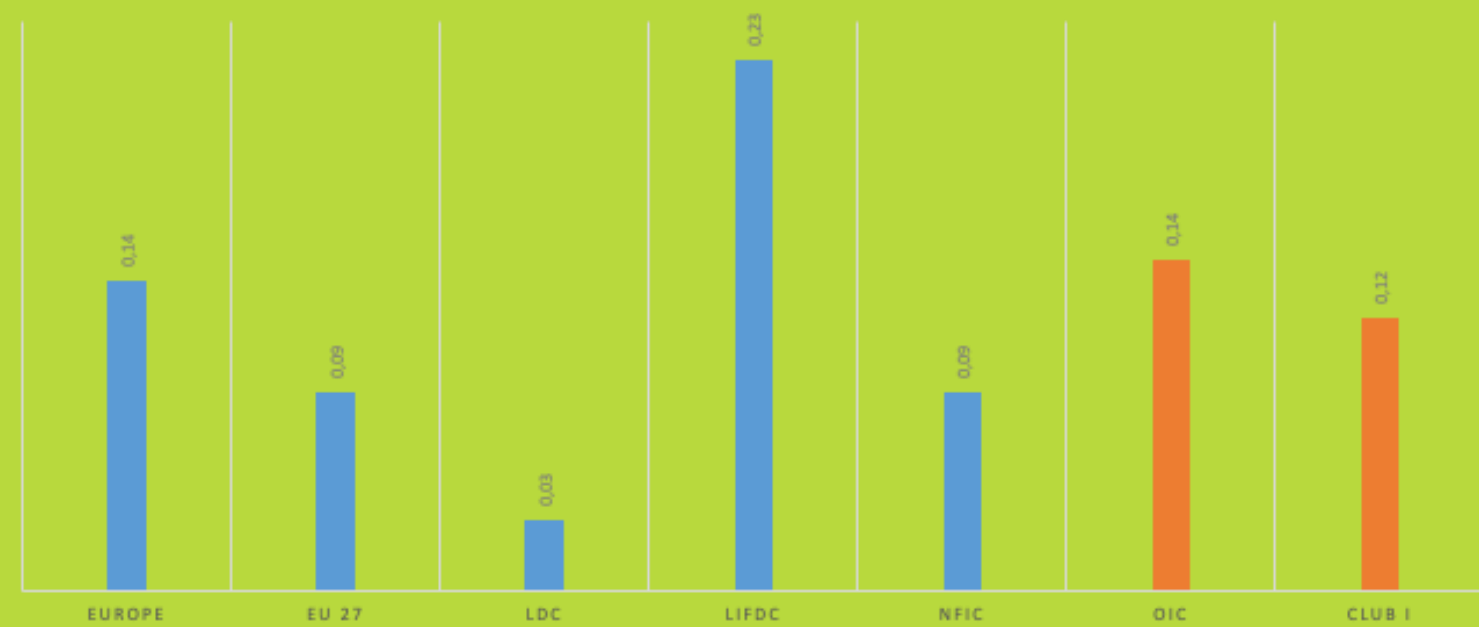
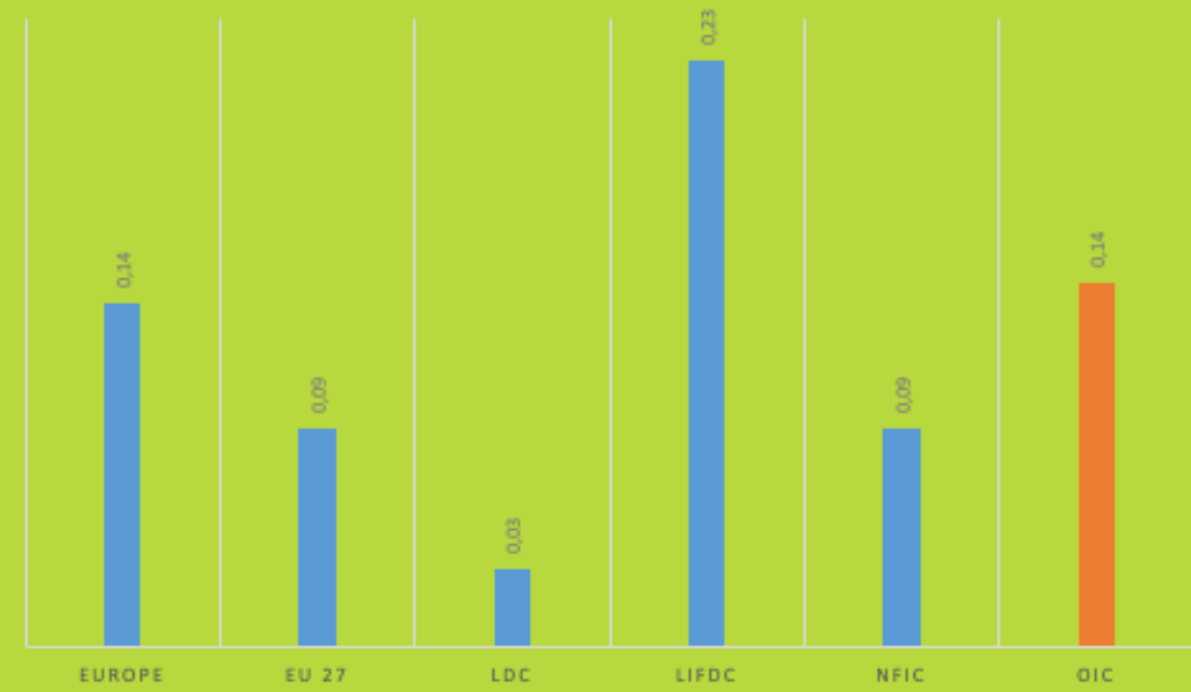
Analysis: Agricultural Use of Fertilizers

Club I (22): Algeria, Azerbaijan, Bangladesh, Benin, Cameroon, Cote d'Ivoire, Egypt, Gabon Indonesia, Iran, Iraq Jordan, Malaysia, Mali, Morocco, Mozambique Nigeria, Pakistan, Saudi Arabia, Senegal, Sudan, Tunisia

Club II (12): Albania, Bahrain, Guyana, Kuwait,Lebanon, Maldives, Niger, Oman, Qatar, Suriname, Togo, Uganda
Club II: Albania, Bahrain, Guyana, Kuwait,Lebanon, Maldives, Niger, Oman, Qatar, Suriname, Togo, Uganda

Club III (2): Brunei Darussalam, Gambia

Club IV (Not Converging): Türkiye



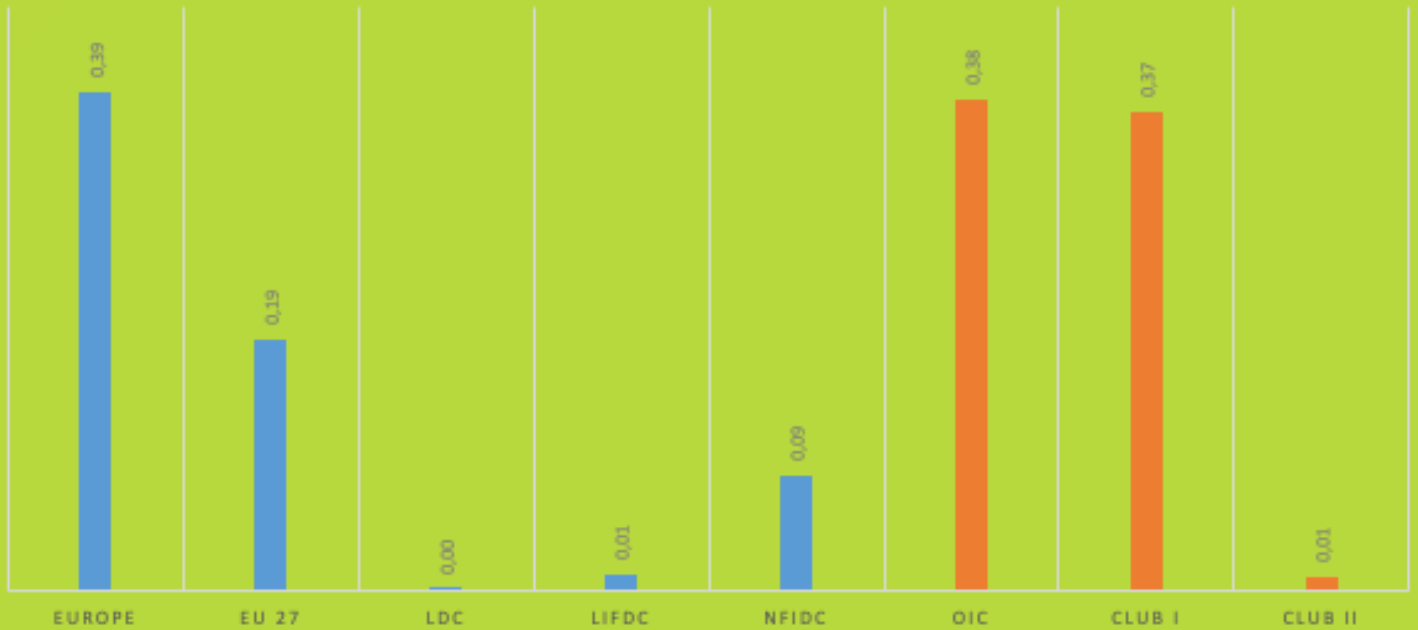
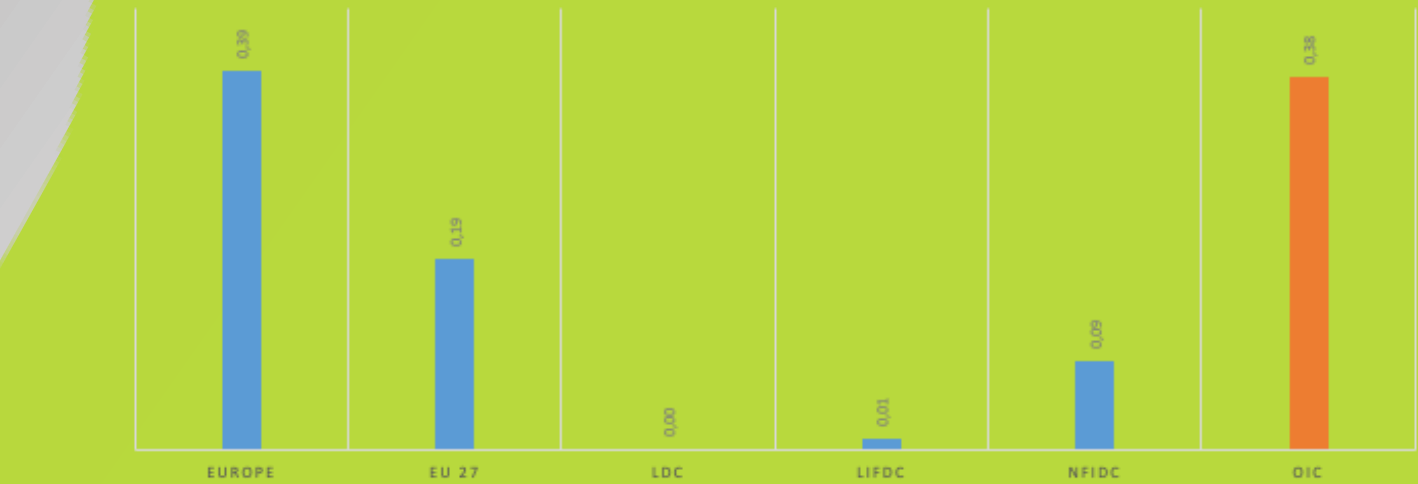
Shares of Nitrogen Fertilizer Quantities in Total of World Agricultural Use

Club Convergence Analysis: Fertilizer Exports

Club I (28): Albania, Algeria, Azerbaijan, Bahrain, Bangladesh, Benin, Brunei Darussalam, Cameroon, Chad, Cote d'Ivoire, Djibouti, Egypt, Gambia, Guyana, Indonesia, Iran, Jordan, Kuwait, Malaysia, Maldives, Mali, Mauritania, Morocco, Mozambique, Nigeria, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Senegal, Sierra Leone, Sudan, Suriname, Togo, Tunisia, Türkiye

Club II (3): Iraq, Lebanon, Niger

Club III (Not Converging) : Gabon, Uganda



Fertilizer Export (Nitrogen Quantity, Tonnes)

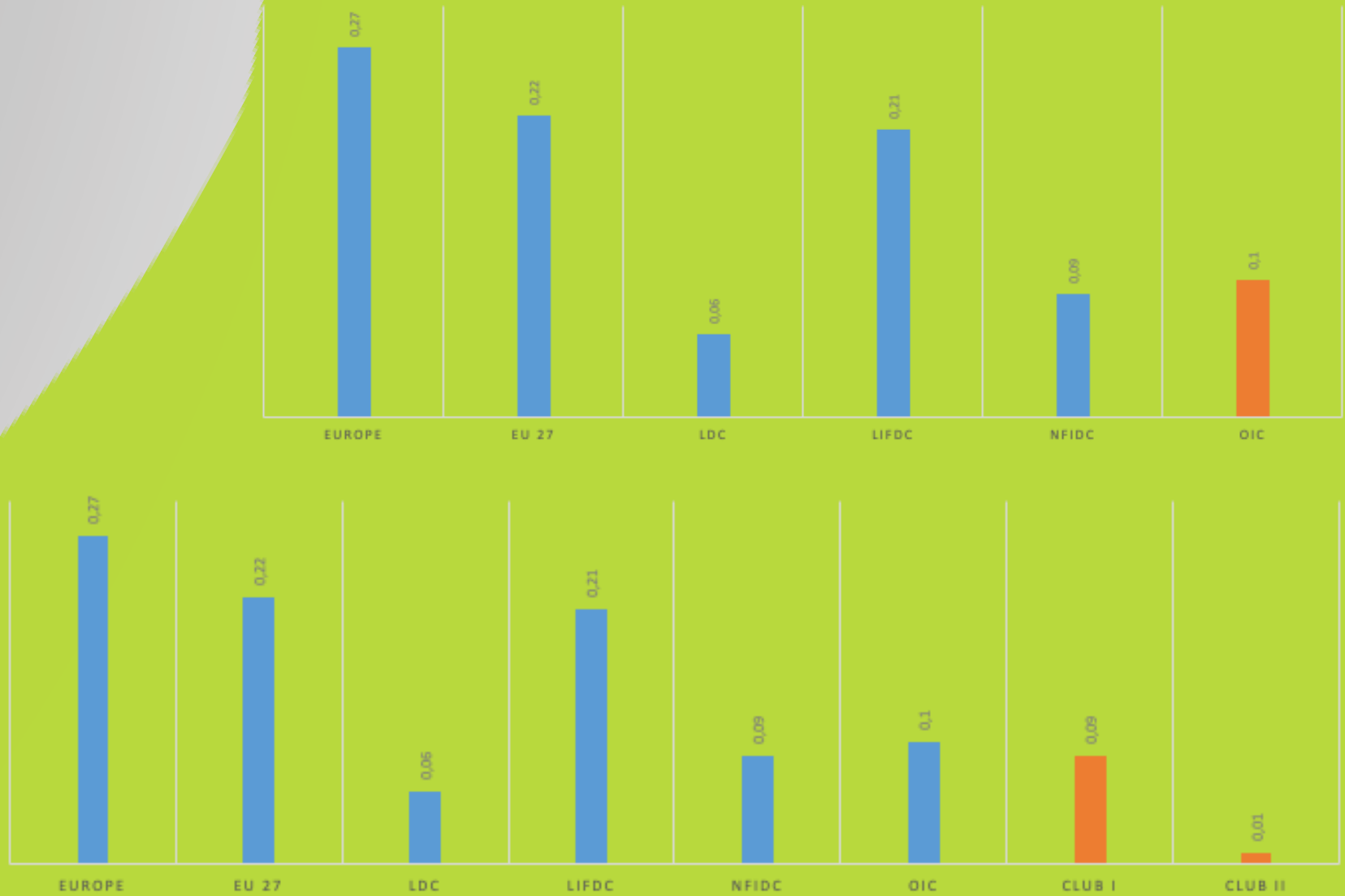
Club Convergence Analysis: Fertilizer Imports

Club I (21): Algeria, Azerbaijan, Bangladesh, Benin, Cameroon, Cote d'Ivoire, Egypt, Gabon, Indonesia, ,Iraq, Kuwait, Malaysia, Mali, Morocco, Mozambique, Pakistan, Qatar, Saudi Arabia, Senegal, Togo, Türkiye

Club II (1 4): Albania, Egypt, Guyana, Iran, Jordan, Lebanon, Niger, Nigeria, Oman, Tunisia, Uganda

Club III (4): Bahrain, Brunei Darussalam, Gambia, Maldives

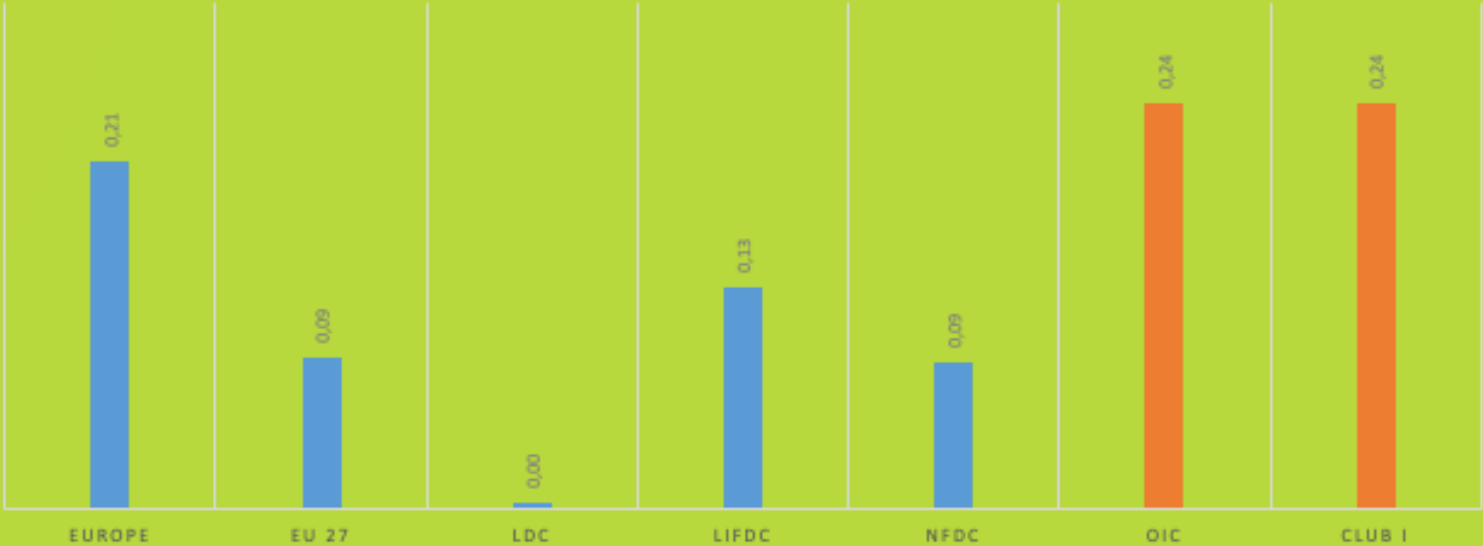
Club IV (Not Converging): Suriname



Shares of Nitrogen Fertilizer Imports in Total of World Nitrogen Fertilizer Imports

Club Convergence Analysis: Fertilizer Production

Club I: Algeria, Bahrain, Bangladesh, Egypt, Indonesia, Iran, Iraq, Jordan, Kuwait, Malaysia, Morocco, Nigeria, Oman , Pakistan, Qatar, Saudi Arabia, Senegal, Tunisia, Türkiye



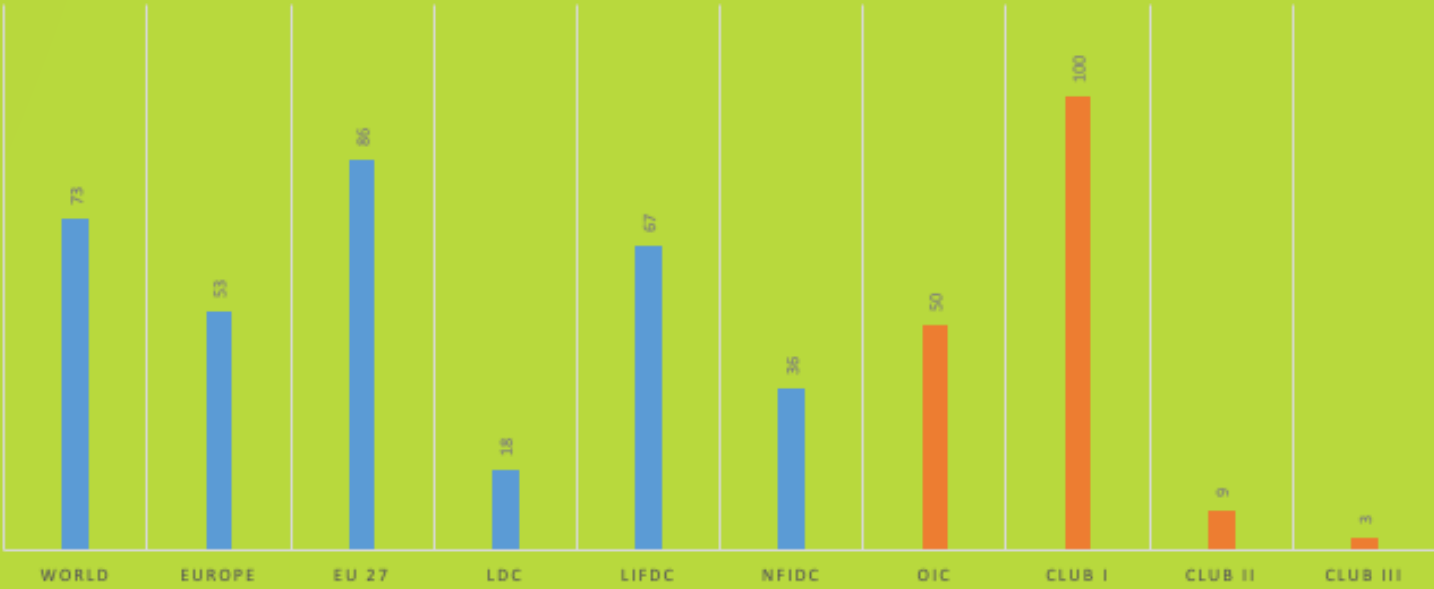
Shares of Nitrogen Fertilizer Quantities in Total of World
Nitrogen Production (Tonnes)

Nitrogen Use of Cropland Quantities (kg/ha)

Club I: Albania, Azerbaijan, Bahrain, Bangladesh, Egypt, Gambia, Indonesia, Iran , Iraq, Jordan, Kuwait, Lebanon, Malaysia, Maldives, Mali, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Suriname, Tajikistan, Türkiye, Turkmenistan, United Arab Emirates, Uzbekistan

Club II: Afghanistan ,Benin ,Brunei Darussalam, Burkina Faso, Cameroon, Côte d'Ivoire, Gabon, Mozambique, Nigeria, Senegal, Sudan, Syrian Arab Republic, Tunisia, Yemen

Club III: Guinea, Guyana, Kyrgyzstan, Niger, Togo, Uganda



In-Depth Assessment of the Agricultural Sustainability and Food Security Practices in Selected Countries



Case Studies



Review of Reports
from Government
Agencies



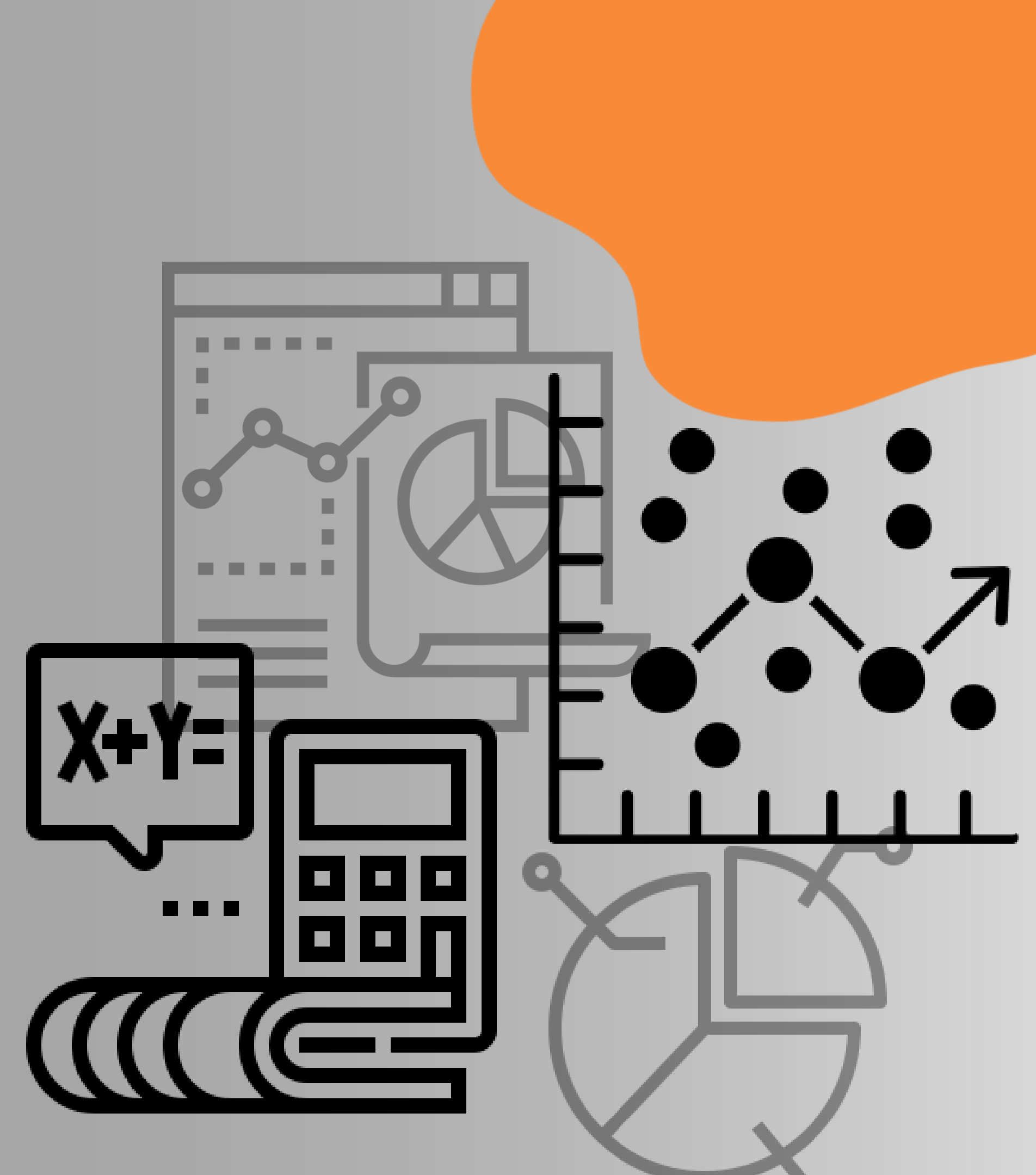
Field Visits



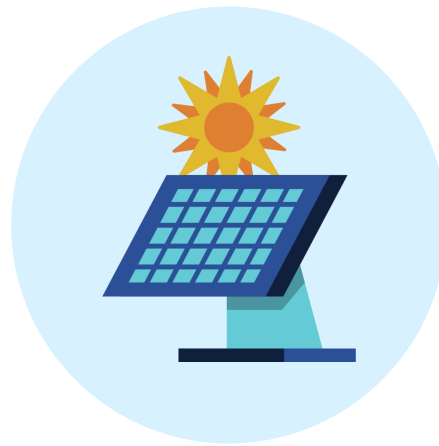
Online/Phone
Surveys



**Analysis of Obtained
Data**



Strategic Objectives



Increase in
Sustainability and
Productivity



Optimization in Regulatory
framework

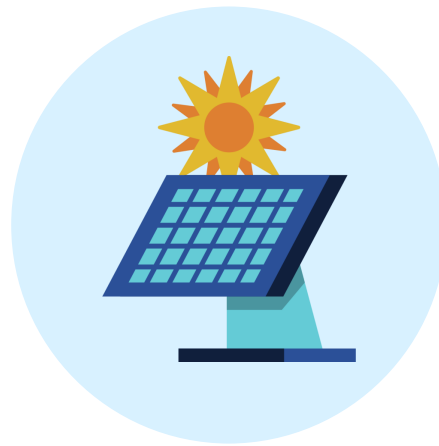


Increase in
Institutional Capacity



Increase in Cooperation

Outputs



Analyses on Agriculture
Sector among Member
Countries



Guidelines for Good
Practices



Policy Recommendations



Framework for Further
Policy Strategies