

State of Agriculture and Food Security in OIC Member Countries *Opportunities for Cooperation*



Workshop on Innovative Solutions to Poverty Reduction and Empowerment of the Poor, 26-28 June 2013, Ankara, Turkey

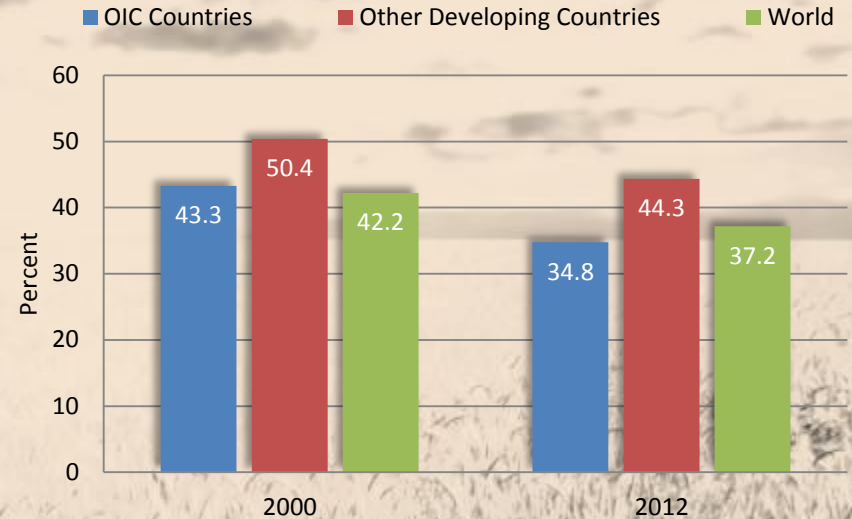
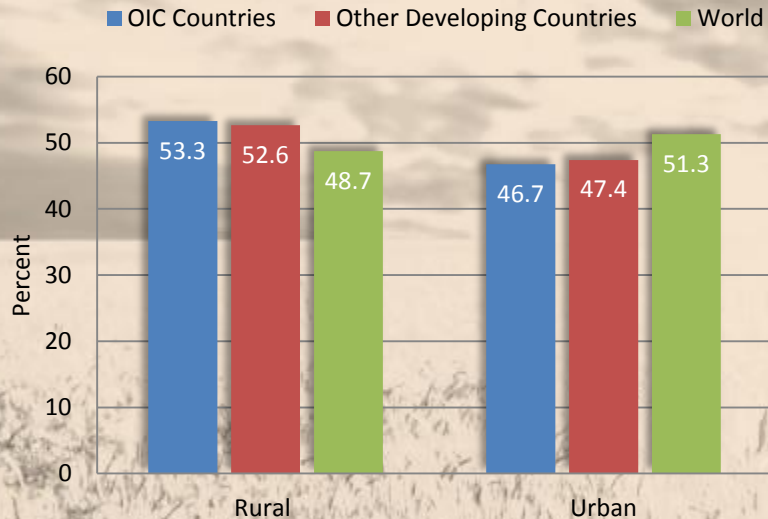


Outline

- Agro-Resources (Population, Land, Water, etc.)
- Agro-Capacity (Production, Productivity, Trade, etc.)
 - Food Capacity Production and Trade
- Food Security
- Conclusion (Outlook and Recommendations)

Agricultural Population

Agriculture employs one-third of the OIC population...



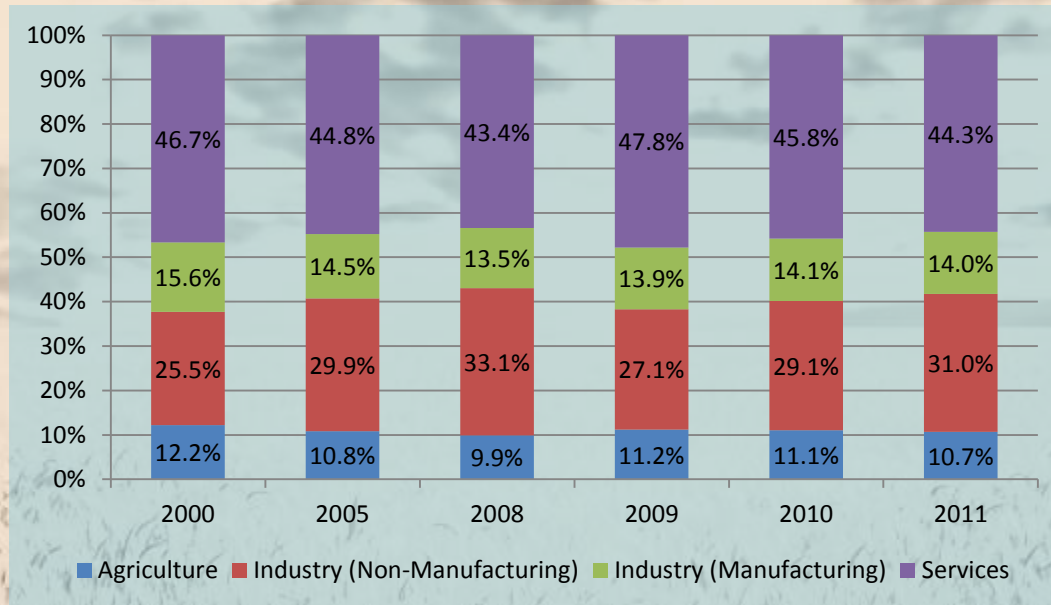
53.3% of the total population in OIC countries are living in rural areas, compared to **52.6%** in the developing countries and **48.7%** at global level.

In 2012, **34.8%** of the total population in OIC countries engaged in agriculture, compared to **44.3%** in non-OIC developing countries and **37.2%** at global level.

At the individual country level, **more than 50%** of the total population in **18** OIC countries are still engaged in agriculture activities.

Agricultural Value-added

...but produces only a small portion of the output



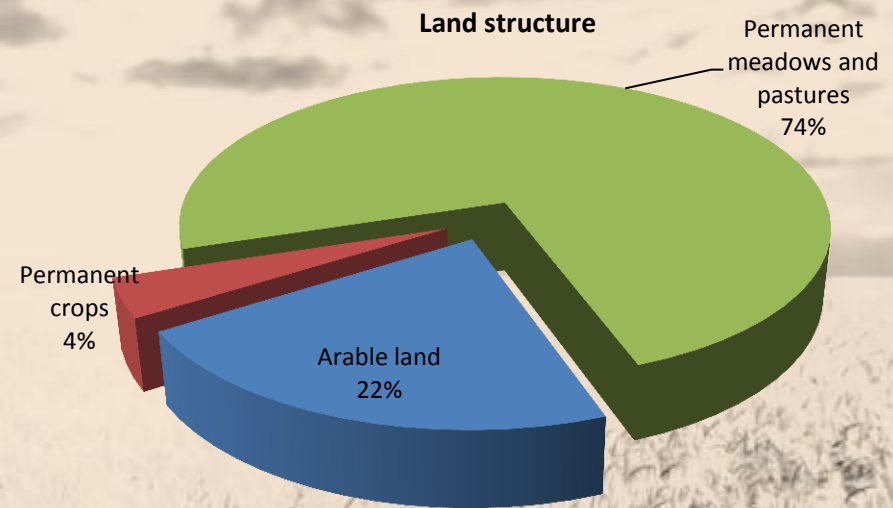
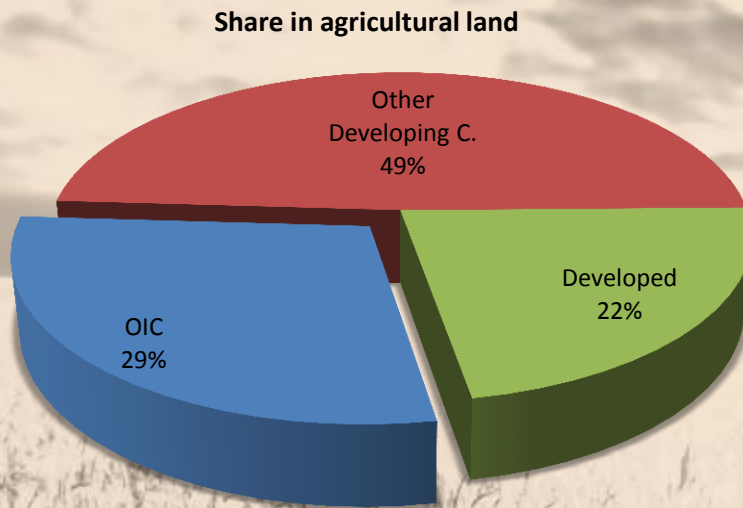
Agriculture is widely known to be the primary economic activity and is assumed to play a major role in the economies of most developing countries

However, this feature does not stand firm in the case of many OIC countries as well as in the case of OIC countries as a group. On average, the share of agriculture in the total GDP of the OIC countries was only 10.7% in 2011.

Inefficient use of land (due to scarcity of water resources, use of insufficient irrigation systems, etc.), increasing migration of agricultural workers from rural to urban, inadequate agricultural investment and infrastructure, low level of agricultural machinery and technology utilization, constraints on trade, etc.

Land Structure

Arable lands in the OIC region needs to be expanded



OIC countries possess **29%** of the total agricultural land area (this corresponds to 45% of total land area in OIC countries as compared to 39% in developing countries and 37.6% at world level)

Yet, **22%** of agricultural land in OIC countries is arable land compared to 32% in non-OIC developing countries and 29 % at world level.

This is due to the fact that **74%** of agricultural land in OIC countries is **permanent pastures**.

4% of agricultural land in OIC countries is **permanent crops** compared to **3.4%** in non-OIC developing countries and **3.1%** at world level.

Water Resources

Water nears scarcity threshold

	Average Precipitation in Depth (mm/yr)	IRWR (km ³ /yr)	ERWR (km ³ /yr)	TRWR (km ³ /yr)	TRWR per Capita (m ³ /yr)	Dependency Ratio (%)
OIC Countries	47,209	5,286	1,964	7,250	4,724	27.1
World	211,159	42,504	11,400	53,904	8,571	21.0
OIC as % of World	22.5	12.4	17.2	13.5		

Average precipitation in depth in OIC countries accounted for **22.5%** of the world average. Yet, OIC countries account for only **13.5%** of the world **TRWR**

Dependency ratio (dependency to ERWR) in OIC region is **27.1%** compared to **21%** in the world

Average **TRWR/capita** in OIC countries is **4,724 m³/yr** compared to the world average of 8,571 m³/yr

23 OIC countries suffer **water stress** (TRWR/capita \leq 1700 m³/year) and **water scarcity** (TRWR/capita \leq 1000m³/year): **5** countries in **water stress**, **5** countries in **water scarcity** and **13** countries in **absolute water scarcity** (TRWR/capita \leq 500m³/year)

Water Resources

Pressure on water resources is mounting...

	Total Water Withdrawal			Agricultural Water Withdrawal		
	km ³ /yr	% of IRWR	% of TRWR	km ³ /yr	% of Total Withdrawal	% of TRWR
OIC Countries	928	17.6	12.8	800	86.2	11
World	2,871	7.4	7.2	2,727	70	5.1
OIC as % of World	23.8			29.4		

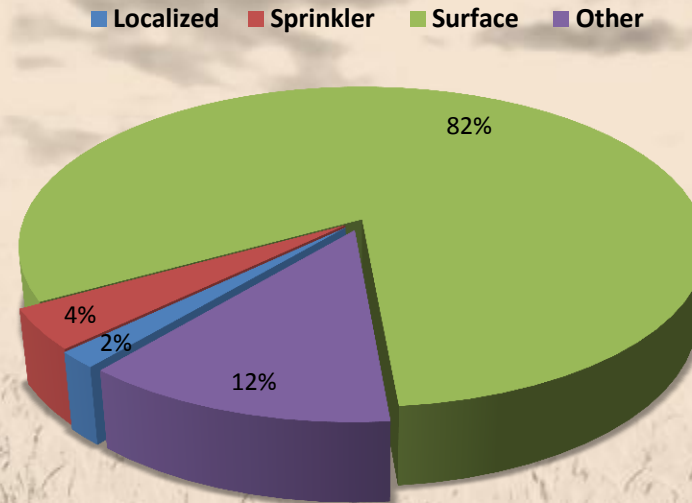
Water withdrawal reached almost **17.6%** of IRWR in OIC countries compared to **7.4%** in the world. (If $\geq 25\%$ » pressure on water resources)

Mainly due to over-exploitation, **23** OIC countries are suffering **pressure on their water resources** (i.e. water stress or water scarcity)

About **86.2%** of the total water in OIC countries is withdrawn for agricultural purposes compared to 70% in the world

Irrigation Techniques

Shift to more effective methods is needed



25.4% of total arable land is **equipped with irrigation** in OIC region, that accounts for only 5.3% of their total agricultural area (world average is 6.1%).

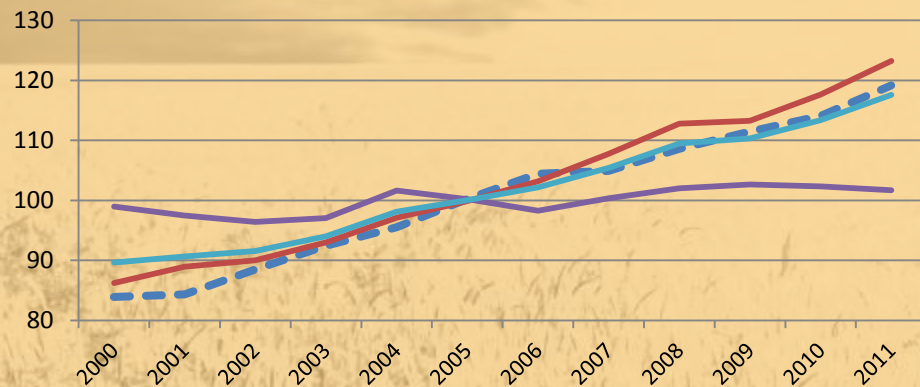
82% of irrigation is done with **surface irrigation** technique whereas only 2% with **Localized** irrigation and about 4% with **Sprinkle** irrigation which are the most efficient and water-saving irrigation techniques

Agricultural Production Indices

Per capita production gap is increasing

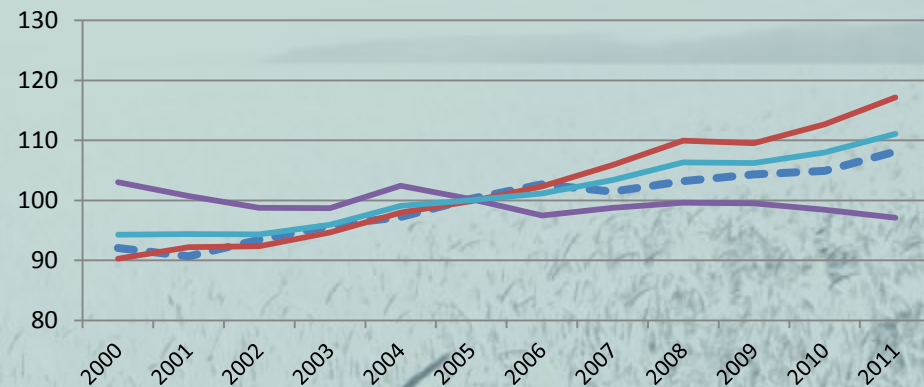
Gross Production Index

--- OIC Countries — Other Developing Countries
— Developed Countries — World



Gross Per capita Production Index

--- OIC Countries — Other Developing Countries
— Developed Countries — World

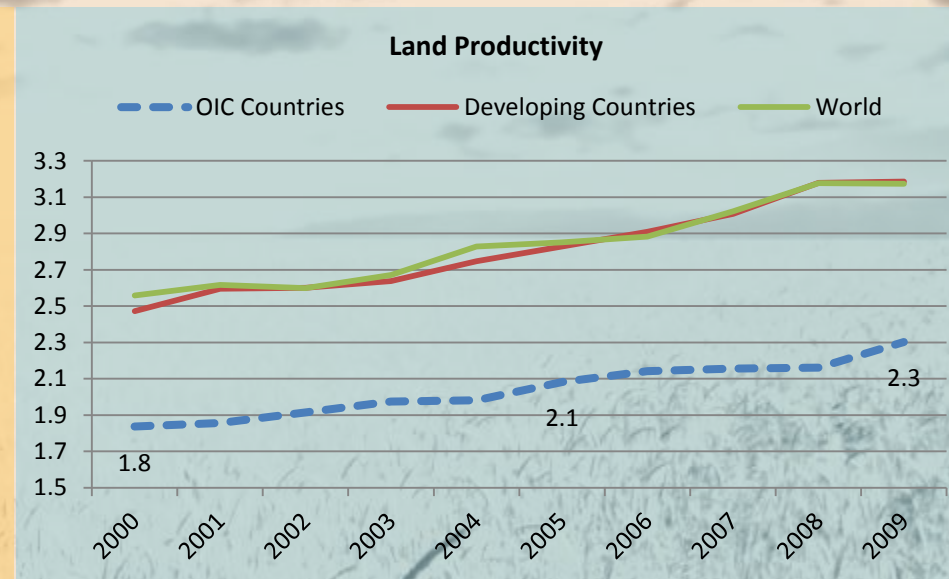
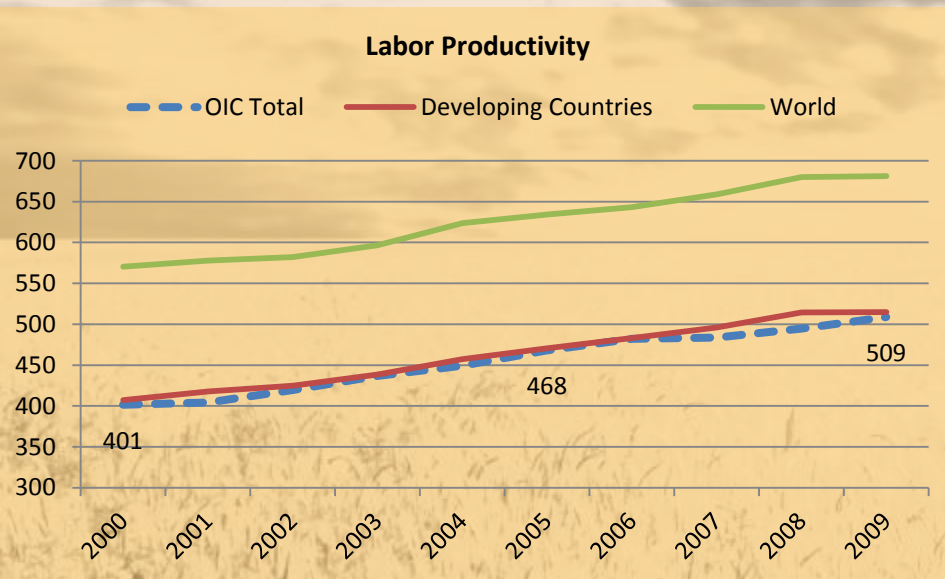


In aggregate terms, agricultural production is rising in a similar trend with other developing countries as well as that of the world

Per capita production is diverging from the latter two groups (i.e. population is expanding much faster than the growth in agricultural production)

Agricultural Productivity

Productivity gap is significant

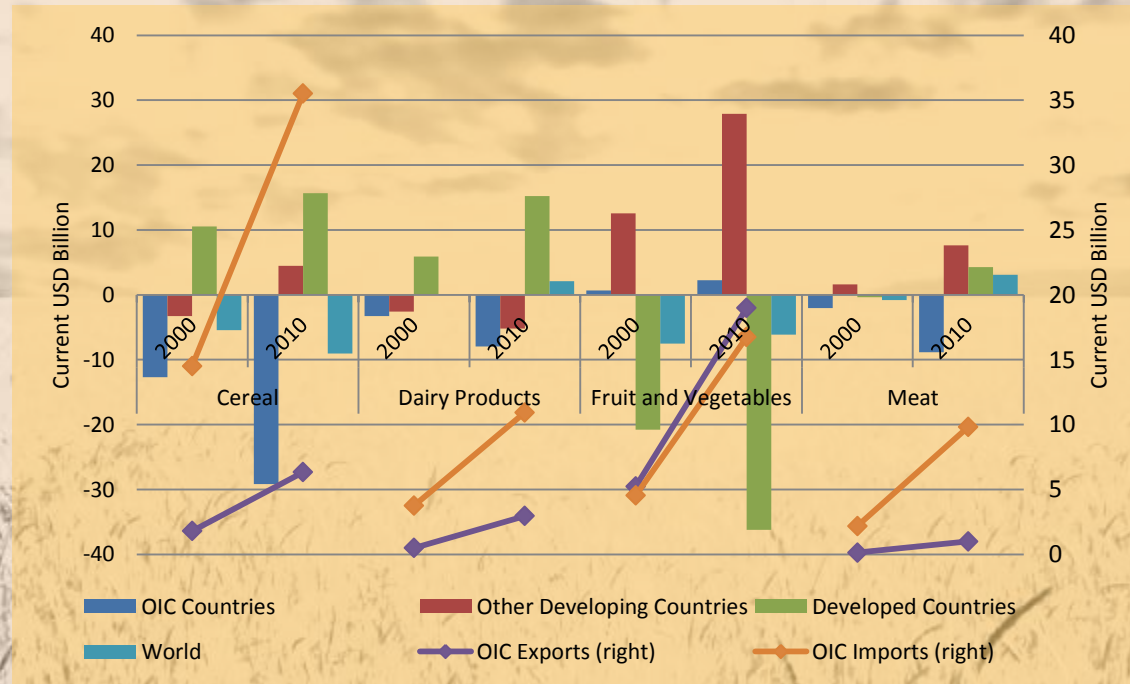


Average agricultural labor productivity in OIC Countries recorded at **US\$ 509** compared to the world average of **US\$ 681** and the average of the developing countries of **US\$ 515**

Average land productivity in OIC Countries was only **2.3 tons** per hectare compared to the world average and the average of the developing countries of **3.2 tons** per hectare

Agricultural Trade Balance

Trade deficit is growing

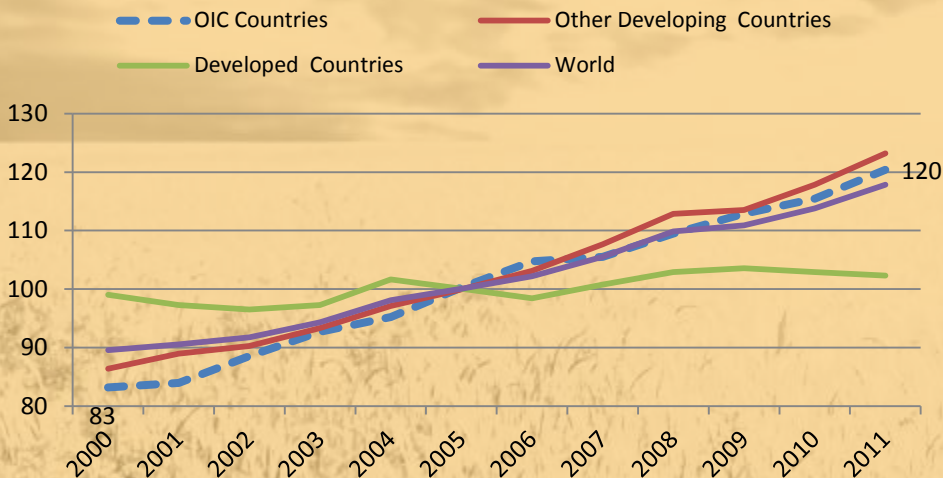


There is a growing trade deficit for all agricultural product groups but for fruit & vegetables

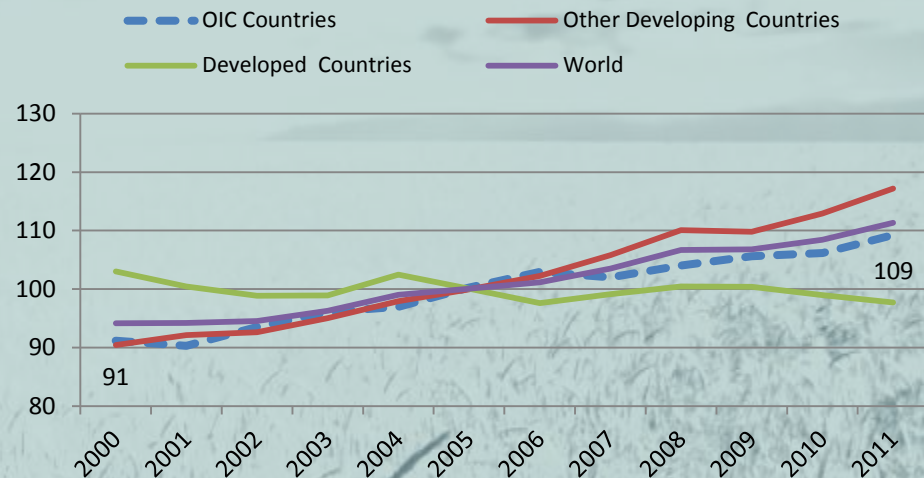
The largest trade deficit is in cereals which has grown from \$12.7 billion in 2000 to \$29.2 billion in 2010.

Food Production Index

Gross Production Index



Gross per capita Production Index

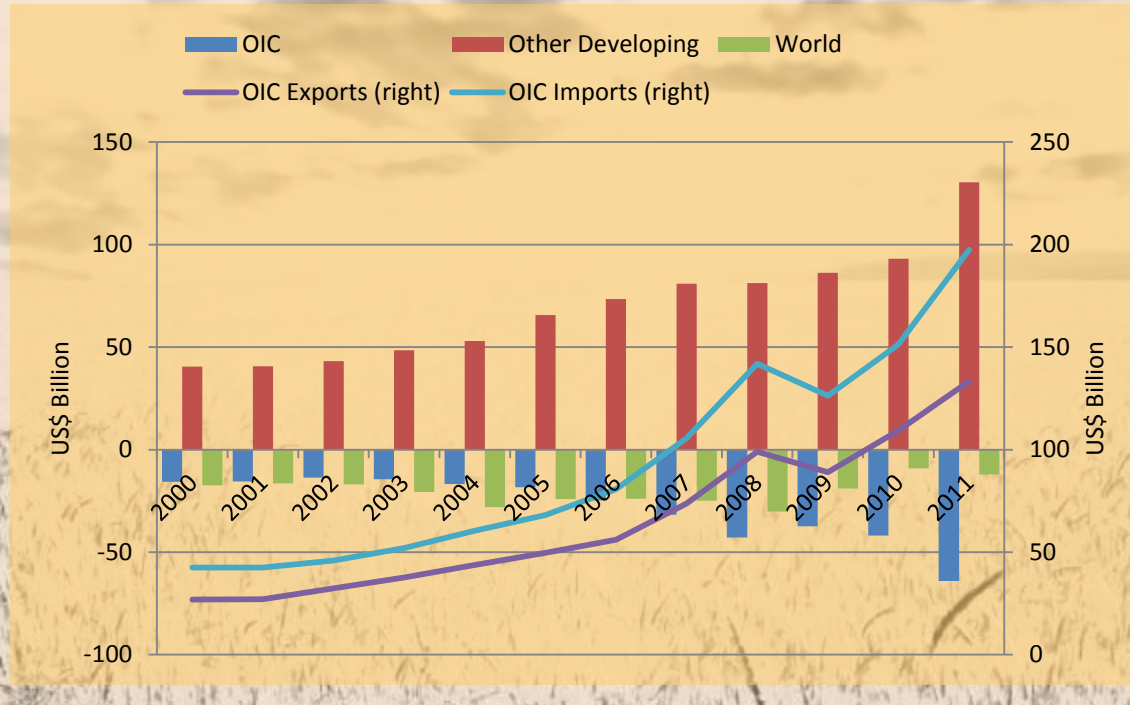


Average Food Production Index for OIC countries has shown an upward trend recording a value of **120** in 2011, compared to world average of **117** and average of other developing countries of **123** in 2011

As of 2011, OIC average per capita Index (**109**) remained below the world average of **111** and other developing countries average of **117**.

Food Trade Balance

Growing good trade deficit signals a likely shortage



As a group, OIC countries are becoming increasingly more **net importers of food**

Food trade deficit of the OIC countries has increased rapidly from US\$ 15.6 billion in 2000 to US\$ 64.1 billion in 2011.

LIFDCs

...include a significant number of OIC MCs

Afghanistan	Gambia	Nigeria
Bangladesh	Guinea	Senegal
Benin	Guinea-Bissau	Sierra Leone
Burkina Faso	Indonesia	Somalia
Cote d'Ivoire	Iraq	Sudan
Cameroon	Kyrgyz Republic	Tajikistan
Chad	Mali	Togo
Comoros	Mauritania	Uganda
Egypt	Mozambique	Uzbekistan
Djibouti	Niger	Yemen

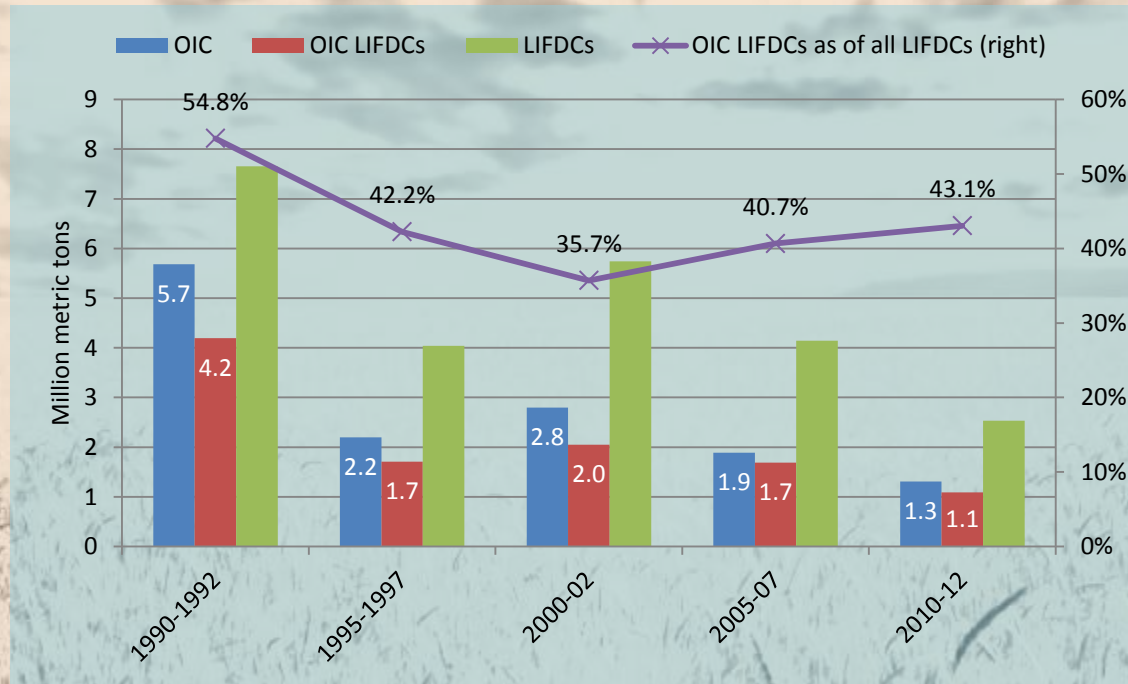
As of year 2013, **30** OIC countries are classified by FAO as Low-income Food Deficit Country (**LIFDC**)

Most of these countries are located in **Sub-Saharan Africa** and the arid regions of **West Asia and North-Eastern Africa**

19 of OIC-LIFDCs are classified by the FAO as “**Countries in Crisis Requiring External Assistance**”

Cereal Aid Shipments

Cereal aid on decline



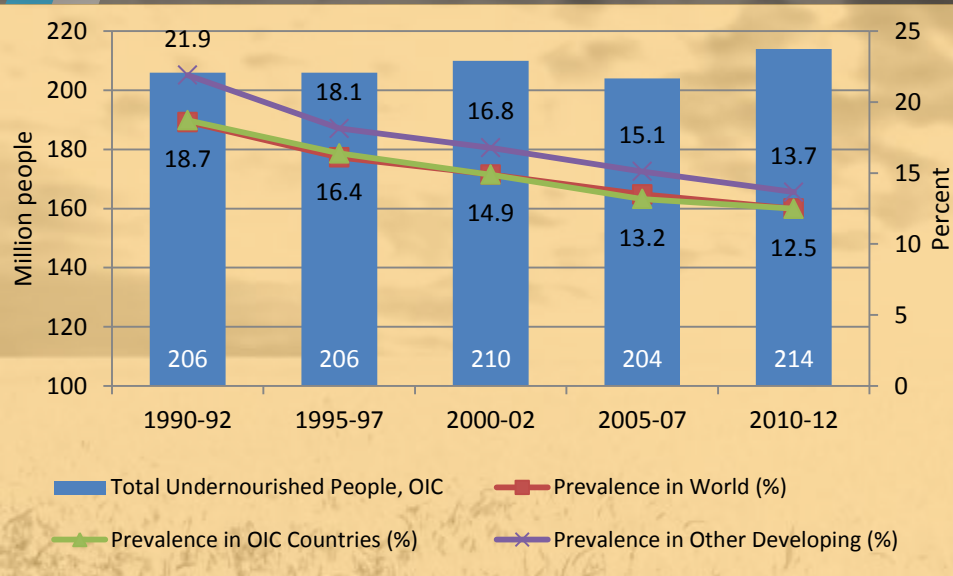
Total cereal aid deliveries to OIC countries decelerated to 1.3 million metric tons in 2010-12, down from 5.6 million metric tons in 1990-92, corresponding to a decrease of 76%.

Similarly, the total cereal aid shipments to the OIC-LIFDCs declined from 4.2 million metric tons in 1990-92 to 1.1 million metric tons in 2010-12, corresponding to a decrease of 74%

Accordingly, the share of OIC-LIFDCs in total cereal aid shipments to all LIFDCs has also declined from 55% to 43% during the period under consideration.

State of Undernourishment

Prevalence is decreasing...



In 2010-12, there were **214 million** undernourished people in the OIC Countries corresponding to 25% of the world total undernourished people.

On the other hand, prevalence of under-nourishment in the OIC Countries declined from **18.7%** in 1990-92 to **12.5%** in 2010-12

At the individual country level, despite the impressive progress prevalence is still high in many OIC countries, particularly the OIC-LIFDCs in SSA and South Asia.

Major Challenges/Constraints

Focus should be on productivity and food security

Low levels of agricultural **productivity** and elevated levels of **food security**

- Poor access to **production inputs** and related **infrastructure** and services
- Inadequate **land tenure** and **water rights** due to the lack of appropriate legal rules and regulation frameworks, as well as problems related to cross-border water sharing agreements
- Use of inefficient agricultural methods which partly manifests itself in higher use of **land and water resources** and low levels agricultural mechanization and technology adoption
- Weak **governance** and **institutional capacities**, including excess **administrative bureaucracy**
- Inadequate agricultural planning and strategy development
- Fragile overall **political and economic stability** situation
- Inadequate **economic transformation** and **structural diversification** policies and increasing **migration of agriculture labour** from rural to urban
- Inadequate **agricultural investments** and limited **financial resources**
- High exposure to **external shocks** in the prices of agricultural commodities
- **Trade**-related difficulties in the international commodity markets

Major Potentials

Agriculture sector is the most effective sector in generating income for the poorest segment of the population and of crucial importance for welfare and economic development as well as food security

The agricultural land area constitutes almost half (44.5%) of the total land area in OIC countries

More than one-third (34.8%) of the total population in OIC countries is still engaged in agriculture. This portion surpasses 50% in 18 member countries (even as much as 90% in some member countries)

31 OIC countries are among the world top 20 producers of major agricultural commodities

Intra-OIC Investment in the Agriculture Sector

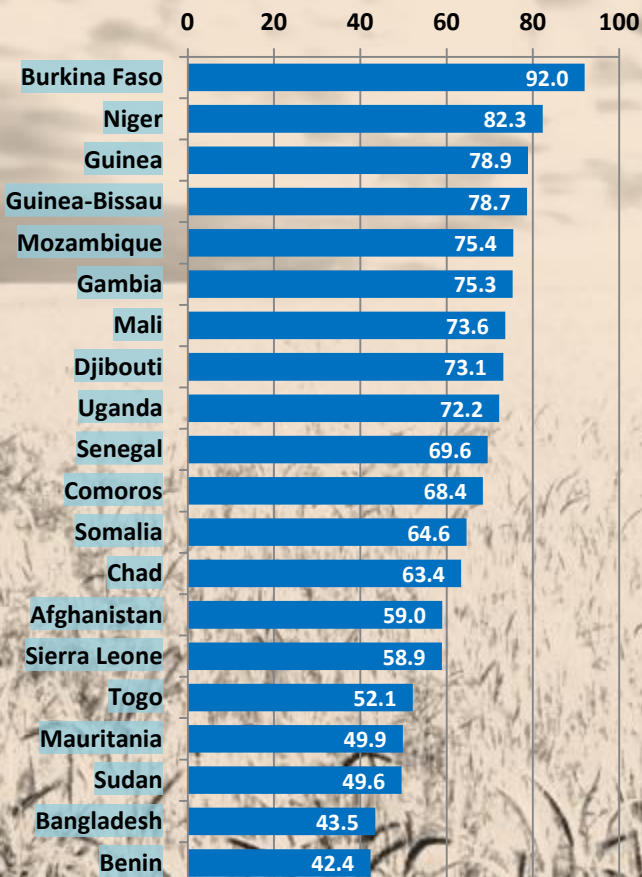
- Improving agricultural productivity and food security situation requires, of course, **financial resources**. this signifies the importance of appropriate **investments in agriculture** sector at the national level and/or in terms of FDI
- However, agriculture projects are still perceived as very **risky** in many developing countries – mainly due to weak **business and investment climate**. Therefore, improving the climate and encouraging intra-OIC investment in agricultural projects should be of utmost priority (A notable example of this is the huge amounts of recent investments made by GCC countries in the agricultural sectors of least developed OIC countries in Africa).



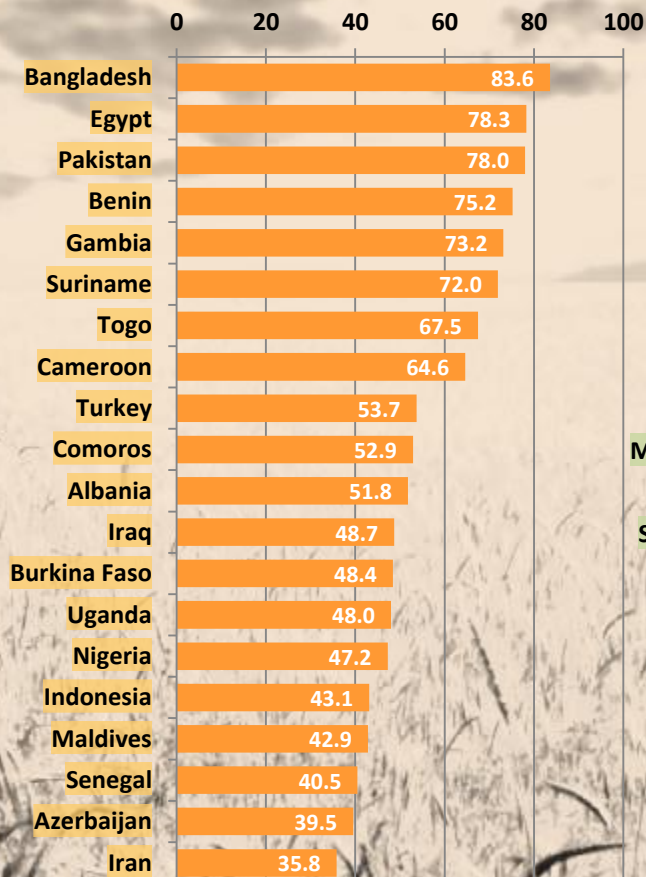
Potential Destinations for Investment

Abundant resources in many countries

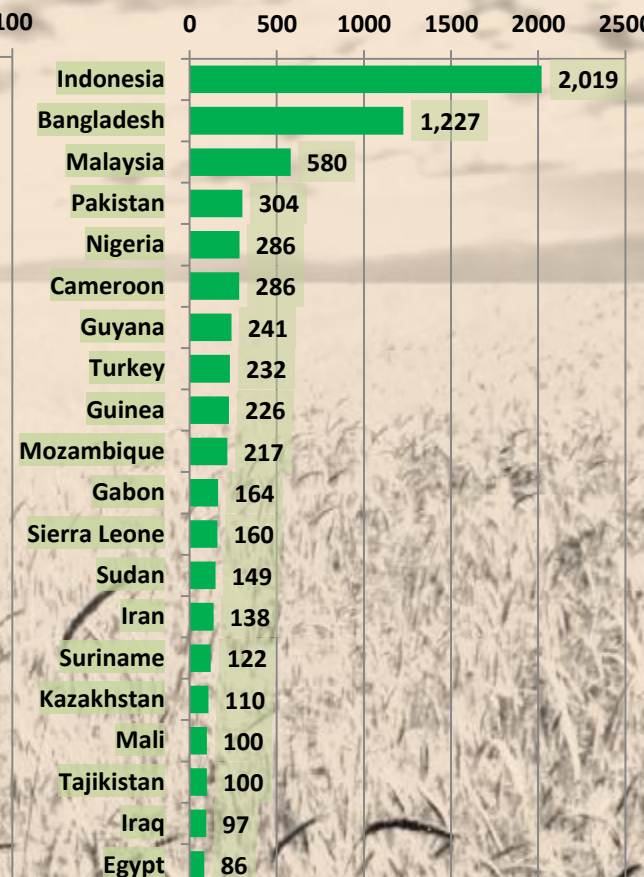
Agricultural Labour Force, % of Total (2012)



Arable Land, % of Agricultural Land (2012)



TRWR (km3/year)



37 OIC countries (20 of them are LDCs) enjoy high potential at least in terms of abundant of one of agricultural resources (agricultural labor force, arable land and water resources)

Policy Recommendations

Agricultural Productivity

- At national level, efforts should be made to enhance agricultural productivity (particularly in food products) through, inter alia, increasing the proportion of arable land area, ensuring more effective use of resources (land, water, labor, etc.).
- This would, in turn, necessitate, at national level, an increase in agricultural mechanization, innovation and technology adoption as well as directing of more investment (including FDI) to the industry

Agricultural Investment

- At the intra-OIC cooperation level, efforts should therefore be made to mobilize more cross-border investment to the agro-based(-related) industries and agricultural infrastructure
- To that end, improvement of business and investment environment should be of utmost priority in national agendas and should be supported by introduction of specific measures in national regulatory frameworks
- Resources with the existing funding facilities, such as ISFD, should be directed more and more into the agricultural projects

Agricultural Logistics

- Agricultural transport and logistics network should be improved to ease access to overseas markets

Policy Recommendations

Agricultural Skills Development

- Intra-OIC exchange of agricultural technology, knowledge and expertise should be promoted
- Agriculture data collection should be improved in order to allow for a more accurate analysis of the challenges and opportunities in the sector

Sectoral Regulation, Governance and International Frameworks

- The lack of appropriate legal and regulatory frameworks should be overcome in order to make investment environment more foreseeable, manage vulnerabilities to external shocks, increase productivity and lower food insecurity
- The unfair trading practices should be addressed through better advocacy in international panels/platforms (e.g. WTO) and competitiveness of agricultural products in global markets should be supported
- Governance in the agricultural sector should be further improved

Emergency Situations

- An emergency response mechanism should be developed and adopted at both the national and OIC cooperation level to mitigate the impacts of the climate change and natural disasters (floods, droughts and cyclones) on agriculture sector
- Establishment and maintenance of regional food reserves should be considered to respond to emergent food shortage situations

OIC-VET Capacity Building Programmes

Unleashing Human Potential through Collaboration



The relevant SESRIC Capacity Building Programmes (CaBs) are expected to enhance the capacities' of the related institutions in OIC Member Countries in agriculture, environmental issues, water management and cotton production.

OIC-VET Capacity Building Programmes

Unleashing Human Potential through Collaboration



Implemented

4-6 February 2013, Lebanon

- Agri-CaB Training Course on “**Land Management: Soil Analysis and Mapping**”

2-4 February 2013, Somalia

- Agri-CaB Training Course on “**Current Status and Future Perspectives of Agriculture, Livestock and Fisheries**”

29-31 January 2013, Sudan

- Agri-CaB Training Course on ‘**Crop Cultivation: Cultivation of Arable Crops**’

6-7 February 2013, Azerbaijan

- Environment-CaB Training Course on “**Water Resources Management**”

14-18 January 2013, Mozambique

- OIC-CTP Training Course on “**Agronomy: Crop Management and Rotation**”

15-17 January 2013, Uganda

- OIC-CTP Training Course on “**Agronomy: Soil Tillage**”

15-17 October 2012, Mali

- OIC-CTP Training Course on “**Fiber Technology: Lint Quality**”

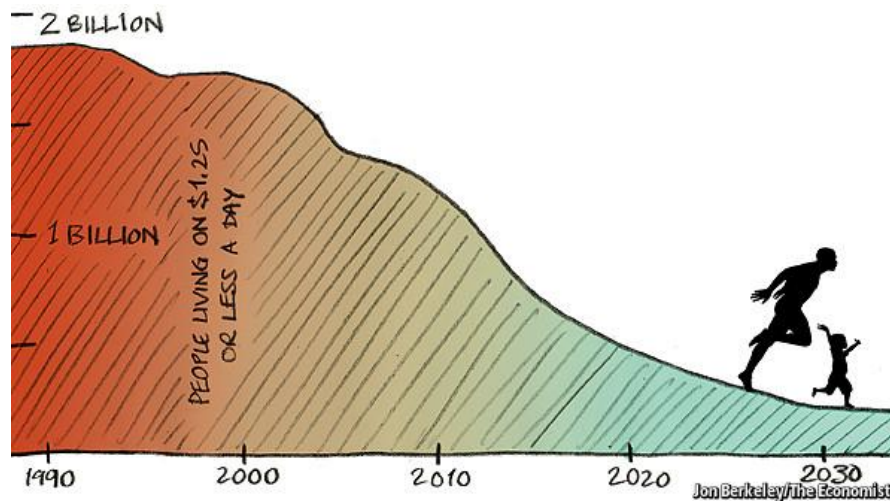
Many others are on the pipeline...



OIC-VET at the Poverty-Agriculture Interface

Title	Explanation
Series of Capacity Building Programmes (CaB) in OIC Cotton Training Programme (OIC-CTP)	40-50 CaB Programmes in OIC-CTP in line with the report of the 6th steering committee on OIC Cotton Action Plan.
The First Meeting of the Centres of Excellence for Cotton	Excellence Centres for Cotton in OIC Member Countries will be gathered in order to actualise the aims of the OIC 5 year Cotton Action Plan and to facilitate the knowledge and material transfer between Centres.
Study Visit - Development of Cotton Production Technologies of OIC Member Countries	5 Least Developed OIC Member Countries who engage in cotton will be selected and invited to <u>Turkey</u> to have a study visit and to see the latest technologies in the cotton production in Nazilli Cotton Research Station.
Study Visit on Gene Bank	Study visit to the Gene Banks of <u>Turkey</u> located in Ankara and İzmir. OIC Member Countries will learn how to dry and preserve crops. The necessary infrastructure for technology transfer and software training will be provided to the interested countries.
Innovative Agricultural Projects to Alleviate Poverty in OIC MCs - Study Visit on Cereal Breeding - Study Visit on Sunflower, Maize and Rice Raising - Study Visit on Olive - Study Visit on Vegetable and Fruit	There planned a Study visit to the Field Crops Research Institutes of <u>Turkey</u> . A common product/crop will be selected and students, agronomists, researchers will be trained in one month period. At the end of the programme, seeds of the selected common products will be granted to the participants from OIC MCs which will increase the sustainability of the visit.
Workshop on “The Role of Agriculture in Poverty Alleviation”	A workshop will be organised in order to underline the importance of agricultural projects to alleviate poverty alleviation. There invited representatives of already implemented projects’ representatives from all over the world and there will be a discussion on the innovative and sustainable projects. Recommended projects will be selected to be submitted to the International Funding Organisations.
Cassava Integrated Project for Food Security & Poverty Alleviation in the OIC Member States of SSA	The initiative aims at increasing the productivity of Cassava and the potential of Cassava post-harvest processing in some OIC member countries in Sub-Saharan Africa and that could be used as a model in other member countries in the region.
Water Pasteurisation Project in Sub-Saharan Africa	Water pasteurization is an alternative way of providing clean and safe drinking water, especially in rural and developing areas. It is not always necessary to boil or distil water to make it safe to drink, heating water to 65 degrees will kill germs, parasites and viruses and the process is called pasteurization. Water pasteurization is not effective when water is brackish or chemically tainted.
Agriculture and Livestock Project in Somalia	In order to prevent already on-going famine in Somalia, there planned an agriculture and livestock project that covers 1000 m2 area in Somalia. Within the project, the experts and agronomists will make production in the given fields and deliver the necessary seeds to the farmers at the end. There will be established an laboratory to identify the diseases that are commonly seen on animals and vaccination studies will be executed.
Poverty alleviation through fair-trade products	To change the current poverty situation of the least developed countries, there is a vast demand for the development of the labour market. This can be possible by offering fair-trade contracts with local farmers and International enterprises for example Ülker, Melodi chocolate, Helvacıoğlu kahve,... From these kinds of collaborations the production of fair-trade products like coffee, chocolate, tea... can follow. This can result in providing fair wages for the local farmers and concrete alternatives for people who wants to do something about the injustices of unfair trade.

The world should do the same again...



“... more than half the people in the world are living in conditions approaching misery. For the first time in history, humanity possesses the knowledge and skill to relieve the suffering of those people.”

H. S. Truman, 1949



Thank you for your attention.