



## DRAFT OIC PROGRAMME OF ACTION FOR DEVELOPMENT OF CASSAVA

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### 1. INTRODUCTION

Cassava is the fourth popular food crop in the developing countries, after rice, maize and wheat. According to the global cassava strategy for the new millennium, Cassava is one of the most reliable sources of food and energy that can be obtained from low-fertility soils and drought areas. Dual-purpose varieties of Cassava exist: cassava used for human consumption and for industry. In 2017, approximately 292 million tonnes of cassava was produced in over 100 countries spread across the developing world. Africa is the single largest cassava producing region, currently accounting for nearly one third of the global production. According to the FAO, cassava is very critical for food security in the developing world where it is a major source of dietary energy for more than 500 million people<sup>1</sup>.

### 2. CURRENT STATE

#### *i. Production*

Cassava production in OIC countries has increased steadily from 68 million tonnes in 2000 to 114 million tonnes in 2017 (Figure 1). As a group, OIC countries account for 39% of world total cassava production. Among the 57 OIC members, Cassava is being cultivated and produced in 26 countries. Majority of these countries are located in Sub-Saharan Africa (21) and East Asia and Pacific (3) regions. The total area harvested for cassava in OIC members has been nearly doubled from 6.7 to 11.5 million hectares during 2000-2017, corresponding to 43% of world total area harvested in 2017.

At the individual country level, cultivation and production of Cassava remained highly concentrated in a handful of OIC countries. In 2017, top-10 producers accounted for around 99% of OIC total cassava production (Figure 2). Among these countries, Nigeria alone accounted for more than half (52%) of OIC total production followed by Indonesia (17%), Mozambique (8%) and Cameroon (5%). Globally, seven OIC member countries are ranked among the top-20 Cassava producers. Among these members, Nigeria is ranked as the top global producer, Indonesia is ranked 4th, Mozambique is ranked 10th and Cameroon is ranked 11th.

Cassava has great potential for the development of agriculture sector and consequently improvement of social and economic conditions of millions of farmers in Nigeria. Nevertheless, despite its high potential, cassava production remained seriously constrained in Nigeria with declining trends in yields. According to some findings, this state of affairs arises mainly from the

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<sup>1</sup> <https://bit.ly/2DsaYJG>

low level of input use, high variability in commodity prices, and inadequate infrastructure<sup>2</sup>. There is need to make necessary interventions to improve the agricultural infrastructure, land ownership system and use of high quality inputs (seeds, pesticides and fertilizers). The Federal Government of Nigeria has initiated many programmes to improve the production and yield of cassava, including projects like Building an Economically Sustainable Integrated Seed System for Cassava (BASICS) with an aim to spearhead the adoption of clean and healthy seeds of improved varieties by farmers<sup>3</sup>.

Although, growth potential for cassava is high in Indonesia, processing industries remained under equipped and the country is increasingly importing cassava starch to make up for the shortfall in domestic supply<sup>4</sup>. Cassava is largely produced by the small farmers with low resource endowment, poor capacities and limited market access. Therefore, it is usually connected with increasing soil degradation and thus raising concerns about the environmentally unsustainable agricultural practices in Indonesia<sup>5</sup>. Nevertheless, cassava production is on rise in Indonesia as the government is supporting the private sector to create production zones for cassava. Efforts have been made to improve the farmer’s access to credit and important information about the sustainable agricultural practices. The government is also working in close collaboration with the local academic and research institutions to encourage more research on cassava<sup>6</sup>.

Figure 1: Cassava Production and Area (rhs)

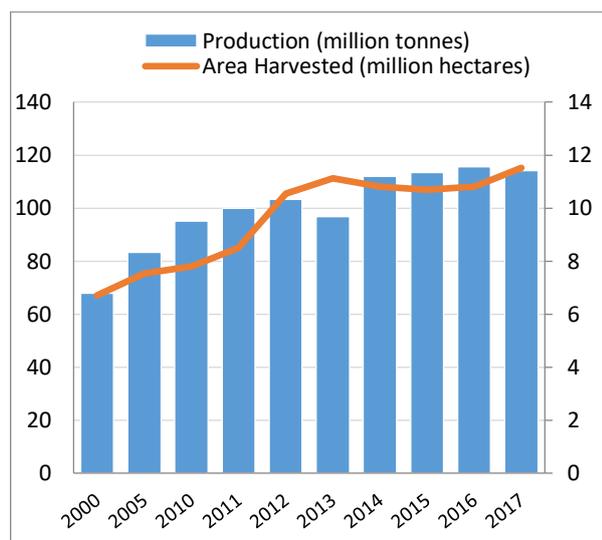
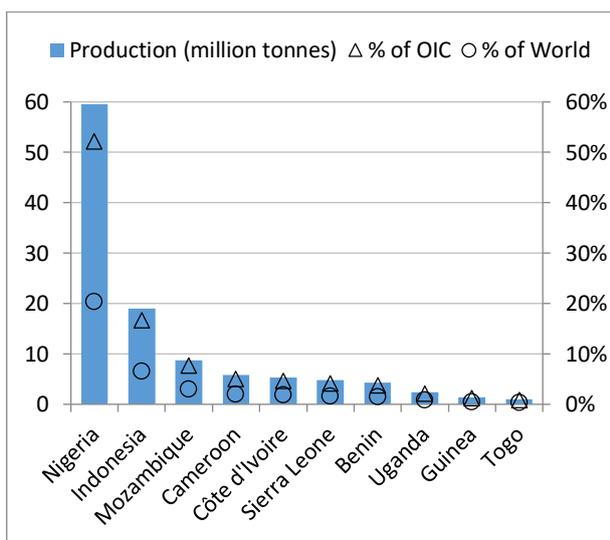


Figure 2: Top-10 OIC Cassava Producers, 2017



Source: FAOSTAT Online Database

Reducing poverty in OIC Member States is also among priority issues of Development of Wheat. According to COMCEC Poverty Outlook 2019, the total population of the OIC Member Countries accounts for nearly one-fourth of the world’s total population, their total GDP accounted for only 8.09 percent of the total world GDP in 2018. On the other hand, per capita GDP levels vary across the OIC Member Countries, (i.e. \$1,048 in Niger, \$126,598 in Qatar) 1. The poverty status also displays a diverse picture in the OIC countries, since poverty headcount ratios in the Member Countries vary from zero to 67.1percent.

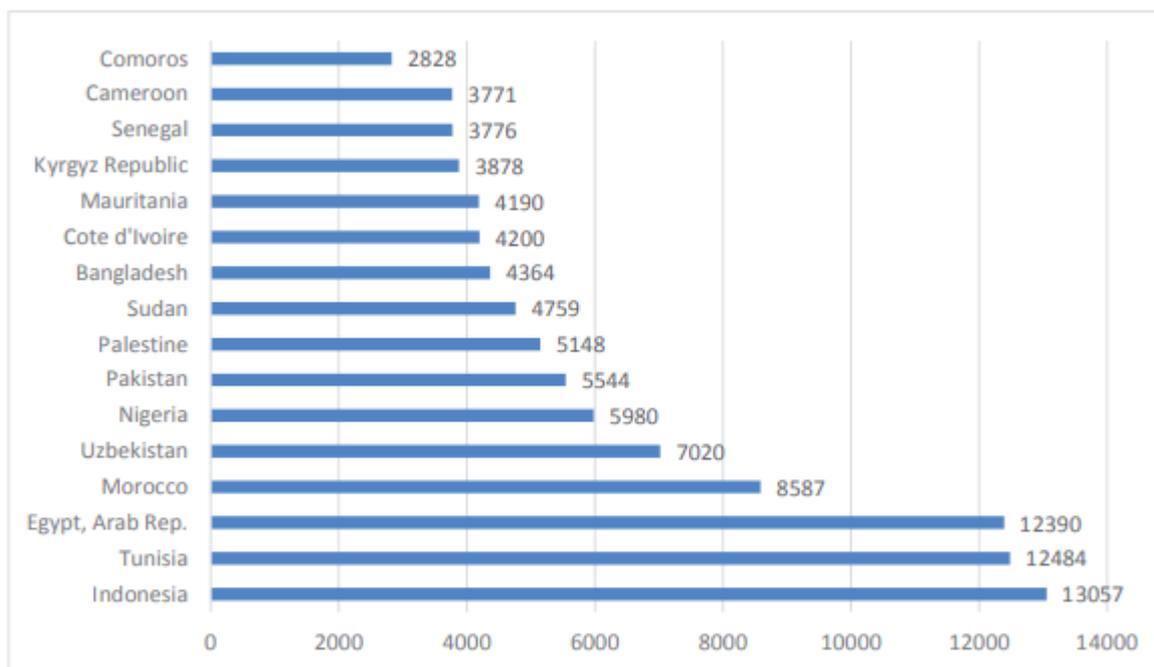
<sup>2</sup> <https://bit.ly/2WbFNtf>

<sup>3</sup> <https://bit.ly/2FOWUeW>

<sup>4</sup> <https://bit.ly/2DqAxea>

<sup>5</sup> <https://bit.ly/2U7uXCL>

<sup>6</sup> <https://bit.ly/2DqAxea>



Source: The World Bank, 2019. Note: Data for Djibouti is not available.

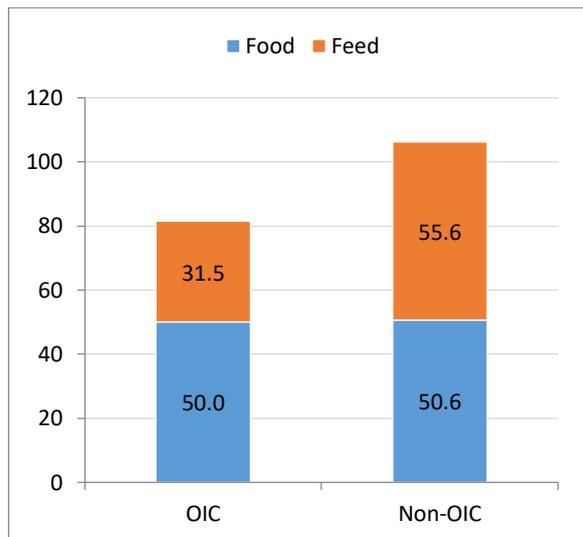
Poverty headcount ratios of the lower-middle income countries display a highly diverse picture. While this ratio is lower than 5 percent in only six countries (Pakistan, Tunisia, Kyrgyzstan, Egypt, Morocco and Palestine), it is between 5 percent and 30 percent in eight countries (Cote d'Ivoire, Cameroon, Comoros, Djibouti, Sudan, Bangladesh, Mauritania and Indonesia), and 53.5 percent in Nigeria.

## ii. Consumption

Like elsewhere, food and feed are apparently the primary methods of utilization of Cassava in OIC countries. As shown in Figure 3, 50 million tonnes worth of cassava was consumed as food whereas 31.5 million tonnes was used as feed in OIC countries. The relative share of food and feed in total production of cassava in OIC countries stands at 45% and 28%, respectively. The food component is relatively high in OIC countries compared to the Non-OIC countries where only 31% of cassava production is being used for food consumption.

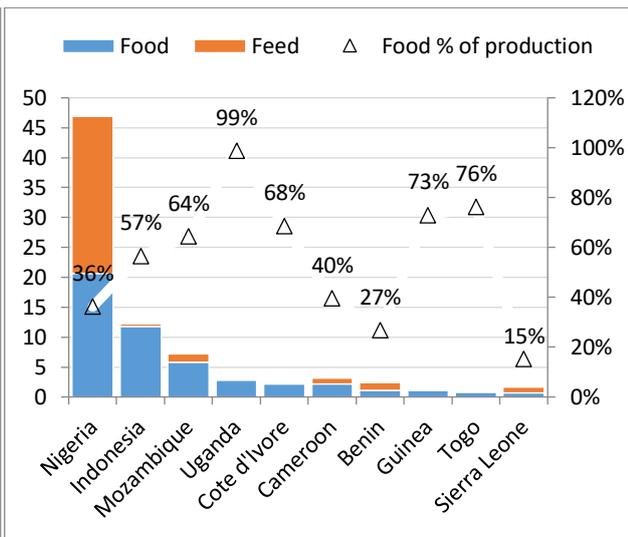
In absolute terms (Figure 4), the highest amount of cassava is used for food in Nigeria (20.6 million tonnes), followed by Indonesia (11.7 million tonnes), and Mozambique (5.8 million tonnes). The relative share of cassava used for food in total production varies greatly across the major producers and consumers of wheat in OIC countries. Among the top-10 consumers of cassava, food use of cassava is higher than 60% in five member countries (Figure 4). On the other hand, once again Nigeria is the top OIC country with respect to feed use of cassava (26.3 million tonnes) followed by Mozambique (1.4 million tonnes) and Benin (1.2 million tonnes). It is worth highlighting that many OIC countries which don't produce cassava are importing it for food consumption (like Bangladesh, Pakistan, Oman, and UAE) and feed use (like Egypt, Saudi Arabia, and Turkey).

Figure 3: Utilization of Cassava (million tonnes), 2013



Source: FAOSTAT Online Database

Figure 4: Top OIC Cassava Consumers, 2013



### iii. Trade

Global trade of dried cassava was recorded at US\$ 4.5 billion in 2013-14, including US\$ 2.0 billion in exports and US\$ 2.5 billion in imports. Thailand, the second largest producers of Cassava in the world, accounts for about 72% of global exports. On the other hand, China is the largest importer with a lion share of 46%. Although OIC countries accounted for the bulk of global cassava production, their share in trade remained negligible. In 2013-14, with a total value of US\$ 39 million, OIC countries accounted for only 2% of global trade in dried cassava. As a group OIC countries are net exporters of dried cassava with US\$ 34 million in exports and US\$ 5 million in imports.

Among the OIC countries, Indonesia is the largest exporter of dried cassava with a lion share (96%) of OIC total exports (Figure 6). Among others, Uganda and Malaysia accounted for 2% and 1% of OIC total dried cassava exports, respectively. With respect to imports, Turkey and United Arab Emirates are the largest importers, accounting for 38% and 36% of OIC total imports, respectively. Among others, Saudi Arabia and Oman account for about 8% each followed by Malaysia (4%).

Figure 5: Share in Global Cassava Trade

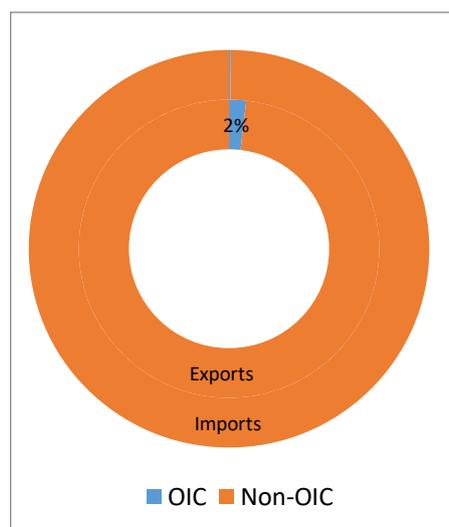
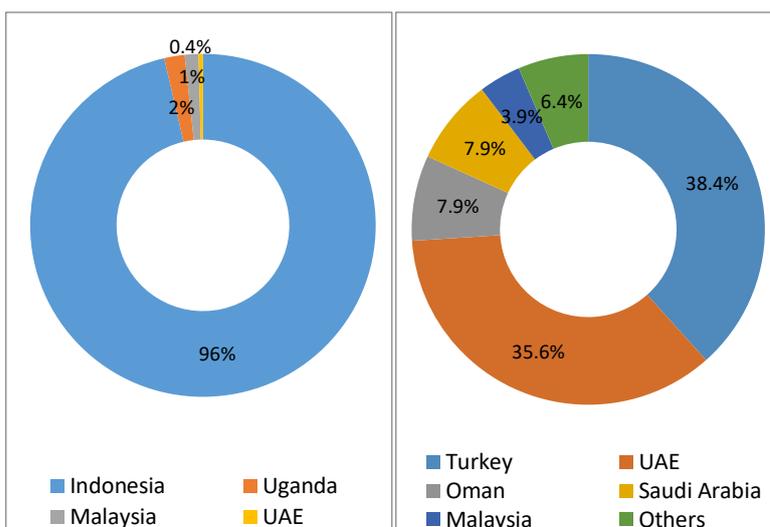


Figure 6: Top OIC Cassava Exporters (lhs) and Importers, 2014



Source: FAOSTAT Online Database

### 3. CHALLENGES AND OPPORTUNITIES

#### i. Major problems

Challenges to cassava sector in OIC member states:

- Low productivity (typical smallholder yields in Africa: 10-12 tons/ha; attainable yields under good agronomic practices: 50-60 tons/ha)
- High production cost;
- Major pests and diseases including new devastating ones (e.g., cassava brown streak virus disease: CBSV- dubbed as the ‘Ebola for plants’ can yield to losses of 100%)
- Poor and inadequate infrastructural facilities;
- Lack of access to financial resources;
- Poor product quality;
- Lack of a good market information system to create a network among the stakeholders;
- Poor capacity building of the processors, especially the women who are in the forefront of cassava processing;
- Low promotion of SMEs for value-added cassava products;
- Lack of effective strategies for cassava development;
- Lack of cooperation linkages between agricultural research, microfinance institutions, quality standards organizations, and equipment manufactures.

#### ii. Opportunities

- Natural resource endowments;
- Growing consumer demand;
- Attaining food security;
- Introducing and transferring modern farming technologies, equipment, and skills;
- Increasing wage and self-employment opportunities for the rural community.

#### **4. OBJECTIVES AND TARGETS**

The overall objective of the OIC Programme of Action for Development of Cassava is to ensure self-sufficiency in cassava in the medium term, and to export to the regional and international markets in the long term.

##### *i. Specific objectives*

- Developing cassava sub-sector as a key component of a national economy able to generate employment, contribute to food security and sustain incomes for populations, especially rural;
- Contributing to the creation of jobs, higher incomes and greater prosperity in cassava producing counties.

##### *ii. Targets*

- Increasing significantly in cassava yields and productivity;
- Enhancing national capacities to export value-added cassava products;
- Ensuring food security and alleviating poverty;
- Raising income of rural population and stimulating overall community development.

#### **5. RESPONSES AND COOPERATION AREAS**

The activities listed below represent what is necessary at local, national and OIC levels level to increase cassava production.

##### *i. Local and Community-based*

- Providing access for cassava growers/farmers to adequate inputs such as credit, extension services, improved cassava varieties, and other materials;
- Transforming individual cassava growers into organized small-scale enterprises;
- Developing sustainable plant protection technologies in areas, where the cassava shows high social and economic importance;
- Conducting trainings on improved practices in cassava production;
- Developing and strengthening community-based organizations and involving national research and extension agencies in a concerted effort to improve cassava yields and productivity;
- Developing necessary infrastructure and training to reduce on-farm and post-harvest loss.

##### *ii. National*

- Sensitizing relevant government ministries and departments about the need to develop integrated national policy frameworks for cassava led growth strategies;
- Creating a suitable policy framework and institutional structure to facilitate development of backward and forward linkages in cassava production, processing, value addition and marketing;

- Enhancing capacity-building initiatives and developing a viable programme for R&D to employ newer technologies for increased productivity, and new variety development;
- Reducing post-harvest losses by increasing access to better low-cost on-farm storage methods for fresh cassava as well as off-farm technologies;
- Improving cassava production and productivity at the farm level through mechanization and improved agronomic practices, as well as linking rural communities to processing enterprises;
- Developing cassava value chain activities with the participation of private sector (production and industrial processing, expansion of cassava, and marketing of processed cassava products).
- Diversifying the valorization of cassava and its products through the development of new industries, new forms of incorporation and nutrition use, among others;
- Promoting bio-based value chains in the cassava sector;
- Promote market information systems that help the growers, traders and processors in increasing the efficiency of the cassava marketing, minimizing transaction costs and enhancing transparencies;
- Developing and harmonizing standards of cassava and cassava-based products.

### *iii. Regional and intra-OIC*

- Establishing working and collaborative agreements with cassava research and technology development agencies and institutions within the OIC region;
- Developing technical cooperation programmes among OIC member states on cassava production and value addition;
- Promoting intra-OIC trade on cassava and cassava-based products;
- Encouraging intra-OIC investment in cassava production and value addition.

## **6. IMPLEMENTATION MECHANISM**

Implementation of the OIC Programme of Action for Development of Cassava will be accomplished through incorporation of the agreed objectives in the national strategies for development of cassava.

In order to fast-track the formulation of projects and their effective implementation under the OIC Programme of Action for Development of Cassava, a Steering Committee comprising OIC member states, which are interested in value chain development of cassava, and relevant OIC institutions will be established. It is envisaged that the above Committee will hold regular meetings, with the objective of reviewing the progress made in the implementation of the OIC Programme of Action, identifying priorities and new opportunities for the development of cassava sector, as well as approving projects. In addition, a Project Committee comprising the project-owners and financing partners will also be established. The main task of the Project committee will be monitoring and ensuring the efficient implementation of the approved projects. OIC should help mobilize grant money for R&D and capacity development of the national systems. NGOs and the Civil Society participation is critical in technology dissemination (e.g., of cassava varieties that CBSV tolerant; support consortium of national and international research partners developing

and dissemination solutions for producers), and this requires access to financing, including grants from the development community.

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**EXECUTIVE FRAMEWORK FOR IMPLEMENTATION OF  
THE PROGRAMME OF ACTION (5 years)**

No.	Goal	Activity	Timeframe	Expected outcome
1	Developing cassava sub-sector as a key component of a national economy able to generate employment, contribute to food security and sustain incomes for populations, especially rural.	<ol style="list-style-type: none"> <li>1. creating the necessary legal and institutional framework for sustainable and increased cassava production;</li> <li>2. developing sustainable plant protection technologies in areas where cassava shows high social and economic importance;</li> <li>3. sensitizing relevant government ministries and departments about the need to develop integrated national policy frameworks for cassava-led growth strategies;</li> <li>4. Promoting intra-OIC trade on cassava and cassava-based products;</li> <li>5. Encouraging intra-OIC investment in cassava production and value addition.</li> </ol>		<p>Developing and harmonizing standards for cassava and cassava-based products.</p> <p>Establishing working and collaborative agreements with cassava research and technology development agencies and institutions within the OIC region.</p> <p>At a country level – national programmes to be elaborated in coordination with respective OIC institutions for permanent support of cassava production.</p> <p>Cooperation among OIC private sector (businesses) through ICCIA in order to identify the prospective areas/ways of trade and investment.</p>
2	Contributing to the creation of jobs, higher incomes and greater prosperity in cassava producing countries.	<ol style="list-style-type: none"> <li>1. Developing necessary infrastructure and training to small farm holders thus increasing marketing coordination and improving infrastructure.</li> <li>2. Expanding smallholders into larger farms to increase yields and</li> </ol>		<p>Enhancing capacity-building initiatives and developing a viable programme for R&amp;D to employ newer technologies for increased productivity, and new variety development.</p>

		<p>production for consequent planting;</p> <p>3. Creation of factories for cassava processing.</p>		<p>Cooperation among OIC private sector (businesses). Creating/expanding of factories (e.g. producing dry cassava chips, precooked cassava croquets and fermented starch).</p>
3	<p>Increasing significantly in cassava yields and productivity.</p>	<ol style="list-style-type: none"> <li>1. Developing and strengthening community-based organizations and involving national research and extension agencies in a concerted effort to improve cassava yields and productivity;</li> <li>2. Developing technologies, specifically adapted for cassava, that will facilitate cultivation and processing of cassava roots and leaves;</li> <li>3. Increasing commercial yields with the introduction of new technologies;</li> <li>4. Using biotechnological tools through the use of molecular markers.</li> </ol>		<p>Finding ways of cooperation among community-based organizations, national research and extension agencies via MoUs and/or other tools of cooperation for elaborating and distributing of methods for increasing cassava yields. Technologies adapted for cassava. Which will facilitate cultivation and processing of cassava roots and leaves shall be elaborated and shared. Germplasm can be introduced in the technologies used for increasing cassava yields.</p>
4	<p>Enhancing national capacities to export value-added cassava products.</p>	<ol style="list-style-type: none"> <li>1. Creating a suitable policy framework and institutional structure to facilitate development of backward and forward linkages in cassava production, processing, value addition and marketing;</li> <li>2. Developing of new varieties including incorporation of particular quality characteristics</li> </ol>		<p>Developing cassava value chain activities with the participation of private sector (production and industrial processing, expansion of cassava, and marketing of processed cassava products). New varieties can be found and developed through biochemical</p>

		needed in particular markets.		and molecular approaches. Due to the need in permanent update of R&D technologies, permanent contribution to be maintained in this direction.
5	Raising income of rural population and stimulating overall community development.	<ol style="list-style-type: none"> <li>1. Providing access for cassava growers/farmers to such adequate inputs as credit, extension services, improved cassava varieties, and other materials;</li> <li>2. Conducting trainings on improved practices in cassava production;</li> <li>3. Improving cassava production and productivity at the farm level through mechanization and improved agronomic practices, as well as linking rural communities to processing enterprises</li> </ol>		In order to support economic development of OIC member states and address the problems affecting trade, cooperation instruments to be introduced and adopted by each member country to facilitate export of surplus cassava in the OIC area and beyond.
6	Reducing post-harvest losses by increasing access to better low-cost on-farm storage methods for fresh cassava and as well as off-farm technologies.	<ol style="list-style-type: none"> <li>1. Improving cassava production and productivity at the farm level through mechanization and improved agronomic practices, as well as linking rural communities to processing enterprises;</li> <li>2. identifying improved production/post-harvest technologies available in the OIC region for possible adoption in the needy OIC member states</li> <li>3. linking farmers to markets by providing timely price and market information and improving transport network</li> <li>4. conducting collaborative trainings and workshops to develop new/improved</li> </ol>		Islamic Food Processing Association (IFPA) to extend support to member countries in developing effective mechanisms of pre-and-post harvest facilities in order to avoid cassava loss. Interaction with OIC member countries for a better knowledge and experience-sharing in advanced production/post-harvest technologies. Enhancing farmers' awareness about pricing and market environment across the OIC area, as well as cooperation with

		technology in cassava production, post-harvest and processing activities		logistic/transportation companies. MoUs with centres of excellence for conduct of trainings and workshops within the above centres in new/improved technologies in cassava production, post-harvest and processing activities
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