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## **Somaliland National Consultation Brief**

**CLIMATE CHANGE, FOOD  
SECURITY · AGRICULTURE, POVERTY  
REDUCTION, LIVELIHOODS AND  
YOUTH EMPLOYMENT**

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## Outline

- Introduction: General overview of the Presentation
  - Description of the nexus b/w CC, Agriculture, FS, Livelihoods, and Nutrition.
- What climate indicator changed & What are evidences.
- Visible effects of Climate Change on:
  - Agriculture and youth employment
  - food security, Nutrition & livelihoods
- Coping with CC: Climate Smart Agriculture: CSA, Agroforestry & Crop diversification ( THE WAY FORWARD)





Agriculture, climate change, food security and poverty reduction are inextricably linked. Youth unemployment can be considered as a consequence of that.

As the SL population grows from current 5.7 million to nearly 7.5 million within 5 years, Agricultural production will have to double to maintain the current level of consumption of locally produced agricultural products.

Extreme temperatures across the Greater Horn of Africa (GHA) region have been observed over the last 50 years. An analysis of global data from 1901-2005 shows temperatures have increased 1.0°C in a century (IPCC, 2007). Parts of SI will be inhabitable!!!

Climate volatility, more frequent extreme weather events and rising temperature increasingly threaten the viability of agriculture & livestock based livelihoods in SL. Result is declining crop production and livestock productivity. IS THERE A HOPE?

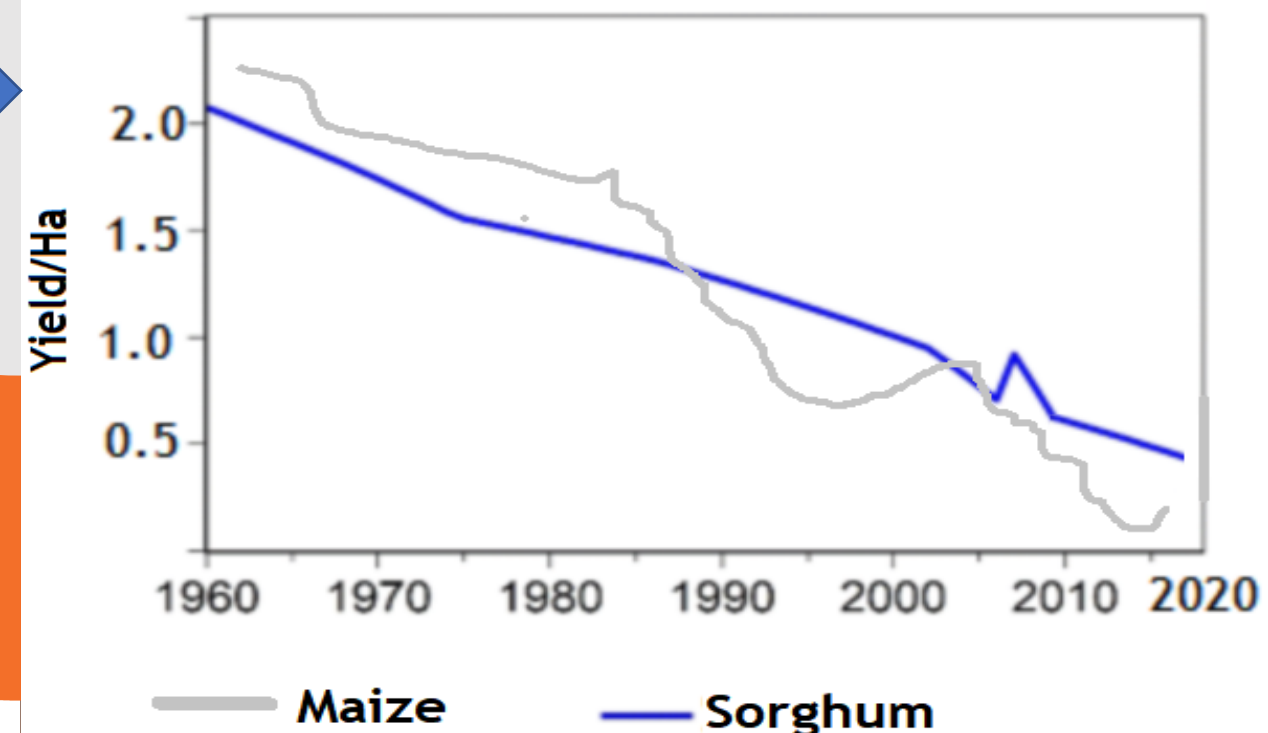
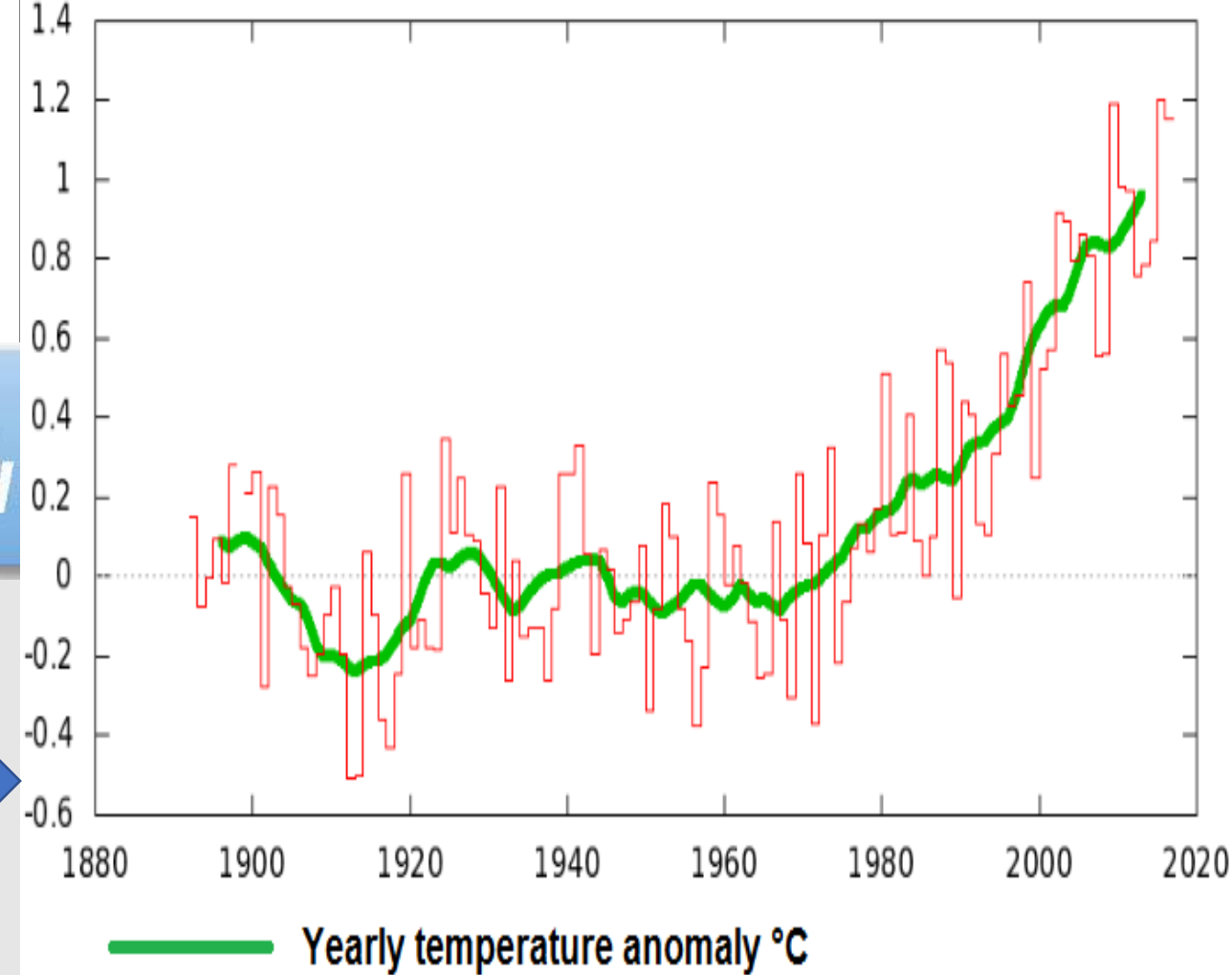
The sector holds a large mitigation potential, mainly through reduced natural ecosystem degradation, Improved Soil health and increased productivity to feed additional mouths. Increased use of harvested surface water & introduction of agroforestry would be helpful (CLIMATE CHANGE ADAPTATIONS)

Agriculture is therefore part of the problem and part of the solution to Climate Change.

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## GENERAL OVERVIEW







**Before moving any further, there is perhaps a need to establish meanings and concepts of certain TERMS important for today's presentation.**

....Comming next

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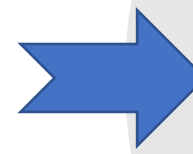


## WHAT IS THE CONCEPT OF CLIMATE CHANGE

Climate change describes a change in the average conditions — such as temperature and rainfall — in a region over a long period of time.

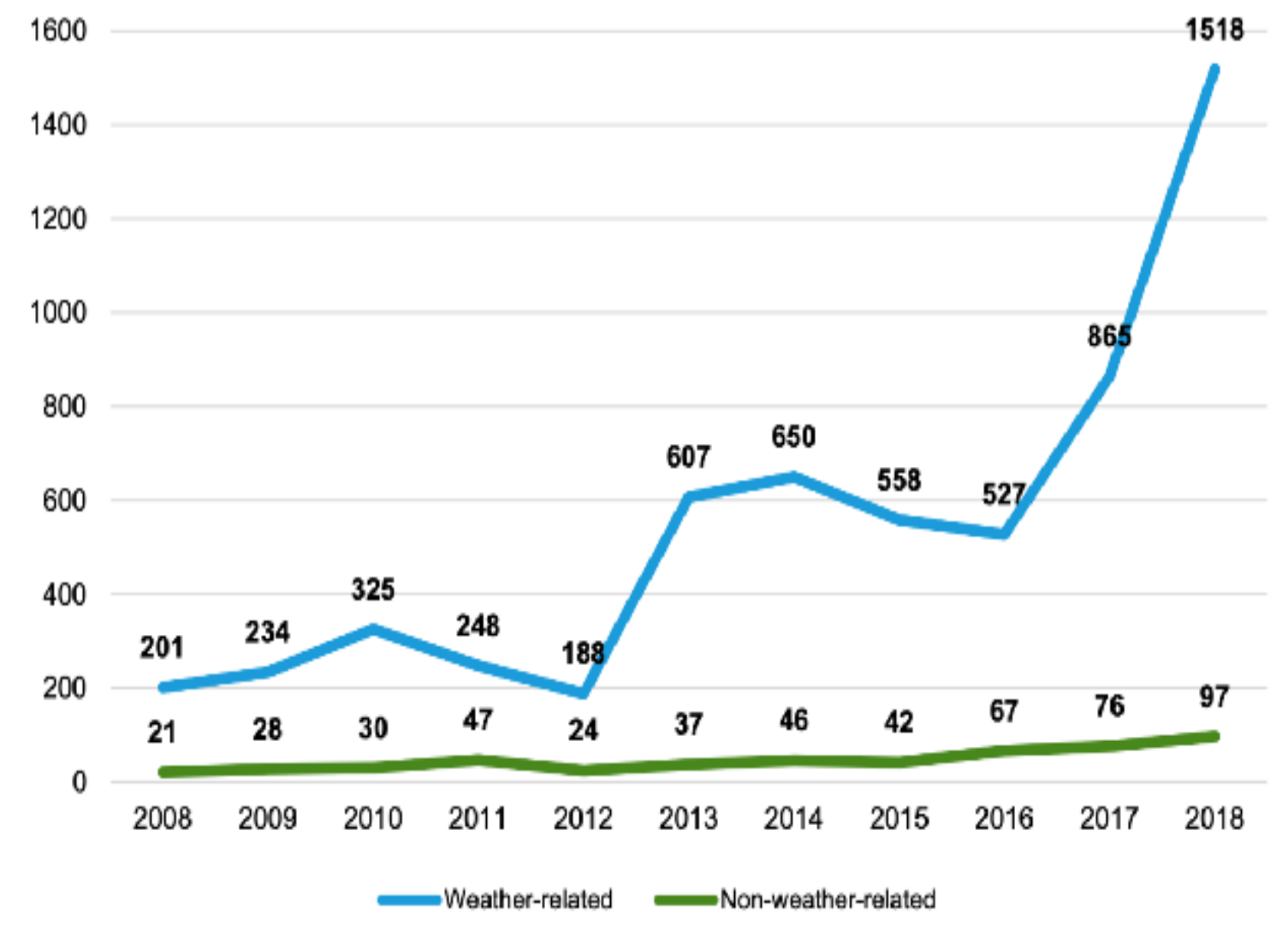
### Effects of CC:

More severe droughts, flash floods, erratic rainfall, disruption to the monsoon seasons, strong winds, cyclones, dust storms and increased temperature.



**Climate change**, there is increased variability and unpredictability of weather and climate events and subsequent impacts on Agriculture, food security, rural livelihoods as well as rural youth employment.

**Figure 1: Number of climate-related disasters per year that have resulted in people being internally displaced**



Source: Oxfam analysis of data from the Internal Displacement Monitoring Centre.<sup>6</sup>



## WHAT IS AGRICULTURE

In Simple terms **Agriculture** can be defined as the practice of farming, including cultivation of the soil for the growing of crops and the rearing of animals to provide us food and other products or services (e.g Raw materials etc.

Around 85% of SL population make a living from livestock farming, either exclusively (pastoral) or in combination with arable farming (agropastoral). However, only 3 % of the land is used for crop growing, while a further 7% is potentially arable.

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Various activities within Agriculture and How they can be improved to make them more Climate Resilient



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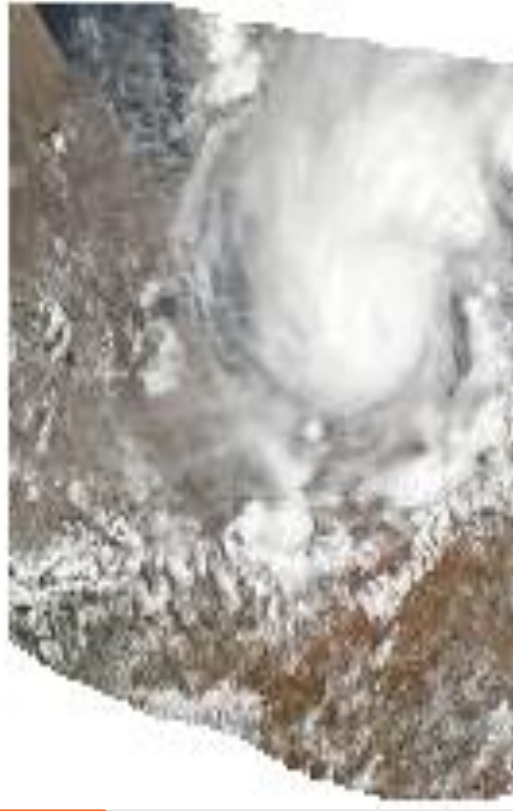




## WHAT IS AGRICULTURE

Somalia/Somaliland experience periodic climatic shocks every two to five years with flooding, cyclones and particularly more frequent droughts.

21st May 2017- A powerful tropical cyclone with winds in excess of 120 km/per hour and an entire year's worth of rain in just a few days has left destruction and death in its wake in Somaliland. The result was loss of a large number of livestock and 700 farms destroyed (Webrelief, 2018).







The most recent global projections show that Somaliland/Somalia is expected to experience a steady future increase in temperature, rising to 3.2°C by 2080 (WCRP, 2012).

Period average	Mean projected changes (°C ) for Somalia		
	2030	2050	2080
Annual	+0.8	+2.5	+3.2

**Projected Climate Variability – Rainfall**

Period average	Projected changes			Rainfall intensity projections
	2030	2050	2080	
Annual	+1%	+3%	+4%	+2-3%

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## WHAT IS AGRICULTURE & How it is impacted by CC in Somaliland

Climate change-related disasters, such as prolonged drought, floods and locust infestations, have displaced thousands of Somali farmers from their land, threatening food security in Somaliland.



Maize field scotched by high temperature. East of Aburein  
2017



Somali family migrate their homes &





## WHAT IS FOOD SECURITY

Food security is the measure of an individual's ability to access food that is nutritious and sufficient in quantity.

Some definitions of food security specify that food must also meet an individual's food preferences and dietary needs for active and healthy lifestyles.

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## NUTRITION IN RELATION TO CLIMATE CHANGE

Nutrition is the biochemical and physiological process by which an organism, in this case a human being, uses food to support its life. It includes ingestion, absorption, assimilation, biosynthesis, catabolism and excretion.

In fact, across Somalia, two million people do not have regular access to food. For the younger population, this means that 388,000 children under the age of five are acutely malnourished and left struggling to survive (Webrelief, 2020).

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**Livelihoods** mean the type of jobs and lifestyles people lead to earn a living.

Rural Livelihoods & impact of CC

**In Somaliland rural people's livelihoods is under threat from the impact of climate change: each year, around 10 tonnes of fertile soil is lost per hectare as a result of erosion by wind and water (as a direct result of increased flash flooding and extreme dessication of soil due to increased temperature and loss vegetation cover).**





## How does climate change affect the livelihood?

Existing threats to livelihoods exacerbated by climate change due to a combination of factors that include:

1. The increasing frequency and intensity of climate hazards,
2. Diminishing agricultural yields and reduced production,
3. increasing water scarcity, due to increased water evaporation (Back to atmosphere)
4. increase temperature & more erratic rainfall

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## Adaptations to climate change in Agro-pastoral community

There is no study, but there is mounting evidence that even Sorghum, camel of the desert & other what lesser drought tolerant crops are struggling in the traditional Agropastoral belt of SL whereby Farmers face frequent failures.

However, most important priority is not grain production but to enough stored fodder for livestock. Main interest is to get ready for more frequent droughts attributable to CC.



Agro-pastoral community are showing relatively more effective way of coping frequent drought brought about by CC.



## General overview of effect of CC to SL's varied livelihoods

In Somaliland Climate Change is real & impacts on the livelihoods of great majority rural population which depend on agriculture, livestock and forests for their livelihoods.

Somaliland is particularly vulnerable to Climate Change and variability because we have rain-fed agriculture on which the food security, employment and livelihoods of people depend on.

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## Cont...

Climate change (CC) affected Agriculture in Somaliland/Somalia in a multiple ways:

1. Increased temperatures & unpredictable rains negatively affected crop development and yield.
2. New & more aggressive types of pests & diseases (Fall armyworm, desert locust or Rust) widespread due to CC.
3. It is predicted about 2.5 to 10% decrease in crop yield (2020s) and 5 to 30% (2050s)

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This Somali farmer is trying to recover from the effects of repeated droughts by preparing himself for the growing season which may be delayed or never come (ICRC, 2021).





## What can be done to mitigate the negative effects of CC

I think the discussion needs to be extended to cover potential measures for mitigating impact of global warming on agricultural production. During discussion phase please provide opinion on HEAT AND DROUGHT TOLERANT CROP VARIETIES, CARBON SEQUESTRATION MEASURES and other required technological initiatives to tackle this problem.



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## What can be done to mitigate the negative effects of CC...CONT



Surface water harvested and stored in a mega-dam at HABAASWEYN in ODWEYNE REGION. 2021, FAO

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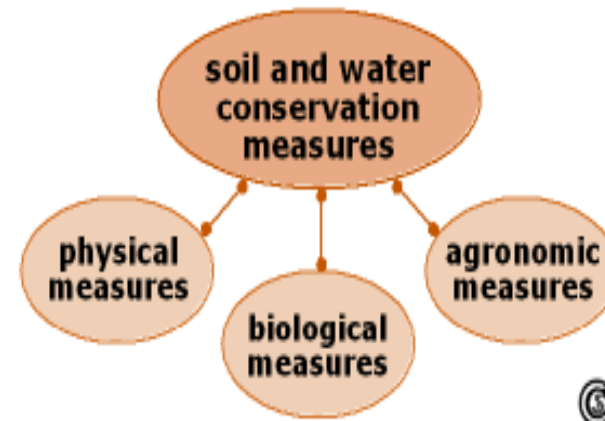


## What can be done to mitigate the negative effects of CC...CONT

### Encourage Water Harvesting and Conservation farming systems

Erratic rainfall is a major factor inhibiting agricultural production and the trend of increasing rainfall variance and temperatures further threatens food and water security in Somaliland.

Therefore, there is a need for multistakeholder investment in soil conservation, Agroforestry and water harvesting solutions if food availability and livelihoods is to be stabilised in Somaliland in the medium to longterm.







### Recommendations (take home) and points of discussions)

- ❖ creating enabling environment for private investments in agriculture through creation of investment friendly regulation
- ❖ climate-fit crop programming and climate-based cropping mix in highly vulnerable agricultural areas;
- ❖ developing policy environments for sustainable development of climate-friendly agricultural practice expansion areas for food and nutrition security without further intrusion nor desecration of remaining forestlands & rangelands;
- ❖ increasing local capacity to compete with imported agricultural products within local markets; and
- ❖ harmonizing food production, use renewable and agroforestry
- ❖ Reduce outmigration from rural to urban through in-situ creation of jobs

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## **Summar of Major challenges:**

- 1. Limited awareness**
- 2. Limited financial resources and investment plan**
- 3. Limited land resources**
- 4. Poor conservation of NR**

## **Take home points:**

- 1. Awareness raising campaigns oriented towards rural communities which include farmers**
- 2. Convenient environment-friendly agricultural regulations**
- 3. Convincing financial institutions to prioritise CSA**
- 4. To institutionalise climate smart agriculture BY establishing special section within the MOAD**
- 5. Engaging an increasing number of sophisticated farm investors**
- 6. Prioritising profitable and climate friendly agriculture**
- 7. Prioritising promotion of rural youth employment and investment in TVET rural programs**





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