United Nations Framework Convention on Climate Change

Introduction to economic diversification and transformation and just transition of work force, decent work and quality, jobs in context of response measures

East-Africa region awareness creation workshop to maximize the positive and minimize the negative impacts of implementation of Climate Change response measures
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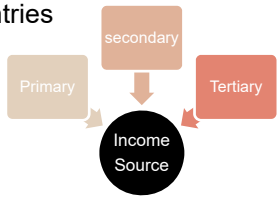
Outline

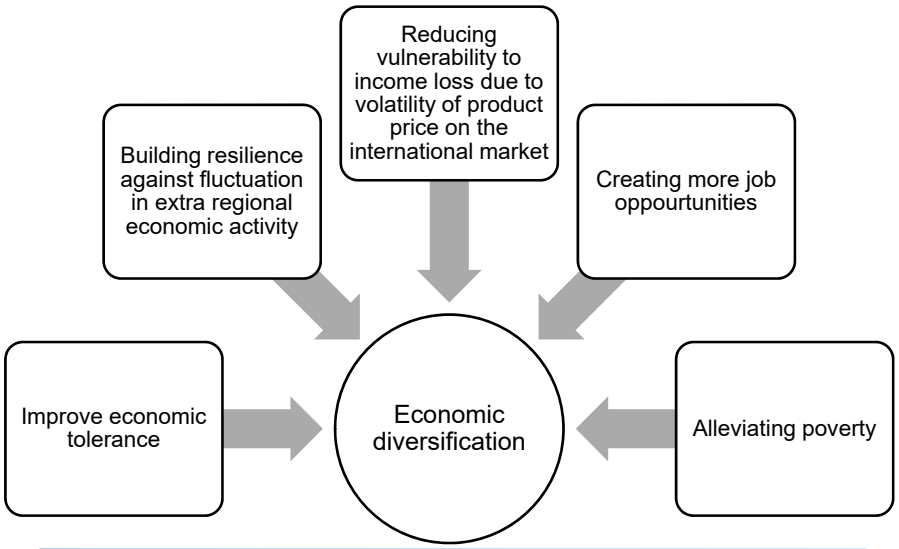
- Concept of economic diversification
- Economic diversification and economic growth
- Economic diversification strategies
- Modelling tools for economic diversification
- Assessment tools for economic diversification
- Action chart for economic diversification
- Possible future work

Concept of economic diversification

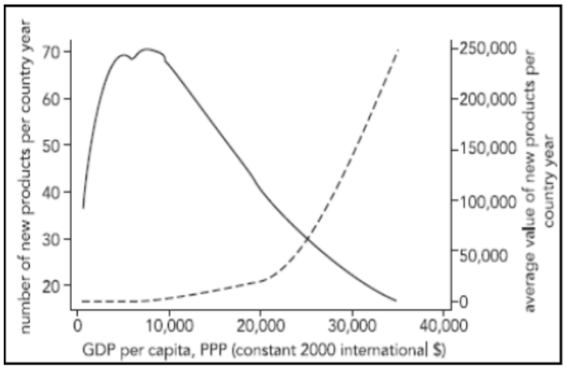
- The economy of a country is vulnerable to the adverse impact of response measures if it is dependent upon the export of a narrow range of products and those products are affected by response measures taken to combat climate change.
- Economic Diversification goes beyond addressing impact of climate mitigation policies (response measures)
- Achieves other objectives of sustainable development
- Lowers vulnerability to impacts of climate change
- The economic diversification policies of one country impacts the neighboring countries



Economic diversification and sustainable development



Diversification in respect of economic growth

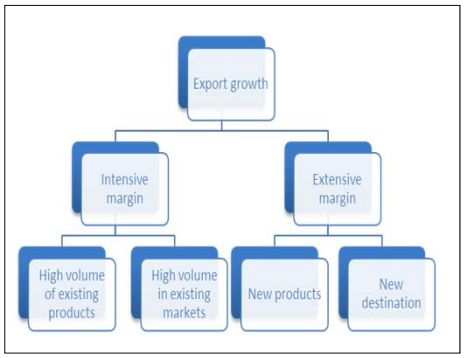


Developing countries with low income levels have a wider scope of diversification than economies with higher income levels

Implementing economic diversification strategies

- Government intervention is necessary to make policies to promote export growth and diversification.
- Get the fundamentals right i.e. to maintain macroeconomic stability, invest in infrastructure, improve the business climate, encourage private investment and invest in people, especially in education at all levels
- Soft and hard industrial policies need to be implemented appropriately;

Strategies for economic diversification



Export diversification plan:

- a systematic plan with a mix of extensive and intensive margins is required.
- An extensive margin with a correction of sustainable products at a later stage helps, as diversification is driven more by the extensive margin but export growth is driven more by the intensive margin;

- Hard Industrial Policies
- Soft Industrial Policies

Modelling tools for planning economic diversification

Input–output matrix	Economic diversification is viewed as driven by simultaneous changes in production, consumption and trade patterns	Diversification may be expedited by forces of unbalanced growth, especially the faster growth of sectors with high income elasticity of demand
Input–output model: a unified framework	Compares the growth and stability impacts of diversification strategies involving changes in the level and mix of exogenous final demands	Determines the growth and stability impacts of different diversification strategies, resulting from changes in input–output relationships in the input–output matrix

- Modelling tools that focus on specific industries are more useful
- E.g I-O model can **model impact of Import substitution diversification strategy** on the economy as a whole or for specific sectors.
- Models can also derive the **sectoral distribution of growth and stability impacts** which allows policymakers to rank different policies on the basis of their growth and stability objectives and preferences with respect to growth and stability trade-offs. However, these methods are limited by availability of time series data.

Tools and methods for measuring economic diversification

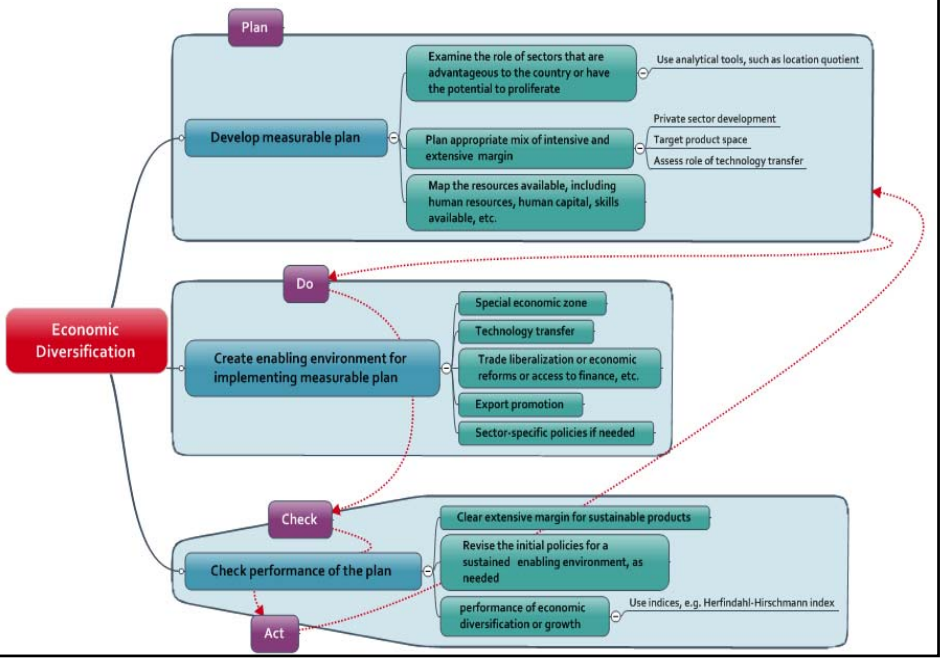
Method	*Basis of making judgment on diversification*	*Relationship between index and diversification*
Herfindahl-Hirschmann and ogive indices	Equal distribution of employment across sectors is the highest benchmark of diversification	The lower the value, the more diversified the economy
Entropy index (Shannon entropy index)	Equal distribution of employment across sectors is the highest benchmark of diversification	The higher the value, the more diversified the economy
Hachman index and location quotient	The resemblance of the employment distribution of a State or region to that of the nation is a measure of economic stability	The higher the value, the more stable the economy; a sector with a high value is an export sector
National average index	A region's share of stable or unstable sectors is a measure of economic diversity	As the region's share of economic activity approaches the country's share for all sectors, the index approaches zero
Portfolio variance	Captures the characteristics of individual industries, and inter-industry relationships with regional growth and instability	The lower the variance, the more diversified the economy

- There are a wide range of analytical tools for measuring economic diversity and empirical studies to assess accuracy of these tools.
- There is lack of empirical studies to assess impact of mitigation policies on economic diversification and vice versa

Where to start Diversification

- Product Space Theory
  a) branch out to new products that are not too distant in product space
  b) Distance is assessed by means of observed patterns of relationships.
  c) E.g. sanitation equipment can export refrigeration equipment,
  d) the stronger that empirical relationship the closer the goods are to each other in product space

Action Chart



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Thank you !

https://unfccc.int/topics/mitigation/workstreams/response-measures