

#### STATE OF ENVIRONMENT: WHERE CLIMATE, ENVIRONMENT AND AGRICULTURE CONVERGE



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# The Linkage





## **STEEPS Categories That Shape Our Lives**

## Social

## Technological

## Environment

## Economic

Political

Spiritual





#### **GDP** Contribution to Malawi Economy



84% of employed (aged between 15 and above) were engaged in agriculture, Forestry and Fishing (NSO, 2009)

Services

Agriculture

Industry

Employed in Agriculture in rural areas 90% and urban was 24% (NSO 2009)







Natural resource Cost damage over 10 years was 21.4% of the GDP (Mk26,574 Million in 2007





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### **Economic Activities and Environment**



State of the Environment determine the level of prosperity Now and in future





### Global change + population growth = INCREASED WATER STRESS

#### Greatest impacts on poor, subsistence agriculture.

AREAS OF PHYSICAL AND ECONOMIC WATER SCARCITY











Frequency of extremely high temperatures



Will reach heat threshold of some crops

#### Rainfall pattern changing



Crop and Livestock productivity

Impact on livelihoods

Incidences of crop and livestock pests and diseases

Crop and livestock destruction





## **CHANGES IN TEMPERATURE**







Earliest SOS for any district in Malawi over the observed period.





#### Farmers Opinion on rainfall ceasation for 2015/16 season

District	n	Normal	Shorter	<b>Prolonged Rainfall</b>	Dont know
		(%)	(%)	(%)	(%)
Rumphi	37	29.7	54.1	8.1	8.1
Mzimba	109	6.4	81.7	7.3	4.6
Nkhota-kota	59	15.3	62.7	10.2	11.9
Dedza	70	4.3	88.6	1.4	5.7
Salima	48	12.5	60.4	8.3	18.8
Balaka	60	3.3	93.3	3.3	0.0
Chikwawa	70	1.4	87.1	4.3	7.1
Phalombe	60	10.0	76.7	0.0	13.3
Mchinji	51	19.6	58.8	9.8	11.8
Machinga	70	10.0	82.9	2.9	4.3





	Biodiversity loss	
Brick Moulding	Soil loss	Impact on agriculture
	Create waste dumping pits	Mosquito breeding sites
		Malaria
		Human Health
		Agricultural Productivity
		Poverty





































Population growth

Poor or lack of planning

Poverty and high illiteracy levels

Rapid deforestation

Wide spread soil erosion

Poverty and high illiteracy levels









# Implications/Impacts







#### alawi needs K215bn to recover from floods DUMBANI MZALE

SENIOR NEWS ANALYST

Malawi's Post-Disaster Needs Assessment PDNA) report shows that the country will ed about K215 billion (\$494 million) to fully over and reconstruct from the damage caused the January 2015 floods.

Officially launched by President Peter harika in Lilongwe yesterday, the report total damage and losses from the disaster at billion and quantifies the economic impact .9 billion or 0.6 percent of the country's realth as measured by gross domestic (GDP).

s hit Malawi in January 2015, affecting n people, displacing 230 000 and killing e in the process in 15 of the country's

ensive damage to life and property he President to declare a State of



Mutharika presenting a copy of the report to UNDP administrator F Clark after the la









































# **Adaptation Strategies**





















## FEED&FUTURE The U.S. Government's Global Hunger & Food Security Initiative







# **Visioning Development**







### What is the Future we Want?

The U.S. Government's Global Hunger & Food Security Initiative

What is the desirability? What are the correlating values of the people? And most importantly, what actions can be taken today to steer the ship and design towards or away from the various scenarios?







## Determining a Potential Course of Action



#### Forecasting





### Determining a Potential Course of Action



#### Backcasting

In this method, the sequence of events or steps that led to that goal are imagined and defined, so that a roadmap to that desirable future is created.











## Six Pillars of Futures Development (MATDCT)













# FEEDIFUTURE

The U.S. Government's Global Hunger & Food Security Initiative

www.feedthefuture.gov

