

# Environmental mismanagement does affect development?

Rossella Monti, Ph.D. in Water Engineering

M BoD's CIPMO, M BoD's AII, M SC's AQUALAB, Expert AICS Kabul

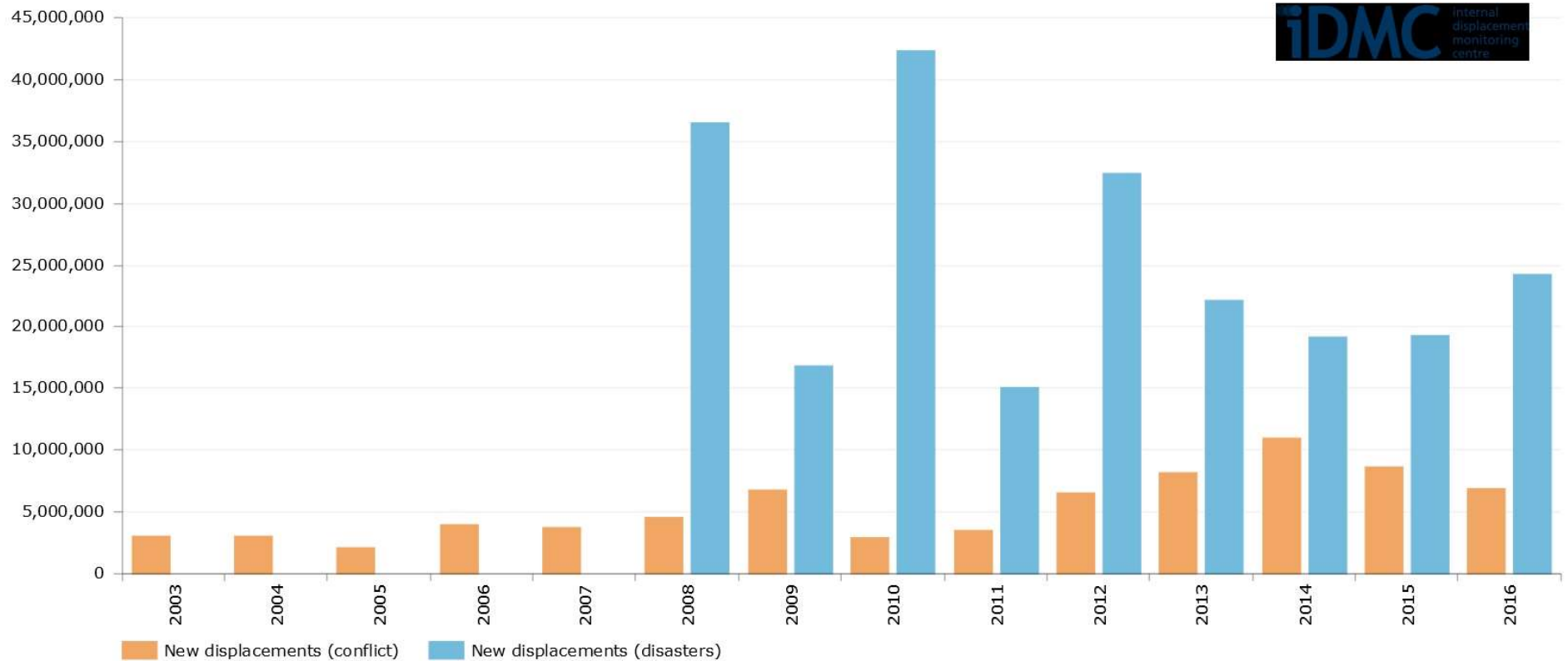
Int. Conf. Medio Oriente: La Regione dei Confini Incrociati, 26<sup>th</sup> Oct 2017, Roma



*Ministero degli Affari Esteri  
e della Cooperazione Internazionale*



# IDP (WORLD)



Source IDCM - Geneva

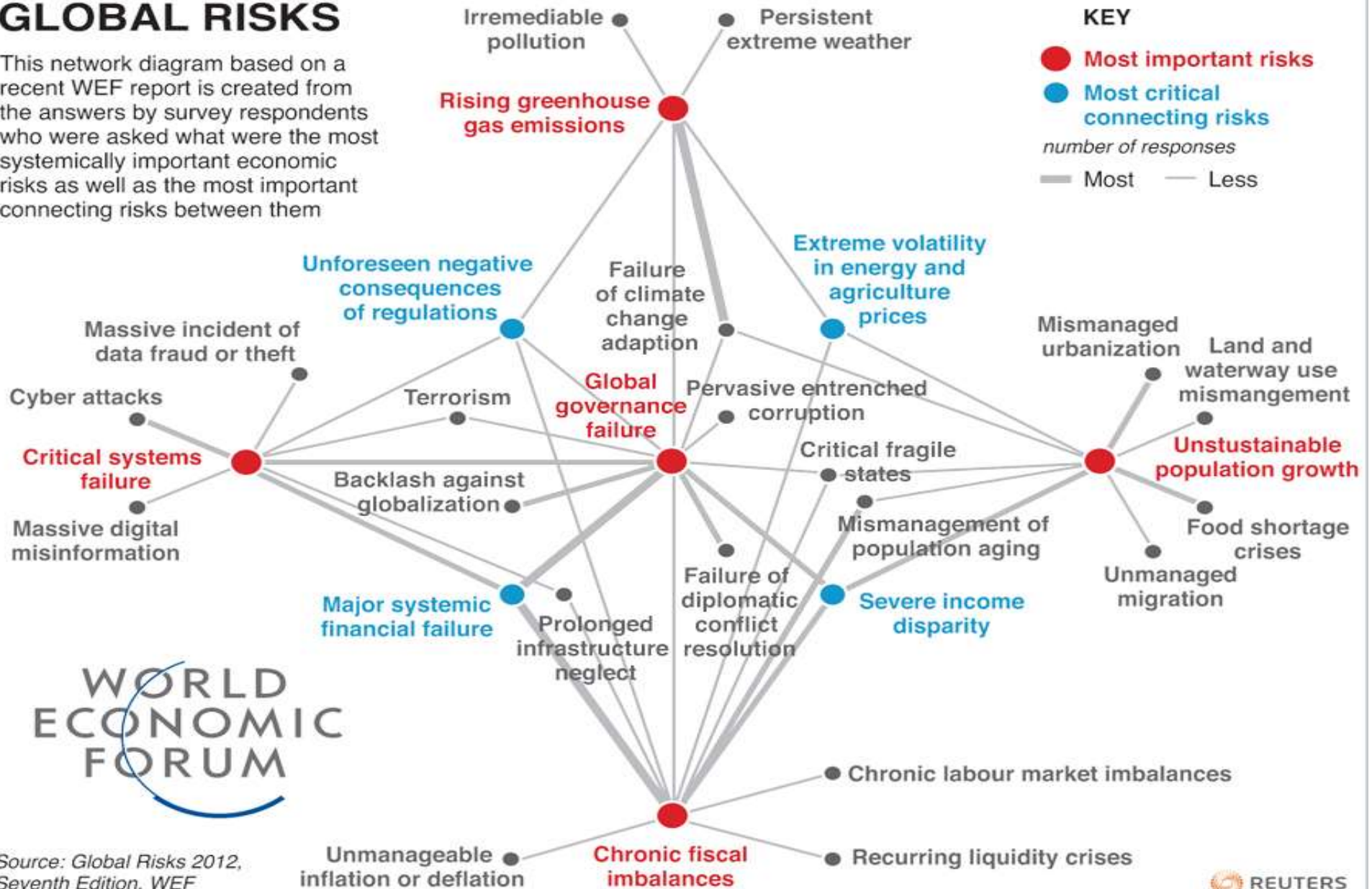




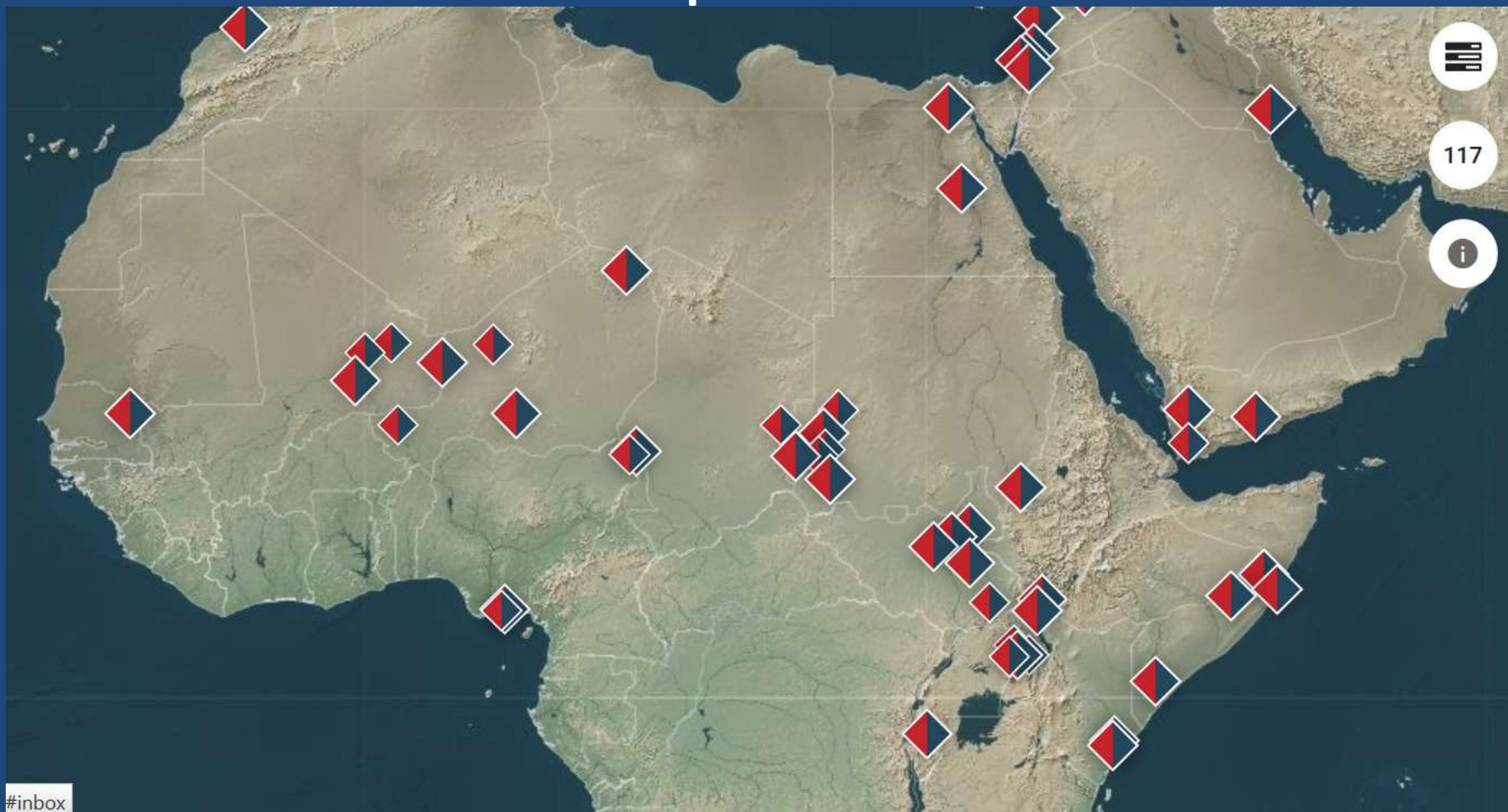


# GLOBAL RISKS

This network diagram based on a recent WEF report is created from the answers by survey respondents who were asked what were the most systemically important economic risks as well as the most important connecting risks between them

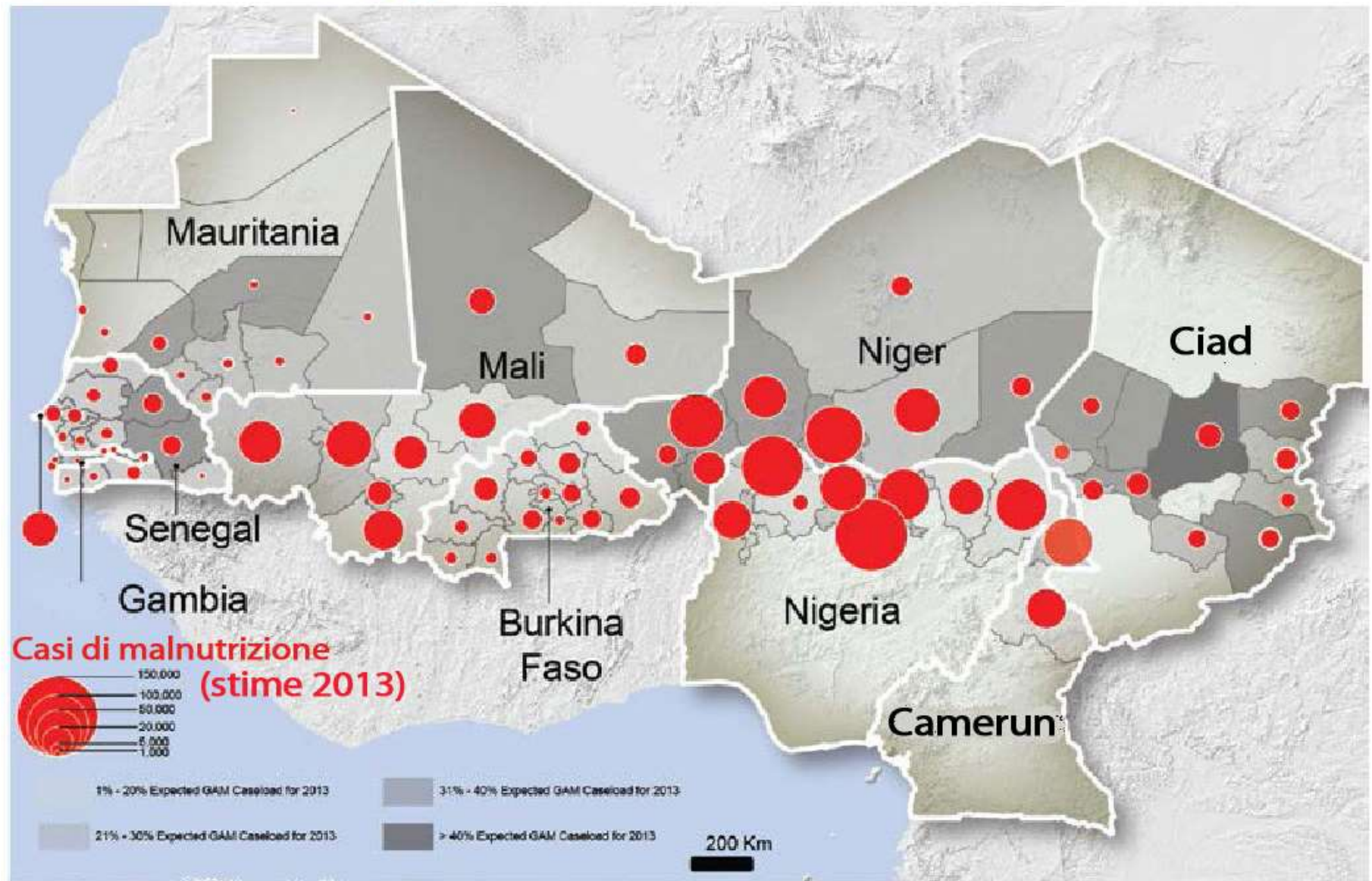


<https://factbook.ecc-platform.org/>  
conflicts versus environmental  
competitions





# Sahel, map of hunger



## TERRORISM HOT SPOT: *AL-QAEDA* CASTS SHADOW OVER THE SAHEL

Traces path across Failed/Fragile States, Links with Cartels at new Crossroads of Terrorism & Trafficking



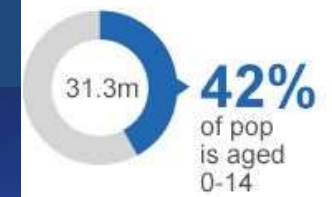
ICTS – International Center for Terrorism Studies, Potomac Institute for Policy Studies – January 2011



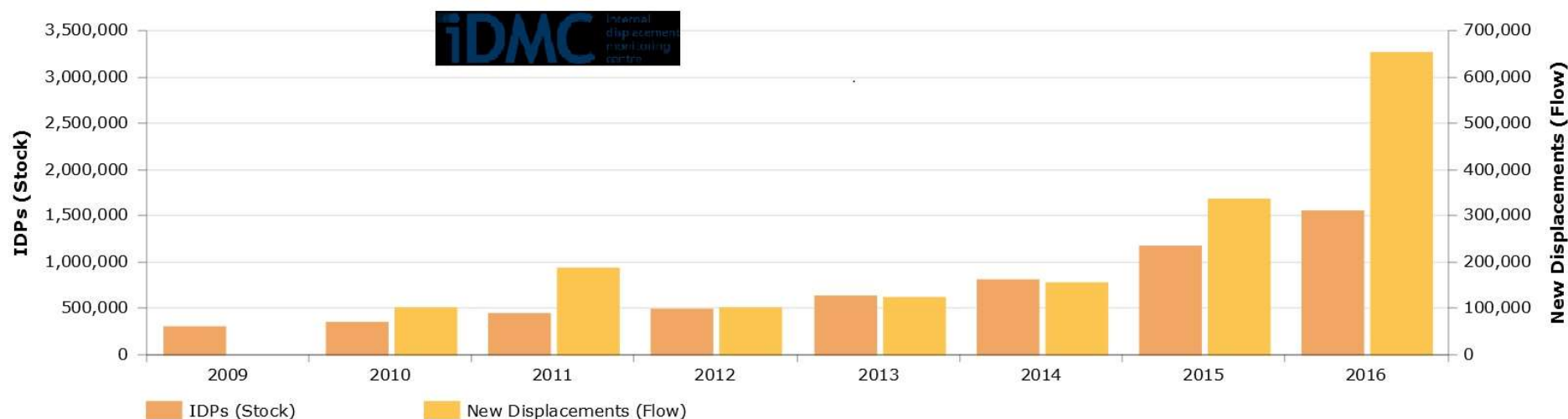


# Afghanistan

Population



# Afghanistan IDP due to conflict and natural disasters



# LANDSLIDES



**Ab – Barak landslide - Badakhshan-2014 (4000 deaths )**



# FLOODS





# DROUGHT



# AVALANCES





## EXTREME WEATHER CONDITIONS





# EARTHQUAKES



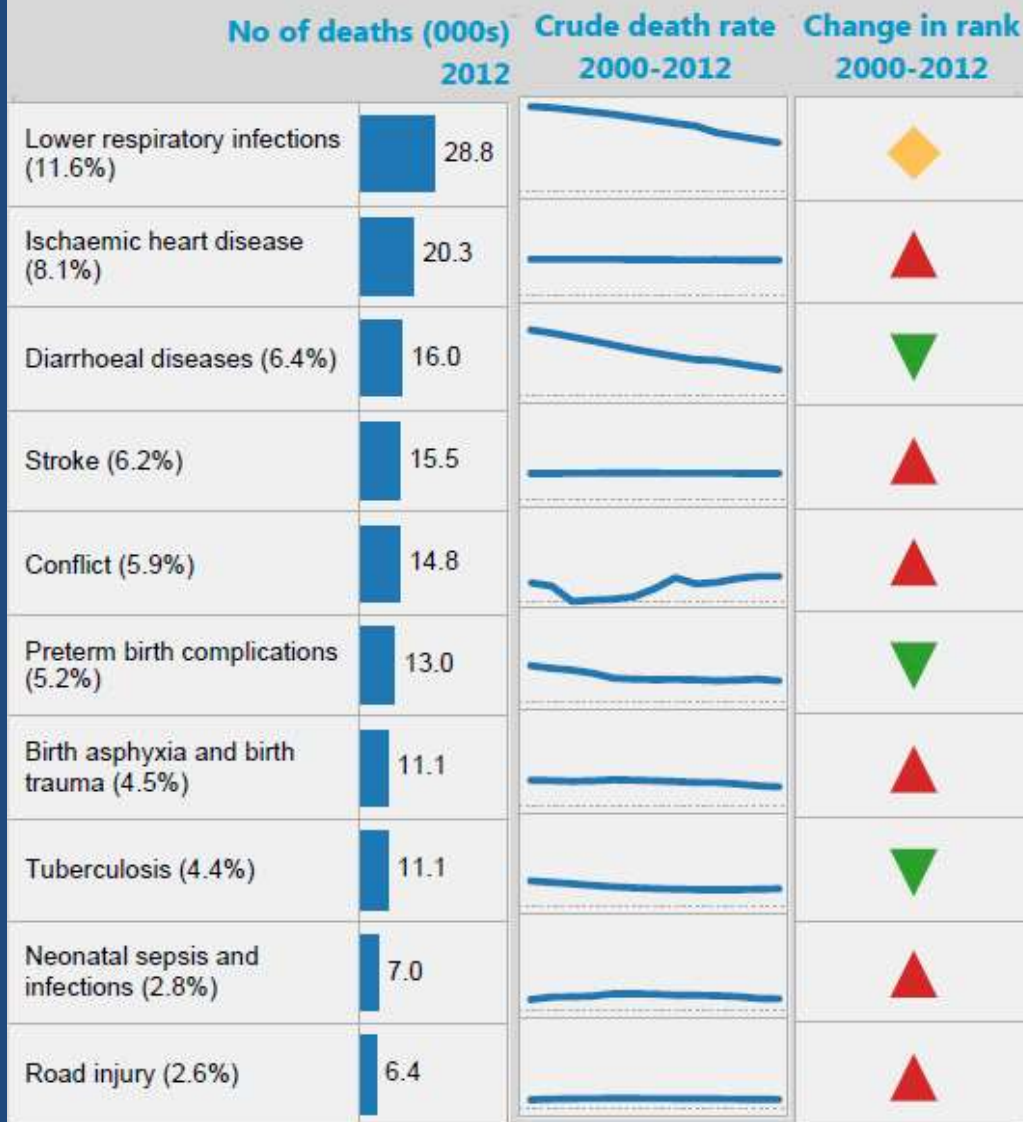
**IDP RESULTS IN POVERTY**



## Top 10 causes of death



Lower respiratory infections was the leading cause of death, killing 28.8 thousand people in 2012



Rank

decreased

increased

no change



**Severe diarrhea**

# GAZA STRIP

2M population; 365 km<sup>2</sup>

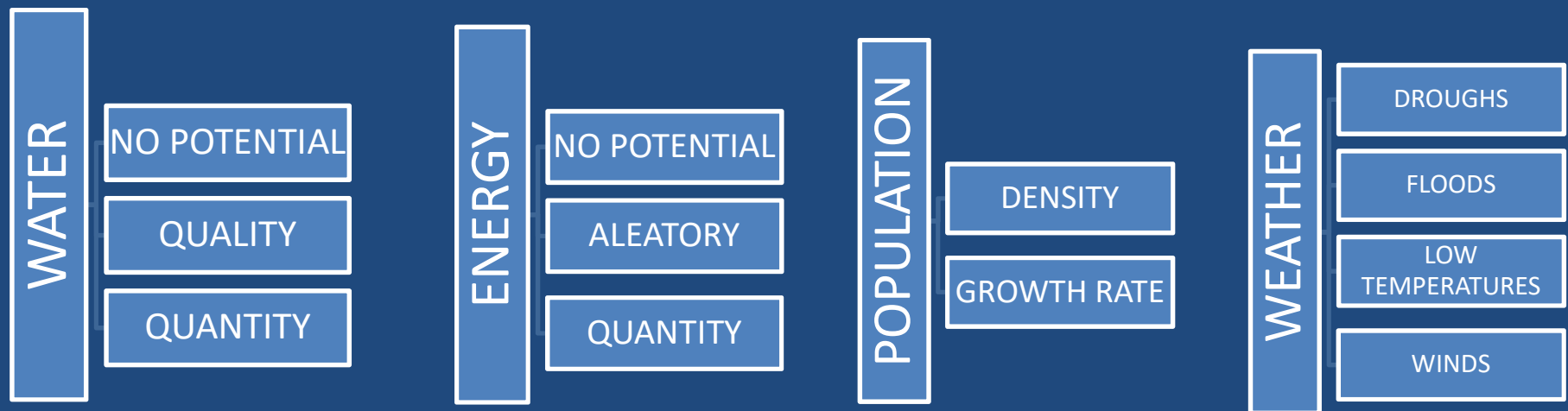
(5480 person/km<sup>2</sup>)





# ENVIRONMENTAL EMERGENCY

## criticalities



**PUBLIC HEALTH**

**IDP**

**GOVERNANCE EMERGENCY**

**POVERTY**

ENERGY:470 MW demand; since July 2017 110 MW (80 MW Israel, 30 MW Egypt, 0 MW Gaza PP)

#### 110,000 M3 RAW SAVAGE IN THE SEA

- 1.500.000 PEOPLE (Rafah ,KhanYounis, Deir Al Balah , AL Nussirate ,Gaza ,Beach Camp ,Jabalia .Beit Lahia)
- Environmental disaster

#### 55 WASTEWATER PUMPING STATIONS INTERMITTENT WORKING

- 820.000 PEOPLE (Rafah,Khanyounis, Deir Al Balah ,Gaza city ,Jabalia , Beit Lahia ,Beit Hanoon)
- contamination

#### 48 DESALINATION PLANTS REDUCED TO 10%OF THEIR MAX CAPACITY 20.000 M3/DAY

- 320.000 PEOPLE (Al Shokah, Al Fukhari, Wadi Gaza, Wadi Al Salqa, Bani Suhaila, Rafah, KhanYounis, Deir Al Balah, AL Nussirate, Al Bureij )

#### Reduced capacity of well pumping down to 55% of its capacity

- 950.000 PEOPLE (Rafah ,KhanYounis and Gaza)
- 90 l/c/d reduced to 50 l/c/d and less
- Water twice a day, every 4 or 8 hours



# HYDROPOLITICS FOR SUSTAINABLE DEVELOPMENT





*Water plays a key role in the  
Afghanistan National Peace and Development Framework –ANPDF*



# ENERGY PROGRAM

## Afghanistan: Shining a light on the dark



REGIONAL COMPARISON

AFGHANISTAN AT NIGHT

COUNTRY DATA

POWER PROBLEM

DAILY LIFE

■ Countries

■ Cities

■ Energy consumption per capita

■ Population density

Lights at night satellite image

2009 composite

AFGHANISTAN

No country in the world has less electricity per person than Afghanistan.

At present  
100 KWh/per capita

Potential  
23.000 MW – hydro  
67.000 MW – wind  
220.000 MW – solar

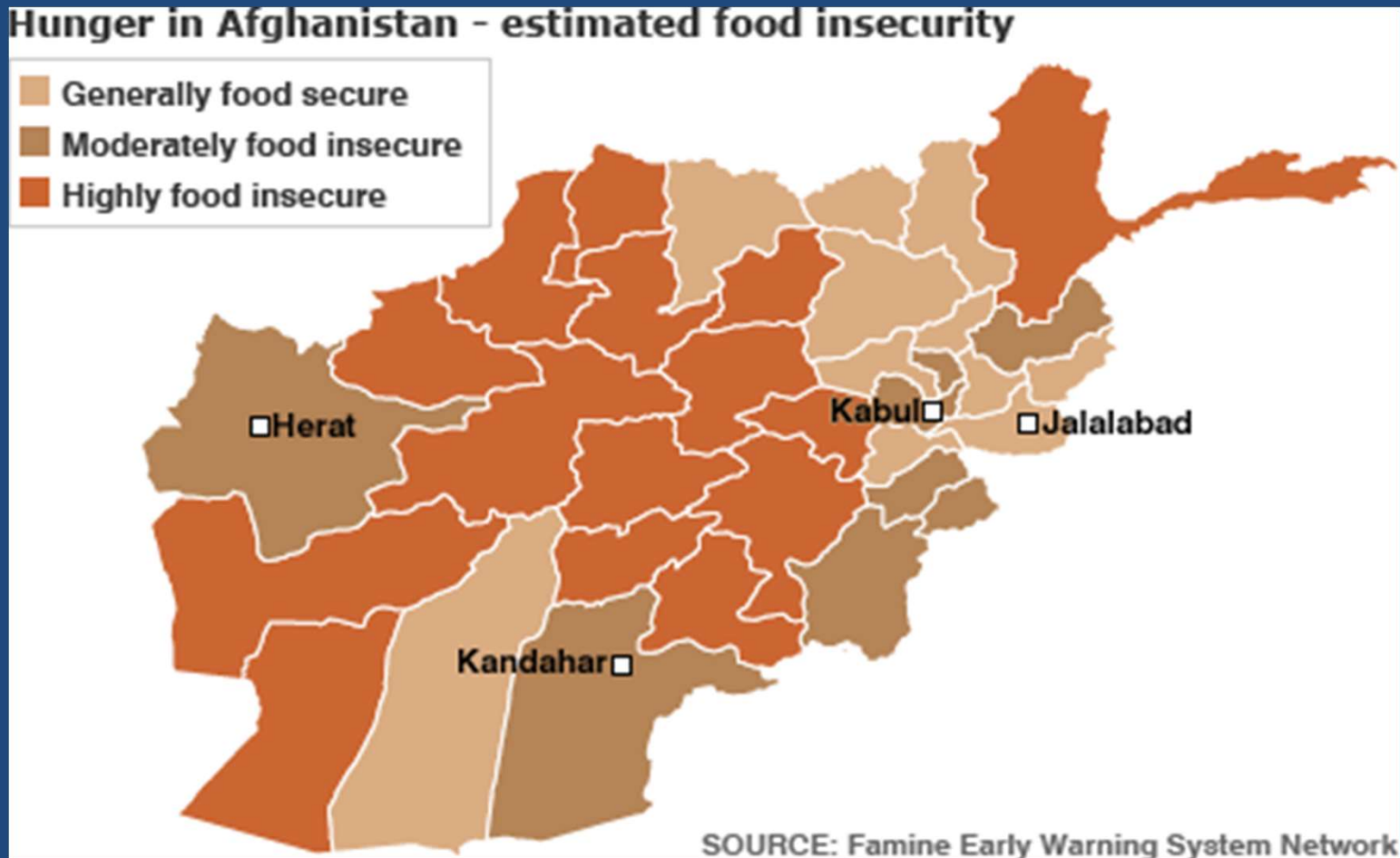
New hydro power  
capacity generation  
plan in 5 y, 1150 MW

Published July 19, 2010

SOURCES / CREDITS

# FOOD PRODUCTION

Afghanistan has a territory not favourable for intensive crop; insufficient to feed 31 M people; stressed by scarcity ; threatened by climate change ; periodically subjected to disruptive floods.



The National Irrigation Program plans to irrigate 3,1 M ha and to double within 10 years





**Main hydrographic basins:**

Helmand – Afghanistan / Iran

Kabul – Afghanistan / Pakistan

Amu Darya (Oxus) – Afghanistan / Tajikistan / Turkmenistan / Uzbekistan

Hari Rud – Afghanistan / Iran / Turkmenistan

## CONCLUSION

ENVIRONMENT MANAGEMENT IS THE KEY FOR THE SUSTAINABILITY OF DEVELOPMENT

THERE IS A STRONG CORRELATION AMONG ENVIRONMENTAL RESOURCES AND INTERNATIONAL STABILITY WITH STRONG IMPLICATION FOR DEVELOPMENT AND SECURITY

ENVIRONMENT HAS NO BORDER BUT SCALES

THANK YOU