

# The geo-strategic value of vegetation cover

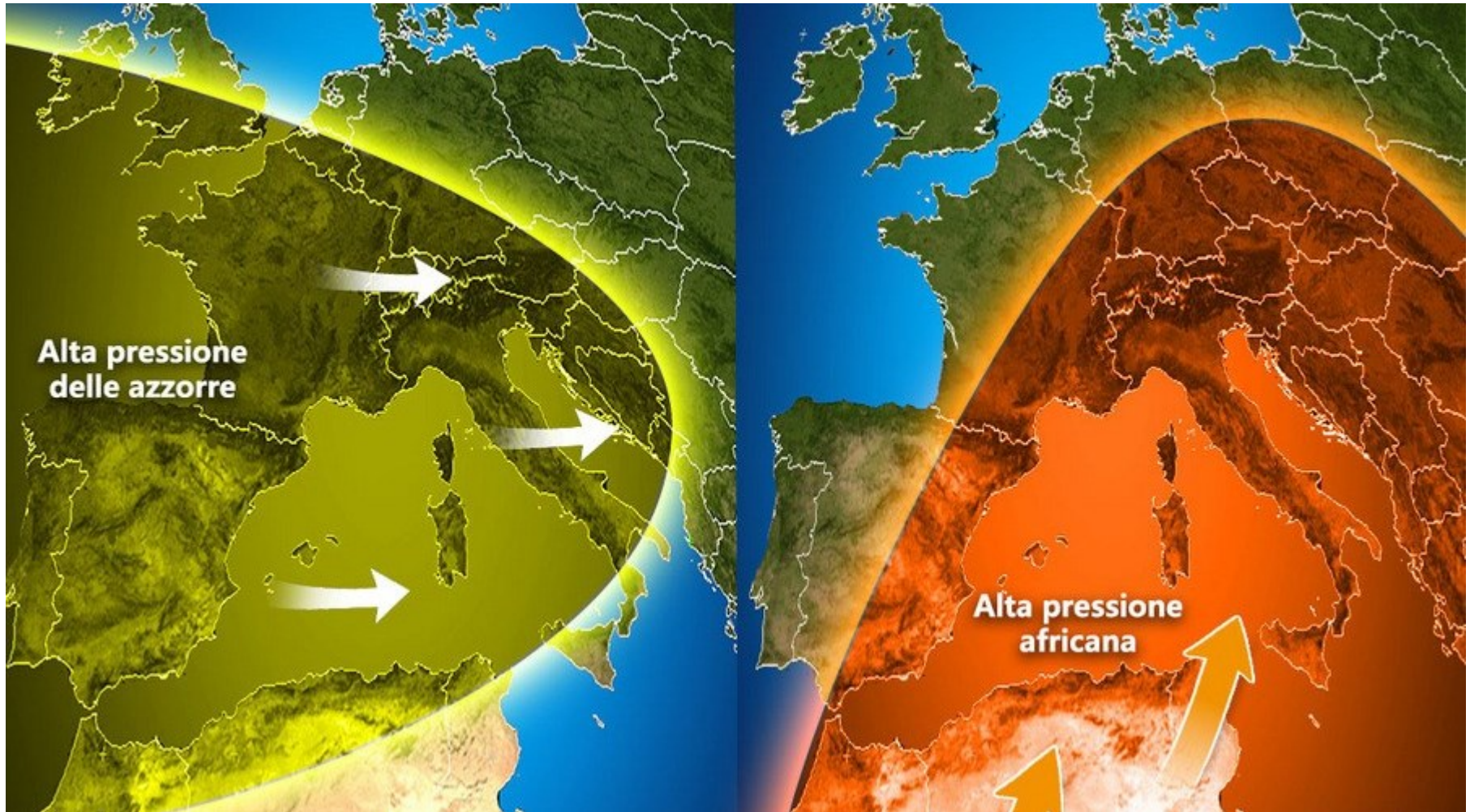


# «Europe»... what a weird idea



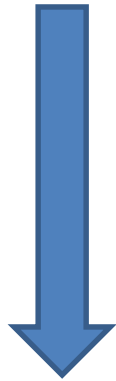


# One more identity for the «old continent»



# FAST AND SLOW ONSET ENVIRONMENTAL EPISODES AND SOCIETAL IMPACTS

Extreme weather events



Fast, localized, clearly  
definable, environmental  
causes for forced  
displacements

Progressive, large scale,  
climate patterns shifts



«accelerators» of poverty,  
societal disruption,  
conflict



Chain-pressure, multi-  
causal migration and  
destabilization dynamics

# Impacts of climate change on populations

3 KINDS

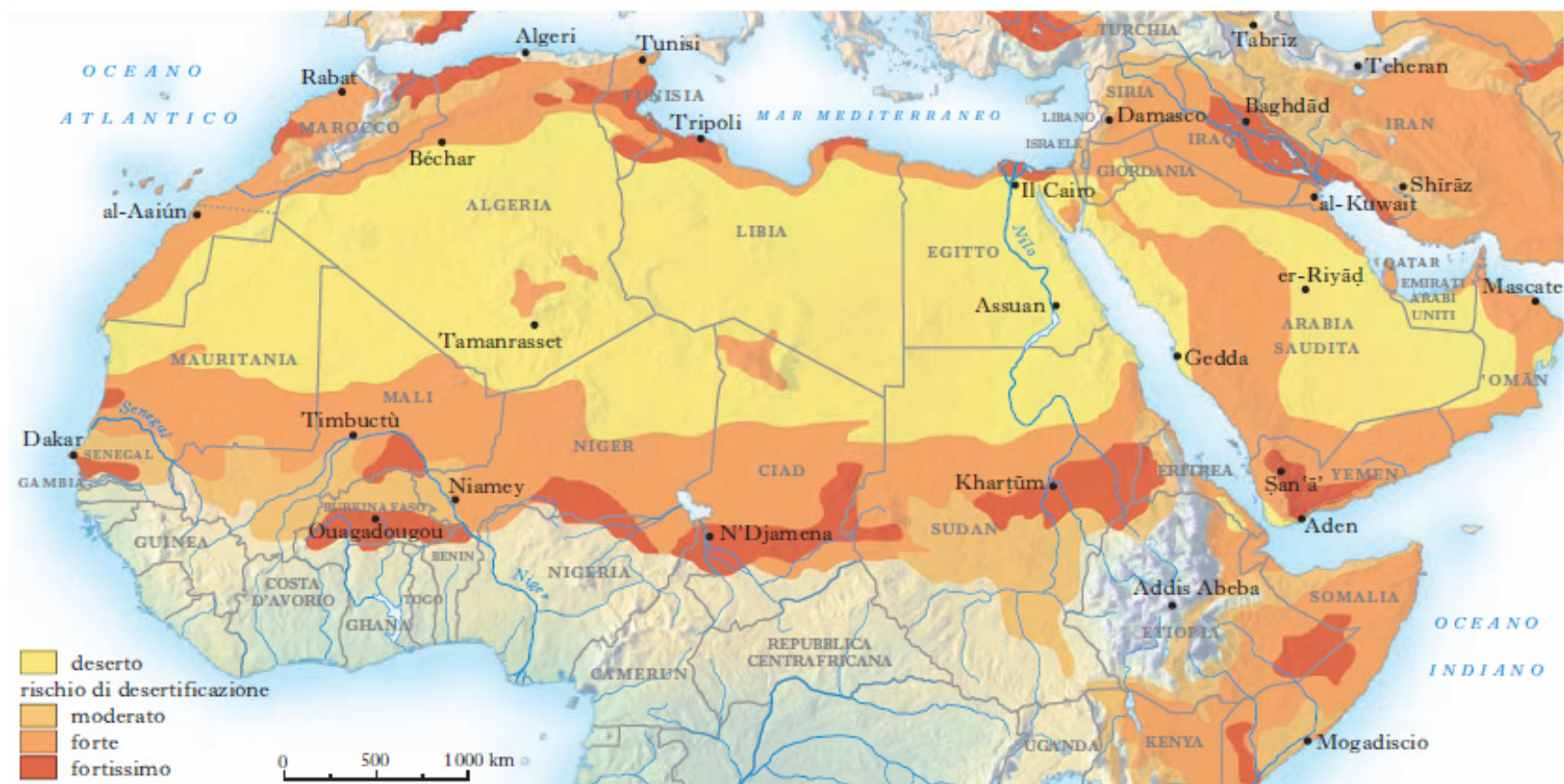
On human health...

On infrastructures, and...

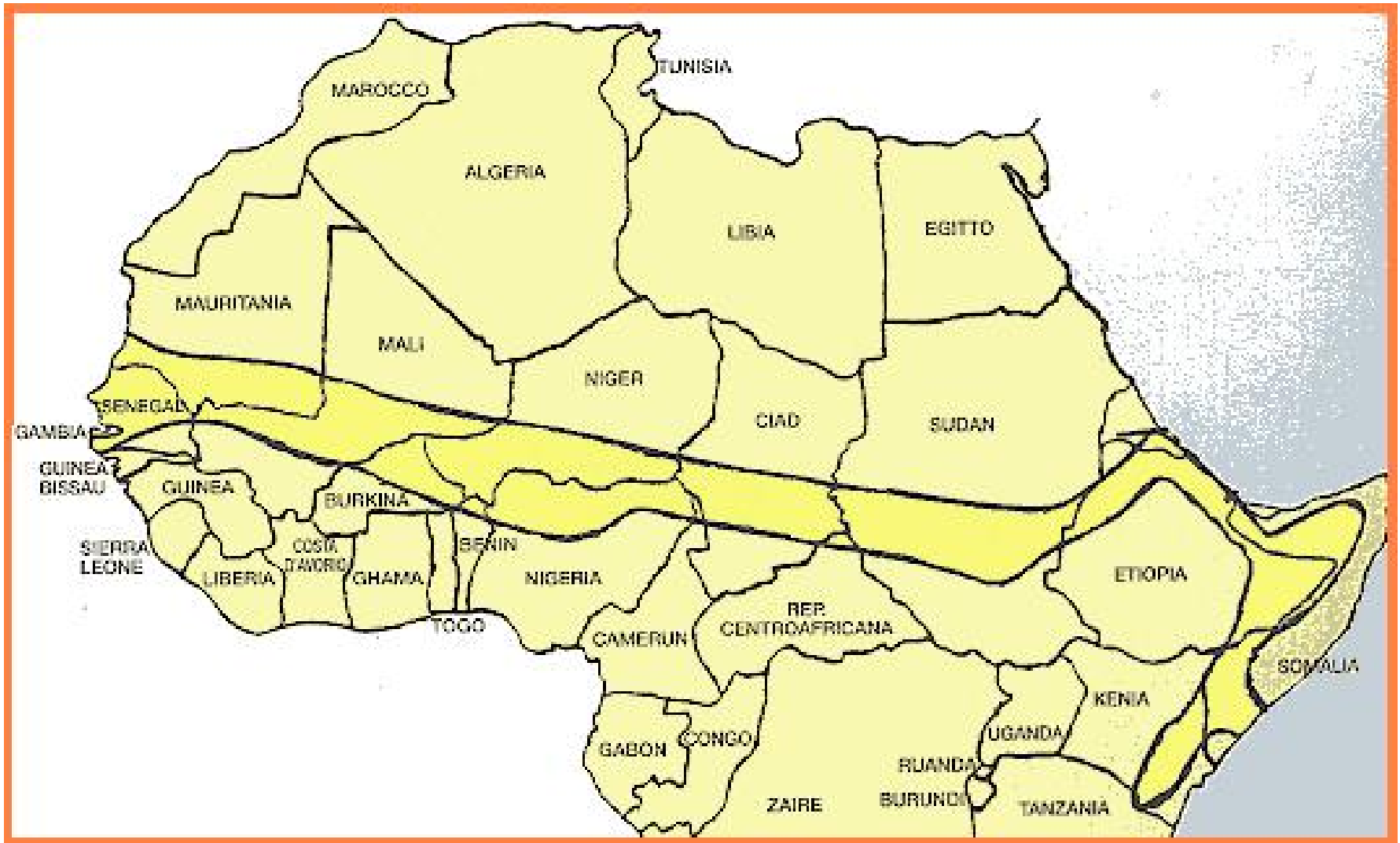


**DE-REGULATING THE ECOSYSTEM CLOCK**  
**The energy equivalent of 400.000 Hiroshima bombs/day randomize ecosystem services and produce unpredictability**

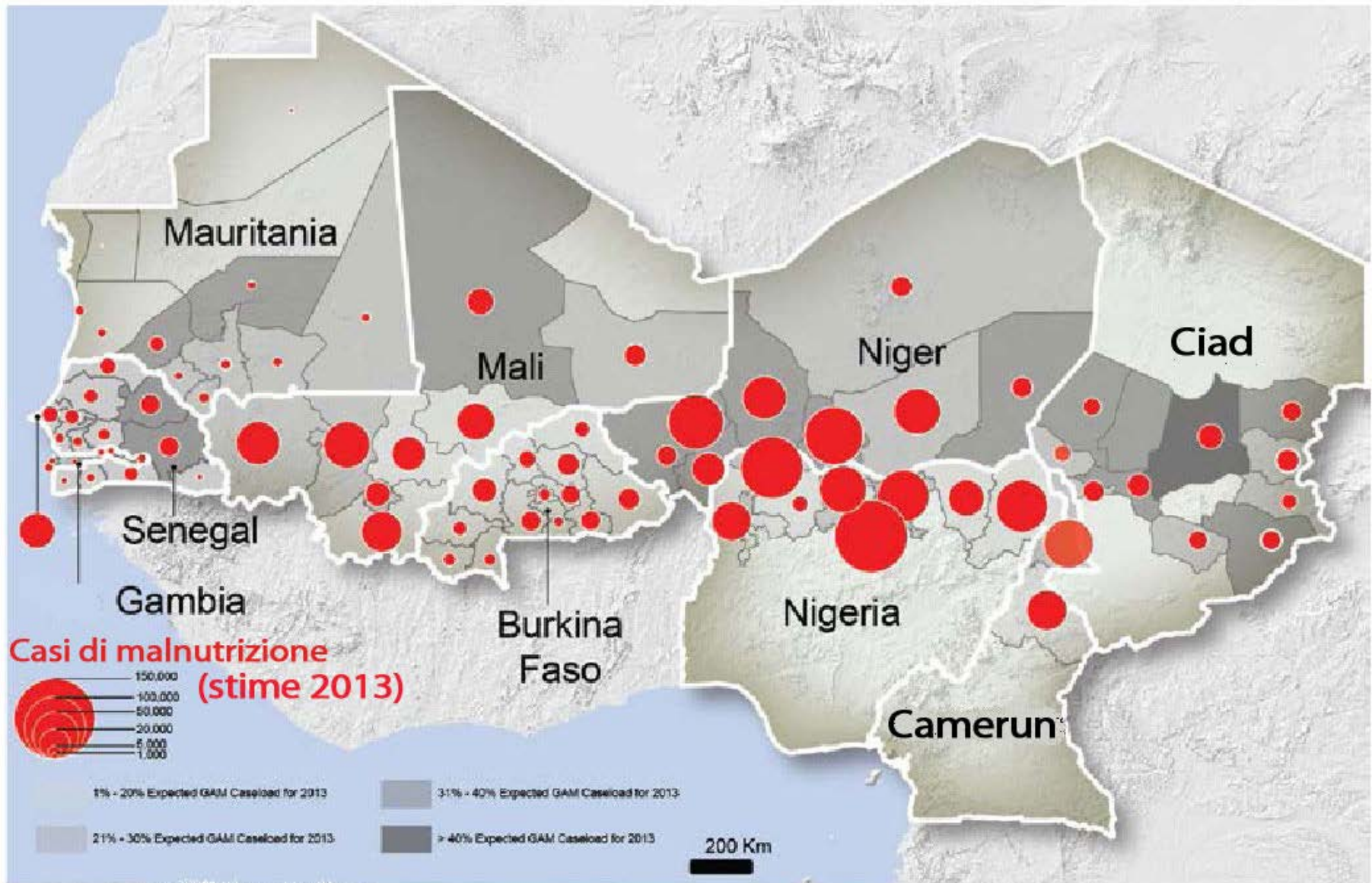




# Sahel: the Active Zone, where climate change induces desertification



# SAHEL: A MAP OF HUNGER AND CONFLICTS





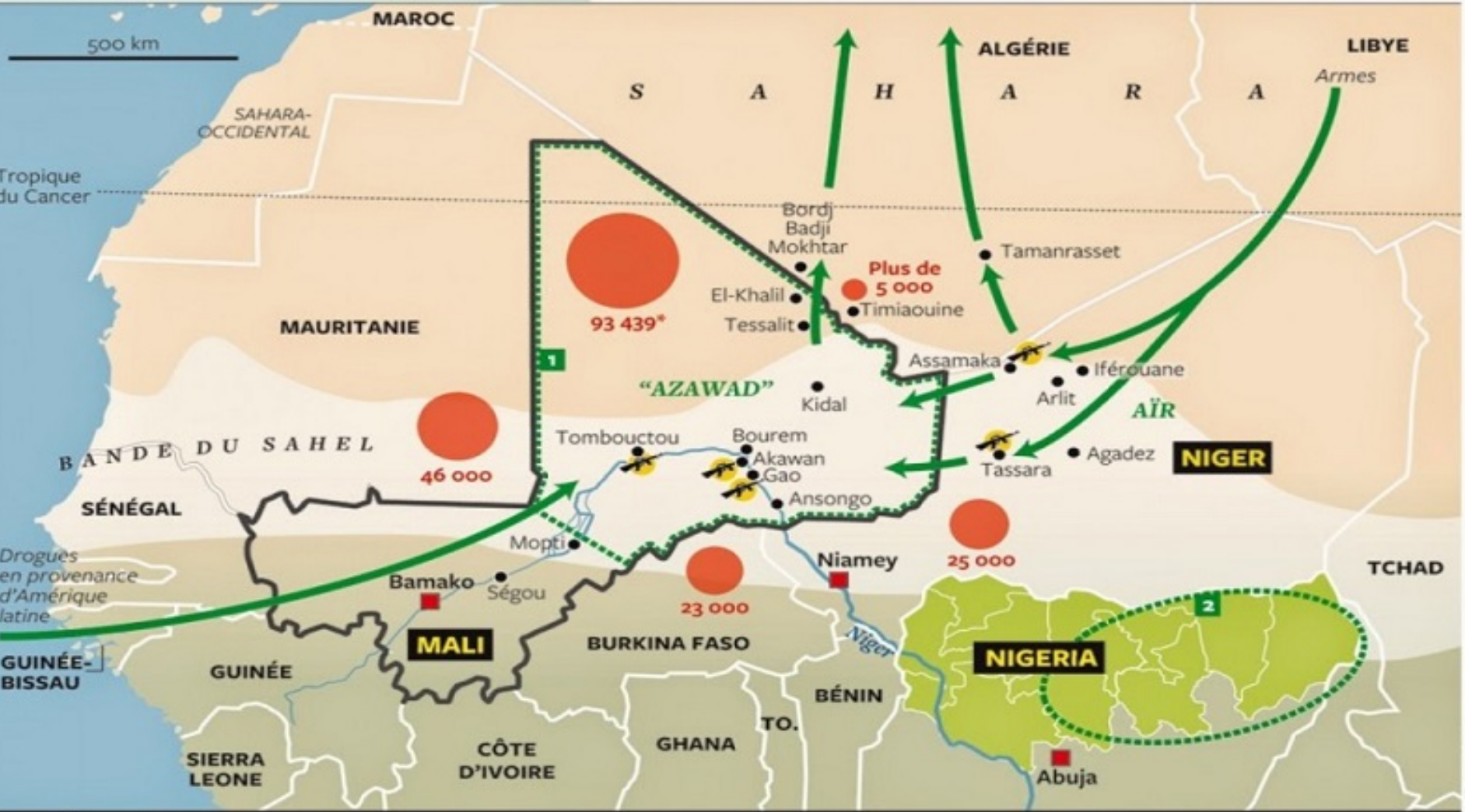
# TERRORISM HOT SPOT: *AL-QAEDA* CASTS SHADOW OVER THE SAHEL

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

# L'Afrique sahélienne en ébullition





Principales voies du trafic d'armes et/ou de drogue



Principaux centres de vente d'armes



Zone revendiquée et contrôlée par le Mouvement national de libération de l'Azawad (MNLA)



Zone d'action de la secte islamiste Boko Haram



Les 12 Etats nigériens qui ont adopté la charia



Nombre de réfugiés maliens (\* et déplacés) au 3 avril 2012, soit un total supérieur à 200 000 personnes



# MIGRATIONS





# 1. THE ENVIRONMENT – STABILITY NEXUS

ENVIRONMENTAL MODIFICATIONS CAUSE THE  
CONTRACTION, LOSS OR DISPLACEMENT OF  
ECOSYSTEM SERVICES... AND RANDOMIZE  
THEM:

Productivity, but also purification, bio-sanitary,  
local climate regulation services, and others,  
that extend to include empowerment and  
cultural identity services

**NOT ONLY PERMAFROST, ALBEDO ETC... THE WORST  
FEEDBACK LOOP:**

**NATURE – MANKIND - NATURE**

environmental stress



social cohesion collapse and conflict



loss of mitigation and adaptation capability



more environmental stress

# THE HIMALAYA SCENARIO

## Millions on the move...





### 3. ENERGIES AND SYNERGIES: WHY COOPERATE FOR LAND RECOVERY

The perception of the environmental challenge is focused on replacing fossil fuels, an indeed essential line of intervention both in rich and poorer areas

(food – water - energy nexus, access to off-grid supply by renewables, etc.)

But...

# The Value of Our Lands

- The costs of recovering **one acre** of degraded land are variable, ranging from 80U\$ in semi-degraded fertile areas to 22.000U\$ for complex coastal biomes
- In most of the lands where the degradation-insecurity-migration nexus is emerging, the cost is around 200 U\$
- There, recovery of each acre turns it into a very effective “carbon well” and...

# And an effective investments multiplier...

The recovery of lands – especially if they are given to trained small scale family farmers- leads to:

- create effective carbon absorption mechanisms,
- protect biodiversity, water balance, local climate mitigation
- restore productivity,
- an agricultural surplus that enables manufacturing activities,
- local family and gender empowerment,
- a stronger civil cohesion and lessened migratory impulse ,
- lifestyles and dignity dimensions that delegitimize fanatisms
- valorize traditional know how, modernize it, strenghtening local identity



# **ONLY ONE STRUCTURAL WAY OUT: MAKING NATURE A SOURCE OF PREDICATABLE INCOME THROUGH ECOSYSTEM/LAND BASED APPROACHES**

- Forestry
- Agro-forestry
- Agro-biodiversity
- Watershed management... In general, with local specific variations like keeping shepherds in the Asian Mountains, mangroves to halt islands' erosion etc.

# Daily updates and sources...

I pensieri di Gaia  
– Gaia's thoughts

