# Global Change

Dr. Roser Maneja Professor and researcher Autonomous University of Barcelona

#### **GLOBAL CHANGE**



#### **GLOBAL CHANGE**





Antrop, M. (1997) The concept of traditional landscapes as a base for landscape evaluation and planning. The example of Flanders Region. Landscape and Urban Planning 38: 105-117.

Major changes have taken place in recent decades. There is strong evidence that humans have greatly accelerated global change, mainly due to global population increase, economic growth, improved living conditions and technological development.

#### **GLOBAL CHANGE.** Present. The Ecological Footprint



#### **GLOBAL CHANGE.** Future scenario. Population.

1950-2015:

300%

increase

6/8000 BC Neolitic transition	3 M	
Beginning XX Century	1.600 M	
Year 1950	2.500 M	
Year 2000	6.000 M	
Year 2015	7.500 M	
Year 2050	9.700 M	1
Year 2100	11.000 M	]



Share of the Urban Population Worldwide 1980 2015 2050 (a) 10 in: 39% 54% 66% 1.731 6.419 3.968 billion billion billion

Source: United Nations, Department of Economic and Social Affairs, Population Division (2014). World Urbanization Prospects: The 2014 Revision, custom data acquired via website



#### **GLOBAL CHANGE.** Cycles alteration. Climate Change

Atmospheric carbon dioxide and Earth's surface temperature (1880-2019)



Data: ESRL/ETHZ/NCEI

#### GLOBAL CHANGE. Land use and cover changes





### <u>GLOBAL CHANGE.</u> <u>Biotic changes</u>

### The 5 major causes of global biodiversity loss are:

- destruction of habitats due to land use
- overexploitation of resources
- environmental pollution (bioindicator species)
- climate change (sentinel species)
- bionvasions (deliberately or accidentally provoked)







- EMPOWER, DON'T SCARE
- CHILD AND GENDER EMPOWERMENT
- NO TO THE MYTH OF THE DISTANT: LOCAL GLOBAL



#### **EMPOWER, NOT TO SCARE**

• "Diversity in nature and culture makes us human" (Harmon, 2002, p. 1)





• Scientific research as a process of co-production (Kates et al., 2000, p.2)





UNESCO International Centre for the Mediterranean Biosphere Reserves



NO TO THE MYTH OF THE DISTANT: LOCAL - GLOBAL The environment as the best pedagogical tool









Children/Youth Empowerment Collectives traditionally excluded from decision making. Integration of knowledge from academia.

Children and youth of the Tizirt community, Morocco (Schmid 2018)





Collectives traditionally excluded from decision making. Integration of knowledge from academia. Salisia

ES no-sunshing

A-B

## Global Change