

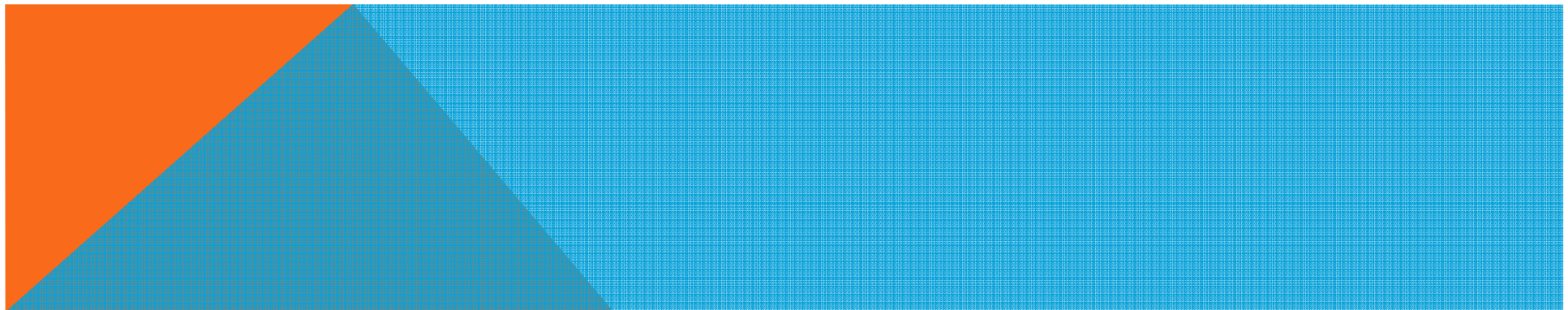
**REGIONAL FOOD AND
AGRICULTURE OUTLOOK AND ITS
IMPLICATIONS FOR THE WATER-
FOOD-ENERGY NEXUS**

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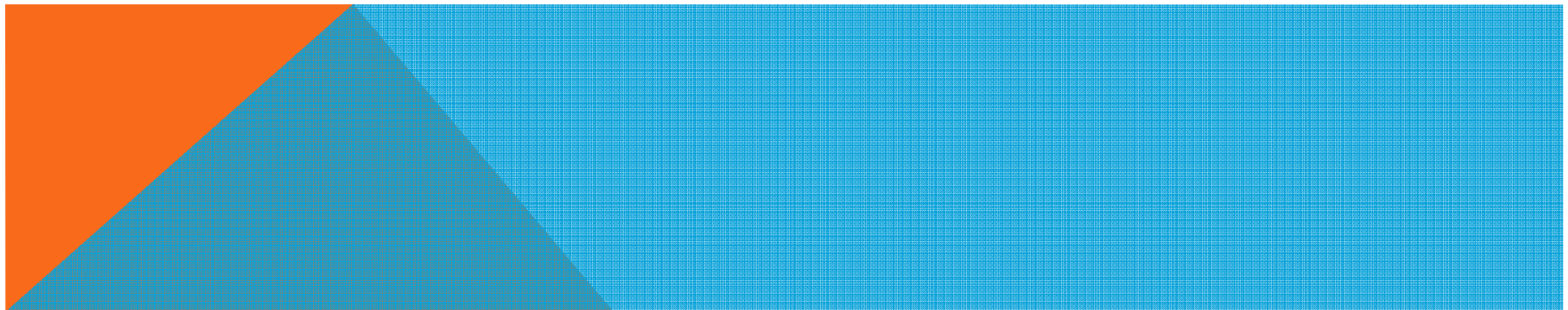
FAO MANDATE

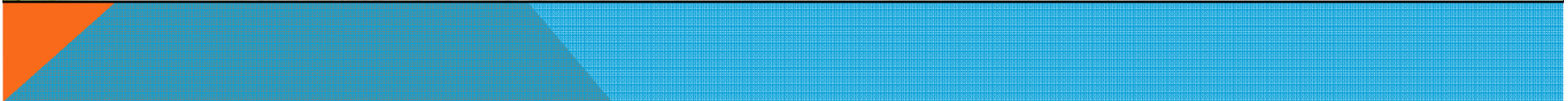


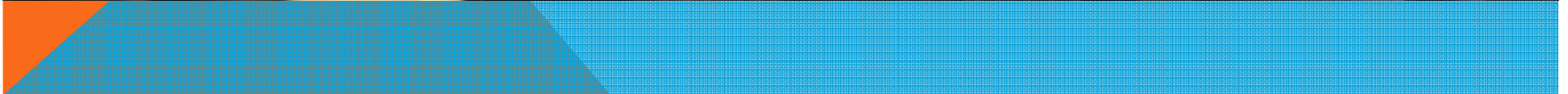
FAO's mandate is to raise levels of nutrition, improve agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy.



FAO European and Central Asian Agriculture Outlook 2030/2050









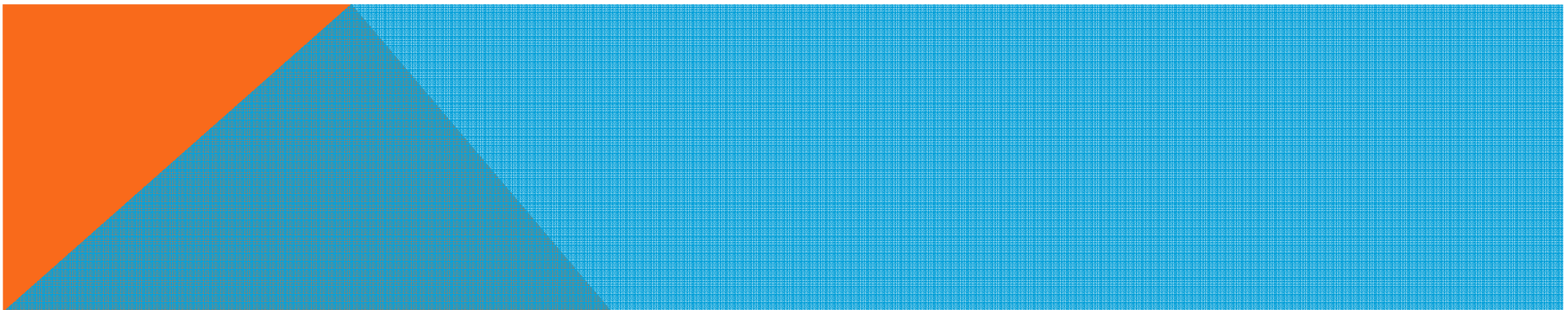
NATURAL RESOURCES - *LAND*

91 million ha of **prime and good land** in Eastern Europe

- 44 million ha in use as rainfed land
- 3 million ha in use as irrigated land
- 43 million ha of suitable land not yet in use

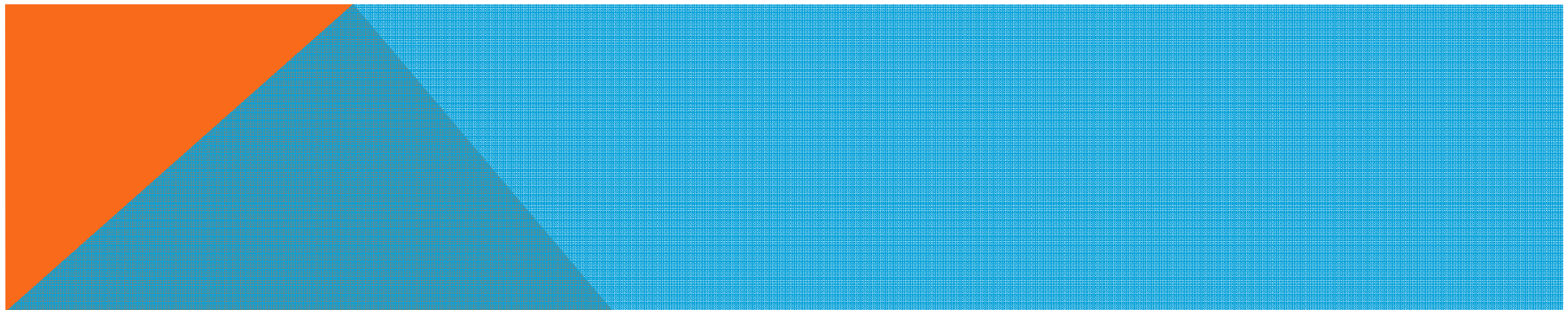
Since 1960s, **overall decline of arable land** in the region

- Conversion to other land uses, e.g. forestry



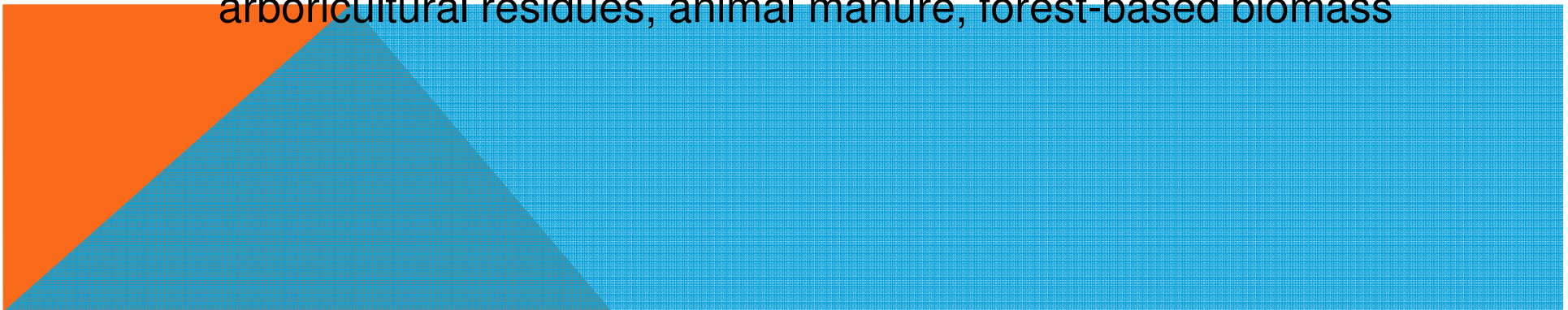
NATURAL RESOURCES - WATER

- **Plenty of water** (201 cubic km annual renewable water resources in Eastern Europe) of which:
 - Minimal increase from 23 cubic km in 2005/07 to 24 cubic km of water **withdrawals for irrigation** by 2030
 - Slight increase in **pressure on water resources** from 11.2% in 2005/07 to 12.1% in 2030
- **Irrigation plays minor role** in Eastern European agriculture
 - Total annual use of water for irrigation in Sava Basin: less than 30 million m³
 - Relatively **high use of water for other agricultural uses** (e.g. fish, livestock) in Basin
- **Water pollution** from nutrient run-off from agriculture, industry and municipal sources, eutrophication

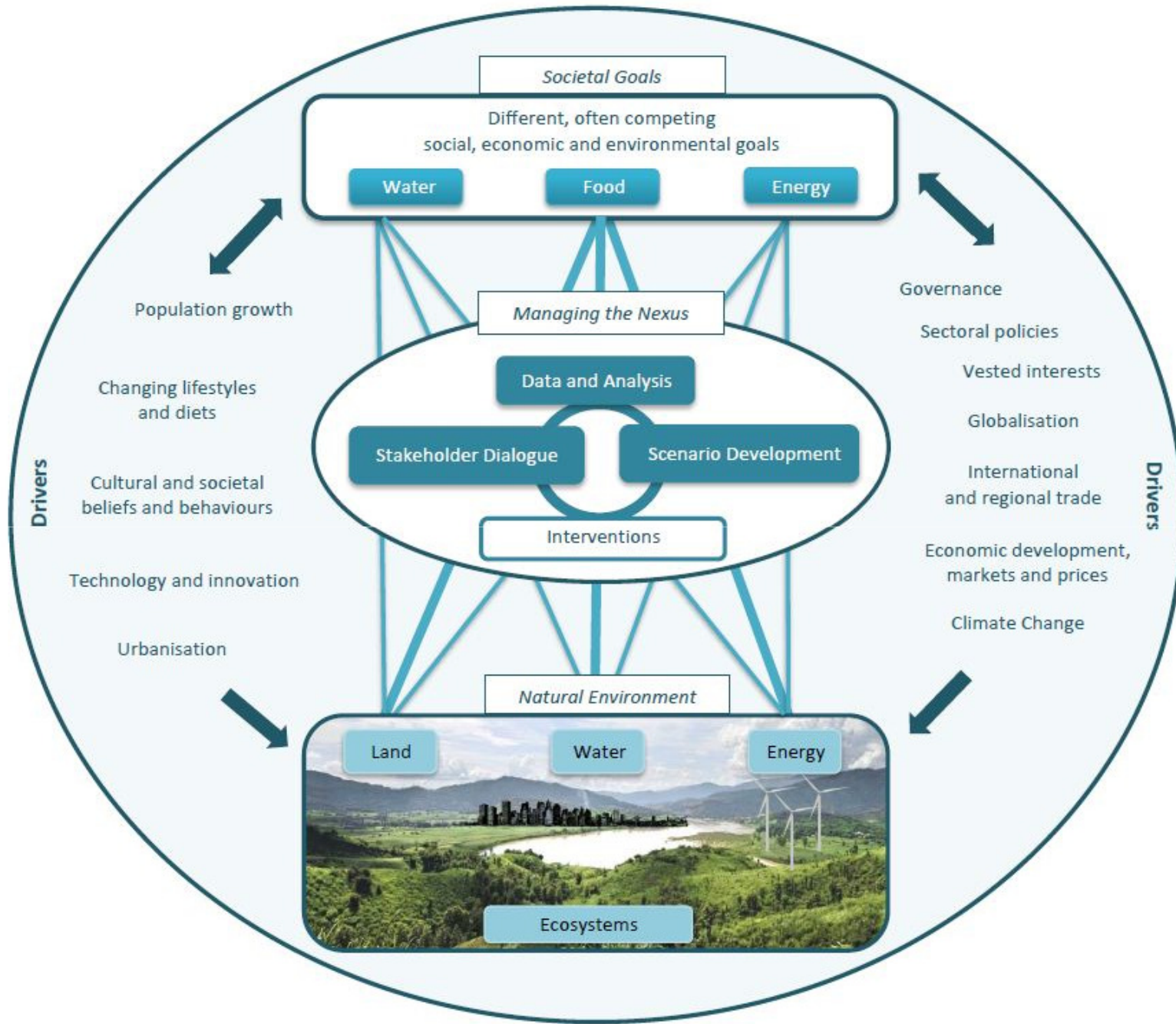


NATURAL RESOURCES - *ENERGY*

- **Energy for agriculture and forestry**
 - About 2% of total energy consumption in Eastern Europe
 - e.g. for machinery, water lifting and pumping
 - Use of mineral fertilizers is expected to increase from 2.7 million tons in 2005/07 to 3.8 million tons in 2030 in Eastern Europe
- **Energy use along the value chain:** transport, processing, packaging, retail, for consumption and food waste
- **Significant biomass potential** from field crop residue, arboricultural residues, animal manure, forest-based biomass

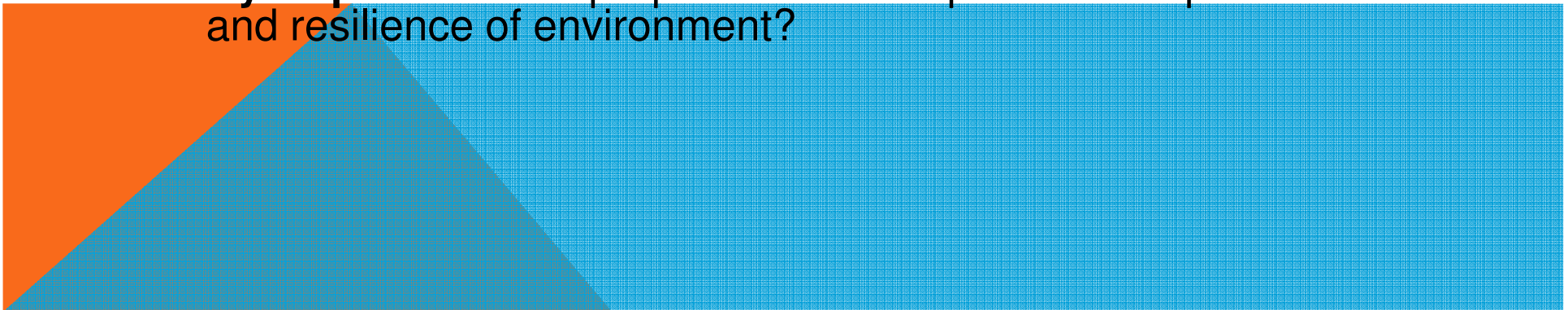


THE WATER-ENERGY-FOOD NEXUS AT FAO



MANAGING TRANSITIONS

- **Impact of urbanisation** on water quality, energy and food demand
- **Labour transition** from agriculture to secondary sectors in the context of urban growth
- **Increased meat consumption:** impact of livestock on environment? Water, energy and land resources for feed production?
- **Risks from monocultures:** loss of biodiversity
- **Hydropower:** multi-purpose dams? Impact of food production and resilience of environment?



Thank you

