# Introduction

# What is UN-GGIM?

- United Nations initiative on Geographic Information Management

- Since 2011

- Strong implication of the statistical community

- Activities at :
  - Global level
  - Regional level: Europe, Africa, …

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# What is core data?

- UN-GGIM: Europe

  – Working Group 'A' on Core Data proposes an initiative

  – To encourage availability of core data content (production of new data – improvement of existing data)

- Core data is priority data

  – Geographic data

  – The most useful to analyse, achieve or monitor the **SDG** (Sustainable Development Goals)

  – Directly or indirectly

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# What is core data initiative?

- Defining priorities

  - Phase 1 : Scope (which themes)

  - Phase 2: Content of each selected theme

- Encouraging production of new data (or upgrade of existing data)

  - Recommendations



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# Geographic information for SDG

# SDG



**1 NO POVERTY**

**2 ZERO HUNGER**

**3 GOOD HEALTH AND WELL-BEING**

**4 QUALITY EDUCATION**

**5 GENDER EQUALITY**

**6 CLEAN WATER AND SANITATION**

**7 AFFORDABLE AND CLEAN ENERGY**

**8 DECENT WORK AND ECONOMIC GROWTH**

**9 INDUSTRY, INNOVATION AND INFRASTRUCTURE**

**10 REDUCED INEQUALITIES**

**11 SUSTAINABLE CITIES AND COMMUNITIES**

**12 RESPONSIBLE CONSUMPTION AND PRODUCTION**

**13 CLIMATE ACTION**

**14 LIFE BELOW WATER**

**15 LIFE ON LAND**

**16 PEACE, JUSTICE AND STRONG INSTITUTIONS**

**17 PARTNERSHIPS FOR THE GOALS**

**SUSTAINABLE DEVELOPMENT GOALS**

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# SDG, targets and indicators

- Member States have agreed on 17 SDG for the period 2015 – 2030

- These SDG are then declined in more detailed targets (around 100)

- The targets are measured by a set of indicators (more than 200)

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# Core data initiative

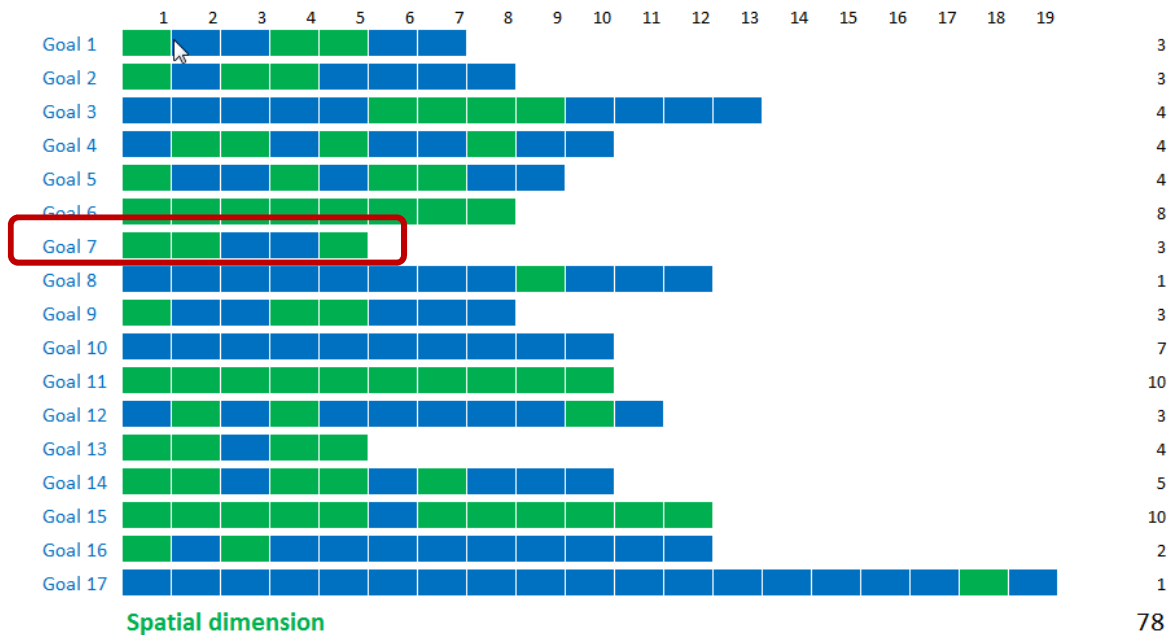- A five  steps approach to identify priority data themes

  1.  Identify the targets consuming <span style="color:green">geographic information</span>

  2.  <span style="color:red">Identify the  actions enabling to **reach these targets**</span>

      <span style="color:red">core data : the most necessary to analyse, **achieve** and monitor the SDG</span>

  3.  Identify the required data

  4.  Make summary by « use case maps » for each theme

  5.  Select core data themes

# Core data initiative

- 1. Identify the targets consuming geographic information



Eurostat selection very close to WG A one

Example:
- Goal (SDG) 7 about energy
- Targets about making energy
  - Accessible
  - Efficient
  - Renewable

# Core data initiative

- 2. Identify the  actions enabling to **reach these targets**

    – Analysis: understand the issue

    – Operational: make decision

    – Monitoring: check if decisions are applied and efficient

- 3. Identify the required data

# Risk example

1.5  Build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters
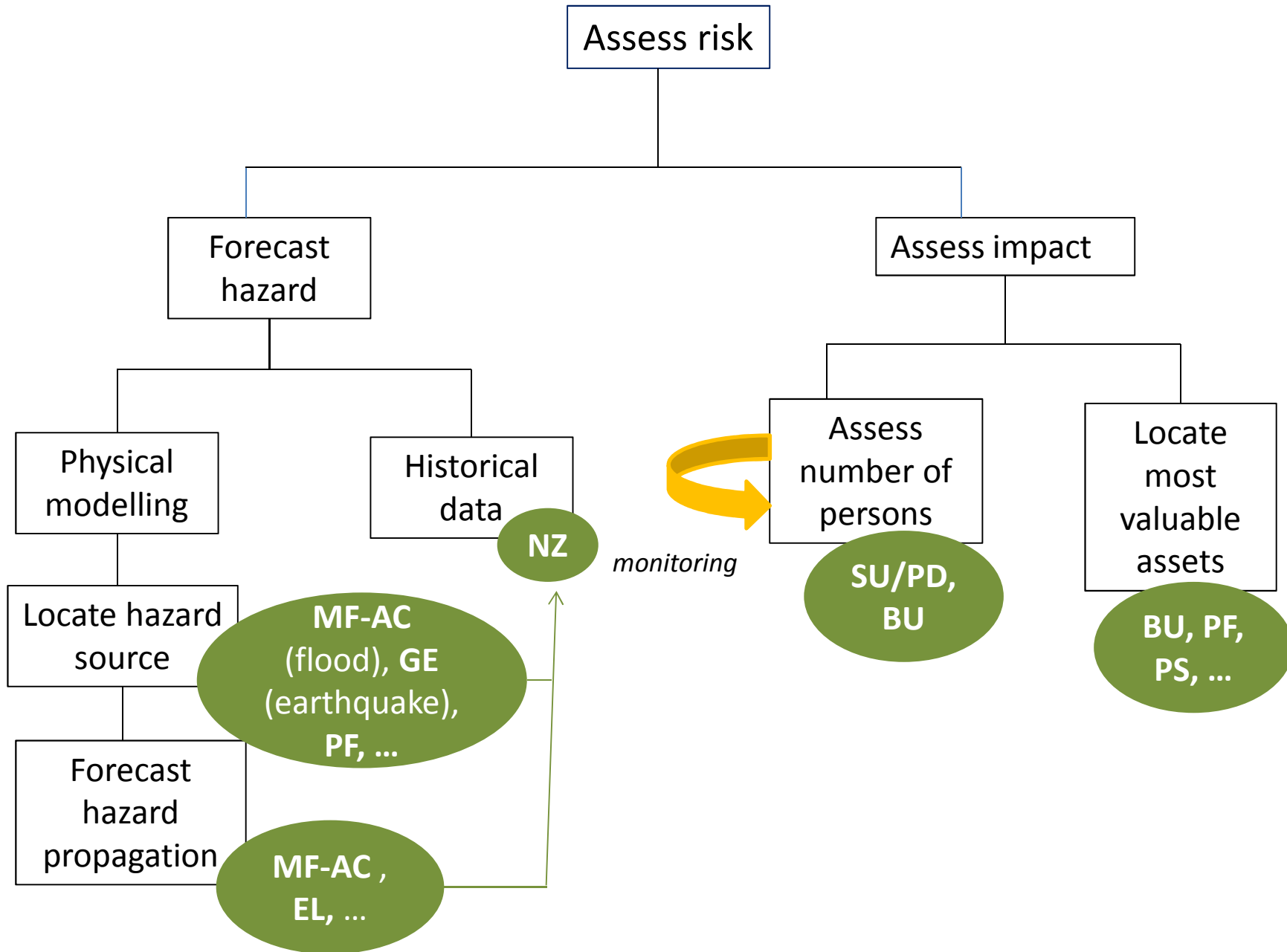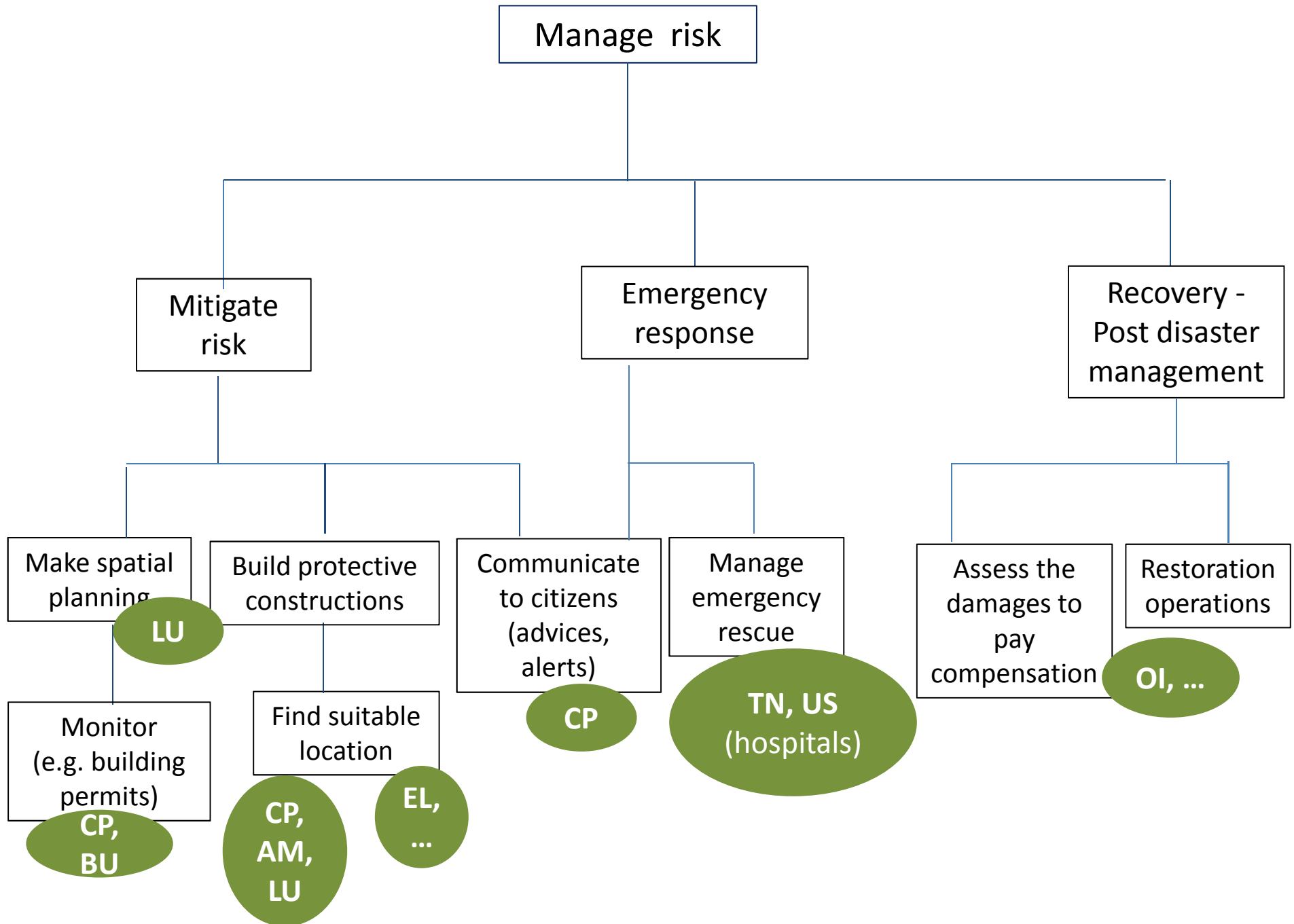


11.5 Significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

11.b  substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters



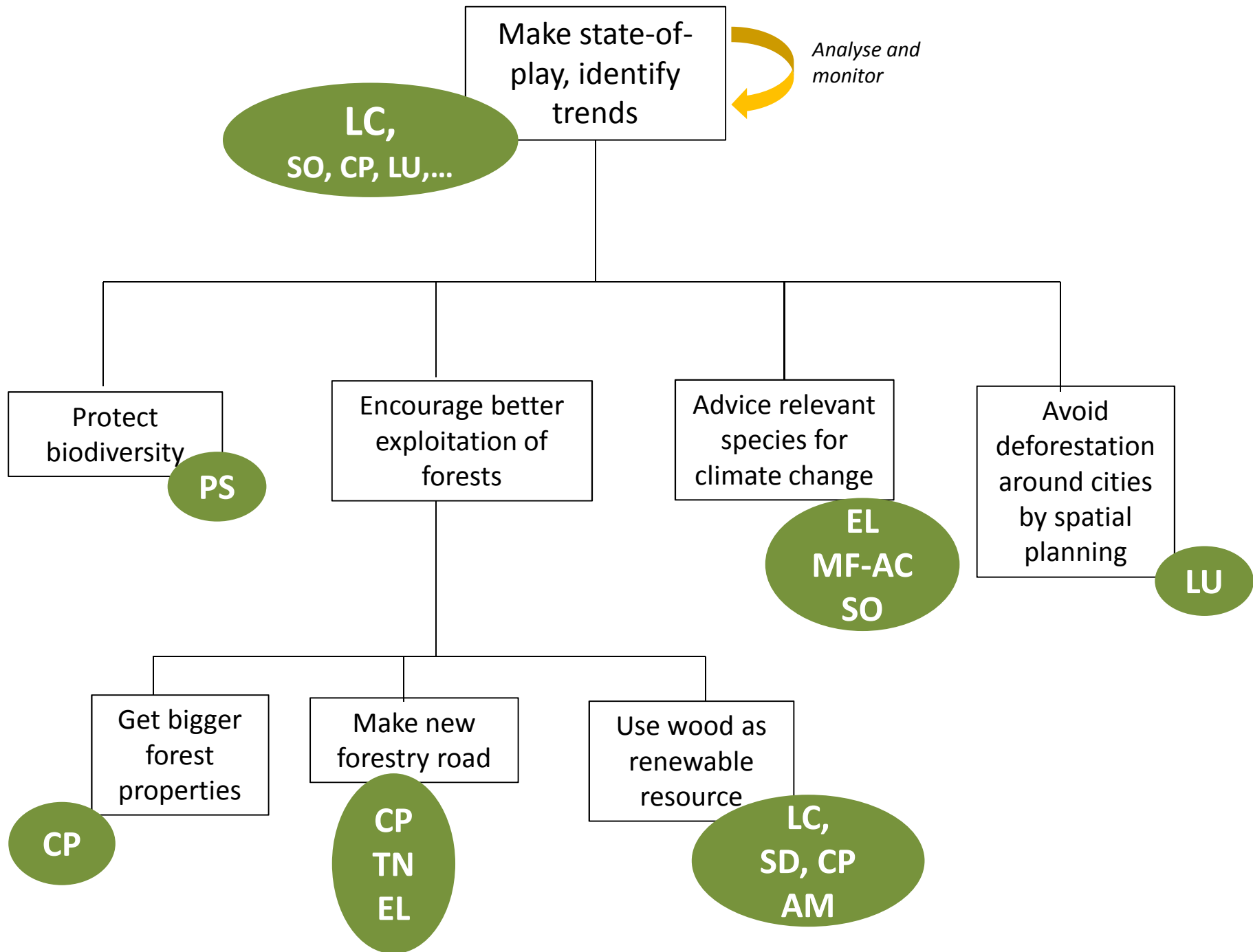13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

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                          Manage risk

        Mitigate              Emergency              Recovery -
          risk                response             Post disaster
                                                    management

   Make spatial      Build protective    Communicate    Manage       Assess the      Restoration
   planning          constructions       to citizens    emergency    damages to      operations
        ( LU )                            (advices,      rescue       pay
                                          alerts)                     compensation    ( OI, ... )
   Monitor           Find suitable         ( CP )       ( TN, US
   (e.g. building    location                           (hospitals) )
   permits)          ( EL,
   ( CP,             ( CP,    ... )
   BU )              AM,
                     LU )
```

# Ecosystems
# Forest example

# Sustainable Development Goals



15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

# Core data initiative

| Use Case | Target or sub-target | Phase | Theme | Importance | Scale | Justification | Reference |
|---|---|---|---|---|---|---|---|
| Advice relevant tree species for climate change | 15.2 | Operational | EL | Critical | large scale | To derive exposition to sun. | French experience: propose a tool that propose to forest owners which species to plant, taking into account: - exposition to sun - quality of soil - local meteorological conditions - model of climate change |
| | | | MF - AC | Critical | large scale | | |
| | | | SO | Critical | large scale | | |
| Protect forest biodiversity | 15.2 | Operational/ communication | PS | Critical | | Create new protected site (generally done at local level, pushed by European Directives) | Interview forestry expert (IGN France) |
| Make new forestry road (for better exploitation of wood) | 15.2 | Operational | CP | Critical | | First step is to find the forest owners and to make sure they are willing to exploit their forest parcels. | Interview forestry expert (IGN France) |
| | | | EL | Critical | | To check if wood exploitation may be done by road or if exploitation by helicopter would be more efficient | |

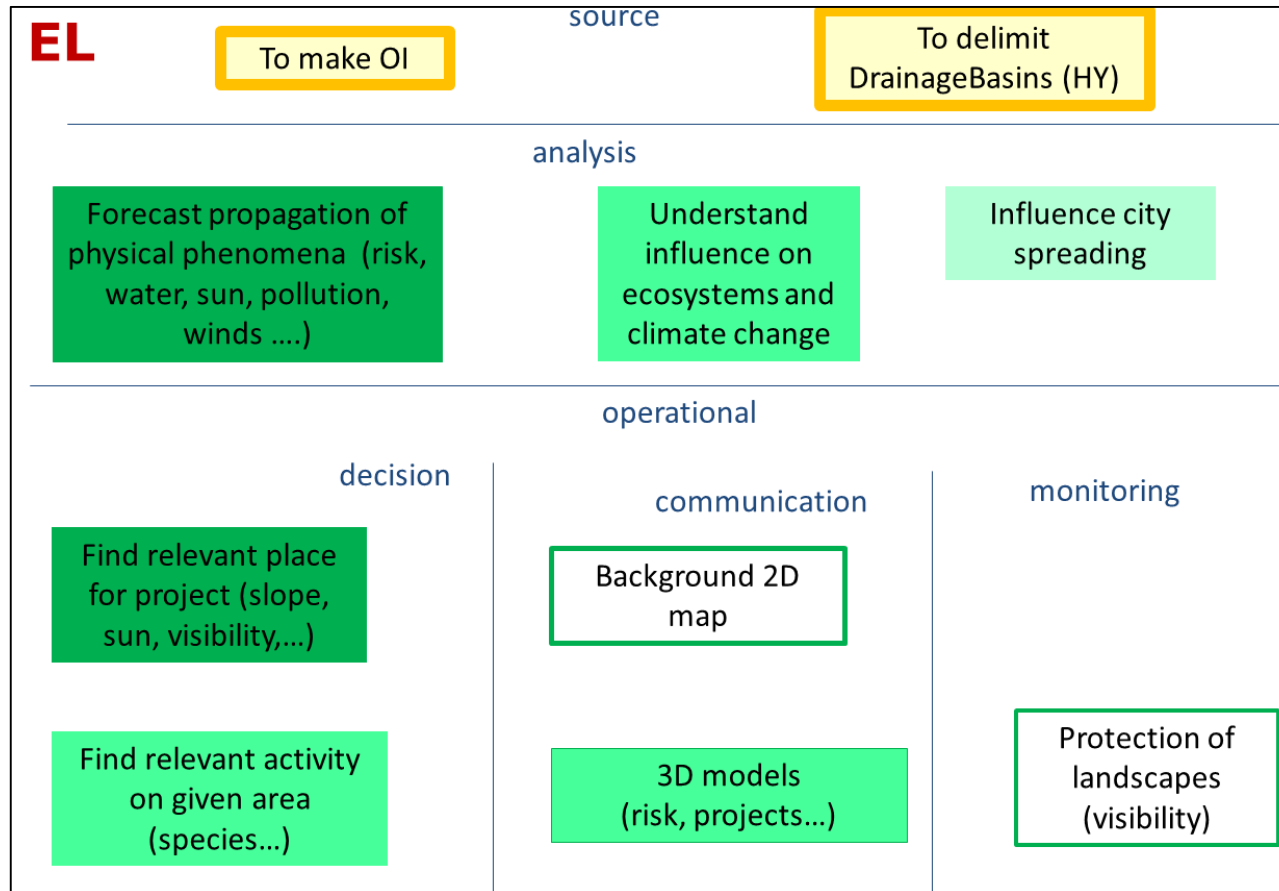In practice, actions and required data documented in Excel table

# Core data initiative

- 4. Make summary by « use case maps » for each theme

# 5. Select core data themes

**Annex I**

Coordinate Reference Systems

Geographical Grid Systems

Geographical Names

Administrative Units

Addresses

Cadastral Parcels

Transport Networks

Hydrography

*Protected Sites*

**Annex II**

Elevation

Land Cover

OrthoImagery

Geology

**Annex III**

Statistical units

Buildings

Soil

Land use

Human health and safety

Utility and governmental services

Environmental monitoring facilities

Production and industrial facilities

Agricultural and aquaculture facilities

Population distribution - demography

Area management/restriction/regulation

Natural risk zones

Atmospheric conditions

Meteorological geographical features

Oceanographic geographical features

Sea regions

Bio-geographical regions

Habitats and biotopes

Species distribution

Energy resources

Mineral resources

# Conclusions

# How GI supports the SDG

- ## Understand the issue

  – Lots of information required

    - Core geographic information

    - Environmental information (AC-MF, SO, SD,HB, OF, EF, ……)

    - Statistical data

    - ….

# How GI supports the SDG

- Make decision
  - Find solutions
    - Direct public action:
      - Spatial planning
      - Find best location for new infrastructure
      - ...
    - Push citizens (e.g. owners) to have more "sustainable" behaviour
  - Key role of core geographic data
    - "Administrative" themes : AU, AD, CP
    - Topographic themes : EL, TN, ...

# How GI supports the SDG



Hammurabi code
Babylonia
1792 – 1750 BC
First king to publish law
(Louvres Museum)

- Make decisions be applied

  – A key tool of public action is spatial planning: PS, AM, planned LU

  – Strong requirements on these themes:

    - Efficiency of spatial planning

    - Government transparency (no hidden regulations)

# How GI supports the SDG

- Geographic information may be used
  - By basic GIS
    - Visualisation  (maps, 3D models, …)
    - Spatial analysis
    - Link with thematic, statistic data
  - As input for computation
    - Prediction of hazards and hazard propagation
    - Impact of climate change in a given area
    - Impact of urbanism rules in simulation models
    - …..

*Likely , many more applications to come in future*

# To know more

- Deliverable on core data scope

[http://un-ggim-europe.org/content/wg-a-core-data](http://un-ggim-europe.org/content/wg-a-core-data)

- Next phases of core data work:
  - Presentation on 07/09/2017
    - Session "Use and potential of INSPIRE for the development of indicators" – 14 h – 15 h 30
    - Title: "UN-GGIM: Europe core data to complement the INSPIRE framework – second step"

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