



## **SUSTAINABLE DEVELOPMENT IN RISK SITUATIONS: FLOODS, FIRE, EARTHQUAKES**

Timișoara

6<sup>th</sup> of September 2023

---



## **SUSTAINABLE DEVELOPMENT**

### **1. SUSTAINABLE DEVELOPMENT**

**1.1 THE CONCEPT OF SUSTAINABLE DEVELOPMENT:  
SHORT HISTORY. DEFINITION**

**1.2 THE OBJECTIVES OF SUSTAINABLE DEVELOPMENT (17 ODD)  
OBJECTIVE NUMBER 5: GENDER EQUALITY**

### **2. SUSTAINABLE DEVELOPMENT IN RISK SITUATIONS:**

**FLOODS, FIRE, EARTHQUAKES**



## SUSTAINABLE DEVELOPEMENT



3



## SUSTAINABLE DEVELOPMENT IN RISK SITUATIONS:



4



## 1.1 THE CONCEPT OF SUSTAINABLE DEVELOPMENT: SHORT HISTORY.

❖ **In 1983:**

The World Commission for Environment and Development was starting its activity (WCED)

❖ **In 1987:**

**THE WCED COMMISSION stated the most cited definition of sustainable development:**

“SUSTAINABLE DEVELOPMENT IS THE ONE THAT FOLLOWS THE NEEDS OF THE PRESENT, WITHOUT COMPROMISING THE POSSIBILITY OF FUTURE GENERATIONS TO SATISFY THEIR NEEDS”.

5



## 1.1 THE CONCEPT OF SUSTAINABLE DEVELOPMENT: SHORT HISTORY.

**In 2000:**

- ✓ **Was adopted the Millennium Declaration with 8 Goals of the Millennium Development**

❖ **In 2001:**

- ✓ **Was adopted the EU Sustainable Development Strategy**

❖ **2015:**

- ✓ **193 countries (including Romania) adopts the 2030 Agenda for Sustainable Development**

6



## 1.1 THE CONCEPT OF SUSTAINABLE DEVELOPMENT: SHORT HISTORY.

### 2030 Agenda:

- is a global action program
- **PROMOTES THE BALANCE** between the three dimensions of the sustainable development :
  - ✓ economic,
  - ✓ social,
  - ✓ environmental.
- the actions target developed and developing countries.
- it includes 17 Sustainable Development Goals (ODD) Global Objectives
- sets ambitious actions for the next 15 years regarding:
  - ✓ eradicating extreme poverty
  - ✓ combating inequalities and injustice and
  - ✓ protecting the planet until 2030.

7



## 1.1 THE CONCEPT OF SUSTAINABLE DEVELOPMENT: - DEFINITION

**“SUSTAINABLE DEVELOPMENT IS THE ONE THAT FOLLOWS THE NEEDS OF THE PRESENT, WITHOUT COMPROMISING THE POSSIBILITY OF FUTURE GENERATIONS TO SATISFY THEIR NEEDS”**

**SUSTAINABLE DEVELOPMENT means:**

**SATISFYING THE NEEDS OF THE PRESENT  
WITHOUT COMPROMISING THE RIGHT OF FUTURE  
GENERATIONS TO THEIR EXISTENCE AND DEVELOPMENT**

8



## 1.1 SUSTAINABLE DEVELOPMENT – DEFINITION

SUSTAINABLE DEVELOPMENT represent:

1. Satisfying the basic needs of humanity in a responsible way  
**in order not to endanger the well-being of future generations**
1. Achieving a better quality of life in our days  
**without compromising the chance of future generations to have a better live.**
1. Achieving a balance between the following types of development:
  - economic,
  - social and
  - environment protection.

9



## 1.1 SUSTAINABLE DEVELOPMENT – DEFINITION

**THE 3 PILLARS OF SUSTAINABLE DEVELOPMENT:  
ECONOMIC,  
SOCIAL,  
ENVIRONMENT**

The three pillars are interdependent and none can exist without the others.

10



The Balance between the three dimensions of sustainable development: economic, social, environment



The Balance between the three dimensions of sustainable development: economic, social, environment



## 1.1 SUSTAINABLE DEVELOPMENT- DEFINITION

SUSTAINABLE DEVELOPMENT IS DEFINED BY A SERIES OF ASPECTS:

1. THE COMPATIBILITY between the human environment and the natural environment;
2. EQUAL OPPORTUNITIES between generations
3. Placing ECOLOGICAL SECURITY on the first place **instead of profit maximization;**
4. COMPATIBILITY of national development strategies
5. Ensuring general well-being by emphasizing the quality of sustainable economic growth;
6. Organic integration between natural and human capital,
7. The transition to a new strategy, in which the objectives of eco-social development will be subordinated both to human development and to the healing of the environment.

13

WHO has the duty to ensure THE SUSTAINABLE DEVELOPMENT?

THE STATE



14



Through WHO  
does the STATE ensure SUSTAINABLE DEVELOPMENT?

THROUGH PUBLIC AUTHORITIES + INSTITUTIONS +.....



15



By WHAT,  
SUSTAINABLE DEVELOPMENT is ensured?

BY STRATEGIES, POLITICS, PROGRAMMES, PROJECTS,.... ACTIVITIES,  
....



16



## 1.2 OBJECTIVES OF SUSTAINABLE DEVELOPMENT

### OBJECTIVES OF SUSTAINABLE DEVELOPMENT (17 ODD) versus MILLENNIUM DEVELOPMENT GOALS (8 ODM)

Declaration of the millennium – the global agenda about DD in 2000-2015, including the following **8 GOALS:**

1. Reducing extreme poverty and hunger
2. Realising the universal access to primary education
3. Promoting gender equality and women emancipation
4. Reducing infant mortality
5. Improving maternal health
6. Combating HIV/AIDS, malaria and other diseases
7. Ensuring environmental sustainability
8. Creating a global partnership for development

The 17 ODD from 2030 AGENDA replace the 8 ODM from the Declaration of the millennium

17

## 1.2 OBJECTIVES OF DURABLE DEVELOPMENT...17 ODD

### 2030 AGENDA with the 17 ODD – CHARACTERISTICS:

- FAR EXCEEDS the ODM,
- MAINTAIN THEMES such as poverty eradication, education and health
- ADDRESS NEW THEMES such as peaceful and inclusive societies.

All the countries should:

- Ensure in order to implement the 2030 AGENDA
- Promote efficient and inclusive institutions
- Create policies based on:
  - the state law,
  - human rights,
  - women rights,
  - gender equality and și increasing women implication.

18

## 1.2 OBJECTS OF THE SUSTAINABLE DEVELOPMENT... 17 ODD



19

## 1.2 OBJECTIVES OF DURABLE DEVELOPMENT...17 ODD

1. WITHOUT POVERT
2. ZERO HUNGER
3. HEALTH AND WELL-BEING
4. QUALITY EDUCATION
5. GENDER EQUALITY
6. CLEAN WATER AND SANITATION
7. CLEAN ENERGY AT AFFORDABLE PRICES
8. DECENT WORK AND ECONOMICAL GROWTH
9. INDUSTRY, INOVATION AND INFRASTRUCTURE
10. REDUCED INEQUALITIES
11. DURABLE CITIES AND COMMUNITIES
12. RESPONSIBLE CONSUMME AND PRODUCTION
13. CLIMATE ACTION
14. AQUATIC LIFE
15. EARTH LIFE
16. PEACE, JUSTICE AND EFFICIENT INSTITUTIONS
17. PARTNERSHIPS FOR ACHIEVING OBJECTIVES

20



## 1.2 OBJECTIVE NUMBER 5: GENDER EQUALITY

### ACHIEVING GENDER EQUALITY AND EMPOWERMENT OF ALL WOMEN, GIRLS

There are many inequalities between men and women, such as:

- ✓ smaller wages,
- ✓ domestic violence,
- ✓ emancipation problems.

21



## 1.2 OBJECTIVE NUMBER 5: GENDER EQUALITY

### TARGETS OF THE OBJECTIVE:

**5.1. Eliminating all forms of discrimination** against all women and girls everywhere

**5.2. Eliminating all forms of violence** against women and girls, in public and private spheres, including trafficking, sexual exploitation and other forms of exploitation.

**5.3. Elimination of all harmful practices**, such as child marriages, early and forced marriages, and also women genital mutilation

22



**1.2 OBJECTIVE NUMBER 5: GENDER EQUALITY**

**OBJECTIVE'S TARGETS:**

- 5.4. Recognizing and appreciating unpaid care and domestic work**
- 5.5. Ensuring the full and effective participation of women and equal opportunities**  
to occupy management positions at all levels  
to take decisions in politic, economic and public life
- 5.6. Ensuring universal access to sexual and reproductive health and reproductive rights**



**2. DURABLE DEVELOPMENT  
IN RISK SITUATIONS:  
FLOODS,  
FIRES,  
EARTHQUAKES.**

**ONE WAY TO DEFINE RISK IS THE FORMULA:**

**RISKS = VULNERABILITIES + HAZARD**

**VULNERABILITIES:**

- ✓ **POVERTY**
- ✓ **LIMITED ACCESS TO**
  - **power structures**
  - **resources**
- ✓ **ECONOMIC IDEOLOGIES**
- ✓ **MISSING SYSTEMS**
  - **local institutions**
  - **education**
  - **professional training**
  - **suitable competences**
  - **local investments**
  - **local markets**
  - **services**
  - **freedom of the press**

**HAZARDS:**

- ✓ GEOLOGICAL :
  - earthquakes,
  - volcanic eruptions,
  - land slides
- ✓ CLIMATIC:
  - cyclones,
  - floods,
  - drought
- ✓ ENVIRONMENT:
  - environment pollution,
  - desertification,
  - deforestation
- ✓ EPIDEMIES AND INDUSTRIAL ACCIDENTS;
- ✓ WAR (including terrorism).

**TYPES OF RISKS IN ROMANIA AND THEIR IMPACT**

**ACCORDING  
TO THE NATIONAL MANAGEMENT PLAN OF DISASTERS RISK**

- **THE FLOODS,**
- **THE FIRES, THE VEGETATION AND FOREST FIRES,**
- **CUTREMURELE**
- **SECETA, ALUNECĂRILE DE TEREN,**
- **ALTE HAZARDE ȘI CONSECINȚELE ASOCIATE LOR**

**HAVE A SIGNIFICANT IMPACT ON :**

- **COMMUNITIES,**
- **ECONOMY, INFRASTRUCTURE**
- **ENVIRONMENT.**



ENSURING SUSTAINABLE DEVELOPMENT – AGAINST  
FLOODING



29



ENSURING SUSTAINABLE DEVELOPMENT – AGAINST  
EARTHQUAKE



30

## ENSURING SUSTAINABLE DEVELOPMENT – AGAINST FIRES



31

## PROGRESS ON SUSTAINABLE DEVELOPMENT

- At the global level, there have been developed 169 TARGETS for measuring progress according to the 17 ODD
- **based on the TARGETS the NATIONAL SCORES are calculated,**

## WHERE IS ROMANIA?

- ✓ On global level, Romania is on the 38<sup>th</sup> position...
- ✓ On EU level, Romania is on the 30<sup>th</sup> - penultimate position, on the last position is Bulgaria.

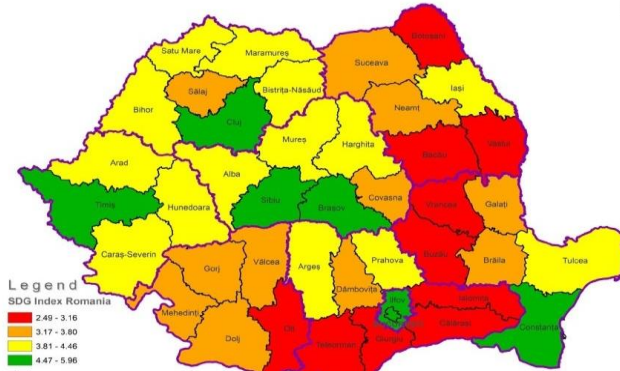
The champion of sustainable development globally is SWEDEN  
The European Champion is FINLAND

32





The top of the COUNTIES regarding the transition to SUSTAINABLE DEVELOPMENT and two communes Dumbravița, Otopeni:



**HOW  
DO WE DEFINE, APPRECIATE AND EVALUATE  
SUSTAINABLE DEVELOPMENT IN ROMANIA  
IN SITUATIONS OF  
FLOODS, EARTHQUAKE, FIRES?!**



**SUSTAINABLE DEVELOPMENT** in situations of  
**INUNDATIONS, EARTQUAKE, FIRES**  
**MEANS**  
SATISFYING THE PRESENT NEEDS, REALISING A BETTER  
LIFE QUALITY IN THE PRESENT  
**WITHOUT COMPROMISING**  
THE RIGHT OF THE FUTURE GENERATIONS TO EXISTENCE AND  
DEVELOPMENT  
THE CHANCE OF THE FUTURE GENERATIONS TO A BETTER LIVING.



**WHO**  
has the duty to ensure SUSTAINABLE DEVELOPMENT CONDITIONS in  
case of FLOODS, EARTHQUAKES, FIRES?

**THE STATE**





**Through WHOM**

does the STATE ensure SUSTAINABLE DEVELOPMENT in case of  
FLOODS, EARTHQUAKES, FIRES?

**THROUGH PUBLIC AUTHORITIES + DIFFERENT  
INSTITUTIONS**



37



**HOW, THROUGH WHAT**

are SUSTAINABLE DEVELOPMENT CONDITIONS ensured in case  
of FLOODING, EARTHQUAKES, FIRES?

**THROUGH  
STRATEGIES,  
POLITICS, PROGRAMMES, PLANS, PROJECTS,  
ACTIONS, ACTIVITIES, INTERVENTIONS, MISIONS....**

38



**ROMANIA INSURES  
DURABLE DEVELOPMENT CONDITIONS  
THROUGH  
THE NATIONAL DISASTER RISK PLAN OF  
MANAGEMENT (PNMRD)**

39



**THE NATIONAL DISASTER RISK  
PLAN OF MANAGEMENT  
INVOLVES  
**RESOURCES AND FINANCING MECHANISMS**  
FOR DISASTER PREVENTION, PREPARATION AND  
RESPONSE**

40

## NATIONAL DISASTER RISK MANAGEMENT PLAN

### **RESOURCES AND FINANCING MECHANISMS FOR DISASTER PREVENTION, PREPAREDNESS AND RESPONSE ARE:**

1. DEDICATED INVESTMENT PROGRAMS, BY TYPES OF RISKS
2. THE AMOUNTS PROVIDED THROUGH THE BUDGETS OF THE AUTHORITIES with a role in emergency situations management
3. THE MANDATORY HOMES ENSURANCES
4. THE LOAN GRANTED TO ROMANIA BY THE WORLD BANK – CATDDO
5. THE PROJECT ON IMPROVING DISASTER RISK MANAGEMENT
6. SUMS FROM THE STATE BUDGET AS RESERVE BUDGET FOR INTERVENTIONS
7. EUROPEAN FUNDS, THROUGH THE CURRENT OPERATIONAL PROGRAMS
8. PUBLIC INVESTMENT PROJECTS within the Recovery and Resilience Mechanism (MRR)
9. THE NORWEGIAN FUNDING MECHANISM
10. OTHER FUNDS

41

### **PNMRD: RESOURCES AND FINANCING MECHANISMS OF DISASTER PREVENTION, PREPAREDNESS AND RESPONSE MEASURES**

#### **1 THE INVESTMENT PROGRAMMES ON TYPES OF RISKS ARE:**

1. The national program for constructions of public or social interest, Sub-program “First emergency works”
2. The National Local Development Program PNDL
3. The annual program for the development of natural risk maps for earthquakes and landslides
1. The Regional Operational Program 2014-2020
2. The National Program for the Restoration of Historical Monuments (PNR)
3. The Investment program in the field of culture – regulated by OUG nr. 76/2018
4. Programmes / projects / actions on inundations from the state budget

42



**EXAMPLE – FLOODS**

**ENSURING CONDITIONS FOR SUSTAINABLE DEVELOPMENT IN CASE OF FLOODING!**

**WHO MANAGES FLOOD RISK?**

**Through WHO are the CONDITIONS OF SUSTAINABLE DEVELOPMENT ensured?**

**THE SUSTAINABLE DEVELOPMENT CONDITIONS ARE ENSURED ON NATIONAL AND LOCAL LEVEL through:**

- **THE MAIN PUBLIC INSTITUTIONS ON NATIONAL LEVEL**
- **OTHER INSTITUTIONS AND IMPORTANT FACTORS ON NATIONAL LEVEL**
- **PUBLIC INSTITUTIONS /IMPORTANT FACTORS ON COUNTY AND LOCAL LEVEL**

43



**EXAMPLE – FLOODS**

**ENSURING CONDITIONS FOR SUSTAINABLE DEVELOPMENT IN CASE OF FLOODING!**

**ON NATIONAL LEVEL,**

**THE MAIN PUBLIC INSTITUTIONS RESPONSIBLE WITH THE RISK MANAGEMENT IN CASE OF FLOODING**

- ✓ **MINISTRY OF THE ENVIRONMENT,**
- ✓ **NATIONAL ADMINISTRATION OF “ROMANIAN WATERS” (ANAR)**
- ✓ **NATIONAL INSTITUTE OF HYDROLOGY AND WATER MANAGEMENT (INHGA)**
- ✓ **11 BASIN ADMINISTRATIONS**
- ✓ **.....**

44



**ON NATIONAL LEVEL**  
**THE FLOOD RISK IS MANAGED THIS WAY:**

- **MINISTRY OF THE ENVIRONMENT**
- ✓ **IMPLEMENTS THE POLICIES IN THE FIELD of water management, BUILDING safety and hydrotechnical arrangements**
  - ✓ **HOLDS RESPONSIBILITIES in the water and environment sector**
  - ✓ **DEFINES THE RELEVANT PUBLIC POLICIES**
- **ANAR ADMINISTRATES**
  - The waters in the public domain of the state and
  - The SNG infrastructure - National Water Management System.

45



**OTHER IMPORTANT FACTORS**  
**IN MANAGEMENT OF THE EMERGENCY SITUATIONS – FLOODS**

**ON NATIONAL LEVEL:**

- **The National Sistem of Management of Emergency Situations (SNMSU):**
  - Emergency Comittees
  - General Inspectorate for Emergency Situation
  - Professional community public services for emergency situations
  - Operational centers for emergency situations
  - The action commander
- **The National Committee for Emergency Situations (CNSU) under the leadership of the MAI**
- **The Ministerial Committee for Emergency Situations(CMSU) from the Ministry of the Environment, CMSU has the authority:**
  - developing the national flood risk management strategy
  - coordinating the development of flood defense plans
  - international action on flood risk

46



## **OTHER IMPORTANT FACTORS**

IN THE MANAGEMENT OF THE EMERGENCY SITUATIONS – **FLOODS**

### **ON COUNTY AND LOCAL LEVEL**

- ✓ County Committee for Emergency Situations (CJSU),
  - ✓ County Councils,
  - ✓ Local Committee for Emergency Situations (CLSU),
  - ✓ Local Councils (from municipalities, cities or villages)
- they have competence and responsibilities related to the coordination of some activities
- before
  - during
  - after **the floods.**

47



## **OTHER IMPORTANT FACTORS !**

### **THE CITIZENS.**

DID YOU KNOW THAT **THE CITIZENS** HAVE A ROLE AND RESPONSABILITIES IN CASE OF **FLOODS?**

48





## ANY CITIZEN OF ROMANIA

1. **CAN** be INFORMED and PREPARED for these situations
2. **CAN** TAKE PART as a volunteer  
to rescue or evacuation actions of the population affected by floods,  
to the restoration actions of the affected areas
3. **CAN** make an INSURANCE of the home and goods in case of floods.

49



### CONCLUSIONS:

1. THE STRATEGIES, POLICIES, PROGRAMS, PLANS AND PROJECTS  
ARE MANDATORY AND ESSENTIAL IN ENSURING CONDITIONS FOR  
SUSTAINABLE DEVELOPMENT
  2. QUICK RESPONSES AND CONCENTRATED EFFORT CAN SOLVE  
THE PROBLEMS OF THE PRESENT WITHOUT COMPROMISING  
THE FUTURE
- 1+2 CREATE CONDITIONS AND PREMISES FOR SUSTAINABLE  
DEVELOPMENT,  
INCLUDING IN RISK SITUATIONS THAT CAN TAKE TO  
FLOODING, EARTHQUAKES, FIRES

50