



# National planning system: **levels of administration**



**NUTS 1:** macroregions (*not used yet*)

**NUTS 2:** development regions (8)

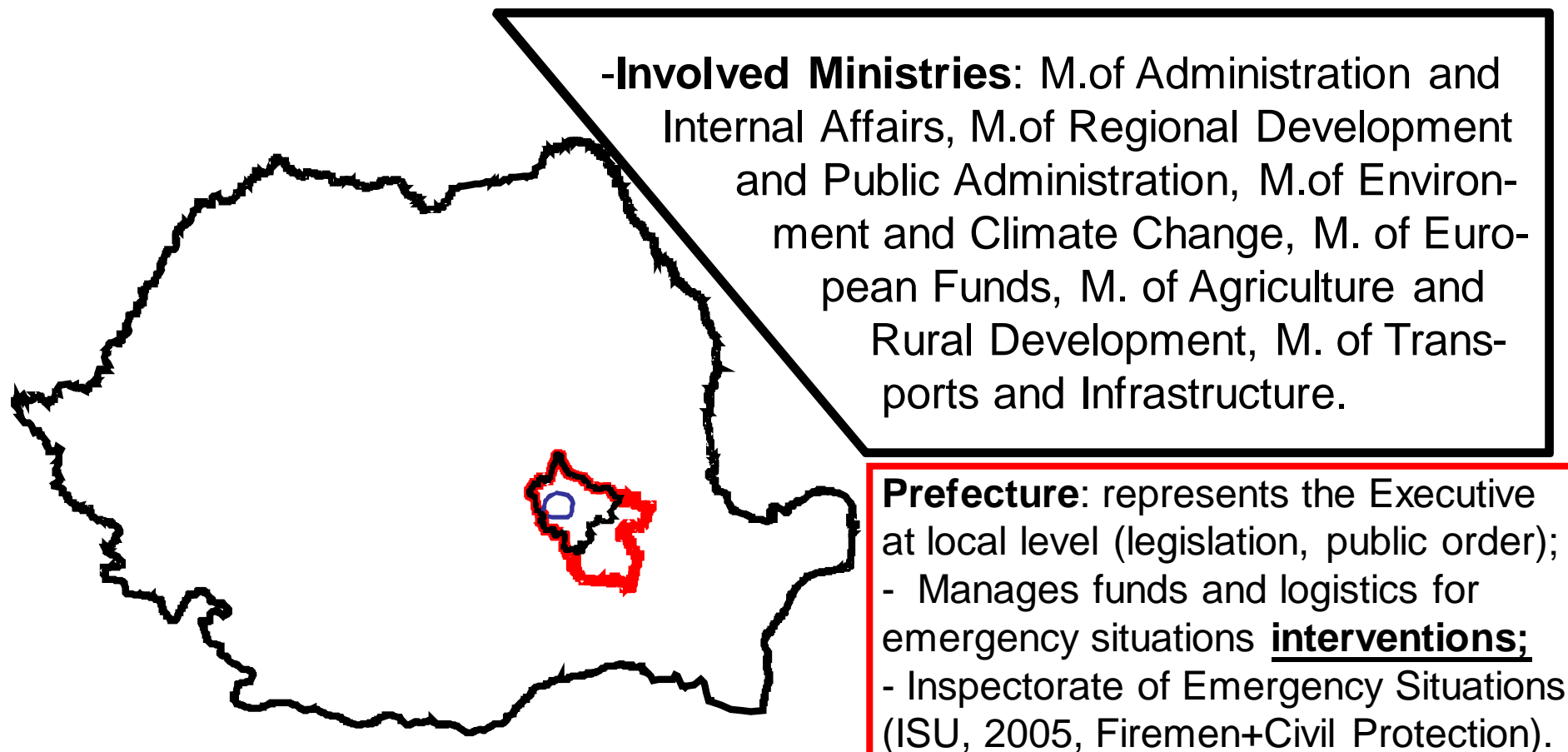
**NUTS 3:** county (42)

**NUTS 4:** *not used*

**NUTS 5:** towns/cities (265), communes (2,686), villages (13,092)

- Centralized authority (Bucharest);
- No province/regional Government.

## National planning system: **levels of administration**



**County/Local Council:** public administration at county/commune level;  
- Organization and functioning of public services and institutions;  
- Manages funds for **social and economic development;**  
- Insures inter-institutional cooperation.

## National planning system: **levels of administration**

- **M.of Administration and Internal Affairs:** manages **emergency situations** through CJSU (*County/Local Committee for Emergency Situations; CCES*) and ISU (*Inspectorate for Emergency Situations*);
  - CCES = President = Prefect/Mayor
  - Vice-President = County Council President/Vice-Mayor
  - Secretary = ISU/SVSU (*Volunteers Service for Emergency Situations*)
  - + members, consultants, technical support groups.
- **M.of Regional Development and Public Administration:** issues **territorial development plans** (36 laws, containing general and specific terms);
- **M.of Environment and Climate Change:** issues (through *Environmental Protection Agencies, EPA*) **environmental permits** (*aviz de mediu*; if the investment addresses environmental issues), **environmental agreement/consent** (*acord de mediu*; allows the project to start, from an environmental point of view) and **environmental authorization** (*autorizatie de mediu*; mandatory at the functioning start moment); According to **SEA Directive** (21 July 2001).
- **M.of European Funds:** funding for national/regional/local investment plans;
- **M.of Agriculture and Rural Development:** manages EU allocations and subventions;
- **M.of Transports and Infrastructure:** manages European/national roads.



# National planning system: types of spatial plans on each level

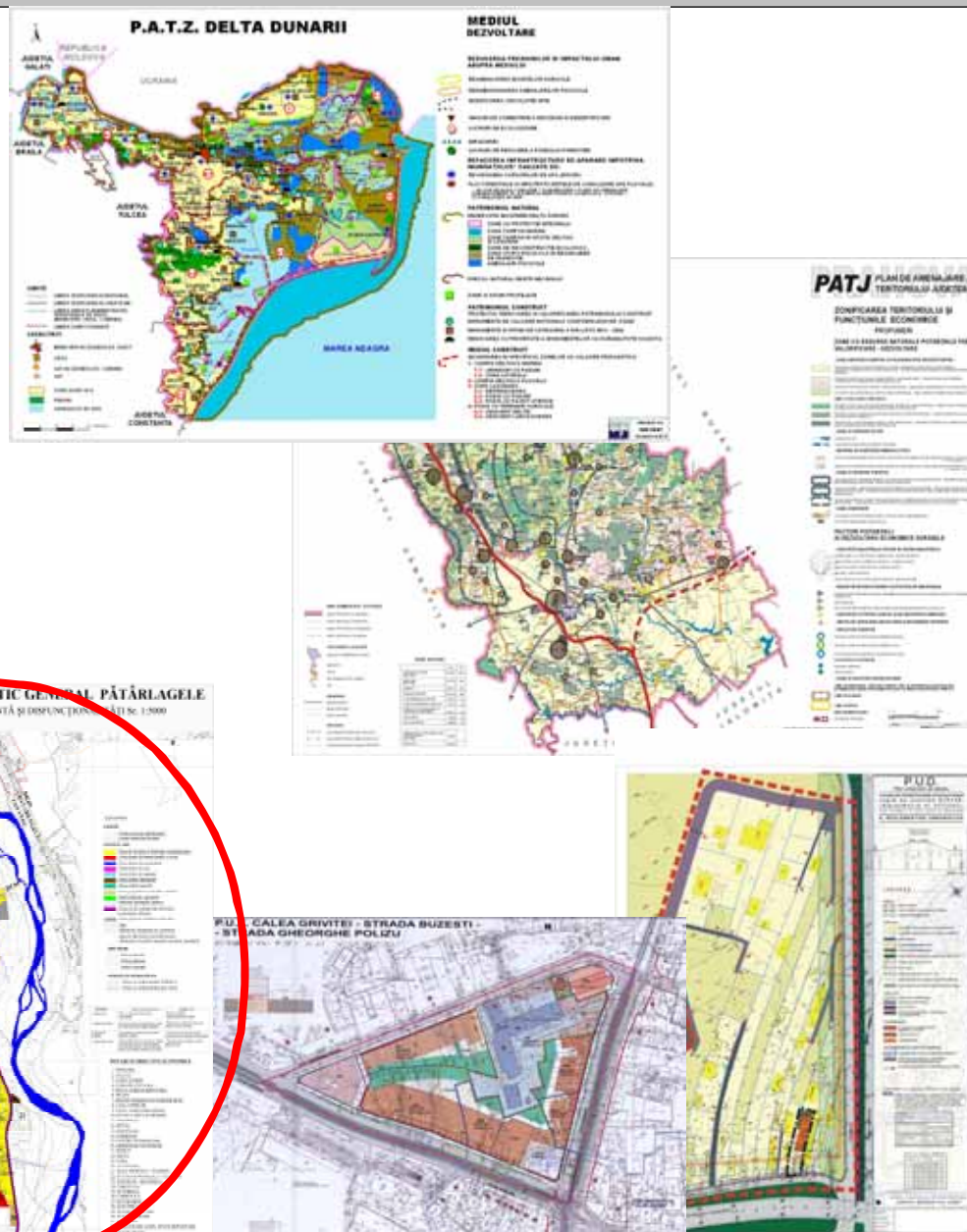
**NUTS 1: MACROREGIONS** (*not used yet*)

**NUTS 2: development regions = PATZR**  
(**Regional Territorial Plan**)

**NUTS 3: County = PATJ** (**County Territorial Plan**)

**NUTS 4: not used**

**NUTS 5: towns/cities, communes**  
**PUG** (**General Urban Plan**),  
**PUZ** (**Zonal Urban Plan**)  
**PUD** (**Detailed Urban Plan**)



**PUG = max. 30 12 2015!**

**Flood hazard/risk:** Ministry of Environment and Climate Change (specific delegate: Romanian Waters Company)

**Earthquake hazard/risk:** Ministry of Regional Development and Public Administration (no specific delegate)

**Landslide hazard/risk:** Ministry of Regional Development and Public Administration (no specific delegate)

**Mandatory insurances:** The Pool of Insurances Against Natural Disasters (PAID)

## National planning: **natural hazards vs. spatial planning/development** - legal regulations

### **PAID:**

- started its activity in September 2009;
- first insurances issued in July 2010;
- mandatory insurance against earthquakes, floods and landslides;
- total number of buildings in Romania = 8.5 mil.
- approx. 100 EUR penalty for its absence; no financial help/aid provided in case of damage;
- two insurances:
  - 10 EUR (10,000 EUR; thermally or chemically un-treated buildings); first benefit payment in October 2011;
  - 20 EUR (20,000 EUR; thermally or chemically treated buildings); first benefit payment in August 2011.

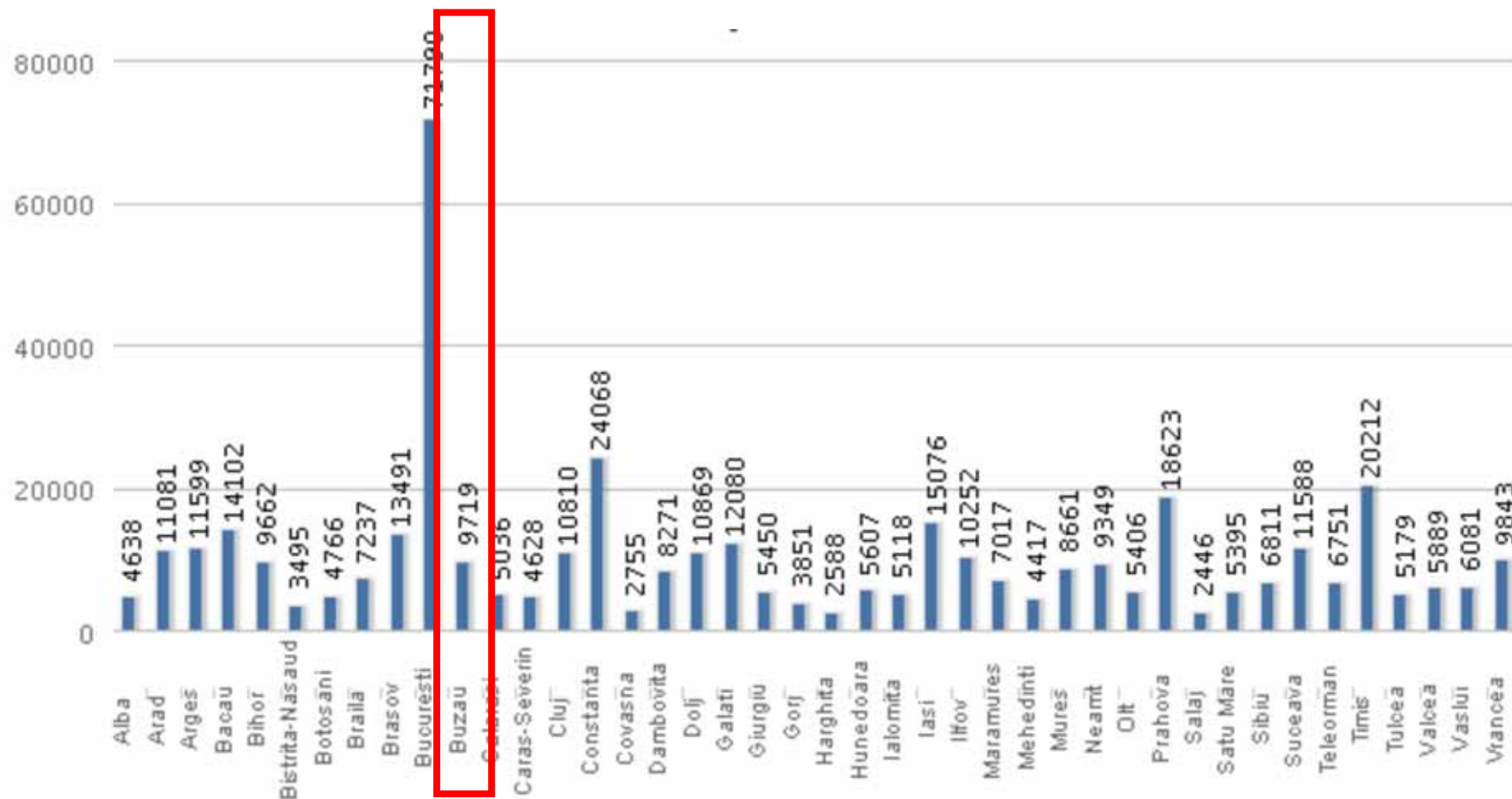






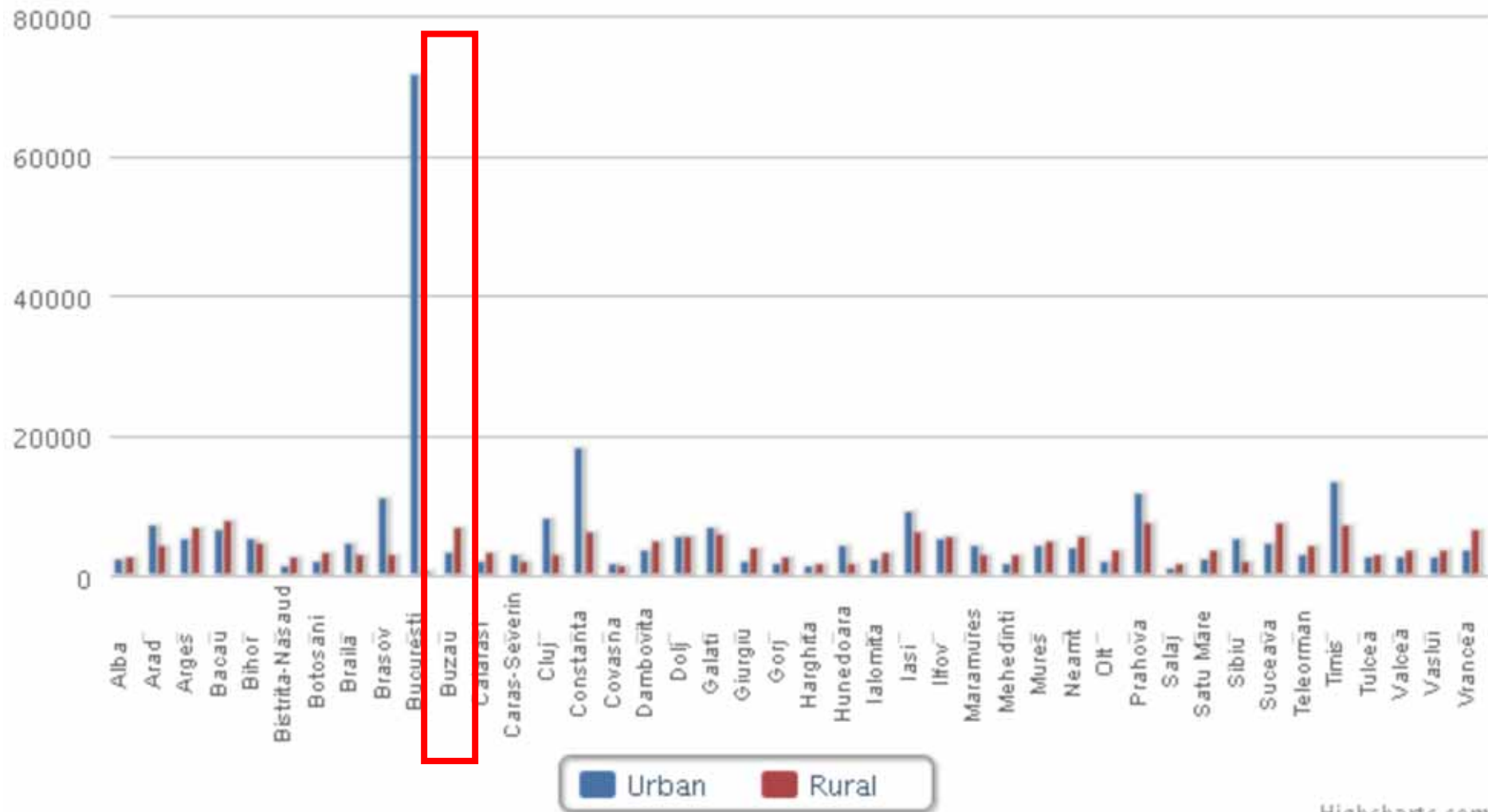
# National planning: **natural hazards vs. spatial planning/development** - legal regulations

Total



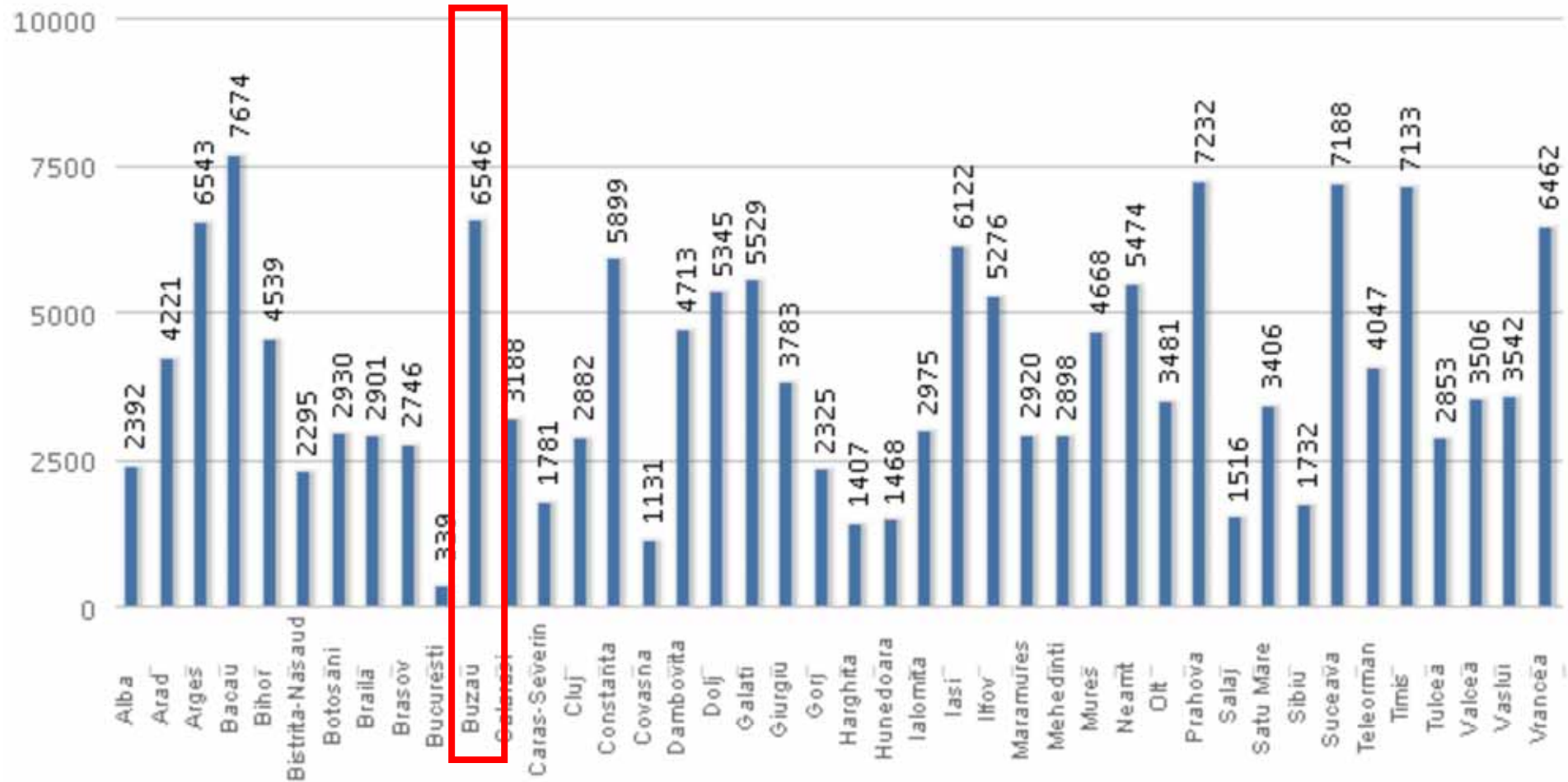
# National planning: **natural hazards vs. spatial planning/development** - legal regulations

## Urban-rural



# National planning: natural hazards vs. spatial planning/development - legal regulations

## Rural

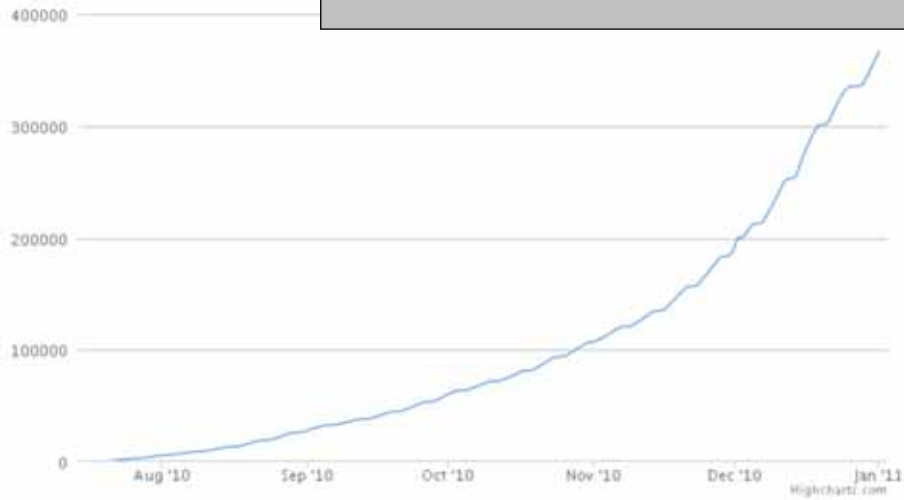




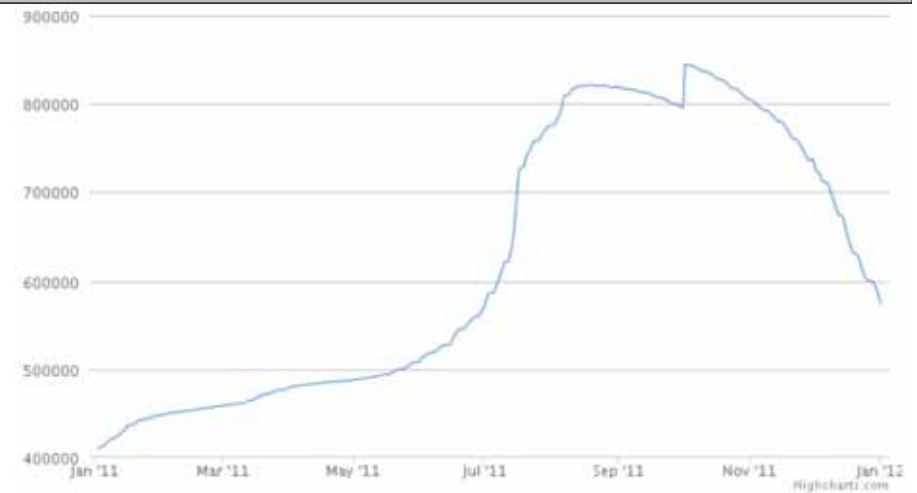
**CHANGES**  
Revised

Changing Hydro-meteorological Risks – as Analyzed by  
a New Generation of Economic Estimates

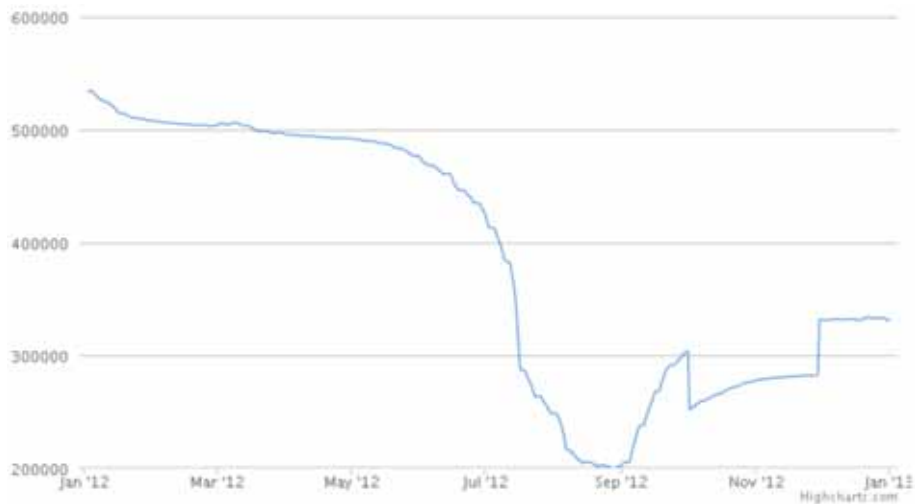
## National planning: **natural hazards vs. spatial planning/development** - legal regulations



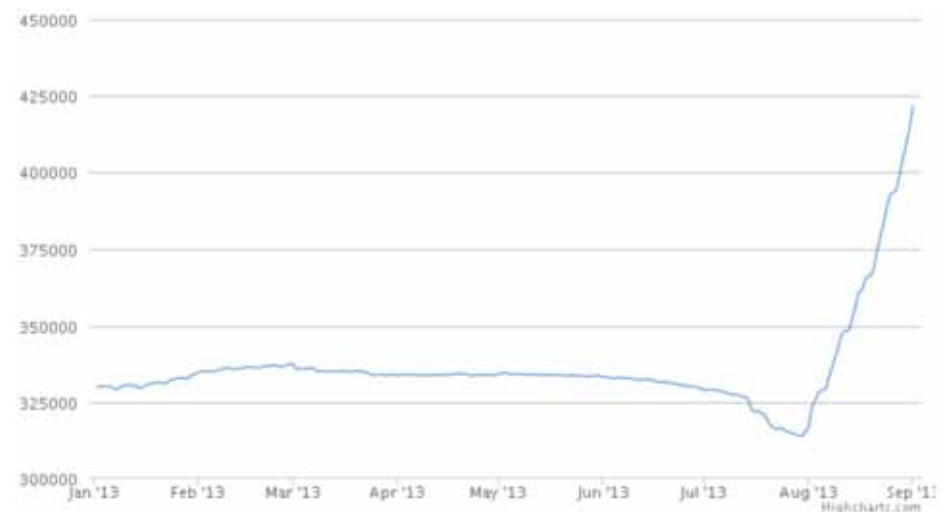
**2010**



**2011**



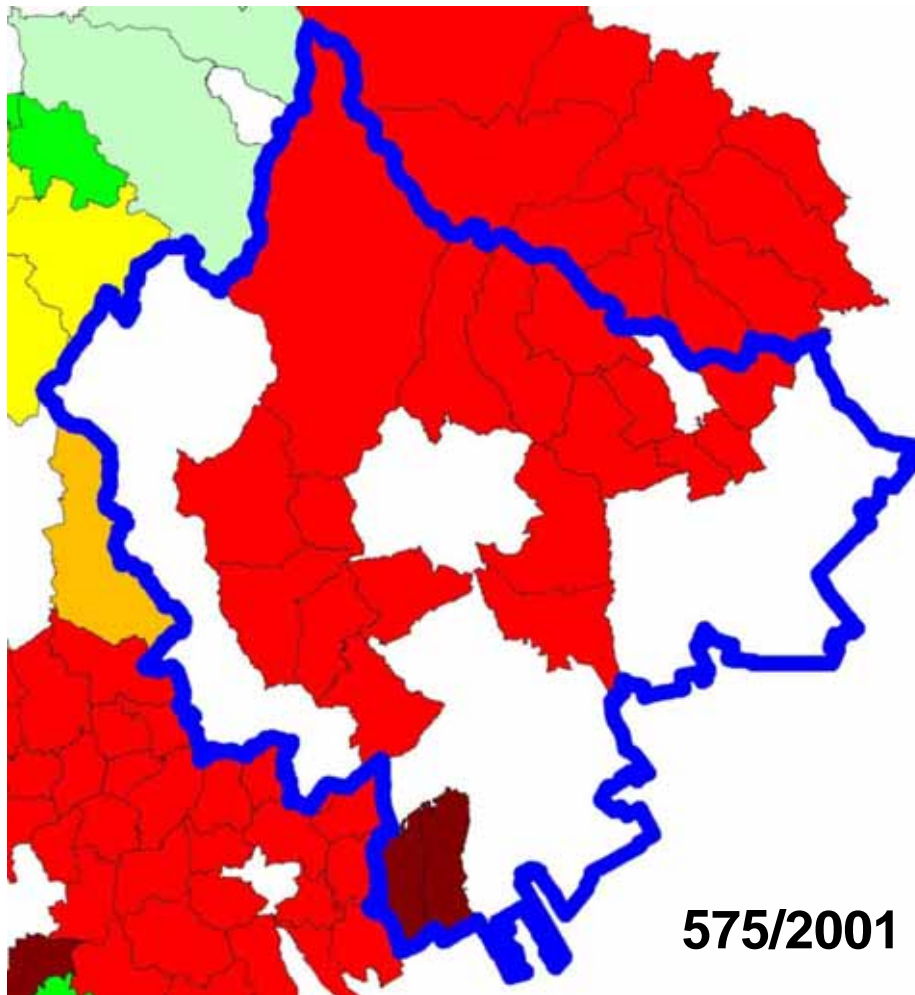
**2012**



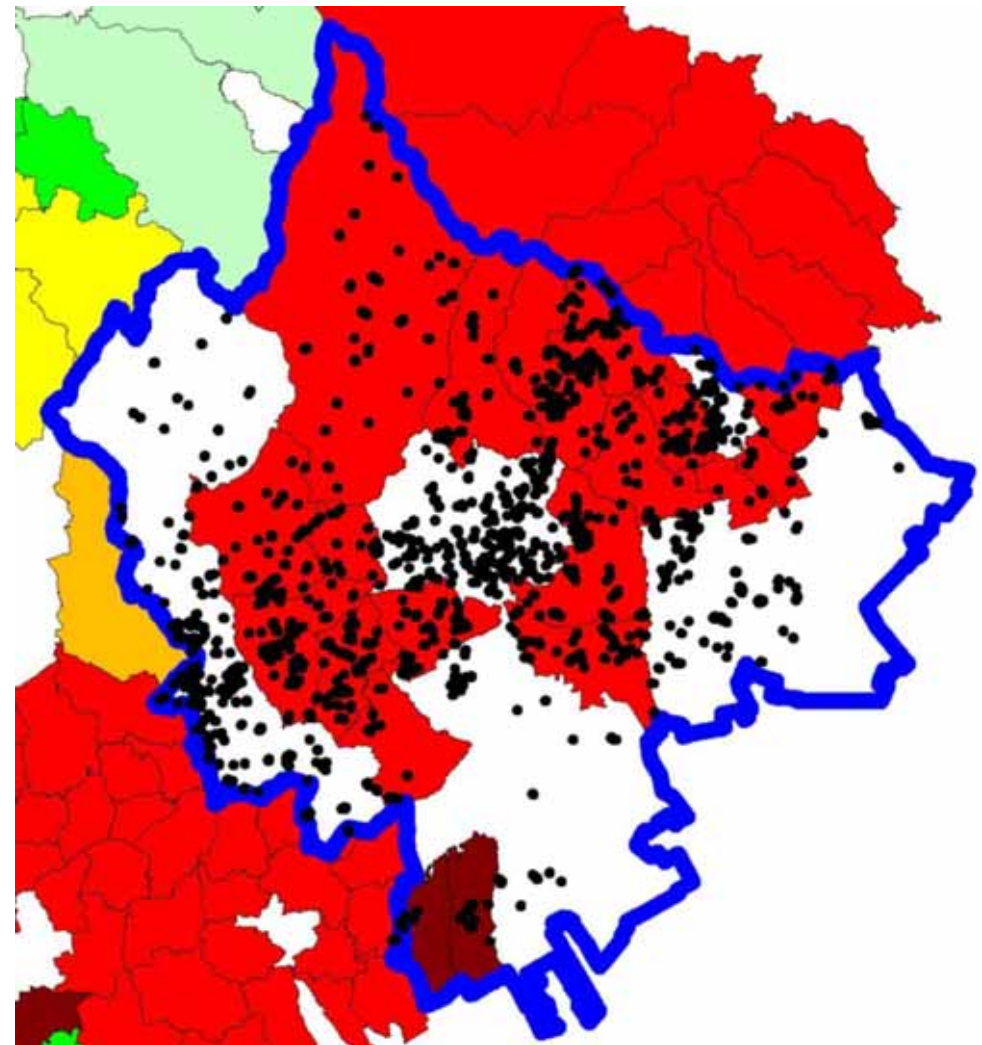
**2013**



## LANDSLIDES



575/2001



# National planning: natural hazards vs. spatial planning/development - legal regulations

$$K_m = (K_a \times K_b) / 6 \times (K_c + K_d + K_e + K_f + K_g + K_h)$$

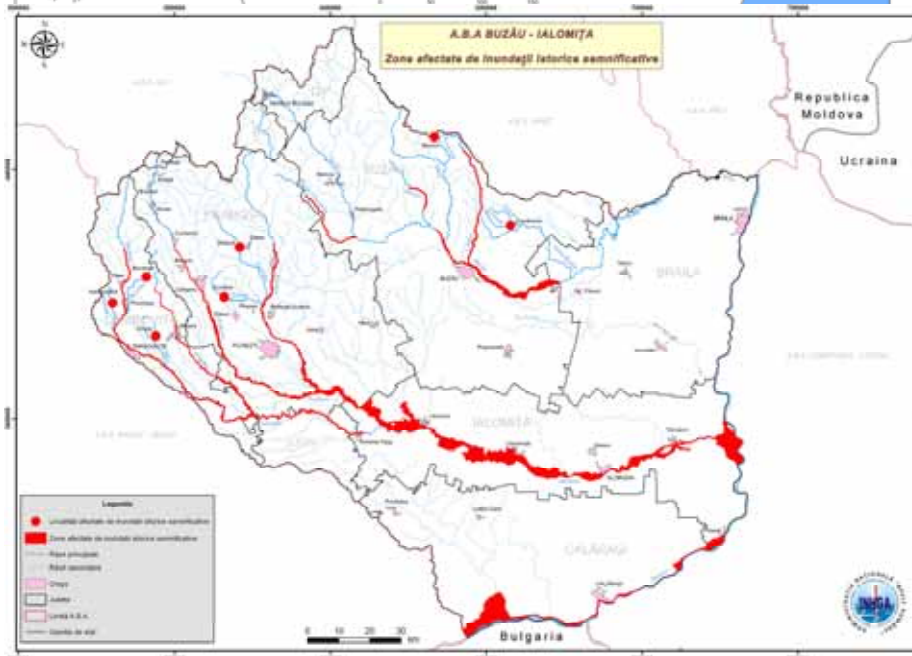
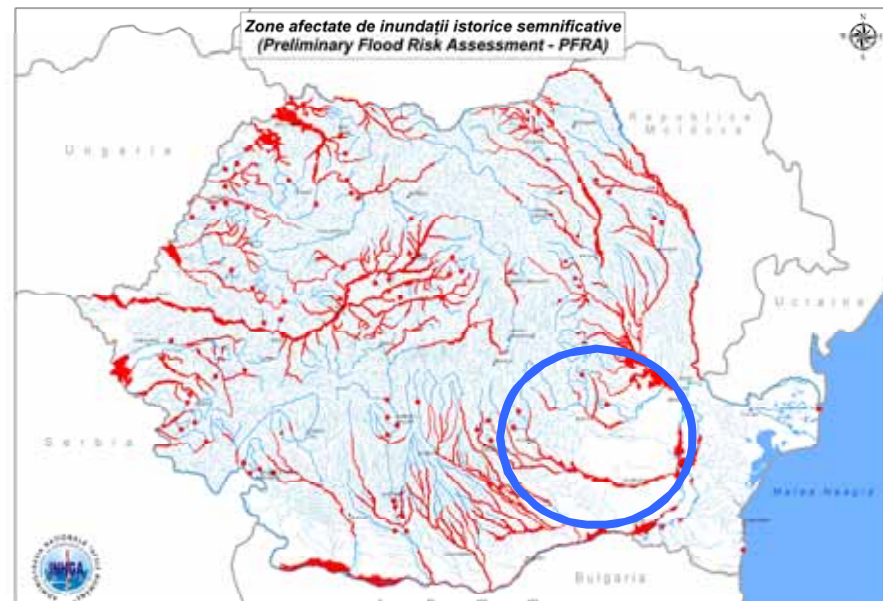
Nr. crt.	Simbolul	Criteriul	Potențialul de producere a alunecărilor (p)					
			scăzut			ridicat		
			Probabilitatea de producere a alunecărilor (P) și coeficientul de risc corespunzător (k)					
			practic 0	scăzut	medie	mare	foarte mare	
0	1	2	3	4	5	6	7	8
1	a	Litologie	Roci stâncoase, masive, compacte sau fisurate, nealterate		Majoritatea rocilor sedimentare care fac parte din formațiunea acoperitoare (deluvii, coluvii și depozite proluviale) și din categoria rocilor semistâncoase (roci pelitice stratificate, cum sunt șisturile argiloase, marnele și mamocalcurele, cretele ș.a., rocile metamorfice, îndeosebi șisturile de epizonă și mai puțin cele de mezozonă, puternic alterate și exfoliate, unele roci de natură magmatică puternic alterate)		Roci sedimentare detritice neconsolidate-necimentite, de tipul argilelor și argilelor grase, saturate, plastic moi – plastic consistente, cu umflături și contracții mari, argile montmorillonitice, puternic expansive, praful și nisipur mici și mijlocii afânate, în stare submersată, breția sării etc.	
2	b	Geomorfologic	Relief plan orizontal afectat de procese de eroziune nesemnificative, văile care constituie rețeaua hidrografică fiind într-un avansat stadiu de maturitate		Relief de tip colinar, caracteristic zonelor piemontane și de podiș, fragmentat de rețele hidrografice cu vai ajunse într-un anumit stadiu de maturitate, mărginite de versanți cu înălțimi medii și înclinați, în general, medii și mari.		Relief caracteristic zonelor de deal și de munte, puternic afectat de o rețea densă de văi tinere cu versanți înalți și puternic înclinați, majoritatea văilor fiind subsecvente (paralele cu direcția stradelor)	
3	c	Structural	Corpuri masive de roci stâncoase de natură magmatică, roci sedimentare stratificate, cu strate în poziție orizontală, roci metamorfice cu suprafețe de șitucitate dispuse în plan orizontal.		Majoritatea structurilor geologice cutate și afectate de clivaj și fisurație, structurile diapire, zonele ce marchează fruntea pânzelor de șariaj.		Structuri geologice caracteristice ariilor geosinclinale în fațes de fliș și formațiunilor de molasă din depresiunile marginale, structuri geologice stratificate, puternic cutate și dislocate, afectate de o rețea densă de clivaj, fisurație și stratificație.	
4	d	Hidrologie și climatic	Zonele în general aride, cu precipitații anuale reduse. Debitele scurse pe albiile râurilor ale căror bazine se extind în zonele de deal și de munte, în general sunt controlate de precipitațiile din aceste zone. Pe albiile râurilor predomină procesele de sedimentare, eroziune producându-se numai lateral în timpul viiturilor.		Cantități moderate de precipitații. Văile principale din rețeaua hidrografică au atins stadiul de maturitate, în timp ce afluenții acestora se află în stadiul de tinerețe. În timpul viiturilor se produc atât eroziuni verticale cât și laterale. Importante transporturi și depuneri de debite solide.		Precipitații lente de lungă durată cu posibilități mari de infiltrare a apei în roci. la ploi intense sunt viteze mari de scurgere cu transport de debite solide. Predomină procesele de eroziune verticală.	
5	e	Hidrogeologic	Curgerea apelor freatice are loc la gradienti hidraulici foarte mici. Forțele de infiltrație sunt neglijabile. Nivelul liber al apei freatice se află la adâncime mare.		Gradienti moderați de curgere a apei freatice. Forțele de filtrație au valori ce pot influența sensibil starea de echilibru a versanților. Nivelul apei freatice se situează în general, la adâncimi mai mici de 5 m.		Curgerea apelor freatice are loc la gradienti hidraulici mari. La baza versanților, uneori și pe versanți apar izvoare. Există o curgere în interiorul versanților către suprafața acestora cu dezvoltarea unor forțe de filtrație ce pot contribui la declanșarea unor alunecări de teren.	
6	f	Seismic	Intensitate seismică pe scara M.K.S. mai mică de gradul 6		Intensitate seismică de gradul 6-7		Intensitate seismică mai mare de gradul 7	
7	g	Silvic	Gradul de acoperire cu vegetație arboricolă mai mare de 80%. Păduri de foioase cu arbori de dimensiuni mari.		Gradul de acoperire cu vegetație arboricolă cuprins între 20-80%. Păduri de foioase și conifere cu arbori de dimensiuni variate.		Gradul de acoperire cu vegetație arboricolă mai mic de 20%.	
8	h	Antropogen	Pe versanți nu sunt executate construcții importante, acumulările de apă lipsesc.		Pe versanți sunt executate o serie de lucrări (platforme de drumuri și cale ferată, canale de coastă, cariere ș.a.) cu extindere limitată și pentru care s-au executat lucrări corespunzătoare de protecție a versanților.		Versanți afectați de o rețea densă de conducte de alimentare cu apă și canalizare, drumuri căi ferate, canale de coastă, cariere, supraîncărcarea acestora în partea superioară cu depozite de haldă, construcții grele ș.a. Lacuri de acumulare care umezesc versanți în partea inferioară.	



# National planning: natural hazards vs. spatial planning/development - legal regulations

## FLOODS

- according to the **Floods Directive**
  - 1<sup>st</sup> step (22 12 2011): historical floods and flooding-prone areas **identification** (Romanian Waters Co.);
  - 2<sup>nd</sup> step (22 12 2013): flood **hazard** (0,1%; 1%; 5%; 10%; Romanian Waters Co.) and **risk** maps (County Council);
  - 3<sup>rd</sup> step (*tba*): flood **management** plans (County Council).



# National planning: natural hazards vs. spatial planning/development - legal regulations

## EARTHQUAKES

Seismic hazard



Building codes



Corner period

Ground acceleration

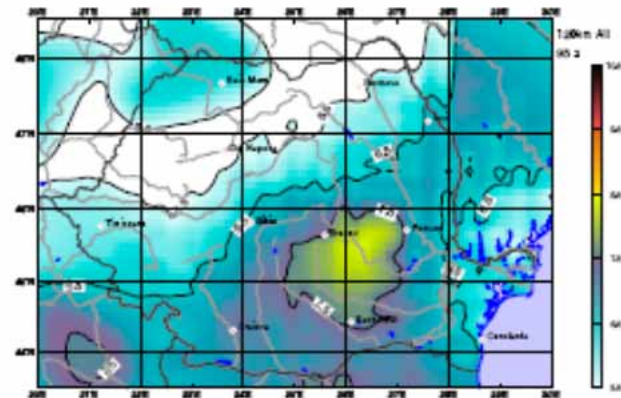


Fig. 8. Seismic hazard from all source zones for a recurrence period of 95 years; colours represent intensities in MSK.

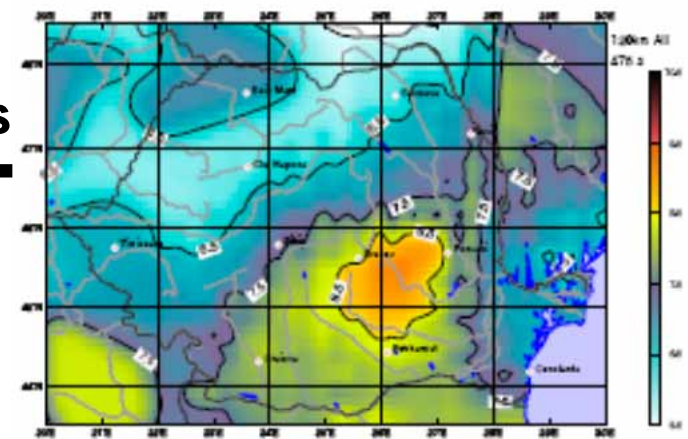
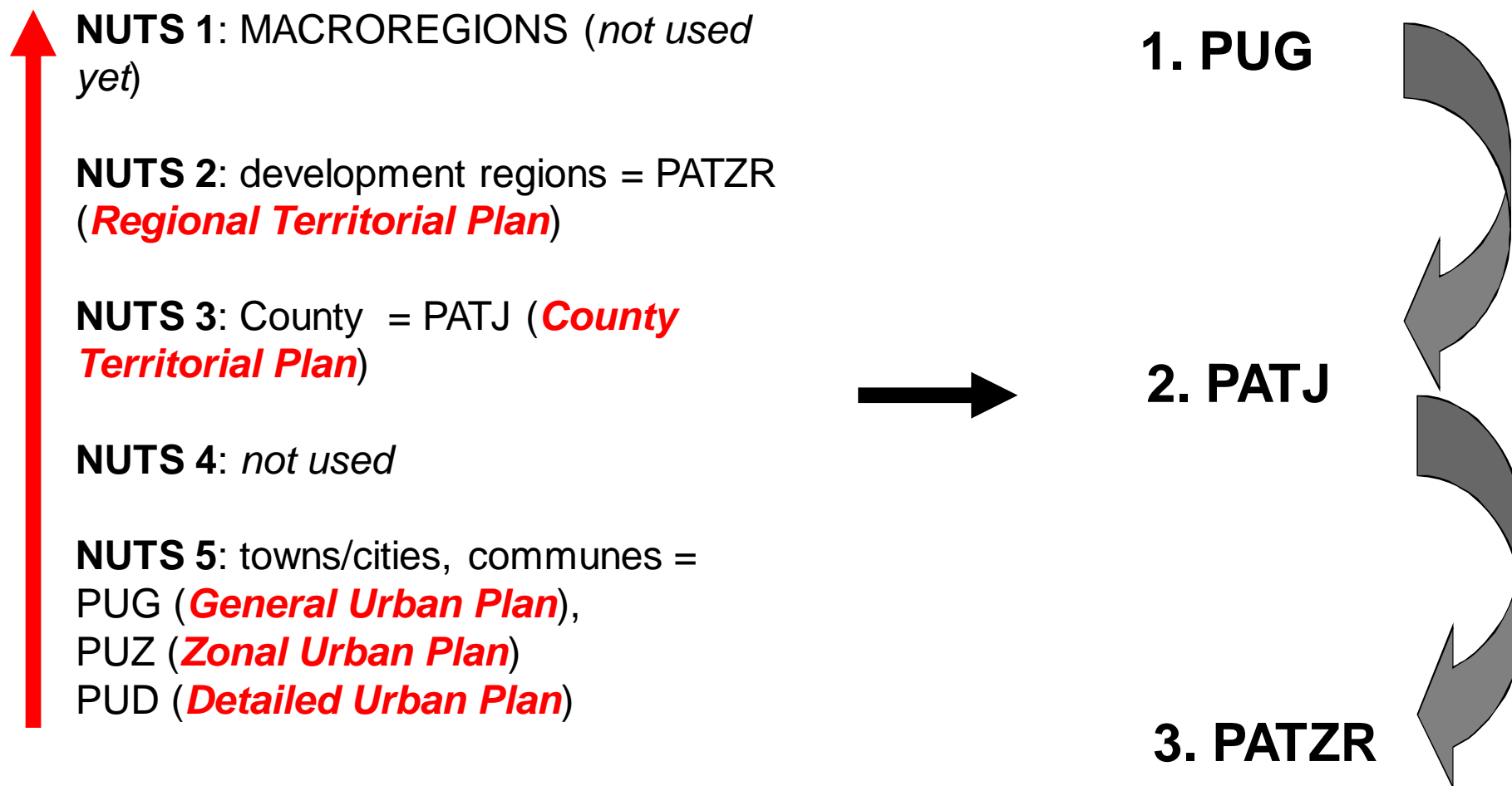


Fig. 7. Seismic hazard from all source zones for a recurrence period of 475 years; colours represent intensities in MSK.



## National planning system: **who makes legally binding plans?**



## National planning system: **who issues building permits?**

### **Generally:**

State Inspectorate for Constructions

### **Specific:**

M.of Transports and Infrastructure,  
M.of Culture,  
M.of Health,  
M.of Environment and Climate Change,  
M.of Agriculture and Rural Development,  
M.of National Defense,  
M.of Administration and Internal Affairs  
Romanian Service of Information,  
Romanian Waters Co.,  
Romanian Civil Aerial Authority.

National planning system: **what institutions are responsible for the content of the plans as regards natural hazards?**

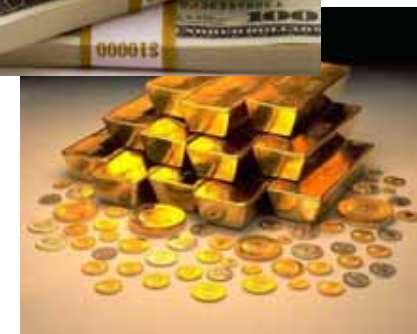
**Flood hazard/risk:** Ministry of Environment and Climate Change (Romanian Waters Co.)/Prefecture, County Council, Local Council

**Earthquake hazard/risk:** Ministry of Regional Development and Public Administration/Prefecture, County Council, Local Council

**Landslide hazard/risk:** Ministry of Regional Development and Public Administration/Prefecture, County Council, Local Council

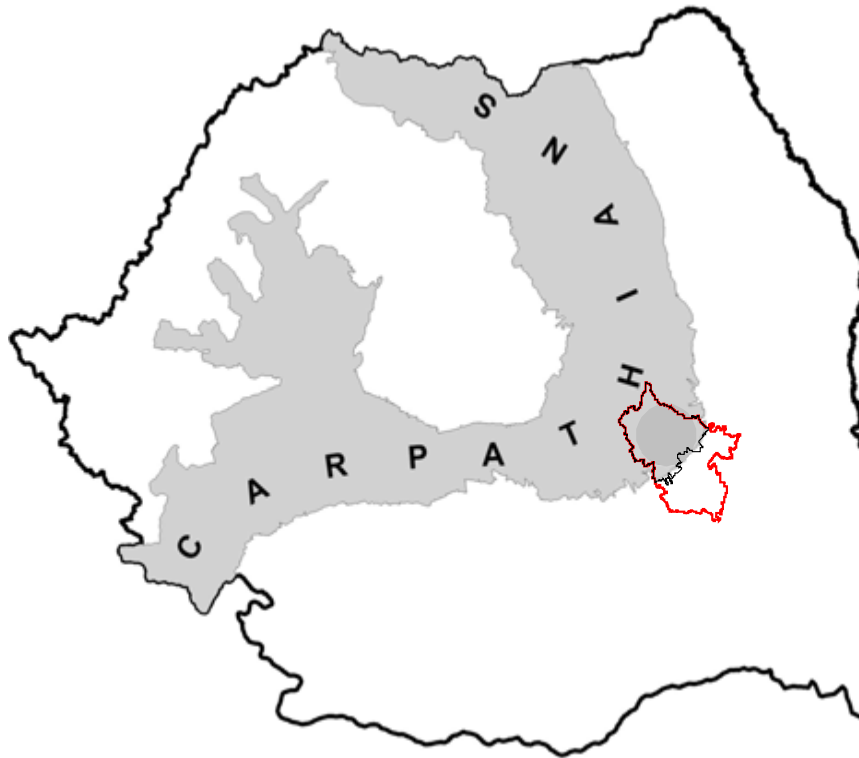
## National planning system: **what extraordinary regulations are in place?**

- In case of **public utility expropriation**: not earlier than 30 days; in max 20 days the owner should contact the authorities for a just remuneration;
- **Abusive construction**: demolished based on Local Council decision, after proving the abuse and getting a legal mandate.





## Local conditions: **administrative divisions**



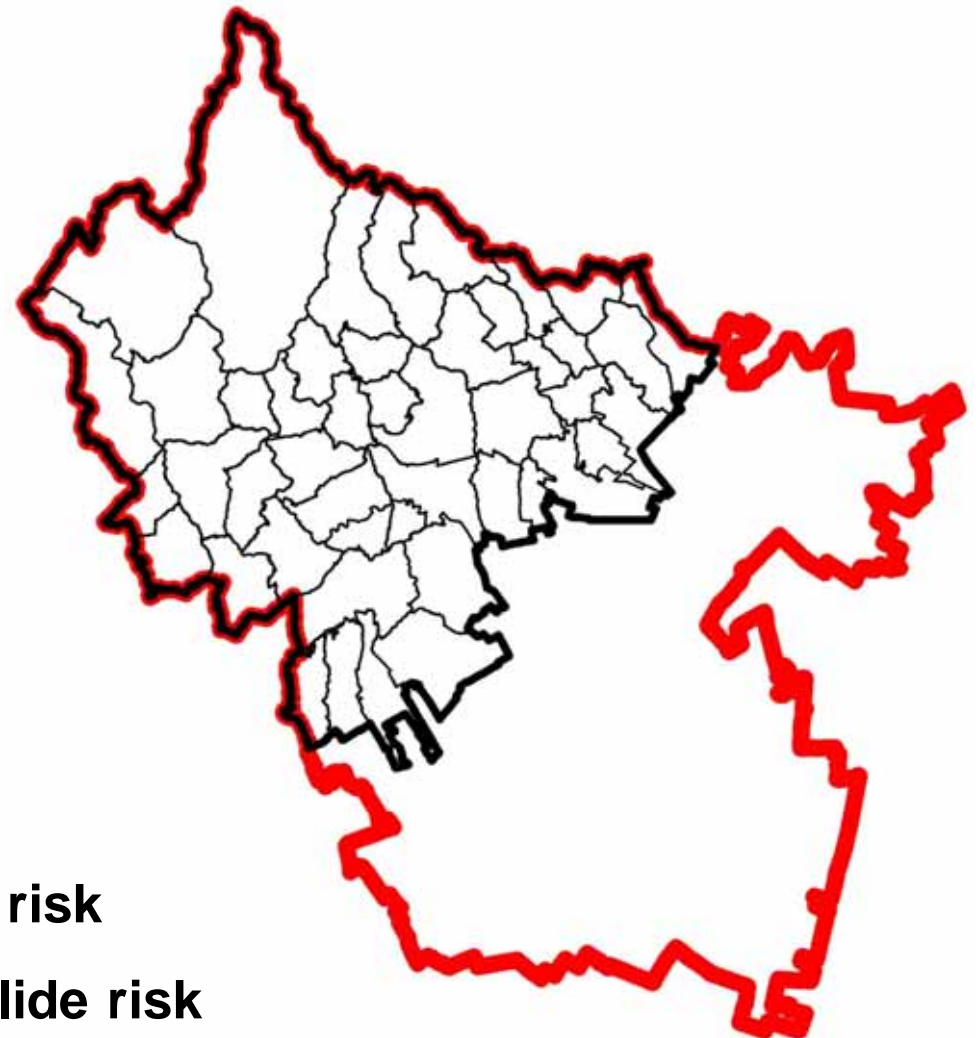
**6100 kmp**

**82 communes (46 in AOI)**

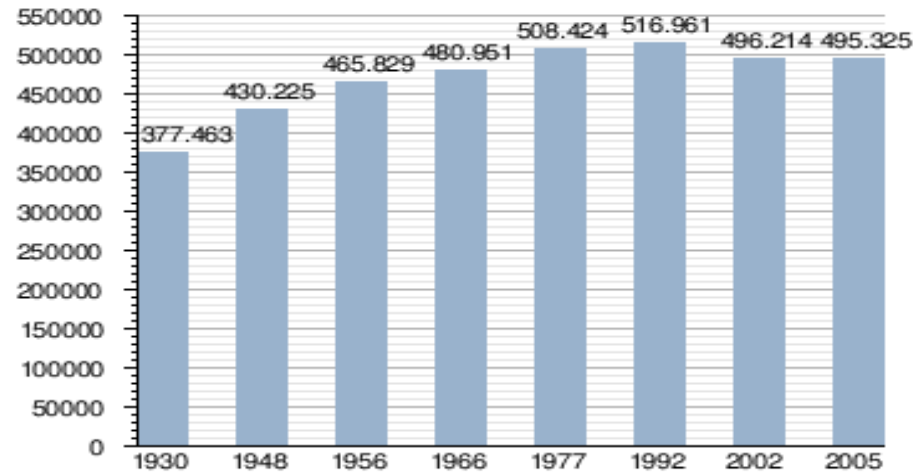
**5 towns (2 in AOI)**

**1 town, 16 communes = high flood risk**

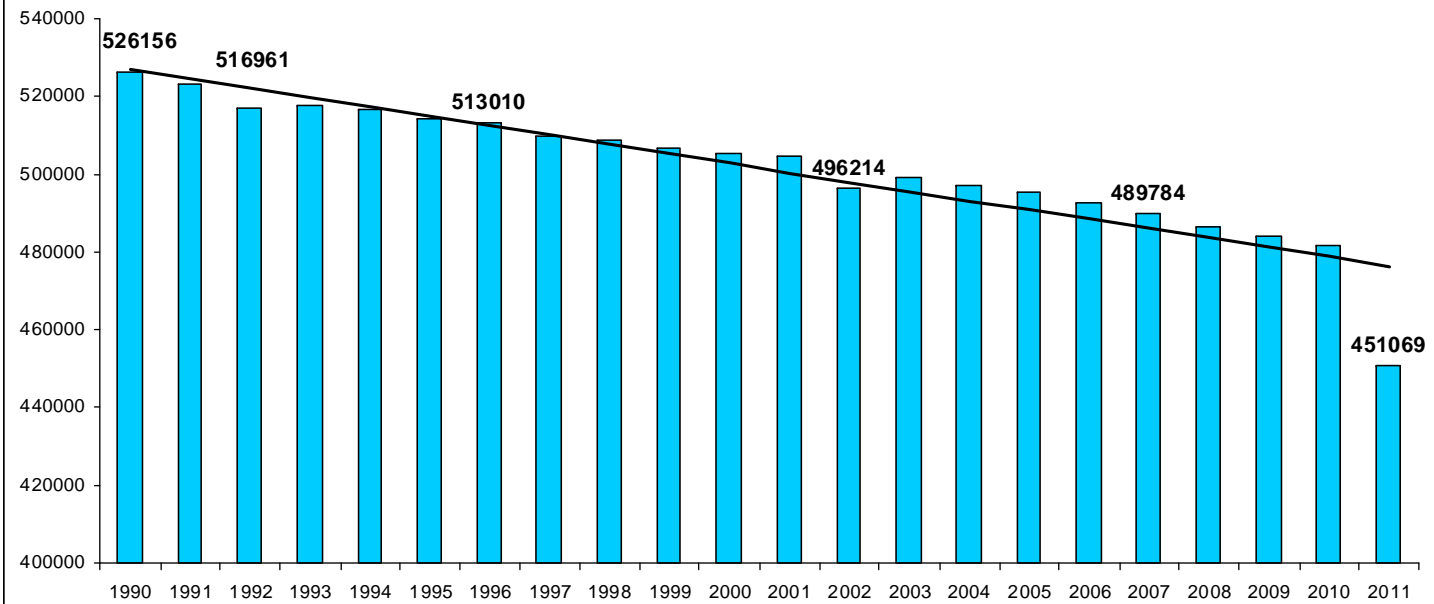
**1 town, 19 communes = high landslide risk**



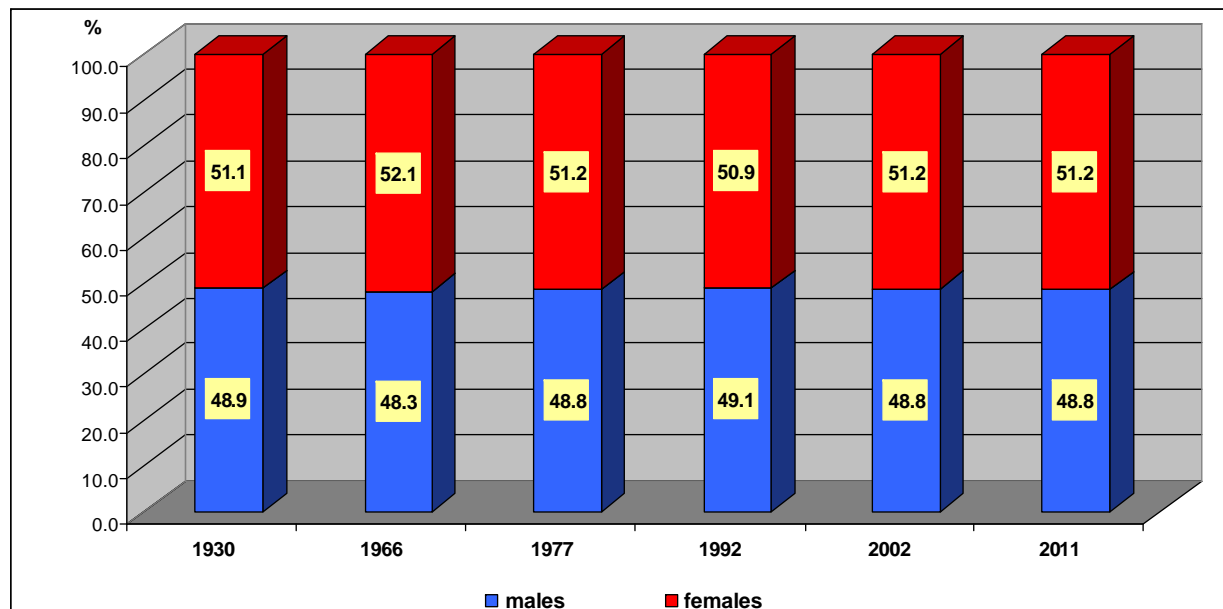
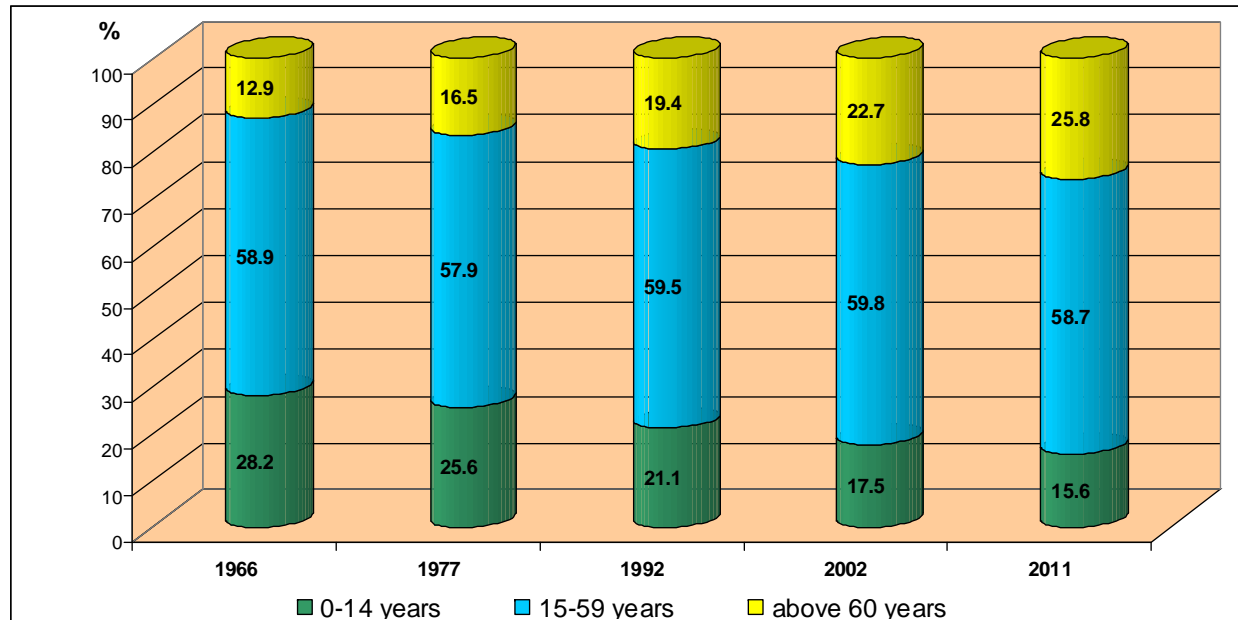
# Local conditions: demographic trends



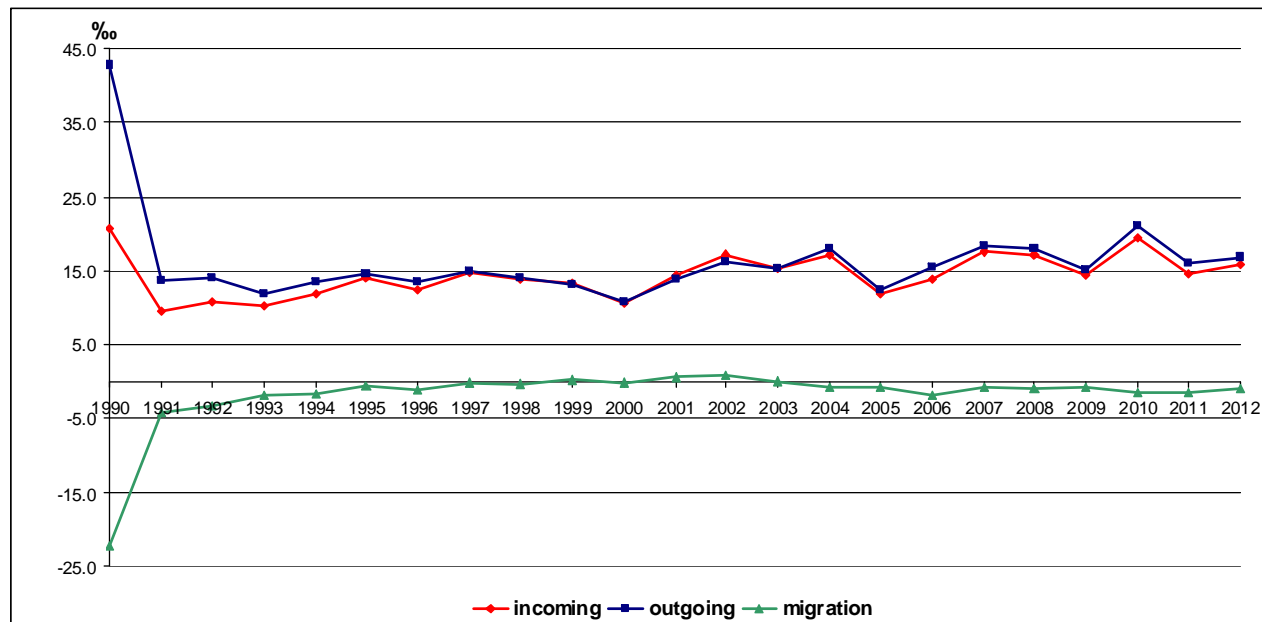
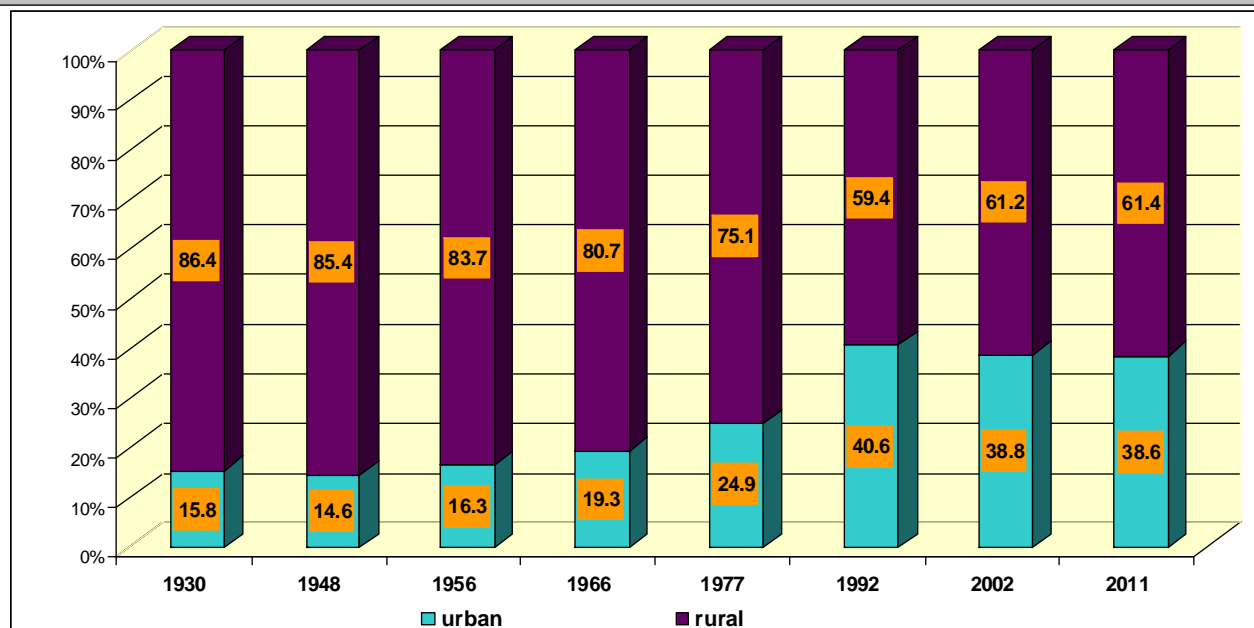
## inhabitants



# Local conditions: demographic trends



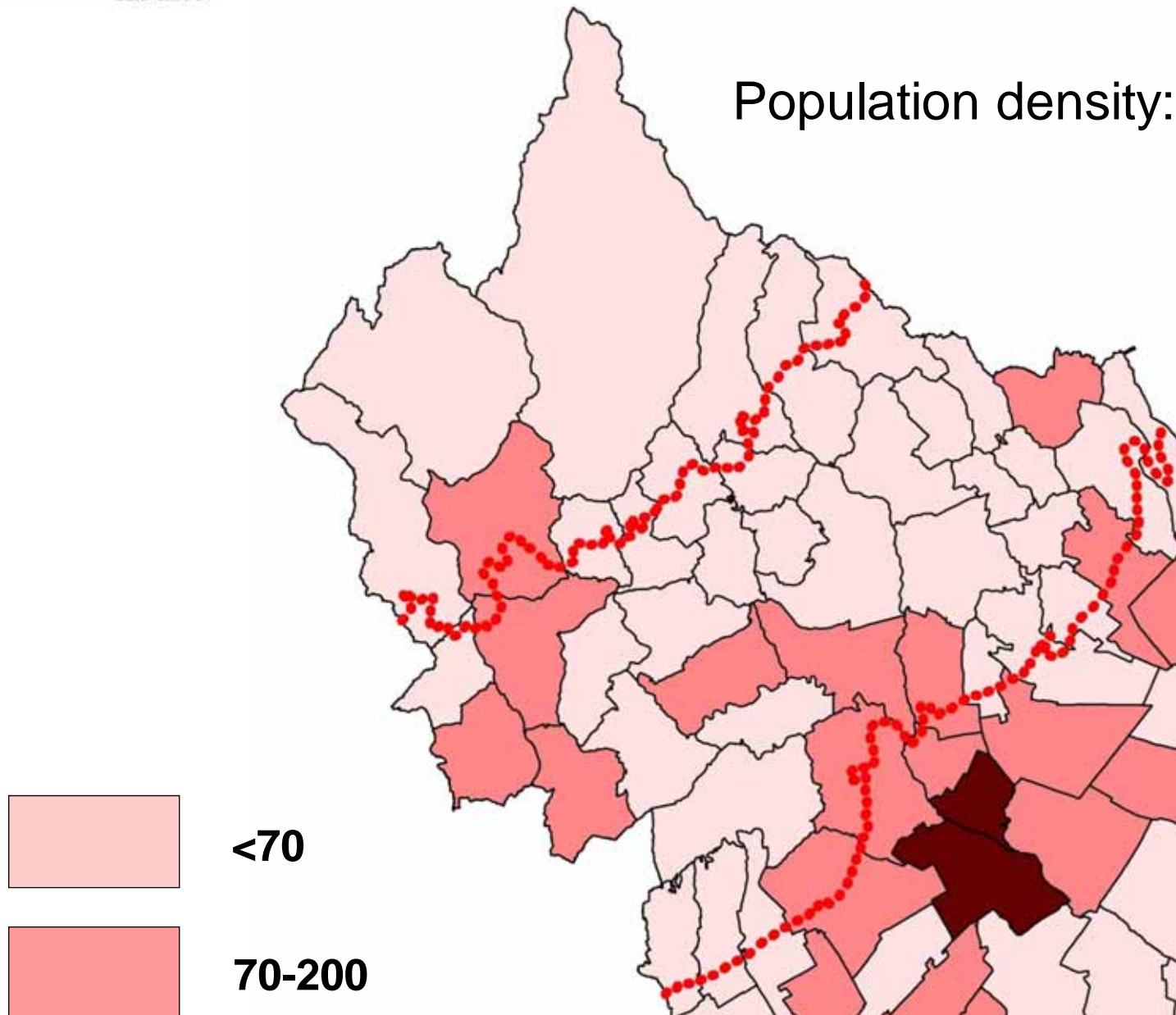
# Local conditions: demographic trends



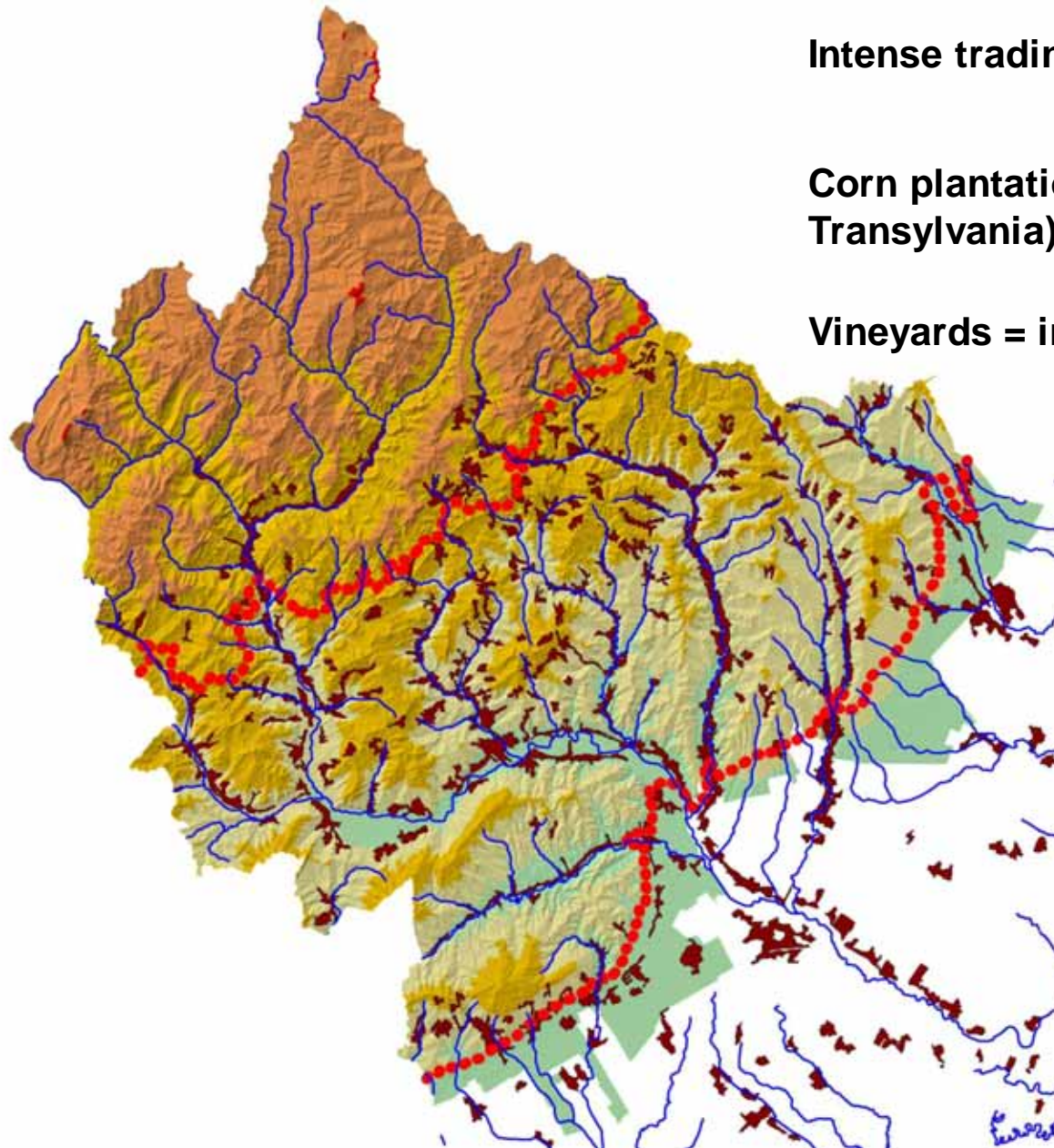


## Local conditions: **demographic trends**

Population density: 70 inh./sqkm



## Local conditions: **settlements structure and development trends**



**Intense trading = urban growth**

**Corn plantations (sec. XVIII, coming from Transylvania)**

**Vineyards = increase due to religion!!!**

**Orchards, vegetables = free of Turkish tribute !!!**

**Since 1829, the Turkish trading monopoly is removed = increase in arable land and large deforestations (3.8 mil.ha till 1939)**

## Local conditions: **settlements structure and development trends**

- Starting with the XIX century – shift towards extensive agriculture (rapid extent of arable land)
- **Agrarian reforms** (1864, 1918-1921) – restrains in feudal/church properties, peasants appropriation (till 1937: 1.4 million appropriations, 69.47% of the entitled peasants, 5.8 mil.ha, 3.77 ha/family average).
- Shift towards intensive agriculture (numerous embankments along the Danube and in the Danube Delta; irrigations)
- In 1949 – change to **communist agriculture** (soviet type)
- State and “collective” property: more than 90% of total agrarian surface, 4187 units in 1989, average surface 3700 ha
- Private property: less than 10% of the total agrarian surface, especially pastures and hayfields in hilly and mountain regions

## Local conditions: **settlements structure and development trends**

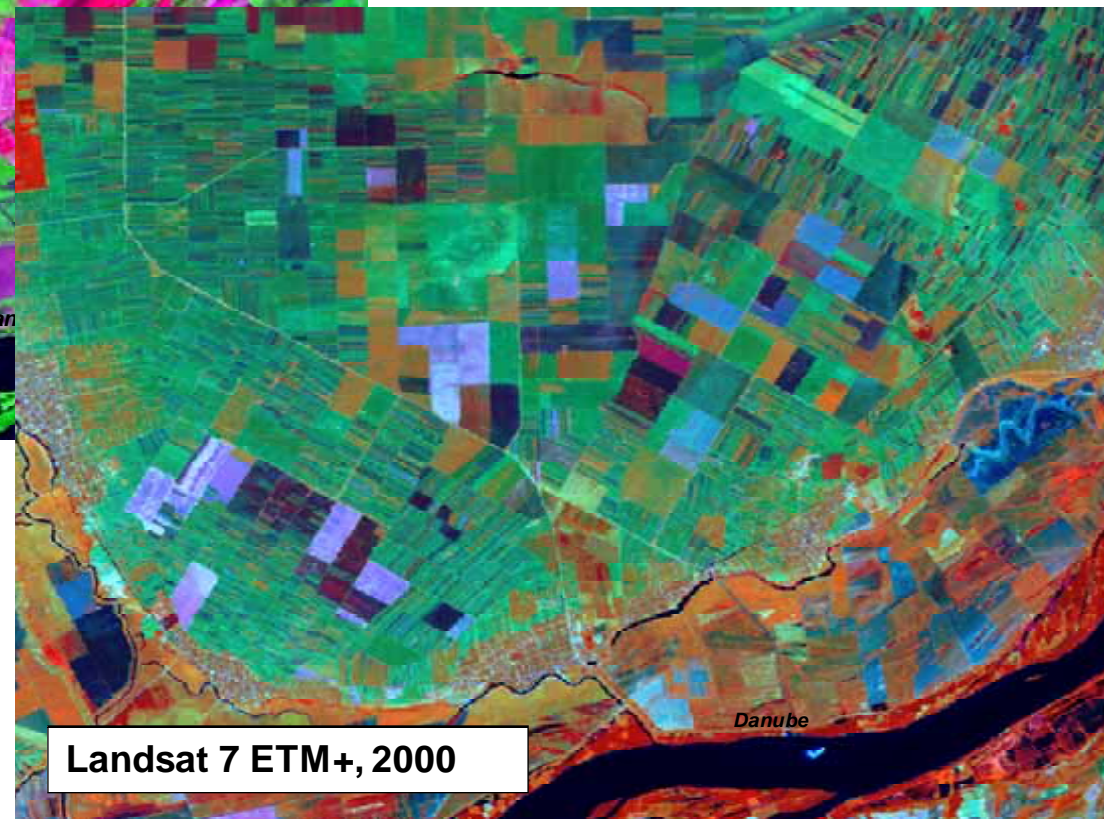
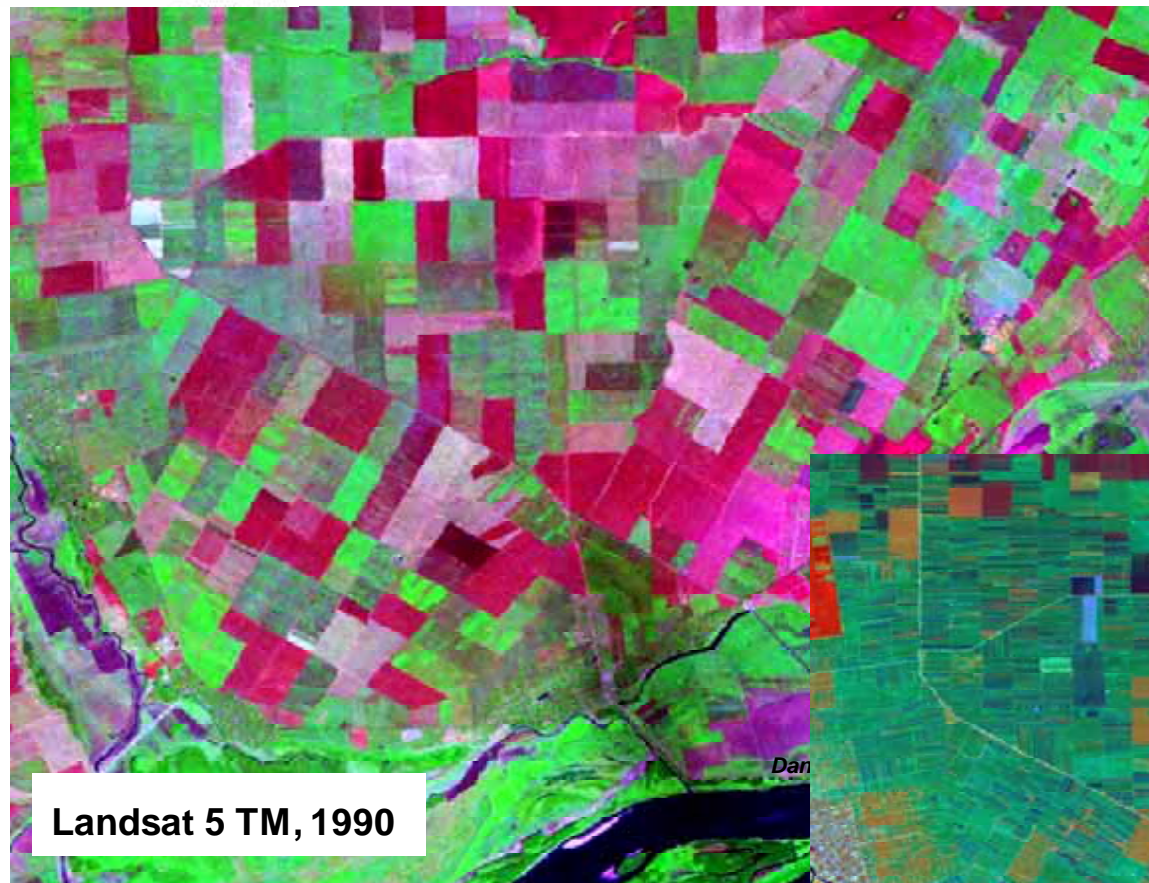
**After 1989...**

	Socialist period		Post – socialist period	
	Collective farms	State farms	Individual farms	Juristic persons units
Number	3,776	411	3,913,651	17,699
Average area (ha)	2,374	5,001	2.29	270.45

- Economy: transition from a socialist system to a free-market one;
- The most important characteristic: extension of private ownership on forests and property fragmentation ;
- Large deforestations;
- Lack of concern for land management works.



## Local conditions: **settlements structure and development trends**

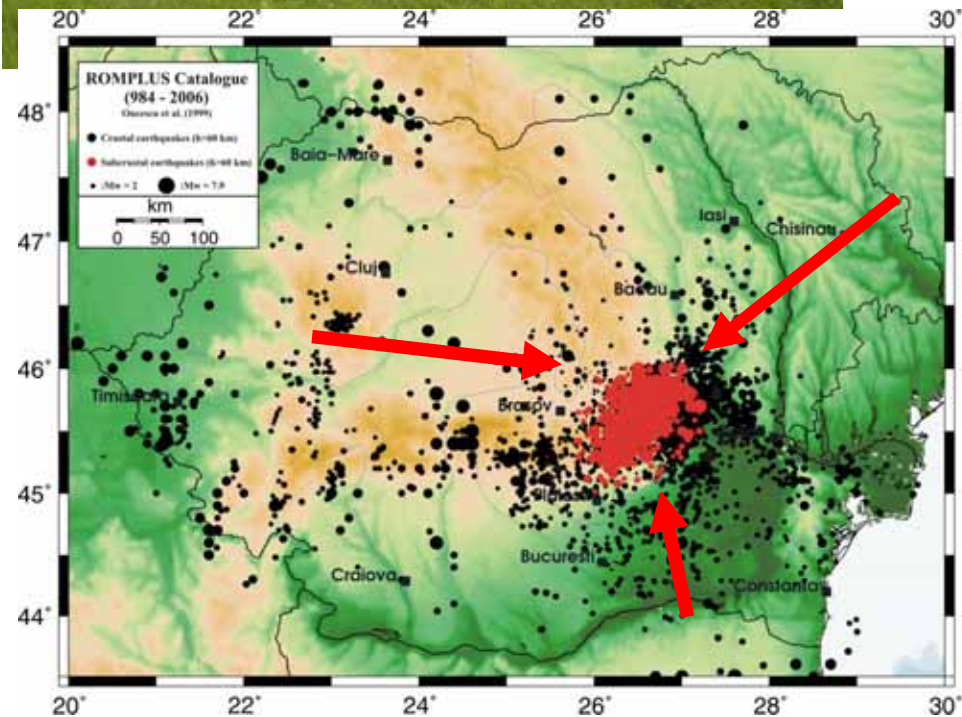




## **2007, EU: CHALLENGES, CONSTRAINS AND OPPORTUNITIES**

- Important changes induced by the Common Agricultural Politics: high standards concerning environmental protection, high quality of feed and products, animal safety and protection;
- Rural development: environmental protection; measurements against depopulation; development of complementary activities; improvement of labor conditions; equal chances;
- Subventions;
- Protected areas.

# Local conditions: natural hazards



# Local conditions: existing planning regulations

### Agenda minister

**Joi, 12 Septembrie 2013**  
 11:30 Vicepremierul Liviu Dragnea coordoneaza comandamentul pentru situatii de urgenta convocat ca urmare a precipitatiilor cazute in ultimele ore in judetul Galati, precum si a prognozei meteo pentru orele urmatoare (Bucuresti, Palatul Victoria)  
 17:00 Viceprim-ministrul Liviu Dragnea, ministrul dezvoltarii regionale si administratiei publice, va semna un acord de parteneriat intre MDRAP si ACoR.

[Vezi toata agenda >](#)

### Multimedia

Galerie Foto  
 Galerie Audio  
 Galerie Video



Joi, 5 Septembrie 2013  
 Primarii de comune vor lucra cu MDRAP la legislatia in domeniu

### Stadiul realizarii Planurilor de Amenajare a Teritoriului Judetean 2010

5	BIHOR	SC Proiect BIHOR SA ORADEA	336/1994	7/25.02.97	Actualizare finalizata - 2009- in curs de avizare la organismele centrale si locale interesate
6	BISTRITA-NASAUD				
7	BOTOSANI	Habitat - Proiect SA Iasi	399/13.12.2000	8/31.01.2001	
8	BRASOV	UAUIM	2/19.02.2004	198/2005	
9	BRAILA	URBANPROIECT			Finalizat - 2009 - in curs de avizare la organismele centrale si locale interesate
10	BUZAU	URBANPROIECT			Finalizat - 2007 - in curs de avizare la organismele centrale si locale interesate
11	CALARASI	S.C. ARTVAD PROIECT GRUP S.R.L. Bucuresti	59826/11.12. 2007	161/19.12.2007	
12	CARAS SEVERIN	SC CASE RESITA SA			Finalizat - 2005 - in curs de avizare la organismele centrale si locale interesate
13	CLUJ	SC.INTERPROIECT SRL Cluj Napoca	180/24.06.1999	57/29.10.1999	
14	CONSTANTA	URBANPROIECT	19/2.05.1996	61/25.10.1996	
15	COVASNA	URBANPROIECT	44/24.12.1997	29/12.10.1998	
16	DAMBOVITA	SC URBANA SA BUCURESTI	30/11.08.1997		

**Landslide hazard map started in 2009, but PATJ finalized in 2007!**



## Local conditions: **natural hazards and spatial development – key problems.**

- Suspicion and lack of dialogue between authorities and scientists;
- Reduced interest in preparedness/prevention actions;
- Lack of funds (at local/commune level);
- Mutual accuses (commune - county) of lack of commitment;
- ISU: management and intervention; lack of personnel during major events;
- Legislation exists, but not always applied;
- Legislation improvement (from European to national);
- Insurances: Buzau = 188,496 buildings (68,068 urban, 120,428 rural) and 9719 insurances (5%);
- Legal method vs. (highly plausible) not reliable map?

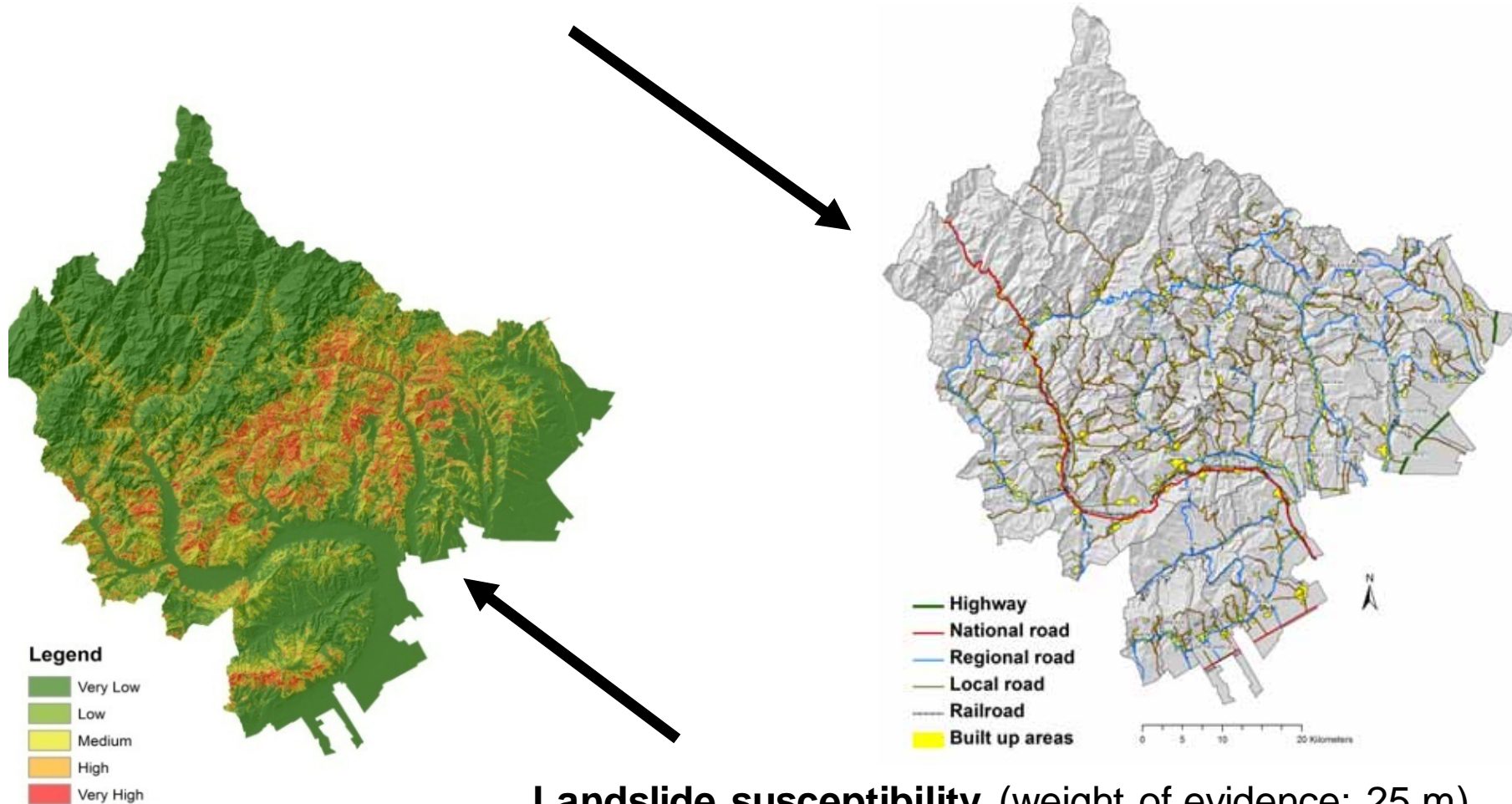
***THANK YOU FOR YOUR ATTENTION!***





# EaR

Data	Source	Format	Description
Transportation infrastructure	Aerial photos, cadastral data	Vector shapefile (line, polygon)	Category, length, width, maintenance state, material of construction
Built-up areas	Land-use map	Vector shapefile (polygon)	Area, number of houses per commune



**Landslide susceptibility** (weight of evidence; 25 m)