ACKNOLEDGEMENT OF NATURAL DISASTERS AS EXTREME PHENOMENA ON A COMMUNITY LEVEL

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Abstract: *In the era of climate change and weather hazard sustainability becomes not just a generous ideea but a sollution to unpredictible events. Having a structured approach, a methodology to analize natural hazards is the first step to provide sollutions and to react better in similar situations. It provides also support to the re-building of the area. The paper aims to present possibe features of a methodology to analise natural hazards taking as an example the floods from 2005 in Timiş County.*

Key words*: methodology, hazard, sustainable development*

INTRODUCTION

The notion of community was defined for the first time by Schleiermacher, at the end of the 18th centrury, as a social entity that is formed thanks to a special connection between its members, a connection rich in feelings and maintained by a common purpose. The base of the community regards thus, on a relational dimmension which is at the same time a moral one and which, in this sense, opposes, making its definition even more clear, to another social entity - society - founded only on the reasons of the social contract and in which the members do not have a common purpose. [1]

MATERIALS AND METHODS

The set of sustainable development strategies underlines the interdependence between local and global, developed countries and those in the process of it, emphasising thus the necessity of a cooperation in and between the economic, social and environmental sectors. In other words, sustainable development means "thinking globally and acting locally".

In the context of this vision, evidently the sustainable development can be eased through the local communities' development, especially of those affected by deep economical, socio- infrastructural disparities, disparities etc. In this sense, this approach focuses on the actual activity in the romanian rural space, usinf a series of border discipline, both theoretical and of group intervention and activation.

The community's development is a complex process to which a series of diverse actors have to participate to: the local public administration, small and medium firms, non-profit organizations and also the members of the community. The process, in its entirety, is a complex one and the actors that are involed in it must pay attention, must take into consideration all the aspects for the final aim, the growth of the level of living conditions, to be reached on all the involved segments.

The community development represents the voluntary change realised in, through and for the members of a community.[2]

The final aim of a community's develpment, regardless of its core problem, is the formation of the several local capacities and the local organization such as the community gains the power to identify, analyse and solve its problems without any intervention from the outside. [3]

The common sense represents an acknoledgement of reality, is the result of each man's contact with the surrounding reality, in the name of his capacity of reflecting it, but in a subjective way.

The common knowledge reffers to those beliefs, facts, explanations, interpretations etc. obtained spontaneously, without a sistematic research, and the usage of scientifical methods, but instead based on unmediated practical activities, of familiar contexts (family, close friends, work place etc.) .[4]

We can conclude, thus, that at the antipode of the scientifical knowing, the common knowledge, especially in its stages before the begginning of scientification of the "common sense", has features such as: intuitivity, spontaneity, sincretism, subjectivism etc.

In the conditions in which the natural calamities, the natural disasters, the accidental events become even more frequent, and their consequences more complex and severe, more and more institution from other countries and from our contry, research over the causes and the efects of natural calamities, natural disasters and accidental events.

The natural calamities of large proportions mark, for long periods, the psychic and the social state of the community from the affected areas.

The effects can be direct, on the psycho-social state, the phisical state, but also indirect, reflected through the destruction of the material values on which their very existence is based. Some effects can be aimed at the environment, which is a basic factor fot the well-being of the human beings or can, in geomorphological hazards, to destroy vital spaces, homes, localities and even more. Some natural events can induce climatic changes, more abundent rains with catastrophal floods or long periods of drought, influencing in a negative way the social state of the population.

Through the growth in their frequency in the same geographical space, the panic phenomenon is growing, weakening the lack of concentration for the research of the causes and the descovery of the methods of rescue, prevention of decreasing the damages. In this sens, the natural disasters or hazards management, may lead through its action also a series of debates, conferences and symposiums regarding people's behaviour in such situations.

In this sense, this study tries to organize the data from the literature of speciality, regarding the definition of the notion of "natural calamity", the description of different types of natural calamity, their criterium of classification, their dynamics and the variety of consequences.

Given the variety of consequences for the natural calamity, in our coutry, this article approaches especially the situations with high frequency and more important through their consequences for the population of our contry (floods, earthquakes), but also the measures that are needed for preventing or decreasing the social effects on the affected communities.

Consulting the specialty literature, from our country and from abroad, we can learn that there still isn't a unitary approach of the used typology or the terminology. Some notions are in the process of being defined and appreciated from a qualitative and quantitative point of view. It is obvious that the approaches are different, varying from field to field and speciality to speciality: sociologists try to follow the social impact of calamities, the engineers try to transfer and explain the notions in mathematical

expressions and probabilistic models, biologists and ecologists aim primarily the effects of such events on people and their relation with the environment, medical doctors analise the phenomenon through the damages brought to the humans, as far as their phisical and mental health are concerned.

The accidental calamity quality implies the temporal factor, meaning that it takes place rarely, unexpectedly and over a short period of time. From this point of view, some of the phenomena just presented can be generated by cronical and dynamical causes, respectively the consequences of the phenomenon can be spead over a long period of time.

We can notice that we can talk about *serial accidental calamities*, linked by causality factors, or just arbitrary.

A natural acccidental calamity can induce another natural calamity or favour antropicly another accidental calamity. Surely, in this cases, the accumulation of the effects may occur, and two or three accidental events of medium level can determine a human or environmental catastrophe, on a local or regional level.

In the case of technological risks that involve chemical pollution, the risk categories have been stated by the Directiva Seveso II (2003), completed with the Directiva Seveso III (2005).

The quantitative analysis of the chemical risk is though a complicated process, escpecially in CPQRA (Chemical Process Quantitative Risc Analysis), and several stages are distinguishable:

- system's description;
- hazard's identification;
- incident's ennumeration;
- selection;
- model construction;
- consequences assessment;
- case studies;
- risk assessment;
- usage of risk approximation in strategy revision;
- project's retirement;
- closing of operations;

Such classifications have been made in other categories of calamities also, using specific quantitative and qualitative parameters: intentisity and magnitude of earthquakes, spatial ampleness, size of material damage, number of human victims and victims of disasters, ampleness of the affected population's migration.

In hazard, crysis and disaster management, an important aspect is the information had of this type of causes, risks and effects that is necessary for taking adequate measures of preventing, fighting against and limitation, on different levels[5,6].

RESEARCH RESULTS

In a general sense, the accidental calamities can be classified over several criteria: natural accidental events, antropic accidental events and mixt accidental events (Tabel 1).

Classification of accidental events from the point of view of causality and impact over the environment and their ampleness

Causality's point of view		
Evenimente accidentale naturale provocate de factori naturali	***Endogenous*** –drawn by natural factors generated from the inside of the planet.	
	Exogenous- caused by natural factors that act on the surface of the Earth, including the cosmic ones.	*Geomorphological* –those affecting the relief (rock falls, collapses, cavings, surface errosions, mud leaks and debris).
		Climatic – modified by the climatic factors such as the rain-fall behaviour, temperature, winds (dryness, desertification, blizzard, hoarfrost, glaze, fog, lightning, thunder, heavy rains, torados).
		Hidrologice –regarding the dynamics of the water of Earth, it being influenced by precipitations and many other factors (floods, high waters, storm waves)
		Biologice –generated by biological unexpected activities (out breakes, grasshoppers invasion, migration of some animals)
Antropic accidental events, caused by people and their simple presence, or their activities and the result of those activities	*Technological accidents* –regarding damages, disturbances, improper use of technology in different branches (technological fires, explosions, toxic waste leaks)	
	Nuclear – specifically involve radioactive elements and accidental discharge of alfa, beta and gamma radiations, with their well-known consequences.	
	Transportation –caused while transport by air, water of land (explosions, collisions, train derailment, bridge breakings, road breakings, road accidents while carrying or not toxic substances).	
	Social –involve interhuman relations between big or small groups of people (demonstrations, strikes, riots, massive unexpected migrations).	
	Millitary -involve conflictual relations on a national, continental or global level (accidental explosions of bombs, grenades, cannon shots, mines or petards).	
	Chemical – due to several causes: chemicals loss, improper management of chemical, technological disasters, sabotages or terrorist attacks, explosions or accidents at chemical factories or depots.	
Mixt accidental events	To these accidental events contribute also, in different proportions, both natural factors as well as the antropic ones (floods drawn by dam breakings in case of high waters, polluting discharge by dam breakings of decantation ponds on an aggravating climatic background, snow breaks) Mixt accidental events = natural accidental events + antropic accidental events	

From an environmental point of view That comprises: effects duration, ampleness of negative modifications, instability and disorder level, possibilities of recovery)	**From the extention and broadening of the affected area's point of view**
With an insignificant impact - (endogenous and geomorphological)	With insignificant extent
With small impact - (climatic and hidrological)	With local extent
With medium impact - (biological and technological accidents)	With regional and national extent
With an impact drawn by ecological crysis - (nuclear, transportation)	With continental extent
With an impact that determines ecological and human disasters - (social, millitary, chemical, accidental mixt events)	With global extent

CONCLUSIONS

Thus, the community's development, as a process publicly assumed by the social actors and made through internal resources is an strongly connected approach to the concept of sustainable development.

The strategy is but an instrument that allows decision making at a certain moment based on previous evaluations that have a justifying feature are situated in the limits of a strategic vision.

Crysis situation while its manifestation need fast actions and reaction on behalf of the qualified institutions. The process of crysis handling, involved organisation, communication, solutions and actions, all of these being organisational processes.

One of the major functions of an organisation's board regards the development of a formal structure that would ease the integration and coordination of all available resources (human and technical) in order to efficiently reach the organisation's objectives.

REFERENCES

1. S. MOSCOVICI; F. BUSCHINI, 2007, Socio-human sciences methodology, Ed. Polirom, Iaşi, p.21

2. **D SANDU**, (2005), Community development- practical research, ideology, Polirom p.26

3. CATRINEL GRIGOROVICI (BOLDOR), (2006*),* Community development - between theory and practice: case study on a rural community of Transylvania, Babes-Bolyai University, p. 6

4. **H.CULEA**, 1976, Sociologic knowledge, Ed. Academiei, Bucureşti p.22

5. POPESCU, Gh., DOBRE, B., (2000), Civil protection and disaster management, Ed. Fundației România de mâine, Bucureşti

6. Banat Water Administration – data regarding the characteristics of flood in April - May 2005 period, Banat Water Administration's database

7. **T. PITULAC**, 2009, Community's sociology, Ed. Institutul European, Iaşi, p.50