

EFFECTS OF A FLOOD HAZARD ON SOCIAL AND ECONOMIC LIFE OF RURAL INHABITANTS

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Abstract. Climate changes, resulting in occurrence of extreme natural phenomena that do not bypass our country and continent, are the background of the research. In Poland, the areas most endangered with floods are located in the southern part of the country. The subject of author's research is flood hazard and its effect on the strength of social bonds and community actions undertaken by rural inhabitants (communes Gnojnik, Skarbimierz, and Sławatycze). These are the inhabitants living within the flooded areas, both people directly affected by the flood and also their neighbors who provided help. In the examined period (2008–2011), the selected communes experienced floods at least twice, with the assumption that not all the respondents were affected by it. The main research method used in the study was systematic comparison. Despite of the existing flood hazard, the respondents feel secure in their place of residence and do not wish to relocate; they are deeply bounded with it, first of all because of their families and close friends who also live there; They appreciate people whom they can trust. The majority of the respondents from all communes declared their positive attitude towards strangers. The respondents from the examined communes exhibited particularly large trust towards their commune leaders.

Key words: social ties, flood threats

INTRODUCTION

Hazardous situations, risks and disasters are an inseparable element of social life, regardless of a given community's geographical location and the prevailing social and economic conditions. The subject of author's research is flood hazard and its effect on the strength of social bonds and community actions undertaken by rural inhabitants. Climate changes, resulting in occurrence of extreme natural phenomena that do not bypass our country and continent, are the background of the research. In Poland the areas most endangered with floods are located in the southern part of the country. In the recent years some towns have been exceptionally prone to floods. Multidimensionality, diversification of reasons for floods and their course make their psychological and economic

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consequences complex and difficult to examine¹. In 2010 another great flood re-affected a substantial part of the areas flooded in 1997, which made the community's trauma revived. In Poland it is possible to indicate places where flood, in spite of its distinct character, has been appearing relatively often in the recent years and where it may be considered a recurring phenomenon. Such circumstances suggest the presence of a dependency between the social life and permanent flood hazard. Therefore, it seems fully justified to research local communities that periodically struggle with floods in order to find out whether this fact changes the nature of social bonds and whether the flood hazard implies undertaking community activities. Based on those premises, the main research problems are: Whether situations of flood hazard and flood itself affect the nature of community bonds? If floods occurring in the examined area are cyclical and become one of the elements of social life they must leave the trace, that should, to some extent, modify the existing system of values, hierarchy, binding norms and behaviours. The question is to what extent the flood situation may affect the strength and the character of social bonds, and to what extent the history, culture and adaptive strategies of these communities determine behaviour in extreme situations? In the light of these problems research hypotheses were formulated (Table 1). In this paper will be described only three hypotheses because the editors requirements limiting the size of article.

Table 1. Research hypothesis

Specification	Hypothesis
Hypothesis 1	the forms of cooperation, mutual dependences and trust developed during the flood translate themselves into the common initiatives undertaken later, which encourage sustaining and strengthening of community bonds
Hypothesis 2	flood hazard and the flood itself does not affect significantly the character of family bonds, but changes, to a greater or lesser extent permanently, the neighbourly relations and relations with closer and more distant friends
Hypothesis 3	the attitude of commune inhabitants towards the government representatives and local institutions (village administrator, the head of commune, fire department representatives) in the situation of flood hazard depends on trust (or the lack of such) which the commune inhabitants have for these representatives; the trust is built throughout the years, and the extreme situations put this trust, and people who have it, to the test
Hypothesis 4	there is an organised neighbourly cooperation initiative whose aim is to embark on preventive actions, liquidation of the effects of flood and provision of support for people affected by flood
Hypothesis 5	the interactions within the local community in the situation of flood risk depend on application of different adaptation strategies, resulting mainly from cultural conditions, determined by the effect of the given flood hazard
Hypothesis 6	social interactions occurring during the flood hazard situation and during the flood itself affect the re-evaluation of the importance of individuals' sense of identification with the community (understood as a community of the disaster, namely the community of people affected by natural disaster)

Source: Own research.

¹The tragic 1997 flood gave start to some research, which included also the social aspect, conducted by both Polish and European researchers. This research indicated the existence of some dependencies emerging in due course of this disaster. Wojciech Sitek [1997], Edward Nycz [2000] and Janina Hajduk-Nijakowska [2005] pointed out such phenomena as: "community order", "short-term community", "retreat of the community", "social solidarity", "victim fraternization", "fraternization in thoughtlessness".

MATERIAL AND METHODS

According to the assumed objectives, the individuals to undergo the tests were selected from the communes Gnojnik, Skarbimierz, and Sławatycze. These are the inhabitants living within the flooded areas, both people directly affected by the flood and also their neighbours who provided help. In the examined period (2008–2011) the selected communes experienced floods at least twice, with the assumption that not all the respondents were affected by it. The main research method used in the study was systematic comparison. When describing the method, Allen H. Barton and Paul F. Lazarsfeld [1986], drew attention to several significant elements: (a) It is a special method of testing the independencies, between statistic and quasi-statistic methods, consisting in research of relatively small number of cases; (b) It does not include enough cases to conduct statistical analysis; (c) It applies to a natural situation, and each case may differ slightly from the other; (d) The application of statistical comparison method is possible only when specific, complex social phenomena, like wars, revolutions, great social systems, government forms and others, are tested². Systematic comparison method, which belongs to qualitative methods, has been applied for own research to analyze free and expert interviews. Also, quantitative research was conducted, and interpretation of empirical material involved both qualitative systematic comparison method and statistical methods. During sociological reconnaissances the flood area in each of the three communes was defined, as well as the neighbouring villages, inhabitants of which were first to provide help. All households were visited during the research. Not in every one of them the household members were present, and if they were, many did not expressed the consent for participation in the study. The reason could be: distance towards strangers, partly culturally determined (the Skarbimierz commune is the area where many inhabitants were displaced from different areas of pre-war Poland), fear of losing the benefits for flood victims (the Gnojnik commune), unpleasant experiences with door to door fraudsters (the Sławatycze commune). Finally, 229 correctly filled in surveys were collected. The highest representative character was obtained in the Sławatycze commune – 57 respondents, which is 8.7% of village units' population covered by the research, and 2.3% of all inhabitants of the commune; subsequently, the Skarbimierz commune – 79 of the respondents (3.7% of the inhabitants of selected village units and 1.0% of the commune population) and the Gnojnik commune – 93 of the surveyed (2.0% of the inhabitants of selected village units and 2.3% in general). The detailed schedule in terms of participation of different village units in the particular communes is presented in Table 2.

Apart from surveys, the in-depth interviews with inhabitants were conducted in the number of: Gnojnik – 17, Skarbimierz – 8 and Sławatycze – 23. The collected empirical material was broadened by information obtained from expert interviews, conducted with local government representatives and local social leaders (in the number of 9, 8 and 7, respectively). The research took place in spring-summer 2012. In its execution, apart from the author, 3rd year sociology students from the Pedagogical University in Kraków were involved (11 people – as a part of their professional practice).

²Barton and Lazarsfeld do not exclude the fact that the statistics will never have been applied for this type of research. If the research of a given complex phenomena would be conducted repeatedly, and the procedure of data collection and preparation would be simplified, then the secondary, quantitative comparative analysis could be conducted.

Table 2. Number of respondents according to their place of residence

Place of residence	Number	Place of residence	Number	Place of residence	Number
Gnojnik	35	Brzezina	39	Liszna	20
Uszew	48	Kruszyna	13	Mościce	29
Zawada Uszewska	10	Lipki	14	Nowosiółki	8
		Prędocin	9		
		Zwanowice	4		
In total commune Gnojnik	93	In total commune Skarbimierz	79	In total commune Sławatycze	57

Source: Own research

Table 3. Characteristics of communities

Commune	Gnojnik ³	Skarbimierz ⁴	Sławatycze ⁵
District	Brzesko	Brzeg	Biała Podlaska
Voivodeship	Małopolskie	Opolskie	Lubelskie
Area in km ²	55	110	72
Total population	7 700	7 633	2 541
Men	3 876	3 842	1 230
Women	3 824	3 791	1 311
Population per km ²	140	69	35
Women per 100 men	99	99	107
Profile	The Gnojnik commune is located in the eastern part of geographical region known as Pogórze Wiśnickie. In the commune there are many architectural monuments, wooden and brick; road-side shrines, statues and crosses can be found, dispersed in the vicinity ⁶	The Skarbimierz commune is a typical agricultural commune. 55% of professionally active commune population is involved in farming. Main monuments are churches: in Brzezina, Kruszyna, Zieleńcice, Pępice, Zwanowice and in Małujowice, in which beautiful wall paintings can be found ⁷	The Sławatycze commune is located on the Bug river, near the Belarusian border. The area is considered attractive, not only because of its picturesque landscape, but also for the presence of various kinds of birds, fish and fertile soils ⁸

Source: Own research.

Data relating to population are similar in the case of the surveyed communes located in the south of the country (Gnojnik and Skarbimierz). The Sławatycze commune, on the contrary, located at the eastern border, namely in the less densely populated areas than the other two, differs from them only apparently, because in the case of the Gnojnik commune population density per sq km is four times greater and in the Skarbimierz commune – two times greater.

³www.stat.gov.pl/cps/rde/xbcr/krak/ASSETS_12_p_04.pdf

⁴http://www.stat.gov.pl/opole/69_607_PLK_HTML.htm

⁵http://www.stat.gov.pl/lublin/index_PLK_HTML.htm

⁶www.gnojnik.pl

⁷www.skarbimierz.pl

⁸www.slawatycze-gmina.pl

RESULTS

Despite of the existing flood hazard, the respondents feel secure in their place of residence and do not wish to relocate; they are deeply bounded with it, first of all because of their families and close friends who also live there; they appreciate people whom they can trust. The inhabitants of the communes can be distinguished by their attachment to their place of residence, the existing neighbourly assistance, trust for other inhabitants [Wojewódzka 2010, pp. 225–226], respect for the elderly and the importance of faith and the Church. There are also disadvantages which result mainly in the emigration of young people; the main problems which the examined communes are facing include unemployment [Żmija 2013, p. 71], lack of entertainment and the places where people could spend their free time, as well as bad quality of roads. The respondents agree that being close with other people is essential for strengthening bonds and sense of common identity [Sorys 2013] – shared participation in various ceremonies, fests, holidays in which the respondents collectively participate. The sense of shared fate and cooperation initiative established during the flood hazard had a positive influence on neighbourly relations; as stated by ca. $\frac{1}{5}$ of the surveyed. Only few pointed out to the deterioration of neighborly relations. The respondents were talking about the existing security systems, together they were building protections of the river bed and the shafts against the flood. When the waters receded, they were also repairing them together. Neighbourly assistance, which the respondents could count on during the flood, did not stop immediately after the disaster, but continues up to this day; as was ascertained by almost half of the surveyed from the communes Gnojnik and Skarbimierz and majority of the Sławatycze commune. The statements of the surveyed concerning continuation of provision of assistance to other inhabitants, excluding neighbours, were at a lower level, but still concerned relatively large group of the respondents (ca. $\frac{1}{3}$ and in Sławatycze – $\frac{2}{5}$).

Another aspect of trust was the relation of the respondents towards their neighbours, other inhabitants of the village, village administrator and the commune authorities, which are most often identified with a person of the mayor. The respondents from the examined communes exhibited particularly large trust towards their commune leaders. These local leaders can be always relied on in times of flood hazard. On the basis of the research, a conclusion can be drawn that formal authority, assigned to this function is at the same time a confidence and the foundation of the informal authority of the person holding this position. Two village leaders of the Sławatycze commune, who were given a vote of confidence, due to their young age (both are around 30 years old), did not have the possibility to fully prove themselves in social activities yet. In spite of the fact that inhabitants themselves stated that they are “young and did not have time to prove themselves”⁹, the respondents trust them because they trusted the previous village leaders, and their successors, in accordance with the society’s expectations, continue their work. Majority of the respondents also trust local authorities (identified mostly with the person of the mayor) which manifests itself in the belief that those authorities set the well-being of the inhabitants as their ultimate goal. They expressed similar opinions about the other inhabitants

⁹The research was conducted in March 2012, and the elections for the village administrator took place in autumn 2010.

from their villages. Only in the Gnojnik commune less than half of the respondents were of a different opinion when it comes to sincerity of other inhabitant's intentions displayed towards them. This does not change the fact that most of the surveyed from all communes declared that both now and in the future they could count on help both from their neighbours as well as from other inhabitants. Ostensible conflict between these statements, i.e. the certainty of the reception of help and the fear, showed by certain respondents, that those neighbours (in the Gnojnik commune) and other inhabitants (Gnojnik and Skarbimierz) could use them, is explained by the specific character of interpersonal relations in the rural areas. The attempt to exploit the neighbour (e.g. by unfair purchase or sale deal, repay which is inadequate to favour done by the neighbour etc.) does not have to be connected with the respondents' beliefs, as they probably had an opportunity to verify in practice that, if necessary, they can count on their neighbours and friends.

The trust for village administrators is justified, among other things, by the fact that they are perceived by the local community as leaders who do not only fulfill their obligations, but also engage in social activities, initiate and coordinate charity campaigns. In the Gnojnik commune during the flood hazard it is mainly village leaders and fire fighters who are responsible for efficient evacuation, protection of belongings and any other activities designed to minimize the damage caused by flood and the provide the help to inhabitants after the disaster. Similar situation is observed in the Skarbimierz commune; in the Sławatycze commune through, apart from fire fighters' activity, women from of the Village Women's Club are very active. They arrange help by, e.g. going door to door gathering money or necessary supplies, like food, in order to give it to people in need. However, during the flood the most active group are the village administrators, acting together with fire fighters and Border Guards.

The respondents are also involved in the life of their villages. More than $\frac{1}{3}$ of the surveyed from the communes of Skarbimierz and Sławatycze and more than $\frac{1}{5}$ from the Gnojnik commune actively participate in their village's life. It suggests high level of social activity. It must also be added that the surveyed help each other during the flood hazard. The respondents are also involved in non-profit organizations and are interested in life of the village, which manifests itself in their participation in village meetings (in the Sławatycze commune the participation level is high; experienced by almost all respondents participating in the meetings). Their participation in social life is strictly related to acceptance of their place of residence and the sense of identity shared with other inhabitants. Also the family support is crucial for the examined community which sense of safety is threatened.

The respondents maintain contact with their neighbours, they live peacefully and can not name persons to whom they could refer to as to enemies. It is another factor affecting their sense of unity with their place of residence and the local community. They spend their free time mostly talking to neighbours. They treat going out to the Church as a propitious opportunity to talk to neighbours as well. They agree as to the fact that bonds can be strengthened not only by personal contact, but also by action, e.g. related to tradition preservation or involvement in social organizations.

As it seems from the respondents' accounts, inhabitants do help each other, particularly in times of flood hazard. However, this assistance is mostly limited to the nearest neighbours. They can also count on assistance from the authorities – this applies, in particular, to

the communes of Gnojnik and Skarbimierz. In the event of flood hazard the vast majority of the surveyed from Gnojnik, if in need of help, could get it both from family and neighbours, friends and institutions. In other communes, among respondents who were expecting the support, only 27.3% in Skarbimierz and 37.9% in Sławatycze received it. Inhabitants together debated on their fate and on possible scenarios related to the upcoming flood. In face of danger, they did not stay at home but discussed the measures which could possibly be undertaken. The situation, threatening the community's sense of safety requires the presence of impulsive, natural behaviours aimed at undertaking specific steps in order to prevent the upcoming flood. The respondents were engaged in various voluntary works for ensuring flood protection. In this regard, the standing out group covered the inhabitants of Skarbimierz. Respondents declared that their neighbours were engaged in these actions as well. The surveyed did not expect the support and conducted preventive anti-flood actions on their own account. Those who needed help – received it. The conviction of the vast majority of the surveyed that, if they are in need, they can always count on neighbourly assistance, is very important; when it comes to further friends, such an opinion was expressed only by ca. 15% of the surveyed. According to accounts of respondents living in rural areas, included in the surveys conducted by CBOS in 2012 [BS/19/2012], voluntary and unpaid work is provided first for all on behalf of friends, parish, family, neighbours and work environment. Author's studies do not confirm this order – these are often neighbours who will be the first or among the first persons endowed with trust by the respondents. They can count on their help, both today and in the future; and are also glad to help their neighbours. In the examined communes, it was confirmed that the cooperation within the family and between other inhabitants does exist, and in the case of communes of Gnojnik and Sławatycze – their inhabitants also interact with their friends from the neighbouring villages.

In spite of the fact that the primary research methods were qualitative, author decided to use also statistical methods for the sake of hypothesis verification¹⁰.

Hypothesis 1 – after verification it has been stated that common flood experience translated itself into the character of social bonds that, as a consequence of the experienced trauma, have not only not loosen, but became even more tight. Another conclusion that can be drawn: common work during the flood makes people more sensitive to problems of others and creates an attitude of empathy towards people in need – it was proven by the listing of variables taking into account the respondents who experienced flood. The same dependence occurred in Skarbimierz commune, but in this case the examined were not those who were directly affected by flood but those who performed social works in order to provide anti-flood protection. In the light of the above statements the hypothesis should be verified positive.

Hypothesis 2 – it stems from the analysis of quality studies that in Gnojnik commune the flood risk, which is of a permanent character, influences the tightening of social bonds between the inhabitants. However, statistical verification confirmed only the first part of hypothesis (i.e. the assumption that flood hazard and the flood itself do not affect the character of family bonds significantly), while the second part should be entirely rejected in connection with locations where it was assumed that flood affects, more or less permanently, the relations between neighbours and friends.

¹⁰Using the empirical value of chi squared compared with the table value for given α and the number of freedom degrees.

Hypothesis 3 – the respondents trust their representatives and appreciate their efforts for the local community, but at the same time they also remain active and report on problems they encounter. Also, the fact that the examined address the petitions to the commune's authorities does not contradict the trust which the examined have for authorities, but is a sign of inhabitants' determination who, in order to support the commune's activity, wish to make other authorities aware of their fate. These requests are confirmed by the analysis of the quality studies. In the light of conducted studies, hypothesis should be verified positive.

Tables 4a and 4b present the distribution of dependencies, according to statistical analysis, taking into consideration the quantity of dependencies assigned to all respondents or to a particular commune, and their distribution across the hypothesis. Tables present data concerning verification of hypotheses 1–5 and the hypothesis 6 was verified on the basis of quality studies.

Table 4a. The number of statements intended for statistical verification, with division into particular hypothesis and communes

Specification	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5	Total
Gnojnik	7	1	9	6	8	31
Skarbimierz	6	1	9	6	8	30
Slawatycze	6	1	9	6	8	30
All	16	11	9	18	12	66
Total	35	14	36	36	36	157

Source: Own research.

Table 4b. The obtained average probability results, with division into particular hypothesis and communes

Specification	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5	Average results for all combinations
Gnojnik	0.092	0.004	0.3	0.145	0.244	0.203
Skarbimierz	0.195	0.244	0.245	0.104	0.178	0.189
Slawatycze	0.186	0.015	0.511	0.203	0.111	0.261
All the respondents	0.103	0.192	0.436	0.056	0.112	0.152
Average results for all combinations	0.132	0.169	0.373	0.103	0.156	0.19

Source: Own research.

Tables 5a and 5b present data concerning verification of particular hypotheses, including, however, the division of dependences among all the examined and those who experienced, or did not experience, flood, and their distribution across the hypothesis.

For sake of transparency of the received results the graphic evaluation of force dependencies was arbitrarily assumed. It is presented in categories ranked from the strongest to the weakest ([+++] [++] [+]) based on the probability of rejection of dependency hypothesis on the levels covered by the formula $1 - \alpha (100)$ – Table 6.

Table 5a. The number of statements intended for statistical verification, with division into particular hypothesis and the examined who experienced, or did not experience, flood

Specification	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5	Total
Flood victims	12	2	12	11	14	51
No flood victims	10	4	12	11	9	46
All the respondents	13	8	12	14	13	60
Total	35	14	36	36	36	157

Source: Own research.

Table 5b. The obtained average results, with division into particular hypothesis and the examined who experienced, or did not experience, flood

Specification	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5	Average results for all combinations
Flood victims	0.119	0.078	0.28	0.047	0.229	0.171
No flood victims	0.18	0.141	0.43	0.197	0.129	0.236
All the respondents	0.106	0.206	0.41	0.073	0.095	0.17
Total	0.132	0.169	0.373	0.103	0.156	0.19

Source: Own research.

Table 6. Distribution of graphic force of dependencies.

More than 99%	From 95 to 99%	From 90 to 95%	From 80 to 90%	From 50 to 80%	From 20 to 50%	Less than 20%
[+++]	[++]	[+]	[]	[-]	[--]	[---]

Tables 7a and 7b present the distribution of dependencies taking into consideration the quantity of dependencies assigned to a particular hypothesis and average obtained strength of dependencies presented graphically. The attention should be drawn to the blank spaces in the tables. They may prompt questions providing the basis for further exploration of the research field.

Table 7a. The number of statements intended for statistical verification, with division into particular hypothesis and graphically presented dependencies

Symbol	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5	Total
[]	5	3	3	5	4	20
[-]	8	3	4	3	8	26
[--]	2	1	8	3	1	15
[---]	0	0	5	0	1	6
[+]	9	0	4	0	3	16
[++]	4	4	4	6	7	25
[+++]	7	3	8	19	12	49
Total	35	14	36	36	36	157

Source: Own research.

Table 7b. The number of probability statements intended for statistical verification, with division into particular hypothesis and graphically presented dependencies

Symbol	Hypothesis 1	Hypothesis 2	Hypothesis 3	Hypothesis 4	Hypothesis 5	Average results for all combinations
[]	0.151	0.155	0.155	0.128	0.121	0.14
[-]	0.292	0.345	0.338	0.351	0.401	0.346
[- -]	0.657	0.791	0.686	0.622	0.529	0.667
[- - -]	0	0	0.904	0	0.991	0.919
[+]	0.068	0	0.363	0	0.064	0.141
[+ +]	0.028	0.019	0.032	0.021	0.024	0.024
[+ + +]	0.002	0.002	0.003	0.001	0.003	0.002
Total	0.132	0.169	0.373	0.103	0.156	0.19

Source: Own research.

DISCUSSION

In this paper author would like to refer to the selected problems taking into consideration the future of the examined communes, analyzed through the prism of discussion started by other authors, during the existing flood hazard, being one of the factors influencing its development. These communities learned how to handle the flood situation but such a statement is a mere simplification of the problem. Particularly, in case of Gnojnik community, which suffer from floods even several times throughout the year. One may learn to cope in this situation, but certainly cannot get used to it. Danuta Hryniewicz [2000], when analyzing psycho-social and organizational aspects of the disaster after the flood of millennium in Racibórz, judging on the basis of conversations with the victims, stated that the most noticeable and most often reported psychological problems were fear, sense of guilt, emergence of new reactions in contacts with other people, in particular suspiciousness and mistrust. It does not result from their suspicious nature, but from the fact that the offered help reminds them of their own weaknesses. It was also typical to “seek” people guilty of the situation and, as a consequence, dividing the world into “we” and “they” categories (i.e. “we” are the victims, and “they” should take care of “us”). Such a perception of the world made it impossible to reconcile and internalize the disaster, and the return to normal life was additionally hindered by the reduced self-esteem, outbursts of anger and domestic violence. While analyzing the communal experience of the tragedy caused by the flood, the question of the permanent, positive transformation of a given community being the result of the tragedy should be considered. Author’s research confirms that thesis; similar conclusions, among others, by Barbara Dolińska [2001] on the basis of her research conducted in Wrocław, after the flood of millennium in 1997. In her opinion such a permanent change occurs when the given community is successful in its common fight against the forces of nature. The examined communities have adopted to the existing flood hazard; they have applied their own adaptive strategies. These are their own, grassroots initiatives, which have developed individually, based on people’s own

experience. The behaviour of the community during flood situation indicates high degree of self-reliance and trust in its own, proven methods. Hanna Podedworna confirms rural populations' individualism and self-sufficiency¹¹: "...farmers in Poland adapt more effectively by using individual strategies rather than the existing institutional structure that do not correspond to the dynamics of individual activities. (...) This fact may be associated with double role of culture in the process of social change, which is both the context for a change (delivering the pool of cultural resources used by those who make change) and the object of the change, which is a result of the actions of collective entity" [Podedworna 2005, p. 205].

CONCLUSIONS

This subject matter may serve as a basis for further discussion and with all confidence this field of research requires further exploration, supplementation of knowledge and conduct of deeper analysis involving bigger population and a broader spectrum of factors conditioning the character of bonds and cooperation between the members of the given community, which occur during the different kinds of flood hazard situation. Although the research do not touch upon all aspects of social bonds and kinds of cooperation presented by rural populations in the event of flood hazard, it does form a stable framework for research methods intended to measure social capital in such a situation and the obtained results constitute the basis for further exploration of this subject matter.

REFERENCES

- Barton A.H., Lazarsfeld P.F., 1986. Niektóre funkcje analizy jakościowej w badaniach społecznych [Some functions of qualitative analysis in social research]. W: A. Sulek (Ed.). *Metody analizy socjologicznej* [Sociological analysis methods]. Wyd. Uniw. Warszawskiego, Warszawa, 334–338 [in Polish].
- CBOS, 2012. Komunikat z badań. Gotowość Polaków do współpracy w latach 2002–2012 [Message from surveys. Readiness of Poles for cooperation in the years 2002–2012]. BS/19/2012, Warszawa [in Polish].
- Dolińska B., 2001. Łyżka miodu w beczce dziegciu, czyli o tym co dobrego może wyniknąć z przeżycia kataklizmu [A fly in the ointment – what good experiencing a disaster may bring]. W: K. Popiołek (Ed.). *Człowiek w sytuacji zagrożenia: kryzysy, katastrofy, kataklizmy* [People in danger: crises, disasters, cataclysms]. Stowarzyszenie Psychologia i Architektura, Poznań, 338–340 [in Polish].
- Hajduk-Nijakowska J., 2005. *Żywiół i kultura. Folklorystyczne mechanizmy oswojania traumy* [Nature and culture. Folklore mechanisms of taming trauma]. Wyd. Uniw. Opolskiego, Opole [in Polish].

¹¹ Andrzej Kaleta [2005, p. 49] says that such an attitude is determined by the effect of traditional patterns of life in the countryside "...farmer's work required numerous skills, not only from manager (owner of a farm), but also from every member of his family and, possibly, hired employees (slaves, farmhands). They participated both in activities organizing the production process (...) as well as manufactured, processed, exchanged and sold their agricultural products".

- Hryniewicz D., 2000. Psychospołeczne i organizacyjne aspekty katastrofy [Psycho-social and organizational aspects of a disaster]. W: A. Szczówka (Ed.). Społeczność lokalna w sytuacjach klęsk żywiołowych. Diagnoza – wskazania edukacyjne [Local community in situations of natural disasters. Diagnosis – educational indications]. Wyd. ATLA-2, Wrocław, 35–36 [in Polish].
- Kaleta A., 2005. Wielozawodowość na obszarach wiejskich [Multi-skilling in rural areas]. W: K. Górlach, G. Foryś (Ed.). W obliczu zmiany: wybrane strategie działania mieszkańców polskiej wsi [Facing a change: selected strategies of actions of inhabitants of the Polish rural areas]. Wyd. Uniw. Jagiellońskiego, Kraków, 49 [in Polish].
- Nycz E., 2000. Powódź oraz jej skutki w życiu jednostkowym i społecznym. Refleksje socjologa [Flood and its effects in individual and social life. Reflections of a sociologist]. W: A. Szczówka (Ed.). Społeczność lokalna w sytuacjach klęsk żywiołowych. Diagnoza – wskazania edukacyjne [Local community in situations of natural disasters. Diagnosis – educational indications]. Wyd. Atla-2, Wrocław, 41–49 [in Polish].
- Podedworna H., 2005. Razem czy osobno? O strategiach adaptacyjnych ludności rolniczej [Together or apart? On adaptation strategies of farming population]. W: K. Górlach, G. Foryś (Eds.). W obliczu zmiany: wybrane strategie działania mieszkańców polskiej wsi [Facing a change: selected strategies of actions of inhabitants of the Polish rural areas]. Wyd. Uniw. Jagiellońskiego, Kraków, 205 [in Polish].
- Sitek W., 1997. Wspólnota i zagrożenie, Socjologiczny przyczynek do analizy krótkotrwałej wspólnoty [Community and danger. A sociological basis for short-term analysis of a community]. Wyd. Uniw. Wrocławskiego, Wrocław [in Polish].
- Sorys S., 2013. Tożsamość grup kulturowych w procesie globalizacji [Identity of cultural groups in globalization process]. Zeszyty Naukowe Małopolskiej Wyższej Szkoły Ekonomicznej w Tarnowie [in Polish].
- Wojewódzka A., 2010. Postawy przedstawicieli władz gmin i ich znaczenie dla rozwoju lokalnego [The multifunctionality of farms run by farmers-entrepreneurs]. *Acta Sci. Pol., Oeconomia* 9 (2), 2, 223–228 [in Polish].
- Żmija D., 2013. Unemployment in rural areas in Poland. *Acta Sci. Pol., Oeconomia* 12 (1), 2, 67–77.

WPLYW ZAGROZENIA POWODZIOWEGO NA ŻYCIE SPOŁECZNO-GOSPODARCZE MIESZKAŃCÓW WSI

Streszczenie. Zmiany klimatyczne, skutkujące ekstremalnymi zjawiskami przyrodniczymi, nie omijają naszego kraju i kontynentu. W Polsce najbardziej zagrożone występowaniem powodzi są obszary położone w południowej części kraju. Przedmiotem badań autora jest zagrożenie powodziowe i jego wpływ na siłę więzi społecznych oraz działania wspólnotowe podejmowane przez mieszkańców obszarów wiejskich, na przykładzie gmin Gnojnik, Skarbimierz oraz Sławatycze. Są to mieszkańcy osiedleni na terenach zalewowych, zarówno ci, których dotknęła powódź, jak i ich sąsiedzi, którzy spieszili z pomocą. Wybrane gminy w badanym okresie (lata 2008–2011) doświadczyły powodzi przynajmniej dwa razy. Główną metodą badawczą zastosowaną w pracy jest porównywanie systematyczne. Badania wskazują, iż pomimo istniejącego zagrożenia powodziowego respondenci czują się

dobrze w swoim miejscu zamieszkania i nie chcieliby go zmienić; są z nim mocno związani przede wszystkim z powodu posiadania rodziny i bliskich znajomych; cenią sobie ludzi, których darzą zaufaniem. Ankietowani ze wszystkich gmin, w większości, deklarowali swój pozytywny stosunek do obcych ludzi. Szczególnie dużym zaufaniem, we wszystkich badanych gminach, respondenci darzą swoich sołtysów.

Słowa kluczowe: więź społeczna, zagrożenie powodziowe

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