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*Igor Pietkiewicz *, ***
*Małgorzata Wójcik **
*Katarzyna Popiołek **
*Augustyn Bańka **

Resources and adaptation following involuntary resettlement in the Bytom-Karb community

Abstract*: Studies show that involuntary displacement often creates various threats for the community and individuals. To reduce these risks, Environmental and Social Impact Assessment, Health Impact Assessment, and Social Assessment are recommended. Whereas assessments focus mostly on the community level and studies describe cases of large population displacements, there is a lack of empirical evidence about how individuals cope with involuntary displacement and what factors contribute or hinder their successful adaptation in the target location. This study uses semi-structured interviews with 21 people about their experience of resettlement due to a mine collapse in Bytom, Poland, that led to involuntary displacement of 560 people. Data was analyzed according to the constructivist grounded theory principles. Results show that this case illustrates a mixture of post-disaster and development-induced displacement. Various factors and resources that affected coping strategies were analyzed, including: material and legal status, health and age, communication skills, and relocation experience. Our findings suggest that, when circumstances allow, an individual resources assessment should also be conducted to counteract impoverishment and further marginalization of the disprivileged and vulnerable individuals.*
Key words: *resources; adaptation; involuntary resettlement; community displacement; ecological disaster, crisis intervention*

Involuntary Displacement and Resettlement

Circumstances which may lead to involuntary population displacement and resettlement include war or conflicts, environmental degradation, natural and technological disasters, as well as development projects (Cernea, 1997; de Wet, Mander, & Nagraj, 2000). According to the World Bank (2001), involuntary displacement occurs when the decision to leave home is imposed externally and it is not possible to stay. Excluding droughts and war, every year about 500 disasters lead to displacement of about five million people (Norris, Baker, Murphy, & Kaniasty, 2005). In addition, about ten million people are subjected to development-induced displacements (Robinson, 2003; World Bank, 2001).

Literature acknowledges both negative consequences of involuntary displacement and resettlement, and also potential positive outcomes, when the process has been well planned (Cernea, 2000). Ecological disasters leading to community displacements and other collective traumas affect individuals and communities at many levels. Entire systems are disturbed or destroyed, including infrastructure, social order and well-being of individuals, families, and community networks (Cernea, 1999, 2000; de Wet, Mander, & Nagraj, 2000). In addition to social instability, Cernea (1988a, 1988b, 1997) and Oliver-Smith (1991, 2009) mention the increased risk of impoverishment of individuals involved in the process. Disasters leading to involuntary displacement and resettlement are also stressful and challenging for organizations involved in executing this procedure (Badri & Asgary, 2006; Modi, 2009.). Therefore resettlement, defined as a process of assisting the displaced population, replacing their houses, land and assets, as well as re-establishing socioeconomic and cultural fabric of the community, has become the subject of interest to social scientists. The majority of case studies on involuntary resettlement caused by disasters or development projects come from developing countries in Asia, South America, and Africa (Badri & Asgary, 2006; Oliver-Smith, 1991, 1990, 2009; Robinson, 2003). These were projects monitored and financially supported by the World Bank to ensure that pre-

*** University of Social Sciences and Humanities, Faculty in Katowice**
**** University of Social Sciences and Humanities, Faculty in Katowice, Techników 9, 40-326 Katowice, Poland; ipietkiewic@swps.edu.pl**

resettlement assessment was conducted and resettlement procedures were followed. Examples of involuntary resettlements in developed countries are relatively limited in scope and number. There are a few cases from the USA (Cernea & Schmidt-Soltau, 2006; Powell, 2007) or Europe (Robinson, 2003; Modi, 2009; Termiński, 2012). People in these territories were thought to enjoy better assistance associated with resettlement. However, cases of human rights violation and deterioration in the quality of life of the affected population can be found. For example, Robinson (2003) reports on the Greek government expelling 3,000 Roma people from Evosmos (Greece), without providing relocation assistance. In France, the administration used the army to remove people from the submergence zone in the mid-1950s, during a post-developmental displacement and resettlement (Modi, 2009). Termiński (2012) reports on the destruction of 300 communities and resettlement of 100,000 people caused by industrial development in Germany. He also refers to a case example of the involuntary displacement of 28 large communities due to open-cast mining in Poland between 1968 and 1986.

The types of factors which trigger displacement determine actions that should be taken (Cernea, 2000). For example, natural and technological disasters necessitate displacement decisions to be taken in an emergency manner. There is insufficient time (or no time at all) for planning or consultation, which leads to long-term, negative, socioeconomic burdens, and may result in community destruction and exclusion or marginalization of various groups. If a community is resettled in a dispersed manner, which is often the case, the established living patterns and continuity of the existing social fabric are broken. Informal networks of reciprocal help, local groups exchanging favors (baby-sitting, shopping) are disrupted. Subsequently, people can no longer act around common interests and needs. Such disintegration has multi-level, far-reaching and long-term consequences, as social networks are difficult to rebuild (Cernea, 2000, Downing, 2002; Cline et al, 2010). Resettlement associated with developmental projects, on the other hand, allows for assessment, planning, and community participation. Although that helps mitigate negative consequences, these three factors are too often neglected (Cernea, 1988 a, 1999; Oliver-Smith 2009). Developmental projects may view communities as "people in the way of progress" (De Wet, 2001) with the only concern being to move them to make way for development. Robinson (2003) also highlights that, whereas people dislocated by war or disasters are favorably treated by both the media and international aid agencies, those resettled due to developmental projects rarely benefit from social understanding and sympathy, although the negative effects of enforced displacement may be equally overwhelming and devastating for therm.

Counteracting Risks

Even though many involuntary resettlements have been unsuccessful for various reasons, it is possible to distinguish consistencies and build theories. Several theoretical frameworks have been designed to analyze the process of involuntary displacement and its consequences (Serageldin, Steer, & Cernea, 1994; Cernea, 2000; de Sherbinin et. al, 2011). In his Impoverishment Risks and Reconstruction (IRR) model, Cernea (1997, 1999, 2000) emphasizes the importance of planning resettlement – in particular, a precise and multi-level social analysis and assessment – as an integral part of any developmental project in order to provide appropriate resettlement assistance, compensation information, and support throughout the entire transition period. Environmental and social issues should be in focus so that actions are people-centered rather than property-compensation centered. The World Bank (2001, revised 2011) recommends three types of assessment prior to any resettlement plan:

1. The Environment and Social Impact Assessment (ESIA) to estimate the impact of environmental change on displaced rural communities, including individual and family changes, and community networks;
2. The Social Assessment (SA) to explore demographic characteristics, community and institutional structures, political and social resources;
3. The Health Impact Assessment (HIA) to predict potential consequences on community health (e.g., shortage or low quality of water in the target location may lead to certain diseases and destruction of community networks, affecting utilization of social support and making people more vulnerable to stress).

All these assessments concentrate on the community level and are followed by a comprehensive social management plan to counteract community disintegration and impoverishment risks associated, for example, with landlessness, joblessness, homelessness, social marginalization, food insecurity, increased morbidity and mortality, or loss of education (Cernea, 1988 a, 1997, 2000). Depending on the context, some of these variables are more significant than others. There are also additional situation-specific risks. For instance, Fernandes (2007) highlights that urban resettlers who are economically and socially disprivileged may experience problems acculturating in a host community and become marginalized. Although downward mobility significantly affects quality of life, these factors are often ignored in planning.

While most studies describe involuntary displacement and resettlement of large populations and discuss assessment on a community level, there is little information on how personal factors contribute to successful or unsuccessful adaptation of individuals and families. This exploratory study aims to investigate a variety of characteristics which, according to the study group, helped them accustom to change or hindered successful adaptation.

Research Context

The case study of involuntary displacement and resettlement was carried out in Bytom – formerly German and now a large city situated in the Silesian district of

southern Poland. Bytom has a long and complex history with many ups and downs. It received city rights in the 12th century and enjoyed periods of splendor and wealth, especially during the industrial development in 19th and the first part of the 20th century. It was also known for its outstanding architecture. Many inhabitants worked and made their living in the coal mining industry or steelworks. The difficult period began with the outbreak of World War II and continued for many years. After the Potsdam Conference in 1945 the city was annexed to Poland and changed its name from Beuthen to Bytom. Its German population was largely deported and replaced by inhabitants from eastern provinces taken over by the Soviets. In the 20th and 21st centuries the city was treated unfavorably by both communist and democratic central authorities. The former disregarded Bytom for its German origins and the latter viewed it as a problematic region due to the economic instability of the coal mining industry. Wasteful exploitation under the communist regime and the crisis of coal mining in the 1990s brought the bankruptcy of coal mines and many coal related factories and companies, leading to high unemployment, environmental devastation, social and community problems (Drabina, 2000). Mining activity in Bytom was carried out directly under densely populated areas, especially the Karb district. Buildings and streets have been decaying for years, tormented by bursts and mining induced subsidence. A critical moment was reported in July 2011, when an entire street in the Karb area was evacuated due to a mine collapse. A total number of 560 people were involuntarily displaced and resettled.

Method

This study was conducted by researchers from the University of Social Sciences and Humanities in a community of people who had been subjected to (or awaited) involuntary displacement due to ecological threat to their homes, as a result of coal mining activity. Our research was independent from the city council and the coal mine, which means there was no conflict of interests. Furthermore, our team cooperated with, informed, and was perceived as representatives of the ombudsman. These factors are important as they helped us gain the trust and willingness of study participants to provide information.

The Researchers

Two principal investigators (M.W. and I.P), who were experienced in interviewing practice, collected and analyzed qualitative data, and discussed study results with the rest of the team. The first investigator was brought up and has lived in the Silesian district most of her life, which made her sensitive to phenomena reported by the respondents and helped us gain more insights into cultural factors with special significance in the community under investigation. The second investigator is a clinical therapist and psychotherapy supervisor, experienced in providing psychological counseling and the assessment of mental states or factors affecting them. His competences were found useful during the interviews. The rest of the team provided indispensable support and the group discussions were extremely helpful in the complex analysis of research problems.

Participants

Twenty-one people agreed to participate and were interviewed in this study altogether (13 women and 8 men) between the ages of 21 and 68. Seventeen of them were personally affected by the displacement, and a further four (in table 2 - see next page) were in one way or another involved with the displaced population. The latter group included a journalist from a local newspaper in which the displaced group sought help and intervention, a policeman, and coal mine employees who monitored the resettlement process. Study participants who were personally affected by the displacement were at different resettlement stages: six of them expected to be displaced in an unspecified period of time, eight others had been resettled to temporary housing, and only three already lived in their target location. Participants were also differentiated according to the legal rights to their flats: most had housing agreements[1], one person had a social agreement[2], and only one was the legal owner of the flat she lost. For the general characteristics of study participants see table 1.

Table 1. Study participants (population personally affected by the displacement)

No.	Code	Gender	Age	Resettlement phase
1	TS01	F	30	Expecting displacement
2	PJ02	F	40	Resettled to temporary housing
3	ZZ03	F	36	Resettled to target location
4	DJ05	F	43	Resettled to temporary housing
5	SM06	F	68	Resettled to temporary housing
6	PI07	F	55	Resettled to temporary housing
7	PM09	F	21	Resettled to temporary housing
8	ZJ10	F	42	Resettled to target location
9	ST12	F	42	Expecting displacement
10	ST13	F	60	Expecting displacement
11	FS14	F	59	Expecting displacement
12	FS15	F	58	Expecting displacement
13	SM16	F	50	Resettled to temporary housing
14	ZA04	M	37	Resettled to target location
15	PJ08	M	59	Resettled to temporary housing
16	SJ11	M	64	Expecting displacement
17	SJ17	M	52	Resettled to temporary housing

[1] Housing agreement is signed with the city council. Rent is not commercial but regulated by the city council's resolutions.
[2] Social agreement is eligible to those on benefit or with very low income. Rent is reduced depending on income, assets, or personal circumstances, for example the number of occupants.

Table 2. Study participants (people involved with the displaced group)

No.	Code	Gender	Age	Occupation
1	NT18	M	38	Newspaper journalist
2	SA21	M	39	Policeman
3	NA20	M	40	Coal mine employee
4	GK19	M	45	Coal mine employee

Procedures of Data Collection

Prior to research planning, the investigators participated in community meetings organized by the city council, where the problem of ecological risk and involuntary displacement was discussed in public. Researchers made detailed notes about people's behaviors, questions raised during the sessions, and concerns reported by the attendees. They also inquired about the demographic characteristics of the displaced population at the city council and the coal mine. This helped us become aware of the crisis faced by the Bytom-Karb community, develop theoretical sensitivity, formulate research questions, and establish cooperation with future study participants. During one such meeting of approximately 250 people, our research team gathered names and telephone numbers of those who wished to share their stories and answer questions about their displacement experience. Following approval by the University Committee for Research Ethics, the primary investigators contacted selected people individually and arranged meetings with them. In most cases, researchers were invited to participants' homes and only one interview was conducted in a public place. Following each participant's informed consent, their interview was audio recorded. It was semi-structured and lasted between 60 to 90 minutes. The leading interviewer usually asked open-ended questions exploring different areas of participants' experiences. Sometimes interviewers took turns in interviewing. All recordings were later transcribed verbatim and analyzed according to the grounded theory procedures.

Data Analysis

Data in the form of interview transcripts and field observation notes was analyzed by both investigators separately in Nvivo10, using the techniques of the constructivist grounded theory (Charmaz, 2009. Initial, open coding involved identifying meaningful chunks of text and labelling them. Similarities and differences between items and cases were analyzed to produce categories. The investigators then met to compare and discuss their codes and insights. As analysis progressed in the focused coding stage, categories were identified at a higher abstract level and labelled with conceptual names. Most significant codes were selected and the relationships between them and other codes were analyzed to identify patterns and associations. Negative cases and exceptions to the rule were also sought, to determine variables which affected the main categories. In keeping with grounded theory methodology, theoretical sampling was used alongside data analysis (new questions were asked during follow-up interviews to uncover additional variations). Both researchers often revisited the data to check the consistency of their observations. Memos were individually written and compared by both researchers to keep track of the analytical process. These memos were edited during the write-up stage to present the analytical process. Participants' own words illustrate concepts and demonstrate the grounded-in-data nature of this study.

Results

The Karb community is very diverse due to historical and economic reasons. The inhabitants have German, Silesian and Polish backgrounds; some have lived in this area all their lives, whereas others moved to Karb more recently. The district is situated in the vicinity of the Bobrek coal mine and was historically the settlement of mine workers and those working in related industries. The coal crisis of the 1990s and the bankruptcy of several coal mines in Bytom resulted in high unemployment, starting progressive social and economic degradation of the district and its main city. The limited budget of the city council did not allow for renovation or any necessary repairs to the ruined buildings and streets. The methods of coal exploitation which have been continuously used in the Bobrek coal mine for years caused significant ground instability – especially dangerous as the environment had already been affected by the previous exploitation of other resources closer to the surface (e.g., copper and silver). Extracted voids, empty underground tunnels and continuous coal exploitation contributed to major mining-induced subsidence and ground collapse directly above the mining area in the Karb district in July 2011. The abrupt collapse of ground cover and serious structural damage to buildings forced the decision of emergency evacuation of the two most endangered buildings, and subsequent evacuation of other buildings also at risk.

The enforced displacement between 21st July 2011 and 11th April 2012 covered three streets within the Karb district, consisting of 215 buildings and over 560 inhabitants. The initial analysis of qualitative data revealed high complexity of the displacement and resettlement process. We identified three different groups in the study community, depending on the wave of displacement which affected them, and the stage of resettlement they were subjected to. All participants also identified a number of factors which fostered or hindered their adaptation. Table 3 (see next page) provides an overview of categories analyzed in the text.

Table 3. Main categories and sub-categories identified in qualitative data analysis

The waves of displacement
People participating in the first (emergency) wave of displacement
People participating in subsequent waves of planned displacement
People who have not yet been displaced but awaiting displacement
The stages of resettlement
Displaced to a temporary location
Resettled to target location
Factors affecting adaptation
Factors affecting adaptation
Factors affecting adaptation
Material status
Legal status
Health condition and age
Perceived availability and ability to rely on social networks
Ability to use social communication skills
Ability to communicate with authorities
Having relocation experience

The waves of displacement

In the analysis process we identified three categories of people according to the displacement process:

1. People participating in the first (emergency) wave of displacement,
2. People participating in subsequent waves of planned displacement,
3. People who have not yet been displaced but awaiting displacement.

The displacement of the community was performed in 28 subsequent evacuation actions. The first two were specifically of an emergency nature. In the aftermath of an exceptionally strong mining collapse under the Karb district, a decision was made to evacuate two buildings, with the clause of immediate execution. On 21 July 2011 their inhabitants were given eight hours to pack their possessions and leave their flats. Faced by the threat of uncontrolled collapse of the main walls, the inhabitants were forbidden to return or enter their properties after their emergency evacuation. Insufficient time, suddenness and irrevocability of the decision about displacement left little space for any planning or assessment. Subsequent waves of displacement were carried out progressively from August 2011 to April 2012, with more time to select temporary locations and relocate people's belongings. The large scale of destruction of buildings and infrastructure was visible to inhabitants who reported land sinking, uneven street surfaces, damage to walls, roofs and chimneys, water leaks, lop-sided drains, and ground chasms. However, decisions about their evacuation were not made public until the very last minute.

The third category of inhabitants affected by the resettlement plan was those who were still living in their houses but awaited a decision about displacement. They witnessed others being evacuated, observed buildings being demolished, and experienced the progressive impairment of their own flats, including dangerous changes in the structure of the buildings causing wide cracks in walls, uneven floor surfaces, slanting walls and split ceilings, askew door and window frames, or blocked chimneys. The building inspector told this group to expect to be relocated, but the exact time or destination was still unknown.

The stages of resettlement

Further analysis revealed different stages of the resettlement process in the group who had already been displaced, which led us to produce another classification. We found two categories of people in the displaced group – those who were displaced to temporary locations and those already resettled to permanent target locations. The former group (living in temporary locations) was relocated to hostels or short-term rented flats. Apart from a limited number of individuals who enjoyed living in a hostel (because of opportunities for social life, partying together, or hoping to find a partner among factory workers who also rented rooms in hostels) most people found conditions in hostels unbearable. No family units (apartments) were available, so families often crowded into single rooms with access to a common kitchen, bathroom, and launderette. Facilities were inadequate and of a very low standard. Sharing an electric stove or fridge often led to queues and quarrels, accusations of stealing food or aggressive behavior. Some people decided to use electric cookers in their rooms which was forbidden and dangerous, especially with small children playing in that space. Cramped existence and lack of privacy and safety (e.g., when ladies had to share the same bathroom with men) caused tension among hostel residents. People found it difficult to establish peaceful and responsible relationships with one another. A high incidence of alcohol use was reported, as well as anti-social behavior, and major communication problems within the group and with the hostel management. Police intervention was sought a number of times. There were no entertainment facilities or places for children or teenagers to study or do homework, so they had to stay longer at school.

> *Then I cried and said to myself: "I will not stay here a day longer." When I wanted to take a shower, my husband had to stay outside the bathroom and guard me because there were no locks in the door and there were no separate facilities for men and women. - ZZ03*

One group of people among the displaced managed to rent their own apartments instead of being displaced to hostels, or soon after having lived in a hostel for a short time. Others achieved that goal with help from the coal mine. The coal mine was not formally responsible for organizing resettlement, which is officially handled by special structures appointed by the city council such as the Emergency Operation Centre. However, as the coal mine authorities felt responsible for the disaster, they agreed to

cover costs associated with displacement and, for a limited time, to pay for temporary locations. It soon became obvious that the costs of housing people at hostels far exceeded the costs of renting flats, so the coal mine put much effort into relocating the group again.

Despite terrible conditions, the hostels were much more expensive. They [the coal mine] had to pay a daily fee of about 40 PLN [ca. 10 euros] per person, which means is about 160 PLN [40 euros] per day and 4800 PLN [1200 euros] a month for a family of four, whereas renting an apartment for a month would cost around 1000 PLN [250 euros]. - GK19

Factors affecting adaptation

Having identified different groups and analyzed the similarities and differences in their behavioral patterns or ways of coping, we came up with another analytical question, namely: what factors affected adaptation of the displaced group? We asked participants about factors which helped them cope with stress, and challenges accompanying displacement and how they adapted to the new situation. Risks and factors which restrained or hindered affective adaptation were also examined. A comparative single- and cross-case analysis was performed in line with the grounded theory procedures – we inquired for whom it was more difficult to adjust or who found themselves in a better situation. We were also interested to know if anyone viewed his or her situation as particularly disprivileged. Numerous factors were identified, categorized, and classified by a code "resources". This category included other sub-categories, such as:

1. Material status.
2. Legal status.
3. Health condition and age.
4. Perceived availability and ability to rely on social networks.
5. Ability to use social communication skills.
6. Ability to communicate with authorities.
7. Having relocation experience.

These categories are described below with reference to how they fostered or inhibited adaptation.

Material status. The displaced group was diverse in terms of their material status and financial resources. Pensioners and unemployed had restricted budgets and scarce savings available for additional but necessary expenses. Those with jobs and a steady income had more financial resources at their disposal. Although the costs of moving and storing personal belongings were covered by coal mine, there were extra expenses connected with protecting furniture against damage during transportation. Other financial challenges emerged during different stages of resettlement: some families had to clean and redecorate their temporary flats, or couldn't access their personal belongings in storage so they had to purchase essential kitchen equipment, clothes, or other objects of daily use. There were also extra costs for legal advice and consultants, longer commutes, traveling further distances to family members, additional parking places, garage costs, etc. Those who were better off, with savings and/or a car, had more flexibility regarding decisions and mobility in those challenging situations. The process of selecting and renovating flats, logistics, and meeting people were much easier for them. Those with limited financial resources could neither bear the extra costs of relocation nor any potential costs connected with the displacement process. They feared being charged for possible damages in temporary flats as well as higher bills for gas and electricity. They could not make use of options available to those with better financial situations.

When I was offered a flat I was very happy, but when I calculated the maintenance costs I had to reject the offer. I couldn't pay higher rent or winter heating bills with my pension and his [chronically ill son's] income. - SM06

Legal status. There were significant differences in inhabitants' legal status as far as security of tenure was concerned. Among the displaced were flat-owners, those with regular or social tenancy agreements and those who didn't have the right to security of tenure. City records were out of date and didn't supply coherent information on the number of inhabitants and their legal status. According to information from coal mine employees, each evacuation involved collecting data about people to be displaced (how many individuals/families were registered and living in flats to be emptied and how many temporary resettlement places were required) in order to organize everything. Information about people who had tenancy agreements had to be updated. This was especially important so that coal mine authorities could estimate how many people were eligible for reimbursement. The coal mine reimbursed each displaced family with 500 euros to cover such expenses. However, any reimbursement was restricted to those who either owned the flat from which they were displaced, had a tenancy agreement or a social tenancy agreement.

According to data provided by the coal mine authorities, there were about 23 flat-owners in the resettled group. They were immediately offered compensation for their lost properties and encouraged to buy a new flat wherever they liked. The compensation was calculated according to the market value of flats available in the Karb district and based on official assessments performed by experts hired by the coal mine. Study participants reported that people feared receiving a biased calculation, and hired independent valuers, which involved additional expense. Indirect loss or moral damage was seldom taken into account when calculating compensation, which made some of the flat-owners feel especially disadvantaged.

I feel that we were treated badly by the coal mine. Their calculation was not fair and did not cover all lost resources and costs we were forced to pay. The lawyer we consulted advised us that we should be reimbursed for everything – our flat, our garage, and all costs associated with relocation or legal consultation. The coal mine rejected that, and I have a feeling people think that we are taking advantage of the situation. - PJ02

In five cases, people sought justice at court but, according to a few respondents, the prospect of a long trial against a financial magnate, insecurity about the future, and growing cynicism in relation to the government or jurisdiction, made them accept the original agreement.

I don't know how courts work but I thought it would go faster. I begin to think that the individual doesn't mean anything at all. Maybe it is because we are suing a company which belongs to the State Treasury. The State can do anything, and you are insignificant. - PJ02

Despite everything, flat-owners enjoyed the greatest freedom in terms of choosing their target resettlement location – they were only limited by the amount of compensation and their financial status.

People with tenancy agreements (regular or social) had similar rights where it came to choosing their temporary resettlement location during the initial (emergency) wave of relocation. Later, however, those with social tenancy agreements received limited options and had to choose what the city authorities offered. Participants frequently reported that most of them feared being sent to the Bobrek district, which was associated with high poverty and crime levels.

There used to be a coal mine in Bobrek. Now, it is inhabited by the worst type of people. Some of them [displaced people] cried because they had to go there… They [authorities] are sending those with no tenancy agreement to that place. I once visited that district... devastated buildings, people drinking alcohol in the playgrounds. Even children do that. I would be scared to live, or let my children play, there. - TS01

The group with social tenancy agreements was usually represented by people with very low income or unemployed, who used social care. They were often associated with substance abuse, illegal actions (e.g., stealing coal or non-ferrous metals to sell on the black market), and lack of education. Many of them lived in very poor conditions.

The group without security of tenure found themselves in particularly difficult circumstances. They were neither eligible for reimbursement, nor had much choice when it came to choosing target resettlement locations. They reported feeling anxious, helpless, and excluded in any decision-making. Subsequently, they were highly dependent on social help and institutions.

Why are people with no security of tenure treated with such indifference? We cannot expect any reimbursement. For example, we had to leave all the coal we stored in cellars for this winter. People who had tenancy agreements got compensation for that but we could not. We feel as if we had no rights at all. - TS01

Competition for resources weakened social networks and reduced cooperation among the resettled population.

Health condition and age. Information held by the city council about the inhabitants of the district was out of date, and the authorities had limited knowledge about the characteristics of the community to be resettled (demographics, epidemiology, vulnerability or resources, number of handicapped individuals, etc.). A person involved in monitoring the evacuation reported:

We had very little information about people to be displaced. We knew the group included pensioners and disabled people, but had no details about their condition – who struggled with physical diseases or who was using a wheelchair. Few of them visited the coal mine to report their situation and special needs. Some elderly people also required support but we had no information about their needs. - GK19

Participants told us that younger people, who were mobile and healthy, found it easier to cope with the challenges associated with displacement and adaptation in temporary or target locations. It was easier for them to organize their new lives after relocation (e.g., commute to work, familiarize themselves with the new surroundings, infrastructure, etc.). On the other hand, chronically ill individuals – and elderly people in particular – were helpless, dependent, and likely to decompensate. They were less resourceful and their coping strategies sometimes failed. However, there was no assessment of the psychological or medical condition, morbidity and mortality in the displaced group.

Many of these elderly people broke down. They cried and did not know what to do. They felt completely helpless and could not deal with simple things, such as getting their things packed. They had spent their entire life in, and identified with, that place… and could not imagine moving out. Some of them had no relatives to support them… only their neighbors. I know this lady who was taken to a psychiatric hospital because she got so depressed. Quite a few of them died. I knew some them personally. A few days ago my husband went to the funeral of the lady who was our neighbor. - PI07

Various participants reported problems such as poor concentration, disturbed sleep, poor or increased appetite, agitation, irritability, low energy. They complained about feeling anxious, insecure, and uncertain about the future.

We are very apprehensive about the future. Our environment and surroundings changed completely. We were taken away from one place and thrown to another. - DJ05

A few participants reported having emotional difficulties prior to displacement; however, the challenges associated with displacement might also have triggered or exacerbated certain symptoms. Unfortunately there is no data about the psychological functioning of this community prior to or after displacement. Analysis of our qualitative data revealed that the way people coped with problems depended on other factors, such as perceived availability and ability to rely on social networks (family, neighbors and institutions).

Perceived availability and ability to rely on social networks. Qualitative analysis revealed that family structure and dependability on others played an important role in adaptation and coping with difficulties associated with resettlement. The displaced group was made up of extended families living together, nuclear families, single-parent families, elderly couples, and singles. Members of extended families often supported one another and were able

to share resources during crises. In some cases, however, the entire family system relied financially on the pension of an elderly member; an example being when others were unemployed or received minimal social welfare.

Most displaced families included children, so the situational impact on the younger generation was also an issue. Stress associated with change challenged the way people organized time for themselves and their children (including school, leisure activities, maintaining contact with friends). The effort of protecting children from the daily difficulties of displacement, and ensuring their comfortable everyday existence, added to the stress and worries about the future experienced by parents and carers. Some parents reported feeling responsible and guilty:

What shall I say to my son when he asks me: "Mum when shall we get our own place?" I know there are things I cannot control but I feel guilty, anyway. - DJ05

Single carers were in a particularly difficult situation. They faced day-to-day responsibilities in raising their children or caring for a dependent family member. In some cases they were prime caregivers and sole providers, which required proactive behavior. Sudden evacuation, seeking a temporary location and relocation itself, was much harder as far as logistics and the emotional burden were concerned. The responsibility of being a single carer frustrated their own needs and impacted on their resources as they had less time for interpersonal contacts outside the family, their financial situation was challenged more, and they could not benefit from the security and stability in an extended or full family support system.

In analyzed families we found people who repeatedly and efficiently interacted with multiple outside systems, such as social welfare, family-care centers, or child-care assistance, and those who were unaware or unable to use these resources, and subsequently struggled alone with the overwhelming resettlement situation. Single people, especially the elderly, often relied on their neighbors for everyday support. In a few cases community bonds formed significantly strong and sustainable networks and neighbors declared the need to be relocated together.

Our elderly neighbors, who we often help, want to be resettled with us. They want to live close, as they are afraid that they wouldn't manage alone. - SJ11

On the other hand, some elderly people with limited social support networks, found it difficult to deal with every day activities. Some elderly tenants let their security of tenure lapse as they hadn't thought to sign a new one, which placed them in difficult circumstances described earlier. Thus, challenges connected with relocation were, for many, grueling experiences resulting in elevated stress levels and decline in health.

I knew an elderly man who broke down completely and was taken to hospital. Another lady was so upset by the relocation that her neighbors had to call an ambulance. - ZJ10

The ability to utilize institutionalized and/or neighbors' help facilitated coping with relocation, but some responders declared difficulties in asking for and using help. Never having done it before, they didn't have the knowledge and skill necessary to apply for social worker assistance. They weren't often eligible to receive social/welfare help or general welfare redistribution, and would only accept help from neighbors or acquaintances.

A few families included disabled, chronically ill, or elderly members, which made their situation especially difficult. They had to confront displacement at the same time as supporting, supervising and comforting the needy ones. Numerous difficulties and obstacles emerged as resettlement proceeded: the process of relocation, adapting to temporary locations, changes of environment and breaks in networks of social reciprocity. Our study uncovered striking examples of how difficult relocation could be for families with vulnerable members.

I felt myself at home there. Neighbors accepted my son – he has Huntington's disease. [Here] we are seen as drunks or drug addicts; people don't know us. But in Karb I had great neighbors; everything was going well until it broke. - SM06

My elderly mother-in-law is struggling now [in a temporary location]. All she had was meeting her neighbors, going to the local shops; now she has nothing. In January she almost died; we had to resuscitate her to save her life. - DJ05

The displaced whose children or vulnerable family members were dependent on them realized that such sudden and deep change as relocation could have negative impacts on their physical and mental health and general well-being, adding to additional stress factors to already stressful conditions.

The changes are significant as our temporary location is far from Karb. My mentally ill mother's health declined and she is now fearful and anxious. My daughter changed schools and the new group is a bad influence. She now has problems at school with both behavior and peer relations. - SJ17

Despite experiencing similar challenging situations we saw, by comparing individual cases, that the burden of responsibility for vulnerable members of a family resulted in two distinct types of behavior: proactive, change-oriented and self-initiated or, on the other hand, adaptive and passive. Some carers withdrew, and didn't undertake any individual action to improve their situation; they waited for things to happen and looked for a cause in their outside circumstances. They rarely sought family assistance or social worker support.

I'm living with my daughter (6 years old) in a temporary flat. I don't know how long it will take. I don't know what to do; I don't do anything, just sit and cry. My life is completely ruined and nobody cares. - PM09

Others, being aware of the existence of choices, tried to take control and make things happen, rather than waiting for them to happen. This proactive behavior, utilization of accessible help, self-efficacy and decisiveness facilitated better adaptation to new conditions and, in many

cases, resulted in more favorable outcomes – while the lack of it led to deep stress, frustration and hopelessness.

We are living in a temporary rented location with our disabled daughter, and we are trying to get a new flat. We've even talked to the President and he promised to help. - PM07

Ability to use social communication skills. Analysis revealed the significance of social competence – skills connected with communication in stressful situations – and we identified various subcategories associated with using appropriate social skills and communication strategies during resettlement. We also explored how communication behaviors facilitated or hindered coping in stressful situations, and identified people's ability to obtain, process, and use available information. As displacement and resettlement was unexpected and unfamiliar for everyone involved, confusion and misinformation were common problems. People desperately needed detailed information about their current situation, plans and resettlement procedures, but information was non-existent or hard to come by. Many of the displaced had to make quick decisions about packing their belongings, securing their property, looking for temporary locations, potential investments, choosing schools for children or going on holiday. In the absence of coherent information, the displaced had to find information for themselves. Two distinct groups emerged, consisting of those with ability and experience in making inquiries in various offices and departments of the town council, building administration or building inspector's office, and those who lacked such skills. The former – knowing where to go, who, and what to ask – gained the necessary information to prepare for, and cope with, forthcoming phases of relocation and resettlement. The latter wasted their energy in unproductive ways, believed local rumors or information from unreliable sources, which caused frustration, increased helplessness and significantly lowered their ability to cope.

We also observed people's ability to express their needs and problems as another factor affecting coping. There was no integrated system providing data about inhabitants of the Karb district. Social assessment, conducted throughout the process, was based mainly on outdated city council records, supplemented with information from interviews with displaced persons or their neighbors. As each relocation case involved collecting data about those to be displaced, it was crucial for them to explain their family situation, material and legal status coherently in order to receive such things as compensation, help , and a choice of temporary and target locations. Those who could present their specific needs coherently had no difficulty doing this, but those who found it difficult to articulate specific problems could only fall into a circle of general complaints and were left unaided.

Ability to communicate with authorities. Some displaced people exhibited anxiety and a persistent fear of contact with authority figures, usually fearing that he or she would be humiliated or embarrassed. Since the resettlement situation meant that avoiding contact with the authorities was not possible, some displaced people experienced stress. Contact was also difficult because of stereotypical threats, especially when the displaced had social agreements or who had lost security of tenure. Previous, often negative, experience played an important role as some of the displaced perceived authorities as hostile or indifferent. Difficulties in controlling emotions led to conflict or inconsistent communication.

Some of the displaced had difficulty recognizing demands, goals and rules of communication behavior in critical situations of displacement/evacuation. Their communication strategies were unsuccessful because they failed to behave consistently with the implicit and explicit social demands of the context. Behavior contrary to that expected caused rejection, conflicts, misunderstanding or indifference.

Having relocation experience. The diversity of the Karb population was also reflected in people's attitude to relocation itself. In the analysis process we identified highly mobile individuals with relocation experience, and those with no experience at all. For the former group, efficient organizing, sorting and packing their belongings wasn't challenging or unmanageable. Those who had never moved before (e.g., some elderly people had lived in the same flats all their lives) had no skills and abilities, so they found planning, organizing and packing especially difficult and stressful. They didn't know how to protect their belongings for transportation or arrange packing for easier access during the transitional period.

We didn't know that we should have marked all the boxes before sending them to the warehouse. Later we couldn't find things we needed. When winter came we had to buy warm clothes because we didn't know where they were packed. - ZZ03

Discussion

Literature exemplifies three categories of involuntary displacement; post-disaster displacement, development-induced displacement, and that induced by wars and conflicts (Cernea, 1997; de Wet, Mander, & Nagraj, 2000; World Bank, 2001). Whereas in many cases it is easy to classify a given displacement to one of these categories and select appropriate action procedures, this situation is one in which both technological disaster and developmental factors are involved. The former refers to sudden collapse of the ground due to coal exploitation which affected the building structure and forced emergency evacuation of residents from their homes. The latter refers to subsequent waves of displacement in which the coal mine was involved. Removing people from the vulnerable area allowed coal exploitation to continue, despite further ecological damage caused by it. Because of the hybrid nature of the displacement in Karb, there were so many challenges that the authorities were unable to handle the situation appropriately. Most actions were focused on life protection, rather than well-being and fostering adaptation. Literature highlights that emergency situations involve life risks, general disorientation, and confusion, and suggests

that actions should be focused on people's protection and mitigating the feelings of insecurity to lessen the impact of the crisis (Littlefield & Quenette, 2007). Post-developmental displacement and resettlement, on the other hand, should involve planning, community participation, and detailed analysis of factors affecting the process (Cernea, 1997, 1988 b, 1999, 2000; World Bank, 2001, revised 2011). The commonly implemented assessment models referred to in this paper (e.g., IRR, SA, and HIA) concentrate mainly on the community level. Our results show that successful adaptation of a community and individuals involuntarily displaced should also contain a Family Resources Assessment and Planning (FRAP). The assessment ought to be performed by a qualified community psychologist or social worker to evaluate numerous, detailed factors affecting adaptation to change, such as: demographics, financial and occupational situation of family members, rights and privileges associated with tenancy status, individual health condition and risks, family commitments (e.g., care of elderly or chronically ill relatives, children), ability to utilize social support and professional help, social communication skills, prior relocation experience, and special needs associated with cultural factors or daily functioning (e.g., feeling responsible for a companion animal, distance to school or work). Our results show that community psychologists should be active in initiating contact with families, especially those who have not had experience in using external help. Information from FRAP can be used for discussing with families potential challenges and planning actions to mitigate stress and foster adaptation. Professionals can also use information about established community networks gathered during FRAP, to encourage cooperation between various social subsystems (e.g., mutual help between neighbors). People with relocation experience, and therefore better organizational skills or access to information, could support those who feel weaker or helpless. That may empower the community and help people develop a sense of efficacy, counteract social inequality, further marginalization and exclusion of vulnerable and disprivileged individuals whose financial, family and social resources, health or age conditions wouldn't allow for proactive, self-initiated actions or making use of options available for others.

Assessment suggested in this article is in line with principles of interventions during and after disasters presented by Hobfoll et al. (2007) as FRAP would help promoting the sense of safety and calming especially important for children, parents and carers (Hobfoll, 1991). Other crisis intervention approaches also recommend mobilizing existing social network and resources, strengthening current coping abilities and developing new coping mechanisms for disaster-linked problems in order to help victims regain control of their lives (Hoff, Hallisey & Hoff, 2011). Horowitz, Stinson and Field (1991) emphasize the importance of engaging an individual's own adaptive processes in whatever way possible, while Shelby and Tredennick (1995) stress the importance of a proactive approach and making initial contact with the victims to assess both individual needs and resources, so that providing appropriate services to disaster victims can prevent the long-term disability.

The limitations of this study suggest directions for further research into the importance of assisting affected individuals and assessing their needs and resources before development-induced resettlement, or during post-disaster resettlement.

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