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## **Development-Induced Displacement: The Case of Dam Construction in Slovakia and the Czech Republic**

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### **Abstrakt**

Článok sa zaoberá problematikou vysídľovania v dôsledku rozvojových projektov, pričom skúma prípady výstavby vodných diel v bývalom Československu. Vhodné prírodné podmienky v stredoeurópskom priestore, ako napr. hydroenergetický potenciál či reliéf, umožnili výstavbu mnohých vodných elektrární. Stavebné práce boli nie zriedka sprevádzané vysídľovaním obyvateľstva, čo malo významné spoločensko-ekonomické konzekvencie. V predložennom príspevku skúmame predovšetkým spôsoby kompenzácie, ktorá bola obyvateľstvu poskytovaná, pričom uplatňujeme komparatívny prístup. Okrem toho sumarizujeme výsledky rozhovorov so zástupcami obcí i vysídlených občanov. V závere článku uvádzame odporúčania pre budúce potenciálne vysídľovanie spôsobené rozvojovými projektmi.

### **Abstract**

The paper deals with the topic of development-induced displacement based on Slovak and Czech historical experience with dam construction projects. Favourable natural conditions in the Central European area, such as hydropower potential and relief, have enabled many hydroelectric plants to be constructed, whereby no negligible number of cases have been accompanied by resettlement of the affected population. Such processes had significant social and economic consequences. In the present study we predominantly focus on the ways of compensation and treatment of the displaced, whereby comparative approach is applied.

Besides, results of key informant interviews are debated in detail. The paper is concluded by policy recommendations regarding potential future development-induced displacement.

**Keywords:** development-induced displacement, dams, compensation

**JEL Classification:** R23, R58

## 1. Introduction

Literature exhibits decent amount of evidence why people change the place of their residence reconciling they do so voluntarily or forced. One of the reasons for people's leaving their homes is development. The list of specific projects leading to displacement is not exhaustive (Teminski, 2013; Rew, Fisher a Padney, 2000) and includes highways and communications construction, or construction of mines and power plants. The necessity of development project is indisputable, even when they lead to displacement (McDowell, 1996). The current debate evolves around the ways to avoid negative impact of displacement on concerned population (Stanley, 2004; Cernea, 1990).

Very few authors study the displacement process and its socio-economic impact on people, usually the issue is just mentioned without deeper analysis (Chmelár, 1979). The data on development-induced displacement as a result of dam construction are scarce and usually from non-governmental sources and the total number of displacement cases is unclear.

The objective of the paper is to compare the Slovak and Czech experience with development-induced displacement caused by dam construction with the guidelines for displacement implemented by the World Bank. We also provide an overview of the extent of displacement caused by dam construction in former Czechoslovakia and compare the impacts of different types of compensation on subjective well-being of the displaced population.

Dams can serve several purposes, one of them being hydropower. Both in Slovakia and the Czech Republic, hydroelectric plants represent a significant proportion of the energy mix, due to favourable natural conditions. However, their construction was frequently accompanied by resettlement of whole communities, and subsequent total or partial flooding of respective villages. Consequences of dam, or reservoirs construction concerning environment and affected communities can be divided into two categories, namely:

- temporary effects visible during preparatory work and construction itself

- permanent effects observable during the water structure operation (Lukáč a Bednárová, 2006).

The aspects studied within this paper may be considered rather permanent. According to Lukáč and Bednárová (2006), construction of any larger water structure is accompanied by art-historical, urbanistic and architectural, as well as archaeological and ethnographic research. Therefore, we can conclude, it is a complex process requesting cooperation of many experts and other stakeholders.

Our research focuses on the evaluation of the displacement processes in terms of concrete numbers of persons resettled, or numbers of municipalities and buildings destroyed. Besides, we analyse ways how compensation was provided to the displaced population. For the purpose of the present research, the methods applied include also interviews with different stakeholders engaged in dam construction processes connected to resettlement in former Czechoslovakia.

## **2. Theoretical Background and Literature Review**

Displacement and migration are terms occurring rather often in scientific literature. As Hlavová (2016) points out, displacement and migration can either be studied together, due to the concepts not being distinct in a clear manner, or separately because of the existing similarities between them. Internal displacement can be found an intersection between inner migration and forced migration (Hlavová, 2017).

Besides, displacement is sometimes studied not only in connection to natural disasters, but as well with regards to changing climate. An example is a study by Crnčević and Orlović Lovren (2018), who underline the phenomenon of climate change in Serbia; or Denis (2018), who considers legal aspects of the issue. Zickgraf (2018) points out the internal as well as external migration in the context of the changing climate, and thus using the example of Senegalese fishing community. Various case studies are incorporated within *The State of Environmental Migration 2017: A Review of 2016* (Gemenne, Zickgraf a De Bruyckere, 2017, eds.), as well as within the latest edition, i.e. *A Review of 2017* (Zickgraf, Hut a Gemenne, 2018, eds.).

There are several underlying works relevant for this study. Terminski's (2015) extensive work represents a solid theoretical basis for studying the topic in question. The author provides an overview regarding development-induced displacement and resettlement, including the historical considerations of the issue, and the most significant causes of these processes. In his opinion, to the most important causes of resettlement and development-induced displacement

belongs construction of dams, development of transportation networks, urbanization, deforestation, mining, and so forth.

The work by McDowell (1996, ed.) focuses on development-induced displacement in relation to impoverishment. De Wet's publication (2006, ed.) contains research areas and topics such as forced migrant, the role of international law in development-induced displacement, or policy recommendations. Human rights in conjunction with project-induced displacement are debated by van der Ploeg and Vanclay (2017).

It is obvious that development and infrastructure construction impact the environment, i.e. both flora and fauna, as well as humans and products of human creative activity. Frequently, development cannot be conducted without displacement of the affected population, removal of households or agricultural buildings. Courtland Robinson (2003) suggests that development-induced displacement is a growing phenomenon to be observed worldwide, but the most affected are the marginalized, the poorest populations and communities.

There are many countries where development-induced displacement has so far been realized. Although it can concern not only displacement driven by dam projects but can for instance be connected to areas with good mining opportunities, the present paper focuses on displacement linked to dam construction in the former Czechoslovakia. However, there are as well similar cases of development-induced displacement from other areas of the world. For instance, Hlavová (2016) discusses several cases of development-induced displacement in China and Africa. Many of the development projects in Africa are even financed by China. Apart from Hlavová, China's experience is also mentioned by Courtland Robinson (2003), who apart from that names several cases concerning India, Thailand, or Lesotho, just to name a few. Another scholar dealing with the topic of development-induced displacement is Vandergeest (2003) focusing on Laos. Tilt, Braun and He (2009) apply the method of social impact assessment (SIA) with regards to dam construction projects in Africa and China. They study the impact of dam projects on communities, e.g. migration, employment, or cultural aspects. The idea of livelihood and well-being in the framework of development projects in the Brazilian Amazon is discussed by Randell (2016).

Displacement, migration, development, environment, and socio-economic aspects thereof are topics frequently covered in academic research. Very often, several aspects of these issues are synthesised and studied together (e.g. Kunchka, Orlando a Raneta, 2017; Černota, 2010; Baláž, Dokupilová a Nežinský, 2018; Baláž a Karasová, 2017).

### **3. Data and Methodology**

The paper uses the methods of meta-analysis and historical research to describe the extent of displacement caused by dam construction in Slovakia and Czech Republic and the circumstances, including the number of displaced persons and type of compensation. The primary source of data are the official websites of dams, villages from which the people were displaced or the non-governmental organizations that organize events for people who were displaced as a result of dam construction. Although the data from similar sources are frequently used, there are some specific problems connected to the data used for this paper.

One of the biggest challenges of our research is the access to official data concerning total numbers of persons displaced, numbers of villages, or buildings flooded. Most of the data used in this paper come from non-governmental sources. The statistics on the number of inhabitants of individual villages does not exist in the period studied in this paper. The official statistics exists only on the level of regions comprising of tens of villages.

The reporting of displacement in each case is different and varies from the number of affected households, through families to the number of affected individuals. For this reason, it is difficult to compare the cases or to get the number of all persons affected by displacement by dams in the Czech Republic or in Slovakia during the studied period.

Another limitation of the data is the time discrepancy between the decision about the dam construction and the beginning of the displacement process. The time difference between these two events was usually several years in the studied countries. This means that people had several years to change their living situation based on the unavoidable dam construction, especially when they made the decisions about their future living situation (e. g. after marriage of widowhood). When the displacement process began, there were fewer people living in the affected villages and therefore the statistics about displacement were lower than the actual population affected by dam construction.

To study the process of displacement in the Czech Republic and Slovakia, we used the method of Key Informant Interviews. We addressed representatives of local authorities of relocated settlements or successor villages, in case the village ceased to exist after displacement, and the representatives of government companies who built the dams. We also addressed active representatives of the communities of people who were displaced. Due to the low responsivity we managed to do five interviews in total, two in the Czech Republic and three in Slovakia. We

interviewed four representatives of the displaced population (one Czech and three Slovaks) and one Czech representative of a local authority. These respondents represent four cases of displacement, two in the Czech Republic (Slezská Harta and Švihov) and two in Slovakia (Nová Bystrica and Žilina). The interviews were conducted in November and December 2018.

Table 1

### Key Informant Interview Statistics

Country	Czech Republic	Slovakia
Representatives of a local authority	1	0
Representatives of the displaced population	1	3
<b>Number of interviews in total</b>	<b>2</b>	<b>3</b>

Source: Authors' own elaboration.

The interview questions were based on the World Bank resettlement policy, as described by Cernea (1995). After numerous projects involving population displacement, the World Bank introduced first set of principles guiding the process of displacement in 1980, in order to minimize the negative effects of displacement. The policy principles were revised and amended in 1994. These policy principles are not legally binding for projects not financed by the World Bank. Displacement is internal and thus governed by national legal system. However, the World Bank policy could serve as guideline for every case of displacement. The key points of the World Bank resettlement policy can be condensed as follows:

- involuntary displacement should be avoided
- displaced persons should be assisted in improving or restoring their living standards, compensated and assisted in the transition period
- displaced persons should benefit from the project
- communities should be kept together and as close to the original site as possible, with regards to economic opportunities
- host communities should participate in planning and assisted to overcome possible adverse effects
- new residence should be equipped with infrastructure and services
- people with informal rights to the land should also be compensated.

## 4. Development-Induced Displacement in Slovakia and the Czech Republic

Throughout decades, hundreds of dams or mines have been constructed in Europe or in North America, whereby these processes caused resettlement of whole communities (Cahliková a Stojanov, 2013). As mentioned above, the former Czechoslovakia is a good example of a country where displacement due to dam construction was a common issue in the 20<sup>th</sup> century. More specifically, most of the displacement cases in the country took place due to dam construction or mining (Cahliková a Stojanov, 2013).

In the following part of the paper, attention will be paid both to Czech and Slovak experience. Firstly, we will highlight the most significant development-induced displacement cases regarding dam construction. The overview will be followed by an analysis of types of compensation and their results.

It needs to be emphasised that in some cases not all the data is at one's disposal. In some sources, the concrete number of persons displaced is stated; other sources contain data regarding numbers of households displaced, or numbers of villages being flooded during the construction process. Besides, the data that we apply here are often excerpted from non-governmental sources, e.g. newspaper articles or websites remembering the displaced villages.

#### **4.1 Selected Cases of Dam Construction Linked to Displacement in the Czech Republic**

In this section, we will provide an overview of selected cases of development-induced displacement caused by dam construction in the Czech Republic. We do not consider technical parameters, such as size, type of dam, or water volume and flow.<sup>1</sup> Data relevant for our research concern numbers of flooded villages, resettled persons, or destroyed buildings.

As already emphasised, displacement triggered by development used to be common practice in former Czechoslovakia. More precisely, during the totalitarian regime, when development projects were conducted without broader public participation in decision-making processes. Furthermore, construction of dams and mining activities were perceived as public interest; the interests of individuals or groups were not considered (Cahliková a Stojanov, 2013). Apart from mining and dams, several villages disappeared because of creation of military areas (Vaishar et al., 2017). In many cases of dam construction, compensation was not provided properly. Regarding the era after 1989, only three development-induced displacement cases have occurred in the Czech Republic, however, decisions thereof were made before 1989 (Cahliková

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<sup>1</sup> Similarly, this applies for the part concerning the Slovak experience.

a Stojanov, 2013). Based on the above stated, it can be concluded that the relation of social regimes and development (as well as research) is apparent (Puškárová a Gurníková, 2014).

One of the dams constructed upon remains of several settlements is the Orlický dam located in the Southern part of the Czech Republic on the Vltava River. The construction works were conducted in the second half of the 20<sup>th</sup> century (Jižní Čechy a Šumava, 2018). Socio-economic as well as environmental aspects of the dam's construction and operation are discussed by Očásková, Vrba a Průša (2014). In their opinion, the construction of the Orlický dam had both positive and negative effects, and lives of many people were impacted. On the one hand, some people had to change their occupation, as traditional jobs disappeared. Others had been required to leave their houses, which were subsequently flooded in the course of the construction itself. On the other hand, the dam construction resulted in the region being an attractive destination with holiday resorts and water sports. The above cited authors specifically emphasise the contribution of the Orlický dam to tourism boom accompanied by creation of new job opportunities. However, in this context the authors mostly refer to seasonal jobs. Furthermore, deteriorating water quality and geopolitical changes in the 80's resulted in a rapid decline in tourism in this area. This development has further led to population ageing and moving from the region in question (Očásková, Vrba a Průša, 2014). Apart from tourism, the dam currently serves the electricity generation, fishing, boat transport, or flood protection (Visit Vltava, 2018).

Various sources state slightly different numbers as for the destroyed buildings. According to Filipová (2017), 500-600 buildings were flooded; Kučera (2018) talks about 650 cases of buildings (residential and other) being destroyed. Therefore, we can conclude that approximately 600 buildings must have been demolished in the course of the construction. One of the exceptions is the church of Saint Stephen, that has become a diving attraction. Regarding municipalities, 10 villages<sup>2</sup> were flooded (Kučera, 2018), and 1600 persons were forced to move out (Filipová, 2017).

Another relevant case of development-induced displacement is the Švihov reservoir (also known as Želivka), whose main purpose has reposed in supplying Prague and surrounding areas with drinking water. One of the construction consequences was flooding of several historical towns and villages in the affected area, for example Zahrádka, Dolní Kralovice and Horní Kralovice, or Švihov. The government adopted the decision on the construction in 1969,

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<sup>2</sup> Orlické Zlákovice, Zbenické Zlákovice, Těchnice, Korce, Lavičky, Podskalí, Radava, Velký Vír, Žďákov, Letošnice

including the liquidation of the municipalities (Zahrádka, 2018). For illustration, most of the inhabitants of Zahrádka moved to the villages in the area, many currently reside all over the Republic. Currently, there is only one populated house in the village (Horní Paseka, 2018). Almost 900 buildings were destroyed, among others the church, the castle or the railway station. In 1965, Zahrádka consisted of 201 houses and had 666 inhabitants itself (Zahrádka, 2018). In case of the Švihov dam, the compensation had the form of a newly built village, namely the village “new” Dolní Kralovice. Besides, new apartment buildings for the residents of the flooded villages were built in surrounding municipalities (StavbaWEB, 2018).

The Nové Mlýny dam is composed by three interconnected reservoirs. The construction of the Nové Mlýny dam resulted in displacement of more than 550 inhabitants and demolition of almost 200 houses. The whole village of Mušov ceased to exist, the only remains of Mušov are represented by the St. Leonard’s Church. However, it needs to be emphasised that the village of Mušov had always been affected by floods (Gáfriková, 2017). Most of the residents of Mušov built new houses in Pasohlávky, or in Pohořelice (Pasohlávky, 2018). They were given three years to build up new houses (Gáfriková, 2017). Before the dam construction itself was initiated, several measures had been taken. For instance, since 1966 it was prohibited to conduct burials in the village or reconstruct the existing houses in the village (Gáfriková, 2017).

The construction of the water work Slezská Harta was also accompanied by resettlement of the affected population. As already mentioned above, literature on development-induced displacement connected to construction of dams and water reservoirs in the two countries analysed within the present paper is rather scarce. However, the case of Slezská Harta is debated by Cahliková a Stojanov (2013) in detail. The authors point out this concrete case as being one of the most recent displacements due to development in the Czech Republic, with about 675 persons being resettled. Parts of six villages were flooded, one thereof was flooded completely – the village of Karlovec, except for the cemetery and the church. In Karlovec itself, 47 houses were destroyed and approximately 255 persons were condemned to resettle. Another severely affected village was Leskovec nad Moravicí, with approximately 150 buildings demolished (thereof houses, cottages, and other residential units and buildings) and about 300 persons resettled. In Nová Pláň, 10 out of 32 houses remained, and the population declined from 124 to 29 persons (Cahliková a Stojanov, 2013). For instance, the village of Nová Pláň is currently inhabited by approximately 55 persons, as only few families refused to move out when the dam was being constructed between 1987-1997. However, throughout the time, the population of the village has slightly increased (Nová Pláň, 2018).

As far as compensation of the affected residents is concerned, this was provided to the citizens who owned land or a building in the area to be flooded and was paid in cash after the property had been appraised. The displaced also had the opportunity to rent an apartment in the newly built apartment buildings. Many did so, as the amount of money given was not enough to acquire a new house. The resettlement in this particular case had a serious impact on the population also with regards to job losses and losses of social services (Cahliková a Stojanov, 2013).

#### **4.2 Selected Cases of Dam Construction Linked to Displacement in Slovakia**

According to the data of Slovak National Committee on Large Dams (Slovenský priehradný výbor, 2018), there are 48 dams in Slovakia. The boom of dam building in Slovakia started after 1950 under the communist regime.

In the scientific literature on dams in Slovakia, the scientists focus mainly on technical aspects (Ivančo a Sabolová, 2014; Bednárová, 2015) or environmental impacts (Slovenský vodohospodársky podnik, 2005) of the dams. In this part of the paper we aim to present the data on displacements caused by dam construction in Slovakia since 1950.

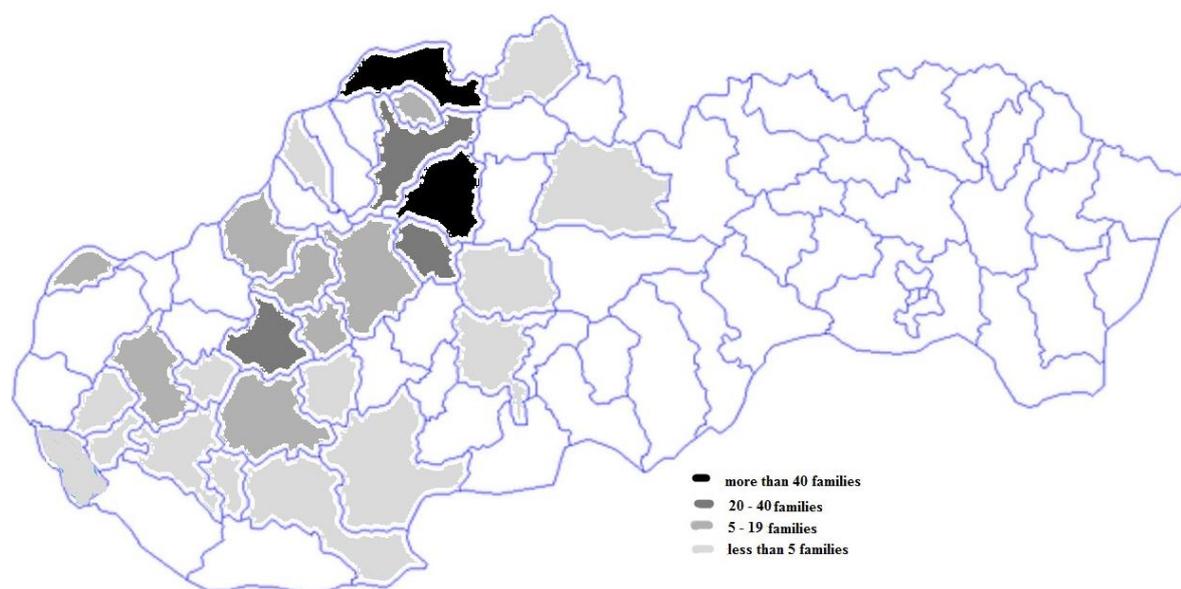
Since 1950, the plans for construction of 14 dams have led to displacement, from which 13 dams were built and one dam, Slatinka, has been postponed indefinitely (MŽP SR, 2009). Through the process, 38 villages were evicted completely, and 11 villages were displaced partially. These displacement cases range from over 4000 displaced persons to only 6 households.

The construction of the dam Liptovská Mara (Dejčík, 2010) led to complete or partial displacement of 13 different villages. The number of affected households was 940 with the estimates of more than 4000 displaced persons. After the final decision about the dam had been made, people living in the affected area could not build new houses here or even invest into repairing their existing homes. During the years between the decision and the evaluation of these buildings for financial compensation, the value dropped considerably. The inhabitants of displaced villages were not able to buy new houses and were forced to buy apartments in the nearby city of Liptovský Mikuláš. The displaced population, especially older people, could not continue their traditional subsistence farming lifestyle, that further impacted their economic status and well-being.

The problems with compensation mentioned in case of Liptovská Mara can be identified also in relation to many other dam construction projects in Slovakia. Another bigger displacement case where the displaced population faced similar problems was the Nová Bystrica dam, built as a reservoir of drinking water for the Kysuce region and the city of Žilina. The displacement affected 343 households and approximately 1800 people from two villages that were flooded completely, Riečnica and Harvelka. These people moved to cities in western Slovakia, but also to Czechia (Obecný úrad Nová Bystrica, 1989). Based on the list of families displaced from Riečnica and Harvelka, we mapped their distribution among Slovak districts, as seen in Figure 1.

Figure 1

### Displacement from Riečnica and Harvelka



Source: Authors' own elaboration based on Obecný úrad Nová Bystrica (1989).

The highest number of families, 68, moved to Martin district. As the displacement process lasted several years, the inhabitants displaced later were attracted to this district by the displaced that moved here earlier. Other popular destinations included nearby districts Čadca (44 families), Žilina (20 families), Turčianske Teplice (22 families) and one district further south, Topoľčany (32 families). The map does not include 33 families that moved to Czech Republic.

The financial compensation was in some cases supplemented with new housing planned and built by the state for the displaced people. In case of Orava dam, (Milan, 2013) where 5 villages were flooded, and 3600 persons were displaced, some people were offered new houses in the south of Slovakia, while other were only provided the financial compensation for their homes. While the latter group faced similar problems as people displaced in case of Liptovská Mara or Nová Bystrica, the former group improved their economic situation. The displacement from houses in northern Slovakia to the houses in the south provided them with better conditions for farming on the soil of higher quality.

Similarly, people displaced from Okrut and other villages because of Nosice dam, (Juhászová, 2016) were compensated by new housing close to their previous homes. In this case, the original houses were made of wood and often without modern bathrooms and other equipment. The new housing was more comfortable and more modern than the previous one, and in combination with convenient location not far from their old homes contributed to overall content of the displaced.

However, not all cases of compensation in the form of new housing were equally successful. One of the most recent cases of displacement in Slovakia was the Žilina dam and the necessary relocation of the whole Mojšova Lúčka village (Vašuta, 2014). While the people were provided with new houses, they frequently complained about the low quality of these new buildings and lacking infrastructure in the newly created village.

## **5. Key Informant Interview Results**

In this paper we compare the cases of dam construction in former Czechoslovakia that led to displacement. The first aim is to compare the displacement process to the guidelines implemented by World Bank to their projects that require population displacement.

The second aim is to compare the differentiating experiences from displacement based on the different form of compensation, either financial compensation or compensation by new housing. In one of the studied cases in each country the displaced population was compensated only financially (Nová Bystrica and Slezská Harta), in one case in each country the population was compensated by new housing (Žilina and Švihov).

Table 2

### **Ways of Compensation in the Selected Dam Construction Cases**

	Financial compensation	New housing
Czech Republic	Slezská Harta	Švihov
Slovakia	Nová Bystrica	Žilina

Source: Authors' own elaboration.

In all studied cases the displacement was involuntary, and it was a result of the decision about dam construction. The later displaced community was not a party of the decision-making process about the dam (except for Slezská Harta, based on the interview with the town representative) or the form of compensation (except from Žilina). The decisions about compensation were finalized later and the information provided to the people changed during the process. In Žilina, people were involved in the decision-making process and chose the offer of new housing close to previous village in newly built houses. In case of Nová Bystrica, people were promised houses in the newly built village. Later, the plans were changed to financial compensation only. There were plans for different solutions, but the differences were minimal, e.g. differing in the extent of displacement in concerned village, the interviewees do not mention not building the dams as a viable alternative. All interviewees agree that the official system of assistance from the authorities in transition period did not exist. The members of the community helped each other, e.g. the families who moved first helped find housing for the neighbours who moved later to the same town.

The answers to the question of the resulting living standards differ considerably, as well as the answers to the question of adequacy of the compensation. In case of Slezská Harta, the interviewed representative claims that the displaced population was generously compensated for their property which contributed to the improvement of their economic situation. Unlike the representatives of the displaced population, he also claims that the population benefits from the dam by increased tourist activity in the area. In Žilina, the displaced were promised electricity free of charge for 10 years after the displacement, but this promise was not fulfilled. The representatives of the displaced cite several problems with the compensation. In case of compensation by new housing, the quality of the newly build houses was not adequate. In Žilina, the houses were evaluated 30 years after the decision about dam construction had been made and the building closure amortised their houses. The compensation for old houses could not cover the price of new homes and the displaced had to pay the difference. In cases of financial compensation, people were only compensated for the building but not for the fields

and forests around them. Because of this they could not afford to buy new houses elsewhere and often ended up in small flats in the city. The life in the city had its positives (more job opportunities, better schools) but also many negatives (change of lifestyle, no access to own produce, different environment).

After displacement almost all the communities were divided to some extent. In Žilina, the whole village moved to the location near the previous village, so the disruption was minimal or none. In case of Slezská Harta, only a part of the village was displaced, and the rest remained intact, which diminished the need for any commemoration events. In cases of Švihov and Nová Bystrica, the community meets at least once a year in official events organized by the displaced. The people displaced moved to different locations. The community ties between the displaced led to the creation of smaller communities in places that became home for more than one displaced family. These new communities also served as support in the new environment where the displaced were perceived as different. Only in one case the interviewee claimed the spite of host community, in other cases there were no significant problems. The question of sufficient infrastructure was only relevant in cases of new housing, as in other cases the people moved to already established towns with civic amenities. In cases of Švihov and Žilina, the infrastructure in newly built towns was sufficient, based on the interviews.

Table 3

### Application of the World Bank Guidelines to the Studied Displacement Cases

	Švihov	Nová Bystrica	Slezská Harta	Žilina
<b>Displaced people improved or restored their living standards</b>	<ul style="list-style-type: none"> <li>• new houses sometimes smaller and of poorer quality</li> <li>• new job opportunities in towns</li> </ul>	<ul style="list-style-type: none"> <li>• loss of farming opportunities</li> <li>• need to find a new job</li> </ul>	<ul style="list-style-type: none"> <li>• generous financial compensation</li> <li>• possible future improvement (recreation)</li> </ul>	<ul style="list-style-type: none"> <li>• same job</li> <li>• housing with gardens</li> </ul>
<b>Displaced people were compensated and assisted in the transition period</b>	<ul style="list-style-type: none"> <li>• new houses</li> <li>• assistance provided</li> </ul>	<ul style="list-style-type: none"> <li>• compensation for houses, but not enough for a new house</li> <li>• people were not compensated for their grounds around houses</li> <li>• no assistance</li> </ul>	<ul style="list-style-type: none"> <li>• compensation for houses</li> <li>• no assistance</li> </ul>	<ul style="list-style-type: none"> <li>• new houses, difference in value paid by the displaced</li> </ul>
<b>Displaced people shared</b>	no	no	<ul style="list-style-type: none"> <li>• potential future</li> </ul>	no

in project benefits			benefits, e.g. due to tourism	
Displaced communities were kept together	<ul style="list-style-type: none"> <li>• new village built</li> <li>• civil organization was set up</li> </ul>	no	no	yes
Displaced people were settled as close to the original site as possible	<ul style="list-style-type: none"> <li>• people moved to different cities</li> </ul>	<ul style="list-style-type: none"> <li>• people moved to many different cities</li> </ul>	<ul style="list-style-type: none"> <li>• part of the village remained intact</li> </ul>	yes
Quality of infrastructure and services was restored or improved	<ul style="list-style-type: none"> <li>• new services and facilities established</li> </ul>	<ul style="list-style-type: none"> <li>• dependent on new residence</li> </ul>	not applicable	<ul style="list-style-type: none"> <li>• partially</li> </ul>
Host communities participated in planning and were assisted to overcome possible adverse effects	no	no	not applicable	<ul style="list-style-type: none"> <li>• community remained unchanged</li> </ul>
People with informal rights to the land were also compensated	not applicable	not applicable	not applicable	not applicable

Source: Authors' own elaboration.

## 6. Conclusions and Policy Implications

Our study of displacement connected to dam construction in the Czech Republic and Slovakia since 1950 showed significant differences in the compensation of displaced population with impacts on their well-being. In the period between 1950 and 1992, these two independent states were two part of one state, Czechoslovakia. The significant differences are therefore not between these two countries, but among the individual cases of displacement and compensation.

In all cases of displacement due to dam construction in studied area and period, the legal framework applied to the compensation was identical. People affected by displacement had to leave their homes and were financially compensated for the houses they owned based on the expert evaluation of their property. In some cases, however, the displaced people were offered new housing elsewhere, either very close to their previous homes, or even hundreds of

kilometres away. In this case, the financial compensation was adjusted to match the price of the new home.

This arrangement not only eliminated the burden of finding new home but also solved another common problem connected with the expert evaluation and subsequent financial compensation faced by the people, who were not offered new houses. As we already described in case of Nová Bystrica, the time passed between the decision about the dam construction and the expert evaluation depreciated the value of their property, especially as any new construction or renovation was prohibited in this period, sometimes lasting several years.

Concluding the study of documents related to displacement, including interviews with the displaced persons, we consider the compensation with the offer of new housing the best option for the economic and social situation of the displaced population in cases of dam construction in the studied period. This type of compensation has led to fewer negative effects on social and economic situation of the displaced population.

Even if the financial compensation would be similarly remunerative as new housing, displacement may have negative effect of destroying communities and the need of settling in the new environment, as was the case in Nová Bystrica.

Based on the interviews, the policy recommendations for possible future displacement are as follows: compensation in the form of new houses without the need to pay the price difference by the affected population, establishment of new village close to the original place of residence, retention of the community and providing them with infrastructure comparable to the original place of residence. The negative effects were the worst in cases where people received only financial compensation, often seen as unfairly low, and faced problems connected to the loss of their home and integration to new communities.

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