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# DEVELOPMENT-INDUCED DISPLACEMENT AND RESETTLEMENT: THEORETICAL FRAMEWORKS AND CURRENT CHALLENGES

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List of Acronyms

ADB – Asian Development Bank

AFDB – African Development Bank

CABEI – Central American Bank for Economic Integration

CIDPs - Conflict Induced Internally Displaced People

CIDR – Conflict Induced Displacement and Resettlement

COHRE- Centre on Housing Rights and Evictions

CRAB - Regional Commission Against Large Dams in Brazil, (Comissão Regional de Atingidos por Barragens)

DAC - Development Assistance Committee (OECD)

DCD - Development Cooperation Directorate (OECD)

DIDR – Development Induced Displacement and Resettlement

DIDPs – Development Induced Desplaced People

DIDS – Dam Induced Displacements

DIDR – Development Induced Displacement and Resettlement (pol. przesiedlania inwestycyjne, przesiedlenia industrialne)

DPs – Displaced Persons

ECOSOC - Economic and Social Council of The United Nations

ECHO- Humanitarian Aid Department of the European Commission

EDP -Environmentally Displaced Persons

ENGOs- Environmental Non Governmental Organization

ESCAP- Economic and Social Commission for Asia and the Pacific

FMR – *Forced Migration Review*

GTRP- Gwembe Tonga Research Project

HWR- Human Rights Watch

IAP – International Accountability Project

IBRD- International Bank for Reconstruction and Development

ICESCR - International Covenant on Economic, Social and Cultural Rights

ICJ – International Court of Justice

ICOLD- The International Commission of Large Dams

IDA- International Development Association

IDB – Inter-American Development Bank

IDMC – Internal Displacement Monitoring Centre

IDPs – Internally Displaced Persons

IFC – International Finance Corporation

IMF – International Monetary Fund

INDR - International Network on Displacement and Resettlement

IOM – International Organization for Migration

IR – Involuntary Resettlement

IRN – International Rivers Network

IRR- Impoverishment Risks and. Reconstruction Model

ISS- Indian Social Institute

IUCN- International Union for Conservation of Nature

MAB–Sul - Movement of People Affected by Dams–Southern Region in Brasil

MDB – Multilateral Development Banks

MIDR – Mining Induced Displacement and Resettlement

MIGA- Multilateral Investment Guarantee Agency

NBA- Narmada Bachao Andolan

NESRC - North Eastern Social Research Centre

NGO – Non Governmental Organization

NPRR - National Policy on Rehabilitation and Resettlement

NVDA – Narmada Valley Development Authority

OD4.30 - Operational Directive 4.30 on Involuntary Resettlement

OECD – Organization for Economic Co-operation and Development

OHCHR- Office of the High Commissioner for Human Rights

PAPs Project-Affected Peoples

SOPEMI- Systéme D'Observation Permanente des Migration

UDHR – Universal Declaration of Human Rights

UNDP – United Nations Development

UNEP - United Nations Environmental Programme

UNESCO - United Nations Educational, Scientific and Cultural Organization

UN – United Nations

UNCESCR - United Nations Committee on Economic Social and Cultural Rights

UN DESA - United Nations Department of Economic and Social Affairs

UNHCR – United Nations High Commissioner for Refugees

UNHCR PDES- UNHCR's Policy Development and Evaluation Service

UN-Habitat – United Nations Human Settlements Programme

UNRISD – United Nations Research Institute for Social Development

UNU- United Nations University

WBG – World Bank Group

WCD – World Commission on Dams

WCPA - IUCN World Commission on Protected Areas

WFP- World Food Programme

WHO- World Health Organization

WTO – World Trade Organization

WWF- World Wide Fund for Nature

VRA- Volta River Authority

VRW – Village Resettlement Worker

**Introduction- a brief overview of contemporary involuntary migrations**

Contemporary studies on forced human mobility are based on three distinct and very different systems of analysis[1]. They are distinguished not only by different conceptual grids but also by their origins and objectives.

Traditionally understood, migration studies are the oldest system of analysis of human spatial mobility. They were created in the late nineteenth century on the basis of economy, geography and historical demography. Research into evolution, investigations of the decline of ancient empires, and geographical determinism had a large impact on the foundations of migration studies. In later decades, migration studies, however, developed primarily on the basis of economics, with their main area of research being the analysis of the determinants of voluntary human mobility. A German-English geographer, Ernst Georg Ravenstein (1834-1913), is considered the founder of contemporary migration studies. Already in the classic publication entitled *The Laws of Migration*, published in two volumes in 1885 and 1889, Ravenstein wrote that "bad or oppressive laws, heavy taxation and unattractive climate, uncongenial social surroundings, and even compulsion (slave trade, transportation) produce flows of migrants, but none of these flows can be compared in volume with that which arises from the desire inherent in the most men to 'better' themselves in material aspects". The primacy of economic categories established by Ravenstein strongly dominated the study of migration throughout the twentieth century and persists to this day. Almost all influential migration theories, such as neoclassical theories, the Hicks model (1932), the Harris-Todaro model (1970), Wilbur Zelinsky`s mobility transition model, or the push-pull theory of Everett Lee, are based on economic categories. Unfortunately, narrowing human migration to economic motivations alone omits many relevant and immeasurable social aspects, not to mention environmental and climate determinants which were completely marginalized by migration theorists for almost the whole of the twentieth century. According to some specialists, the marginalization of environmental factors within migration theories was associated with Marxist dialectical materialism, which strongly influences social sciences in democratic as well as communist countries. The impact of labour migrations on population growth was one of the fundamental themes of migration studies. However, this discipline through most of the last century completely marginalized the factor of development policy as it shaped forced migrations. Given the crucial importance of economic factors, contemporary migration studies can play only a limited and subsidiary role in the more advanced research on involuntary mobility. In recent years we have observed attempts to conceptualize forced migration studies as an autonomous part of migration studies. However, it seems that the scope of these studies, proposed inter alia in the IASFM definition, is too broad in nature and does not produce good conditions for detailed research. The International Association for the Study of Forced Migration (IASFM)

1 This text was originally written in French and later translated into English by Virginie Richard.

describes its subject as a "term that refers to the movements of refugees and internally displaced people (those displaced by conflicts) as well as people displaced by natural or environmental disasters, chemical or nuclear disasters, famine, or development projects". The attempt to connect analysis of issues very different from each other, such as internal displacement and involuntary reseettlement, human trafficking, and forced international migration, within a single concept of forced migration seems unpromising. Because of its relatively short history and theoretical weakness, the study of forced migrations does not seem to be a valuable complement to studies of voluntary economic migrations. It seems that better conditions for detailed research have created the displacement studies developed in recent years.

The second regime of analysis of involuntary human mobility, developed in the early and mid twentieth century on the basis of politics and law, is that dealing with the category of refugees. Unlike the subjects of migration studies bounded by demographics and economics, the refugee occupies a primarily legal category, providing the basis for institutional systems of protection. From the very beginning the category of refugees was strongly associated with the institution of asylum. The first formal efforts for refugee protection are associated with the Fridtjof Nansen activities at the end of the First World War. Until the early fifties, protection of refugees was not a universal concept, but was developed as a response to current political problems in order to help certain categories of people forced to leave their countries of origin. We can mention two refugee conventions adopted during the thirties: the Convention Relating to the International Status of Refugees, 28 October 1933, and the Convention Concerning the Status of Refugees Coming from Germany, 10 February 1938. Practical activities, accompanied by legal documents, which were undertaken during the twenties and thirties were directed towards specific groups in need. The refugee protection system known in the twenties and thirties consisted of rather ad hoc legal mechanisms to allow swift help to well-defined categories of persecuted minorities. The origin of the international protection of refugees as a universal concept was associated with the adoption of the Geneva Convention in 1951, the creation of the UNHCR in 1950, and the signing of the so-called New York Protocol in 1967. Both of these international legal instruments as well as the UN system of humanitarian practice limited the category of refugees to international migrants forced to leave their country of origin or previous residence for political reasons, especially armed conflict, political persecution and organised violence. The legal understanding of refugee protection is also strongly connected with well-regulated categories of statelessness and asylum within the frameworks of public international law. In addition, public international law includes documents related to the protection of voluntary international economic migrants (migrant workers). I am thinking in particular of the United Nations International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, which was adopted in 1990 and entered into force in 2003. Due to the lack of acceptance of its provisions by western countries, the importance of this document and its implementation, as monitored by Committee on Migrant Workers (CMW), is very limited. The ILO has adopted two instruments specifically applying to migrant workers (conventions no. 97 and 143).

The third category of interpretation of involuntary mobility is that of internal displacement. The term "displaced persons" was coined by Russian-American sociologist Eugene M. Kulischer (1881-1956), the

author of *The Displacement of Population in Europe* (Montreal, 1943). Kulischer applies this term to all categories of forced mobility in Europe during the war. The contemporary understanding of this term, therefore, significantly differs from its actual meaning, which is limited mostly to cases of internal mobility. The end of the Second World War, bringing in the formative period of the Iron Curtain, did not lead to significant interest in internal displacement. Scientific research into displacement and resettlement was limited to issues relating to the social consequences of economic development in parts of the world considered peripheral, in terms of geopolitical rivalry. Politically conditioned processes of decolonization launched many policies resulting in forced internal migrations. Among the first studies on the social consequences of development-induced displacement we can mention the works of applied anthropologists such as Elizabeth Colson, Thayer Scudder and Robert Fernea. Studies of development-induced displacement had already emerged in the mid-fifties and early sixties, in the context of such projects as the Great Dam of Aswan, the Kariba Dam on the Zambezi and the Akosombo Dam on Lake Volta in Ghana. During the fifties and sixties we also observed the development of anthropological studies of resettlement in other parts of the world[2]. The first extensive studies devoted to urban relocation in developed countries can be dated back to the sixties. I am thinking of studies on urban relocation in Boston undertaken in the early sixties by American sociologist Hubert Gans. The first more advanced considerations of forced migrations caused by long-term environmental disruptions can be dated back to the nineteen-seventies. The problem of demographic pressure caused by environmental problems and declining resources had been briefly analyzed in the forties in the context of the Dust Bowl or the problem of overpopulation (for example, in the book *Road to Survival* by American ecologist William Vogt). Only in the seventies was research in this area based on more advanced scientific investigation and linked to the activity of international institutions such as UNEP. It was then noted that long-term natural disasters such as cyclones in Bangladesh and drought in the Sahel region had a strong influence on the dynamics of internal and transnational forced migration in those regions. Attention was also paid to the impact of population growth and the effect of natural disasters in terms of declining resources in the most populated countries of Asia. According to some experts connected with so-called Neomalthusianism, overpopulation and diminishing resources could lead to the forced migration of tens of millions of people in the most densely populated countries, who were vulnerable to the consequences of natural disasters and long-term environmental changes. This problem had been pointed out in the seventies by Lester Brown, American environmentalist and founder of the Worldwatch Institute. The seventies were also a decade of increased attention to development-caused involuntary resettlement, inter alia among applied anthropologists and sociologists cooperating with the analytical structures of the World Bank. Its efforts led to the adaptation in 1980 of the first World Bank guidelines devoted to planning and implementation of involuntary resettlement. When analyzing the practical sphere of assistance and protection of displaced people it is worth noting the UNHCR activities initiated in the first half of the seventies. Despite the lack of formal mandate for activity in this area, the agency has acted to protect people internally

2 J. Adair Tobin, *The resettlement of the Enewetak people: a study of a displaced community in the Marshall Islands*, University of California, 1967.

displaced by armed conflicts and natural disasters in Asia.

The studies on internal displacement conducted in the seventies therefore had a selective character. It was only in the following years that the first attempts to conceptualize the issue on a more advanced scientific basis could be noted. The 44-page UNEP report "Environmental Refugees" issued in 1985 by Professor Essam El-Hinnawi is considered the first attempt at a broad conceptualization of forced migrations caused by environmental factors[3]. El-Hinnawi outlines the major elements of environmentally-conditioned migration, and presents the first definition of people he called "environmental refugees". According to El-Hinnawi, environmental refugees are “those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected the quality of their life". Despite its limited usefulness for more detailed theoretical considerations, this concept played an important role as the starting point of scientific consideration of the issue. In 1980 the first World Bank guidelines of involuntary resettlement were adopted. The first half of the eighties was another period of rapid development of studies on development-induced displacement and resettlement (DIDR). The volume *Putting people first: sociological variables in rural development* edited by Michael M. Cernea and published by the World Bank has played an important role as the initiator of more advanced studies in this area. It was in the mid and late eighties that the term "development-induced displacement and resettlement" (DIDR) first started to appear in scientific publications. The collapse of the bipolar international order and release of many hitherto blocked ethnic antagonisms laid the groundwork for research on issues of conflict-induced displacement. Analytical studies in that category were so significant that for at least a few years they dominated the overall picture of internal displacement. The term "conflict-induced displacement" was coined and slowly popularized in literature on forced migrations during the nineties. The growing number of people internally displaced as a result of armed conflict and massive violence prompted the adoption of the Guiding Principles of Internal Displacement in 1998, as well as local documents on IDP protection and assistance and regional stability in Africa (the so-called Great Lakes Pact and Convention of Kampala) in recent years.

During the last two decades we have witnessed a very dynamic development of studies on internal displacement. This problem has for the first time become a subject of debate within international institutions and agencies, including these of humanitarian profile such as the UNHCR and International Committee of the Red Cross (ICRC). Of key importance, of course, were activities related to conflict-induced displacement. This term appeared in the scientific literature in the first half of the nineties. Equally dynamic during the nineties was the growth in analysis of development-induced displacement and resettlement. This trend emerged from debates about the social consequences of dam megaprojects implemented in China

3 The term "environmental refugees" appeared in literature already before El-Hinnawi`s publication from 1985. It was used inter alia by Sir Edmund Hilary in his book *Ecology 2000* published in 1984. The research on environmentally caused forced mobility under the concept of "environmental refugees" was highly popularized between 1985 and the mid nineties. Despite El-Hinnawi publication we can mention here publications of Jodi L. Jacobson from Worldwatch Institute (*Environmental Refugees: a yardstick of habitability*) issued in 1988, and Jon Martin Trolldalen (*Environmental Refugees- A Discussion Paper*, Oslo, World Foundation for Environment and Development-Norwegian Refugee Council, 1992). Since mid-nineties the category of "environmental refugees" is gradually replaced by more neutral and less alarming terms such as environmentally displaced people, environmentally displaced populations and forced environmental migrants.

(Three Gorges Dam) and India (Sardar Sarovar Complex on the Narmada River). Much attention has been paid to this issue within the framework of the World Bank analytical units, which resulted in the adoption of Operational Directive 4.30 (OD 4.30) in 1990 and Operational Policy 4.12 (OP 4.12) on involuntary resettlement in December 2001. The last decade was also a period of rapid development of research devoted to internal displacement due to environmental disruptions. The legally dubious and excessively alarming term "environmental refugees" has been replaced by the more suitable category of "environmentally-induced displacement people" and "forced environmental migrants". An important direction taken by research has been the study of environmentally-induced displacement in the context of security risks. Among the authors in the field of security whose analyses play a particularly important role in the development of this issue we should mention Astri Suhrke, Thomas Homer-Dixon and Arthur H. Westing. Astri Suhrke's 1993 paper entitled "Pressure Points: Environmental Degradation, Migration and Conflict" marked the highly important entrance of research on the destabilizing effects of environmental disruption and its relation to conflict and forced migrations. It is also worth mentioning an article by Arthur H. Westing entitled "Environmental Refugees: A Growing Category of Displaced Persons", published in 1992. The end of interbloc rivalry as well as the emergence of the concept of human security during the nineties raised hope for the development of theoretical studies on the causes of internal displacement other than violent armed conflict. Ethnic conflicts in the region of the African Great Lakes and on the Balkan peninsula, however, revealed that the mass displacement caused by escalation of violence is the most important problem from a humanitarian point of view. Research on population displacements caused by natural disasters and long-term environmental changes has nevertheless developed very successfully. It was undertaken inter alia on the basis of public international law, in connection with rising sea levels and the threatened deterritorialization of small archipelagic countries in Oceania, along with border changes to the bigger states. Finally, within the last few years, we have observed one more very important process from the theoretical point of view. I am thinking of the theoretical separation of displacement caused by sudden natural disasters and industrial accidents from that associated with slow-onset environmental processes, including climate change. In many studies of the eighties and nineties these problems were considered together. It is worth noting that the nature of internal displacement caused by long-term environmental processes such as desertification, soil erosion and rising sea levels is significantly different from that of displacement caused by natural disasters. The term "disaster-induced displacement" had already appeared in the scientific literature in the mid and late nineties. The real explosion of scientific studies in this area, however, occurred in the aftermath of the major natural disasters of recent years: the earthquake-generated tsunami in South Asia (December 2004), Hurricane Katrina in the US (August 2005), and the tsunami on the coast of Japan and its associated nuclear power plant accident in Fukushima (March 2011). These catastrophes brought home to global public opinion and international institutions the fact that natural disaster may become a cause of forced migrations, both internal and international, on a massive scale, in many parts of the globe. Natural disasters in recent years have caused the greatest amount of internal displacement worldwide. According to IDMC estimates, natural disasters expelled 42 million people from their homes in 2010, 14,9 million people in 2011, and finally 32,4 million

people in 2012. Recent disasters have shown, moreover, that even highly developed countries are not free from the danger of forced migrations caused by sudden natural hazards. Scientific institutions such as the Internal Displacement Monitoring Centre (IDMC), the Norwegian Refugee Council (NRC) and the Brookings Institution have devoted increasing attention to the internal displacement caused by natural disasters. The IDMC statistics, from studies conducted in recent years, are the best source of knowledge about the extent of the problem of disaster-induced displacement worldwide. Taking into account recent scientific studies it seems reasonable to distinguish between population displacements associated with sudden natural natural hazards and industrial accidents (disaster-induced displacement) and those caused by more long-term and slow-onset environmental transformations (environmentally-induced displacement).

So how can we characterize the current image of this problem and state of the art in research on internal displacement throughout the world? In recent years, the interest of the scientific community has been focused on virtually all causes of forced displacement, as reflected in the very rapid development of detailed classification of causes of internal displacement. Terms such as "dam-induced displacement" ("hydropower-induced displacement"), "mining-induced displacement", "conservation-induced displacement", and "oil-induced displacement" have permanently entered into the scientific discourse. Recently conducted research on internal displacement is focused on the following issues: 1. analysis of the causes and consequences of internal displacement, 2. relations between this issue and areas of security, human rights, and development studies, 3. gender and ethnic dimensions of internal displacement, 4. analysis of ways to minimize negative consequences of displacement, together with mechanisms of humanitarian assistance for affected people, 5. integration of displaced persons within host communities and their lives within closed structures such as camps for displaced people (IDP camps), 6. the relations between internal displacement and stability, conflict and post-conflict peacebuilding, and 7. analysis of several categories of actors involved in internal displacement. Particularly important and well-developed areas of IDPs discourse include research on the psychological consequences of displacement for individuals affected by this problem, and on the interrelations of conflict, displacement and security.

The dominant classification of internal displacement, but one rarely applied in the scientific literature, distinguishes four root causes of this process. They include conflict-induced displacement, environmentally-induced displacement, disaster-induced displacement and development-induced displacement. Despite its theoretical usefulness as a basis for broad considerations, this classification somehow very rarely appears in the literature. Nor do the recently adopted international documents promoting protection and assistance for IDPs, such as the Guiding Principles of Internal Displacement (1998), the Great Lakes Pact (2006) and the Kampala Convention (2009), refer to this classification of the causes of displacement[4]. This omission seems to be a direct consequence of two theoretical problems we may encounter when analyzing internal displacements. The first is the difficulty of precisely determining the meaning of the term "conflict-induced displacement".

4 Note that the most well-known definition of iternally displaced persons established in Guiding Principles of Internal Displacement (1998) and the Kampala Convention (2009) omits development projects as a cause of displacement.

According to the most common understanding of the term, conflict-induced displacement refers to people who are forced to leave their habitual place of residence as a result of current escalation of internal violence. Such a narrow understanding of the problem is therefore similar to the overall meaning of the term "internally displaced persons" (IDPs), as encountered in the text of many international instruments. Also, in the ordinary sense of the term, internally displaced people are mainly associated with victims of internal violence who are forced to move to another place. Contrary to general opinion, escalation of internal violence is by no means the largest quantitative cause of internal displacement. It is estimated that the current population of conflict-induced displaced people comprises more than 20 million people worldwide. But the annual growth rate in the number of people forced to leave their places of residence as a result of current internal conflicts amounts to only a few million people. According to IDMC estimations, over 3.5 million people were newly displaced by conflicts in 2011, which is a few times less than even an underrated number of persons temporarily uprooted by natural disasters, or permanently resettled by development projects, within the same period of time. The vast majority of the population of conflict-induced displaced people is thus of longtime character. It can be seen from the figures that the escalation of internal violence is a much slighter cause of displacement than the consequences of economic development (approximately 15 million people displaced by development projects per year).

However, let us remember that the term "conflict-induced displacement people" may also refer to a much broader population than only those individuals forced to leave their homes following internal armed conflicts. The most fundamental cause of displacement is the presence of dynamic conflict among several categories of actors within a static and limited territory. The desire to take control over a certain territory and its resources becomes a cause of conflict which forces its residents to leave their current homes. Each of the already mentioned causes of displacement involves certain antagonisms. The kind most visible and easy to analyze are displacements associated with conflict over resources or antagonisms based on ethnic background. In the case of development-induced displacement or conservation-induced displacement, territory becomes an arena of specific conflicts between the interests of the public or private sector and the needs of people displaced or affected by particular development decisions. Development-caused displacement is often associated with conflict over resources which has led to landlessness and consequent problems (joblessness, homelessness, food insecurity, and social disarticulation). Displacement is primarily a phenomenon associated with the loss of land, which is a fundamental point of economic, social and cultural reference. In each of these cases the largest single cost of the conflict is paid by affected individuals and communities, who in many cases are not even the subject of the dispute leading to their displacement.

People forced to leave their place of current residence are not always the active subject of the processes leading to their displacement. The civilian population may be merely a passive observer and victim of internal conflicts which lead to deportation. A similar situation can be observed in the category of displacement caused by development projects. In countries with an authoritarian form of government, such decisions rarely take into account the interests of the people living in the project’s immediate vicinity. Due to their limited political participation, lack of social consultation prior to investment, and legal discrimination,

they are rarely involved in decisions affecting their future. A limited degree of autonomy also characterizes people displaced or forced to evacuate in the aftermath of natural disasters or more permenent environmental processes. Usually, they leave their homes as a result of the strong influence of environmental hazards, or are forced to evacuate as part of an organized action carried out by the local authority.

Natural disasters are currently the cause of internal displacement on the largest scale worldwide. According to the Internal Displacement Monitoring Centre (IDMC) report, natural disasters led to at least temporary displacement of over 42 million people in 2010 and 14.9 million in the following year. These displacements are mostly related to weather events such as floods and storms. As of 2011, 89% of the displacements occurred in Asia. However, let us remember that the majority of these were short-term evacuations, which do not have far-reaching social consequences. At the same time we are observing natural disasters inducing long-term displacement to areas far from the original place of residence. The particularly high potential for long-term damage is characteristically found in natural disasters, such as tsunamis and atmospheric events, affecting densely populated Asian countries. We are still noticing a lack of accurate statistics on long-term displacement caused by natural disasters.

Another significant cause of involuntary internal mobility is displacement or forced migration associated with slow-onset environmental changes. Among progressive environmental problems leading to forced migration we can mention land degradation, desertification, progressive temperature increase in the area, and the possibility of rising sea levels in future. In my view it is necessary to clearly distinguish displacements caused by slow-onset environmental changes (including climate change) from those associated with sudden natural disasters, which usually present greater threats to security and more visible humanitarian problems. There are several factors underlying the distinction. The displacement caused by natural disasters is characterized by spontaneous or organized flight from the place of current residence without specific plans for the future. The key goal of people displaced and evacuated following natural disasters is immediate departure from the area of strong human security risks. After the natural disaster has run its course, people affected by it very often return to their homes or former immediate environment. Only natural disasters involving massive devastation throughout the territory or chemical contamination of a large area lead to more irreversible displacement. The aim of displacement or migration caused by long-term environmental change is relinquishment of current residence in order to maximize the level of human security, which had been reduced by the consequences of those changes. Each of the categories of displacement reviewed here, therefore, has a different motivation. Mobility caused by long-term environmental change often takes the form of a planned compulsory migration, rather than spontaneous displacement or evacuation carried out by the state authorities. Migrations caused by slow-onset environmental change are strongly linked to and coexist with other categories of human mobility, such as economic migrations and all categories of internal displacement. Changing environmental conditions can significantly undermine the economic basis of existence. In many cases of migration observed in developing countries, economic and environmental motives of migrants are very difficult to separate. Long-term environmental changes often reduce the amount of vital resources (water, agricultural land) in the particular

territory. Declining resources and conflicts over their acquisition very often lead to population displacement. Slow-onset environmental change is therefore a very important cause of displacement in several regions of the globe. I am thinking both of migrations directly resulting from the negative effects of environmental changes in a particular territory, and of displacement caused by earlier conflicts over resources.

Progressive climate change is an obvious source of many natural hazards which create the dynamics of disaster-induced displacement. Further relationships, which are difficult to delimit precisely, may combine economic development with displacement caused by long-term environmental change. A usual consequence of development projects is progressive land degradation in their vicinity. Creation of large dams significantly affects the landscape, ecology, and animal populations. We know of examples of the construction of a dam leading to water pollution along the river's entire course and thus to deterioration in the economic situation of local residents. Environmental problems are a common consequence of exploitation of mineral resources, in particular through the creation of large open-cast mines. The environmental costs of development projects therefore lead to a significant decline in the living conditions of many communities and the subsequent *de facto* forced migration from rural to urban areas. In many cases, precise identification of the motives guiding migrants turns out to be impossible. Particularly strong interconnection of the various causes of internal displacement is observed in failed states, those ruled in a totalitarian or authoritarian manner, and those strongly affected by ethnic antagonisms. Let us mention here at least some of the difficulties in the delimitation of individual causes of internal displacement in Sudan. The totalitarian or authoritarian governance model significantly affects the increasing dynamism of internal displacement. Displacements in countries ruled in an undemocratic manner may be associated with the following, at a minimum: 1. harassment of and discrimination against powerless communities, 2. compulsory implementation of population redistribution schemes such as the Transmigrasi in Indonesia and the politics of villagization in many African countries, 3. implementation of megaprojects leading to mass displacement and a drastic deterioration in the living conditions of the local community.

The subject of this report and the dominant problem addressed by the following analyses is internal displacement and resettlement caused by the consequences of economic development. It is estimated that this problem may directly affect over 15 million people each year. When we take into account that much disaster-induced displacement consists of long-term and reversible evacuations, the problem of development-induced displacement emerges as perhaps the world's largest statistical category of internal displacement.

Analysis of displacement caused by development projects requires, at the outset, a clear theoretical framework. This is because the term "displacement" can be understood in two different ways. It may be used to refer to eviction of people from their habitual homeland without adequate compensation, guarantees or mechanisms of social support, or to the initial phase of a process of resettlement (associated with physical relocation of people from their homes). Displacement may therefore be a distinct, negative phenomenon related to violation of fundamental human rights, or the initial step in the resettlement process. The term "resettlement" therefore refers to physical, pre-planned relocation, combined with appropriate support mechanisms, including social support, in the new location. According to Robert Chambers, "resettlement is

characterized by two main features: A movement of population; and an element of planning and control"[5]. In other publications, resettlement is defined as "the process by which individuals or a group of people leave spontaneously or unspontaneously their original settlement sites to resettle in new areas where they can begin new trends of life by adapting themselves to the biophysical, social and administrative systems of the new environment"[6]. According to the *Encyclopedia of World Environmental History*, resettlement may be defined as "the process through which populations displaced from their habitat and/or economic activities relocated to another site and reestablish their productive activities, services, and community life"[7]. This definition strongly emphasizes that resettlement is a combination of physical relocation (displacement) with subsequent attempts to restore the displaced people's livelihood in the new place.

Extremely important for the understanding of this issue, therefore, is the analysis of standards of displacement and mechanisms of further support and assistance for displaced and resettled people. Involuntary resettlement associated with economic development is a phenomenon seen in all continents. Only in some of them, however, does it take on the character of a significant social problem, leading to violations of human rights and significant reduction in the level of individual and community security. Therefore, global variation affects the difference in standards of implementation. The key factor in the strong global differentiation among cases of DIDR is the difference in standards of resettlement, which determine the subsequent economic and social situation of the people.

In countries with democratic forms of government, proper protection of citizens' property rights, and extended participation of citizens as political actors, resettlement caused by development is not a visible social problem. The most negative consequences of economic development are observed in authoritarian countries featuring great social inequality and a large group of people who are almost totally excluded from the economy. A highly developed country characterized by a democratic form of government, free public opinion, and extended participation of people in the public sphere, cannot afford to implement socially costly development projects which would lead to mass displacement. Much resistance observed worldwide is a direct consequence of exclusion from planning, decision-making and monitorng of involuntary resettlement. Let us also note that in almost all developed democratic countries the cause of population displacement may lie only in development projects for public purposes. However, even in western Europe, we can find examples of projects that have led to large-scale resettlement. For instance, it is estimated that during the twentieth century lignite mining in Germany led to the displacement of between 30,000 and 100,000 people. Much greater problems are observed in developing countries or those implementing an intensive model of economic development, detached from the principles of sustainable development.

The largest scale of development-induced displacement and resettlement is seen in the world's most densely populated countries: China and India. According to the Chinese National Research Center for

5 R. Chambers, *Settlement schemes in Tropical Africa: A study of organizations and development*, Praeger, London, 1969.

6 Woube M. *Effects of Resettlement Schemes on the Biophysical And Human Environments: The Case of Gambela Region, Ethiopia*, Universal Publishers, Boca Raton, Florida, 2005, pp. 19.

7 S. Krech, J.R. McNeill, C. Merchant (eds.), *Encyclopedia of World Environmental History*, Routledge, 2004, pp. 1046.

Resettlement, over 45 million people have been displaced in this country following development projects carried out between 1950 and 2000, 52 percent of this number owing to urban development projects[8]. Recent research has pointed out that 70 million people were displaced in China by development projects between 1950 and 2008[9]. According to W. Courtland Robinson, development projects in China during the nineties displaced approximately 10.3 million people[10]. In 1989 the Chinese government admitted that over 7 million development-induced IDPs in that country lived in extreme poverty[11]. According to the World Commission on Dams, construction of dams was the sole cause of 34% of DIDR in China between 1950 and 1990[12]. This problem, on an equally large scale, has been observed in twentieth-century India. Vijaya Paranjpye (1988) estimated that construction of dams had forced the involuntary resettlement of at least 21.6 million people up to that date[13]. According to Taneja and Thakkar (2000), the construction of dams alone displaced between 21 and 40 million people in India. As noted by Mahapatra, development might have displaced 25 million people in India during the second part of the twentieth century (from 1947 to 1997)[14]. These figures seem to have been grossly underestimated. According to Nalin Singh Negi and Sujata Ganguly (2011), over 50 million people in India have been displaced over the last 50 years, which is a more accurate statistic if we take project affected people (PAPs) into account. Dr Walter Fernandes of the North Eastern Social Research Centre (NESRC) has estimated at 60 million the total number of people displaced and affected by development projects in India. An Indian government statement of 1994 gives the number of over 10 million development-induced displaced people in the country who are still "awaiting rehabilitation".

The magnitude of displacement following development projects is also highly visible in other Asian countries as well as in Africa and Latin America. Bangladesh is an example of an Asian country strongly affected by this problem. The creation of Kaptai dam, completed in 1962, has resulted in the involuntary resettlement of over 60,000 Chakma and Hajong tribals. Bangladesh is also struggling with huge numbers of people who have been forced to encroach on public land. Involuntary resettlement caused by creation of dams is a highly visible problem in Vietnam, Turkey and Nepal as well. In Africa, the construction of dams was a response to political changes caused by decolonization and the growing energy needs of sovereign states. Among the well-known examples of dam construction implemented in Africa during the fifties and

8 J. Stanley, " FMO Research guide: Development-induced displacement and resettlement", Research Paper, Refugee Studies Centre, University of Oxford, 2002, pp. 4.

9 J. Koppel Maldonado, "A New Path Forward: Researching and Reflecting on Forced Displacement and Resettlement Report on the International Resettlement Conference: Economics, Social Justice, and Ethics in Development-Caused Involuntary Migration, the Hague, 4–8 October 2010", *Journal of Refugee Studies*, 2012.

10 W. Courtland Robinson, "Minimizing Development-Induced Displacement ", available at: http://www.migrationinformation.org/feature/display.cfm?ID=194.

11 B. Pettersson, "Development-induced displacement: internal affair or international human rights issue", *Forced Migration Review*, Vol. 12, 2002.

12 D. Koenig, "Toward Local Development and Mitigating Impoverishment in Development-Induced Displacement and Resettlement", Final Report Prepared for ESCOR R7644 and the Research Programme on Development-Induced Displacement and Resettlement organized by the Refugee Studies Centre, University of Oxford July 2001

13 Paranjpe, Vijay, *Evaluating Tehri Dam: An Extended Cost Benefit Appraisal*, Indian National Trust for Art and Cultural Heritage, New Delhi, 1988.

14 L.K. Mahapatra, 1999. “Testing the Ri sks and Reconstruction Model on India’s Resettlement Experiences.” In Michael M. Cernea (ed.) *The Economics of Involuntary Resettlement: Questions and Challenges* (Washington, DC: World Bank).

sixties, we can mention the construction of Akosobmo Dam in Ghana (opened in 1965), Aswan High Dam in Egypt (opened in 1970) and Kariba Dam on the Zambezi river on the border of Zambia and Zimbabwe (opened in 1959). All these projects drew the attention of applied anthropologists who conducted research on involuntary resettlement caused by their construction and the social consequences of these projects. Also, in recent years we have observed a growing number of dam projects in Africa, often using Chinese capital. Among the the largest projects carried out in Africa in recent years, we can mention the Gibe III Dam in Ethiopia, the Merowe Dam in Sudan, and the Lesotho Highland Water Project. A further major cause of displacement in Africa is the exploitation and transportation of raw materials and the creation or expansion of conservation areas. In Latin America an especially noticeable cause of displacement turns out to be the construction of dams. Let us mention here the construction of Yacyretá Dam on the border of Argentina and Paraguay (68,000 displaced people) and the Itaipu Dam on the border of Brazil and Paraguay (59,000 displaced people). It is estimated that construction of the Sobradinho Dam in Brazil, opened in 1979, resulted in the displacement of 60,000 people. Approximately 50,000 people were displaced following construction of the Itaparica Dam in Brazil (opened in 1988, also known as the Luiz Gonzaga Dam)[15].

The causes of development-induced displacement are extensively discussed in the literature. Most publications list eight main causes of development-caused displacement. These include the following:

1. Construction of dams, hydropower plants, irrigation projects, artificial reservoirs and canals. Dam building is the greatest cause of development-induced displacement worldwide. According to a report of the World Commission on Dams "the construction of large dams has led to the displacement of some 40 to 80 million people worldwide"[16]. According to the *Bankwide Review of Projects Involving Involuntary Resettlement,* dam building was the direct cause of 26.6 % World Bank-financed projects (atcive in 1993) involving involuntary resettlement[17]. Thus the construction of dams tends to cause development-caused displacement on the largest scale across the world. Irreversible flooding of vast areas and the need for resettlement of entire communities in remote areas has a much greater social impact than many other causes of displacement. Construction of roads and urban development do not involve the complete transformation of the previously inhabited areas, so that displaced people can live in the immediate vicinity of their previous residence and are better able to maintain their customary economic model, existing social ties and cultural traditions. In the case of people forcibly resettled due to construction of dams, restoring livelihood and adapting to areas far from the previous place of residence is a much more difficult and long-term process. It is worth highlighting that the perception of DIDR by international institutions and scientific communities is based on the consequences of dam building.

2. Development of transportation. Construction of roads, highways and rail transportation is currently, along with construction of dams, one of the causes of development-induced displacement on the largest scale.

15 M. M. Cernea, *Hydropower Dams and Social Impacts: A Sociological Perspective*, Research Paper, World Bank, 1997.

16 M.J. Gibney, R.A. Hansen (eds.), *Immigration and Asylum: from 1900 to the present*, ABC Clio, 2005, pp. 131.

17 A. Rew, E. Fisher, B. Pandey, *Addressing Policy Constraints and Improving Outcomes in Development-Induced Displacement and Resettlement Projects*, University of Wales Swansea, 2000, pp. 91.

According to the Bankwide Review of Projects Involving Involuntary Resettlement, transportation is the direct cause of 24.6 % of all development-induced displacement in World Bank-financed projects active in 1993. This problem to a greater or lesser extent affects most countries in the world. The Jabotabek urban development project in Indonesia, which involves widening of roads in Jakarta, displaced between 40,000 and 50,000 people. The project was completed in 1990[18]. Displacement caused by development of transportation is extremely difficult to avoid even in developed countries. The ongoing highway construction project in Boston (Central Artery/Tunnel Project, the so-called Big Dig) may be associated with the displacement of several thousand people. In contrast to the construction of dams, development of roads has much slighter social consequences.

3. Urbanization, reurbanization and transformation of urban space. According to WBED estimations over 60 percent of development-induced displacement worldwide resulted form development of urbanization and transportation projects. According to the Bankwide Review of Projects Involving Involuntary Resettlement development of urban infrstructure is the cause of 8,2 % of resettlement worldwide. Among the most important categories of urbanization (and re-urbanization) processes causing involuntary resettlement we should mention: 1. expansion of urban areas, 2. rebuilding of the cities with the devastation of war and the transformation of existing districts and neighborhoods, 3. water supply projects, 4. development of urban transport, especially underground, 5. demolition of poverty districts such as slums and favelas in Latin American countries and India, 6. population redistribution schemes implemented in densely populated urban space. Development projects implemented in highly populated Asian cities leading to particularly high scale of involuntary resettlement. The Mumbai Urban Transport Project (MUTP) commenced in 2002 to improve public transport led to the resettlement of approximately 100,000 people. According to the World Bank "The MUTP is the first attempt in India to resettle a very large number of urban dwellers displaced while improving urban infrastructure. The resettlement process itself has been an unprecedented, pioneering exercise in improving the lives of the urban poor. So far, some 18,500 families - including thousands of squatter families living in shacks along railway tracks - have been relocated to safe permanent dwellings and given legal title to their new housing"[19]. Water supply projects are another important cause of large scale relocations within urban space. We can mention here water supply projects implemented in recent years in Nairobi (10,000 resettled people), Dhaka (40,000 resettled people) and particularly well analysed in literature Hyderabad Water Supply Project (50,000 resettled people). Urban resettlement are nowadays increasing category of DIDR. As pointed out by Professor Michael M. Cernea, the single displacement caused by urbanization processes affects fewer people than the construction of dams. Displacements associated with urbanization are more numerous than those associated with the creation of dams. However, due to the high population density in urban areas, the number of people displaced per unit of area by projects of this kind is larger than the proportion displaced by a single dam.

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18 J. Stanley, *Development-induced Displacement and Resettlement*, Forced Migration Online Research Guide (2004), Refugee Studies Centre, Uiversity of Oxford, January 2004.

19 http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/SOUTHASIAEXT/0,,contentMDK:21527592~pagePK:146736~piPK:146830~theSitePK:223547,00.html

4. Mining and transportation of resources. Attempts to obtain control of exploitation areas and further extraction and transportation of resources have become a growing cause of internal displacement. According to some estimations, over 60 percent of the world's natural resources are located on indigenous lands. The desire to obtain particularly valuable resources is becoming an important factor in many local conflicts. The internal violence caused by conflicts over resources can, therefore, affect the dynamics of conflict-induced displacement to a considerable extent. Large-scale displacement of people is also a consequence of the expansion of mining areas. Especially large-scale displacement is associated with the expansion of open-pit mining areas. It is estimated that the development of a gold mine in the region of Tarkwa in Ghana has so far led to the displacement of between 20,000 and 30,000 local residents[20]. According to Walter Fernandes, expansion of mining in India led to the involuntary resettlement of over 2.55 million people between 1950 and 1990 (particularly in the Jharkhand region). It is estimated that development of the Freeport gold mine on the Indonesian part of Papua Island might have caused the displacement of over 15,000 people. Other countries characterized by large-scale resettlement associated with the development of open-pit mining include China, Bangladesh, Mali, Tanzania, Botswana, Namibia, Papua New Guinea, Philippines, Peru, Suriname, Venezuela, Guyana, Argentina – and even Germany. However, population displacement associated with exploitation and transportation of resources is not limited to the consequences of expansion of open-cast mining areas. Extraction of crude oil does not in itself lead to a significant scale of displacement; in this case factors in the dynamics of displacement are conflicts over control of the areas of extraction and transportation. To obtain profits from oil exploitation requires strong control over these areas.

Already observed struggles to obtain control over oil fields can lead to a significant scale of displacement. Fear of sabotage or organized theft from pipelines often leads the authorities to carry out preventive displacement of local populations from the areas around the pipeline course. The best-known example of so-called oil-induced displacement is the forced relocation of people in South Sudan associated with the creation of the 1500 km-long pipeline Block 5A. It is estimated that in the aftermath of the pipeline project, affecting the area from South Sudan to Port Sudan, more than 160,000 people were displaced. According to the HWR, as of March 2002, the total number of people internally displaced from the oil areas of the Lakes (a section of Bahr El Ghazel) and Upper Nile region stood at 174,200. Population displacement related to the extraction and transportation of crude oil differs significantly from that associated with expansion of mining areas. Terms such as "oil-induced displacement" or "oil development-induced displacement" are increasingly evident in the scientific literature[21]. This problem is often considered a source of so-called petroviolence, seen in many African and Latin American countries[22]. Displacement or forced

20 B. Terminski, *Mining-induced displacement and resettlement: Social problem and human rights issue*, unpublished research paper, University of Geneva, available at:

21 The particular attention of experts in this issue is focused on internal displacement in Sudan following construction of the Block 5A. See: B. Terminski, *Oil-induced displacement and resettlement: Social problem and human rights issue*, Research Paper, School for International Studies, Simon Fraser University, Vancouver, March 2012; W. Courtland Robinson, ***Risks and Rights**: The **Causes, Consequences, and Challenges** of **Development-Induced Displacement***, Occassional Paper, Brookings Institution, 2003.

22 M.J. Watts, "Petro-violence: Some thought on community, extraction and political ecology", Berkeley Workshop on Environmental Politics, Institute of International Studies, UC Berkeley, September 1999.

migration is also a consequence of land, air and water pollution caused by the exploitation of crude oil or open-cast mining. As we can see, the problem of so-called mining-induced displacement and resettlement (MIDR) has an extremely developed and diverse character, making it difficult to limit it to physical population displacement from mining areas. In analyzing this problem we must take a much broader view, taking into account such specific problems as displacement associated with fear for the safety of pipelines, etc.

5. Deforestation and expansion of agricultural areas. Felling of trees is often the first step in the transformation of land into agricultural areas. Especially serious environmental and social problems are caused by the creation of large monoculture plantations, such as palm oil plantations on Borneo Island. Population displacement related to the establishment of large monoculture plantations has also been observed in other regions of the world. Between 1998 and 2005 the surface occupied by palm oil plantations in Colombia has almost doubled (increasing from 145,027 to 275,317 hectares), leading to population displacement on a significant scale.

6. Creation of national parks and reserves, (conservation of nature). As pointed out by Marc Dowie after 1900 more than 108,000 conservation areas, such as national parks and reserves, were created worldwide. Creation of many of them were associated with involuntary population resettlement. The phenomenon of so-called conservation refugees, which are people, usually indigenous, who are displaced from their native homeland territories following creation of conservation areas such as national parks is issue well-discusses in recently published scientific literature. The problem of conservation-induced displacement is particularly apparent in African countries and India. According to Charles Geisler, a sociologist from Cornell University, in Africa alone efforts for the conservation of nature may lead to several forms of involuntary relocations between 900,000 and 14,4 millions people. The creation of Serengeti National Park were associated with displacement of 50,000 Maasai people. The number of indigenous people displaced following creation of Kibale National Park in Uganda is estimated at 35000. Over 10,000 were displaced as a result of establishment of Cross River National Park in Nigeria. Indian authorities have given the number of 1.6 million tribal people displaced in the aftermath of nature conservation projects in this country; it is probably an underestimate[23]. Involuntary relocations caused by the conservation of nature have enormous social consequences. Indigenous peoples who for many generations were organically linked with their land are suddenly displaced and forced to change their land-based economic model and social ties significantly. The relocation very often entails loss of access to common property such as pastures, shared agricultural land, rivers and forests. The result of displacement is not only deterioration in the economic situation but also a huge cultural upheaval. Actions to conserve nature should be accompanied by efforts to maintain existing social ties and sustainable coexistence between man and nature. Unfortunately, the creation of national parks in many regions of the globe is only an excuse for invasive activities such as deforestation or attempts to obtain particularly valuable resources.

23 M. Dowie, "Conservation Refugees: When protecting nature means kicking people out", *Orion Magazine*, November/December 2005; M. Dowie, *Conservation Refugees: The Hundred-Year Conflict between Global Conservation and Native Peoples*, MIT Press, 2011.

7. Population redistribution schemes. One of the most brutal examples of forced population relocation from cities to rural areas was begun by the Khmer Rouge in April 1975, with the relocation of Cambodian people from the capital of the country, Phnom Penh, and other cities into the countryside. It is estimated that the Khmer Rouge regime displaced more than 4 million people from cities into rural areas. Also in neighbouring Vietnam in April 1985, the victory of the socialist regime resulted in reunification of the North and South regions of the country, and with it the creation of so-called New Economic Zones (NEZs) under the "Return to Village" plan. Although the "return to village" was officially voluntary, examples of compulsory or even forced migrations from cities to villages were often observed. Other examples of population redistribution schemes can be found in the programmes of villagization carried out in many African countries, especially Tanzania and Ethiopia. We may regard population redistribution schemes as a specific form of development-induced displacement which is strongly influenced by political factors. Relocation into the less economically favourable areas may became a form of punishment of ethnic minorities or other dissident communities. In some countries we can observe the reverse situation, as in North Korea, where living in the capital, Pyongyang, may be a reward for those citizens who are most trusted economically and politically.
8. Other causes. Among these we can include the creation of specific entities within a large surface area, such as airports, ports and landfill sites. An increasing problem, seen for example in Ghana, is population relocation caused by the establishment of large landfills. Increasingly stringent rules concerning waste management contribute to refuse accumulation and waste in less developed countries. The growth of such dumps in less developed countries may lead not only to the displacement associated with their formation but also to migration away from the subsequently deteriorating environmental conditions.

As we can see, the catalogue of causes of development-induced displacement is characterized by stong diversification and is much influenced by other categories of involuntary migration and displacement. Due to its irreversible nature, implementation of development projects leads to serious social consequences. Poorly implemented resettlement plans, unaccompanied by adequate compensation for lost assets and mechanisms of social support, lead to long-term or even irreversible deterioration in the conditions of large communities. Those responsible for the planning, preparation, and implementation of resettlement, and for the further adaptation of resettled people, therefore carry heavy individual responsibility for their decisions. Despite its clearly humanitarian context, development-induced displacement is still a marginalized and underrated problem in the area of human rights and humanitarian protection and assistance for vulnerable groups. The activity of the UNHCR in the area of IDPs protection and assistance is focused on the situation of people forced to leave their homes by internal violence and natural disasters. Efforts on behalf of people displaced by the consequences of slow-onset environmental processes or development projects have played a totally marginal role in the activities of this agency, probably because these categories of population displacement are characterized by a lower degree of human rights violation and fewer humanitarian risks affecting the displaced.

The aim of the present report is to highlight development-induced displacement and resettlement (DIDR) as an autonomous category of contemporary forced displacement, a catalogue of phenomena

characterized by great diversification of causes and consequences, a global social problem for as many as 15 million people relocated each year as a result of economic development, and a challenge to international cooperation institutions, public international law, human rights, and the agencies involved in protection and assistance of IDPs and humanitarian aid. This publication therefore contributes to the highly developed body of research on this issue conducted primarily within the various social sciences. The beginning of extensive scientific research on involuntary resettlement caused by development projects can be dated back to the fifties and sixties of the last century. Among particularly important recent publications in this field it is worth mentioning several books and research papers. The report by Jason Stanley entitled *Development induced displacement and resettlement* (2004) is very useful preliminary reading, allowing one to understand the diversity and scale of this problem in the most seriously affected parts of the globe, before going on to more detailed studies. A similar, more detailed examination is found in an occasional paper by Professor W. Courtland Robinson entitled *Risks and Rights*: *The Causes, Consequences, and Challenges of Development-Induced Displacement*, prepared in May 2003 for the the Brookings Institution-SAIS Project on Internal Displacement. Its author points out in great detail the causes of DIDR, its scale, and examples of it from all over the world, as well as the implications of this problem for the promotion of human rights and international cooperation. It is definitely worth drawing attention to a couple of interesting monographs and collected papers published in recent years in the specific area of forced migrations. Among them we should mention the volumes edited by Christopher McDowell (*Understanding Impoverishment: The Consequences of Development-Induced Displacement*) and Chris de Wet of Rhodes University (*Development-Induced Displacement: Problems, Policies and People*). A very important attempt to interpret this problem on the basis of ethical considerations is *Displacement by Development*. *Ethics, Rights and Responsibilities* by Peter Penz, Jay Drydyk and Pablo S. Bose, published in 2011 by Cambridge University Press. When analyzing displacement and community problems associated with mining developments it is worth turning to the report by Professor Theodore E. Downing, *Avoiding New Poverty: Mining-Induced Displacement and Resettlement*. Much attention in recent years has been devoted to the problem of people displaced as a result of nature conservation projects. An important voice in this debate is the recently released *Conservation Refugees: The Hundred-year Conflict Between Global Conservation and Native Peoples* by Marc Dowie (MIT Press). It is difficult to overestimate the contribution of research on development-induced displacement in India undertaken over many years by Dr Walter Fernandes of the NESRC in Guwahati. The publications of Professor Anthony Oliver-Smith of Florida University are an important source of knowledge of the sociological aspects of popular resistance to development projects.

The main issue I wish to draw attention to in the following passages of this report is the autonomous character of development-induced displacement and resettlement (DIDR) in comparison to other causes of internal displacement. Both causes and consequences of this process make it more or less similar to other categories of internal displacement. However, in many respects DIDR differs significantly from these other categories. This fact is of crucial importance because in at least some sections of recently issued publications this problem has been linked to a slightly different form of environmentally-induced displacement. I am

thinking in particular of some reports from the late eighties and the first half of the nineties, and of more general monographs on social problems. Currently, however, these problems are almost always studied separately.

The second issue I want to focus attention on in this report is the highly visible diversification of DIDR's causes and consequences. I try to discuss in depth examples of all the main causes of this problem. The displacement caused by construction of dams is both the greatest and most discussed form in the literature on DIDR. As pointed out by A. Oliver-Smith, the non-dam-related causes of DIDR have been less fully analyzed and documented[24]. Analysis of the problem is based on the perception of development-caused displacement as reflected in World Bank policies on involuntary resettlement. My report devotes considerable attention to the causes of DIDR that are less often discussed in the literature, such as mining and urbanization processes. The growing scale of such projects, or the expansion of existing ones, will in fact lead to a heightened scale of displacement. I devote much attention to the displacement of indigenous people caused by the conservation of nature. The expansion of protected natural areas obviously represents an attempt to minimize the adverse environmental impact of economic development and to preserve the environment for future generations. But people responsible for developing principles of nature conservation do not always recognize the need to maintain a balance between environmental protection and indigenous people's at least minimal conditions of functioning in their environment.

Another important task undertaken by this paper is analysis of the factors influencing the extreme variation in standards of resettlement practice. These standards are derived from a number of sources, the most important being: the form of government, dynamics and principles of economic development and environmental protection policies, property rights, the level of respect for human rights, the level of development of institutions of civil society, activities of NGOs, the relation of government to social inequalities, the problem of poverty and of communities on the margins of society, and antagonisms of economic, social, ethnic or religious origin. The listed factors affecting the nature and consequences of the implementation of resettlement are of course not exhaustive. Sometimes even implementation that seems appropriate from the point of view of relocated and affected communities can lead to further social problems. The actors responsible for the planning and implementation of resettlement, and for further assistance to resettled people, are not the only entities bearing responsibility for the success or failure of resettlement. A great deal depends on the activities and attitudes of communities displaced or affected by development projects. For many years, attention has been drawn to the importance of displaced and affected people as central actors in the process of displacement. A passive attitude, manifested in reluctance to adapt to the economic model in the new place of residence and in lack of integration with the host culture, can lead to long-term negative consequences.

Development-induced displacement is primarily an socioeconomic issue associated with loss or significant reduction of access to basic resources on which communities depend. Physical abandonment of

24 A. Oliver-Smith, "Applied Anthropology and Development-Induced Displacement and Resettlement" In: S. Kedia, J. van Willigen (eds.) *Applied Anthropology. Domains and Application*, Greenwood Publlishing Group, 2005, pp. 189-220.

the existing residence shall therefore secondary to the loss of access to material resources such as land, pastures, forests and clean water as well as intangible resources such as socio-economic ties

The diverse nature of displacement caused by development aggravates the difficulty of classifying the problem. In many areas of the world, the physical displacement of the population from the project area is unaccompanied by appropriate instruments of social support. In such cases, therefore, we should rather speak of unplanned forced evictions caused by development projects than of planned efforts to resettle and subsequently support those affected. As an example of development projects accompanied by brutal evictions, we can mention the creation of the Block 5A pipeline in Sudan as well as the villagization and collectivization measures in African countries, which have many elements in common with the worst Soviet practices. An important part of my analysis, and a premise of the discussion on the theoretical aspect of the problem, is comparison of development-induced displacement with the other categories of internal displacement.

Another issue explored in depth in this report is the consequences of development projects in terms of the situation of the individuals and populations displaced and affected by them. Important support for this kind of analysis can be found in studies conducted from the mid-fifties onward on the basis of applied anthropology and sociology, which generated theoretical models applied specifically to research on this issue. Among them we can list Colson-Scudder's four stage model from 1982[25] and the Impoverishment Risks and Reconstruction (IRR) model developed by Professor Michael M. Cernea during the nineties[26]. However, we should note that in recent years DIDR has attracted increasing attention from specialists in many scientific disciplines. Before asking about the social consequences of certain development projects, it is worth considering the merits of these studies' premises. DIDR is a problem often analyzed by experts from the field of economics and applied development. However, it is essential to move away from the perception of this problem solely in the economic context centring on profit and loss accounts. We are still observing a lack of studies combining the analysis of economic viability with examination of the social consequences of development projects.

The next problem I wish to draw attention to is the ethical controversy associated with development projects and consequent involuntary resettlement. Development as a goal of public policy should be oriented towards the increased well-being of the global population. The several forms of marginalization of already excluded groups as a result of the displacement seem ethically unacceptable. One justification for the implementation of development projects and forcible removal of people from their native lands is the argument that the project will lead to more efficient use of land and thus generate more income than before for the mainstream of society. Local communities are thus deprived of their land in the name of economic development for larger groups of people or to serve the interests of the state. Remember, however, that the definition of national interest can change dramatically, depending on the faction in power, the current model

25 T. Scudder, E. Colson, "From welfare to develop-ment: a conceptual framework for the analysis of dislo-cated people" [In] A. Hansen, A. Oliver-Smith (eds.), *Involuntary migration and resettlement*, Westview Press, Boulder CO, 1982.

26 M.M.Cernea, "Risks, Safeguards and Reconstruction: A Model for Population Displacement and Resettlement", *Economic & Political Weekly*, Vol. 35, No. 41, October 7-13, 2000, pp. 3659-3678.

of governance, or specific political conjunctures. Deterioration of the people as a consequence of the implementation of development projects often has multigenerational or even irreversible effects. The problem is that affected communities generally do not participate in the decision to carry out a development project, nor do they share in the profits from its operation. It seems, therefore, necessary to carry out by law, and by the strengthening of civil society, action for the empowerment of displaced and affected communities as autonomous and self-determining actors who must share in any benefits arising from the implementation of development projects. Unfortunately, the authorities in many countries, not to mention the private sector, continue to reflect the viewpoint typical of conquistadors, namely, that such benefits should belong to a body which can make better use of them for its economic and social development. Land should not be viewed solely as a source of economic profit for private business or selected groups of society, in isolation from its importance as an area of realization of individual economic interests, social interaction and cultural identification.

Human rights considerations contained in the report are focused on two main aspects. The first is identification of key rights of the displaced, especially in the context of planning and implementation of development projects. The provisions of the Declaration on the Right to Development adopted in 1986 by the United Nations General Assembly should be treated as one point of reference in considering the following issues. The document stated that "every human person and all peoples are entitled to participate in, contribute to and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realised". Self-determination of indigenous people and the right to maintain their own model of life and economy are basic principles that determine the intact functioning of indigenous people in their current territory. Among other important rights in the context of people displaced or affected by development projects we should include the right to land and access to common resources, the right to cultural identity, the right to environmental protection and to more suitable forms of development. Rights directly associated with the resettlement process include: the right not to be displaced, the right to participation in the decision-making process concerning resettlement, and the right to rehabilitation. Despite the concept of indigenous people's rights having been intensively promoted since the nineties, populations in many countries around the world are experiencing more and more the negative individual and community consequences of development.

The second issue I wish to draw attention to is the protection of displaced and resettled people within public international law documents. The so-called third generation of human rights indeed plays a positive role by pointing out the need to take into account the situation of vulnerable communities. However, there is only a very limited possibility of these principles' full implementation, together with control of negative practices, in countries characterized by low standards of respect for human rights. Problems of development-induced displaced people also play a limited role in the binding and non-binding documents adopted so far in relation to protection and support for IDPs. The international organizations and agencies which carry out these policies still pay little attention to this problem. It seems necessary to achieve at least a partial adjustment of the emerging system of protection and assistance to IDPs so as to pay more attention to the

problems of persons displaced by long-term environmental changes and development projects.

The report also devotes much attention to the activities of international institutions on behalf of development-induced displaced people. For almost forty years, this problem has played a significant role in the activities of the World Bank and regional development banks. These institutions, which draw attention to development projects realized with the help of their loans, should promote standards of sustainable development rather than contribute to the drastic deterioration of displaced or affected communities' economic conditions. The guidelines and policies of involuntary resettlement, adopted within the purview of the World Bank since 1980, have served as a tool for developing better mechanisms of planning and investment, which could eliminate or significantly minimize its negative social costs and impoverishments. Research activities of the World Bank, however, have not been accompanied by action on the part of agencies dedicated to human rights and humanitarian aid. UNHCR activities in the area of assistance and support for IDPs are currently limited to relief of those displaced by internal armed conflicts and natural disasters. The displacements caused by implementation of development projects and long-term environmental changes are usually characterized by a lower level of human risk. Perhaps because of the slow onset of the negative social consequences of DIDR, the UNHCR treats these cases as matters of internal policy for selected states.

The last issue I want to draw in-depth attention to in this report is the usefulness of the concepts of human security and human development in the analysis of DIDR and its social consequences. Internal displacement as a security issue and factor influencing conflicts is a subject already well-discussed in the literature. The attention of specialists is particularly focused on the relationship between environmental change and displacement and security issues, as well as on the relationship between security and conflict-induced displacement. Securitization of the issue of environmental change and consequent demographic processes is observed already in the early nineties thanks to authors such as Astri Suhrke, Thomas Homer-Dixon, Arthur H. Westing and Norman Myers. The usefulness of the concept of human security as a tool for interpreting the problems facing development-displaced people has already been highlighted by a small number of authors (e.g., G. Bharali, 2006; G. Caspary, 2007; B. Terminski, 2012 and 2013). Resettlement due to the implementation of development projects often leads to a decrease in the levels of all the most important categories of human security emphasized in the UNDP *Human Development Report* of 1994 (economic security, food security, health security, environmental security, personal security, community security, and political security). For further analysis we can include two more forms of human security: cultural security and gender (in)security. Analysis of the problem of development-induced displacement yields a good match with the key features of the concept of human security (people-centred, multi-sectoral, comprehensive, context-specific, prevention-oriented).

To a limited extent we can also apply the other significant concept of recent years in analyzing the consequences of development-induced displacement. I am thinking inter alia of the concept of human development advanced since the late eighties (Brundtland Report, 1987). However, let us remember that the concept of human development is focused on improving the well-being and welfare of whole communities

and large groups. Many of the development projects carried out in recent years have not only failed to increase the well-being of resettled people, but have actually furthered their multigenerational marginalization. Many of the ongoing projects lead to a reduction in all aspects of human development for the affected communities (equity, empowerment, cooperation, sustainability, security, and productivity). We can analyze the consequences of development projects for the people displaced or affected by them using many more theoretical approaches. Particularly important, however, are the approaches of sociology, applied anthropology and development studies.

**1. An overview of development-induced displacement**

The last century was a period of unprecedented economic development in many areas of the world. Although it led to an improved quality of life in many regions, just as often the consequence was the deterioration of living conditions and various forms of marginalization of the poorest and already excluded communities, such as indigenous people, outside the mainstream of society. The development of democracy and political empowerment of local communities increased the number of beneficiaries of economic development. In ancient Rome and some Asian empires the main beneficiaries of economic development were the rulers and the closed circles of the elite. As observed especially in the twentieth century, the greater democratization of social relations meant that economic development would serve the interests of a much larger proportion of the population.

The most fundamental goal of economic development seems to be to advance the welfare and well-being of the people. Those responsible for policy development, however, should reflect on three fundamental questions: what is the purpose of economic development, who benefits from it, and by what means should it be implemented?

The ultimate goal of human development, including economic development, should be the expansion of individual and collective freedom. The vast majority of social transitions known from historical records were aimed at the empowerment of the individual within a society of independent actors determining their own fate. The purpose of the Neolithic revolution, with the rise of the first urban settlements and the civilizations located in river basins, was to increase the freedom of man, understood in the context of minimizing adverse human effects on the environment. Also, modern conceptions emphasize the importance of economic development as a means of increasing the well-being of all members of society. Economic development should therefore have a positive effect on emerging categories such as human development, human security and human rights. Unfortunately, however, the principles expressed here are still very far from realization in many parts of the world. Economic development is not undertaken to improve the lives of all the inhabitants of a country, but to serve the interests of government, private business or narrow social elites. Economic development, rather than contributing to the expansion of personal and communal freedom, in many regions becomes a cause of progressive enslavement and marginalization of an increasing number of people. Thus it leads to human rights violations on a growing scale, accompanied by several forms of social

exclusion.

The megaprojects, such as irrigation programs and large dams, have become symbols of economic development in many countries of Africa, Asia, and Latin America. Apart from their obvious economic and social functions they have played a propaganda role, affirming the worth of the existing political system. In relatively wealthy countries such as India and China, special economic and propaganda value was attached to the construction of large dams. Socially costly megaprojects were among the basic tools of Mao Ze Dong's brutal project called the Great Leap Forward, implemented between 1958 and 1961. As the primary instrument of this bloody program of industrialization and collectivization, Maoist growth-oriented and natural resources-intensive economic policy demanded the construction of at least six hundred large dams each year. India also sought to base its economic development on the construction of big dams, symbolized by the construction of the longest man-made dam in the world – the Hirakud dam. African countries also perceived the realization of such projects as an important tool of economic development. A phenomenon very specific to this part of the world is the policy of collectivization and villagization. Both its overall vision and standards of implementation often reflect the worst of the Soviet experience.

Implementation of large development projects therefore serves the broad economic interests of the country and so maximizes the well-being of all its citizens. The construction of large dams is a typical example of projects implemented for public purposes. Their creation may lead to an increase in the amount of available energy and lower its price, in turn contributing to the speedier economic growth of the whole nation. In addition, these projects may yield other economic benefits such as the creation of thousands of new jobs and income from tourism. However, the increased energy security and well-being of urban residents cannot be achieved through the violation of the most fundamental areas of human security of displaced and affected people. Unfortunately a number of economic development policies of developing states regard involuntary resettlement as a necessary and unavoidable cost of development, and the people affected by it as victims of a just cause. We should also point out that sometimes the benefits of large development projects do not contribute in any way to an increase in the welfare of citizens but only serve the interests of authoritarian governments.

The general assumption that economic development enhances the well-being of the whole society inspires no controversy today. The problem seems to be an often simplistic understanding of society in various parts of the world. In many developing countries there are fixed traditions of economics and law hedged round by strong social divisions. Communities in a weaker economic or social position are not always seen as full-fledged citizens on a par with the dominant social groups who benefit from economic development. The particular problems of persons displaced by development projects in the countries we have observed are characterized by deeply entrenched social divisions and the existence of groups outside the mainstream of society. Over the centuries and up to the present day, such groups have paid and are paying the largest individual and community costs of economic development. Due to their low economic status and poor social position, they are seen as victims of progress by the authorities responsible for implementation of development projects that involve discriminatory practices. Even appropriate mechanisms for

implementation planning and support for the displaced cannot solve all their problems without a significant change in perception of their position and erosion of negative cultural traditions. Economic modernization of developing states should be accompanied by an attempt to expand the group of beneficiaries of development to the widest circles of society. This requires, however, a very strong transformation in the perception of the members of these groups. Even the adoption of appropriate legislation and greater political empowerment of previously marginalized groups will not completely eradicate the problems. Discrimination against certain social groups is in fact strongly established by tradition, culture and religion.

For many decades, the practical dimension of the implementation of development policy has been the subject of debate among national authorities, academics and international financial institutions such as the World Bank and the regional development banks. Economic development policies are largely dependent on the model of governance and objective economic and demographic factors observed in particular countries.

As we know, in many countries ruled by authoritarian or totalitarian regimes, unsuitable economic policies have usually led to a rapid and invasive model of industrialization, apart from their social consequences. Very often they were based on central planning and decisions having more to do with political propaganda than with rational economic profit and loss considerations. The policy of the Great Leap Forward, initiated by Mao in China, is considered by historians to be one of the greatest crimes committed by an authority against its citizens over the centuries. Specialists in the field of history and demography estimate that the Great Leap Forward caused the deaths of between 18 and 45 million Chinese citizens. The development policy of post-independence India, which combined elements of nationalist and socialist economic policies and was aimed at economic self-reliance, did not produce destructive social consequences on such a scale. Although it contributed to the levelling of social divisions and economic inequalities, it also led to deterioration in the living standards of thousands of tribal people. In many African countries which followed the socialist model of development, economic policy was strongly based on Soviet practice. Although attempts at collectivization and villagization by some countries on the continent brought short-term economic benefits, many such attempts failed and did not contibute in any way to solving demographic problems.

Standards of implementation of economic development cannot simply reflect the country's form of government. Equally important are the economic, social, demographic and cultural factors which characterize each country. A strategic approach should affect both the general direction of policy and its practical implementation. A very common mistake of development policies implemented within the last century in totalitarian states was the formation of policy on the basis of ideology. The planning stage, and even the general outline of the economic development strategy of entire regions or countries, should be preceded by in-depth field studies. It is important to identify and analyze in particular: 1. the resources available for economic development, 2. the needs of local communities, 3. the social capital characteristic of the inhabitants of the territory, 4. the dominant economic model in a particular territory, and 5. barriers to implementation. Binding decisions on the nature of economic development should take into account local

demographic and environmental factors. Lack of accurate preliminary analysis is a common factor in the realization of projects that prove non-rational in economic and social terms. Development projects can serve the interests not only of the local community but also of much broader categories of persons. It is necessary for each investment to contribute to improvement in the well-being of local communities and of the wider international community. Development projects should not only be a response to the needs of the local community, but should also use their local capital to the greatest extent possible. Analysis of the factors conducive to the implementation of development policies should be complemented by careful study of the obstacles to their realization. It seems especially important, therefore, to analyze not only the economic rationality of each project but also the potentially negative social and environmental costs of its implementation.

It seems that development policy, in whatever region it is implemented, should contain three fundamental elements. It should be 1. ethically acceptable, 2. socially sustainable, and 3. minimally damaging to the environment.

In recent years, analysis of development policy dilemmas in terms of ethics has attracted the interest of a growing number of anthropologists, philosophers, experts in applied development, economists, and – what is probably the most important group – even some policy-makers responsible for the direction of development. This fact seems to be a result of the increasing prominence of sustainability issues and the responsibility of public and private actors for the consequences of economic development. Because of the multiplicity of theoretical considerations it is difficult to identify a single and comprehensive conception of the ethical legitimacy of development policy and the accompanying development projects. It seems that the ethically correct development policy should view economic development in isolation from pure economic profit and loss accounts, and focus on maximization of the well-being and accumulated social capital of the largest possible proportion of the country's population.

Ethically implemented development policy cannot be carried out at the expense of some, but should serve the purposes of the greatest number of people. Apart from the realm of implementation, the majority of state development projects should promote the broader interests of society. Business projects led by the private sector may also be associated with specific benefits for the whole community and indeed for all citizens of the state. Sometimes, however, such projects lend themselves to maximization of the profits of narrow business groups or transnational corporations and in no way contribute to an increase in the well-being of local communities. A good example of investment that often ignores the needs of local communities and does not contribute to the economic development of residents is the extraction of crude oil and the expansion of open-cast mining carried out by transnational corporations in some areas of the world. A large portion of the income from such projects is rapidly transferred to countries outside the area of exploitation, thus hardly contributing to the improvement of local people's economic situation. Both private and public investment is likely to contribute to national economic development. The principles of CSR put into effect over the past few years have led to gradual improvement in the situation, as reflected even in improved standards of resettlement and increased amounts of compensation received by people displaced due to the

development of mining.

A development policy which is suitable in ethical terms cannot be based on any form of discrimination, even against the smallest communities. Often development projects which are positive and desirable from the point of view of the majority in the society are ethically unacceptable because they lead to violations of human rights and further marginalization of the most vulnerable groups of affected and displaced people. However, total elimination of the negative impacts of large development projects is not always possible. Those responsible for implementing development policies, however, should at least try to restore to the displaced and affected communities economic conditions similar to those that existed before the start of the project. Also, in the long term, local communities should be able to enjoy the fruits of development projects on a basis of equality with other nationals of the country.

The purpose of economic development should be not only to strengthen the fundamental economic basis of the functioning of communities, but also to provide them with adequate social benefits. Economic growth must be accompanied by an increase in the level of education, along with better access to health care institutions, social services and other activities aimed at maximizing human capital. Unfortunately, in many countries the plans for economic development are created and implemented on the basis of a purely economic profit and loss account. In others, beneficiaries of economic growth are almost exclusively the closed circles of power. Gains from increased energy production and exploitation of raw materials have been devoted to the militarization of the country. Development projects in many countries are also a direct and indirect tool of oppression of hostile groups.

Research on DIDR was first undertaken by applied anthropologists who studied the social consequences of dam construction for displaced and affected communities. Over the years, we have witnessed increasing attempts at a more general analysis of this issue on the basis of political economy and development studies. The original studies were primarily focused on the problem of DIDR in the context of socially costly development projects implemented in the countries of the global south. Experts have rarely referred to examples of development-caused resettlement in well-developed countries in Europe or the US and Canada. Here too, however, intensive economic development has become a cause of forced population relocation. In Europe, as in all other parts of the world, the most negative consequences of displacement have been observed in countries under totalitarian or authoritarian rule, such as the USSR or Romania. As in other regions of the world and in Europe, various types of involuntary relocation are strongly connected with and influenced by each other. Factors shaping the future dynamics of DIDR have turned out to be the earlier deportations or conflict-induced displacements from the same territory. An example of this type of interaction, quantitatively small but very significant from a theoretical point of view, is development-caused resettlement in post-war Czechoslovakia. As a result of decisions made at the Yalta Conference to resettle the German population away from the territory of Czechoslovakia, some regions of that country have become much more sparsely populated. A previously mentioned influential factor consisted of infrastructural projects carried out in Czechoslovakia, such as the construction of small dams. The implementation of certain projects in Czechoslovakia therefore not only served the economic needs of the country but was also

associated with the demographic consequences of the earlier deportations of Germans. Particularly interesting from the point of view of this paper is the story of the small town of Přísečnice (German Preßnitz) in Czechoslovakia, which was fully submerged in the seventies under the waters of a small artificial reservoir. It is one of the very few examples of country towns in Europe submerged by a created reservoir. After the deportation of German inhibitants of Preßnitz in 1945, this town gradually lost its importance. In the early seventies, the Czechoslovakian authorities decided to resettle its few residents and demolish it to create a small water reservoir on its territory. This small-scale dam-induced displacement, therefore, was made possible by the demographic consequences of the deportation of the German population twenty years earlier[27].

Of a much more socially expensive character were the displacements carried out in the Soviet Union. After the Bolshevik Revolution of 1917, the territory of this country became the site of deportations on a massive scale, displacing whole ethnic communities, in addition to the more individualized exile of people whom the Bolsheviks considered enemies of the proletariat. The Soviet vision of economic development was accompanied by substantial involuntary resettlement. Let us mention at least a few hundred thousand people forced to relocate following the creation of dams on the Volga river basin, or implementation of other projects of this kind on the territory of contemporary Ukraine. Development-caused resettlement has been much more limited in the countries of Central Europe. A specific cause of involuntary resettlement in Poland and in two German states during the second half of the twentieth century has been the expansion of lignite mining. Despite the lack of accurate statistics, it is estimated that such projects might have caused the relocation of several tens of thousands of Polish citizens and even of 30,000-100,000 inhabitants of today's Germany. Involuntary resettlement caused by lignite mining is also observed, on a very limited scale, in other European countries such as Serbia and Kosovo. The social consequences of such projects were, however, incomparably milder than those seen in African countries, India and the USSR.

Development-caused displacement has had especially negative social consequences in countries characterized by a land-based economy and low employment flexibility, together with strongly rooted social stratification. Because of these factors, involuntary relocations have never become an obvious and intense social problem in Europe. Citizens of highly developed countries in the 20th century were much less dependent on the land and benefitted from a highly flexible economic and employment model. The transition from rural to city life was a relatively rapid process, not usually associated with appreciable negative consequences. The result of the change of residence was a generally improved economic situation, without multigenerational marginalization and social disarticulation. A completely different situation was observed in countries with a static (class) social model and a strong relationship with the land and other basic resources. Loss or restriction of access to land and resources on which communities depend, caused by development projects, was synonymous with the collapse of the economic model hitherto practised and the prospect of poverty.

27One of the very few publications which mentioned this interesting cause of demographically condicioned resettlement is my Polish-language book entitled *Przesiedlenia inwestycyjne: Nowa kategoria przymusowych migracji* (*Development-induced displacement and resettlement*) published in Warsaw in 2012.

Specialists from the field of applied anthropology, sociology or applied development should not limit their considerations to development-caused resettlement in developing countries in Africa or in countries like India and China. Comparison of standards of implementation of displacement in countries with completely different economic and social models may be a useful tool for creating further mechanisms with which to minimize the negative social costs of displacement. Despite the obvious variation in development-caused resettlement in different parts of the globe, these processes have many elements in common.

Research on development-caused resettlement was initially based on anthropological field studies conducted within affected populations. The creators of the first and probably best-known project concerning the consequences of involuntary resettlement in Africa (the Gwembe Tonga Research Project, initiated in 1956) examined, inter alia, the impact of displacement on the evolution of social ties, the economic model or the health risks affecting the displaced. Research of this kind highlighted the situation of individuals and communities as central actors particularly affected by the negative consequences of megaprojects. But it has become increasingly necessary to engage specialists from other fields of knowledge in research into this issue, involving, for example, detailed examination of the health and psychological problems of affected communities. There could also be a link between research on DIDR and studies of other types of internal displacement. As has been observed in recent years, the emergence of detailed research studies within the IDP has led to the creation of more and more subcategories of this process. However, there are interesting individually-integrating theoretical reasons for displacement in the light of which its common features can be identified. In the following passages of this report I would like to briefly highlight a couple of issues which constitute key elements of contemporary scientific discourse on DIDR.

I. *The global scale of development-caused displacement*. It is estimated that each year during the eighties and nineties development projects caused the displacement of 10 million people worldwide. In recent years, more specialists have spoken of approximately 15 million development displacees per year. In the nineties we had already observed an increasing number of people displaced following the construction of dams in India and China. It appears that recently the number of people displaced by the construction of dams has slightly decreased, as there has been a minimal decrease in such projects in some regions. Expansion of mining and alternative energy resources, giving rise to the creation of large dams in many countries, no longer plays such a significant economic role as it did a few decades ago. Many dams have been created in recent years in Latin American countries which endorse the pattern of rapid economic development. This process is accompanied by an increase in the number of evictions in urban areas in connection with re-urbanization, as well as those associated with the expansion of mining, oil exploitation and the conservation of nature. According to research, there has recently been a significant increase in the urban population as a share of the total global population. The transformation of urban space in developing countries, particularly in densely populated Asian agglomerations, has led to a growing number of urban resettlements and evictions. The vast majority of such relocations affect residents of the poorest neighborhoods. Therefore it seems necessary to intensify research into specific urban displacements in individual countries and aid mechanisms for afflicted people. We are also observing an increasing scale of displacement caused by the exploitation of raw

materials. The growing need for resources in highly developed countries makes the global south a natural arena for their exploitation. In Asian countries such as India and China, extraction of raw materials is an important factor in the stimulation of rapid and in many ways unsuitable economic development. The most visible consequence of mining development is the creation of new or expansion of existing mining areas, usually located on indigenous people's territory. As Dr Walter Fernandes noted, between the 1960s and the 1980s the average area of a single open-cast mine in India increased six times, from 150 to 800 acres[28]. It seems that expansion of mining areas will be the cause of an increasing number of displacements and a factor in conflicts with indigenous populations. We have also seen the increasing scale of displacement caused by nature conservation. As well as in many African countries, the scale of the problem significantly affects the tribal populations of India, who are heavily dependent on a land-based economy and common resources such as forests and rivers.

The changing catalogue of the causes of DIDR, along with its scale, reflects the evolution of economic development. Equally important are the changes in the dynamics of economic development implemented in several states. Due to the very extended list of causes of DIDR and the lack of accurate statistical data from many countries it is very difficult to examine with even approximate accuracy the magnitude of the problem throughout the world. The number of 15,000,000 development-induced displaced people per year is therefore an approximation; while the primary factor influencing it is the dynamics of implementation of development projects in Asian states. It is also worth considering the need to conduct a more accurate statistical analysis of the problem. The Internal Displacement Monitoring Centre (IDMC) has collected annual statistics for a few years on the number of people displaced worldwide as the result of natural disasters and internal armed conflicts. It is worth considering, therefore, that the research already undertaken should be supplemented by more thorough analysis of the extent and causes of development-caused resettlement in different regions of the world.

II. *The scale of development-caused displacement in comparision with the other categories of migrations and displacements.* As with the other categories of internal displacement, it is very difficult to determine the approximate number of people involuntarily resettled in the aftermath of development projects. Many developing countries do not collect such statistics. In other countries the issue of development-caused displacement is mistakenly classed as a form of economic migration. In many countries, development-induced displacement is combined with other types of forced migration. Persons displaced as a result of development are therefore placed within other categories of forced migrants.

It is very difficult to compare the number of people displaced or resettled each year in the aftermath of development projects with the annual scale of the other categories of internal displacement. The annual growth rate of all categories of internal displacement is marked by extensive change. For example, according to the IDMC report, in 2010 natural disasters forced the evacuation of more than 42 million people worldwide. A year later, the scale of natural hazards-induced displacement was almost three times smaller,

28 W. Fernandes, "Mines, Mining and Displacement in India" [In] G. Singh, D. Laurence and K. Lahiri-Dutt (eds). *Managing the Social and Environmental Consequences of Coal Mining in India.* Dhanbad: The Indian School of Mines University, pp. 333-344.

with fewer than 15 million people being uprooted. Similar patterns can be observed when we compare the scale of DIDR with the magnitude of two other causes of internal displacement: the escalation of internal violence (conflict-induced displacement) and long-term environmental processes (environmentally-induced displacement).

According to M. M. Cernea, the problem of DIDR may directly affect 15 million people each year, forming the largest category of irreversible internal displacement worldwide. As noted above, the number of people temporarily evacuated or displaced in the aftermath of natural hazards in 2010 was over 42 million. The following year, the magnitude of disaster-induced displacement (14.9 million people uprooted by natural disasters) was already closer to the suggested dynamics of DIDR. Remember, however, that much of the displacement caused by natural disasters is short-term in nature, often limited to a few days of evacuation. The displacement caused by economic development often involves moving to areas adjacent to those previously inhabited, but is typically of a long-term nature. Analyzing the estimated scale of several types of internal displacement, we can say that, among these categories, development-induced displacement is usually second in magnitude only to disaster-induced displacement.

The annual scale of displacement caused by economic development seems at present to be greater than that associated with the escalation of internal violence (conflict-induced displacement) or with long- or slow-onset changes in the environment (environmentally-induced dispalcement). According to the reports of international organizations or other institutions such as the IDMC, the global population internally displaced in the aftermath of internal conflicts is currently estimated at between 24 and 28 million people. The number of people newly displaced by ongoing conflicts in 2011 was estimated at only 3.5 million. Even if the IDMC report does not take into account some cases of short-term displacement caused by the escalation of violence, the annual growth rate of development-induced displacement seems to be greater. There is also a problem in comparing the magnitude of DIDR with the annual scale of environmentally-induced displacement. Accurately estimating the annual scale of displacement and migration caused by slow-onset environmental changes is extremely difficult, if at all feasible. Forced mobility caused by slow-onset environmental change is often seen as a subcategory of economic migration. For example, the famous examples of rural-urban migrations in Africa caused by drought, ongoing land degradation, water shortages and the prospect of famine are often classified (perceived) as economic phenomena, completely detached from their environmental context. Due to the lack of accurate statistical data on the scale of this problem, it is difficult to compare it with the scale of development-induced displacement.

III. *The common elements of development-induced displacement and other causes of internal displacement worldwide*. Development-caused displacement has much in common with other categories of internal displacement. As with these other categories, its fundamental cause is the dynamic conflict of interests within a static and limited territory. In many countries of the global south, development-caused displacement occurs in parallel with other categories of displacement. During the nineties in Sudan, Nigeria's problem was strongly connected with the conflict-induced displacement there. In South Asia, development-caused displacement coexists with displacements stemming from natural disasters and long-term environmental

changes.

Economic development and involuntary resettlement caused by it may indirectly affect the character and dynamics of all other categories of displacement. The planning of development projects is often accompanied by conflict among local authorities, the private sector and displaced or affected communities over control of territory. Particularly strong conflicts over territory and its resources may precede the extraction of oil or development of open-cast mining areas. The consequence may be brutal clashes between local communities and authorities, or other forms of escalation of violence. The persecution of the Ogoni people caused by oil exploitation in the Niger Delta became a factor in the large scale of conflict-induced displacement from Ogoniland. The link between oil exploitation in southern Sudan and the dynamics of brutal displacement was so strong that separation of oil-induced displacement from the more general context of conflict-induced displacement was virtually impossible. Many common elements also connect resettlement caused by development projects with forced migrations due to long-term environmental changes. Pollution of land, water and soil caused by development projects may be a push factor in a secondary wave of forced migrations – this time caused by land degradation and environmental disruption.

IV. *The difference between displacement, resettlement and evictions.* When analyzing the contemporary picture of displacement caused by development and other factors traditionally perceived as aspects of development-induced displacement (such as displacement in city areas), we usually employ three different terms: displacement, resettlement and evictions. They have disparate meanings. The term "displacement" is used most often in the context of relocation related to deprivation of access to existing land and resources, unaccompanied by adequate support mechanisms for the affected people. The phenomenon of displacement is thus not limited to physical departure from the current homeland but is mainly associated with the loss of existing economic and social facilities and of access to the relevant resources, with no benefits gained in return. The term displacement is mostly applied to the situation of individuals, tribes and communities that have been cut off from their current socio-economic base and as a result have seen their standard of functioning deteriorate significantly. The category of resettlement has a definitely more process-related character than displacement. We use the term "resettlement" in the context of relocation based on previous plans and social consultations with affected communities, usually accompanied by adequate support mechanisms in the new place of residence. The costs of physical relocation and the depletion of former resources is thus compensated for by the support received in the new location. The third term often used to describe involuntary relocations connected with economic development is "eviction". On the most common understanding, eviction is compulsory removal of an individual from a territory (e.g. housing unit) to which he has no legal right. In scientific literature this category is mostly applied to relocations of illegal settlers, forced relocations due to conservation of nature, and evictions in urban areas, e.g. those associated with forcible clearance or demolition of slum areas.

V. *Resistance of displaced or affected peoples against development projects*. The problem of resistance against development projects has become an essential element of contemporary discourse on DIDR[29]. The

29 A. Oliver-Smith, "Involuntary Resettlement, Resistance and Political Empowerment", *Journal of Refugee Studies*, Vol. 4, Issue 2,

growing local resistance against the negative consequences of economic development is highly visible in all parts of the world affected by DIDR. In particular, much recently conducted analysis refers to resistance against the construction of dams in India, Latin America and some African countries. Some of the resistance movements have contributed not only to modification of the original development plans and reduction of their social consequences but also to cancellation of the projects. The nearly ten-year campaign of protests by local communities was one of the causes of the decision in August 2012 to cancel construction of La Parota Dam in Mexico. The tradition of resistance of local communities against development projects in India dates back to the first decades of the last century. The growing scale of local community resistance in Latin America is part of the trend observed there towards political empowerment of indigenous populations as self-determined communities deciding for themselves on the direction of their way of life and economic development.

Resistance against development projects takes place on three levels: grassroots democracy (grass-roots movements), traditional non-governmental organizations (NGOs), and virtual resistance (through the internet). Much of the resistance is local and limited to protest against a single development project. However, the protest movements have pursued different objectives. The key goal for a large part of the resistance movement is the complete cancellation of controversial development projects (such as construction of La Parota dam in Mexico or the Polavaram Dam in Andhra Pradesh). Others set themselves the goal of minimizing resettlement or its potential adverse consequences. Some resistance movements have focused primarily on economic demands, including greater compensation in general or as compensation for lost land.

We can mention three basic levels of activity of civil society when protesting against and resisting the negative consequences of development projects:

- Grassroots movements (GROs). The term implies that the creation of the movement and its supporting group is natural and spontaneous, highlighting the difference between this form of organization and movements orchestrated by traditional power structures. Loosely organized and spontaneously initiated protest movements represent the most fundamental level of resistance against development projects. Almost always, they are organized to protest against a single project such as construction of a dam or road. However, the low level of their formal organization often reduces their effectiveness. A major problem for this type of local movement is the difficulty of promoting its aims and objectives outside the small group of directly affected people. That is why movements of this kind are often converted to Non-Governmental Organizations (NGOs) or seek cooperation with other resistance movements. Taking as a point of reference the protest against construction of Polavaram dam in Andhra Pradesh, Bondla and Rao mentioned six basic forms of resistance of local communities against development projects.

1991, pp. 132-149; A. Oliver-Smith, *Displacement, Resistance and the Critique of Development: From the grass-roots to the global*, Refugee Studies Centre, Working Paper No. 9, University of Oxford, November 2002; A. Oliver-Smith, "Displacement, Resistance and the Critique of Development: From the Grass Roots to the Global" In: C. De Wet (ed.) *Development-Induced Displacement: Problems, Policies and People*, Berghahn Books, London, 2006, pp. 141.

These include: a) rallies and dharnas, b) silent protests and submission of memorandums to government officials, c) organization of discussion forums and seminars on the issue to keep the voice of protest continuously heard, d) mass demonstrations involving eminent social activists, environmentalists etc., e) long marches, foot marches and cycle yatras to build solidarity and sensitize communities, and f) hunger strikes in relay[30].

- NGOs and Transnational Networks. Organizations of this kind operate on local, regional and even national levels. Local organizations opposed to single development projects are usually formalized types of grassroots movement. Their formalization, however, is often accompanied by an extension of their activities. We also see an increasing number of NGOs acting on a regional scale. Among the movements operating on regional or national levels as representatives of the broader interests of affected people we should mention the Mexican Movement of Dam-Affected People (MAPDER) and the Regional Commission Against Large Dams (CRAB) in Brazil. The other Brazilian resistance movements include the Movement of People Affected by Dams (MAB), established in 1991 as an autonomous national popular movement. It currently operates in 17 Brazilian states representing a network of communities affected by hydropower dams.
- Internet. The main area of resistance against development projects is, of course, that of direct protests led by local communities or activities implemented through local or regional non-governmental organizations. However, the internet plays a growing subsidiary role as a platform for the promotion of certain demands and the rapid mobilization of members. In recent years we have witnessed an increasing number of online sites giving voice to the interests of groups contesting development projects. The internet has proved to be an important tool for promoting the movement itself and its interests, and thus for carrying its demands beyond the small group of affected people. It also plays an important role in rapid mobilization (e.g. organizing protests) and contact with media or with similar movements. The activities of local resistance movements opposing development projects fit well with those of other anti-globalization movements. The importance of the internet as a forum for mobilizing and promoting the interests of such movements is likely to increase.

VI. *Compensation principle*. Different countries of the world are characterized by extreme diversity in their practice of compensation for people displaced or affected by development projects. The basic element which characterizes most developing countries is a narrow perception of compensation. In many of them the term "adequate compensation" is seen not in economic terms but above all as social and functional. Their goal is not, therefore, to improve or at least restore material and non-material conditions reduced or lost as a result of displacement, but to enable people to rebuild their mode of functioning in the territory. In highly developed countries the main aim of compensation is full restoration of material and non-material conditions lost through displacement. Thus the amount of compensation received by resettled people in Europe often

30 D.J. Narendra Bondla and N. Sudhakar Rao "Resistance against the Construction of Polavaram Dam in Andhra Pradesh. A Fragmented Tribal Movement?", CETRI, 2010.

greatly exceeds the economic value of abandoned properties, because the goal is not only to restore previous conditions but primarily to compensate for the non-material social consequences of resettlement. In the countries of the global south, because of a different perception of property rights, compensation is often intended not to accurately compensate for economic losses but to permit continued functioning in the new place of residence.

An often observed practice in the countries of the global south is lack of or very slight compensation received by people who have no legal right to the land they live on (such as tribals, advasi people and several categories of illegal settlers). Another problem is the inadequacy of compensation for property left behind, in the form either of cash or of prospects for obtaining land in the new area. In the case of many development projects, at least in Latin America, the compensation received cannot even restore, let alone improve, the conditions of displaced and affected people.

Another extremely important issue is the form in which the compensation is received by displaced or affected communities. Compensation received as cash, practised during several development projects, is not always an optimal solution and may become the cause of serious social problems such as landlessness and joblessness. This is because compensation in cash often leads to improper expenditure by individuals who are unaccustomed to large amounts of it or who have followed a land-based economic model not based on money. Instead, it seems appropriate to resettle people in areas similar to those previously inhabited, thus allowing them to follow their accustomed economic model. Compensation should not be seen as a one-time process of redressing the loss caused by relocation. Very often displaced people cannot cope with the new economic situation presented by deportation; the difference between their former economic model and their actual needs is too great. It seems important, therefore, to ensure long-term economic support mechanisms such as new jobs or educational prospects. In many cases, social support mechanisms are the only means of preventing the potential multigenerational exclusion brought about by involuntary resettlement.

Compensation for lost assets, however, must be clearly distinguished from several forms of material support and social assistance. The right to compensation for lost property seems to be an important category of economic law, found inter alia in the text of ILO Convention No. 169 concerning indigenous and tribal peoples in independent countries. It therefore seems unacceptable to reduce their entitlement to only subsidiary mechanisms of social support.

IX. *The right not to be displaced*. The legal foundation of the right to protection from displacement is derived from the right to freedom of movement and choice of residence contained in the Universal Declaration of Human Rights and the International Covenant on Civil and Political Rights (ICCPR), which guarantees that "everyone lawfully within the territory of a State shall, within that territory, have the right to liberty of movement and freedom to choose his residence". A similar guarantee exists in the African Charter of Human and Peoples' Rights. In recent years the legal foundation of the right not to be displaced has been the provisions of the Guiding Principles of International Displacement. Particularly important are the provisions of principle 5, which require states to prevent and avoid situations that may lead to displacement. Forced displacement is a direct violation of the right to freedom of movement and choice of residence.

X. *Human security context.* Applying the concept of human security to the analysis of development-caused displacement leads us to a number of important research conclusions. In the case of much displacement caused by the escalation of violence or sudden or long-term environmental changes, decrease in the level of individual and community human security seems to be the fundamental cause of forced migration. Migration is therefore seen as a result of the impact of specific security threats. In most categories of development-caused displacement we can observe a somewhat different situation. The decline in the level of human security is not a cause but rather a consequence of development-induced displacement. Studies recently conducted by sociologists show that the consequence of multiple displacements caused by development projects is a significant increase in economic and social problems over those observed prior to the resettlement.

## 2. Historical considerations regarding development-induced population displacement and resettlement

Among the four above-mentioned causes of internal displacement, mobility caused by economic development is the latest to acquire mass proportions. Development-caused displacement and conservation-caused displacement are thus regarded as among the youngest categories of mass involuntary human mobility within internal borders. However, even in antiquity we can find examples of population displacement linked to the expansion of agriculture, urbanization and re-urbanization, and indeed the creation of large dams. Perhaps a limited scale of displacement can be associated with the creation of dams in many ancient empires of the Middle and Far East. Internal resettlement has always served the economic interests of narrow political groups. Various forms of involuntary relocation were practised extensively under the totalitarian rule of Imperium Romanum. The capture of a city was often accompanied by displacement of its inhabitants. The problem of forced relocation associated with development might also have been present in ancient China (e.g., accompanying the construction of the Grand Canal in the 6th century BC) as well as in feudal Europe. The intensive colonial expansion of the 18th and 19th centuries caused the first large-scale population displacement associated with development. One product of the colonial era has been the negative standards of implementation of development projects established and maintained in several parts of the globe, leading to social exclusion of and discrimination against especially vulnerable sections of the population.

The first example of development-induced displacement on a mass scale occurred as a result of colonial expansion in the Americas. A common practice of conquistadors in Latin America was the displacement of entire indigenous populations from the cities where they lived and the establishment of new administrative settlements in the same place. New authorities displaced indigenous populations from their homelands, forcing them to give up their former mode of existence. A well-known example of such displacement is the British colonialists' limitation of land and displacement of Aborigines from the coastal territories of South Australia that they had previously occupied. The expansion of the white man's settlements in the United States was accompanied by limitation of land and resettlement of Indians into

specially created reservations. The Indian relocation from the west-southeastern part of the United States to the territory of present-day Oklahoma is an example of a mass displacement associated with the desire to take full control of a territory and its resources, such as gold.

We can also date back to the 19th century the first examples of population resettlement carried out by colonialists in India. As Walter Fernandes noted, by the 19th century India had already become an arena of forced relocations associated with the opening of coal mines in Jharkhand, tea gardens in Assam and coffee plantations in Karnataka[31]. The first decade of the next century brought in the creation of large dams in India. The creation of the Mulshi dam on the Mula river in the Pune district was associated with the earliest known anti-dam movement, founded by farmers who had lost their lands. Founded in 1919, the Mulshi Satyagraha movement led by the charismatic Senapati Bapat is considered one of the first social movements to defend the interests of development-caused displaced people.

The dam megaprojects initiated in several regions of the world from the forties and fifties of the last century onwards have already led to a large increase in the level of development-induced displacements. Indian independence led to accelerated economic growth, largely based on dam construction. In developing countries, ascending the path to sovereignty and political autonomy, the creation of large dams was the necessary and the only effective response to growing energy needs. In 1947, Nehru drew attention to the economic and social benefits of the construction of dams, calling them "temples of modern India". Today, there are nearly 4,000 dams in India alone. Among the projects launched in the forties, it seems worth mentioning the construction of three dams: Tungabhadra (53,000 people displaced), Hirakud (110,000 displaced) and Gandhi Sagar (about 51-61 thousand displaced). A project which became a particularly important symbol of India's independence and economic development following the age of colonialism was the construction of Hirakud Dam, carried out between 1948 and 1957, and strongly supported by Nehru. It led to the forcible resettlement of 22,000 families, the total number of people affected by its construction being estimated at 150,000. Another period of the intense growth of resettlement in India fell in the first half of the seventies. The construction of Ukai Dam (1972) and Pong Dam (1974) led to the displacement of nearly two hundred thousand inhabitants. As noted by Ray, the construction of Pong Dam (in Himachal Pradesh state) caused the displacement of more than 30,000 families. Only half of them received adequate financial compensation, and 3756 were displaced several hundred miles away to the culturally, ethnically and environmentally different Rajastan areas[32]. Similar problems resulted from the construction of Hirakud and Ukai dams (over 80,000 displaced). The construction of artificial dams was the subject of particularly strong controversy up to the end of the 1980s, thanks to what was perhaps the period's most famous case of forced resettlement: the development project in the Narmada Valley (called the Narmada Dam Project, or the Sardar Sarovar Project).

In China the construction of large dams became an element of the Maoist Great Leap policy, initiated

31 W. Fernandes, "Development-Induced Displacement: The Class and Gender Perspective", Paper presented at the International Conference on *The Emerging Woman in the Indian Economy.* Christ College, Bangalore, November 26-27, 2007.

32 P. Ray, "Development Induced Displacement in India", *Sarwatch*, vol. 2, no. 1, July 2000, s. 39.

in 1958. Prior to 1949, only twenty-three large to medium-size dams existed in China. Between 1958 and 1962 more than forty large dams were constructed and opened in that country. The creation of five of them – the Ertan, Lugube I, Shuikou, Xinanjiang, and Zhaxi – was associated with the involuntary resettlement of more than 100.000 people. From the very beginning the large development projects in China led to various practices that discriminated against minorities. The construction of Xinanjiang, implemented during the second half of the fifties, was associated with several forms of discrimination against and persecution of local communities.

Population growth led to increasing energy needs in many developing countries. One solution to this problem has been the construction of socially costly dams in several African countries. The Aswan High Dam on the Nasser Lake, built between 1960 and 1971, has had a very significant and positive impact on the social, economic and cultural transformation of Egypt. The construction of the High Dam has resulted in protection from droughts and floods, an increase in agricultural production and employment, electricity generation and improved navigation, the last being of benefit to tourism. On the other hand, the dam flooded a large area, causing the relocation of 100,000 to 120,000 Nubians, and submerging archaeological sites, some of which were relocated as well. The dam has also been blamed for coastline erosion, soil salinity and health problems. The other well-known example of this process is the construction of Kariba Dam on the Zambezi River between 1955 and 1950.

A large scale of involuntary resettlement caused by centrally planned economic programs also characterized the area of the USSR. The first two five-year plans, implemented in the Soviet Union between 1929 and 1939, were heavily based on megaprojects (building of factories, dams and artificial canals, and development of heavy industry and mining). The national program of dam construction, begun in the USSR during the fifties, led to the displacement of as many as 1.5 million peoples (due to the lack of detailed statistical data it is not possible to determine its exact scale). According to very cautious estimates from recent years, the USSR's hydropower and irrigation projects alone led to flooding of an area equal to that of Bulgaria, displacing 170 towns and 2600 villages, and producing irreversible changes in the ecosystem.

While analyzing the historical picture of DIDR it is worth referring to two other causes of resettlement. The first, found in many developing countries, is population redistribution through various schemes. They can consist either of one-way population resettlement or of population transfer between two areas. The massive displacement of people, related to specific political and economic interests, is the oldest category of DIDR. In the Roman Empire and the Hellenistic states it was already used as a form of repression or in support of other political interests. On a particularly large scale, however, was the appropriation of the colonial areas. A second important cause of contemporary resettlement is conservation of nature, associated with the creation of protected areas, which currently occupy almost 10 percent of the globe. The problem of so-called conservation refugees should be considered an area of development-induced displacement, and one with the shortest history. The mass scale of the problem is observed only during the latter half of the twentieth century, in connection with the creation of more and more protected areas.

The transmigration program (*Transmigrasi* in Indonesian) was a demographic project of the Dutch

colonial government, carried on later by the Indonesian government, to move landless people from densely populated areas of the country (such as Java) to its less populous areas (e.g. Papua, Kalimantan, Sumatra and Sulawesi). The program was begun in the early nineteenth century to reduce crowding and to provide a workforce for plantations on Sumatra Island. It was continued under independence in 1949 by the government of President Suharto. At its peak, between 1979 and 1984, almost 2.5 million people were moved under the transmigration program. After August 2000 the scale of the transmigration program was significantly reduced. According to the Indonesian government, the key aim of this program was to achieve a more balanced population density by moving millions of citizens from the highly populated inner islands of Java, Bali and Madura to the outer, less densely populated islands. Despite differences of opinion on its merits, the Transmigrasi program met with support from international financial institutions such as the World Bank and the Asian Development Bank (ADB), as well as from many western governments who appreciated Suharto's anti-communist politics. It seems obvious that any country which has anything resembling a democratic form of government cannot afford to implement such a relocation program.

Another example of population redistribution schemes, which was also intended to counter overcrowding and improve people's economic situation, was the resettlement and villagization program carried out in Ethopia. The first attempt to solve the problems of overcrowding, a deteriorating economic situation, and lack of access to food by mass resettlement schemes was observed in that country in the nineteenth century.

**3. Theoretical conceptualization of development-induced displacement and resettlement**

The first extensive studies of population relocation caused by economic development within the field of social sciences, particularly applied anthropology, can be dated back to the fifties of the last century. Creation of large dams in Africa alerted applied anthropologists to the social consequences of such projects for the displaced and affected communities. These studies were not limited to theoretical considerations. Their aim was to investigate the situation and the practical problems of displaced people in order to create appropriate support mechanisms later.

Of critical importance for the emergence of the contemporary study of resettlement under the banner of applied anthropology was the pioneering research undertaken by American social anthropologists Elizabeth Colson and Thayer Scudder. This research, initiated in 1952, led to the establishment of the Gwembe Tonga Research Project (GTRP) in 1956, to study the impact of the creation of Kariba Dam on the Zambezi on the situation of 57,000 resettled Gwembe Tonga People. Particularly important from the point of view of the present issue was the in-depth analysis undertaken at this time on the transformation in its functioning. This problem was extensively analyzed in Elisabeth Colson`s book *The social consequences of resettlement: the impact of the Kariba resettlement upon the Gwembe Tonga,* published in 1971, which became a fundamental text of applied anthropology and resettlement studies. Today we can speak of the "anthropology of resettlement" as an important and developing issue within applied anthropology. Research

undertaken over more than sixty years by Thayer Scudder and Elizabeth Colson had a significant impact on the evolution of all development studies worldwide. In 1982 these scientists proposed the so-called four-stage model, the aim of which was to analyze how people and socioeconomic systems respond to resettlement. The model was originally created for the analysis of voluntary resettlement, but has also been applied in studies of more compulsory types. The four stages mentioned in this model are: 1. labelled recruitment, 2. transition, 3. potential development, and 4. handing over or incorporation. In the first phase, the persons responsible for development projects and associated resettlement formulate development plans, often without adequate notification to the affected communities. In the transition period, local communities learn about the forthcoming displacement and its potential consequences. Potential development is the process following the departure of former residents, as the resettled people begin to adapt to their new home, embarking on the reconstruction of economic activities and social ties. The last stage of the model concerns generational integration and adaptation in the new location.

Of particular importance is the research focused on the Nubian community resettlement following the creation of the Aswan High Dam on Lake Nasser. The Nubian Project, financed by the Ford Foundation and led by American anthropologist Robert Fernea, aimed at supplying sociological information to the Egyptian Ministry of Social Affairs, which was responsible for the resettlement of more than 50,000 Nubian people on the Egyptian side of the lake. Particularly relevant reading in this regard is a monograph by Hussein M. Fahim entitled *Dams, People, and Development: The Aswan High Dam Case*. Since the 1950s, further research on relocations following economic development has been undertaken in other parts of the world, including Asia (Dobby, 1952) and Latin America (Villa Rojas, 1955)[33].

Extensive anthropological research also accompanied the creation of Ghana's Akosombo Dam Project on the Volta River, which led to the displacement of approximately 80,000 people. Especially important here is the research undertaken by social scientists Amarteifio, Butcher, Chambers and Whitham in cooperation with the Volta River Authority (VRA)[34]. A notable socio-anthropological study of this issue is the monograph by Robert Chambers published in 1970[35].

During the sixties the first attempts to develop conceptual models of this phenomenon were observed. In 1969 Robert Chambers proposed a three-stages model based on voluntary settlement in Africa, with special reference to the Mwea Irrigation Scheme in Kenya and the Akosombo Dam in Ghana[36]. Soon afterwards, Nelson (1973) confirmed this pattern in a synthesis of resettled people's experiences in new land settlements located in Latin America[37].

We can date back to the seventies the beginning of broader reflection, within the institutional

33 Oliver-Smith A., "Applied Anthropology and Development-Induced Displacement and Resettlement" In: S. Kedia, J. Van Willingen (eds.), *Applied anthropology: Domains of application*, Greenwood Publishing Group, 2005, pp. 189-221.

34 G.W. Amarteifio, D.A.P. Butcher, D. Whitham, *Tema Manhean : A Study of Resettlement*, Ghana University Press, Accra, 1966.

35 R. Chambers, The Volta *Resettlement* Experience, London: Pall Mall Press, 1970.

36 T. Scudder, *The Future of Large Dams: Dealing with Social, Environmental, Institutional and Political Costs*, Earthscan,London, 2005, pp. 33.

37 "A Model of Risks and Risk Avoidance", available at: http://www.his.com/~mesas/irr_model/irr_page_2%20theoretical%20model.htm

framework of the World Bank, on the issues surrounding involuntary resettlement. This institution had been strongly criticized in previous decades for excessive politicization of development aid and lack of interest in the consequences of development projects for local communities. Beginning in the mid-seventies, the World Bank's cooperation with social scientists such as Michael M. Cernea and Scott Guggenheim turned out to be extremely important for the theoretical conceptualization of the issues in the coming decades. It was equally important for the adoption of practical guidelines and policies on the principles of planning and implementation of involuntary resettlement projects, aimed at contributing to improvement of the situation and minimizing the impoverishment of affected local communities. The first World Bank Policy on Involuntary Resettlement was adopted in 1980. As pointed out by Scott Guggenheim, this policy was not focused on compensation principles but rather on improving or at least restoring the living standards of DPs and PAPs. In 1990 the Operational Manual Statement adopted ten years earlier was revised as the Operational Directive (OD) 4.30. In 2002 the OD 430 was converted into the Operational Policy (OP) 4.12. The eighties were also a time of considerable growth in resistance movements against development projects in countries such as Brazil, Mexico, India, and Thailand.

The guidelines and policies on involuntary resettlement established by the World Bank are accompanied by a strong in-depth theoretical conceptualization of this problem. Of particular importance to this conceptualization is the book *Putting people first: sociological variables in rural development*, edited by Michael M. Cernea and published in 1985. The next decade was a period of equally intensive research undertaken in the field of DIDR. The dynamics of research on DIDR were shaped by controversies over the consequences of two particularly well-known development projects of that time: the Three Gorges Dam in China and the Sardar Sarovar Dam on the Narmada river in India.

The decades of the eighties and nineties were a particularly important period for the development of resettlement studies, for a few reasons. This theme began to be analyzed in a growing number of academic institutions and research centres. A very important contribution to the development of DIDR research worldwide was made by the studies of this problem in India, initiated many years earlier by Dr Walter Fernandes, the Director of Indian Social Institute in New Delhi.[38] These studies have played an extremely important role both in understanding the scale of the problem in India and analyzing the problems of displaced persons, as well as exploring effective methods for the rehabilitation of DPs and PAPs.

The growing economic development of China and India observed during the nineties again drew attention to DIDR as an important political and social issue. Research into development-induced resettlement become a domain of interest to specialists from various fields of knowledge. Already in the late eighties we can observe the first attempts to broaden research into DIDR on the basis of forced migration studies. During the nineties more and more attention has been focused on the links between DIDR and human rights. This fact should be linked both with the observed increase in attention to the economic and social rights of indigenous people and with the highly publicized protests against the consequences of development projects

38 W. Fernandes, E.G. Thukral, *Development, displacement, and rehabilitation: issues for a national debate*, Indian Social Institute, New Delhi, 1989.

(led by NGOs such as Narmada Bachao Andolan). The sixties and seventies were a time of evolving research, particularly on the basis of anthropological studies. Since the nineties we have observed numerous research analyses of this problem in the context of the current directions of development and the social problems visible in developing countries.

Of particular significance for the development of DIDR studies is the Impoverishment Risks and Reconstruction (IRR) model developed during the nineties by Michael M. Cernea, a sociologist cooperating with the World Bank. This model is based on the author's researches which analyzed the consequences of development projects in different regions of the world. As explained by Cernea, the model has four main functions: 1. a predictive function, 2. a diagnostic function, 3. a planning and problem-resolution function, and 4. a research function[39]. This theoretical approach, formulated and developed in the early nineties, has since that time undergone considerable redefinition. Cernea mentions eight risks affecting displaced people, pointing out, however, that this classification is not exhaustive.

1. Landlessness – The problem of landlessness might take the form of loss of whole or part of previously inhabited land and/or lack of access to common property resources. The consequence of lack of access to resources that communities depend on is a decline in the economic productivity of entire communities, coupled with negative social changes.

2. Joblessness – As the author noted, this problem is present among both rural and urban populations. Within the rural space joblessness or underemployment is primarily the consequence of the loss of land, while in urban areas, displaced people experience great difficulty in finding jobs.

3. Homelessness – All categories of displacement are associated, at the minimum, with long-time loss of shelter. In many cases, it might mean persistent homelessness affecting whole families.

4. Marginalization – The author pointed out three categories of marginalization facing displaced people: economic, social, and psychological. Economic marginalization is primarily caused by slow or sudden displacement of those in a currently lower economic position. As an example, he noted the economic marginalization of small farmers.

5. Increased morbidity and mortality – Health risks affecting displaced people are the consequence of malnutrition, inadequate sanitation, and lack of access to the water supply. Inadequate sanitation may cause the transmission of epidemic diseases such as diarrhea, dysentery, etc. The author also drew attention to the negative psychological consequences of displacement.

6. Food insecurity – Decrease in the level of human security caused by displacement may be a temporary or permanent problem. Very often, it is a consequence of landlessness and reduced access to common resources. Particularly at risk of food insecurity and malnutrition are women and young children.

7. Loss of access to common property – (bodies of water, forests, grazing lands). The use of local shared resources is an important economic strategy for many indigenous communities. These resources enable people to carry out many of their daily economic activities: fishing, collecting firewood and food in the

39 M.M. Cernea, "IRR: An Operational Risks Reduction Model for Population Resettlement", *Hydro Nepal: Journal of Water, Energy and Environment*, Vol. I, Issue No. 1, 2007, pp. 35-39.

forests, and grazing cattle on common land. When caused by development projects and the accompanying displacement, restriction or loss of access to common property resources leads to significant deterioration in their economic conditions.

8. Social disarticulation – Here the author mentions social transformations such as decay of formal and informal networks, associations, societies, etc.

This classification is of course by no means exhaustive. Professor Theodore Downing added such risks as loss of access to public services, disruption of formal educational activities, and loss of civil and human rights. Equally important problems facing displaced people, however, are sometimes missed by the experts, namely cultural security risks and those associated with discrimination against women.

Observed as early as the end of the eighties, the development of research on internal displacement has produced a wide range of analysis of DIDR in conjunction with other categories of forced migrations. The problem, which was formerly the focus of only a small group of applied anthropologists, has become an important research category for broader groups of specialists in the area of forced migration. On 3-7 January 1995 a conference on development-induced displacement was held in Oxford, organized by the Refugee Studies Programme. Its result was a book edited by Chris McDowell, which today still represents valuable in-depth study of this problem[40]. An important research direction taken by the debate on DIDR was that of ethics. The extremely valuable book by Peter Penz, Jay Drydyk and Paolo Bose, *Displacement by Development: Ethics, Rights and Responsibilities*, published in 2011 by Cambridge University Press, marked a groundbreaking point of departure for further research on the ethics of economic development and the displacement accompanying it. For many years the problem of involuntary mobility caused by economic development has been among the subjects explored by scientists of the Oxford Refugee Centre, as reflected by the number of conferences and workshops on this topic organized since the nineties. On 22-23 March 2013 another conference on this issue, held in Oxford, was organized by Oxford Refugee Centre.

As pointed out by Dwivedi, contemporary discourse on development-induced displacement has been characterized by two perspectives: the "reformist-managerial" and the "radical-movementist"[41]. Representatives of the first approach understand displacement as an inevitable result of economic development and focus on how to manage the problems arising in the course of resettlement in order to minimize their negative effects. Among the most prominent representatives of this approach is M. M. Cernea, the author of the IRR model developed during the nineties[42]. The second approach focuses rather on the legitimization of the forced displacement.

Studies on development-caused displacement remain a within the domain of applied anthropologists and specialists dealing with development studies. The representatives of these disciplines adopt the broad achievements of the social sciences for their analyses. By contrast, we can observe the relative sparsity of

40 C. McDowell (ed.), *Understanding Impoverishment: The Consequences of Development-Induced Displacement*, Berghahn Books, London., 1996.

41 B. Morvaridi, "Resettlement, Rights to Development and the Ilisu Dam, Turkey", *Development and Change*, Vol. 35, Issue 4, 2004, pp. 719–741.

42 M.M. Cernea, *Risk and Reconstruction: Experience of Resettlers and Refugees*, World Bank Publicatioms, Washington DC, 2000.

analyses of the issue on the basis of such important disciplines as law, social psychology and political economy. For example, it seems necessary to develop research on the advisability of economic development projects in the context of the accompanying resettlement. Another, quite poorly developed, research field is the analysis of the problems of displaced people with reference to the international protection of human rights. This deficit, combined with the lack of UNHCR interest and only marginal focus on this problem within the Guiding Principles of Internal Displacement, means that development displacees still are not afforded satisfactory remedies.

The consequences of development projects and the associated resettlement have a very strong impact on virtually all areas of life both of individuals and of larger communities. The potential therefore exists for in-depth analysis on the basis of a number of currently fashionable analytical concepts, such as human development and human security. Recently the problem of the impact of displacement on the level of human security of the people affected has been undertaken in a number of scientific publications (Caspary, Bharali, Terminski). Much less attention has been paid to analysis of the consequences of displacement on the basis of the human development concept. A very important field of study, in the contexts both of the conditions of implementation of development projects and of their future social impact, is the ethical approach. The process of planning development projects and the associated displacement should therefore include analysis of the economic rationality, ethical acceptability and social consequences of this kind of project.

Back in the late eighties and early nineties some authors connected studies on development-induced displacement with the problem of displacement caused by long-term environmental changes. Currently the consequences of economic development are regarded as a fully autonomous cause of forced displacement and are very rarely linked with the issue of environmentally-induced displacement. The dominant position of this field among specialists in social anthropology and development studies, which are often characterized by a narrow understanding of forced migration issues, means that DIDR remains a remote, not to say marginal, area of forced migration studies. We must remember that in developing countries the causes of internal displacement emerge rapidly. In countries characterized by escalation of violence, it is difficult to separate displacement caused by the internal conflicts from those associated with economic development. Implementation of development projects becomes a focus of political tensions and a factor shaping conflicts between public or private actors and affected communities. The consequences of economic development also have a strong impact (becoming a push-factor) on the category of environmentally-induced displacement. This reality stands in striking contrast to the lack of in-depth analysis linking issues of development-induced displacement with the other categories of forced migrations. Only a limited number touch on the issue in substantial depth[43]. As we know, the implementation of development projects may not only act as a direct cause of internal involuntary resettlement but also indirectly shape the dynamics of transnational economic migration, economics, or even the problems of refugees.

43 R. Muggah, "Through the Developmentalist's Looking Glass: Conflict-Induced Displacement and Involuntary Resettlement in Colombia", *Journal of Refugee Studies*, Vol. 13, Issue 2, 2000, pp. 133-164; M.M. Cernea, "Development-induced and Conflict-induced IDPs: Bridging the Research Divide", *Forced Migration Review*, Special Issue, December 2006.

Relocations caused by development may have both a voluntary and involuntary character. Involuntary ones include, in particular, relocations implemented for public purposes such as construction of dams, irrigation systems, transportation, urban transformations, etc. A slightly different situation is observed in the case of displacements associated with the private sector. Because in many countries compulsory population relocations are allowed only for public purposes, people relocated due to private development are often defined as voluntary migrants. Remember, however, that legal norms may have little to do with the prevailing realities in the country. The private sector's use of threats, intimidation or declared intentions to deliberately worsen the living conditions of local communities may indirectly force them to move to another location.

## 4. The most important causes of development-induced displacement

### 4.1. Construction of Dams and Irrigation Projects

The first artificial dams were created in ancient China, Imperium Romanum and the Middle East (by Hittites in the Ancient Anatolia Region). As far back as 3000 BC, the oldest known dam – Java Dam – was created on the territory of present-day Syria. The oldest dam remaining in operation today is the dam in the Syrian Orontes, created in the thirteenth century BC. China's Grand Canal was another major project which may have led to involuntary relocations. However, only in the twentieth century can we observe dam construction on the unprecedented scale known today, together with its major social consequences.

According to the World Commission on Dams' final Report (2000), between 40 and 80 million people worldwide have been displaced by the construction of dams. The document estimates that there are currently over 45,000 dams which are more than 50 feet high. According to a report of the International Commission on Large Dams (ICOLD), the number of large dams in the world increased from 5,000 in 1950 to over 45,000 by the late 1990s. The particularly strong dynamics of dam construction and associated resettlement could be observed worldwide by the mid and late forties of the twentieth century. In China in the late fifties, the construction of dams became a tool for implementing the brutal conomic policy of the Great Leap Forward. In addition, India's independence marked the beginning of a period of economic growth based notably on the creation of large dams. The first megaprojects of this kind in the USSR can be dated back to the thirties and forties of the twentieth century. In the fifties the first cases of such construction in the vast African territory were seen. A few years ago the construction of dams still constituted the greatest cause of development-caused displacement worldwide. According to the Bankwide Review of Projects Involving Involuntary Resettlement, dam building was a cause of 26.6% of resettlement projects. A World Bank study issued in 1994 pointed out that in the early 1990s alone, the construction of approximately 300 high dams (above 15 m) might have displaced 4 million people per year. In recent years we have seen a slight decrease in such development projects and accompanying resettlements. The amount of dam-induced displacement within the global scope of DIDR, therefore, has fallen slightly in favor of involuntary resettlement associated

with urban and transport development and the mining sector.

**Asia:** The largest scale of involuntary resettlement caused by the construction of dams is observed in Asia. The magnitude of this process is seen particularly in India and China over the past sixty years. To a lesser extent, the problem of dam-induced displacement also affects other Asian countries, especially Bangladesh, Pakistan, Thailand, Nepal and Turkey.

As pointed out by Taneja and Thakkur (2000), the construction of dams could have led to the relocation of between 21 and 40 million people in India alone. Among the dams built in India by 1947 which led to a high level of involuntary resettlement we can mention the Pong, Hirakud, Balimela and Sardar Sarovar dams. This last-mentioned project had enormous social consequences, including the compulsory relocation of about 320,000 local people (approximately 40,000 families). The Sardar Sarovar Project was one of the Narmada Valley projects, the aim of which was to construct 10 dams on the Narmada river and 20 smaller dams on its tributaries. The key goal of this project was to provide irrigation for 1.8 million hectares of agricultural land. Its implementation (especially its key element: the 136-metre Sardar Sarovar Dam) from the very beginning was marked by intense social controversy. The project, of which construction began in 1987, inspired protests for several years, with the World Bank even withdrawing its financial support in 1993. Non-violent protests led by Medha Patkar of Narmada Bachao Andolan drew worldwide media attention to the consequences of the investment in the Narmada Valley. Narmada Bachao Andolan (NBA) is a social movement consisting of tribal people, adivasis, farmers, environmentalists, and human rights activists opposed to the Sardar Sarovar Dam. The construction of Tehri Dam, completed in 2006, led to the compulsory relocation of about 100,000 people.

It is estimated that economic development in China within the first forty years of the 1949 revolution led to the involuntary resettlement of at least 800,000 people each year. According to the National Research Center for Resettlement in China, more than 45 million people were resettled by development projects between 1950 and 2000[44]. It is further estimated that, solely as a result of dam building in China, more than 10 million people were involuntarily resettled over a period of forty years[45].

In recent years, also, we have observed an increasing scale of development-induced displacement in China, associated not only with construction of dams but also with urbanization. The construction of the Three Gorges Dam on the Yangtze River, launched in 1994, is regarded today as one of the world's primary symbols of development-caused involuntary resettlement[46]. According to the latest estimates, the project

44 R. Fuggle, W. T Smith, *Experience with Dams in Water and Energy Resource Development in The People's Republic of China*. Country review paper prepared for the World Commission on Dams, Cape Town, South Africa, 2000.

45 M. M. Cernea, "African Involuntary Population Resettlement in a Global Context", Environment Department Papers, Social Assessment Series No. 45, World Bank, February 1997.

46 Among the extremely large literature on Three Gorges Dam it is worth to mention the following publications: G. Heggelund, "Resettlement Programmes and Environmental Capacity in the Three Gorges Dam Project", *Development and Change*, vol. 37, no. 1, January 2006, s. 179-199; P.K. Gellert, "Mega Projects and Displacements", *International Social Science Journal*, vol. 55, no. 175, March 2003, s. 15-25; J. Xi, Sean-Shong Hwang, X. Feng, X. Qiao, Y. Cao, "Perceived Risks and Benefits of the Three Gorges Project", *Sociological Perspectives, v*ol. 50, no. 2, Summer 2007, s. 323-337; L.P. Kite, *Building the Three Gorges Dam*, Heinemann/Raintree, 2011; M. Kammerer, *The Three Gorges Dam (Der Drei Schluchten-Damm)*, GRIN Verlag, 2009; D, Quing*, The river dragon has come!: the three gorges dam and the fate of China's Yangtze River and it's people*, M.E. Sharpe, 1998,.

resulted in the displacement of more than 1.26 million people. About 17 major cities, 126 towns and 3,000 villages have been completely submerged. Construction of the dam on the Yangtze River is the largest example in the history of mankind of human interference with the spatial layout. According to state media communications of April 2012, another 100,000 people may be moved from the area around China's massive Three Gorges Dam because of landslides and riverbank collapses.

Thailand is another country characterized by a growing scale of development-induced resettlement. Since the early sixties, as many as 16 large hydropower projects have been carried out there. The largest of them – Khao Laem dam and Lang Suam – were associated with the resettlement of more than 30,000 people each. The construction of the Pak Mun Dam, completed in 1994, also led to involuntary population resettlement.

It is estimated that more than 13,000 people have been resettled in the aftermath of the construction of Marsayangdi Dam in Nepal. The authorities of that country are planning to carry out two megaprojects in the coming years, leading to a huge level of involuntary resettlement: Karnali Dam (about 60,000 displaced) and the artificial water reservoir Pancheshwar (as many as 124,000 people prospectively displaced). Among other countries in the region characterized by a significant growth of resettlement caused by development projects we can include: Philippines, Malaysia, Sri Lanka, Laos and Vietnam. An interesting finding is the almost complete lack of projects of this kind in some highly populated countries in southern Asia. The construction of Kaptai Dam in Bangladesh, completed in 1962, led to the displacement of approximately 80-100,000 local residents, mostly belonging to the Chakma community. The largest development project in the history of Pakistan was the construction of Mangla Dam, completed in 1967. Following implementation of this project, over 110,000 people were involuntarily resettled. Another project in Pakistan was the construction of the Tarbela Dam on the Indus river, launched in 1974. According to official estimates, its construction led to the displacement of 96,000 people. The construction of the Hoa Binh water reservoir in Vietnam, completed in 1993, brought about the displacement of about 58,000 local residents. In Turkey, also, we have witnessed at least a few examples of massive population displacement caused by dam construction over the past few decades. The first dams in this region were created in the area of Anatolia as early as the reign of the Hittites; some of them are still functioning to this day. In the years 1974-1992 several major hydro projects were completed in the basins of the Euphrates and the River Ceyhan. The most important of these dams include: Aslantas (60,000 resettled people), Ataturk (45,000 resettled people), Sir (45,000 resettled people) and Karakaya (over 30,000 resettled people). Experts say that in the near future, Turkey may rank third, after China and India, among states with the largest numbers of dams in the world: according to official statistics from October 2009, there were 509 large dams in that country.

**Africa:** Already by the fifties, the process of decolonization, together with the growing population and energy needs of some African countries, had made the construction of large dams there imperative. The dams were used either as a source of energy or as drinking water reservoirs in countries struggling with a shortage of this vital resource. In many countries, the aim of construction was also to control the course of rivers in order to increase agricultural production. Since the sixties the construction of dams has become an objective

of most African countries. Particularly well-known examples of dams the construction of which led to involuntary population resettlement include the Aswan High Dam in Egypt, the Akosombo Dam in Ghana and the Kariba Dam on the Zambezi river on the border between Zambia and Zimbabwe. It is worth noting that implementation of this project generated three of the four largest artificial water reservoirs in the world: Lake Nasser, Kariba Lake and Volta Lake[47]. Research led by social scientists on the social costs of the creation of the above-mentioned dams has played a very important role in shaping the early studies on involuntary displacement and resettlement.

The construction of Aswan High Dam between 1960 and 1971 led to the involuntary resettlement of 100,000-120,000 people, including 50,000 on Egyptian territory[48]. Construction of the dam brought significant economic benefits, especially in the context of rising energy and food needs caused by dynamic population growth in Egypt. The most socially costly development projects realized in recent years in Sudan were those that created the Merowe and Kajbar dams. The construction of Merowe Dam, completed between 2003 and 2008, has led to the displacement of 55,000-70,000 inhabitants of the country, mostly belonging to the Manasir, Hamadab and Amri tribes.

The construction of Akosombo Dam on the Volta river, carried out between 1961 and 1965, is one of the most spectacular and interesting examples of involuntary population relocation on the African continent. In the aftermath of its construction over 80,000 people, or about 1 percent of the country's population, were resettled. About 52 new settlements were built to meet the needs of people displaced from more than 700 flooded villages. The authority responsible for the implementation of resettlement was the Volta River Authority (VRA) established in 1961. The direct consequences of the dam's construction were the flooding of part of the Volta River Basin and its upstream fields, and the creation of Lake Volta, which covers 3.6% of Ghana's total land area.

The construction of Cabora Bassa dam, begun in the late 1960s by the Portuguese colonialists in the Overseas Province of Mozambique, led to the displacement of 25,000 local people. The other project causing a significant scale of displacement was the creation of Kainji Dam in the northern part of Nigeria (1964-1968). It is estimated than this project resulted in the flooding of more than 200 villages and displacement of between 42,000 and 55,000 people[49].

The construction of Kariba Dam on the Zambezi (1955-1959) led to the displacement of 57,000 Gwembe Tonga People. This involuntary resettlement generated many significant economic, demographic, health and social services within this community.[50] The Gwembe Tonga resettlement was one of the earliest

47 T. Scudder "The Human Ecology of Big Projects: River Basin Development and Resettlement", *Annual Review of Anthropology*, Vol. 2, 1973, pp. 45.

48 T. Scudder "The Aswan High Dam Case", unpublished manuscript, available at: http://www.hss.caltech.edu/~tzs/Aswan%20High%20Dam%20case.pdf ; Więcej na temat resettlement ludności nubijskiej w związku z konstrukcją tamy: H.M. Fahim, *Dams, People and Development: The Aswan High Dam case,* Pergamon Press, Oxford, 1981; R. Fernea, J.G. Kennedy, "Initial Adaptations to Resettlement: A New Life for Egyptian Nubians", *Current Anthropology,* Vol. 7, No. 3, June 1966, pp. 349-354.

49 More information on involuntary relocation associated with construction of this dam see: F. Oyapide, *Adjustment to resettlement: A study of the resettled peoples in the Kainji Lake basin*, Ibadam University Press, 1983.

50 E. Colson, *The Social Consequences of Resettlement: The Impact of the Kariba Resettlement Upon the Gwembe Tonga*, Manchester University Press, 1971.

resettlement schemes included in a World Bank-funded project. The dam's construction has also had an irreversible environmental impact on the delta and agriculture of the Zambezi River.

The construction of Kossou Dam in Ivory Coast, completed in 1972, led to the displacement of 75,000 people. The other well-known example of dam-induced displacement is that associated with the construction of Kainji Dam in Nigeria, completed in 1968, and leading to the involuntary resettlement of 44,000 people[51].

While analyzing the social consequences of ongoing hydro projects in Africa we should refer to at least one more investment: the Lesotho Highlands Water Project being implemented in Lesotho's complex water supply systems. The aim of the project is to provide Lesotho with a source of income in exchange for the provision of water to the central Gauteng province where the majority of South Africa's industrial and mining activity takes place, as well as to generate hydroelectric power for Lesotho (currently meeting almost 100% of Lesotho's requirements). It comprises a system of several large dams and tunnels throughout Lesotho and South Africa. This project, carried out in partnership with the Republic of South Africa, has led so far to the displacement of over 25,000 people. The table below shows selected examples of dam projects in Africa associated with the high magnitude of involuntary resettlement.

| Country | Dam | Date completed | Displaced people |
|---|---|---|---|
| Egypt/Sudan | Aswan High Dam | 1970 | 120000 |
| Ghana | Akosombo Dam | 1965 | 82000 |
| Mozambique | Cabora Bassa | 1969 | 25000 |
| Nigeria | Kainji Dam | 1968 | 50000 |
| Sudan | Merowe Dam | 2009 | 55000 |
| Ivory Coast | Kossou Dam | 1973 | 75000 |
| Zambia/Zimbabwe. | Kariba Dam | 1959 | 57000 |

Based on: B. Terminski, *Przesiedlenia inwestycyjne: Nowa kategoria migracji przymusowych*, Oficyna Wydawnicza Łośgraf, Warszawa, 2012; M.M. Cernea, *Hydropower Dams and Social Impacts: A Sociological Perspective*, World Bank, Paper No. 16, January 1997.

**Central and Latin America:** The construction of large dams in Latin America, affecting mostly indigenous populations, is a response to growing energy needs in this region. The creation of Yacyretá Dam (1983-1994) on the border of Argentina and Paraguay was accompanied by a large scale of population displacement. Available Argentine sources estimated the total number of displaced people at more than 68,000 (37,000 on the Argentinian side and 31,000 on the Paraguayan side). The formation of Itaipu Dam on the Paraná River (the third largest dam in the world) was also associated with large-scale resettlement. It is estimated that the project before its start displaced about 10,000 families. According to the Barabas and Bartolomé study of 1973, the creation of Miguel Aleman Dam in Mexico led to the displacement of 20,000-25,000 Mazatec Indians. The Mexico Hydroelectric Project (MHP), implemented in the early nineties, is to build two separate dams, displacing 3,500 people.

51 T. Scudder, "A Comparative Survey of Dam-induced Resettlement in 50 Cases Thayer Scudder with the Statistical Assistance of John Gay", unpublished paper available at: http://www.hss.caltech.edu/~tzs/50%20Dam%20Survey.pdf

Population growth and rising energy needs in Brazil probably led to an increase in the number of large and medium-sized dams in that country. Particularly strong controversy was associated with the construction of Belo Monte Dam, the opening of which is planned for 2015. For many years we have observed growing resistance of local communities to dam building in countries like Brazil and Mexico. The Regional Commission Against Large Dams in Brazil (CRAB: Comissão Regional de Atingidos por Barragens) is an interesting example of an organization focused on the fight against dam construction and protection of communities already affected by this problem[52]. The founding members of the committee were mostly small farmers, affected by the consequences of the country's industrialization. In the last few years, the commission has become an important forum for the demands of people affected by the construction of large hydropower plants.

In other countries of the region as well we are observing several forms of resistance by local communities experiencing the consequences of construction of dams. Huge resistance from local communities led to postponement of the construction of La Parota Dam in the State of Guerrero in Mexico, announced in 2003. According to the plans presented, construction of the dam would have flooded close to 17,000 hectares of land and displaced approximately 25,000 people[53]. Environmental groups estimated that the number of people affected by the negative environmental consequences caused by the dam could be as high as 75,000. By 2004 affected communities had established the Council of Communal Land Owners and Communities Against Construction of La Parota Dam (CECOP). In cooperation with the Mexican Movement of Dam-Affected People (MAPDER), they held numerous protests and engaged in other activities to register their opposition to the dam. On August 16, 2012, following nearly 10 years of campaigning, La Parota Dam construction was officially cancelled by the country's authorities. The table below illustrates the examples of dam construction in Latin America associated with large-scale involuntary resettlement. The presented statistics are estimations only.

| Country | Project Name | Date completed | Displaced people |
|---|---|---|---|
| Argentina/Uruguay | Yacyretá | 1998 | 50000 |
| Brazil | Itaparica | 1988 | 49500 |
| Brazil | Paolo Afonso I-IV | 1979 | 52000 |
| Brazil | Sobradinho | 1978 | 65000 |
| Brazil | Tucurui | 1983 | 30000 |
| Brazil/Paraguay | Itaipu | 1982 | 59000 |

Based on: B. Terminski, *Przesiedlenia inwestycyjne: Nowa kategoria migracji przymusowych*, Oficyna Wydawnicza Łośgraf, Warszawa, 2012; M.M. Cernea, *Hydropower Dams and Social Impacts: A Sociological Perspective*, World Bank, Paper No. 16, January 1997.

**Europe**: Involuntary resettlement associated with the construction of dams is currently a marginal problem, not occurring in all European countries. However, this process was observed in the USSR on a large scale in

52 More on the history and current activitiy of this organization: F.D. Rothman, P.E. Oliver, "From Local to Global: The Anti-Dam Movement in Southern Brazil, 1979-1992 ", *Mobilization: An International Quarterly*, vol. 4, no. 1, 1999, p. 41-57.

53 B. Terminski, *Przesiedlenia inwestycyjne: Nowa kategoria migracji przymusowych*, Oficyna Wydawnicza Łośgraf, Warszawa, 2013;

connection with hydro projects implemented there. The first two five-year plans for the National Economy of the Soviet Union, implemented by the Soviet authorities between 1929 and 1939, were strongly based on large development projects, such as construction of dams, artificial channels, development of heavy industry and mining. It is estimated that the construction of large dams initiated there in the nineteen-thirties may have caused the forced resettlement of at least 1.5 million people of the Soviet Union. The construction of the Bratsk Reservoir (Western Siberia), completed in 1964, may have led to the displacement of more than 70,000 people. The construction of 11 dams on the Volga river, carried out over more than forty years, may be considered the most socially costly example in the USSR of development projects leading to mass displacement. The result of its construction was the involuntary resettlement of approximately 643,000 people. The table below gives statistical data illustrating the scale of population displacement accompanying this project.

| Reservoir name | Construction | Resettled communities | Resettled households | Total number |
|---|---|---|---|---|
| Ivankovo | 1937 | 100 | 4670 | 19.500 |
| Uglich | 1939-1943 | 213 | 5270 | 24.600 |
| Rybinsk | 1940-1949 | 745 | 26520 | 116.700 |
| Nizhny Novogorod | 1955-1957 | 273 | 11836 | 47.700 |
| Cheboksary | 1981 | 108 | 8100 | 42.600 |
| Kuybyshev | 1955-1957 | 290 | 43380 | 150.000 |
| Saratov | 1967-1968 | 86 | 7900 | 25.300 |
| Volgograd | 1958-1960 | 125 | 17860 | 50.000 |
| Kama | 1954-1956 | 248 | 12900 | 47.800 |
| Votkinsk | 1961-1964 | 178 | 8794 | 61.000 |
| Low Kama | 1978 | 147 | 8310 | 58.000 |
| Total | 1937-1981 | 2513 | 155580 | 642.900 |

Based on: "Environment and migration in Volga River Basin", 2009, www.each-for.eu/documents/CSR_Volga_River_Basin_090424.pdf; M.M. Cernea, *Hydropower Dams and Social Impacts. A Sociological Perspective*, World Bank Publications, Washinton, 1997.

The complex of hydropower plants in the Volga River Basin is of course not the only example of Soviet development projects leading to mass relocation. The construction of Sayano-Shushenskaya Dam on the Yenisey River, realized between 1968 and 1978, caused the displacement of several thousand people. In light of its almost periodic (1979, 1985, 1988, 1993 and 2009) failure, the complex seems to be an extremely controversial project in social terms[54]. The construction of Krasnoyarsk Dam, completed in 1972, brought about the resettlement of over 56,000 local residents. As noted by Paul R. Josephson, the construction of large reservoirs alone in the Soviet Union led to the flooding of 165 cities, more than 2,600 villages and a total area of 78,000 km2[55].

54 On August 24, 2009, the flooding caused by dam failure killed 74 people.

55 P R. Josephson. *Industrialized Nature: Brute Force Technology and the Transformation of the Natural World*. Island Press, 2002, pp. 31; P. R. Josephson, "Corridors of Modernization: Big Technology, Resources of the Periphery, and Amazoni and Siberian development", *Recitec*, Vol. 4, No. 1, 2000, pp. 1-28.

In other countries of the former Soviet bloc the development of hydropower projects was a visible cause of involuntary population resettlement. As in Poland and Czechoslovakia, however, they usually entailed moderate social consequences. As Michael M. Cernea noted, only two examples of construction of dams in East European countries other than the Soviet Union led to resettlement of several thousand people. The construction of the Fierza hydro plant on the Drin river in Albania, carried out between 1971 and 1978, led to the displacement of over 20,000 people. Examples of megalomania were also a feature of Romania under the regime of N. Ceausescu. The construction of the Iron Gate Dam (Porțile de Fier in Romanian), completed in 1972, led to the resettlement of approximately 23,000 local citizens. The dam is now part of the border area between Romania and Serbia[56]. The nature of displacement observed in Romania and Albania is therefore a vivid confirmation of my assumption, in earlier passages of this report, of the relation between authoritarian forms of government and displacements on a massive scale. In countries ruled in an authoritarian and totalitarian manner, population resettlement associated with development projects is observed more often. Among the Eastern European countries characterized by a very limited scale of the problem we can mention Poland. A limited number of displacements took place in connection with, inter alia, the creation of Lake Solina, Czorsztynskie Lake and Lake Zywiec. Each of these projects led to the relocation of approximately 3-4 thousand people.

**United States and Canada:** Due to the low level of population density, relocations caused by dam construction have never become an important social issue in this region. The program of construction of large dams, begun in the US during the thirties, produced a few examples of relocation of several thousand people. According to Thayer Scudder, the construction of Norris Dam in Tennessee (implemented between 1933 and 1936) led to the relocation of 14,250 people[57]. Taking into account American standards of population relocation we can consider it a very costly project socially. According to various sources the construction of Grand Coulee Dam on the Colombia river (in the state of Washington), carried out between 1933 and 1975, may have led to the relocation of between 5 and 6 thousand people (M. M. Cernea suggests the number of 10,000 relocated people), including the Indian tribes who had inhabited that area for generations.[58] The construction of Oahe Dam, which is the biggest water dam on the Missouri river, between 1948 and 1962, led to the relocation of 2100 people. The consequence of construction of another dam on the Missouri river, Garrison Dam (completed in 1953), was the relocation of approximately 1625 people[59]. Among hydropower development projects implemented in Canada it is worth mentioning the creation of the

56 M. Cernea, *Hydropower Dams and Social Impacts: A Sociological Perspective*, Working Paper, World Bank, January 1997, pp. 27.

57 T. Scudder "A Comparative Survey of Dam Induced Resettlement in 50 Cases With the Statistical Assistance of John Gay" , por: http://www.hss.caltech.edu/~tzs/50%20Dam%20Survey.pdf

58 *Dams and development: Relevant practices for improved decision-making. A compendium of relevant practices for improved decision-making on dams and their alternatives*, UNEP/Earthprint, 2007, pp. 64. According to the Jayson Stanley paper on development-induced displacement construction of Grand Coulee dam displaced between 5,100 and 6,350 people (both indigenous and non-indigenous) in nearby areas. J. Stanley, Development-Induced Displacement and

59 M.L. Lawson, "Federal Water Projects and Indian Lands: The Pick-Sloan Plan, A Case Study", *American Indian Culture and Research Journal*, Vol. 7, No. 1, 1983, pp. 23-40, C.P. Morris, "Hydroelectric Development and Human Rights of Indigenous People" In: P.A. Olson (ed.), *The Struggle for the land: indigenous insight and industrial empire in the semiarid world*, Universiy of Nebraska Press, 1990, pp. 189-210.

Saunders/Moses hydropower plant (The Robert Moses-Robert H. Saunders Power Dam on the Saint Lawrence River) and the consequences of the James Bay Hydroelectric Project in Quebec province. The table below gives examples of creation of dams which led to the relocation of more than 100,000 people (the statistics presented here are estimations only).

| Project | River | Country | Displaced people (estimated) | Year |
|---|---|---|---|---|
| Kaptai | Karnafuli | Bangladesh | 100.000 | 1962 |
| Danjiangkou | Hanjiang | China | 383.000 | 1974 |
| Ertan | Huang He | China | 278.000 | 1958 |
| Lubuge | Huangni | China | 100.000 | 1989 |
| Miyun | Chaohe/Baihe | China | 200.000 | 1960 |
| Shuikou | Minjiang | China | 410.000 | 1960 |
| Xinanjiang | Xinanjiang | China | 280.000 | 1960 |
| Sanmenxia | Huang He | China | 320.000 | 1960 |
| Zhaxi | Zi Shui | China | 141.000 | 1961 |
| High Aswan | Nile | Egypt/Sudan | 120.000 | 1970 |
| Gibe I | Omo | Ethiopia | 100.000 | 2004 |
| Balimela | Sileru | India | 113.600 | 1990 |
| Hirakud | Mahanadi | India | 110.000 | 1957 |
| Kangsabati Kumari | Kangsabati | India | 125.000 | 1965 |
| Pong | Beas | India | 150.000 | 1974 |
| Rihand | Rihand | India | 102.000 | 1962 |
| Sardar Sarovar | Gujarat | India | 360.000 | 2004 |
| Somasila | Penar | India | 100.000 | 2004 |
| Srisailam | Krishna | India | 100.000 | 1984 |
| Kiri | Gongola | Nigeria | 100.000 | 1982 |
| Mangla | Dźhelam | Pakistan | 110.000 | 1967 |
| Tarbela | Indus | Pakistan | 96.000 | 1974 |
| Kuibyshev | Volga | Russia | 150.000 | 1990 |
| Rybinsk | Volga | Russia | 117.000 | 1955 |
| Volzhkaya | Volga | Russia | 111.000 | 1965 |
| Kievsk | Dnepr | Ukraine | 132.000 | 1950 |
| Three Gorges Dam | Yangtze | China | 1.260.000 | 2009 |
| Xiaolangdi | Yellow River | China | 181.600 | 2001 |
| Almatti | Upper Krishna | India | 200.000 | 2001 |
| Jinsha Project | Jinsha | China | 300.000 (12 dams) | In construction |
| Danjiangkou (II) | Hanjiang | China | 345.000 | In construction |
| Bansagar | Sone | India | 142.000 | In construction |
| Narmada Sagar | Narmada | India | 200.000 | In construction |
| Sardar Sarovar | Narmada | India | 320.000 | In construction |
| Tehri | Bhagirathi | India | 105.000 | In construction |

| | | | | |
|---|---|---|---|---|
| Polavaram | Godavari | India | 154.500 | Cancelled? |
| Nam Theun 2 (NT2) | Nan Theun | Laos | 100.000 | In construction |
| Pancheshwar | Mahakali | Nepal | 124.000 | Planned |
| Son La | Song Da | Vietnam | 96.000 | Planned |

Source: B. Terminski, *Przesiedlenia inwestycyjne. Nowa kategoria przymusowych migracji*, Oficyna Wydawnicza Łośgraf, Warszawa, 2012; B. Terminski, "Development-induced displacement and human security: A very short introduction", 2013, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2182302

### 4.2. Development of transportation infrastructure

According to the WBED report, transportation was the cause of 24.6 percent of resettlement projects between financed by World Bank and active in 1993[60]. Involuntary resettlement caused by construction of roads, highways, railways or other infrastructure such as ports and airports, is currently one of the dominant forms of DIDR and is taking place in all continents. Due to the prolonged realization and wide dispersion of such projects, it is difficult to estimate the scale of this problem even approximately. We have therefore only random data on the scale of displacement accompanying the most spectacular projects of this kind. The main factor influencing this phenomenon is, of course, the level of population density in particular areas. Construction of the Trans-Amazonian Highway, despite its length, did not lead to large-scale displacement due to the low level of population density in its surrounding areas. The development of transport networks (roads, highways, railways) leading to the largest number of displaced people has occurred in the densely populated countries of Asia and Africa. Even in Europe and the United States, we can list a number of projects such as construction of numerous communication poles, finished in recent years, which led to the compulsory relocation of thousands of people.

Among the African states, Nigeria, Zimbabwe, Botswana and RSA are characterized by a large scale of involuntary resettlements associated with the development of transportation. Much more information is available on the scale and character of this problem in several Asian countries.

The development of the communication network in highly populated Bangladesh so far has led to the displacement of thousands of people. Among the most famous examples of this problem we can include involuntary resettlement associated with the construction of Jamuna and Padma bridges. In Cambodia the large-scale displacement of people has been a consequence of the development of railway transport. The implications of this process have proved so obvious that the Railways Rehabilitation Project has been launched in response through the Asian Development Bank. Also in India, involuntary resettlement associated with the development of transportation is a visible issue.

Creation of ports and airports is another common cause of involuntary resettlement in several parts of the globe. The creation of this kind of facility requires a large area and is often carried out in highly populated urban areas or their immediate vicinity.

Involuntary relocations caused by development of transportation are not limited to developing states.

60 A. Rew, E. Fisher, B. Pandey, *Addressing Policy Constraints and Improving Outcomes in Development-Induced Displacement and Resettlement Projects: A review prepared for ESCOR and the ResearchProgramme on Development-Induced Displacement andResettlement organised by the Refugee Studies Centre,University of Oxford*, 2000, pp. 91.

Even in the USA, relocations caused by development of transportation infrastructure are not a completely marginal issue. It is estimated that development of the Boston highways megaproject (known as the Big Dig) will lead to the relocation of many thousands of people. The large scale of compulsory relocations associated with development of transportation is also observed in several European countries such as Poland.

### 4.3. Urbanization, re-urbanization, transformation of urban space and population redistribution schemes in urban areas

In recent years, ongoing urbanization and re-urbanization have been among the dominant causes of development-induced displacement. The most significant areas of contemporary urban transformation leading to population-induced displacement include a) expansion of urban areas into new territories, b) re-urbanization of existing units including the demolition of poverty districts, c) water supply projects, d) public transport projects, especially underground construction, d) mass population redistribution schemes within urban space, and e) reconstruction of housing units following the aftermath of war.

The expansion of urban areas does not usually result in mass relocations. People living in areas of urban expansion are usually absorbed into the urban areas. Displacement of people on a much larger scale is now a consequence of re-urbanization and modernization of cities. A particularly high level of displacement within urban areas is observed in densely populated agglomerations of Asia. According to Michael M. Cernea, "In cities such as Sao Paolo, Lagos, Douala, Rabat, Shanghai, or Mexico City, massive investments in infrastructure for transportation, re-housing, sanitation and other services are needed, and will be increasingly needed, for improving living standards and economic expansion. Such urban investment will inevitably entail further land acquisition and involuntary displacement"[61]. A notably large scale of displacement caused by urbanization has characterized agglomerations in China and India.

Water supply and sanitation projects are significant causes of forced relocations characteristic of large urban agglomerations in many countries of Africa, Asia and Latin America. According to Jason Stanley, the implementation of the Hyderabad Water Supply Project in India has led to the involuntary resettlement of approximately 50,000 people. The Dhaka Water Supply and Sanitation Project being implemented currently in the capital of Bangladesh may force the resettlement of over 40,000 inhabitants. In African countries also, the implementation of sanitation and water supply projects is connected with compulsory relocations of urban residents. It is estimated that the World Bank-financed water supply project in Jakarta led to the displacement of about 15,000 people. By some estimates, the result of the Third Nairobi Water Supply Project was the involuntary resettlement of approximately 10,000 people.

A large scale of population resettlement can result from development of public transport in densely populated urban areas. According to some sources, over 100,000 people, or over 17,500 residential households, were resettled under the Mumbai Urban Transport Project (MUTP). But it is reported that the

61 M.M. Cernea, *African Involuntary Population Resettlement in a Global Context*, World Bank, Washington DC, 2000.

Mumbai Metropolitan Region Development Authority (MMRDA) helped resettled people to adapt to the new place of residence. The Jabotabek urban development project implemented in the suburbs of the Indonesian capital, Jakarta, led to the displacement of 40,000-50,000 people[62]. Its goal was to develop communication networks (roads) from Jakarta to the nearby cities.

Re-urbanization and several forms of urban renewal are the next most important cause of development-induced displacement. In many parts of the world such problems are often seen in terms of forced eviction. The urban renewal campaign carried out in Santo Domingo (Dominican Republic) between 1986 and 1992 led to the displacement of about 30,000 families[63]. The result of city evictions implemented by the authoritarian Burmese government between 1988 and 1994 was the displacement of 500,000 residents of the capital, Rangoon. According to the UN-Habitat report of 1990, between 1989 and 1990 alone about 1.5 million residents of Burma were forcibly relocated, half of them from the cities of Mandalay, Bago, Rangoon and Taunggyi. The development of the Manila metro system in 2000 led to the involuntary resettlement of about 6100 people. A total of 2341 households were resettled from urban areas into Antananarivo Plain as part of a World Bank-funded development project[64]. The other countries affected by forced evictions within city spaces or from cities to rural areas include Vietnam, Cambodia and Bangladesh. Another example of brutal city evictions on a mass scale was the so-called Operation Murambatsvina in Zimbabwe. Its official aim was to forcibly clear slum areas across the country in an effort to reduce the risk of the spread of infectious disease in these locations. According to United Nations estimates, over 700,000 people lost their homes or livelihoods in its aftermath.

### 4.4. Deforestation and the expansion of agriculture

Due to the low level of population density in forested areas, the deforestation process itself does not constitute an important direct cause of mass population displacement. The aim of deforestation is usually to prepare land for large undertakings such as monoculture plantations, agricultural projects, mining of raw materials and even irrigation projects. Deforestation is therefore an important initial step in preparing the land for development projects. Another important factor that may shape the dynamics of forced migrations caused by deforestation is land degradation and other forms of environmental decline. Deforestation may become a factor in the deterioration of the economic situation of DPs and PAPs, in the context of loss of access to common resources, including forests.

Deforestation is often the initial step in the development of large monoculture plantations such as palm oil plantations on Borneo Island. Their establishment leads to massive displacement of people, creating environmental problems that contribute to the deteriorating economic situation of the community. Creation

62 J. Stanley, *Development-induced displacement and resettlement*, Research Paper, Forced Migration Online, 2004.
63 W. Courtland Robinson, *Risks and Rights: The Causes, Consequences and Challenges of Development-Induced Displacement*, Brookings Institution, 2002.
64 W. Courtland Robinson, *Risks and Rights: The Causes, Consequences and Challenges of Development-Induced Displacement*, Brookings Institution, 2002.

of monoculture plantations leads to the loss or limitation of indigenous people's access to forest resources, which are important for their economic maintenance. The displaced indigenous peoples are often employed on plantations to work in extremely dangerous conditions. The creation of large monoculture plantations also leads to land degradation and long-term environmental problems. They provide an immediately available commodity, not a long-term sustainable solution. Palm oil plantations will only last for approximately 20-60 years until the soil is completely drained of its vital nutrients and the palm trees are too mature to yield palm fruit, which is why palm oil production is very much a short-term business.

The problem of compulsory population relocation caused by the production of palm oil is observed inter alia on Borneo Island. Expansion of palm oil plantations in the region of Sarawak forces the displacement of many indigenous people or significant limitation of their land. In Colombia, too, the palm oil industry has fuelled forced displacement and other human rights violations[65].

Significant displacement (involuntary resettlement) in the last few years has been caused by large agricultural projects in African countries. Their formation was associated with socialist practices of villagization and collectivization. This problem is discussed broadly in a later part of this report which is devoted to population redistribution schemes.

### 4.5. Mining and transportation of resources

Extraction of raw materials cannot be considered a consistent cause of development-induced displacement. The details of displacement caused by the expansion of open-cast mining differ significantly from those associated with extraction and transportation of crude oil. Taking the reasons into account, it seems essential to distinguish between two quite different categories of DIDR: oil development-induced displacement (oil-induced displacement and resettlement) associated with the extraction and transportation of crude oil, and mining-induced displacement and resettlement (MIDR) caused by the expansion of mines for minerals such as gold, silver, diamonds or carbon. As I shall show below, the particulars of these two subcategories of DIDR differ significantly from each other:

1. Oil-induced displacement. Due to its specific operational methods, the process of oil extraction does not lead to large-scale displacement. Nevertheless, oil-induced displacement has become a major social problem in at least some African countries such as Nigeria and Sudan. In the case of large-scale petrochemical investments, displacement is a consequence of a) the construction and operation of pipelines (forced displacement of local communities from the pipeline's neighbourhood), b) contamination of the environment caused by oil extraction, and c) political conflicts related to control over the territories of oil extraction and transportation[66].

65 *Resisting Displacement by Combatants and Developers: Humanitarian Zones in North-west Colombia*, Internal Displacement Monitoring Centre (IDMC), 2007.

66 L. Moro, "Oil development induced displacement in the Sudan", Working Paper. University of Durham, Centre for Middle Eastern and Islamic Studies, Durham, 2009; B. Terminski, "Oil-induced displacement and resettlement: Social problem and human rights issue", Research Paper, SFU, School for International Studies, Vancouver, March 2012; B. Terminski, "Mining-Induced Displacement and Resettlement: Social Problem and Human Rights Issue", unpublished research paper, Geneva, 2012.

- Construction of pipelines may become a cause of mass displacement of neighbouring populations. In some countries with authoritarian governments, pipeline construction is associated with eviction of local populations not only from the immediate neighbourhood but also from more distant areas. Fearing acts of sabotage or organized theft of oil from pipelines, authorities may decide to displace several thousand people. In many countries, the decision to relocate population is driven by the desire to ensure their safety. Pipeline disasters may in fact lead to contamination of the environment and so directly jeopardize the future functioning of local residents.
- Brutal population displacement on a particularly large scale was associated with the construction of the so-called Block 5A pipeline in southern Sudan. To make oil exploitation possible in the southern part of this country it was necessary to construct a 1540 kilometres-long pipeline. The consequence was the forced displacement of 160,000 people, of whom an estimated 12,000 were killed or died of starvation. This phenomenon, referred to in the literature as petroviolence, was or still is present in at least a few countries. A limited scale of forced population displacement from pipeline areas has also been observed in Colombia.
- Sometimes oil exploitation may bring about an escalation of conflict between local communities and the central government, or solely between local communities. This situation arose in the mid-1990s when members of the Ogoni tribe protested against progressive environmental degradation, leading to clashes with the national authorities as well as to the death sentences imposed on leaders of MOSOP, including environmental activist Ken Saro Wiwa.
- The environmental consequences of oil exploitation may also become a cause of forced migration. The destruction of the environment caused by the process may contribute to the impoverishment of local populations or even completely prevent the continued use of the affected territory. Contamination of land, water and air caused by oil exploitation is a source of adverse health conditions (e.g. in Ecuador and Nigeria), which may further affect the dynamics of forced migration. Mobility of this kind was observed in the case of the progressive contamination of the Niger Delta over several decades. It is estimated that restoration of the environment of the Niger Delta to the condition it was in before the start of oil production may take many decades and consume billions of dollars.
- The problem of so-called petroviolence is present mainly in failed states, or those with totalitarian and authoritarian regimes which pursue a policy of persecution of minorities. The problem of oil-induced displacement is therefore inseparable from displacements caused by the escalation of armed violence.

2. Mining-Induced Displacement and Resettlement (MIDR). The second subcategory of this problem is internal displacement as a direct consequence of the creation or expansion of mining areas[67]. According to

67 T.E. Downing, *Avoiding New Poverty: Mining-Induced Displacement and Resettlement*, MMSD Working Paper No. 58, IIED, London, 2002; B. Terminski, *Mining-Induced Displacement and Resettlement: Social Problem and Human Rights Issue*, Geneva, 2012, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2028490

the Bankwide Review of Projects Involving Involuntary Resettlement, mining was the cause of 10.3 percent of development-induced displacement worldwide. The issue of forced relocation caused by mining of raw materials was or is present in all continents. As with the other causes of DIDR, it is indigenous people who are particularly affected by this problem. In the next passage of this work I shall draw attention to the most spectacular or socially inflammatory examples of involunatery relocations caused by mining.

a) Asia: Among the countries of the region with a significant scale of MIDR, five should be mentioned: India, China, Indonesia, Papua New Guinea, and the Philippines. The Grasberg (Freeport) gold mine located on the Indonesian part of Papua Island caused the displacement of more than 15,000 people. According to estimations, the development of coal mining in India displaced more than 2-2,5 million people between 1950 and 2000 (particularly in Jharkhand). As Walter Fernandes noted, mining-related resettlement is a part of the general context of displacement in this country. In China, coal mining has degraded the quality of land of an estimated 3.2 mln hectares (according to a 2004 estimate) and displaced thousands of people. Mining-induced displacement and resettlement is also highly visible in Papua New Guinea and the Philippines. The expansion of OK Tedi mine in Papua New Guinea as well as environmental damage in surrounding areas has forced 4,000 people to relocate. Foreign mining projects in the Philippines continue to displace indigenous people and harm the environment under President Aquino's term. There is also the danger of massive mining-induced resettlement in Bangladesh. According to some sources, the planned Phulbari open-pit coal mine could displace hundreds of thousands of indigenous peoples and cause serious violations of human rights.

b) Africa: The mining of coal, copper, iron, gold, bauxites, and diamonds is a common cause of highly visible environmental degradation and development-induced displacement and resettlement. The district of Tarkwa located in Ghana, characterized by the presence of half of country's large mines, indicates the enormous environmental and social impacts of 'gold fever.' Mining in the Tarkwa region displaced about 30,000 people between 1990 and 1998, destroyed forest land and farms, and contamined rivers. Among other countries with a particularly high scale of MIDR we can find: Mali, Namibia, Botswana, RSA, and Zimbabwe. The best-known mining projects implemented in recent years in Africa are: the Bulyanhulu gold mine in Tanzania, the Konkola copper mine project in Zambia, the development of gold mining in the Tarkwa region in Ghana, open-pit gold mines in Sadiola and Syama regions of Mali, the Dikulushi copper and silver mine in the Democratic Republic of Congo, and the Murowa diamond mine in Zimbabwe. According to the official report of the Southern African Development Community, "mining-induced displacement [...] was one of the most underreported causes of displacement in Africa, and one that was likely to increase, as mineral extraction remained a key economic driver in the whole region"[68].

c) South and Central America: Among the Southern and Central American countries experiencing this problem on a greater or lesser scale, we can mention: Peru, Venezuela, Guyana, Argentina, Suriname, Chile, Honduras, and Venezuela. Thousands of people in Peru could be displaced because of the mining industry in this country. The most significant example of the problem is the situation of the inhibitants of Morococha

68 J. Van Criekinge, "Africa: Conflicts and mining-induced displacement", *The Broken Rifle*, Vol. 77, 2001.

town (a Chinese company plans to mine copper there) and the city of Cerro de Pasco (with the possible relocation of more than 11,000 people due to negative effects of mining). Displacements in Chile have resulted from copper-mining development in this country. The most notable case is the resettlement of over 3,000 families from the mining town of Chuiquicamata to the nearby city of Calama situated in Northern Chile. The most famous example of involuntary resettlement sccociated with mining in Bolivia concerns the Ayllu Jesús Machaca indigenous community in the La Paz Department[69].

d) North America: Parallel to other categories of DIDR (i.e. dam-induced displacement), the social consequences of mining are not a serious problem in the United States and Canada. The tradition of individualism, effective courts, and well-established property rights can block resettlements that are socially detrimental. Any attempt to carry out this kind of investment may result in multiple trials ending with huge monetary compensations. The fear over consumers' opinion creates a situation where no American corporation can afford unpopular environmentally inappropriate practices and actions.

e) Europe: Relocation caused by mining development is one of a very few examples of development-caused resettlement observed in XXth century Europe. Particularly important are open-pit brown coal mines in Germany, Poland, and recently in Serbia and Kosovo. The best known example of compulsory population relocation involved the creation of the Garzweiler open-pit mine (Tagebau Garzweiler—operated by *Rheinisch-Westfälisches Elektrizitätswerk AG*) in the North-Rhine Westphalia. Taking into account the amount of compensation and the effectiveness of legal institutions, resettlements in Europe are not a main social problem or a human rights issue. As elsewhere in the controversy raises the amount of compensation and social losses. Problems of the German and Polish energy sectors may still lead to the development of lignite mines, which will probably raise opposition from environmental organizations and many residents. Controversies of this kind are particularly visible in Germany—a country with a long tradition of ecological movements and strong political influence of the Green Party. Projects related to potential environmental hazards and social problems often encounter criticism from the institutions of the European Union. According to Jeffrey H. Michel, the development of German lignite mining has already led to the destruction of more than 300 communities and the resettlement of about 100,000 people[70]. The above table liested the most well-known examples of mining-induced displacement and resettlement worldwide

| Country/Region | Cause of MIDR | Country/Region | Cause of MIDR |
|---|---|---|---|
| Ghana (Tarkwa Region) | gold | Philippines | coal |
| Zimbabwe | diamonds | Peru | copper, |
| Mozambique | coal | Chile | copper |
| Mali (Syama/Sadiona Regions) | gold | Bolivia | silver |
| Namibia | copper, gold | Poland | lignite |
| India (Jharkhand, West Bengal, Orissa) | coal | Germany | lignite |

69 B. Terminski, *Mining-Induced Displacement and Resettlement: Social Problem and Human Rights Issue (A Global Perspective)*, Geneva, 2012, availabe at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2028490

70 J.H, Michel, *Status and Impacts of the German Lignite Industry*, Swedish NGO, Secretariat on Acid Rain, Goteborg, 2008.

| | | | |
|---|---|---|---|
| India (Andhra Pradesh) | Bauxite, aluminium | Serbia | lignite |
| Papua New Guinea (Papua Island) | gold, silver, copper | Kosovo | lignite |
| Republic of South Africa | ??? | Kenya | titanium |

Based on: B. Terminski, *Mining-Induced Displacment and Resettlement: Social Problem and Human Rights Issue (A Global Perspective)*, Research Paper (draft version), available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2028490; B. Termiński, *Przesiedlenia Inwestycyjne: Nowa Kategoria Migracji Przymusowych*, Oficyna Wydawnicza Łośgraf, Warszwa, 2012.

### 4.6. Population redistribution schemes

Such relocations are usually implemented in countries with authoritarian governments, as an element of a centrally planned economy or a means of achieving specific political goals. Mass population redistribution was already known in ancient times, when it usually helped to serve particular political interests. Redistribution schemes in antiquity therefore took the form of politically motivated deportation and population transfer. As an example of this process, it is worth mentioning the exile of the Israelites from Judah into Babylon, and the numerous mass deportations carried out in Imperium Romanum and the Hellenistic states. Another period when population redistibution schemes were popular was that of nineteenth-century colonial expansion. During this period, the displacement of large numbers of people combined political and economic goals. In the United States, the nineteenth-century displacement of Indians allowed the expansion of the white man and his subjugation of the territory, as well as unfettered demographic growth and, especially, access to valuable resources such as gold. In the twentieth century also, colonial countries pursued more costly population redistribution schemes, often extended later by sovereign countries.

One of the problems with classifying population redistribution schemes as a subcategory of development-induced displacement is the lack of such processes, in recent years, that have been driven primarily by economic development. The causes of many of these programs are much more diverse in nature. In the second half of the last century we have witnessed massive population redistribution schemes conditioned by both political and economic factors. The most famous example of politically and ethnically motivated population redistribution schemes is the apartheid policy of South Africa and the creation of the Bantustans. It has been estimated that, from the 1960s through the 1980s, 3.5 million people were forced from their homes in RSA, many being resettled in the Bantustans. A much more common cause of population redistribution schemes, however, arose in the twentieth century, with attempts to eliminate certain demographic and economic problems. These schemes aimed at achieving certain economic benefits through more efficient distribution of population within the country. Relocations of this kind usually are, therefore, intended as the answer to uneven population density, limited access to resources and economic problems caused by deteriorating environmental conditions. The authorities of the areas concerned assumed that the centrally planned resettlement would contribute to a more equitable distribution of the population in its

territory, thus becoming a tool for elimination of overcrowding and for better public access to resources.

Mass population redistribution schemes have been implemented in many developing countries. Especially spectacular examples of this process were observed in Asian and African countries with socialist governments between the 1960s and the 1980s. In Africa, redistribution schemes usually took the form of villagization, aimed at increasing the availability and accessibility of resources, but were also focused on collectivization. In analyzing the problem of forced population redistribution I would like to draw attention to the most striking examples of this process in six countries: Indonesia, Ethiopia, Tanzania, Rwanda, Kenya and Mozambique.

The program of so-called transmigration (Transmigrasi in Indonesian) had already been initiated in the 19th century by Dutch colonialialists and was furthered by the authorities of independent Indonesia. Generally speaking its key goal was to ease overpopulation in the capital of Java by moving people from the "core" area to the less populated areas of Indonesia (known as the "periphery")[71]. The transmigration program has three fundamental goals: 1. to create a more balanced demographic spread by decreasing the population of Java, Bali and Madura and increasing population density in less developed areas, 2. to provide agricultural land for landless people, thus contributing to the elimination of poverty, and 3. to exploit economically the outer islands of Indonesia. The program was maintained and extended to more distant areas under the Suharto presidency. It is estimated that between 1979 and 1984 almost 2.5 million people (approximately 535,000 families) were relocated to the less densely populated areas of Indonesia. During the eighties the program was funded by the World Bank, the Asia Development Bank, and western governments who appreciated Suharto's anti-communist politics. From 1950 to 1994 the Transmigrasi program was estimated to have moved more than 6.4 million residents, mainly from Java to the Kalimantan, Sumatra and Iran Jaya[72].

The policy of villagization in Tanzania, adopted in 1967, was part of a development strategy under the presidency of Julius Nyerere. In that country, compulsory relocations were associated with the politics of villagization and collectivization. Launched initially as a voluntary program, the villagization campaign became compulsory in the first half of the seventies (as the so-called Operation Vijiji). It is estimated that programs of compulsory villagization, realized under the Ujamaa development policy, may have caused the involuntary resettlement of 7-9 million people in Tanzania.

Similarly to this phenomenon in Indonesia, the first examples of massive population redistribution schemes in Ethiopia can be dated back to the nineteenth century. In 1958 the government of Ethiopia introduced a policy of encouraging voluntary resettlement and villagization. As with most of these mass resettlements, the highest growth rate occurred under centralized and authoritarian rule. The most intensive dynamics of involuntary resettlement in Ethiopia are associated with the military government of 1974 to

71 J. Hardjono, "The Indonesian transmigration program in historical perspective", *International migration*, Vol. 26, 1989, pp. 427-439; C. MacAndrews, "Transmigration in Indonesia: prospects and problems", *Asian Survey,* Vol. 18, No. 5, 1978, pp. 458-472.

72 W. Courtland Robinson, *Risks and Rights: The Causes, Consequences and Challenges of Development-Induced Displacement*, Occasional Paper, Brookings Institution, 2003.

1988. It is estimated that as many as 12.2 million people were forcibly relocated into new villages in this period. Also launched in recent years, the program of resettlement of semi-nomadic people aroused strong protests from international organizations involved in the protection of human rights. According to Human Rights Watch, the Ethiopian government in 2011 forcibly resettled about 70,000 people in the western Gambella region after the first three-year program of "villagization". Mozambique's villagization campaign in the late 1980s, devised to push people from the cities back to rural areas, not only did not succeed, but was widely criticized for human rights abuses.

The population redistribution schemes in Rwanda were the aftermath of the return of almost 2.5 million refugees to this country[73]. The so-called Imidugudu program was launched in 1994 and got underway three years later. The key aim of the Imidugudu project was to bring scattered households closer together in villages. The program was implemented with substantial support from organizations such as the UNHCR and numerous NGOs. The program of relocations carried out in Rwanda, therefore, strongly illustrates the intermingling of political and demographic factors of forced mobility.

Resettlement on a mass scale was also associated with urban-rural involuntary relocations in Cambodia and Vietnam. Following the seizing of power in Cambodia by the Khmer Rouge, more than 4 million people were displaced from cities into the countryside. In Vietnam, displacement from cities into the countryside were the effect of the "Return to the Village" program promoted by socialist authorities.

### 4.7. Conservation of nature

Forced relocations caused by the conservation of nature are, historically speaking, one of the youngest categories of internal displacement worldwide. This problem had already become highly visible in the first half of the 20th century as a result of the creation and expansion of conservation areas. As pointed out by Marc Dowie, the author of a fundamental book on the problem of conservation refugees and conservation-induced displacement, after 1900 more than 108,000 units of protected nature were created worldwide[74]. It is estimated that today protected areas cover over 10 percent of the earth`s land surface. Its primary objective was the protection of wild nature from the consequences of expanding human exploitation. As conventionally understood, conservation of nature was associated in some countries with forced displacement of thousands of people from areas designated as national parks and nature conservation units. By some estimates, over 50 percent of protected areas established since 1992 incorporate territories traditionally occupied and used by indigenous peoples. In the Americas this number increases to approximately 80 percent. People already living in those areas, mostly indigenous people, have been forced, day by day, to relocate and adapt to a new environment. The loss of existing hunting grounds as well as exclusion from economically important common property resources such as pastures, rivers and forests are prominent causes of their progressive marginalization within new neighbourhoods. As noted by K. Schmidt-

73 D. Hilhorst, M. Van Leeuwen, Emergency and Development: the Case of Imidugudu, Villagization in Rwanda, *Journal of Refugee Studies*, Vol. 13, No. 3, 2000, pp. 264-280.

74 The World Database of Protected Areas of 2004 listed 105,344 protected areas.

Soltau, displacement of this kind can to a large extent affect several forms of the security of displaced people, particularly economic security, food security and health security. The physical relocation from the old neighbourhood is not the only problem affecting the displacees. An equally important cause of the impoverishment of indigenous peoples is restricted access to forests caused by the protection of nature[75].

The first examples of indigenous people's compulsory relocation due to the creation of national parks and reserves in Africa can be dated back to the late 19th and early 20th centuries. The establishment of Kruger National Park in South Africa in 1898 resulted in the resettlement of 2000 people. In the early 20th century, more than 5000 indigenous people living around the Ugalla River in Tanzania were relocated following the spread of so-called "sleeping sickness". The problem of conservation-induced displacement has been present in several parts of the globe for many decades. However, the problem has only become particularly acute in African countries and India. Case studies from Africa between 1977 and 1998 revealed more than half a million people displaced in connection with the conservation of nature. As noted by Charles Geisler, lack of extensive research makes it difficult to determine even the approximate scale of the problem of conservation-induced displacement in Africa. In his view, the number of people displaced for this reason may approach the range of 900,000 to 14.4 million people. Large-scale conservation-induced displacement also affects tribal communities in India. As noted by Asmita Kabra, more than 100 million people in this country are dependent on forests[76]. According to the Government of India, conservation of nature there has led so far to the displacement of approximately 1.6 million people[77]. Social scientists who study this problem have estimated the global scale of conservation-induced displacement over the years as within a range of five million to tens of millions of people.

Among the best-known examples of conservation-induced displacement we can mention the creation of Kibale National Park in the Uganda territory and Serengeti National Park in Tanzania. Establishment of the former in 1993 was associated with the forced relocation of over 35,000 people. More than 19,000 of them were transported to areas 150 miles distant from their homeland, where "people were given only a few tools from relief agencies and virtually no government services, but were left to fend for themselves. They have struggled to build shelter and produce sufficient food and have to cope with poor health and sanitary conditions"[78]. Following the creation of Serengeti National Park, located in the northern part of Tanzania, more than 50,000 members of the Masai tribe were displaced; the total number of these tribespeople displaced by nature conservation has been estimated at over 100,000[79]. The Brockington study reported the displacement of 10,000 indigenous people in connection with the creation of Mkomazi National Park in

75 M.M. Cernea, K. Schmidt-Soltau, "Poverty Risks and National Parks:Policy Issues in Conservation and Resettlement", World Development, Vol. 34, No. 10, 2006, pp. 1808-1830.

76 A. Kabra, "Conservation-induced Displacement: A Comparative Study of Two Indian Protected Areas", *Conservation and Society*, Vol. 7, No 4, 2009, pp. 249-267.

77 M. Dowie, "Conservation Refugees: When protecting nature means kicking people out", *Orion Magazine*, November-December, 2005.

78 Cited in Cernea, 1997, *African Involuntary Population Resettlement in a Global Context, World Bank*, Washington D.C.

79 P.G. Veit, C. Benson, "When Parks and People Collide", *Human Rights Dialogue*: (issue on Environmental Rights), Spring 2004.

Tanzania[80].

### 4.8. Other causes of development-induced population displacement

Contemporary economic development is increasingly expanding the catalogue of the types of development-induced displacement and their dynamics. Among the relatively new factors shaping the dynamics of this process we can mention among others the consequences of pipeline construction. Fear of separatist acts and attempts to damage pipelines have frequently forced authorities to displace local communities from their immediate vicinity. Another relatively new cause of population displacement is the creation of extensive landfills. In times of rising costs of recycling, some African countries, such as Ghana, are filled with waste electronic equipment from Europe. An increasingly visible cause of displacement is the construction of large facilities such as factories and airports. It is quite possible that the further advance of economic globalization will expand the list of causes of displacement. It is worth highlighting the fact that even in the twentieth century we have witnessed the emergence of previously unknown causes of displacement, such as relocations associated with the conservation of nature.

## 5. Applying the concept of human security to research on development-induced displacement and resettlement.

Specialists analyzing the phenomenon of development-induced displacement often point out the consequent long-term impoverishment and deterioration of economic conditions affecting both individuals and communities. The majority of researchers analyzing this problem are applied anthropologists, sociologists and experts in development studies. Therefore it is not surprising to find a particularly large number of publications discussing the consequences of DIDR on the basis of this science and the many specific research models created within its framework (such as the IRR model and T. Scudder and E. Colson's four-stages model, three stage model of resettlement by R. Chambers). It should be noted, however, that during the last few years DIDR has attracted increasing attention from representatives of a growing number of scientific disciplines. At least some of them are likely to play an important role in the evolution of theoretical studies on this issue. It becomes necessary, for example, to intensify research into the consequences of relocation on the basis of social psychology. Especially great potential in the analysis of the problems of DIDR lies in theoretical concepts relating to both individual problems and community risks. One such very useful theoretical approach is the concept of human security which has been evolving since the early nineties. Taking into account its general nature and characteristic elements, its broad application to studies of global problems seems to be an important and still underestimated direction for research.

Internal displacement is a dynamic issue intensely connected with all dimensions of contemporary security. The greater level of securitization concerns displacements caused by escalation of violence. This is

80 D. Brockington, *Fortress conservation: the preservation of the Mkomazi Game Reserve, Tanzania*, James Currey, Oxford, 2002.

because internal conflicts lead to humanitarian problems and violation of the most fundamental human rights, resulting in a significant decrease in the level of human security. Escalation of violence is a cause of significantly greater security risks than the consequences of natural disasters. The latter are usually accompanied by the efforts of national authorities as well as of NGOs and international humanitarian institutions to protect and assist those displaced. In the case of escalation of violence, especially as observed in failed states, the actors in armed conflicts are often not interested in providing assistance to the victims or improving the conditions of the displaced, and may even aim at their deliberate degradation. The deterioration of the humanitarian situation and the massive displacement of the population can become a bargaining chip, for example, or a factor put forward in favour of humanitarian intervention. The second category of internal displacement associated with particularly strong human security risks is that caused by natural disasters. The suddenness and the magnitude of humanitarian threats are common elements characterizing both the early stages of natural disasters and the initial stages of internal armed conflict. In this case, too, we see a sudden decrease in most aspects of human security, so that the only way to maximize it is to leave the territory quickly. A significantly lower level of threat to the fundamental elements of human security is produced by the displacement associated with slow-onset processes such as long-term climate change and the implementation of development projects. But while security specialists have devoted considerable attention to studies of migration caused by slow-onset environmental change, the relationship between security and development-caused displacement continues to inspire only marginal scientific activity.

Before going into more detailed deliberations it is worth drawing attention to the usefulness of security studies in research on other categories of internal displacement. Most attention has been paid to the impact of displacement caused by armed conflict on the security and political stability of entire regions and countries. Much less research is devoted to the analysis of individual human security risks associated with the escalation of armed violence and the displacement it causes. Since the early nineties considerable attention has been paid to the impact of slow-onset environmental change on the safety of vulnerable regions. Publications addressing this topic emphasize that adverse changes in the environment can lead to a decrease in resources, resulting in conflict, but do not point out that these changes may become the cause of forced displacement. The impact of long-term environmental change is thus analyzed as a direct factor in displacement, as well as with reference to conflicts over resources and related forced migration. Less attention of security experts has been devoted to analysis of displacement caused by natural disasters. This issue has become more extensively studied as a result of major natural disasters in recent years, such as the Asian tsunami of December 2004, Hurricane Katrina in August 2005 and the tsunami off the coast of Japan in March 2011. Publications issued in this field during the nineties (e.g. Astri Suhrke) were focused mostly on the security risks caused by long-term environmental processes such as environmental degradation and climate change. Let us remember that displacement caused by natural hazards is characterized by greater levels of risk to individual and community security than that associated with slow-onset environmental changes.

One of the first studies to analyze the impact of development-induced displacement on human

security is an article by Georg Caspary, published in 2007, which focuses on this problem in the context of dam finance[81]. As the author noted, the impact of dams on the human security of the surrounding population includes: a) direct human security risks associated with physical relocation to create space for the development project, and b) secondary effects of dam construction on the living conditions of both displaced and affected neighbouring populations. As Georg Caspary noted, a frequent consequence of the high cost of dam creation is that the start of construction is delayed for up to several years. The feeling of uncertainty over the continued functioning of a given territory means that the construction plans for dams can significantly decrease the level of human security of affected populations for many years prior to the beginning of construction. The next scientific position I wish to draw attention to is a paper by Dr Gita Bharali of the NESRC in Guwahati analyzing the impact of development-caused displacement on the most fundamental areas of human security in the context of the situation in the Assam region of India[82]. As she points out, the main cause of human security problems affecting the displaced is landlessness and limited access to resources on which the communities depend. Landlessness is the most negative consequence of displacement and a cause of decrease in vital resources, creating the need to change the customary economic model, which leads in turn to problems such as joblessness, food insecurity, malnutrition, poor health, social disarticulation and many other risks for DPs and PAPs. The working papers by Bogumil Terminski issued in 2012 strongly emphasize the consequences of decrease in the level of human security in terms of the transformation in functioning of displaced and affected communities. The author devoted much attention to the individual and community security threats associated with displacement caused by expansion of mining[83], an aspect rarely analyzed in the literature.

Human security becomes one of the flagship post-Cold War concepts, expressing the hope of abandoning a state-centric understanding of the threat and instead paying more attention to individuals and social groups. It is an emerging paradigm for understanding global vulnerabilities, its proponents challenging the traditional notion of national security by arguing that the proper referent for security should be the individual rather than the state. Human security advocates hold that a people-centred view of security is necessary for national, regional and global stability. The term "human security" was coined in the early nineties and has been used by experts seeking to shift security discourse away from a state-centred orientation. The concept became particularly popular in the mid-nineties when Mahbud ul Haq draw international attention to it within the UNDP *Human Development Report*. As Roland Paris noted, individuals should be considered the primary referents of security[84]. The people-oriented character of human security expresses the principle that the security of the state should serve the security of the individual, rather

81 G. Caspary, "The Impacts of Development-induced Displacement on Human Security: a study of dam finance", *Human Security Journal*, Vol 7, 2007, pp. 70-81.

82 G. Bharali, "Development-Induced Displacement and Human Security in Assam", Paper presented at the Seminar on Human Security, Department of Political Science, Gauhati University, November 17-18, 2006.

83 B. Terminski, "Applying the Concept of Human Security to Research on the Consequences of Mining-Induced Displacement and Resettlement", http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2177747; B. Terminski, "The Concept of Human Security as a Tool for Analysing the Consequences of Development-Induced Displacement and Resettlement", http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2028491

84 R. Paris, "Human Security: Paradigm Shift or Hot Air?", *International Security*, Vol. 26, Issue 2, pp. 87-102.

than being an end in itself. This assumption seems to be a significant premise in applying human security as a tool for the analysis of the consequences of DIDR. The situation of displaced and affected people is very rarely considered an important element in the implementation of development projects. A much more important role is played by the pursuit of private or public sector-specific economic interests or of an increase in the overall level of national economic development. The people-centred character of human security represents beneficial attempts to make individuals and communities the central actors in economic development. It is worth highlighting the principle that economic development should be not only people-oriented but people-centred.

People-centred development is an approach to international development that focuses on improving local communities' self-reliance, social justice, and participatory decision-making. It recognizes that economic growth does not inherently contribute to human development and calls for changes in social, political, and environmental values and practices. One of the first approaches to this issue was the development strategy proposed in 1984 by David Korten (former regional advisor to the USAID). The proposed strategy incorporated the values of justice, sustainability, and inclusiveness[85]. Sustainability, participation and justice should be considered central themes of people-centred development

Human security is a relatively young concept, focused on both individual security threats as well as those affecting larger communities. Development-induced displacement, just as strongly as other forces, leads to deterioriation in the level of human security of individuals and communities. For land-based indigenous communities in Latin America and landless tribals in India, DIDR exists as a phenomenon affecting both individuals and communities. A completely different situation is observed in Europe and the United States, where development-caused resettlement is a marginal and selective issue which does not usually affect whole communities. The fundamental social unit affected by resettlement in Europe or other developed parts of the world is the family. In Asia, development appears as a more collective phenomenon, affecting whole communities such as multigenerational families, villages, tribes, residents, larger indigenous communities or even ethnic minorities. In many cases involuntary resettlement leads not only to deterioration of the human security level but even to physical disarticulation and, in extreme cases, extermination of previously cohesive communities. Physical disintegration of the community is often the first step in the negative processes leading to full disarticulation of existing social ties. When analyzing the works on development-induced displacement that are produced on the basis of sociology and anthropology, we can see that they mostly focus on the situation of larger communities such as tribes, rural communities or specific categories of minorities. Far less often, they emphasize the impact of displacement on the situation of smaller social units – especially families. The family should be considered and studied as a central social entity affected by the negative consequences of DIDR.

The next element of the concept of human security, which might be very helpful in advanced studies on DIDR, is its context specificity. As mentioned above, the standards of implementation and social consequences of resettlement are very strongly dependent on internal political, economic, social and cultural

85 D.C. Korten, *Getting to the 21st Century,* Kumarian Press, Hartford, 1990, p. 4.

factors. It is true that we can compare the nature of the implementation of relocations in different countries or continents; but it is difficult to build a universal model of humane resettlement implementation. For each country we must deal with too many specific circumstances. The purpose of the concept of human security is to seek an in-depth understanding of the sources of community threats. In the case of development-caused relocations, in-depth economic and sociological knowledge of the displaced community is a *sine qua non* of the planning, implementation and subsequent support involved in the resettlement of people affected by the development project.

The concept of human security is strongly focused on anticipation and prevention of individual and community security risks. The earlier-mentioned element of prevention-orientation is very important at the planning stage of development projects and of subsequent assistance to DPs and PAPs. The basic element in preventing the negative consequences of displacement is a clear understanding of the sociological character of the vulnerable community. Those responsible for the realization of large development projects should also anticipate the negative environmental consequences of their implementation. Unfortunately, people responsible for planning a number of investments, not just in the private sector but also in relation to projects having public objectives, do not take into account the negative consequences of their implementation. The guidelines and policies on involuntary resettlement adopted within the framework of the World Bank strongly emphasize the need for prevention, at the planning stage, of the project's potential negative consequences. The aim of individuals responsible for investment planning should be minimization or even total elimination of the associated involuntary resettlement. If resettlement is unavoidable, decisions on it should be taken on the basis of negotiation, preceded by public consultation and accompanied by plans for adequate compensation and social support mechanisms. Carried out by those responsible for the displacement, preventive action should focus on a) total minimization and rationalization of the scale of resettlement, b) prevention of problems arising in the course of displacement, and c) analytical activities aimed at minimizing the problems of displaced persons in the new place of residence. The prevention-oriented character of the human security concept is another reason for using it as the basis of effective analysis of social problems that can lead to highly noticeable and long-term social consequences.

The UNDP *Human Development Report* published in 1994 lists seven basic pillars of contemporary human security: economic security, food security, health security, environmental security, personal security, community security, and political security. These seven areas seem to be the most important from the perspective of human functioning in the surrounding space. Development-induced displacement may lead to serious or even total decline in all these areas of human security. The areas of security risk mentioned by UNDP have many elements in common with the Impoverishment Risks and Reconstruction (IRR) Model developed during the nineties by M. M. Cernea. According to many experts, in the situation of peace and relative political stability, economic security is the most important area of human security. The decline in economic security obviously translates into lack of access to food, health problems, and reduced coherence of the social unit. Also, experts studying the problem of development-caused resettlement highlight the key importance of economic risks. A major part of the problems affecting the displaced results from the

deteriorating economic condition of communities, especially the removal of access to resources on which they depend.

It is worth drawing attention to the common risks affecting people, as expressed both in the text of the UNDP report of 1994 and in the IRR model[86]. M. M. Cernea does not list "economic problems" as a single risk affecting the displaced. As many as three of the risks mentioned in the IRR model are directly linked to economic security (landlessness, joblessness, and loss of access to common property resources). Both documents mention food insecurity as a major risk affecting vulnerable groups. We should remember that food insecurity is often the consequence of a decline in economic security, and therefore is strongly associated with economic factors. Another common risk listed in both the IRR and the UNDP development report is health security. To indicate the health risks affecting displaced people, M. M. Cernea uses the term "increased morbidity and mortality". To determine the community security threats, the IRR model provides the term "community disarticulation". The concept of human security, introduced for general analysis of global social problems, and the IRR model, designed for the purpose of identifying the specific risks affecting displaced people, have many elements in common.

The concept of human security seems to be a valuable research tool for the analysis of social consequences of problems such as involuntary resettlement, and is additionally useful because of its relationship with other influential theoretical concepts. Many elements of human security combine with other concepts, in particular with human rights, human development and sustainable development. Security, which generally speaking means freedom from a variety of threats, is seen today as a necessary condition for maximizing well-being and as a crucial element of human development. The concept of human development, however, can place too much emphasis on the demand to maximize well-being, which is not always a consequence of displacement caused by development projects.

Human security is indeed a general and highly theoretical concept. The need is clear for a comprehensive approach with which to ensure the ongoing security of these populations. Human security provides an effective framework for responding to this need. Over the next few years there will be an increasing number of studies on the practical evaluation of the level of human security of communities facing certain risks. Evaluation is also one of the key elements in identification of problems affecting displaced communities. According to the earlier adopted World Bank guidelines and policies on involuntary resettlement, one of the last steps in the resettlement process should be its evaluation in the context of economic and social consequences. Evaluation of decisions associated with development and infrastructural projects and their social consequences is needed at every stage of their implementation. It is crucial to apply the general and specific theoretical models relevant to the analysis of DIDR consequences. Let us note that the concept of human security is playing an increasingly important role as a tool for analysis of social problems such as climate change and even of such specific issues as peace building following the end of

86 For the main assumptions of IRR model see: M.M. Cernea, "The risks and reconstruction model for resettling displaced populations", *World Development*, Vol. 25, No. 10, 1997, pp. 1569-1588; M.M. Cernea, "Risks analysis and reduction in displacement", In: V. Desai, R.B. Potter (eds.), *The Companion to Development Studies*, London: Arnold, 2001, pp. 453-459.

armed conflict. It seems, therefore, that the concepts of human security and human development can be effective tools for prospective analysis of the situation of people displaced by economic development.

Analyses on the basis of human security may become the starting point for more general considerations of the causes, character and classification of internal displacement. As I have mentioned, all categories of internal displacement are caused by dynamic conflicts within the static territory. Involuntary population mobility in the vast majority of cases is conditioned by a decline in the security level, administrative compulsion to leave previously inhabited territory, or the combination of these two factors. At the initial stages of conflict-induced displacement and disaster-induced displacement, the relationship between the sudden drop in the level of human security and measures aimed at maximizing it is particularly evident. Migrations caused by the consequences of long-term environmental changes (including climate change) are also associated with a decrease in the level of human security, in this case with more slow-onset economic security risks. In contrast to disaster-induced displacement, the involuntary mobility caused by slow-onset and irreversible environmental factors often has a more planned character, and its goal is not just departure from the place of the impact of threats, without specific plans for the future, but long-term adaptation measures aimed at maximizing safety. We can therefore associate the category of disaster-induced displacement with spontaneously implemented tactics undertaken to avoid risks in the territory, while environmentally-induced displacement is more commonly linked to an adaptation strategy and commitment to long-term maximization of human security.

Due to the long period of implementation of several development projects, the resulting relocations are usually of a slow-onset character. Physical relocation from the current place of residence to another is often not associated with significant human security risks. The decline in human security is thus not the reason but the consequence of relocation caused by development projects. If a change of residence is accompanied by earlier plans, adequate compensation, taking into account the material and nonmaterial losses associated with displacement, mechanisms aimed at proper functioning, and help with adaptation and integration in the new place of residence, relocations may not lead to a significant reduction in the level of human security. As an example of less socially disruptive relocations we can list resettlements associated with road development in sparsely populated areas or in some European countries. Even in this case, however, temporary difficulties can indeed lead to a reduction in the individual level of human security. The more individualised relocations, which do not affect whole communities such as tribes or villages, but single individuals only, are considered to lead to a slighter decline in human security. Because in Europe compensation is in many cases higher than the actual value of the properties lost, the decision to relocate could even maximize the level of economic security of the resettled people. A completely different situation can be observed in the cases of displacement and resettlement implemented in many countries of Africa, Asia, and Latin America. In the case of indigenous people, the negative costs of relocation for the individual and the community are usually much higher than equivalent costs for citizens of well-developed countries. Indigenous people and rural communities are characterized by a land-based economy, a rigid economic model, substantial community links, and the importance of primary groups for ensuring their existential

needs. In the case of western citizens, following a much more flexible economic model, change from one residence to another will never lead to such extreme economic consequences.

We can mention many losses associated with relocation. A project-specific policy of resettlement accompanying the creation of Jamuna bridge in Bangladesh highlights the following: "1. Loss of agricultural land, 2. Loss of homestead land, 3. Loss of living quarters and other physical structures, 4. Loss of economically valuable perennials (especially fruit trees), 5. Loss of occupied homestead land (illegally, or with permission of owners), 6. Loss of tenant contracts for farming, 7. Loss of wage income, 8. Loss of plots for commercial activity, 9. Loss of structures used for commercial or industrial activity, 10. Displacement for rented/occupied commercial premises, 11. Loss of standing crops, 12. Losses incurred by persons who have already parted with properties and have relocated elsewhere (refers to cases of expropriation completed before the policy took effect), 13. Adverse impact on the host population from development of resettlement sites, 14. Losses to people adversely affected by bridge construction, i.e. change in water levels, upstream or downstream, or in unforeseeable ways"[87].

Other interesting findings may lead us to compare the usefulness of applying the concepts of human development and human security in the analysis of the consequences of development-induced displacement. Generally speaking, the goal of development as an issue of public policy is to improve the level of welfare of the country's population. The concept of human development is highly focused on increasing the level of well-being of populations. Human development encompasses more than just the rise or fall of national incomes. It is about expanding the choices people have and their opportunities to lead lives that they value, and about improving the human condition to make full lives possible. Thus, human development is about much more than economic growth, which is only a means of enlarging people's choices. A crucial element in enlarging those choices is building human capabilities – the range of things that people can do or be in life. Implementation of development projects in many regions of the world indeed leads to improvement in the economic situation of large sectionss of society. Displaced and affected populations, however, often only pay the negative costs of the projects' implementation. Many development projects do not contribute, therefore, to raising the well-being of displaced and affected people. Let me now consider the impact of development projects on the situation of DPs and PAPs in the context of the fundamental elements of human development mentioned by the UNDP (equity, empowerment, cooperation, sustainability, security, and productivity).

- Equity is the idea of fairness for every person, between men and women; we each have the right to an education and health care.
- Sustainability is the view that we all have the right to earn a living that can sustain our lives and have access to a more even distribution of goods.
- Productivity states the full participation of people in the process of income generation. This also means that the government needs more efficient social programs for its people.

87 Alf Morten Jevre, "Social Consequences of Development in a Human Rights Perspective: Lessons from the World Bank", In: I. Kolstad and H. Stokke (eds.), Writing Rights: Human Rights Research at the Chr.Michelsen Institute 1984-2004. Bergen: Fagbokforlaget pp. 98-130.

- Empowerment is the freedom of the people to influence development and decisions that affect their lives.
- Cooperation stipulates participation and belonging to communities and groups as a means of mutual enrichment and a source of social meaning.
- Security offers people development opportunities freely and safely with confidence that they will not disappear suddenly in the future

The level of well-being of the vast majority of these people is usually diminished by implementation of development and infrastructural projects. Among the core capacities of human development we can mention 1) Enjoying a long and healthy life 2) Obtaining an education 3) Having access to resources that enable people to live in dignity, and 4) Being able to participate in decisions that affect their community.

It is worth considering the impact of development projects on the level of individual and human security of people displaced by their implementation. The reference point for further consideration will be the already mentioned classification of the seven basic areas of human security, established in the UNDP *Human Development Report* of 1994. In order to better identify the negative consequences of DIDR and analysis of the problems affecting the displaced, that classification should be complemented by two other elements: cultural security and gender (in)security. As we know, displacement of the population leads to significant consequences of a cultural character. Community disarticulation and the frequent need to change the customary model of existence brings about significant cultural transformation. Another important issue is the hazards for women that the displacement creates. Note that many cases of mass displacement take place in countries where women are in a very weak economic and social position (India, Bangladesh, several African states). The consequence of DIDR is therefore the secondary marginalization of people already in a weak position, leading to economic, social and health-related threats to vulnerable groups such as women and children. Research conducted in India clearly shows that one of the consequences of DIDR is the loss of women's former economic activities, leading to a decline in their position in the family. Landlessness and associated lack of access to community resources means that women do not have a chance to continue with activities such as gathering herbs, food or firewood. I will focus on these forms of impoverishment in the following sections.

**Economic security.** The decrease in the level of economic security which affect displacees is a consequence of several factors, the most important of which include the following: 1. loss of access to to previously used resources on which they depend (water, agricultural land, common resources such as pastures, forests, common agricultural land, lakes), 2. inappropriately small compensation which does not take account of the non-material losses associated with the displacement, 3. the negative consequences of change or modification of the previous economic model (especially the involuntary transition from a land-based to a cash-based economy), 4. deterioration of economic and environmental conditions in the new place of residence, 5. the economic consequences of disarticulation of larger communities and loss of existing community, neighbourhood or family ties. Recently conducted research on DIDR, as well as earlier

publications, are focused on the fundamental impact of resettled people's economic situation on their prospects for successful functioning in the new place of residence. The forms of economic support for displaced people should not be limited to relocation to a similar area, or to economic or financial compensation, but should also include long-term economic support in the new place of residence. In contrast to the consequences of armed conflict or natural disasters, involuntary relocation caused by development projects is not usually associated with fundamental problems of human existence such as threats to life. Economic security is thus essential to establish the pillars of development-caused displaced people's functioning and to minimize their problems in the new place of residence. Land is a vital resource which enables resettled people to maintain their previous economic activities in the new territory. The consequences of development projects consist not only of physical relocation to another territory but also of significant reduction of the inhabited area. Loss of land or its drastic reduction puts communities characterized by a land-based, hunting-gathering economy, with low occupational flexibility, at risk of multigenerational economic marginalization. Joblessness caused by loss of land, which affects both women and men, not only leads to a deterioration in their economic situation but also creates pathologies such as alcoholism and mental problems.

In addition, loss of land significantly affects other categories of security such as food security. It thus becomes necessary to resettle people into territories fitting the previous economic model and allowing the continuation of customary activities. Compensation payments in cash can lead to expenditure for other purposes, possibly resulting in subsequent landlessness and homelessness. Another problem leading to a reduction in the level of economic security is inadequate or totally absent compensation for the displaced. In many regions of the world, indigenous communities who do not have formal rights to the land they inhabit do not receive any compensation for displacement. Another significant problem is a practice, common in many countries, of population resettlement into areas characterized by much worse living conditions than the areas abandoned, leading to deterioration of the people's economic situation. A common problem, for example, is displacement of fishing communities into areas of heavily contaminated water or of agricultural communities onto land of much poorer quality for cultivation. In highly developed democratic countries, the compensation received by the displaced is often greater than the value of the property left behind. In addition to compensating for lost property, it aims at compensating for the negative social costs of displacement. Even in European countries, however, we can observe many examples of deliberate undervaluation by experts of property belonging to resettled people, and compensation well below the actual value of the lost goods. In most developing states the goal of compensation is primarily to allow the displaced to continue functioning in another territory. The value of compensation is therefore not always equal to the real economic losses. Lack of support and inadequate compensation accompanying displacement may lead not only to landlessness but also to homelessness.

While analyzing the risks affecting displaced people it is worth pointing out at least a few other issues. Another factor contributing to the reduction in the level of economic security is resettlement of DPs in areas characterized by economic models significantly different from those abandoned. The consequence of

the creation of the Three Gorges Dam in China was the resettlement of several thousand rural people in the outskirts of large cities. For a community characterized by a static economic model, such resettlement raises long-term adaptation problems. Its common result is a decrease in the activity of women and their consequent dependence on their husbands' earnings. Those responsible for resettlement projects should therefore take into account the need to resettle the population into a nearby territory characterized by an economic model similar to that of the abandoned territory. The other cause of the decrease in economic security is the effect of the development projects themselves on the affected people (PAPs). Among the negative consequences of dam construction can be mentioned, for example, water pollution and the decline in the number of fish in the rivers. These phenomena can substantially affect the economic stability of whole communities, not to mention the negative health consequences. Open-cast mining (and oil-induced displacement) is a cause of population resettlement which may have particularly negative environmental consequences. Investments of this kind can result in water, air and land pollution, which significantly decreases the level of economic security for affected people. Contemporary mining practices, based on advanced technology, require workers with high qualifications, so that local people often lack opportunities for employment in the mining industry. The progressive economic depletion of displaced and affected communities means that more and more family members are forced to work to ensure an adequate level of family existence. Deteriorating living standards thus force minors, sometimes very young children, to drop out of school and take full-time jobs to help parents. Given deteriorating economic conditions and lack of job opportunities, often the only solution for the locals is to migrate to the cities. The worsening economic condition of local residents, however, is largely a consequence of unemployment. The joblessness observed in displaced communities has two main causes: the economic consequences of landlessness, plus poor adaptation to the static economic model in the new place of residence.

The social disintegration caused by displacement strongly contributes to deteriorating economic conditions. In many indigenous, tribal and rural communites, which are not based on money, neighbourhood ties and barter within the community play an immeasurable economic role. Resettlement can lead not only to impairment of physical conditions but even to the total disintegration of community links. Atomization of communities based on various forms of non-cash exchange can lead to a very severe decline in economic security.

**Food security.** The risks associated with lack of access to food create a further issue for displaced and affected people, closely related to the other areas of economic security. Both the detailed model of risks affecting displaced people (the IRR model) and the classification of the basic dimensions of human security (the UNDP *Human Development Report* of 1994) mention food security as an autonomous problem affecting the displaced. Thus it requires a somewhat more developed analysis. Reduced food security affecting DPs and PAPs is usually a consequence of the loss or limitation of access to resources caused by implementation of development projects. Limitation of the previously inhabited territory is a common consequence of development projects. Decrease in the territory occupied by the community leads to difficulty in meeting food needs. A problem affecting food security in very negative way is limited access to property resources

such as pastures, rivers, lakes, and common agricultural lands. Resettlement of communities into new territories can give rise to competition for food with communities who have inhabited the territory for a long time. The phenomenon of conflict over vital resources (mostly food) between newly displaced people and host communities could be a cause of forthcoming wars. Generally speaking the displaced communities, recently settled in a new territory, lacking a developed system of social ties, are in a far worse position in the struggle for food than communities who have occupied the same territory for generations. In the competition for resources such as agricultural land, food and jobs they are at the back of the queue. The environmental consequences of development projects contribute further to the decline in the food security level of DP and PAP communities. The negative consequences of the construction of large dams and the associated river contamination can lead to a significant decrease in food security for local communities that depend on fishing. In extreme cases, the only way they can minimize food shortages is to move to another territory, where the environmental effects of the development projects are less noticeable.

An important factor contributing to food insecurity is the reckless or intentional displacement of the population into areas characterized by much worse economic conditions than those abandoned. This problem is particularly evident in the case of the displacement of indigenous people from the area of national parks (the issue of so-called conservation refugees). Expulsion of the population into areas with less favourable environmental conditions and less food produces a sudden deterioration in living conditions which may even lead to physical extermination of poorly cohesive communities. People displaced by the creation or expansion of protected areas lose the day-to-day access to their former hunting areas and other basic resources that they depend on. Very often the only way to maximize the level of food security reduced by conservation-induced displacement is the illegal return to abandoned and newly prohibited territories.

Deterioration of the food security level is also a consequence of lack of possibilities for adaptation in a new place of residence which is slightly different from the abandoned one. The change of area from rural to urban forces people to find jobs in order to obtain money for food. An extremely common problem among displacees is joblessness, which in an obvious way decreases the level of food security.

It is worth highlighting the direct and indirect consequences of food shortages affecting DPs and PAPs. The decrease in the amount of arable land per person often leads not only to competition for resources, but also to malnutrition. Research conducted in India shows that women and children are particularly vulnerable to displacement-related malnutrition.

The risks associated with lack or shortages of food are often analyzed in the context of negative consequences of DIDR. Lack of food caused by the conjunction of demographic and environmental factors can become a factor in the decision to resettle people into other territories. The population redistribution schemes implemented in Ethiopia, which took on the character of villagization, were designed to increase access to food for the country's population[88]. We should remember that attempts to improve the food situation through population redistribution schemes do not always produce positive results. Such decisions

88 A. Tadesse, "Resettlement and food security with reference to the Ethiopian experience: The Boreda Case", availabe at: http://www.nuigalway.ie/dern/documents/29_asrat_tadesse.pdf

should be preceded by in-depth studies on the available resources of a given territory, its environmental efficiency, and the social and economic character of the resettled community. The effectiveness of such artificial regulation of the country`s population also depends on the mechanisms of support that the authorities provide for resettled people following the resettlement. During the last century, improvement in the food situation was one of the leading motives for programs such as collectivization and villagization. They were often based solely on central planning and decisions made in central facilities. The lack of knowledge of local specificity is the reason why some aspects of development and resettlement projects do not meet their original objectives. Often some elements of them, rather than improving the economic situation, lead to progressive economic marginalization and even to tragic humanitarian disasters.

**Health security.** In analyzing the consequences of development projects for the health vulnerabilities of DPs and PAPs I wish to draw attention to a few significant problems. The first represent the direct effects of development projects on the situation of local residents. Contamination of the surrounding environment by the projects clearly causes deterioration in local people's health. Long-term consumption of contaminated water and of produce from contaminated land can become a factor shaping deterioration in the health of large communities. Agricultural problems caused by land degradation can lead to malnutrition, which increases susceptibility to other health problems. Resettlement plans should ensure access by the displaced to health care institutions in the new place of residence. Health care is, however, a public service often not taken into account in resettlement plans. Women and children are particularly vulnerable to the health consequences of displacement.

I also wish to point out to the impact of displacement on mental problems and social pathologies such as alcoholism. Awareness of the irreversible nature of some features of the displacement can hinder adaptation and produce alienation in the new environment, together with a sense of the meaninglessness of life, which can lead to psychological trauma. These problems are compounded by other negative consequences of displacement such as joblessness, various forms of economic marginalization, and social disarticulation. On the one hand, awareness of the impossibility of returning to their homes can facilitate adaptation to the new territory and integration with its inhabitants. On the other hand, the lack of hope of change in a negative situation may create psychological problems. Unfortunately, we still observe a lack of studies examining the impact of DIDR in the form of psychological problems for those affected. This subject seems to be an underexplored area of research by clinical and social psychologists[89]. As pointed out by Fernandes, "The enormously high rates of depression, suicide, alcohol addiction, demoralisation and ill health which continue today on many American Indian reservations in the US and Canada is a stark reminder that we know all too well how severe are the mental health effects of involuntary resettlement and that effects are likely to persist for many generations"[90].

89 Analizując problem oddziaływania mining-induced displacement na mental problem of women warto zwrócić uwagę na publikację: K.P. Goessling, "Mining Induced Displacement and Mental Health: A Call for Action", *International Journal for the Advacement of Counselling*, Vol. 32, Issue 3,September 2010, pp. 153-164.

90 W. Fernandes, "Development Induced Displacement: Sharing In the project Benefits", see also: B.J. Good, "Mental Health Consequences of Displacement and Resettlement," *Economic and Political Weekly, Vol.* 31 No. 24, June 15, 1996, pp. 1504-1508.

**Environmental security.** Environmental contamination caused by implementation of development projects lead to long-term deterioration in the security of whole communities. The contamination of the Niger Delta and a few other regions on the world shows us how huge may be the impact of environmental problems for the functioning of many people living in the immediate vincity. Land, water and air pollution becomes a factor in long-term health problems. In many cases, the only way to maximize the level of security is forced migration from the area negatively affected by development projects to another location. Persons who had been previously displaced are therefore forced into another, "secondary", migration.

The environmental problem observed inter alia in the aftermath of the Lesotho Highlands Water Project was significant depletion of the local ecosystem. The affected people complained about the felling of a large amount of forest in the course of the project, creating difficulties in access to firewood. Megaprojects can seriously decrease local environmental security. For local communities strongly dependent on resources found in a project's immediate vicinity, its implementation can greatly affect their economic situation.

**Personal security.** The fundamental goal of economic development should be the increase in well-being of individuals as well as in the level of welfare of all communities. Unfortunately, however, the consequences of development-induced displacement often reduce the level of individual security compared to that in the previous location. It is true that natural disasters or the sudden escalation of armed violence often lead to a much more rapid and greater decline in the level of security. Threats of this kind, however, are often of a transient and reversible nature. The consequence of development-induced displacement is rather the slow-onset decline of most categories of security. Without several forms of assistance, the displaced and affected communities usually have no opportunity to raise the level of human security. It seems essential to take into account, at the planning stage of resettlement, the need for later material and non-material support for the displaced. Unlike armed conflicts or natural disasters DIDR does not lead to the most fundamental threats to human security, including the right to life and fundamental freedoms. The threat to personal security lies rather in deteriorating economic conditions and erosion of community ties, leading to marginalization and hindrance of human adaptation to the new environment.

According to the most influential interpretations, personal security is concerned with protection of people from every form of physical violence, whether from the state or external states, from violent individuals or sub-state actors, or from domestic or other predatory adults. DIDR is often linked with the escalation of violence directly and indirectly forcing people to leave their area of residence. Dissident communities protesting against development projects are often suppressed by force. Particularly violent are the conflicts associated with acquisition of territory for the extraction of mineral resources.

Organized resistance of local communities against the consequences of development projects can be dated back to the early twenties of the last century. The first known anti-dam resistance movement was the Mulshi Satyagraha in the Indian state of Pune between 1920 and 1924. Such activities have taken a particularly important form in Latin American countries, in connection with the empowerment of indigenous people as full actors in the political, economic, and social processes observed there. As noted by Colson and Scudder, the majority of resistance movements formed by people affected by development consisted initially

of local protests against the implementation of single development projects. They were therefore local struggles against specific projects, rather than political structures or activities at regional or national levels. The increase in the number of local resistance movements has led to the creation of more regionally or nationally oriented movements such as the Regional Commission Against Large Dams (CRAB) in Brazil[91]. We should note that the construction of large dams there is no longer such a dynamic process and cause of internal displacement as it was a few years ago. Decrease in resources and expansion of open-cast mining suggests that resistance to such projects will increase. The lands of communities living in areas of economic exploitation will be the focus of greater empowerment in the long term. According to the estimates of several specialists, over 60% of the world's natural resources are located on indigenous territories. The implementation of the principles of sustainable development must involve extended participation of local communities in the profits from extraction of raw materials, so that economic growth contributes to the improvement of their situation.

**Community security.** The future level of community security of PAPs and DPs strongly depends on the people responsible for the planning and implementation of resettlement and subsequent assistance to affected communities. Equally important is the active attitude of displacement communities at the stage of planning and social consultation, as well as their subsequent efforts to adapt successfully to changed living conditions and to integrate with the host communities. Development-caused displacement, like all the other categories of involuntary internal mobility, is a phenomenon strongly influencing the threat felt by groups such as families, indigenous people, rural communities, people in urban spaces and other categories. Those responsible for planning resettlement should be aware that they must not bring about the disintegration of previously cohesive communities. The ability to maintain existing social ties in the new environment contributes to better and faster adaptation. It is therefore important to resettle whole communities into areas similar to those abandoned, which can allow reconstruction of accustomed modes of functioning. Paradoxically, sometimes the decision to relocate may even contribute to an increase in the security level of the communities. Much depends on the proper implementation of resettlement. If the community is relocated to an area offering a better standard of living, and also benefits from compensation and integration within the new community, its level of security may increase. In a publication issued in 1996, Professor Michael M. Cernea listed the erosion of four basic categories of capital – "natural capital, man-made capital, human capital, and social capital" – caused by displacement[92]. It seems that well-planned and implemented resettlement, accompanied by adequate compensation and extended social support mechanisms, need not create such problems and might even lead to an increase in all the mentioned categories of capital.

The vast majority of internal displacements worldwide still lead to significant deterioration in the level of community security. Although economic development policies increasingly emphasize the need to

91 A. Oliver-Smith, "Fighting for a Place: The Policy Implications of Resistanc to Development-Induced Displacement", In: Ch. McDowell (ed.), *Understanding impoverishment. The consequences of development-induced displacement*, Berghahn Books, New York, 1996, pp. 88.

92 M.M. Cernea, "Understanding and Preventing Impoverishment from Displacement: Reflections onthe State of Knowledge" In: Ch. McDowell (ed.), *Understanding impoverishment. The consequences of development-induced displacement*, Berghahn Books, New York, 1996, pp. 21.

design development measures in such a way as to enhance the well-being of all members of society, DPs and PAPs in many countries are still seen as victims of a just cause. The deterioration in their human security is thus seen as an unavoidable consequence of efforts to improve the well-being of larger groups. The pushing of already excluded social groups to the margins of society, as observed in many developing societies, means that they are not seen as actors who are entitled to benefit from economic development. The category of "indigenous people", therefore, is to some extent of a stigmatizing nature. According to the authorities in some countries, because indigenous people are on the outskirts of national economic and social relations, the postulate of maximizing well-being through development policies need not apply to them. The real aim of economic development policy in many countries is, therefore, to reduce the amount of resources and the level of human security of already highly marginalized groups (indigenous people, tribals, Dalits) in order to increase the well-being of dominant groups who are more significant from a political point of view. Even worse practices are often observed in the context of private sector investments. Projects led by transnational mining corporations often contribute to deterioration in the security of large communities. Profits from these investments are subsequently transferred abroad, making only a limited contribution to the economic development of mining areas. From an ethical point of view, development projects undertaken for public purposes are more reasonable than those designed only to maximize the profits of the private sector. This is why, in most Western European countries, resettlements are permitted only if the projects in question are for public benefit.

The different categories of development projects are characterized by varying levels of impact on community safety. Much also depends on the previous level of community cohesion and its adaptability to changed living conditions. The greatest threat to community security is posed by development projects entailing the irreversible transformation of a large territory and the large-scale displacement of whole communities. A particularly high risk to community security is seen in the case of groups with very limited capacity for adaptation to the new situation. The type of displacement presenting the greatest threat to community security is that associated with the creation or expansion of national parks and other protected areas. Displacement of such communities for the purpose of nature conservation is often unaccompanied by support mechanisms of any kind. Several categories of tribal, half-sedentary, and nomadic populations are characterized by very strong relationships with the land, so that adapting to new conditions is a lengthy process. Just as development-induced displaced people are seen as victims of economic development, so conservation refugees are counted, unfortunately, among the costs and sacrifices associated with conservation. Very serious threats that are difficult to reverse are also posed by displacement associated with the formation of artificial reservoirs. The population is not likely to have any chance of returning to the immediate surroundings of the old place of residence. The sense of uncertainty makes the level of community safety of affected people begin to decline even during the planning phase. Major threats to community safety also arise from projects leading to deterioration of environmental conditions in the immediate vicinity.

Territorially limited projects, associated with more selective relocation, produce much slighter social

consequences. The construction of roads or even expansion of mining are nowadays a cause of development-induced displacements on a significant scale worldwide. Such projects are often limited to small "point" areas and do not cause the disintegration of whole communities. An equally important factor in the consequences of displacement is population density rate. Compulsory relocations implemented within urban areas also affect a selected territory and do not lead to disintegration of whole communities; it is the high level of density that determines its massive scale.

**Political security.** The issue of development-caused displacement is in a fundamental way determined by the political power in a particular territory. Displacement might be interpreted as a consequence of the political powerlessness of affected communities, expressed in the loss of physical space. Not every category of internal displacement is directly caused by political factors. Each of them, however, is a political phenomenon: while the causes of displacement are not all political, all are subject to certain political regulations. Disaster-induced displacement is a category of forced mobility the causes of which are almost completely non-political. Natural disasters are in fact completely spontaneous, apolitical and unconfined by national borders. But as soon as national, intergovernmental and civil institutions initiate efforts to provide humanitarian assistance to displaced people, the displacement becomes a politically conditioned phenomenon. In the case, however, of spontaneous escape from the area of strong human security risks, unassisted by the authorities, it becomes difficult to talk about disaster-induced displacement as a politically influenced category of involuntary mobility. The compulsory mobility caused by slow-onset environmental disruption is also characterized by extensive political considerations. Land degradation, and even desertification, are common consequences of errors in development planning. According to some scientists, aggressive economic development, detached from the principles of sustainability and environmental protection, might generate climate change, which can become an important factor in future internal displacement and forced migration. The negative consequences of economic policy are therefore seen as a source of climate change and potential cause of forced mobility in the near future. Conflict-induced displacement caused by armed conflict, local or long-term escalation of violence and other discriminatory practices towards marginalized groups and minorities, is the category of involuntary mobility most strongly shaped by political factors.

Development-caused displacement is also a phenomenon strongly entangled with politics. The dynamics and patterns of economic development implemented within the country's model crucially affect the dynamics, standards of implementation, and social consequences of development projects, and the accompanying displacement of the population. According to the neoliberal paradigm of economic development, internal displacement and subsequent problems affecting DPs and PAPs are the necessary and unavoidable cost of measures to raise the economic level of the majority. Promotion of the economic interests of government or the private sector, or attempts to maximize the economic interests of dominant social groups, lead to a lowering of security standards and related marginalization of DPs and PAPs. Economic development policy, implemented in many countries of the global south, has little to do with the principles of sustainable development. Most are based on strong class conflict and expanded prosperity for

the benefit of dominant classes at the expense of politically and socially powerless groups. Development-induced displacement is therefore a consequence of efforts to maximize the well-being of these more strongly positioned political groups, while further lowering the security of actors already on the social periphery.

On the other hand, we are observing increasingly frequent attempts to take into account the principles of sustainable development in the economic activities of the public and private sectors. Often, however, the CSR principles emphasized by companies in both sectors are only a tool for building a good image, which is not always reflected in the practices of these entities in developing countries. The concept of sustainable development draws attention to the need to minimize the negative environmental and social consequences of development projects. According to the concept of sustainable development, such projects should not lead to irreversible changes in society and should respect the rights of communities residing in the immediate vicinity of the project. Development projects should be designed to meet the needs of both present and future generations. This means that humans need to be able to live "a healthy and productive life in harmony with nature".

Relations between economic development and the political security of displaced and affected communities are observed at every stage of a development project. Risks affecting DPs and PAPs are in particular a consequence of 1. their powerless position as political actors with the ability to decide on the direction of the project's development, 2. the country's legal system, which is often strongly discriminatory, 3. the specific political context of the development project's implementation, 4. the lack of mature institutions of civil society and of adequate measures of assistance for the displaced, 5. difficulties in proper preparation and implementation of resettlement, and 6. the passive attitude of DPs and PAPs during resettlement planning as well as in the new place of residence. The category most vulnerable to the consequences of development projects is that of poor communities already marginalized by the national authorities. The vast majority of dams worldwide are built in relatively sparsely populated areas inhabited for generations by local communities. The problem of so-called "conservation refugees" affects indigenous people almost exclusively. The modernization of large cities usually affects only residents of the poorest districts. A common situation in many developed states is the transformation of urban space through demolition of poverty housing and re-urbanization for the benefit of richer members of society. Like the other causes of development-induced displacement, the marginalization of the poor is a tool for improving the situation of the rich.

The first factor underlying discrimination against displaced people is their marginal economic position. Authorities do not regard communities who have lived in poverty for many generations as a target group for economic development. Particularly difficult is improvement in the situation of marginalized communities in societies characterized by rigid social stratification. People such as Dalits, Indians, and indigenous people in many countries are not regarded as members of society. A good illustration of this process is the distribution of profits from the exploitation of mineral resources. Politically and legally discriminated-against categories of indigenous people are not usually seen as full citizens. The consequence

is their minimal or nonexistent participation in the profits from the extraction and sale of raw materials. The marginalization of communities living in the neighbournood of the investment thus means more profits for the national authorities and the private sector. And remember that many of the world's mineral deposits are located in precisely the areas belonging to indigenous people. The tradition of discrimination, frequently reinforced by lack of formal rights to land, means that the extraction of raw materials does not contribute to the improvement of the local people's economic situation; what's more it can decrease human security in relation to the situation even before the commencement of the project.

The problems affecting DPs and PAPs are also a consequence of legal discrimination. The lack of formalized rights to the land not only leads to lack of profit for local communities from its exploitation, but just as often makes it impossible to obtain compensation for loss of property. The situation of PAPs and DPs is also negatively influenced by legal discrimination against women. In many Asian countries they have encountered problems in receiving compensation or assistance in the aftermath of natural disasters (such as the Asian tsunami of December 2004) and development projects. A highly discriminatory legal system is not only influenced by previous colonial history but sometimes also reflects the economic needs of the majority within the society. Legal exclusion of large social groups is in fact economically viable from the point of view of the central authorities, private business and the dominant social classes.

The impact of political factors on the implementation of standards of displacement remains an issue little discussed in the literature. There are, however, a number of publications analyzing the history of the implementation of development projects in the broad political context of the countries concerned. With few exceptions, the issue of development-induced displacement is ignored in mainstream political science. But note that the implementation of development projects leading to the most negative social consequences is found in countries characterized by authoritarian and totalitarian forms of government, a low level of development of civil society and of respect for human rights, and very great social disparities. In the case of failed states and countries burdened with strong antagonisms between social groups, displacement caused by the escalation of violent conflicts is so strongly connected to these circumstances that it is difficult to separate them.

In countries characterized by authoritarian models of governance, development projects are accompanied by several forms of human rights violations of the inhabitants of surrounding areas. The forestry sector project realized in Côte d'Ivoire led initially to brutal evictions of more than 200,000 people in surrounding areas[93]. Only the World Bank's threat to withdraw financial support for the project led to a decrease, to 40,000, in the number of displaced people and provision of better living conditions and support mechanisms for them. An even greater threat to the basic human rights of development-induced displaced people is found in the long-term escalation of violence on an ethnic or religious basis. We can mention here inter alia the displacement of over 150,000 Sudanese citizens in the aftermath of the construction of Block 5A in the southern part of that country. Another example of the negative consequences of development projects in countries of the global south is the prosecution and displacement of Ogoni and Ilaw communities

93 W. Courtland Robinson, *Risks and Rights*: The *Causes*, *Consequences, and Challenges* of *Development-Induced Displacement*, Brookings Institution, 2003.

in the aftermath of oil exploitation in the Niger Delta. In other African countries, development projects have given rise to brutal clashes between local communities and the police and the military.

The aftermath of the creation of Chixoy in Guatemala illustrates the strong connection between civil wars, internal violence and the effects of development projects. In 1978, in the face of civil war, the Guatemalan government proceeded with its economic development program, including the construction of the Chixoy hydroelectric dam. Financed in large part by the World Bank and IADB, the dam was built in Rabinal, a region of the department of Baja Verpaz historically populated by the Maya Achi. To complete construction, the government carried out voluntary and forcible relocations of dam-affected communities from the fertile agricultural valleys to the much harsher surrounding highlands. When hundreds of residents refused to relocate, or returned after finding that the conditions of resettlement villages were not what the government had promised, these men, women, and children were kidnapped, raped, and massacred by paramilitary and military officials. More than 440 Maya Achi were killed in the village of Rio Negro alone, and the string of extrajudicial killings claimed up to 5,000 lives between 1980 and 1982, to become known as the Río Negro Massacres.

**Cultural security**. The cultural security risks affecting the displaced are the consequences of disintegration of previously cohesive communities and significant changes in the former model of life brought about by relocation. The atomization of existing communities, combined with the need to adapt economically and socially in the new location and to integrate with host communities, leads to a gradual moving away from the old cultural traditions. In the case of resettlement of a whole community to the new area and the people's relatively good adaptation there, the level of cultural security can actually be increased. This happens when the displaced people skilfully draw on the cultural traditions of the new home, but without giving up their existing cultural patterns. The benefits of moving to a more favourable area is therefore accompanied by a sense of social stability arising from the maintenance of established cultural ties. However, real maximization of the cultural security of people displaced as a result of development projects rarely occurs and is very difficult to achieve. The reason is that the internal displacement usually affects groups characterized by a very limited capacity to adapt to the new environment. A good illustration of the cultural problems affecting displaced people is the case of the Mongolian pastoralist tribes forced by progressive desertification (caused by climate change) to abandon their nomadic economic model and move to poverty-stricken areas on the outskirts of the country's capital, Ulan Bator. Desertification of soils and growing problems in maintaining stocks forced them to change their cultural traditions, as manifested by the transition from nomadic to sedentary life. Their migration to urban suburbs was a decision taken in the interests of survival, although it did not generally lead to a significant improvement in their economic situation. Their economic marginalization and alienation in the new place was accompanied by a rapid loss of traditional cultural ties. Particularly negative cultural consequences are associated with displacements linked to disarticulation of formerly cohesive communities. Relocation into areas characterized by economic models significantly different from the previous ones produces extreme cultural changes. Problems of this kind affect both Chinese urban dwellers displaced to the outskirts of the metropolis in the aftermath of the

construction of the Three Gorges Dam on the Yangtze river and the indigenous communities forced to leave their customary hunting grounds as a result of nature conservation projects. The more remote the economic model in the new place of residence from the accustomed one, the greater is the potential for the cultural consequences of displacement. The nature of the displacement caused by cultural change within the community of DPs depends on: 1. differences in living conditions between the abandoned territories and the current place of residence, 2. changes in the level of integration of communities affected by the relocation, and 3. the possibility of adaptation to the conditions of the new place of residence and of integration with the host community.

**Gender Security**. Women are particularly vulnerable to the negative consequences of DIDR. Displacements observed in developing countries lead to the lowering of their already strongly marginalized social and economic position. DIDR stabilizes or even increases the economically and traditionally conditioned discrimination that they face. The key factor in the marginalization of women is the economic outcome of displacement. Landlessness and difficult access to common property resources (pastures, rivers, lakes) means that women cannot continue with their customary economic activity, such as collecting wood or providing part of the family's food supply. Development-caused displacement thus contributes to a reduction of women's economic function and concomitant importance in the family. Due to their low level of education, women usually lack the opportunity to obtain other jobs. A frequent consequence of displacement is therefore the abolition of women's economic functions and their complete dependency on their husbands' earnings. Recently conducted research also shows that women, more than men, are affected by the negative health consequences of the implementation of development projects.

## 6. Activities of international institutions

In contrast to the other causes (categories) of internal displacement, the major international actors taking action on DIDR are not institutions dealing with human rights and international humanitarian aid, but financial institutions and development agencies such as the World Bank, regional development banks and the OECD. The central actor in this area is the World Bank. The history of the institution's involvement in shaping the standards of involuntary resettlement begins at the end of the 1970s. The World Bank was the first of the international financial institutions that adopted specific guidelines concerning involuntary resettlement (1980). In addition to the Operational Policy on Involuntary Resettlement (OP 4.12), the World Bank has taken a number of analytical and practical steps towards improving the standards of resettlement. The consequence of World Bank activities concerning planning and standards of involuntary resettlement has been the later involvement of other regional development banks in such activity. A policy on involuntary resettlement was recently adopted within the framework of the Asian Development Bank (1995), the Inter-American Development Bank (1998) and the African Development Bank (2003). Guidelines relating to the planning and implementation of standards for involuntary resettlement are also found in OECD policy (since 1991).

Much less active in creating appropriate standards of resettlement and support for those affected have been the institutions dealing with issues of human rights, humanitarian aid and forced migration. Previously adopted documents concerning protection of internally displaced persons (the Guiding Principles of Internal Displacement and regional agreements such as the Great Lakes Pact and Convention of Kampala) have dealt with the problem of displacement caused by economic development, but only to a very limited extent. Due to the smaller scale of human rights violations and security threats caused by DIDR, compared to displacement caused by sudden natural disasters and internal violence, DIDR became a subject of marginal interest to international agencies and organizations such as UNHCR and IOM. Limited activity in this area is undertaken by institutions dealing with housing problems and forced evictions in developing countries, such as the United Nations Centre for Human Settlements (UN-HABITAT) and OCHA. Among other institutions taking different forms of action on the subject of involuntary resettlement, we can mention the United Nations Food and Agriculture Organization (FAO), the United Nations Development Program (UNDP) and the World Food Program.

**a) World Bank Group**

The beginnings of the World Bank reflections on the social consequences of development projects can be dated back to the mid seventies of the twentieth century. World Bank as the first international development institution adopted guidelines of involuntary resettlement in February 1980 as a Operational Manual Statement (OMS 2.33). Prior 1980 World Bank-financed projects were not carried out on the basis of any specific guidelienes. The operational manual statement was revised in 1990 as so-called Operational Directive 4.30 (OD 4.30). Its key policy objectives include the following (article 3):

- (a) Involuntary resettlement should be avoided or minimized when feasible;
- (b) When displacement is unavoidable resettlement should be well planned;
- (c) Community participation in planning and implementing resettlement should be encouraged;
- (d) Resettlers should be integrated socially and economically into host communitiesl
- (e) Land, housing, infrastructure, and other compensation should be provided to the adversely affected population, indigenous groups, ethnic minorities, and pastoralists who may have usufruct or customary rights to the land or other resources taken for the project;

In December 2001 World Bank revised Operational Policy on Involuntary Resettlement, OP4.12. The particular attention of the policy authors is paid to the problems and needs of vulnerable groups among displaced people, especially "those below the poverty line, the landless, the elderly, women and children, indigenous peoples, ethnic minorities, or other displaced persons who may not be protected through national land compensation legislation"[94]. The other highly pointed element include land-based strategies for displaced people. People responsible for development projects should give a preference for land-based

94 OP 4.12 on Involuntary Resettlement http://siteresources.worldbank.org/INTFORESTS/Resources/OP412.pdf

strategies for resettled people which economic and social model is strongly connected with land. According to the article 12 compensation in cash is appropriate in situation when "a) livelihoods are landbased but the land taken for the project is a small fraction of the affected asset and the residual is economically viable; b) active markets for land, housing, and labor exist, displaced persons use such markets, and there is sufficient supply of land and housing; or c) livelihoods are not land-based". The World Bank resettlement policy framework recognizes customary rights to land and ensures that displaced people are

- informed about their options and rights pertaining to resettlement;
- consulted on, offered choices among, and provided with technically and economically feasible, resettlement alternatives; and;
- provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project.'

Due to the very limited activity of the UN system institutions, the World Bank is currently playing a role of central institutional actor involving in involuntary resettlement caused by the development. In addition to funding projects substantially affect the implementation of the standards associated resettlement. The World Bank, as a donor of development projects directly creates involunatary resettlement in different parts of the world. At the same time, however, research activity, and adopted guidelines on involuntary resettlement play an important role in minimization of risks and impoverishments affected resettled people.

**b) Regional Development Banks**

**I. Asian Development Bank (ADB)**

The Asian Development Bank (ADB) policy on involuntary resettlement was adopted in 1994 and became formally endorsed in November 1995. According to is provision planning of involuntary resettlement is an integral part of project design. Its aim is to avoid involuntary resettlement in all possible situations and minimize its scale and social consequences when population resettlement is unavoidable[95]. If project require to lost the land by individuals or communities they should be compensated. Resettlement plans should be well planned with appropriate timebound actions and budgets. All ADB-finances projects must be accompanied by closely information and full informations on resettlement and compensation options. The resettlement plans should take into account the perspectives of social and economical integration of resettlers with the host communities. The absence of formal legal title to land should not bar the perspectives of compensation. The total costs of resettlement should be included in the presentation of costs and benefits of the project. Costs of resettlement and compensation may be considered for inclusion in ADB loan financing for the project.

The ADP implementation procedures of resettlement policy involves: a) Initial Social Assessment (ISA), b) Resettlement Plan, c) Responsibility for Resettlement, d) Project Processing, e) Project

95 *Involuntary Resettlement*, Asian Development Bank (ADB), Manilla, 1995.

Implementation, f) Application of Policy, g) Monitoring and Reporting, h) Resource Implications[96].

According to the ADB evaluation study from 2000 almost 120,000 people were affected` by the ADB-funded projects, of which about 40,000 require resettlement[97]. According to this study between 1994 and 1999 ADB financed 80 project involving involuntary resettlement in 12 member countries.

**II. African Development Bank (AFDB)**

The first document concerning social aspects of involuntary resettlement was Guidelines on Involuntary Displacement and Resettlement in Development Projects (IDRP), produced in 1995[98]. African Development Bank adopted its policy concerning involuntary resettlement in development projects in November 2003[99]. The key goal of the policy "is to ensure that when people must be displaced they are treated equitably, and that they share in the benefits of the project that involves their resettlement". The key objectives of resettlement policy are 1. "avoid involuntary resettlement when feasible, or minimize resettlement impacts when population displacement is unavoidable", 2. "ensure that displaced people receive resettlement assistance, preferably under the project, so that their standards of living, income earning capacity, and production levels are improved", 3. "To provide explicit guidance to Bank staff and to the borrowers on the conditions that need to be met regarding involuntary resettlement issues in Bank operations in order to mitigate the negative impacts of displacement and resettlement", 4. "To set up a mechanism for monitoring the performance of involuntary resettlement programs in Bank operations"[100].

**III. Inter-American Development Bank (IADB)**

The first operational guidelines of involuntary resettlement were adopted in 1991. The Operational Policy on Involuntary Resettlement (OP-710) was adopted in 1998. As pointed out in the document people responsible for development projects should undertake every possible effort to avoid or minimize the need for involuntary resettlement. When it is not possible to avoid displacement, resettlement plan must be prepared to ensure that affected people will receive adequate compensation and rehabilitation.

The document is strongly focused on impoverishment risks analysis and minimizing problems of particularly vulnerable groups. According to the document "those indigenous and other low-income ethnic minority communities whose identity is based on the territory they have traditionally occupied are particularly

96 *Ibid*
97 *Special Evaluation Study on The Policy Impact of Involuntary Resettlement*, Asian development bank, Spetember 2000.
98 The Guidelines are based on AfDB Environmental Policy paper of 1990 and its Environmental Assessment Guidelines from 1992.
99 "Involuntary Resettlement Policy", African Development Bank, November 2003, available at: http://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/10000009-EN-BANK-GROUP-INVOLUNTARY-RESETTLEMENT-POLICY.PDF
100 Ibidem

vulnerable to the disruptive and impoverishing effects of resettlement. They often lack formal property rights to the areas on which they depend for their subsistence, and find themselves at a disadvantage in pressing their claims for compensation and rehabilitation. The Bank will, therefore, only support operations that involve the displacement of indigenous communities or other low-income ethnic minority communities in rural areas, if the Bank can ascertain that: a) the resettlement component will result in direct benefits to the affected community relative to their prior situation; b) customary rights will be fully recognized and fairly compensated; c) compensation options will include land-based resettlement; d) the people affected have given their informed consent to the resettlement and compensation measures".

According to the IADB Background Paper (1998) at least 120 IADB-financed projects involved or were expected to involve involuntary resettlement 1970 and 1998. It is estimated that these projects affected approximately 650,000 people[101].

**Organization for Economic Co-operation and Development (OECD)**

In December 1991 OECD Ministers of Environment and of Development Co-operation endorsed the document entitled "Guidelines for Aid Agencies on Involuntary Displacement and Resettlement in Development Projects"[102]. The document states that involuntary resettlement should be avoided or minimized whenever feasible by exploring alternative solutions. The resettlement plan should include the provisions for following

- organisational responsibilities;
- socio-economic survey;
- community participation and integration with host populations;
- legal framework;
- valuation and compensation for lost assets;
- land acquisition and productive re-establishment;
- access to training and employment;
- shelter, infrastructure, and social services;
- environmental protection and management;
- implementation timetable, monitoring and evaluation;

The effective preparation and implementation of resettlement schould be based on following scheme: a)

101 "Involuntary Resettlement Operational Policy and Background Paper", IADB, Washington D.C., 1998, available at: http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=2032100

102 The other guidelines endorsed in December 1991 by OECD ministers of environment include: 1. Good Practices for Environmental Impact Assessment of Development Projects, 2. Good Practices for Country Environmental Surveys and Strategies; and, 3. Guidelines for Aid Agencies on Global Environmental Problems. The text is available at: http://www.oecd.org/environment/environment-development/1887708.pdf

Project identification; b) Project preparation; c) Appraisal and negotiations; d) Implemenation and Supervision; e) Ex post evaluation;

**7. Development-Induced Displacement and Human Rights**

We cannot reduce analysis of development-caused displacement in the context of human rights law to exclusive consideration of provisions related to IDPs. When analyzing the human rights and methods of humanitarian assistance of development displacees, we must take into account the provisions of general human rights instruments, as well as specific documents adopted in recent years such as the UN Declaration on the Right to Development of 1986 and the United Nations Declaration on the Rights of Indigenous Peoples adopted in September 2007.

The beginning of international reflection on minimization of the negative social consequences of development projects can be dated back to the late seventies and early eighties of the twentieth century. Previously adopted general international human rights documents (the Universal Declaration of Human Rights, ICESCR) as well as more specific instruments (The 1951 Convention relating to the Status of Refugees) do not contain any specific references to the situation of people displaced within their own countries. But in the text of the Universal Declaration of Human Rights (UDHR), we can already find provisions of vital importance to the situation of displaced persons. Among them we can include the right to property and the prohibition of arbitrary deprivation (Article 17) and the right to adequate housing (Article 25). Similar provisions can be found in articles 6 and 11 of the International Covenant on Economic, Social and Cultural Rights. Article 11(1) of the ICESCR stipulates that: "the States Parties to the present Covenant recognize the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions. The States Parties will take appropriate steps to ensure the realization of this right, recognizing to this effect the essential importance of international co-operation based on free consent". Important provisions in the context of protection and assistance of forcibly displaced people can also be found in the text of the Convention on the Elimination of All Forms of Racial Discrimination (CERD), adopted in 1965 (article 5) as well as in the ILO Convention No. 169 concerning indigenous and tribal peoples in independent countries, which was adopted on 27 June 1989 (articles 14 and 16). According to article 5 of the CERD, "States Parties undertake to prohibit and to eliminate racial discrimination in all its forms and to guarantee the right of everyone, without distinction as to race, colour, or national or ethnic origin, to equality before the law, notably in the enjoyment of the following rights: The right to freedom of movement and residence within the border of the State, The right to own property alone as well as in association with others and Economic, social and cultural rights, in particular: the right to housing". Article 16 of the ILO Convention No. 169 stipulates that "Where the relocation of these peoples is considered necessary as an exceptional measure, such relocation shall take place only with their free and informed consent. Where their consent cannot be obtained, such relocation shall take place only following appropriate procedures established by national laws and regulations,

including public inquiries where appropriate, which provide the opportunity for effective representation of the peoples concerned"[103].

The provisions of the Geneva Convention of 1951 (United Nations Convention relating to the Status of Refugees – CRSR) are mostly the product of Cold War political perceptions. Its provisions apply only to international forced migrants who have crossed internationally recognized state borders due to armed conflicts and for other political reasons. Its importance, even as the inspiration for more advanced legal considerations, is therefore very limited. As Stojanov and Novosak noted, we currently observe a huge space of forced migration processes not recognized by public international law and poorly understood by the specialized institutions of international cooperation such as the UNHCR and the IOM. International law a long time ago ceased to keep pace with the changing face of forced migration[104].

The issue of development-induced displacement is strongly associated with the human right to development, which has been expanded and popularized in recent years. The concept of the human right to development was initially included in article 22 of the African Charter on Human and Peoples' Rights[105]. Examination of this article can become a starting point for more in-depth ethical reflection on the collision of the individual rights of displaced people with the generally understood principles of public interest. Article 22(1) provides that: "All peoples shall have the right to their economic, social and cultural development with due regard to their freedom and identity and in the equal enjoyment of the common heritage of mankind". The right to development was subsequently proclaimed by the United Nations in 1986 in the "Declaration on the Right to Development", which was adopted by the United Nations in General resolution 41/128. The right to development is a group right of peoples as distinct from an individual right, and was reaffirmed by the 1993 Vienna Declaration and Programme of Action. The UN Declaration on the Right to Development, adopted on 4th December 1986, highlights the autonomy of individuals and communities as active and central actors in development policy. According to article 1, "the human right to development also implies the full realization of the right of peoples to self-determination, which includes, subject to the relevant provisions of both International Covenants on Human Rights, the exercise of their inalienable right to full sovereignty over all their natural wealth and resources". The Declaration also pointed out that the aim of economic development is the maximization of the well-being of the entire population, and therefore cannot be realized by economic marginalization or social disintegration of groups such as indigenous people. As pointed out in article 2 (3) of the document, "states have the right and the duty to formulate appropriate national development policies that aim at the constant improvement of the well-being of the entire population and of all individuals, on the basis of their active, free and meaningful participation in development and in the fair distribution of the benefits resulting therefrom"[106].

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103Document available online at: http://www.ilo.org/wcmsp5/groups/public/---ed_norm/---normes/documents/publication/wcms_100897.pdf

104R. Stojanov, J. Novosak „Environmental Migration in China", *Geographica*, vol. 39, 2006, s. 65-82.

105N.J. Udombana, „The Third World and the Right to Development: Agenda for the Next Millennium", *Human Rights Quarterly*, vol. 22, no. 3, August 2000, s. 753-787.

106Declaration on the Right to Development, http://www.un.org/documents/ga/res/41/a41r128.htm

An increasingly common consequence of development projects is environmental deterioration. The most negative environmental changes affect communities living in the immediate vicinity of the development project. In countries with particularly intensive development policies, negative environmental consequences of development can even reach people living in very distant territories. Implementation of megaprojects, by violating the principles of sustainable development, can therefore affect the environmental rights of large communities. According to Principle 4 of the Rio Declaration of Environment and Development of 1992, "In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and can not be considered in isolation from it"[107]. Sometimes, however, efforts to protect the environment can cause internal displacement or significant deterioration of the living standards of local communities. It is estimated that conservation of nature leads every year to the displacement of many thousands of people in several parts of Africa, Asia, and Latin America (the so-called phenomenon of conservation-induced displacement or conservation refugees). Currently, a clean and unpolluted environment is becoming a more and more valuable and limited resource. The marginalization of poor communities is further reflected in the fact that they often live in extremely difficult environmental conditions, such as lack of access to potable water, poor sanitation and inadequate housing conditions.

Indigenous tribal peoples are the category particularly vulnerable to impoverishment caused by the negative consequences of economic development. Restoring former livelihoods is in their case very difficult and they are particularly affected by adverse economic and social consequences of development such as landlessness, joblessness, economic marginalization and social disintegration. The United Nations Declaration of the Rights of Indigenous People adopted by the General Assembly on 13 September 2007 may, according to its authors, serve as "an important standard for the treatment of indigenous peoples that will undoubtedly be a significant tool towards eliminating human rights violations against the planet's 370 million indigenous people and assisting them in combating discrimination and marginalisation". The document asserted the individual and collective rights of indigenous peoples, as well as their rights to culture, identity, language, employment, health, education and other benefits. It "emphasizes the rights of indigenous peoples to maintain and strengthen their own institutions, cultures and traditions, and to pursue their development in keeping with their own needs and aspirations". The Declaration draws attention to the fundamental importance of territory as a basis for the retention of the current economic model, social ties and cultural identity by indigenous people. As stated in article 8 of the document, states should take all possible steps to prevent "any action which has the aim or effect of dispossessing them of their lands, territories or resources". The document also points to the need for prevention of "any form of forced population transfer which has the aim or effect of violating or undermining any of their rights".

The first and most important document concerning assistance to IDPs and the humanitarian aspects of displacement, including that caused by development projects, was the Guiding Principles of Internal

107 F.M. Deng, "Guiding Principles of Internal Displacment", *International Migration Review,* Vol. 33, No. 2 (Summer, 1999), pp. 484-493; W. Kalin, "Guiding Principles on Internal Displacement", *Stud. Transnat'l Legal Pol'y*, 2008.

Displacement adopted by the United Nations General Assembly in 1998. The need to establish international guidelines for the protection of IDPs became apparent in the early and mid 1990s, when the number of people uprooted by internal armed conflicts, human rights abuses and ethnic discrimination began to soar. According to estimations from 1982 the total was only 1.2 million IDPs in 11 countries worldwide. By 1992 the number of IDPs uprooted by internal conflicts had increased to over 25 million people in 40 countries, or twice as many as refugees. The document was developed over many years pursuant to the official mandate given to the Representative of the Secretary-General on Internally Displaced Persons by the Commission on Human Rights in 1992[108]. Despite its non-binding character, the Guiding Principles of International Displacement is the best-known international document addressing the problem of IDPs[109]. Today, however, its importance far exceeds that of many soft-law international documents. Incorporation of the content of the document into the national law of many countries, as well as recognition of its provisions by several international organizations, means that we can talk about the transformation of the Guiding Principles from soft law into hard law. According to some experts, the provisions of the Guiding Principles can already be considered a binding component of customary international law. According to Walter Kälin, a "closer look at the Guiding Principles might reveal that this very soft instrument might actually turn out to be much harder than many well-known soft law instruments. The reason for this is that the Guiding Principles are very well grounded in international law"[110]. Among the countries which have incorporated the Guiding Principles in their legal systems or developed national policies based on its provisions we can mention: Angola, Colombia, Peru, Uganda, Philippines, Sri Lanka and many more. According to article 2, internally displaced persons are defined as "persons or groups of persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border"[111]. In the cited definition we observe the lack of reference to implementation of development projects as a category of processes influencing the dynamics of forced migrations, which from the standpoint of the issues presented here significantly reduces its analytical usefulness. The second section of the document (Principle 6) includes prohibition of population displacement if the implemented project does not serve the public interest. Every human being is entitled to protection from arbitrary displacement from his home or place of habitual residence "In cases of large-scale development projects, which are not justified by compelling and overriding public interests". Principle 9 stipulates that "States are under a particular obligation to protect against the displacement of indigenous

108"Introductory Note by the Representative of the Secretary-General on Internally Displaced Persons Mr. Francis M. Deng", available at: http://www.idpguidingprinciples.org/

109More on the document in the context of displacements caused by development projects: K. Luopajarvi, „Is there an Obligation on States to Accept International Humanitarian Assistance to Internally Displaced Persons under International Law?", *International Journal of Refugee Law*, vol. 15, no. 4, 2003, s. 678-714.

110W. Kälin, "How Hard is Soft Law? The Guiding Principles on Internal Displacement and the Need for a Normative Framework", Presentation at Roundtable Meeting Ralph Bunche Institute for International Studies CUNY Graduate Center December 19, 2001.

111Text of the document is available at: http://daccess-dds-ny.un.org/doc/UNDOC/GEN/G98/104/93/PDF/G9810493.pdf?OpenElement

peoples, minorities, peasants, pastoralists, and other groups with a special dependency on and attachment to the land"[112].

More and more attention is being paid to the protection of and humanitarian assistance to IDPs within the framework of regional documents. Particular attention has been given to the situation of IDPs in the binding and non-binding instruments adopted in Africa. This continent is characterized by an especially large scale of and strong interplay between causes of internal displacement. The problem of displacement caused by armed conflicts is present in 23 countries across the continent. According to IDMC estimations from 2012, in 18 sub-Saharan countries there are over 10.4 million IDPs, or almost a third of the global total. Over 40 percent of people who have been internally displaced as a result of violence and conflict live in Africa. According to the IDMC, in 2012 over 1.4 million people were newly forced to flee their homes. The number of conflict-induced displaced people in Africa exceeds fourfold the number of refugees in this region. Direct or indirect results of development projects (including dams, pipelines, population redistribution schemes, and nature conservation programs), as well as the consequences of natural disasters and slow-onset environmental processes such as drought, are further causes of large-scale displacement in this part of the world. Some African countries, for example Nigeria and Sudan, are characterized by very strong interplay between the main causes of displacement. Minimizing this process seems now a sine qua non of security maximization and consolidation of economic and political stability in many countries of the region. No wonder, then, that the problem of internal displacement was already reflected in the number of relevant international documents. This problem was alluded to in, inter alia, the text of the Dar Es-Salaam Declaration on Peace, Security, Democracy and Development in the Great Lakes Region of November 2004[113]. The problem of forced displacement was recognized as among the main threats to stability and security in the region. A particularly important document was the Pact on Security, Stability and Development in the Great Lakes Region (known as the Great Lakes Pact) signed in Nairobi on 15 December 2006 by the heads of state of 11 countries.

Africa is the first continent with a legally binding convention devoted to the protection and assistance of internally displaced people. The Convention for the Protection and Assistance of Internally Displaced Persons in Africa, known as the Kampala Convention, was adopted in October 2009. The document entered into force on December 6th 2012, 30 days after its ratification by 15 African Union members. In addition to its binding character, the Convention of Kampala is more detailed than previously adopted documents devoted to the protection of IDPs. For example, article 5 (4) specifically establishes state responsibilities for the protection and assistance of internally displaced persons whose displacement is the result of "natural or human made disasters, including climate change". Internally displaced persons are defined in the same way as in the text of the Guiding Principles of Internal Displacement. As the document states, internally displaced persons are "persons or group of persons who have been forced or obliged to flee

112"Guiding Principles of Internal Displacement" available at: http://www.ifrc.org/Docs/idrl/I266EN.pdf

113The declaration was adopted as a final document of International Conference for Peace, Security, Democracy and Development in the Great Lakes Region, held in Dar Es-Salaam in November 19-20 2004 under the auspices of the African Union and the United Nations.

or to leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border"[114]. The quoted definition does not refer to development projects as a cause of internal displacement. However, to the situations mentioned in this definition, article 10 adds development projects carried out by the public or private sector as a cause of displacement[115]. Article 10 of the document, headed "Displacement Induced by Projects", includes the main principles regarding implementation of socially costly development projects and involuntary resettlement accompanying them. According to article 10 (1), "states should undertake every possible measure to prevent displacement caused by projects carried out by public or private actors". As pointed out in section 10 (2), "states parties shall ensure that the stakeholders concerned will explore feasible alternatives, with full information and consultation of persons likely to be displaced by projects". According to article 10 (3), "states parties shall carry out a socio-economic and environmental impact assessment of a proposed development project prior to undertaking such a project"[116]. The Convention deals with the problem of displacement caused by development in much greater detail than previously adopted binding and non-binding international instruments.

**8. Concluding remarks**

The involuntary population resettlement associated with economic development is a phenomenon occurring on all continents. This process, like the displacement caused by conservation of nature, only acquired a mass character in the twentieth century. Therefore it is usually seen as the "youngest" category of internal displacement. Standards of implementation of involuntary resettlement are a reflection of national development policy and internal political circumstances. This is why in different regions of the world the problem assumes a very different nature and has different consequences. Especially negative consequences of development projects are currently observed in countries with totalitarian and authoritarian forms of government and wide social disparities. The centrally planned economy which characterizes many authoritarian states, combined with lack of control over the decisions taken in the restricted circles of administration, means that involuntary resettlement in those countries usually takes place on a mass scale. In countries with democratic forms of government, strongly rooted property rights, individualist values, and expanded participation in government by members of society, implementation of development projects and the accompanying involuntary resettlement does not have far-reaching negative social consequences.

The direction of economic development is one of the key issues influencing the evolution of

114The full text of the document is available at: http://www.internal-displacement.org/8025708F004BE3B1/(httpInfoFiles)/0541BB5F1E5A133BC12576B900547976/$file/Convention(En).pdf

115S. Ojeda, "The Kampala Convention on Internally Displaced Persons: Some International Humanitarian Law Aspects", *Refugee Survey Quarterly*, Vol. 29, Issue 3, 2010, pp. 58-66.

116It is worth to mention than document uses the term "displacement induced by projects" which is much less consistent in the literature of this subject. More on legal and humanitarian aspects of the Kampala Convention: L. Groth, "Engendering Protection: an Analysis of the 2009 Kampala Convention and its Provisions for Internally Displaced Women", *International Journal of Refugee Law*, Vol. 23, Issue 2, 2011, pp. 221-251.

development policy on local, regional or national levels. In recent years, we have witnessed a significant change in the proportion of specific causes of displacement within the total scale of this phenomenon worldwide. A decrease in involuntary resettlement caused by construction of dams, observed in some African and Latin American countries, is accompanied by an increase in displacement for other reasons. Let us mention here the growing scale of displacement related to the re-urbanization of major agglomerations in Asia. Another increasingly important cause of displacement is the conservation of nature. However, we should take into account that the dynamics of the causes of DIDR differ significantly from one region of the world to another. It seems that, given population growth and growing energy needs in countries of the global south in the coming years, we cannot expect a significant decrease in the number of dams constructed there. Let us hope that the increase in development projects will be accompanied by minimization of involuntary resettlement following their construction.

Back in the nineties, specialists in this field mentioned 10 million people displaced each year by the implementation of development projects. Currently it is estimated that every year economic development leads to the involuntary resettlement of 15 million people worldwide. However, we should mention that, due to the lack of official statistics from many countries, these figures are only approximate estimates. In many countries there are no statistics on this issue. This is the case both in countries of the global south and in highly developed European countries. Therefore we do not know even the approximate number of development-induced displaced people in some regions of the world.

Much attention in recent years has been given to the need to address DIDR in the context of human rights and humanitarian concerns. Because displacements caused by development were never an important social problem in highly developed western countries, this issue is very often forgotten, neglected or underrated by public opinion and by several humanitarian institutions. Due to the low level of humanitarian risks affecting the displaced in this category and its slow-onset character, DIDR has not so far become a subject of UNHCR activities or at least of this agency's theoretical reflections. Only the OCHA Internal Displacement Unit has undertaken some very limited activity in this area. For the following reasons, DIDR is a problem scarcely known to the western public and somehow overlooked by humanitarian organizations. The World Bank as well as regional development banks have for many years focused on creating and implementing better standards of compulsory resettlement and minimization of the associated humanitarian problems and economic risks. Guidelines and policies on involuntary resettlement, adopted since 1980 within the framework of the World Bank, are specific but little-known documents, even within the community of specialists in forced migration and internal displacement.

However, it is the decisions made at the national level that are most important for the creation of appropriate standards for the implementation of development projects and accompanying involuntary resettlement. National legislation is particularly essential for improving the situation of resettled people. In many cases legal provisions objectively discriminate against indigenous people and individuals from the poorest social groups, who are the most vulnerable to the negative consequences of resettlement. Strengthening of their legal position should be accompanied by their gradual empowerment as autonomous

and self-determining actors in development policy. The UN Declaration on the human right to development highlights the principle that the individual is a central agent of development and should have the freedom to decide his own fate. In large areas of developing countries, affected or displaced communities have very little opportunity to decide on the direction of their own economic development. Legal empowerment of marginalized and previously excluded social groups is the only means of improving their economic and social situation. Therefore it seems necessary to draw wider attention than before to the humanitarian context of involuntary resettlement. The problem of displacement caused by economic development or conservation of nature has not so far become a subject of the activity of institutions such as UNHCR and IOM.

An important mechanism with which to improve the standards of resettlement and strengthen the situation of affected people may be improvement in the purposes and activities of civil society institutions. Local and regional social movements or NGOs have in several cases already succeeded in blocking or reducing the negative social and environmental consequences of development projects. Acting on a different level, civil society institutions (grassroots movements and NGOs) in many parts of the world today represent an essential instrument of greater democratization of social relations and empowerment of local communities as central actors in development. In addition to opposing specific development projects or struggling to improve the conditions and rights of displaced and affected people, social movements can play an important political role. The activity of civil society institutions should be accompanied by modification of the legal standards that at present discriminate against affected and displaced people. Only a change in the discriminatory legal system can lead to improvement in the situation of marginalized social groups, a situation which to a large extent also depends on tradition; and that is more difficult to change than law.

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**10. Abstract:**


The object of this report is to present development-caused displacement as a highly diverse global social problem occurring in all regions of the world, as a human rights issue, and as a source of challenges to public international law and and institutions providing humanitarian assistance. More in-depth analysis has been preceded by an introduction which draws attention to the specific nature of DIDR as one of the categories of internal displacement. Equal attention has been devoted to the origins of research into this subject already

undertaken during the fifties. Initially the field was limited to a small group of applied anthropologists, who analyzed the social consequences of construction of dams in Africa. The political character of this problem and its large social consequences have in recent years caught the attention of scholars in a growing number of disciplines. Another purpose of this report is to analyze the main causes of development-induced displacement worldwide. In order to maintain the transparent character of the analysis, I have distinguished eight main causes of the process. These include: a) construction of dams, hydropower plants, artificial reservoirs, irrigation projects and channels, b) development of transportation (building of roads, highways, railways, airports, ports, etc.), c) urbanization, re-urbanization and other transformations of urban space (expansion of urban areas, demolition of poverty-stricken districts such as slums and favelas, urban transport, underground and water supply projects, d) mining and transportation of resources (especially expansion of open-cast mining), e) deforestation and development of agriculture (especially large monoculture plantations, such as palm oil plantations on Borneo Island), f) population redistribution schemes (such as the politics of villagization in Ethiopia and Tenzania), g) conservation of nature: the creation of national parks, reserves or other biosphere protection units (the problem of so-called conservation refugees or conservation-induced displacement), and h) other reasons. The next task undertaken in this report is the analysis of DIDR specificity in the several regions of the world most acutely affected by this problem. I analyze the most spectacular or best-known examples of development projects which have led to involuntary resettlement having a negative impact on the living standards of local communities. I devote much attention to the methods of humanitarian assistance for DPs and to relations between DIDR and international human rights law and protection. Recently adopted documents relating to the protection of displaced people (Guiding Principles of Internal Displacement, the Great Lakes Pact, Convention of Kampala) treat this problem in a very selective and limited manner. Increased involvement of national and international actors in this issue should be accompanied by adequate action on the part of international humanitarian agencies including the UNHCR. In another section of the publication I draw attention to the activities of international institutions on issues of development-induced displacement and resettlement. The World Bank is currently the only international institution significantly engaging with this issue. A substantial part of the report is devoted to analysis of the consequences of development-induced displacement and resettlement on the basis of the concept of human security which has evolved since the early nineties. The displacement caused by economic development, like all other categories of forced migration, is related to the significant decrease in the level of human security of people forced to flee their homes. The concept of human security can be used to analyze both the individual and community consequences of global social problems. The report is supplemented by the author's extensive bibliography, over 50 pages long, of material related to development-induced displacement.

**11.Development-Induced Displacement and Resettlement: An International Bibliography**

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## 12. Annexes

### 12.1. Hydropower development megaprojects causing involuntary resettlement of more than 100,000 people.

Notes: The presented list includes development projects which are completed, under construction and planned. Statistics included below are only approximate in nature and may differ from the detailed estimates presented by the author in the other parts of this report. Considering 1/ politically conditioned practices of under or overestimate of the number displaced at regional and national level, 2. lack of a global system for

monitoring and detailed statistics of development caused involuntary resettlement, 3/ discrepancies due to the nature of the various stages of long-term investments, it is difficult to accurately determine even an approximate number of displaced people during each of the projects listed below. Non-governmental organizations usually tend to overestimate the real number of displaced persons, while government makes the opposite.

| Project (Dam/Reservoir) | River | Country | Estimated displaced number | Year completed |
|---|---|---|---|---|
| Kaptai | Karnafuli | Bangladesh | 100.000 | 1962 |
| Danjiangkou | Hanjiang | China | 383.000 | 1974 |
| Ertan | Huang He | China | 278.000 | 1958 |
| Lubuge | Huangni | China | 100.000 | 1989 |
| Miyun | Chaohe/Baihe | China | 200.000 | 1960 |
| Shuikou | Minjiang | China | 410.000 | 1960 |
| Xinanjiang | Xinanjiang | China | 280.000 | 1960 |
| Sanmenxia | Huang He | China | 320.000 | 1960 |
| Zhaxi | Zi Shui | China | 141.000 | 1961 |
| High Aswan | Nile | Egypt/Sudan | 113.000 | 1970 |
| Gibe I | Omo | Ethiopia | 100.000 | 2004 |
| Balimela | Sileru | India | 113.600 | 1990 |
| Hirakud | Mahanadi | India | 110.000 | 1957 |
| Kangsabati Kumari | Kangsabati | India | 125.000 | 1965 |
| Pong | Beas | India | 150.000 | 1974 |
| Rihand | Rihand | India | 102.000 | 1962 |
| Sardar Sarovar | Gujarat | India | 360.000 | 2004 |
| Somasila | Penar | India | 100.000 | 2004 |
| Srisailam | Krishna | India | 100.000 | 1984 |
| Kiri | Gongola | Nigeria | 100.000 | 1982 |
| Mangla | Dźhelam | Pakistan | 110.000 | 1967 |
| Tarbela | Indus | Pakistan | 96.000-100.000 | 1974 |
| Kuibyshev | Volga | Russia | 150.000 | 1990 |
| Rybinsk | Volga | Russia | 117.000 | 1955 |
| Volzhkaya | Volga | Russia | 111.000 | 1965 |
| Kievsk | Dnepr | Ukraine | 132.000 | 1950 |
| Three Gorges Dam | Yangtze | China | 1.260.000 | 2009 |
| Xiaolangdi | Yellow River | China | 181.600 | 2001 |
| Almatti | Upper Krishna | India | 200.000 | 2001 |
| Jinsha Project | Jinsha | China | 300.000 (12 tam) | Under construction |
| Danjiangkou (II) | Hanjiang | China | 345.000 | Under |

| | | | | |
|---|---|---|---|---|
| | | | | construction |
| Bansagar | Sone | India | 142.000 | Under construction |
| Narmada Sagar | Narmada | India | 200.000 | Under construction |
| Sardar Sarovar | Narmada | India | 320.000 | Under construction |
| Tehri | Bhagirathi | India | 105.000 | Under construction |
| Polavaram | Godavari | India | 154.500 | Cancelled |
| Nan Theun 2 (NT2) | Nan Theun | Laos | 100.000 | Under construction |
| Pancheswar | Mahakali | Nepal | 124.000 | Planned |
| Son La | Black River | Vietnam | 96.000 | Planned |

Source: M.N. Kotelo-Molaoa, *The Socio-Economic Impact of The Lesotho Highlands Project Resettlement Programme*, (PhD dissertation University of the Free State Bloemfontein), dostępne w internecie: http://etd.uovs.ac.za/ETD-db//theses/available/etd-10232008-123636/unrestricted/Kotelo-MolaoaMN.pdf; M.M. Cernea, *Hydropower Dams and Social Impact. A Sociological Perspective*, Working Paper No. 16, World Bank, Washington, 1997; B. Terminski, *Przesiedlenia inwestycyjne. Nowa kategoria migracji przymusowych*, Oficyna Wydawnicza Łośgra, Warszawa, 2012.

### 12.2. The other examples of development projects resulting in mass involuntary resettlement

Notes: Similarly to the previous statistics presented figures are only approximate in nature. They are presented in order to sensitize the reader with the magnitude of the lesser-known caused of deveopment-caused resettlement in different parts of the world.

| Country | Category of development projects | Date of completion | Number of involuntary resetteled people |
|---|---|---|---|
| Lesotho | Lesotho Highlands Water Project | Under construction | 20000 |
| Bangladesh | Dhaka W. Supply and Sanitation Project | Under construction | 40000 |
| India | Hyderabad Water Supply Project | 2009 | 50000 |
| India | Salandi Irrigation Project | 1983 | 11000 |
| India | Andhra Pradesh Irrigation II Project | 2005 | 63000 |
| India | Gujarat Medium Irrigation II (Narmada) | 2008 | 63600 |
| India | Upper Krishna irrigation project in Karnataka | 2005 | 240000 |
| Tanzania | Serengeti National Park | 1951 | 50000 |
| Kenya | Bura Irrigation Project | 1981 | 40000 |
| Kenya | Third Nairobi Water Supply | 1994 | 10000 |
| Nigeria | Bakologi Dam and Irrigation Project | 1978 | 18000 |
| India | Irrigation project in Andhra Pradesh | Planned | 80000 |
| Sri Lanka | Moragahakanda-Kaluganga Irrigation | 2010 | 12000 |
| Uganda | Kibale National Park | 1993 | 18000-35000 |
| Kongo | Odzala National Park | 1936 | 10100 |

| | | | |
|---|---|---|---|
| Nigeria | Cross River National Park | 1991 | 10000 |
| India | Mumbai Urban Transport Project (MUTP) | 2002 | 100000 |
| India | Development of communication in Bengal | 1947-2000 | 1164200 |
| India | Dams construction in Gujarat | 1947-2000 | 2674200 |
| India | Development of agriculture in Assam | 1947-2000 | 114000 |
| India | Mining development in Jharkhand | 1951-1995 | 402282 |
| India | Mining development in Orissa | 1951-1995 | 330000 |
| India | Development of transportation in Gujarat | 1947-2000 | 1150000 |
| Namibia | Development of agriculture | 1990-2000 | 34200 |
| Nigeria | Agricultural project -Fadana III | 2009 | 10000 |
| United States | Electrification and Tennessee reservoir system | 1933-1953 | 15000 |
| Indonesia | Jabotabek urban development project | 1990 | 40000-50000 |
| Germany | Lignite mining (Lausnitz) | 1950-2005 | 30000 |
| Germany | Lignite mining (Rhineland) | 1948-2010 | 32000 |
| Côte d'Ivoire | Komercyjny program deforestacji | 1999 | 40000 |
| India | Deforestation in Singrauli region | 1970-1995 | 42000 |
| India | Deforestation in Orissa | 1980-2010 | 80000 |
| Ethiopia | Rural resettlement Amhara- Gondar Awi | Since 2005 | 109000 |
| Dominicana | Evictions in Santo Domingo | 1986-1992 | 30000 (families) |
| Myanmar | Evictions in capital city | 1988-1994 | 500000 |
| Kamerun | Transformation of urban space in Douala | 1979 | 45000 |
| United States | Big Dig highway in Boston | Under construction | 10000-20000 |
| Poland | A1 highway (Stryków-Pyrzowice) | Under construction | 7000 ? |
| Poland | Creation of Solińskie lake | 1968 | 4000 |
| Philippines | Underground Manila | 2000 | 6100 |
| Bangladesh | Construction of Jamuna bridge | 1998 | ?? |
| Bangladesh | Construction of Padma bridge | Planned | ?? |
| Indonesia | Gold mining Freeport/Grasberg (Papua) | 1980-2005 | 15000 |
| Ghana | Gold mining in Tarkwa region | 1990-2010 | 20000-30000 |
| Ghana | Gold mining in Ahafo | Since 2006 | 20000 (planned) |
| Papua N. Guinea | Oki Tedi gold and copper mine | Since 1980 | 30000-50000 |
| Peru | Tambogrande gold mine | 1989-2003 | 16000 |
| RSA | mining | 1970-2000 | 25000 |
| Kosovo | Lignite mining | Planned | 5000-10000 |
| Namibia | Mining | Since 1965 | 13500 |
| Nigeria | Oil exploitation in the Delcie Nigru | Since 1985 | 100000 ? |
| Sudan | Oil exploitation and pipeline construction (Block 5 A) | 1999-2002 | ?? |

Source: W.C. Robinson, *Risks and Rights: The Causes, Consequences, and Challenges of Development-Induced Displacement*, (Occasional Paper), John Hopkins University- Brookings Institution, May 2003. In the context of development-induced displacement in India- W. Fernandes, *Development-Induced Displacement: The Class and Gender Perspective*, North-Eastern Social Research Institute, November, 2007; B. Terminski, *Przesiedlenia inwestycyjne. Nowa kategoria migracji przymusowych*, Oficyna Wydawnicza Łośgraf, Warszawa, 2012. Above mentioned statistics are estimations only.

**12.3. The most important caused of development-induced (according to the WBED report on World Bank-financed projects involving involuntary resettlement active in 1993)**

According to the "Bankwide Review of Projects Involving Involuntary Resettlement"

- Dams (26,6 %)
- Transportation (24,6 %)
- Water supply/sewage (12,3 %)
- Thermal including mining (10,3 %)
- Urban infrastructure (8,2 %)
- Irrigation/canals (4,8 %)
- Environmental protection (3,4 %)
- Industry (2,7 %)
- Forestry (1,4 %)
- Other causes (5,5 %)

Source: A.Rew, E. Fisher, B. Padney, *Addressing Policy Constraints and Improving Outcomes in Development-Induced Displacement and Resettlement Projects* (Final Report), January 2000, pp. 91.

**12.4. The largest artificial reservoirs in the world in terms of capacity**

| Country | Reservoir/Dam | River | Year construction | Capacity | Number of resettled |
|---|---|---|---|---|---|
| Zimbabwe | Kariba Lake | Zambezi | 1959 | 180,6 km3 | 50000 |
| Rosja | Bratsk Reservoir | Angara | 1964 | 169 km3 | 70000 |
| Egypt | Lake Nasser | Nile | 1971 | 157 km3 | 102000 |
| Ghana | Leke Volta | Volta | 1965 | 150 km3 | 82000 |
| Canada | Lake Manicouagan | Manicouagan | 1968 | 141,8 km3 | 1700 |
| Venezuela | Lake Guri | Caroni | 1986 | 135 km3 | 19000 |
| Canada | Lake Williston | Peace | 1967 | 74,3 km3 | 2000 |
| Russia | Krasnoyarsk Reservoir | Yenisey | 1967 | 73,3 km3 | 36000 |
| Russia | Zeya Dam | Zeya | 1978 | 68,4 km3 | 40000 |
| China | Sanmenxia | Huang He | 1962 | 65,0 km3 | 230000-400000 |
| Canada | Robert-Bourassa | La Grande | 1981 | 61,7 km3 | 5000 |

Source: *World Commission on Dams Annual Report 2000*, Earthscan-UNEP, 2000; B. Terminski, *Przesiedlenia inwestycyjne. Nowa kategoria przymusowych migracji*, Oficyna Wydawnicza Łośgraf, Warszawa, 2012.

## 13. Development-Induced Displacement and Human Security: A very short introduction[117].

### Introduction. A general overview of development-induced displacement and resettlement

At least fifteen million people each year are forced to leave their former place of residence as a result of major development projects (M.M. Cernea and H. Mathur, 2008)[118]. It is estimated that large development projects such as dams, roads and exploitation of raw materials led to the displacement of least 300 million people between 1988 and 2008. Alongside natural disasters, economic development is one of the greatest causes of contemporary internal displacement worldwide. The irreversible nature of many displacements caused by development can be compared only with the displacements in consequence of climate change and natural disasters or industrial accidents affecting large territories (such as the Asian tsunami of 2004 or the Chernobyl disaster in 1986). Just as in many cases of desertification, land degradation or shoreline erosion, the construction of large dams, extraction of crude oil, or creation of open-pit mines can make it impossible to resettle in the territory. The irreversibility of such displacements is one of the most important factors in their huge economic, social and cultural consequences. Especially dangerous is the displacement to far distant places due to irreversible interference with the natural environment. The result of the creation of large dams, expansion of mining, or oil exploitation does not have to be direct large-scale displacement. The negative environmental impact caused by development may lead to a substantial incidence of "secondary" forced migration of rural populations to cities or other territories. The most serious social consequences have accompanied displacement to territories which are completely different from those previously inhabited. Resettlement plans implemented in China and India should consider the displacement of the population of particular nearby economic territories into others similar to those previously abandoned. Displacement – understood as dislocation from the homeland territory without social support in the new place of residence – is a violation of the most fundamental human rights and should be entirely prohibited. Resettlement can be defined as a planned and organized relocation to a strictly specified new place of residence, accompanied by social support mechanisms and compensation for lost goods. In many countries even resettlement is only permitted in the case of projects for public use.

Development-induced displacement is a social phenomenon strongly associated with other categories of forced displacement. It is similar to evacuations due to administrative compulsion to leave the territory following natural disasters, a situation which incorporates both these problems. Resettlement caused by economic development is generally less reversible and is associated with less serious risks to the people involved than disaster-induced displacement or conflict-induced displacement. Development-induced displacement is also strictly confined within the country's static borders. However, we can mention cases such as the building of the Kaptai in Bangladesh and Mangla Dam in Pakistan, when implementation of large development projects became the indirect source of international mobility. Most cases combine

117 This text was originally written in French and later translated into English by Virginie Richard.

118 M.M. Cernea and H. Mathur (eds.), *Can Compensation Prevent Impoverishment: Reforming Resettlement Through Investments and Benefit-Sharing*, Oxford University Press, Oxford 2008.

development-induced displacement with displacement associated with long-term environmental changes. A direct consequence of the construction of large dams, such as Three Gorges Dam in China, is the displacement of residents from the area of the construction site. The long-term result of many development projects is land, air and water pollution in the surrounding areas, exposing many people to health risks and the threat of poverty. The indirect result of the negative consequences of development projects is therefore forced migration associated with deteriorating living conditions. In this type of displacement we cannot, therefore, differentiate between the environmental context and the early implementation of the development project. Contemporary internal displacement in many countries is often monocausal. That is why contemporary classification of internal displacement into four basic categories (development-induced displacement, conflict-induced displacement, disaster-induced displacement and environmentally-induced displacement), which is often used but somehow rarely appears in the literature, is not always suitable for more in-depth analyses. The causes of all internal displacement worldwide lie in dynamic conflicts between different categories of actors within static boundaries (the territory of the country). In the case of development-caused displacement, land becomes a resource and source of conflict between the interests of the public authorities and the private sector and the potentially affected or displaced people[119]. In the most extreme cases of development-induced displacement, land turns out to be a much more valuable resource than the people living on it.

Within historical analysis, development-induced displacement and conservation-induced displacement are the "youngest" categories of forced migration[120]. The massive scale of these processes has been observed only from the late forties of the last century. For most of human history, the root causes of forced migrations were natural disasters and long-term negative environmental processes, or population growth and the consequent decrease in the amount of resources. The Neolithic revolution and the associated development of social organization played a major role in the greater diversity of the causes of displacement worldwide. The growing population and associated demographic pressure caused additional voluntary migrations in pursuit of new resources and better living conditions. New forms of settlement, such as the establishment of towns near large rivers, together with the development of agriculture, gradually freed people from the dictates of the forces of nature. Ancient times saw the beginning of resettlement motivated by political factors. We can at least mention here the deportation of the Israelites (the so-called Babylonian captivity). The vast majority of conflicts in the ancient Middle East were indeed associated with environmentally-caused migratory pressure and the struggle for resources (water, agricultural land). In contrast to these processes, displacement associated with economic development is a very young phenomenon.

119 We can mention two final push-factors in every case of internal displacemen worldwide – 1. the effect of strong security threats, 2. administrative compulsion to leave previously inhibited territory; alternately, the combination of these factors.

120 B. Terminski, *Przesiedlenia inwestycyjne: Nowa kategoria migracji przymusowych*, Oficyna Wydawnicza Łośgraf, Warszawa, 2012.

Transformation and changes of land use have always led to the problems associated with population resettlement. However, only in the twentieth century has this problem emerged on such a massive scale. The creation of large dams and hydroplants had already been initiated in the first decades of the last century. By the twenties, this problem had become apparent in India[121]. The real explosion in such problems, however, was associated with the political transformations of the fifties and sixties: China's industrialization pursued by bloody methods (Mao's so-called Great Leap Forward policy), Nehru's socialist vision of industrialization and dams as "temples of modern India", hydro projects in the Soviet Union, and, in Africa, those related to decolonization and growing economic needs. Since the construction of the High Dam in Aswan, DIDR has become a crucial social problem, the cause of massive displacements and a focus of scientific interest. At the beginning of the fifties applied anthropologists, such as Robert Fernea, Elizabeth Colson and Thayer Scudder, were already drawing attention to the micro-and macro-social implications of the creation of large dams in Africa (Kariba Dam, Akosombo Dam, High Dam in Aswan). It is worth mentioning here the Gwembe Tonga Development Project initiated in 1956, in order to analyze the influence of the construction of the Kariba Dam on the Zambezi river on social change within the Gwembe Tonga community. The seventies see the beginning of interest in this problem within the framework of the World Bank, in cooperation with sociologists studying this issue in the developing world (from 1974)[122]. A dozen years later, these investigations led to the first conceptualization of the problem and establishment of World Bank policy on involuntary resettlement. The first such policy was adopted in 1980 (as an Operational Manual Statement), following recognition of detrimental development policies in many parts of the world, which led to the impoverishment of many thousands of people. The term "development-induced displacement and resettlement" (DIDR) was introduced to scientific discourse in the mid-eighties by the book *Putting People First: Sociological Variables in Rural Development* edited by M.M. Cernea (published in 1985 and 1991). The eighties and nineties saw the evolution of theoretical approaches to this problem. We can mention here the Impoverishment Risks and Reconstruction Model (IRR) of Michael M. Cernea, developed during the nineties. Another significant theoretical contribution to this problem was the Colson-Scudder four-stage model of 1982.

An important factor in the growth of research on development-induced displacement was the two major development projects of this period: the construction of the Sardar Sarovar dam complex on the river Narmada in India and the Three Gorges Dam in China. In 1990 the first World Bank policy was revised as Operational Directive OD 4.30. Both these documents focused on examples of displacement associated with the construction of large dams. In 2002 the Operational Directive (OD 4.30) was converted to Operational Policy (OP) 4.12[123]. The last few years were also a period of increasing interest in other factors leading to displacement. I am thinking in particular of a study on urbanization, expansion of agriculture, mining and oil

121R. Vora, *World's First Anti-Dam Movement: Mulshi Satyagraha 1920-1924*, Permanent Black, 2009.
122T. Scudder, *The future of large dams*, Earthscan, London, 2005.
123*Involuntary Resettlement Sourcebook: Planning and Implementation in Development Projects*, International Bank for Reconstruction and Development – World Bank, Washington DC, 2004.

extraction. According to the experts, the above-mentioned causes of displacement are often associated with territorial conflict (conflict of space) and may lead to brutal clashes and even organized violence. Their victims have mostly been marginalized groups such as indigenous and tribal people, and different categories of minorities.

As Astri Suhrke noted, economic development is both a cause of displacement and a factor in attracting new people (push and pull factors)[124]. The implementation of large development projects creates jobs, gains revenue from tourism, and even contributes to the development of cities. Frequently, however, job growth is accompanied by various forms of displacement and marginalization of the most vulnerable groups. Those most vulnerable to the negative consequences of displacement are particular categories of individuals and communities with little possibility of adapting to the new reality. We can mention among them: women, children, the elderly, people with low elasticity of employment, rural communities (resettled in the cities), indigenous communities, illegal settlers without formal rights to land and properties, and the different categories of minorities – particularly those who are in conflict with the authorities.

Among the most important causes of development-induced displacement we can mention:
1. Water engineering projects (dams, hydropower plants, artificial lakes, irrigation projects, channels, etc.); construction of water reservoirs has become one of the main reasons for the significant expansion of research on development-induced displacement. The largest growth in this area is now taking place in India and China. According to Taneja and Thakkar (2000), the construction of big dams in India has displaced between 21 and 40 million people over the last sixty years. Official Chinese statistics indicated only 10 million people displaced as a result of dam construction over the past few years, but the true figure may be 40-80 million people. According to the *Bankwide Review of Projects Involving Involuntary Resettlement*, 1986-1993 construction of dams may represent more than 20 percent of all cases of DIDR worldwide. As the authors of this document point out, a majority of the people who have been resettled as a result of dam projects belong to the poorest and most vulnerable sections of society. Construction of dams is often a cause of mass resettlement to very distant territories. That is why its social consequences are so much greater than, for example, the consequences of road construction. The table below gives examples of creation of dams which led to the relocation of more than 100,000 people (the statistics presented here are estimations only).

| Project Name) | River | Country | Displaced people (estimated) | Year |
|---|---|---|---|---|
| Kaptai | Karnafuli | Bangladesh | 100.000 | 1962 |
| Danjiangkou | Hanjiang | China | 383.000 | 1974 |
| Ertan | Huang He | China | 278.000 | 1958 |
| Lubuge | Huangni | China | 100.000 | 1989 |

124 A. Suhrke, *Environmental Degradation,. Migration and Conflict*, Christian Michelsen Institute–American Academy of Arts and Sciences, 1993.

| | | | | |
|---|---|---|---|---|
| Miyun | Chaohe/Baihe | China | 200.000 | 1960 |
| Shuikou | Minjiang | China | 410.000 | 1960 |
| Xinanjiang | Xinanjiang | China | 280.000 | 1960 |
| Sanmenxia | Huang He | China | 320.000 | 1960 |
| Zhaxi | Zi Shui | China | 141.000 | 1961 |
| High Aswan | Nile | Egypt/Sudan | 113.000 | 1970 |
| Gibe I | Omo | Ethiopia | 100.000 | 2004 |
| Balimela | Sileru | India | 113.600 | 1990 |
| Hirakud | Mahanadi | India | 110.000 | 1957 |
| Kangsabati Kumari | Kangsabati | India | 125.000 | 1965 |
| Pong | Beas | India | 150.000 | 1974 |
| Rihand | Rihand | India | 102.000 | 1962 |
| Sardar Sarovar | Gujarat | India | 360.000 | 2004 |
| Somasila | Penar | India | 100.000 | 2004 |
| Srisailam | Krishna | India | 100.000 | 1984 |
| Kiri | Gongola | Nigeria | 100.000 | 1982 |
| Mangla | Dźhelam | Pakistan | 110.000 | 1967 |
| Tarbela | Indus | Pakistan | 96.000-100.000 | 1974 |
| Kuibyshev | Volga | Russia | 150.000 | 1990 |
| Rybinsk | Volga | Russia | 117.000 | 1955 |
| Volzhkaya | Volga | Russia | 111.000 | 1965 |
| Kievsk | Dnepr | Ukraine | 132.000 | 1950 |
| Three Gorges Dam | Yangtze | China | 1.260.000 | 2009 |
| Xiaolangdi | Yellow River | China | 181.600 | 2001 |
| Almatti | Upper Krishna | India | 200.000 | 2001 |
| Jinsha Project | Jinsha | China | 300.000 (12 dams) | In construction |
| Danjiangkou (II) | Hanjiang | China | 345.000 | In construction |
| Bansagar | Sone | India | 142.000 | In construction |
| Narmada Sagar | Narmada | India | 200.000 | In construction |
| Sardar Sarovar | Narmada | India | 320.000 | In construction |
| Tehri | Bhagirathi | India | 105.000 | In construction |
| Polavaram | Godavari | India | 154.500 | Cancelled? |
| Nan Theun 2 (NT2) | Nan Theun | Laos | 100.000 | In construction |

| | | | | |
|---|---|---|---|---|
| Panchwswar | Mahakali | Nepal | 124.000 | Planned |
| So La (Ta Bu) | Song Da | Vietnam | 112.000 | Planned |

Source: *B. Terminski, Przesiedlenia inwestycyjne. Nowa kategoria przymusowych migracji*, Oficyna Wydawnicza Łośgraf, Warszawa, 2012.

2. Construction of communication networks (roads, highways, railways, bridges). By contrast with the socially costly population displacement caused by the building of reservoirs, that related to the construction of roads is found in all regions of the world. Problems of this kind affect both the U.S. and Europe as well as India, Bangladesh, and the Amazonian countries. We can mention here the construction of the Jamuna and Padma bridges in Bangladesh, which led to the displacement of several thousand people. The creation of the main highway through the heart of Boston (Central Artery/Tunnel Project CA/T – commonly known as the Big Dig) led to the relocation of approximately 10,000 people. Another example of road development involving massive displacement was the construction of the national highway A1 in Mozambique (1980-1989). According to some sources, approximately 100,000 people were resettled in the aftermath of this project. Much attention was recently paid to the resettlement and rehabilitation of people following the development of the railway network in Cambodia. I am thinking in particular of the Railways Rehabilitation Project in Cambodia, supported by the Asian Development Bank, and based on recommendations by such experts as Professor Michael M. Cernea.

3. Transformation of urban space (expansion of cities, underground construction, water supply, demolition of poor neighborhoods, postwar reconstruction of cities, demolition of entire city districts, forced relocations from slums and favelas, etc.). Urbanization is the cause of significant levels of resettlement, especially in countries with a high population density. The source of these problems lies both in urban expansion into new areas and in the transformation of existing cities. A common practice in contemporary China is the demolition of entire city districts or parts of them, followed by later reurbanization. Sewer projects and the construction of underground systems resulted in some Asian cities in the resettlement of tens of thousands of people. Among the best-known projects of this kind are Jabotabek Indonesia's project (displacing over 40,000-50,000 people) and Hyderabad Water Supply Project (displacing 50,000 people). A specific category of urban resettlement is that associated with the demolition of entire neighborhoods, which is a common practice in China and is found in connection with the slums and favelas of South America. In Central Europe, the post-war reconstruction of destroyed cities became another major cause of displacement.

4. Deforestation, a problem often seen as a direct cause of both environmentally-induced displacement and development-induced displacement. In the literature we can find disagreement as to whether this problem represents environmentally-induced displacement or development-induced displacement. The felling of trees is often a first step in the direction of negative environmental change and land degradation, which form a significant cause of environmentally-induced displacement. It is often the first step in the establishment of large monoculture plantations, in turn the cause of development-induced displacement. Deforestation is one

of the main consequences of industrialization, especially in relation to the extraction of natural resources (such as oil extraction and mining). Wasteful deforestation can lead to an irreversible imbalance in the natural environment (as in the Amazonian jungle), or to the growing scale of desertification of soils. The increasing scale of deforestation in many countries (for example in China) has enormous environmental consequences, forcing many people to migrate. According to a United Nations analysis, Nigeria has the world's highest deforestation rate, Brazil loses the largest area of forest annually, and Congo consumes more bushmeat than any other tropical country. Amazonian deforestation is currently regarded as one of the greatest environmental problems of recent years.

5. Agricultural expansion; this problem is rarely discussed in the literature within the category of DIDR. Special attention is paid to resettlement associated with the creation of large monoculture plantations. The depletion of the Amazonian jungle and its replacement with large palm oil plantations has led to the displacement of many thousands of indigenous people in Borneo. The expansion of agriculture has led to large-scale displacement and resettlement in Latin America (Colombia) as well as in many African countries.

6. Extraction of mineral resources. Mining can be both a direct and an indirect cause of displacement. The direct impact can be observed when displacement is associated with continuing exploitation or expansion of mining areas. The impact of resource extraction on the dynamics of internal displacement has an indirect aspect as well. Such a situation is observed when the desire to control the production, transport or sale of raw materials becomes a source of conflict over control of a specific territory. Exploitation of raw materials thus becomes the cause of conflict-induced displacement.

So-called mining-induced displacement and resettlement is a problem well-discussed in the literature (T.E. Downing, 2003; B. Terminski, 2012)[125]. Expansion of open-pit mines is frequently accompanied by displacement of the people in nearby areas. The most important causes of the growing social problem of people displaced by mining include: 1. expansion of the scale of open-pit mining, 2. lack of social support from local administration and the private sector. In many cases, the consequences of mining alone generate large-scale displacements of local communities. About 60 percent of the world's mineral resources are located in areas inhabited by indigenous people. The combination of conflict for control over territory, resources disputes, antagonisms between local communities and the authoritarian government, together with ethnic separatism, is a root cause of large-scale displacement. According to some sources, mining may become a direct cause of more than 10 percent of all cases of development-induced displacement worldwide. Among examples of large-scale displacements associated with mining we can mention those from India (coal mining in Jharkhand), Papua Island (gold and silver open-cast mining), Ghana (Tarkwa gold mines) and Mali (Syama and Sadiola gold mines). Even lignite mining in Germany during the last century led to the

125T.E. Downing, *Avoiding New Poverty: Mining-Induced Displacement and Resettlement*, International Institute for Environment and Development, London, 2002; B. Terminski, *Mining-Induced Displacement and Resettlement: Social Problem and Human Rights Issue*, Geneva, 2012.

resettlement of approximately 30,000-100,000 people.

The extraction and transport of crude oil is accompanied by massive displacement of population[126]. Fearing for the security of pipelines, local authorities have displaced many thousands of people living in surrounding areas. It is estimated that a consequence of the creation of a 1,500 kilometer pipeline (so called Block 5A) in Sudan was the displacement from the surrounding area of nearly 170,000 people[127]. Oil exploitation in the Niger Delta has generated a progressive conflict between transnational corporations, authoritarian government and local communities, the escalation of which around 1994 led to cases of murder and the displacement of many thousands of members of the Ogoni and Ijaw ethnic communities. Crude oil production has therefore become the root cause of conflict-induced displacement there. The consequences of mining also lead to negative environmental changes such as river, land and air contamination, resulting in a significant level of forced migration later on.

7. Population redistribution schemes. The pursuit of state interests can often lead to the decision to resettle masses of citizens to some other place or to transfer them between two areas. The objectives of these projects vary widely. In totalitarian states, deportations and population transfers are aimed at the ethnic unification of the territory and marginalization of potential political problems. In many countries, however, redistribution of population is an attempt to solve demographic problems resulting from hunger, lack of water and food and overpopulation (or the interaction of all these factors). Here we can mention the long-term project of resettlement and villagization in Ethiopia. The policy of encouraging voluntary resettlement and villagization dates back to 1958; in 1985 the government initiated a new relocation program known as villagization.

8. According to some specialists, the specific cause of development-induced displacement is the conservation of nature (the phenomenon of so-called conservation refugees)[128]. However, conservation of nature is not directly linked to economic development but rather is an attempt to regulate its expansion. Were it not for the harmful scale of twentieth-century economic development and increasing rate of negative changes in the biosphere, zoning protection of the biosphere in general would not be needed. As pointed out by Charles Geisler, in Africa alone 14 million people have been displaced by nature conservation projects. The annual scale of this problem in India is estimated at between 1.2 and 1.5 million people affected.

**Analysis of the problems facing development-induced displaced people**

We examine the consequences of development-induced displacement using multiple theoretical concepts.

126B. Terminski, *Oil-induced displacement and resettlement. Social problem and human rights issue*, Simon Fraser University, School for International Studies, Vancouver, March 2012.

127W.C. Robinson, *Risks and Rights: The Causes, Consequences, and Challenges of Development-Induced Displacement, SAIS-Brookings Institution, May 2003.*

128M. Dowie, *Conservation Refugees: The Hundred-Year Conflict between Global Conservation and Native Peoples*, MIT Press, 2011.

Among the specific research methods primarily formed to analyze problems of displacement and resettlement we can mention the four-stage model created by Elizabeth Colson and Thayer Scudder in the eighties. The next decade saw the development of another important research model: the Impoverishment Risks and Reconstruction (IRR) Model of Michael M. Cernea.

We can also analyze the problems of displaced people using more general theoretical concepts familiar in social sciences and law. These include the concepts of human rights, human security and human development, along with a few more detailed approaches from philosophy and sociology. In the following section I shall draw attention to the pros and cons of using each of these models.

1. Theoretical approaches designed specifically for the analysis of the consequences of DIDR and the risks affecting displaced people.

   a) The Elizabeth Colson–Thayer Scudder four-stage model from the 80s. Formulated in 1982, it was to be used primarily in research on voluntary resettlement[129]. Subsequently the model was also applied to some cases of involuntary resettlement. Colson and Scudder listed four stages by which individuals in socio-cultural systems responded to resettlement, labeled "recruitment, transition, potential development, and handing over or incorporation".

   b) Michael Cernea's Impoverishment Risks and Reconstruction Model. The IRR Model highlights the risks associated with involuntary resettlement. According to Cernea, the seven basic risks affecting development-induced displaced people include the following: "landlessness, joblessness, homelessness, marginalization, food insecurity, loss of access to common property resources, increased morbidity and mortality, and community disarticulation".

2. Influential research approaches used in the analysis of more general social problems affecting displaced people.

Human rights – We can use the traditional classification of human rights as the basis for analysis and identification of the problems facing displaced people. We divide them into fundamental rights, civil rights, political rights, social rights, economic rights, cultural rights and the more advanced third and fourth generations of human rights. Internal displacement also leads to infringement of these more advanced rights: the right to peace, the right to development, the right to the environment, and community rights (collective rights) such as rights of indigenous people, the right to a people's own way of development, and many more.

129M.M. Cernea, "Risks, safeguards and reconstruction: a model for population displacement". In: M.M. Cernea and C. McDowell (eds.), *Risks and Reconstruction: Experiences of Resettlers and Refugees,* World Bank Publications, 2000.

In 1986, the United Nations General Assembly adopted a Declaration on the Right to Development, which stated that "every human person and all peoples are entitled to participate in, contribute to and enjoy economic, social, cultural and political development, in which all human rights and fundamental freedoms can be fully realised". Despite the adoption in recent years of the documents relating to the human right to development, and the rights of indigenous people and internally displaced people, the problem of development-induced displacement continues to be an underrated and marginalized human rights issue. Moreover, universal institutions and their agencies (UNHCR) devote too little attention to this problem. The Guiding Principles of Internal Displacement, adopted in 1998, refer mainly to displacements associated with internal armed conflicts and natural disasters. This fact indicates the need for fresh analysis of problems and threats affecting development-induced displaced people, treated as a specific area of human rights, rather than reliance on documents relating to the protection of IDPs in general.

Human security – A valuable tool for analysis of the social consequences of displacement is the classification of seven areas of human security published in the UNDP *Human Development Report* (1994). This classification includes the following pillars of contemporary human security: economic security, food security, environmental security, health security, personal security, community security and political security. Displacements associated with economic development can lead to violation (reduction in the level) of all the categories of security mentioned here. The most important problem is the violation of community cohesion and disintegration of previously cohesive communities. The usefulness of the concept of human security for the analysis of several categories of consequences of DIDR is pointed out by an increasing number of authors (Bharali, 2006; Caspary, 2007; Terminski, 2012)[130].

Human development – Detailed classifications of human development can also be a useful research tool. Remember, however, that this concept is primarily focused on maximizing the well-being of individuals and societies, which rarely takes place in the context of displacement caused by development projects or conservation of nature. Development-caused displacement often leads to a decrease in all six basic dimensions of human development mentioned by the UNDP (equity, empowerment, cooperation, sustainability, security, and productivity).

Specific theoretical approaches – Experts analyzing the broader context of development-caused displacement use theoretical approaches from very distant fields of knowledge. There is a growing number of publications analyzing DIDR in the context of globalization, political science, feminism, gender theories and even ethics. We can mention here inter alia the project of Jay Drydyk of Carleton University entitled **"***Development-Induced Displacement"* and. John Rawls's "general conception of justice".

130G. Bharali, "Development-Induced Displacement and Human Security in Assam", Paper presented at the Seminar on Human Security, Department of Political Science, Gauhati University, November 17-18, 2006; G. Caspary, "The Impacts of Development-induced Displacement on Human Security. A study of dam finance", *Human Security Journal*, Vol. 4, Summer 2007, pp. 70-81.

**Applying the concept of human security to research on the consequences of development-induced displacement and resettlement**

Theoretical models created specifically for the analysis of the problem on the basis of sociology, applied anthropology and applied development studies (e.g IRR model) seem to be the most effective tools for analysis of risks affecting displaced people. However, some of them do not show the exact context of the risks associated with displacement, or all of the risks facing the affected person. For many other reasons, the concept of human security seems to be an equally important tool for analysis of the consequences of displacement.

Development-induced displacement, like the other categories of internal displacement, is associated with a significant change in the level of human security. The cause of displacement is not always associated with the occurrence of specific risks. The consequences of displacement, however, very often lead to a reduction in most areas of human security. The characteristics of the concept of human security match, to a significant extent, the analysis of social problems such as the risks associated with genocide, famine, natural disasters and even climate change. From an operational perspective, human security aims to address complex situations of insecurity through targeted, collaborative and sustainable measures that are people-centered, multi-sectoral, comprehensive, context-specific, and prevention-oriented. The basic elements of the concept of human security form a very good match with the analysis of development-induced displacement.

The most important cause of development-induced displacement worldwide is the dynamic conflict of interests between public institutions or the private sector, on the one hand, and local communities forced to leave their place of residence, on the other. The perception of territory only as a source of profit often makes it impossible to reconcile the interests of these two actors. Greater humanization of relocation processes must be combined with the abandonment of decision-making in this context on the basis of purely economic and profit-and-loss considerations. All analysis of this problem must therefore focus primarily on the situation of displaced affected people. This is because they suffer, for many years, the various consequences of displacement, often without receiving proper compensation for the damage done to them. Just as often, development projects, associated with enormous problems for DPs and PAPs, do not contribute to improvement in the functioning of broader social groups. The World Bank policies adopted so far on involuntary resettlement suggest a people-oriented perspective on the operational level[131]. The purpose is to minimize the effects of resettlement plans because of the great number of displaced people threatened by

131 The first World Bank policy of involuntary resettlement was the Operational Manual Statement (OMS 2.33) of 1980. The policy of involuntary resettlement was revised in 1990 as so-called Operational Directive 4.30 (OD 4.30). In 2003 Operational Policy 4.12 (OP 4.12) on involuntary resettlement was adopted. See: *Involuntary Resettlement Sourcebook. Planning and Implementation in Development Projects*, World Bank Publications, 2004, p. 3; L. Mehta, *Displaced by Development: Confronting Marginalisation and Gender Injustice*, SAGE Publications, 2009, p. 223.

them. These demands, however, are still not properly implemented. The most specific demand seems to be for the greater participation of local communities or their representatives in decision-making at the level of planning and implementation of resettlement. The resettlement process should be not only people-oriented, but people-centered.

Context-specific – When making decisions on relocation it is important to take into account the specific social context of its implementation. Involuntary relocation is a dynamic process which escapes universal patterns and principles. A necessary element of the decision-making process on resettlement should be examination of the economic and social structure of the displaced communities. Resettled communities should be able to maintain existing social ties, without being forced into far-reaching continuation of the economic model. An essential element of reflection on resettlement problems should be consideration of both the individual and community problems of DPs.

Prevention-oriented. People responsible for implementation of resettlement should take into account previous experience with other projects of this kind. Analysis of errors in similar projects in the past can avoid such problems in the future. The stage of investment planning should therefore include the answer to questions about problems which may result in a decision to resettle the population. Interest in the problems of affected communities cannot end upon completion of the development project, but must encompass significant long-term efforts to develop, implement and evaluate the human security of development-induced displaced people.

Extreme cases of resettlement practice could lead to massive decline in all areas of human security for affected and displaced people. Let us now consider how displacement could affect various areas of human security. Important guidance for further consideration will be the already mentioned classification of the seven key areas of human security, as outlined in the *Human Development Report* of 1994[132]. For our own purposes we can extend this classification with two additional pillars of human security: gender security and cultural security.

According to the liberal development paradigm, dominant up to now in many regions of the world, involuntary resettlement is the necessary and unavoidable social cost of modernization and economic development. Displaced persons are therefore seen as the victims of a just cause and their problems are considered marginal in comparison with the substantial gains for the majority. Action to improve the

132 Analysis of threats facing development-induced displaced people on the basis of the concept of human security has been presented in several scientific publications. Among the most important of them we can mention: G. Bharali, "Development-Induced Displacement and Human Security in Assam," Paper presented at the Seminar on Human Security, Department of Political Science, Gauhati University, November 17-18, 2006; B. Terminski, "The concept of human security as a tool for analysing the consequences of development-induced displacement and resettlement", http://www.humansecuritygateway.com/documents/UofG_TheConceptofHumanSecurityasaToolforAnalysingtheConsequencesofDevelopment-InducedDisplacementandResettlement.pdf

economic situation, however, is accompanied by a significant deterioration in the living conditions of marginalized categories of people already outside the mainstream of society, such as indigenous people and dalits in India. Attempts to maximize the country`s economic security and the well-being of privileged groups leads to several forms of economic and social insecurity for displaced and affected people. It is also worth mentioning that not all development projects are equally justified socially. The construction of a large dam frequently leads to mass displacement and at least temporary problems for the surrounding inhibitants. This kind of development project is, however, created for public purposes and the subsequent profits from its use can contribute to improvement in the community's conditions. Creation of the dam therefore contributes to maximizing the energy security of thousands of people as well as offering visible gains to local communities in the form of new jobs and profits from tourism. But we can mention many development projects which only maximize the incomes of foreign corporations and do not improve the situation of local communities. I am thinking in particular of the exploitation of raw materials primarily carried out by foreign companies. Profits from the exploitation of open-pit mines are transferred outside the country and do not usually contribute to the improvement of its people's situation, not to mention that of the displaced and affected people. The current automation of production means that only a few of the displaced have the opportunity to find jobs in the mining industry.

From a wider perspective, development projects should contribute to the maximization of human security both for the whole society as well as for communities particularly affected by their consequences. Currently dominant opinions on the problem of involuntary resettlement place too much emphasis on compensation and the amount of compensation, at the expense of long-term improvement in the economic conditions of displaced people and of increased security in their new place of residence.

1. Economic Security is considered a major component of human security, strongly affected by the other categories within this field. The main reason for the decrease in economic security of displaced people is their limited access to the natural resources on which their communities depend. The main problem seems to be landlessness, often leading to the total disintegration of the current economic model of DPs. It plays a role in triggering the progressive marginalization of entire communities. Access to resources such as land and water is necessary for the continuation of the current model of life and lack of these resources becomes a cause of unemployment. The economic model of most indigenous people is characterized by low dynamics of change and a strong anastomosis with the surrounding resources. Displacement to other territories disrupts the economic model, leading in the long run to the marginalization of the displaced and even to the physical extermination of communities. Another problem making the economic conditions of displacees worse is lack of access to common resources such as shared agricultural land, pasture land, rivers, and lakes.

Involuntary relocation and lack of support in the new place of residence are by no means the end of the problems affecting the displaced. The economic situation is also worsened by the negative environmental

consequences of previously implemented development projects. The construction of dams and development of mining areas leads to land, water and air pollution. Problems of this kind make it difficult to maintain the standard of living, causing long-term poverty or forced migration to other areas, e.g. rural-urban migrations.

The most appropriate mechanism for improving the economic security of displaced people is resettlement in areas similar to those abandoned, to enhance their prospects of continuing with the accustomed economic model. An important tool with which to minimize the economic risks affecting all displaced groups is resettlement aimed at maintaining the existing economic relations and countering atomization and economic impoverishment. The low flexibility of their economic model, meaning that most indigenous people have only limited ability to adapt to different surroundings (e.g. the suburbs of big cities), is a common cause of marginalization. Practised during the construction of the Three Gorges Dam in China, resettlement of rural communities to the suburbs of large cities usually does not have positive effects and often leads to phenomena such as unemployment. The decision about community relocation to the new place should be accompanied by well-developed mechanisms of social support for resettled people, especially those that allow them to continue with their existing economic model, and those that prevent homelessness. In many areas of the world, such as India, impoverishment forces parents to put their children into full-time work to maintain the family. In this situation it becomes difficult to provide young people with access to education, raising the prospect of economic marginalization for the next generation.

2. Food Security.should be regarded as a sub-category of economic security. On the basis of recent studies on the human right to health, we can highlight the way problems of this kind affect displaced people. Professor Michael M. Cernea lists food insecurity as one of the fundamental problems facing displaced people and contributing to their impoverishment. Difficult access of displaced people to food can be considered the most negative consequence of landlessness and of inaccessibility of common resources such as common agricultural land, pastures and rivers. A significant reduction in the agricultural area causes its over-exploitation, putting large communities at risk of poverty. A frequent consequence of development projects is the displacement of the population to areas characterized by a much lower quality of arable land and difficulty of access to water. It is difficult to restore the customary agricultural and fishing schemes there. Often the only possible solution to the food problems of displaced people is another forced migration, for example from poorly-populated or environmentally degraded areas to the suburbs of big cities. According to studies by Fernandes and Raj, malnutrition is a particularly visible problem among displaced girls and women[133].

3. Health Security. The impact of displacement in terms of the deteriorating health situation of those affected

133 W. Fernandes and S.A. Raj. *Development, Displacement and Rehabilitation in the Tribal Areas of Orissa*, Indian Social Institute, New Delhi, 1992.

is a question often analyzed in the scientific literature[134]. Among the categories of people particularly vulnerable to health risks associated with development-induced displacement we can list children, women and the elderly. Health risks affecting the displaced usually result from the progressive degradation of the environment or the deterioration in economic conditions associated with resettlement. Walter Fernandes draws attention to the problem of child malnutrition, common within displaced communities[135]. Very often, resettlement to remote territories is not accompanied by appropriate social support mechanisms to ensure the displaced people's access to health care institutions in the new place of residence. Another factor affecting health security is the problem of access to potable water and sanitation. According to studies conducted in recent years among tribal people in India, displacement almost always lead to a deterioration in access to drinking water. The next most important health risk factor is contamination of water, air and land as a direct result of development projects. It is also worth paying attention to the psychological consequences of displacement. The irreversible nature of displacement and lack of awareness of possibilities of return to the previously inhabited areas very often cause psychological trauma and alienation, including mental illness. Loss of the organic relation with the land that characterizes many tribal communities creates not only economic problems but also social threats such as alcoholism.

4. Environmental Security. The principles of sustainable development, proposed in the fora of many intergovernmental organizations, remain only wishful thinking in the case of many development projects carried out in African and Asian countries. The development of every human being in good environmental conditions is not, in practice, the right of every citizen of our planet but is only the privilege of the rich. In particular, many examples of environmental degradation have been observed in the areas inhabited by poor and marginalized groups remaining on the periphery of society. Expansion of mining areas should be recognized as development projects leading to particularly substantial changes in the environment. Crude oil and coal mining lead to irreversible contamination of groundwater and the deterioration of environmental conditions even in areas very distant from the exploitation site. Examples from Nigeria and India show that the most negative environmental consequences of resource exploitation are borne by people from the poorest social classes, sometimes by ethnic and religious minorities who are in conflict with state authorities. Despite the exploitation of land that belongs to them, they participate in the transferral of income from its sale. Dam construction is another type of development project leading to decline in environmental sustainability over large areas and consequent weakening of the basis of economic security for entire communities. According to a case study of relations between dam construction and development in Northeast India, the environmental consequences of dam construction include "impact on ecosystems, irregular floods, fish supply and variety, environmental degradation, threats to flora and fauna, loss of forest space for living of

134S. Ramaiah, *Health Implications of Involuntary Resettlement and Rehabilitation in Developmental Projects in India: Volume I.* New Delhi: Society for Health Education and Learning Packages, 1995.

135W. Fernandes, "Development-Induced Displacement: The Class and Gender Perspective", Paper presented at the International Conference on *The Emerging Woman in the Indian Economy.* Christ College, Bangalore, November 26-27, 2007.

indigenous people, water user rights"[136].

5. Personal Security. Displacements associated with economic development have to a great extent led to decline in the level of individual security. Resettlement carried out in India and some Latin American states brought about the atomization of hitherto cohesive communities. Members of previously strong communities were deprived of any support. The disintegration of communities is a major reason for the subsequent marginalization of persons displaced by economic development.

6. Political Security. Incorrect assumptions about development policy or its wrong implementation, divorced from principles of social sustainability and proper analysis of the social consequences, may become a source of political instability and increasing internal antagonisms. The issue presented in this report is a category of displacement having a particularly strong connection with the sphere of politics[137]. The functioning of the political in a particular country to a large extent affects the directions of economic development and the scale of involuntary resettlement accompanying its implementation. Development-induced displacement has become a global phenomenon on a massive scale through changes such as decolonization and political upheavals in developing countries. Let us mention here Mao's so-called Great Leap Forward in China and Nehru's economic policy aimed at making dams "the temples of modern India". In African and Latin American states as well, the scale, dynamics and political consequences of displacement were strongly dependent on the direction of economic development. The implementation of resettlement usually reflects the standards of respect for human rights in the countries practising it. Particularly dangerous consequences accompanying displacement are observed in countries with totalitarian and authoritarian governments, failed states, and those with wide social disparities, in which large communities are pushed to the margins of society. A highly developed country, having a democratic form of government, respect for human rights and the expanded participation of citizens in government, cannot afford to implement socially costly development projects associated with involuntary resettlement.

Even socially harmful policies of rapid economic growth should take into account the principles of sustainable development, the participation of all citizens in the decision-making process, and the rights of persons who bear the greatest individual burden of economic development. It is necessary that the persons paying the costs of social development projects become full-fledged actors on the stage of resettlement planning, prior public consultation, and decision-making as to forms of compensation. The most fundamental goal of development policy should be to expand the well-being of all members of society and equalize economic differences between different social groups. Unfortunately, in many parts of the globe, even

136 *Reporting dams and development: Strengthening media's capacity to report research in Northeast India*, Working Paper, Panos South Asia-Relay, March 2012.

137 The categories of internal displacement which are much less dependent on political decisions include those associated with sudden natural disasters or industrial accidents (disaster-induced displacement) as well as those connected with slow-onset environmental changes, including climate change (environmentally-induced displacement, climate change-induced displacement).

development projects initiated for public purposes contribute to the well-being only of selected social groups. Many projects implemented with foreign capital do not contribute to economic growth because almost all the resulting income is transferred abroad[138].

7. Community Security. Development-induced displacement leads not only to a decline in the level of community security but often also to the complete disintegration of large communities. The character of community security threats reflects the standards of implementation of development projects and their accompanied displacements. One of the tools for maximizing community security is the implementation of resettlement on the basis of prior plans, taking into account long-term social consultations. Equally important is adequate compensation for material and non-material losses, along with extended mechanisms of social support to facilitate adaptation to the new place of residence and integration into local communities. Maximization of the level of community security of displaced people is strongly dependent on two conditions. The first consists of actions to maintain existing social ties and community identity in the new place of residence. The second, no less important, factor is adaptation to the new place of residence and integration with its inhabitants. Only the continuation of existing socio-economic relations, combined with the construction of new ones, can achieve a long-term increase in community security. Paradoxically, well-implemented relocation over a longer period of time can help to maximize the security level of the displaced as compared to their situation before displacement. The key element seems to be the standard of resettlement implementation, which protects the people who are affected by this problem and vulnerable to the risk of poverty. In more and more countries, planned relocation accompanied by adequate compensation and social support mechanisms is seen as a basic right of DP communities (right to resettlement and rehabilitation). Among examples of resettlement which have led to improved conditions for the people affected, we can mention some relocations associated with dam building in Brazil or exploitation of raw materials in some African states. An increasing number of transnational companies involved in mining view the proper implementation of resettlement as an element of successful corporate image-building and CSR. The fear of public opinion in western countries means that an increasing number of companies cannot afford to risk apparent violations of the rights of displaced people or actions leading to their economic marginalization.

The specialists analyzing the consequences of involuntary resettlement tend to focus on the situation of larger communities such as tribes, rural communities or ethnic minorities. However, the family is the social unit most fundamentally affected by its consequences. One of the most common consequences of development-caused displacement is the change in economic organization of family members. Deterioration of economic conditions, which is a common result of involuntary resettlement, often requires a greater amount of work to maintain a standard of living at least approximating the former one. This situation is often associated with the need for additional family members, including children, to take on work. Resettlement of

138B. Terminski, *Mining-Induced Displacement And Resettlement. Social Problem and Human Rights Issue (A Global Perspective)*, unpublished research paper, University of Geneva, Faculty of Law, March 2012.

agricultural communities in urban areas means that people must obtain money, which is not always necessary for hunter-gatherer communities or those whose economies are based on barter and neighborly relations. Economic marginalization of parents often forces children to drop out of school and obtain full-time work so that the family as a whole can avoid the prospect of poverty. As pointed out by Gita Bharali of the NESRC, development-induced displacement in India has led to a decline in the economic role of women within the family. This situation leads in turn to the progressive social marginalization of women, already seriously excluded and discriminated against in this country. Inability to continue their former economic activities such as collecting firewood, fishing, and small-scale agriculture, undermines their social function within the family. For both men and women, low occupational flexibility and, in many cases, lack of education, lead to unemployment as a common result of displacement. All the problems mentioned here, and their further consequences such as alcoholism, threaten the stability of family ties. Often, development-induced displacement produces the disintegration of formerly cohesive multi-generational families and their subsequent marginalization as important social entities. It therefore seems necessary to develop research into the impact of displacement on the situation of small groups. Understanding these issues seems to be a crucial element in the proper planning, social cost evaluation and implementation of involuntary resettlement.

8. Gender-Based Insecurity. The main problem I wish to draw attention to is the marginalization of women's economic and social position caused by displacement and the health risks affecting them. Development-induced displacement has become a factor in weakening the already heavily disadvantaged position of women. Studies recently conducted in the Indian province of Assam indicate that more than 29% of displaced women had lost the ability to continue with their customary activities, and were left permanently lacking in opportunities for other forms of economic activity. The displacement therefore replaced the woman's economic function with the role of housewife and dependence on a husband's earnings. According to recently conducted research, development-induced displacement is also the cause of significant health risks and problems for young girls and pregnant women. Several forms of marginalization affecting displaced women are much more profound and difficult to solve than those affecting men. Women, with poorer education and low employment flexibility, have much less chance of finding work significantly different from their traditional economic activity.

9. Cultural Security. Development-induced relocation, like most categories of long-term displacement, leads to major cultural changes. They result from the relocation's erosion of existing social ties as well as from the need to adapt to the new place of residence. The displacement leads to atomization of existing structures and therefore also, in the longer term, to the depletion of cultural traditions. The need to adapt to the different patterns imposed by conditions in the new place of residence modifies the accustomed lifestyles. The greater the difference between the models of functioning in the old and new environments, the greater is the cultural change. The impact of displacement on cultural change within small social groups was already the subject of extensive studies undertaken in the fifties by American applied anthropologists, such as Robert Fernea,

Elizabeth Colson and Thayer Scudder, who conducted research into the social implications of dam building in Africa. Anthropological studies confirm the impact of resettlement in the form of reduced cultural diversity and even of extinction of languages and dialects. Therefore, consistent resettlement of communities in their entirety (e.g. tribes, villages, large clans, people with a similar professional profile) is essential. Only places of residence similar to the previous home will allow them to develop their existing skills.

**The most severe problems affecting development-induced displaced people (selected):**

Fundamental security risks: escalation of violence caused by conflict over resources, discrimination in the new place of residence, displacement from existing homelands without prior planning, compensation and social support mechanisms, persecution of people who do not wish to leave their homes, relations between development-induced displacement and internal conflicts or separatist trends, significant health risks, difficulty of access to potable water in the new place of residence, risks associated with environmental devastation

Social problems: lack of mechanisms of social support and difficult integration into the new place of residence, compensation that ignores non-material losses and risks associated with displacement, negative consequences of the irreversible change of residence, atomization (disintegration) of existing social ties, social problems such as landlessness, homelessness, alcoholism, and unemployment, lack of access to social services (e.g., health care institutions, education, water supply, public transport), progressive marginalization of the most vulnerable groups such as women, children and indigenous people, health risks, malnutrition.

Economic problems: inadequate or nonexistent compensation for lost property, unemployment, decline of economic functions of women and their position in the community, problems associated with low occupational flexibility of displaced people, need for complete change away from the current economic model.

Political problems: political marginalization of displaced communities, displacement as a tool for punishment of communities particularly dangerous to the authorities.

Cultural problems: disintegration of small communities such as tribes and villages, erosion of cultural identity, loss of or inability to maintain existing cultural traditions, disappearance of languages, dialects and ancient customs, etc.

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## 14. Mining-Induced Displacement and Resettlement: Social Problem and Human Rights Issue

### Introduction

The mining industry is frequently associated with decisions that have enormous social consequences. One of the most negative effects of mining today is the forcing of thousands of people to abandon their current places of residence. Gold mines in Tarkwa, open-cast copper mines in Papua New Guinea or Jharkhand (India), lignite mines in Germany, and diamond mines in Zimbabwe are just a few examples of activities leading to the displacement of large numbers of people worldwide. Today, mining-induced displacement constitutes a major social problem and a challenge for human rights. As pointed out by Theodore E. Downig only in India mining development displaced more than 2.55 million people between 1950 and 1990.[139] It is therefore of great importance to conduct its profound analysis as well as inspire broad public debate. According to the WBED report (published in 1994), the thermal projects including mining was the cause of about 10,3 percent of the development-induced displacement caused by World Bank-financed projects

139 T.E. Downing, *Avoiding New Poverty: Mining-Induced Displacement and Resettlement*, IIED and WBCSD, London, 2002, Research Paper No. 58, pp. 3; S. Somayaji, S. Talwar (eds.), *Development-induced Displacement, Rehabilitation and Resettlement in India*, Routledge, 2011, pp. 94.

(active in 1993).[140]

This report does not pretend to provide a comprehensive in-depth analysis. Its purpose is to highlight the problems encountered by displaced people in various parts of the world and complement already existing literature in this area. Contemporary literature on development-induced displacement (Cernea, De Wet, McDowell, Penz, etc.) focuses mostly on the consequences of dam construction, irrigation projects, and artificial reservoirs. The literature of Mining-Induced Displacement and Resettlement (MIDR) is rather small and limited to the well-known cases of contemporary India and a few African states. Specialists rarely look into the subject of mining-induced displacement and its social consequences. However, some instructive examples do exist. One particularly valuable and detailed study worth mentioning is entitled, *Avoiding New Poverty: Mining-Induced Displacement and Resettlement*, published in 2002 by professor Theodore E. Downing.[141] Another equally important book concerning this issue is the report, *Dirty Materials: Mining, communities and environment*, prepared in 2004 by Oxfam America Earthworks.[142] My publication concentrates—to a much greater extent—on the issues of human rights and the theoretical conceptualization of the subject. It also underlines the global nature of MIDR. As I argue here, the problem should not be limited to developing countries in Asia and Africa. Instead, this work intends to cast more light on the following themes:

1. Section one theoretically conceptualizes and encompasses mining-induced displacement and resettlement as a specific category of development-induced displacement and resettlement (DIDR). MIDR is a fairly obvious a subcategory of DIDR and a part of its global context, yet there are some crucial differences that ought to be indicated in order to show that it is a very diverse issue indeed. In particular, I will try to analyze the mining branches and techniques which are socially detrimental. Among them, we can distinguish the open-pit mining of several resources: coal, lignite, silver, copper, gold, diamonds, and, on a limited scale, also crude oil.
2. Section two depicts mining-induced displacement and resettlement in terms of a global social problem occurring in many countries around the world. The mining sector is an important factor in resettlement on all continents, so we cannot treat MIDR as the sole pitfall of underdeveloped/developing countries. Even in highly developed countries like Germany, resettlement caused by mining activity was an important social problem. On the other hand, it must certainly be admitted that in countries with a tradition of enlightened

140 A. Rew, E. Fisher, B. Padney, *Addressing Policy Constraints and Improving Outcomes in Development-Induced Displacement and Resettlement Projects* (Final Report), Refugee Studies Centre, University of Oxford, January 2000.
141 T.E. Downing, *Avoiding New Poverty: Mining-Induced Displacement and Resettlement*, IIED and WBCSD, London, 2002, Research Paper No. 58.
142 *Dirty Metals: Mining, Communities and the Environment*, A Report by Earthworks and Oxfam America, Oxfam America, 2004.

individualism, strong protection of property rights, and citizen participation in government, problems of this kind are uncommon and much less spectacular than anywhere else.

3. Section three presents the most well-known examples of displacement caused by mining. Detailed case studies were used as the basis for exposing general features of the issue. For these, I gathered the most interesting examples of resettlement (India, Ghana, China, and Papua New Guinea). Additionally, a unique part of this paper covers an analysis of mining-induced resettlement in Europe. According to estimates over the past 60 years, lignite mining in Germany has consequently led to the displacement of more than 100,000 people[143]. The effects of mining also pose a real challenge in Central and Eastern Europe. This publication takes the form of a handbook: a kind of 'guide' through the most famous cases of mining-induced displacement worldwide.

4. Section four emphasizes the social dimension of mining expansion and the importance of MIDR as a human rights issue. The most important piece of work encompasses reflections on the impact of resettlement on the sphere of human rights. The implementation of mining-caused resettlement generally reflects the national standards for other categories of development-induced displacement and resettlement. Inappropriate standards of displacement take place mostly in poor and undemocratic developing countries. Usually, resettlements are carried out randomly, with no specific plans. Displaced persons face many problems in the new places of residence. Authorities are not active enough in integrating displaced people into local communities. Various categories of indigenous and tribal people (for example in India, Papua and Brazil) are particularly affected by the consequences of relocation. Mining-induced displacement leads to a violation of many individual and collective human rights. Problems of people displaced by development are increasingly becoming the focus of human rights organizations (especially in India, Brazil, and Ethiopia). The advantage of this paper is its stronger orientation towards human rights and the social dimension of MIDR than previous works. The publication draws attention to the scale of mining-induced displacements in diverse countries as well as the social consequences of this phenomenon. Its primary purpose is a focus on political circles, decision makers, and human rights activists and the social effects of mining. Analyses of development-induced displacement are often reduced to the consequences of dam building in China and India, and thus they miss the point. The development of mining areas also contributes to social change, such as the epic scale of resulting resettlement. Indigenous and tribal peoples are particularly at risk for negative consequences; these groups do not have adequate mechanisms for adaptation to the new situation. Given the link between resource extraction and the overall development of mining industries with the subsequent

143J.H. Michel, *Status and Impacts of the German Lignite Industry*, The Swedish NGO Secretariat on Acid Rain, 2008, pp. 17.

degradation of the areas in which they occur, it is obvious that the balance of economic benefits and social costs are worth considering. Alternative energy sources are, however, expensive, and the chances of their use in developing countries are still relatively low.

**Mining-induced displacement and resettlement: A specific category of development-induced displacement and resettlement**

Scientific publications regularly enumerate four causes of involuntary displacements: conflicts, natural disasters, long-term environmental changes, and the consequences of economic development. Although useful, these categories do not exhaust all the possibilities that are likely to occur. In many cases, such as in discrimination against minorities, the reliable categorization of casual factors behind displacement is simply unachievable. It is difficult to say today whether 'displacement' should be treated as a homogenous notion or rather an atomized one. Although many types of displacements have much in common, there are sharp differences between them as well.

Development-induced displacement and resettlement is probably the second largest category of displacement worldwide.[144] Each year, approximately fifteen million people are displaced as a consequence of large development projects (Cernea, 2006).[145] The problem was exposed in the mid-fifties during the construction of large dams in Africa. It is worth mentioning here the long-lasting research conducted by American applied anthropologists Elizabeth Colson and Thayer Scudder concerning displacement during the construction of the Kariba dam on Zambezi river. During the sixties the first attempts to develop conceptual models of this phenomenon were observed. In 1969 Robert Chambers proposed a three-stages model based on voluntary settlement in Africa. In 1982 Elizabeth Colson and Thayer Scudder proposed the so-called four-stage model, the aim of which was to analyze how people and socioeconomic systems respond to resettlement. The model was originally created for the analysis of voluntary resettlement, but has also been applied in studies of more compulsory types. The four stages mentioned in this model are: 1. labelled recruitment, 2. transition, 3. potential development, and 4. handing over/incorporation[146]. Thus, the scientific understanding of 'development-induced displacement and resettlement' was shaped by the effects of building large dams, not by any social consequences of mining.

We can discern many causes of development-induced displacement. Among them, eight are the most substantial: 1. the construction of dams, hydroplants, and large irrigation projects (e.g. Three Gorges Dam,

144The most dynamic category of internal displacement is disaster-induced displacement: 14,9 million people displaced in 2011, and 32,4 million in 2012 according to the Internal Displacement Monitoring Centre (IDMC) report.

145M.M. Cernea, "Development-induced and conflict-induced IDPs: bridging the research divide", *Forced Migration Review*, Special Issue, December 2006, pp. 25-27.

146T. Scudder, E. Colson, "From welfare to development: A conceptual framework for the analysis of dislocated people" In: A. Hansen, A. Oliver-Smith (eds.), *Involuntary migration and resettlement*, Westview Press, Boulder Colorado, 1982.

Sardar Sarovar complex on the river Narmada); 2. the building of roads, highways, and railroad networks; 3. urbanization and social services (e.g. urban transport, water supply); 4. the development of agriculture (e.g. creation of monoculture plantations); 5. exploitation and transportation of mineral resources, 6. conservation of nature (the establishment of national parks, reserves, or other protected areas); 7. population redistribution schemes; and 8. other causes.

The table below shows distribution of displacees by cause of displacement in World Bank projects (active in 1993) with resettlement:

| Cause of displacement | Projects | Percentage | People | Percentage |
|---|---|---|---|---|
| Dams, irrigation, cannals | 46 | 31,50% | 1,304,000 | 66,4 |
| Urban infrastructure, water supply, transportation | 66 | 45,2 | 443.000 | 22,6 |
| Thermal, including mining | 15 | 10,3 | 94.000 | 4,8 |
| Other causes | 19 | 13 | 122.000 | 6,2 |
| Total | 146 | 100 | 1,963,000 | 100 |

Source: A.Rew, E. Fisher, B. Pandey, *Addressing Policy Constraints and Improving Outcomes in Development-Induced Displacement and Resettlement Projects* (Final Report), Refugee Studies Centre, University of Oxford, January 2000.

At least five percent of development-induced displacement is caused by mining. It seems obvious, then, that mining-induced displacement and resettlement should be recognized as a fully autonomous category of development-induced displacement and resettlement. Lack of any national data and a small degree of interest within international institutions makes it difficult to circumscribe the approximate scale of the phenomenon. Yet, when we take into account the alarming reports from non-governmental organizations, we can, with a high dose of certainty, define it as a crucial social problem at least in several countries in the world. Furthermore, we may speak about the presence of people displaced by mining in several dozen countries—people highly prone to many specific threats.

The first cases of displacement resulting from mining activity can be dated back to 19$^{th}$-century India (and the practices of British colonists) or the United States. Actions of this kind were undertaken in Africa, which was divided at that time among the colonial empires as well as against Indians, due to the gold rush that had broken out in America. In the majority of cases, the natives became the victims, a situation which has not changed to the present day. The rapid development of technology in the 20$^{th}$ century has transformed mines into large industrial facilities. Big companies exploiting open-pit mines rarely pay attention to the situation of local communities. The internationalization of capital flow, along with the conduction of extraction by transnational corporations, make it difficult to determine who is really responsible for the social problems

triggered by mining. By exploiting mines in developing countries, Western and Chinese companies occasionally commit practices that are ambiguous as regards the environment and society.

Mining-induced resettlement is not limited to poor and developing countries. Problems of this kind also take place in the United States and in European countries like Germany, Serbia, and Poland. Nevertheless, the high standards of rights-protection institutions and the responsiveness of business to public opinion hold back such negative practices there. Unlike in the cases of Africa and Asia, homelessness, unemployment, social marginalization, or health problems are not ordinarily the result of resettlement in the developed world. Redress is mostly paid with surplus, which means it covers the economic and social costs of relocation. MIDR constitutes a real problem where the division between North and South is particularly perceptible. When analyzing development issues in Africa and Asia, it is worth referring to previous European experiences.

Mining-induced displacement is present in many countries worldwide. In several of them, however, it constitutes a visible and burning social issue that poses a threat to human rights. These countries are India, Ghana, and Mali. There is less interest in the scale of the phenomenon in China. Admittedly, the whole body of literature on this subject is exceptionally small. So let us draw attention to the fact that MIDR is present in countries in which we observe other forms of development-induced displacement. Ghana is a country with an extremely interesting peculiarity of displacements. Environmentally-induced displacement (migration from North to South) is accompanied by various causes of DIDR (mining, the construction of the Akosombo dam). Development-induced displacement is equally heterogeneous in India and China.

The problems of people resettled due to mining development are analogous to those with which other categories of people displaced by development struggle. We might mention here the problems of indigenous and tribal people, or the environmental after-effects of mining. We observe at least a few specific processes at play. One of them is the issue of whether local communities are sharing in the profits from the exploitation of resources. If a person is forced to leave his/her residence located in an area with potentially big profits, he/she should receive concrete gratifications. Compensation for lost land meaningfully exceeds indemnification for land abandoned for other reasons, whereas struggle for the ultimate quotas is always very fierce. Long-lasting negotiations lead to signing detailed “displacement agreements” between corporations and populations. Big firms often agree to various forms of compensation, such as, for instance, the promise of employing displacees in mines. The social consequences of mining-induced displacement are an intensely complex and relevant issue which is rather poorly described in the literature. Due to the long period of implementation of several development projects, the resulting relocations are usually of a slow-onset character. Physical relocation from the current place of residence to another is often not associated with significant human security risks. The decline in human security is thus not the reason but the consequence of relocation caused by development projects. If a change of residence is accompanied by earlier plans,

adequate compensation, taking into account the material and nonmaterial losses associated with displacement, mechanisms aimed at proper functioning, and help with adaptation and integration in the new place of residence, relocations may not lead to a significant reduction in the level of human security.

Mining-induced displacement and resettlement phenomena do not represent the sole physical change of residence. In other words, the amount of remaining people affected by the environmental effects of mining regularly exceeds the amount of displaced people. The pollution of ground water, a decrease in agricultural efficiency, the proliferation of diseases, and psychological effects are just some of the problems mentioned by experts.

Any scientific analysis of MIDR should distinguish between various categories of resettlement and displacement. Mining-induced displacement and resettlement is not only an issue of development-induced displacement, but also of ethnic conflicts, the struggle for resources, access to land, indigenous rights, the question of self-determination of tribal people and local communities, and sustainable development. Environmental disruption caused by mining can also cause subsequent environmentally-induced displacement.

**Mining-induced displacement and resettlement: A human rights issue**

In most cases, the beneficiaries of extractive projects are big corporations and – to a lesser degree – public national administration. The extraction of resources in developing countries very rarely contributes to an improvement in the situation of local communities. Profits are then transferred abroad (out of country, facilitated by exploitation) and do not raise the level of economic development in these regions. The growing number of displacees (DIDPs) or people permanently affected by the negative consequences of mining (PAPs) remain a particularly relevant issue here. Technological developments and the necessity for highly-qualified workers mean that inhabitants of economically underdeveloped rural regions have less and less opportunities for employment in the mining sector. Low compensation for lost property is of equally great concern. Mining-induced environmental devastation increasingly affects inhabitants as well. The private sector is concerned with fast gains above all, and not with establishing any long-term mechanisms of local development. All of the above factors make mining-induced displacement an even greater problem for developing countries.

The scale and consequences of mining-induced displacement are especially affected by the following factors:

1. *Economic globalization*: The expanding network of economic ties is making extraction in distant countries much easier than ever before.[147] Poor African countries cannot afford to develop their mining sectors based

147W. Fernandes, “Mines, Mining and Displacement in India”. In Singh, Gurdeep, Laurence, David and Kauntala

only on their own budgets. Therefore, they strive to bring in foreign capital (e.g. direct foreign investments), and do not interfere with the character of the investment and with potential resettlements that may result. Administrative control or supervision of these foreign companies is purely a formality, or is not even put into practice at all. Extraction of resources frequently takes place on the basis of cooperation between foreign corporations and local companies. Public administration and local communities participate in profits infinitesimally. The lion's share is transferred to the investors' countries of origin so it does not support local development, whilst administration, hoping to get one of the shares, turns a blind eye to mounting environmental degradation and violations of the economic rights of local communities. In many underdeveloped countries, corporations do not adhere to the principles of sustainable development. Western public opinion is rarely informed about the negative consequences of such mining projects.

2. *Territorial expansion of mining areas*: The growing demand for resources forces the construction of new mines or the expansion of existing ones. According to Walter Fernandes' estimates, the average size of coal mines in India in the last 50 years has augmented almost ten times (from 150 to 1500 acres).[148] Creation of new open-cast mines leads to the resettlement of a growing number of inhabitants in many regions of the world. The automation of extraction means that merely a limited number of people has the chance to be employed. Corporations free from external control neglect the effects of their actions on the environment. Worsening conditions frequently force nearby inhabitants to migrate.

3. *Abusive practices of the private sector in the mining industry*: A lack of controls encourages the private sector to carry on with unjust practices. Displaced people regularly receive inadequately low compensations for their lost properties. Companies do not implement the promised programs of aid and support in finding alternative jobs. The resistance of local communities often ends in failure. They do not possess sufficient financial power or the opportunity to protect and defend their rights and interests in court.

4. *Little interest of local public administration in the situation of displaced persons*: Extraction of resources frequently occurs in poorly-developed areas which are located far from urban centres. Hence, the administration's capacity to control the environmental and social consequences of such activities is limited. National authorities tolerate abuses on the part of extractive companies, the reason being that they are afraid to lose foreign capital. Mining projects are in large part located in countries with poorly established democracy and low standards of human rights protection. The development of mining in India, which has caused the landlessness and increasing marginalization of tribal peoples, is one of the examples most clearly illustrating this problem.

Just like other DIDR categories, mining-induced displacement leads to mass infringements upon human rights. This stems from assymetric capacities of local communities vis-à-vis big corporations that have money at their disposal, contacts in power circles, and a huge legal backroom. The engagement of entire communities and non-governmental organizations is a necessary condition for protecting local interests.

Lahiri-Dutt (eds.). (2006). *Managing the Social and Environmental Consequences of Coal Mining in India*, The Indian School of Mines University, Dhanbad, pp. 333-344.

148Ibidem

However, in may parts of the world community organizational responses to mining show interesting signs of a revitalization of indigenous identity.

Indigenous people who are integrated with the land are particularly endangered by the consequences of displacement. For them, land performs not only the function of economic and social networks, but also their cultural point of reference. They agree to be displaced only with reluctance, because apart from a loss of sovereignty it means atomization and social marginalization. According to Janssens et al. (2008) the most negative consequences of contemporary mining are land and water contamination, disruption or displacement of communities, clashes between citizens and state forces, and the involuntary migration of rural people to cities.[149]

Among the effects of resettlements affecting indigenous people, Theodore Downing distinguishes: "suffering a loss of land, short and long-term health risks, loss of access to common resources, homelessness, loss of income, social disarticulation, food insecurity, loss of civil and human rights, and spiritual uncertainty."[150] Walter Fernandes, who studied the impact of investment projects on tribal people in India, also points to similar problems[151]. It seems that the reconciliation of economic development directives with the realization of the well-being of tribal people is currently impossible.

Loss of land appears to be the main threat caused by mining. It leads not only to economic problems but also to the loosening of economic ties. The decrease in the level of economic security which affect displacees is a consequence of several factors, the most important of which include the following: 1. loss of access to to previously used resources on which they depend (water, agricultural land, common resources such as pastures, forests, common agricultural land, rivers), 2. inappropriately small compensation which does not take account of the non-material losses associated with the displacement, 3. the negative consequences of change or modification of the previous economic model (especially the involuntary transition from a land-based to a cash-based economy), 4. deterioration of economic and environmental conditions in the new place of residence, 5. the economic consequences of disarticulation of larger communities and loss of existing community, neighbourhood or family ties. Temporary financial compensations seem inadequate in relation to the long-term social, environmental, and economic costs of mining activity. Thus establishing durable mechanisms of welfare is of substantial concern for the prevention of unemployment and housing problems,

149 D. Janssens (et al.). (2008). *Blinkt alle goud? Mijnbouw, ecologie en mensenrechten*. http://www.mo.be/fileadmin/pdf/MO-paper_Mijnbouw.pdf.
150 T.E. Downing, J. Moles, I. McIntosh, C. Garcia-Downing, *Indigenous Peoples and Mining Encounters: Strategies and Tactics*, International Institute for Environment and Development-World Business Council for Sustainable Development, Working Paper no. 57, April 2002, pp. 20.
151 On the development and tribal issues in India see: S.K. Mishra Development, Displacement and Rehabilitation of Tribal People: A Case Study of Orissa", *Journal of Social Sciences*, vol. 6, no. 3, 2002, pp. 187-208; R. Meher, "Globalization, Displacement and the Livelihood Issues of Tribal and Agriculture Dependent Poor People. The Case of Mineral-based Industries in India", *Journal of Developing Societies*, vol. 25, no. 4, October-December 2009, pp. 457-480.

and for the equalization of educational opportunities. Another important issue is the granting of land rights to local communities and, through this, of a share in any profits from the exploitation of resources.

As noted by van Criekinge, mining is an unstable and not very promising source of income. The average period of open-pit exploitation is 10-40 years. Then, any work, money, and social benefits provided by corporations disappear.

Development of the mining sector should be based upon the principles of sustainable development. Mining ought to contribute not only to the maximization of profits for big corporations but also to the prosperity of local communities. It often leads not to the economic progress of the region but to its long-lasting collapse. Unemployment increases and the environment deteriorates, forcing people to migrate.

Beyond economic and social rights, the environmental rights of local communities are endangered as well. The effect of mining on health is as big a problem as the displacement itself. The deforestation of large areas of forest causes irreversible disturbances in local habitat. As research shows, the environmental consequences of open-pit mines are noticeable by inhabitants of places even several dozen km removed.

For the analysis of people displaced by mining, we can refer to the Improvement Risks and Reconstruction (IRR) model developed by Michael M. Cernea during nineties. Among the negative effects of displacements, he distinguishes: 1. landlessness; 2. joblessness; 3. homelessness; 4. marginalization; 5. increased morbidity and mortality; 6. educational losses; 7. food security issues; 8. loss of common property, and; 9. social disarticulation and community breakdowns.[152] Each of the above-mentioned problems may constitute the consequences of MIDR.

In 2004, the Earthworks-Mineral Policy Center and Oxfam America launched a "No Dirty Gold" campaign to change unsavoury practices in gold mining. Citizens of the West who buy golden jewellery often do not realize that, in many African states, gold mining is associated with violations of human rights, persecution of human rights activists, protests against displacement or environmental degradation, and even violent conflicts. An important part of the "No Dirty Gold" campaign was the preparation of a report entitled, *Dirty Metals: Mining, Communities and the Environment,* which details environmental and social problems caused by gold mining.[153] The target of this campain was to curtail the sale of 'dirty gold', that is, "gold that comes from areas of conflict and harms both humans and the environment."[154]

152 M.M. Cernea, Risks, Safeguards and Reconstruction: A Model for Population Displacement and Resettlement", *Economic and Political Weekly, v*ol. 35, no. 41, October 7-13, 2000, pp. 3659-3678; see also: A. Chakrabarti, A. Dhar, *Dislocation and Resettlement in Development. From third world to the world of the third*, Routledge, New York, 2009, pp. 61.

153 The phenomena of conflict minerals and blood diamonds are of a similar nature.

154"Target Pledges Not to Sell Dirty Gold," see:http://www.care2.com

Mining-induced displacement also causes the violation of women's rights. According to some specialists, women tend to be much more affected in the aftermath of displacement. They lose land needed for crop production, which is an important part of maintaining the family. Women displaced in Ghana following the development of mining emphasize that land loss is the worst problem affecting their normal functioning. Women are particularly vulnerable to the negative consequences of DIDR. Displacements observed in developing countries lead to the lowering of their already strongly marginalized social and economic position. DIDR stabilizes or even increases the economically and traditionally conditioned discrimination that they face. The key factor in the marginalization of women is the economic outcome of displacement. Landlessness and difficult access to common property resources (pastures, rivers, lakes) means that women cannot continue with their customary economic activity, such as collecting wood or providing part of the family's food supply. Development-caused displacement thus contributes to a reduction of women's economic function and concomitant importance in the family. Due to their low level of education, women usually lack the opportunity to obtain other jobs. A frequent consequence of displacement is therefore the abolition of women's economic functions and their complete dependency on their husbands' earnings. Recently conducted research also shows that women, more than men, are affected by the negative health consequences of the implementation of development projects. Mining activities lead to the deterioration of the economic status of women, along with malnutrition, health problems, lack of access to basic resources, etc.[155] A common consequences of involuntary resettlement is gaining access to safe potable water, which increased diarrhea,epidemic infections and dysentery.

It is necessary to strengthen adaptation and rehabilitation programs for displaced families. Such families should have the possibility of continuing the existing conditions of life in their new places of residence. Any attempts to transfer populations to excessively different neighborhoods fail. It thus becomes necessary to resettle people into territories fitting the previous economic model and allowing the continuation of customary activities. Those displaced from rural areas should have access to pasture and other facilities necessary to them. Rehabilitation programs are a common form of assistance to tribal people in India, but in many regions of the world they are not used at all. NGOs can play a significant role in the planning, negotiation, implementation and monitoring of resettlement and its consequences. It is therefore necessary to strengthen NGOs in developing countries.

Companies that respect the principles of sustainable development in one country often commit human rights violations in another. It is therefore important to publicize negative practices in the media of developed countries. Only western public opinion can have a real impact on these adverse practices. Corporations operating in poor countries in Africa usually do not count with the local communities. The central and local

155 *Contesting Women's Rights Within the Political Economy of Mining in India*, Dhaatri Resource Centre for Women and Children, Secunderabad, Andhra Pradesh, India, 2010, pp. 58-59.

authorities do not enjoy high credibility and are often corrupt. Tribal leaders and other persons endowed with the authority of the community can be important in encouraging people to resettlement.

It is important to engage as many partners as possible in the stage of negotiations and the creation of resettlement programs. Negotiation and signing of a Public Infrastructure Agreement, ensuring access to infrastructure and social services, should be an indispensable element of the resettlement program, ensuring access to infrastructure and social services. Public Infrastructure Agreements should be very detailed in nature. One valuable example of appropriate resettlement practices is the displacement associated with the formation of a diamond mine in Murowa. Mechanisms of social support provided to those resettled should be long-term in nature and should not end within a year or two after resettlement.

**Case studies:**

**Asia and Pacfic:**

Among the countries of the region with a significant scale of MIDR, five should be mentioned: India, China, Indonesia, Papua New Guinea, and the Philippines. The Grasberg (Freeport) gold mine in Indonesia caused the displacement of more than 15,000 people. According to cautious estimations, the development of coal mining in India displaced more than 2-2,5 million people between 1950 and 2000 (particularly in Jharkhand). As Walter Fernandes noted, mining-related resettlement is a part of the general context of displacement in this country. In China, coal mining has degraded the quality of land of an estimated 3.2 mln hectares (according to a 2004 estimate) and displaced thousands of people. Mining-induced displacement and resettlement is also highly visible in Papua New Guinea and the Philippines. The expansion of OK Tedi mine in Papua New Guinea as well as environmental damage in surrounding areas has forced 4,000 people to relocate. Foreign mining projects in the Philippines continue to displace indigenous people and harm the environment under President Aquino's term. There is also the danger of massive mining-induced resettlement in Bangladesh. According to some sources, the open-pit coal mine in Phulbari (Bangladesh) could displace hundreds of thousands of indigenous peoples and cause serious violations of human rights. The situation of the resettled is much worse than in Europe and even some African states. Much attention is paid to the loss of land by tribal people, marginalization, the situation of women and children, malnutrition, and poor health care.

*India*

We ought not to reduce the development-induced displacement in India to the consequences of the construction of dams and irrigation projects, initiated during the colonial period and continued by Nehru.[156]

156 Nehru called large dams 'temples of modern India' in the sense that he was affirming a commitment to modernisation and socialism in post-Independence India. On the broad context of development-induced displacement in

Mining-induced displacement is currently one of the major risks for stable and sustainable development here. It is estimated that the development of mining displaced between 1,5 and 2,5 million people between 1950 and 2000. The main problem in India seems to be antagonism between local administrations and tribal peoples regarding land ownership. Land inhabited by many generations is the most significant area of economic, social, and cultural reference. The fusion of human and land is highly visible in the case of indigenous and tribal people who have limited adaptive mechanisms to the new reality. As Theodore E. Downing (et al.) noted:

> Mining can empower indigenous peoples, but previous encounters have stripped them of their sovereignty, their traditional wealth, and posed multiple impoverishment risks. The public has indicted the industry for tragic and unnecessary forced relocations, violations of human rights, under-compensation for damages, and lack of benefit sharing. Sustainable mining is not possible if indigenous cultures—that are the prototypes of persistent peoples on this planet—are rendered unsustainable" [...] One of the primary causes of indigenous resistance to mining is the potential loss of sovereignty. Mining frequently disrupts indigenous lifeways and institutions, undercutting their capacity to sustain themselves as a community. Indigenous peoples throughout the world pursue their sovereign rights as coequal members of the community of nations.[157]

Among the most important determinants of MIDR in India, we can mention: coal, copper, bauxite, and uranium mining in Orissa, Jharkhand, West Bengal, and Andhra Pradesh.[158] According to Prajna Paramita Mishra and M. Gopinath Reddy, between 1981 and 1986 major Indian coal companies have displaced more than 32,700 families (the estimates of displaced persons in Singrauli I-II alone is about 49,000). As Areeparampil noted, the development of mining in Jharkhand was associated with large-scale deforestation and environmental devastation. The development of aluminum mining in the region of Andhra Pradesh is another well-known case of MIDR.[159] The development of the NALCO Refinery Plant in Damanjodi has led to the displacement of fifteen settlements with about 597 families. Literature highlights the problems of the most vulnerable groups— indigenous people, illegal settlers, women and children displaced by mining. Potential risks affecting displaced persons are similar to those of other categories of DIDR. Among them we can mention: unemployment, homelessness (and housing problems), social marginalization, alienation, health and social security risks, erosion of social ties, violations of fundamental human rights, lack of access to safe drinking water, and lack of access to education and social services.

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India see: S. Somayaji, S. Talwar (eds.), *Development-induced Displacement, Rehabilitation and Resettlement in India: Current issues and challenges*, Routledge, New York, 2011.

157 T.E. Downing, J. Moles, I. McIntosh and C. Garcia-Downing, *Indigenous Peoples and Mining Encounters: Strategies and Tactics*, International Institute for Environment and Development-World Business Council for Sustainable Development, 2002, p. 3.

158 M. Areeparampil, "Displacement Due to Mining in Jharkhand", *Economic and Political Weekly*, vol. 31, no. 24, pp. 1524-1528.

159 P. Paramita Mishra, M. Gopinath Reddy, "Mining-induced displacement Case of aluminium refinery in Andhra Pradesh". In S. Somayaji and S. Talwar (eds.), Development-induced Displacement, Rehabilitation and Resettlement in India. Current issues and challenges, Routledge, 2011.

THE SCALE OF MINING-INDUCED DISPLACEMENT AND RESETTLEMENT IN INDIA ACCORDING TO 'MODERATE' ESTIMATIONS:

| Region | Years | Total number of displaced | Source |
|---|---|---|---|
| Andhra Pradesh | 1980-1995 | 100,54 | Fernandes et. al (2001) |
| Assam | 1980-2000 | 41,2 | Fernandes and Bharali |
| Goa | 1980-1990 | 4740 | Fernandes and Naik (2001) |
| Gujarat | 1980-2000 | 4128 | Lobo and Kumar (2007) |
| Jharkhand | 1980-1995 | 402282 | Ekka and Asif (2000) |
| Orissa | 1960-1995 | 300000 | Fernandes and Asif (1997) |
| Kerala | 1990-1999 | 78 | Muricken et al. (2003) |
| West Bengal | 1960-2000 | 418061 | Fernandes et al. (2006) |
| Total | | 1571630 | |

Source: Fernandes, Walter (2006). "Mines, Mining and Displacement in India" [in] Singh, Gurdeep, Laurence, David and Kauntala Lahiri-Dutt (eds.). (2006). *Managing the Social and Environmental Consequences of Coal Mining in India*, The Indian School of Mines University, Dhanbad, pp. 333-344.

*Indonesia*

The Grasberg Mine, situated in the Papua province of Indonesia near Puncak Jaya (New Guinea), is the largest gold mine and one of the largest copper mines in the world.[160] The development of the Grasberg copper and gold mine (Freeport mine) has caused the displacement of more than 15,000 people, mostly indigenous (Hyndman, 1988, 1994)[161]. According to Roberts (1996), "Freeport has not paid any mining royalties (or any other compensation) to the roughly 4,000 Amungme indigenous people displaced by the growing mine's concession area of 9,266 square miles since strip mining began there in 1972. Many of the displaced people have moved to the lowlands, where malaria and other diseases have killed several hundred of them."[162] It is estimated that the exploitation of environment led in Grasberg area, for more than 30 years, has damaged 30,000 hectares of rainforest as well as the Kopi and Ajkwa rivers. The risk of displacement of the population also affects the region of East Kalimantan in Indonesia.

*China*

160 Three large open-pit mines are located in the Island of Papua: Grasberg (Freeport) Mine (Indonesia), Tedi Mine (Papua New Guinea) and Porgera Mine (Papua New Guinea).

161D. Hyndman, Ancestral Rain Forests and the Mountain of Gold. Indigenous People and Mining in New Guinea, Westview Press Boulder, Colorado, 1994.

162 B.E. Johansen, "Irian Jaya/Papua New Guinea". In *Indigenous Peoples and Environmental Issues: An Encyclopedia*, see: http://www.ratical.org/ratville/IPEIE/IJ_PNG.html.

There is not much literature on mining-induced displacement in China. Available publications, however, draw attention to the dangers of resettlement associated with the exploration of new coal-rich areas in China, such as Xinjiang province. Various Uighur communities living in this area are particularly vulnerable to this problem.[163]

*Bangladesh*

Until recently, mining-induced displacement was not a well-known social problem in Bangladesh. However, the planned construction of an open-pit coal mine in the Phulbari area of Northwest Bangladesh could displace or impoverish hundreds of thousands of people and jeopardize their basic needs. The project involves the development of an open-pit coal mine in Northwestern Bangladesh along with the construction of a 500-MW power plant. The case of the Phulbari mine drew the attention of the world media in February 2012. A group of independent UN experts noted that the opening of such a mine would immediately displace 50,000-130,000 people and potentially affect 220,000. The coal mine's development could destroy 5900-12,000 hectares of agricultural land. In addition, the project would reportedly extract 572 million tons of coal over the next 36 years from a site. The project would force entire villages (such as Santal, Munda, Mahili, and Pahan, inhabited by indigenous people) to resettle. Project-induced environmental destruction (e.g. water toxification and deterioration in the quality of agricultural crops) could also end up forcing large-scale migration. According to International Accountability Project, the expansion of mining in Phulbari may lead to various environmental consequences:

- Risk of impoverishment of many thousands of people;
- Outbursts of conflict in the project area;
- Endangered food security in Bangladesh.[164]

According to the Office of the High Commissioner for Human Rights statements from 2012 "The Government of Bangladesh must ensure that any policy concerning open-pit coal mining includes robust safeguards to protect human rights. In the interim, the Phulbari coal mine should not be allowed to proceed because of the massive disruptions it is expected to cause".

*Philippines*

Mining in the Philippines is the cause of massive displacement of indigenous peoples from their ancestral lands. As Brawner Baguilat pointed out, the expansion of mining here leads to many negative consequences for indigenous populations:

163 See: A.M. Dwyer, *The Xinjang Conflict: Uyghur Identity, Language, Policy and Political Discourse*, Policy Studies Discourse Working Paper no. 15, East-West Center, Washington, 2005.

164 Phulbari Coal Project: *An Assessment of the Draft Resettlement Plan Prepared by Global Coal Management/Asia Energy Corporation*, Final Draft, International Accountability Project-Bank Information Center, San Francisco-Washington DC, August, 2008.

- Loss of ownership, management, and control of land and resources (the material base of the peoples' identity, culture, and survival), and denial of the peoples' resource-management systems;
- Massive loss of livelihood and destruction of local economies causing numerous threats to food, health and water security;
- Dislocation of settlements and villages and weakening of socio-cultural systems;
- Destruction of bio-diversity, pollution and degradation of the environment;
- Loss of traditional knowledge and systems of resource management.[165]

As in other regions of the world, mining especially causes problems for indigenous people[166]. Among the communities most threatened by forced displacement, we can mention B'laan, Kasibu, Nueva, Vizcaya, and Igorot.

*Papua New Guinea*

The problem in Papua New Guinea is the expansion of the two largest open-pit mines in the country: OK Tedi Mine and Porgera Mine. Particular attention was paid to human rights violations in the first project:

- Tedi Mine. More than 30,000 people have been displaced by pollution associated with the development of OK Tedi Gold Mine. According to some sources (Higgins, 1999) environmental damages have displaced 4,000 people. According to Sutoris over 40,000 Wopkaiman people has been displaced by the creation of Ok Tedi mine[167].
- Porgera Mine. The Porgera Gold Mine is a large gold and silver mining operation in Enga province, located at the head of the Porgera Valley. During the development of the Porgera gold and silver mining operation, many people were relocated. Resettlement principles were identified in the Porgera Relocation Agreement (September 1988), the Tolukuma Compensation Agreement (November 1993), and the Lihir Integrated Benefits Package (April 1995).[168] There is no official statistics about the number of people resettled following its operation.

**Africa**

Nowadays, open-pit mining is a significant environmental and social problem in Africa. The mining of coal, copper, iron, gold, bauxites, and diamonds is a common cause of highly visible environmental degradation

165 B. Baguilat, "Philippines: Mining And Its Impacts To Indigenous Communities", http://indigenouspeoplesissues.com/index.php?option=com_content&view=article&id=11988:philippines-mining-and-its-impacts-to-indigenous-communities&catid=32&Itemid=65.

166W. N. Holden, "Civil Society Opposition to Nonferrous Metals Mining in the Philippines", *Voluntas: International Journal of Voluntary and Nonprofit Organizations*, Vol. 16, Issue 3, September 2005, pp. 223-249.

167P. Sutoris, "Social Justice, Environmental Sustainability and the Relocation of the Bikinians, 1946-1978", *World Outlook Journal of International Affairs*, Dartmouth College, 2011.

168 "Resettlement and Mining in Papua New Guinea" (Chapter 7), see: http://www.adb.org/documents/conference/resettlement/chap7.pdf.

and development-induced displacement and resettlement. The district of Tarkwa located in Ghana, characterized by the presence of half of country's large mines, indicates the enormous environmental and social impacts of 'gold fever.' Mining in the Tarkwa region displaced about 30,000 people between 1990 and 1998, destroyed forest land and farms, and contamined rivers. Among other countries with a particularly high scale of MIDR we can find: Mali, Namibia, Botswana, RSA, and Zimbabwe. It is also worth emphasizing the environmental devastation and concomitant mass displacement caused by oil extraction in the Niger Delta (known as the tragedy of the Ogoni people). The best-known mining projects implemented in recent years in Africa are: the Bulyanhulu gold mine in Tanzania, the Konkola copper mine project in Zambia, the development of gold mining in the Tarkwa region in Ghana, the Sadiola open-pit gold mine in Zimbabwe, the Dikulushi copper and silver mine in the Democratic Republic of Congo, and the Murowa diamond mine in Zimbabwe. According to the official report of the Southern African Development Community, "mining-induced displacement [...] was one of the most underreported causes of displacement in Africa, and one that was likely to increase, as mineral extraction remained a key economic driver in the whole region."[169]

*Ghana*

More than 30,000 people were displaced between 1990 and 1998 in the Tarkwa district of Ghana by gold mining operations[170]. At least several hundred people each year are resettled in the region as a result of mining development.[171] Mining has destroyed 14 communities between 1990 and 1998. According to Akabzaa and Darimani, mass displacement has led to the large-scale migration of young people to urban centres (mostly Tarkwa). The second planned mining project in Ghana (the Akyem project) is likely to destroy surrounding habitat and move hundreds of people from their initial places of residence. One of the most controversial projects in Ghana is the Ahafo gold mine. Since its commencement in 2006, the mine has been faced with allegations of human rights abuses committed by the security forces protecting the mine, along with the displacement of 10,000 people, inadequate compensation, and environmental disruption (cyanide spill in October 2009). As Akabzaa and Darimani noted "Compensation policy also did not consider the tenant status of many local people. Several women who got displaced without compensation are now living in makeshift wattle structures on the fringes of Tarkwa. In interviews, many of them said they could not afford the rents in town. They make their living mainly by selling firewood from the forest or performing various jobs at galamsey sites."[172]

*Mali*

169 See: J. Van Criekinge, "Africa: Conflicts and mining-induced displacement", *The Broken Rifle*, vol. 77, 2001.
170Over 22,000 people weres resettled between 1996 and 2000 under so-called Tarkwa Resettlement Project.
171 T. Akabazaa, Thomas, Darimani, Abdulai. (2001). *Impact of Mining Sector Investment in Ghana. A Study of the Tarkwa Mining Region*, A Draft Report Prepared for SAPRI.
172T. Akabzaa, A. Darimani, "Impact of Mining Sector Investment in Ghana: A Study of the Tarkwa Mining Region", Report prepared for SAPRI, January, 2001.

Displacement in Mali is the consequence of gold-mining development in three areas: Sadiola, Syama, and Morila:

- In the Sadiola region, 46 villages lost their space due to MIDR. Sadiola mine, which is in operation since 2011, is the largest gold extraction investment in Mali. Experts state that only in the area of three villages (Sadiola, Farabakouta, and Niamboulama) the development of mining has led to the displacement of more than 1,000 people;
- In the Forou region (near the Syama gold mines), 121 communities have lost their land because of mining[173].

According to Eyolf Jul-Larsen (et al.), the major social consequences of industrial gold mining in Ghana are: 1. the expropriation of living standards of affected populations; 2. land and displacement of villages; 3. a reduction in agricultural and pastoral activities; 4. environmental hazards; 5. housing bottlenecks; 6. social changes, unemployment, and inflation.[174] Lack of comprehensive statistical data makes it impossible to determine the scale of MIDR in Mali. According to Sonnenberg and Münster (2001): a) 2135 people from 85 households were resettled in Sadiola Hill (an open-pit gold mine opened in 1996 in Kayes Region of Mali; and b) 165 people from 8 households were resettled in Yatela (the expansion of the Yatela open-pit gold mine, opened in 2001, situated 25 km north of Sadiola). Beginning in mid 1996, AngloGold Ashanti worked to resettle the villages near the Sadiola mining area: Sadiola, Farabakouta, and the Niamboulama. Between April 1999 and October 2000, 1200 inhabitants of these villages were resettled.[175]

**South Africa**

It is not possible to provide accurate statistics for the number of people resettled as a result of mining in South Africa. According to southern Africa MMSD regional report mining in South Africa "displaced 37,000 people over five years".[176] Sonnenberg and Münster claim that mining operations resettled 35,000 people in southern Africa during the nineties.[177] However, this figure refers only to persons covered by resettlement plans. In fact, much of the resettlement was unrecorded and was not realized on the basis of resettlement plans.[178] The most famous example of MIDR in South Africa is that of the resettlements undertaken by Anglo

173 *Mali Foreign Policy and Government Guide*, (vol. 1), International Business Publications, Washington 2011.

174 E. Jul-Larsen, B. Kassibo, S. Lange, I. Samset, *Socio-Economic Effects of Gold Mining in Mali. A Study of Sadiola and Morila Mining Operations*, Chr. Michelsen Institute, Bergen, Report, no 4, 2006, pp. 27.

175496 inhabitants of Sadiola were resettled July 8, 1999. 550 inhabitants of Farabakouta were resettled 22 April 1999. 105 residents of Niamboulama were resettled October 6, 2000.

176T.E. Downing, *Avoiding New Poverty: Mining-Induced Displacement and Resettlement*, IIED, London 2002, p. 7; W. Courtland Robinson, "Risks and Rights: The Causes, Consequences, and Challenges of Development-Induced Displacement", SAIS-Brooking Institution, May 2003, p. 20.

177 D. Sonnenberg, F. Münster, *Mining Minerals Sustainable Development Southern Africa. Research Topic 3: Mining and Society. Involuntary Resettlement*, African Institute of Corporate Citizenship, Sandton, 2001, pp. 42.

178 M. Hoadley, D. Limpitlaw, A. Weaver, "Mining, Minerals and Sustainable Development in southern Africa", The

Platinum near its Mogalakwena mine. Almost 10,000 people (957 households) from Ga-Pila and Motlhotlo were resettled.[179] Following many years of negotiations, 98% of Ga-Pila residents accepted the offer to move to the newly-built village. The program of relocation was voluntary and was realized with the strong support of local authorities and tribal leadership.

*Zimbabwe*

A particularly infamous example of MIDR in Zimbabwe is connected with the recent development of the Marange Diamond Fields. The Chiadzwa area, located in the eastern part of the country is considered the world's biggest diamond find in more than a century. In January 2009, the government announced its plans to resettle 4,700 Chiadzwa villagers to the 12,000 ha Arda Transau Farm, on the Odzi River. Resettlement plans provoked protests amongst Chiadzwa villagers.[180] Over 500 Manicaland families from Chiadzwa to date have been relocated to Arda Transau Relocation Village, 24 km from Mutare. The villagers moved into three-bedroom houses, built by a private contractor, which cost $55,000 per unit.[181] Mbaba Diamonds, the company responsible for the exploration, promised to build schools and clinics and to provide residents with basic social services. This might be just the beginning of resettlement issues in Zimbabwe, as more and more diamond deposits are discovered in this country.[182] The development of mining can bring about a host of negative consequences for the rural population of Zimbabwe.

Rio Tinto's Murowa diamond mine in Zimbabwe is an example of ethical and appropriate resettlement. The Murowa is a diamond mine opened in 2004, located in southern central Zimbabwe, 350 km south-west of Harare. During the discovery phase, it was ascertained that the development of the project would require the relocation of 100 families. In June 2001, the initial resettlement mapping plan was completed, according to which 926 people from 142 families would be resettled. In May 2002, resettlement agreements were signed among the company, local authorities, and the resettled community. The preparation of mine facilities was completed in late 2004. These activities included the relocation of 926 people living in the immediate vicinity of the mine to 6 farms purchased by the government resettlement program. In 2005, the company relocated 142 families to Shahse, about 150 kilometres east of Murowa. A public infrastructure agreement was signed between the company and local authorities on access to social services and the construction of school and health facilities. A separate public agreement was associated with the relocation of 265 graves from the old settlement to the specially prepared new area. Additionally, after the initial resettlement plan, 224 families were relocated to Sashe.

Report of the Regional MMSD Process, University of the Witwatersrand, 2002.

179 According to Sonnenberg and Münster (2001) Anglo Platinum investments in Ga-Pila displaced 4500 people (770 households) before 2001.

180 O. Katsaura, "Violence and the political economy of informal diamond mining in Chiadzwa, Zimbabwe", *Journal of Sustainable Development in Africa*, vol. 12, no. 6, 2010, pp. 340-353.

181 Nqobile Bhebhe "Chiadzwa villagers relocated", http://www.newsday.co.zw/article/2011-12-14-chiadzwa-villagers-relocated/

182 For example, recent discoveries in the Bikita region.

According to Rio Tinto, the company then built new roads, a health centre, and a primary school, and implemented community development projects including micro-irrigation and agricultural and business training programmes, allowing the people to adapt to their new situation and the development of a local economy.[183] As Simon Nish and Sara Bice pointed out, each family received access to approximately 8 ha of arable land for their own purposes and access to 32 ha of common arable land.[184] The case of the Murowa diamond mines is a good example of broad public participation in resettlement schemes, negotiations significantly in advance of resettlement, and detailed public infrastructure agreements.

*Botswana*

Resettlement issues in Botswana are particularly connected with the rights of aboriginal people, cultural heritage, and the conservation of nature. The most well-known example of displacement is the forced relocation of two aboriginal San communities (the Gana and Gwi tribes) from the Central Kalahari Game Reserve. This action led to the violation of several human rights: indigenous people rights, water rights, and the right to land. The San people's case, among others, was undertaken by the Human Rights Commission of the United Nations in Geneva. Since the mid-nineties, there is also the subject of court battles in Botswana. The reasons for the relocation of aboriginal peoples are for the conservation of nature and for mining. According to Survival International, "In three big clearances, in 1997, 2002 and 2005, virtually all the Bushmen were forced out. Their homes were dismantled, their school and health posts were closed, their water supply was destroyed and the people were threatened and trucked away."

- In 1997 the government of Botswana decided to resettle hundreds of San people living in the Central Kalahari Game Reserve (CKGR). According to official statements, the aim of the operation was "proposed conservation and development" and to raise the functioning standards of the rest of the San living in the reserve.

- In July 2004, the authorities decided to resettle the next several hundred residents of the reserve because deposits of diamonds were discovered. This decision led to protests by 250 San people residing there. The world-renowned corporation De Beers expressed interest in the exploitation of diamond deposits in the reserve.

- Another attempt to remove San people from the Central Kalahari Game Reserve was in 2008. In 2009, a Botswana government official has admitted that the Kalahari Bushmen were evicted from their land to make way for diamond mining, and that authorities cut off the water supply to force

183 S. Nish, S. Bice, "Community-based agreement making with land-connected peoples" [In] Vanclay F., Esteves A.M. (eds.), *New Directions in Social Impact Assessment. Conceptual and Methodological Advances*, Edward Elgar Publishing Limited, 2012, p. 71.

184 Ibidem.

Bushmen out of the Central Kalahari Game Reserve.[185] In 2009, about 1,000 San people were seeking to return to the Kalahari Reserve.

The Central Kalahari Game Reserve is a disgraceful example of a place where mining and tourism development were more important than the rights of indigenous peoples.[186]

*Democratic Republic of Congo*

The Democratic Republic of Congo has Africa's largest mineral resources, but the vast majority of its people lives in deep poverty. The fight to control mining has been a major factor in the violent conflict which has raged in eastern Democratic Republic of Congo for at least 16 years. We see the problem of so-called blood diamonds, where the profits from the diamond trade are used to fund conflicts. Rebel forces control some of the diamond fields, extracting diamonds, then selling them and spending the earned money to continue the conflict.

In 2011, Randgold Resources announced plans to start mining Africa's largest undeveloped gold deposit in eastern DR Congo. The beginning of gold mining in Kibali will require the re-location of 15,000 people. The new Kibali gold project is located close to the Ugandan border in a corner of DR Congo. According to Randgold representatives, all people will be moved to a new village constructed by the company. In June 2011 the first of 14 affected villages started moving to the Kokiza resettlement village, which will include approximately 3700 newly built homes. Only two of 12 villages have already been resettled to date (February 2012).

*Kenya*

The development of titanium mining in Kenya's Kwale region led to the displacement of at least several thousand people. As per Sonnenberg and Münster in 2001, 3300-10,000 people (450 households) were resettled as a consequence of mining conducted by Tiomin Resources. In July 2004, the Kenyan government and Toronto-based Tiomin Resources signed a deal for a 21-year mine for titanium in Kwale. It was estimated that, by 2007, the mining project would displace 5,000-10,000 in the Kwale district. Many of them are indigenous people.

*Zambia*

185 Botswana admits bushmen were evicted for diamond mine", *Ecologists*, 19th August 2009. http://www.theecologist.org/News/news_round_up/305377/botswana_admits_bushmen_were_evicted_for_diamond_mine.html

186 D. Chatty, M. Colchester (eds.), *Conservation and Mobile Indigenous Peoples. Displacement, Forced Settlement and Sustainable Development*, Berghahn Books, 2002, p. 189; M. Dowie, C*onservation Refugees. The Hundred-Year Conflict Between Global Conservation and Native People*, Massachusetts Institute of Technology, 2009, pp. 42.

Konkola Copper Mines is the biggest copper produced in Zambia. According to Sonnenberg and Munster (2001), 750 people from 143 households had been resettled at that time by mining operations. The affected people (67 households) were moved to Ming'omba village on 14 January, 2002. In February 2002, 74 households from Kawama were resettled. The resettlement plans were implemented in accordance with IFC Guidelines. Residents were given access to social services: schools, a health centre, water supply, sanitation, etc.[187]

*Tanzania*

The Bulyanhulu Gold Mine, opened in 2001, forced the resettlement of 511 people from 56 households (Sonnenberg and Münster (2001). In 1996, the mine was the scene of one the most infamous cases of mine-related violence. Over 50 artisanal miners were buried alive by bulldozers used to construct new mine. About a thousand people were displaced due to development of the Buzwagi Gold Mine in the Kahama District. More than 30,000 artisan miners were resettled as a consequence of the construction of Geita and Nzega, two large-scale gold mines in Tanzania.[188]

*Mozambique*

Resettlements in Mozambique are associated with the mining of titanium in its Chibuto District (Corridor Sands Titanium) and Moma District (Moma Sands Titanium). According to Sonnenberg and Münster (2001), 4200 people (840 households) were resettled in connection with the Corridor Sand Heavy Mineral Sand Project.

According to some sources the development of Vale's Moatize coal mine in Mozambique has displaced more than 2000 families. They were resettled to the Cateme area, located 60 kilometers from the mine zone. Problems they face include lack of access to water, electricity, and agricultural land.[189] In early 2012, 500 residents of Cateme, one of Vale's resettlement villages, took to the streets when cracks opened in their company-built houses only months after they moved in, crops failed and jobs at the mines dried up. In May 2013 Human Rights Watch accused Mozambique's government and foreign mining companies of "serious shortcomings" in resettling communities to make way for coal mines, leaving thousands without proper

187 See more: Assessment Report Complaint filed to the CAO regarding the Zambia Konkola Copper Mine (KCM) Project, Office of the Compliance Advisor/Ombudsman, Compliance Advisor Ombudsman, November 2003, http://www.cao-ombudsman.org/cases/document-links/documents/Zambia-KCMFinalReport11-17-03.pdf

188 M. Curtius, T. Lissu, A Golden Opportunity? How Tanzania is Failing To Benefit From Gold Mining, October 2008.

189"Resettled Mozambique families protest against Brazil's Vale", http://www.mineweb.com/mineweb/view/mineweb/en/page504?oid=142931&sn=Detail.

homes, food or sources of income. According to the report resettled families in the northwest province of Tete had faced "significant and sustained disruptions in accessing food, water and work" since being resettled between 2009 and 2011.

Resettlement implemented by the Brazilian mining company Vale in the Moatize district, in the western province of Tete aroused the protests of affected people. Between November 2009 and April 2010, Vale resettled hundreds of people from the area of mining concession in Chipanga. About 717 households regarded as 'rural' were resettled in the locality of Cateme, about 35 kilometres from Moatize town. 288 households, regarded by mining company as 'semi-urban', were resettled in the neighbourhood within the town. 308 households refused to change their place of residence, and demanded monetary compensation instead. In Cateme 750 new houses were built and people have access to social services, an elementary school, a police station, a health center, and water and electrical infrastructures. Despite this fact, displaced people protested against a number of problems encountered.[190] According to some sources, 400 of the 750 houses had been poorly built and access to electricity, water, and agricultural land. On January 10, 2012, more than 400 families blocked the road and railway line in Tete to protest against poor living conditions and the failure of the resettlement programme. Vale has now promised to resolve all the problems at the Cateme resettlement area within half a year.[191]

*Republic of Congo*

The expansion of the Zanaga iron ore project located in the Lekoumou district could lead to resettlement of ten villages, according to some sources.

**South and Central America**

Among the Southern and Central American countries experiencing this problem on a greater or lesser scale, we can mention: Peru, Venezuela, Guyana, Argentina, Suriname, Chile, Honduras, and Venezuela. Thousands of people in Peru could be displaced because of the mining industry in this country. The most significant example of the problem is the situation of the inhibitants of Morococha town (a Chinese company plans to mine copper there) and the city of Cerro de Pasco (with the possible relocation of more than 11,000 people due to negative effects of mining). Despite some promises, the open-pit mining in this country could lead to huge environmental and social consequences. Just as in Asia, the situation of American indigenous people is becoming a relevant problem. In an interesting article, David Szablowski gives us some interesting

190 More on situation in Cateme: C. Kabemba, C. Nhancale, *Coal versus Communities: Exposing poor practices by Vale and Rio Tinto in Mozambique*, Southern Africa Resource Watch, Policy Paper no. 2, 2011; "Protests against Vale coal mine relocations", http://www.labournet.de/internationales/mz/hanlon193.pdf

191 In January 2012 Barclays and Vale mining company earned the annual Public Eye awards for the worst corporate misconduct.

examples of the cooperation of mining companies and local authorities on the issue of social and environmental rights of affected populations.[192]

*Peru*

The most-cited example of mining-induced displacement in Peru is the relocation of Morococha. Over 1,300 families will have to be resettled to allow Chinalco Company to begin mining for copper and molybdenum in 2012.[193] The company will spend 40 million dollars to build 1,200 housing units in the New Morococha. In 1999, the Peruvian government and the Canadian mining company Manhattan Sechura S.A. signed an agreement granting the company the rights to mining expansion over 88,000 hectares of land around the town of Tambogrande (Piura Department) in Northern Peru. The opening up of a new open-pit mine will require approximately 25,000 people to be resettled, change the course of a river, and cause the destruction of the Prosopis (algarrobo) forests existing in this area.[194] Anthony Oliver-Smith draws attention to the case of Compania Minera Antamina, a mining project located in North-Central Andes. People displaced in its aftermath were deprived of access to the contents of the World Bank guidelines on resettlement.[195] As David Szablowski noted Compania Minera Antamina (CMA) did not inform local residents on complaint procedures available for them through Multilateral Investment Guarantee Agency (MIGA)

*Chile*

Displacements in Chile have resulted from copper-mining development in this country. The most notable case is the resettlement of over 3,000 families from the mining town of Chuiquicamata to the nearby city of Calama situated in Northern Chile. This operation and the building of 2,400 new homes in the Southern suburbs of Calama will cost the Cadelco company more than 220 million dollars.[196]

Bolivia

The most famous example of involuntary resettlement in Bolivia concerns the Ayllu Jesús de Machaca

192 D. Szablowski, "Mining, Displacement and the World Bank: A Case Analysis of Compania Minera Antamina's Operations in Peru", *Journal of Business Ethics*, Vol. 39, No. 3, 2002, pp. 247-273; see also: V. Parker, *Rio Tinto and Madagascar – is it equitable?*, London Metropolitan University, MBA Diploma in Business, 2008, p. 13; available at: http://www.andrewleestrust.org/Reports/QitFer%20Minerals%20Madagascar.pdf.
193 M. Salazar, "A Mining Town`s Woes", http://ipsnews.net/news.asp?idnews=45319.
194 D. Szablowski, "Mining, Displacement and the World Bank: A Case Analysis of Compania Minera Antamina's Operations in Peru", *Journal of Business Ethics*, vol. 39, no. 3, p. 247-273.
195 Anthony Oliver-Smith, *Defying Displacement. Grassroots Resistance and the Critique of Development*, University Of Texas Press, 2010, pp. 88.
196 Arne Kristoffer Bayer and Reik Michael Winkel, "Come to where the copper is – Modern ore mining in Chile", see:http://www.imr.rwth-aachen.de/downloads/200411surfaceminingchileexkursion.pdf; see: "Codelco's Chuquicamata resettlement to cost US$ 200mn"; http://www.bnamericas.com/news/mining/Codelco's_Chuquicamata_resettlement_to_cost_US*200mn.

indigenous community in the La Paz Department (about 300 inhabitants in 2005). In 2005, Coeur d'Alene Mines Corporation resettled several families in this village in order to construct a tailings facility for its silver mine. Resettlement took place without the provisions of World Bank guidelines for the involuntary resettlement of indigenous people. The problem for indigenous peoples was particularly the privatization of pastoral lands they had previously used. In July 2008, affected people took to protests, demanding an independent evaluation of the environmental consequences of the project, protecting the rights of indigenous peoples to bigger participation in local development.

Guatemala

The Marlin gold mine in San Marcos, Guatemala, (owned by Goldcorp Inc. of Canada) has generated much controversy among Mayan indigenous communities. Open-pit mining has caused many problems including deforestation, water depletion, forced displacement, destruction of homes, water and air contamination, loss of access to farming land (through illegal land acquisition), and health problems. Environmental and social consequences of the project were the cause of large protests occurring in the region in 2007. In 2008, the impact of open-pit mining on local communities and the environment were examined by the Latin American Water Tribunal.[197]

**North America**

Parallel to other categories of DIDR (i.e. dam-induced displacement), the social consequences of mining are not a serious problem in the United States and Canada. The only significant displacement was the consequence of lignite mining expansion in the U.S. The tradition of individualism, effective courts, and well-established property rights can block resettlements that are socially detrimental. Any attempt to carry out this kind of investment may result in multiple trials ending with huge monetary compensations. The fear over consumers' opinion creates a situation where no American corporation can afford unpopular environmentally inappropriate practices and actions. This so-called corporate social responsibility (CSR) is a major breakthrough and a step forward from the pure, anti-social pursuit of money. In Mexico, mining-related displacements are conducted on a very limited scale. The much greater problem there is resettlement caused by dam construction (Miguel Aleman Dam) and exploitation of oil.

**Europe**

Resettlement caused by mining is the only major category of development-induced relocations observed in contemporary Europe. Particularly important are open-pit brown coal mines in Germany, Poland, and

197 J. van de Sandt, *Mining Conflicts and Indigenous Peoples in Guatemala*, Cordaid, September 2009, available at: http://www.ciel.org/Law_Communities/Guatemala/Cordaid%20Guatemala%20brochure%20UK-DEF.pdf

recently in Serbia and Kosovo. The best known example of population displacement involved the creation of the Garzweiler open-pit mine (Tagebau Garzweiler—operated by *Rheinisch-Westfälisches Elektrizitätswerk AG*) in the North-Rhine Westphalia.[198] Taking into account the amount of compensation and the effectiveness of legal institutions, resettlements in Europe are not a main social problem or a human rights issue. As elsewhere in the controversy raises the amount of compensation and social losses. Problems of the German and Polish energy sectors may still lead to the development of lignite mines, which will probably raise opposition from environmental organizations and many residents. Controversies of this kind are particularly visible in Germany—a country with a long tradition of ecological movements and strong political influence of the Green Party. Projects related to potential environmental hazards and social problems often encounter criticism from the institutions of the European Union.

*Germany*

Germany is currently the world leader in lignite production, which was estimated at about 169,4 million tonnes (52.3 Mtce) in 2010. The beginnings of industrial-scale lignite mining can be dated back to the mid-twenties of the last century. The lignite industry has developed both in the German Democratic Republic and the Federal Republic of Germany. Lignite mining was located in four main regions: 1. the Rhineland mining region (around Cologne, Aachen, and Mönchengladbach); 2. the Lusatian mining region (in South-Eastern Brandenburg and North-Eastern Saxony); 3. the Central German mining region (Southern and Eastern Saxony-Anhalt and Northwest Saxony); and 4. the Helmstedt mining region (Lower Saxony). The increasing scale of mining, caused by industrial development, came with huge social costs and irreversible environmental changes. According to Jeffrey H. Michel, the development of German lignite mining has already led to the destruction of more than 300 communities and the resettlement of about 100,000 people.[199]

According to specialists, more than 25,000 inhabitants of Lusatia (Lausitz) have been forced to change their place of residence as a result of the lignite industry. The Green League (Grüne Liga), an ecological organization established in 1989 and located in Postdam, suggested that the development of Lusatian lignite mining has totally destroyed 81 communities and forced the relocation of over 25,000 people.[200] A particularly vital example of the struggle against resettlement were the protests of the inhabitants of Horno village. In 2005, they were resettled to Neu Horno, a newly built settlement located 10 km away.[201] Another well-known example of such practices was the village of Haidemühl which became the object of mining-

198 More on displacement caused by Garzweiler II open-pit mine see: C.M. Hall, S.J. Page, *The Geography of Tourism and Recreation. Environment, Place and Space* (Second Edition), Routledge, 2005, p. 293; G. Bhargava, *Environment and Its Global Implications*, Kalpaz Publication, 2002, p. 121.
199 J. H. Michel, *Status and Impacts of the German Lignite Industry*, the Swedish NGO Secretariat on Acid Rain, Göteborg, 2008, pp. 17; see also: "Resettlement in Lignite Mining" available at: http://www.externe.info/oldvolumes/vol32c1012.pdf.
200 R. Schuster, "Lebensrecht für die Rotbauchunke", Grüne Liga, Postdam, June 2004.
201 Lignite Mining in Lausitz: http://www.johanbergstrom.com/smoke/about.html; In 2005 also displaced the residents of Haidemuhl community.

induced resettlement of 650 inhabitants that took place between 1999 and 2006. According to other estimates (*Domowina*), since 1924 onwards 123 villages and smaller settlements in Lusatia have been destroyed by the development of open-cast mining during which 22,000 people were resettled.[202] Furthermore, the development of mining in the states of Brandenburg and Saxony could have led to additional subsequent forced displacement. Among the investments planned by 2015 we can mention open-cast mining in Jänschwalde-North (900 inhabitants), Nochten (1500 inhabitants), and Welzow (1000 inhabitants).[203]

According to Bilkenroth and Snyder, mining has contributed to the destruction of 120 communities and the resettlement of 47,000 people in Middle Germany.[204] In Southern Leipzig alone, 66 villages, farm communities, and settlements were destroyed and more than 23,000 people resettled since 1924.[205]

Research conducted by the organization Friends of the Earth (Bund für Umwelt und Naturschutz Deutschland, or BUND) in the Rhineland indicated that more than 56 villages were destroyed by 1985 and 30,000 people were displaced (according to other sources, there were 'only' 25,000 displaced people)[206]. By 2045, twenty villages (12,000 people) will be pushed elsewhere by the development of brown coal mining.[207] Much controversy has arisen over the prospect of mass resettlement in association with the development of the Garzweiler II open-pit mine, located in North-Rhine Westphalia. It is estimated that the development of Garzweiler II might displace 7,600-12,000 people by 2045. As Mark Cioc noted, "Since 1952, over fifty towns and villages have been moved, and nearly 30,000 humans displaced, to make room for new mines and power plants, including the towns of Bottenbroich, Berrenrath, Mödrath, Grefrath, Habbelrath, Morken-Harff, Konigshoven, Lich-Steinstrab and Garzweiler."[208] The relocation of the inhabitants of Berrenrath in 1952 was another famous example of mining-induced displacement.

The development of lignite mining, ongoing in Germany for several years, has led to major environmental problems. Therefore, current ideas of switching to alternative energy sources, more eco-friendly and much less costly in social terms, is a good sign and a step forward. However, it is still not certain whether the foreseen shutdown of nuclear plants will be accompanied by limiting the development of brown coal open-cast mining. Brandenburg protests against the planned construction of a nuclear power plant in Poland are steeped in controversy, despite its claims of providing an energy source which is much safer, healthier, and less socially detrimental.

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202 Y. Jennerjahn, "Bald rollen die Bagger in Horno", Evangelische Pressedienst, Berlin, 2003;
203 "Vattenfall's planned CCS demonstration plant is not a sustainable energy solution", http://www.lausitzer-braunkohle.de/english.php.
204 K-Dieter Bilkenroth, D.O. Snyder, Der Mitteldeutsche Braunkohlenbergbau - Geschichte, Gegenwart und Zukunft, Theißen, 1998, p. 29.
205 "Durch den Bergbau verlorene Orte südlich von Leipzig", see: http://www.heuersdorf.de/.
206 "Bund für Umwelt und Naturschutz Deutschland, Landesverband Nordrhein-Westfalen", see: www.bund-nrw.de/braunkohle; see also: http://www.mining-technology.com/projects/rhineland/.
207 See: "Waste Land (Otzenrather Sprung)", http://www.maschafilm.de/en/waste_land.html.
208 M. Cioc, *The Rhine. An Eco-Biography 1815-2000*, University of Washington Press, 2002, p. 101.

*Poland*

Poland is the world's leading producer of brown coal (59.5 million tonnes as of 2001–sixth place in the world). For over 60 years, the emergence of open-cast sites has been associated with a massive compulsory relocation of local residents. Even an approximate explication of the problem is impossible due to the absence of accurate statistics. It is, however, a well-known fact that between 1968 and 1984, the expansion of open-cast mining has led to the displacement of 28 large villages. Therefore, we estimate that in the last sixty years the mining of brown coal has resulted in the displacement of at least 30,000 people. Poland's lignite mining industry is located in four main areas: Konin, Turow-Bogatynia, Belchatow-Szczercow, and Sieniawa Lubuska. Poland has also the largest (and so far unexploited) lignite deposits in the world (in its Legnica-Prochowice-Scinawa region). Plans for future exploitation assume the resettlement of up to 20,000 people.

Poland's energy problems push political decision-makers to further diversification of energy sources; the planned construction of a nuclear power plant is aimed at balancing the exploitation of brown coal. According to experts, coal reserves in existing deposits may start to run out after 2022. This implies the establishment of new mines in the area of Legnica, which is likely to lead to the relocation of at least several thousand people. According to specialists, the resettlement of 3449 people and the demolishing of 1752 buildings will be necessary for the construction of a new lignite mine in Legnica.[209] Some forecasts contend that the emergence of a new basin will be much more costly in social terms, forcing over 20,000 people to relocate. The possibility of basing the economy upon alternative, renewable energy sources (like green energy) is in fact very limited. Government sources in Poland emphasize the role of brown coal in the energy economy of the country and the need for exploitation of new deposits in anticipation of the drastic 2025 drop projected in productivity in former mining areas.

*Kosovo*

As Besnik Haziri noticed, lignite is the source of 97 percent of domestic energy production in Kosovo. Extraction of this resource is a key element of national energetic independence.[210] The major villages affected by potential displacement are: Hade, Lajthishte, Palaj, and Sibovc (approximately 5700 people in total).

*Serbia*

The annual production of lignite in Serbia in 2001 amounted to 35,5 million tonnes. By 2010, the

209 See: http://gornictwo.wnp.pl/ilu-ludzi-trzeba-przesiedlic-aby-zbudowac-kopalnie-legnica,101323_1_0_0.html.
210 See. B. Haziri, "The Resettlement Process in the Lignite Mining Areas of Kosovo", p. 13.

development of open-cast mining in this country had affected 4 villages, inhabited by approximately 1,300 people.[211] The most famous example of mass resettlement was the relocation of Vreoci (3210 inhabitants), caused by the expansion of the Kolubara lignite basin.[212] According to Zekovic and Vujosevic, potential expansion of Kolubara lignite requires the relocation of 1,920 households, with about 5,670 inhabitants, most of them in Vreoci (1,030 households), Zeoke (276 households), Medosevac (122 households), Little Borak (115 households), Radljevo (84 households), and Sarbane (83 households). The program for resettlement was written in 2008; however, it is not completely compatibile with the World Bank directives on voluntary resettlement.[213]

**Conclusions and Recommendations**

As Theodore E. Downing contends, MIDR is a problem that has been duly and thoroughly penetrated in the last 40 years. Yet this theme still remains marginal from the perspective of human rights. It is extremely seldom that it is undertaken on the agendas of international institutions and agencies like the UN or UNHCR. Let us note, however, the beginnings of broad interest in the subject at the international level. In February 2012, in the forum of the United Nations, much concern was expressed about the huge social and environmental impacts of the establishment of the Phulbari coal mine in Bangladesh.

Mining-induced displacement exists in several dozen countries around the world. Yet only in developing countries does it lead to numerous negative consequences. Thus, the effects of displacements should be given due consideration in order to avoid unemployment, homelessness, the decomposition of local structures, and the atrophy of national heritage. Below, I present a general outline of activities relevant to limiting impoverishment caused by mining. Their realization requires a systemic outlook and the cooperation of many actors: 1. national administration at the local and central level; 2. non-governmental organizations; 3. the business sector; 4. international agencies dealing with human rights and humanitarian issues; and finally 5. local communities. Among the actions aimed at mitigating negative consequences of MIDR the following should be undertaken:

1. Debate about MIDR must be internationalized. Connecting MIDR to human rights, humanitarian issues, environment protection, and sustainable development is a crucial matter. So far there has not been a serious and adequate discussion of this issue on the international forum. Research into development-induced displacement is reduced to the consequences of

211 See: B. Haziri, "The Resettlement Process in the Lignite Mining Areas of Kosovo", p. 6, https://ritdml.rit.edu/bitstream/handle/1850/11809/BHaziriCapsProj02-23-2010.pdf?sequence=1.
212 J. Petrić, "Residents` Viev on Resettlement Issue of Vreoci- Sustainability or Phrases", *Spatium*, 2005, p. 12-17.
213 S. Zekovic, M. Vujosevic, "Impact of Risk and Uncertainty on Sustainable Development of Kolubara Lignite Basin", Proceedings of the 4th IASME / WSEAS International Conference on Energy and Environment, 2009; see also: T. Maričić, "Implementation of Strategic Environmental assessment in Serbia-Case of Spatial Plan of Kolubara Lignite Basin".

dam building, and MIDR is debated in the context of only a few countries.

2. The development of mining should generate profits for the widest group of beneficiaries. Much remains to be done to ensure that mining will contribute to the economic advancement of the whole region, for example, by a reduction in energy prices. Social development is another key element of the presented strategy, by which I mean education, new workplaces, and the substantial improvement of social services.
3. Displacement plans ought to be implemented in an exhaustive and proper manner. The business sector must bear adequate costs of their realization. They cannot be done chaotically, but should rather proceed according to the World Bank directives on involuntary resettlement.
4. Every effort should be made to integrate the displacees ('outsiders') with local communities ('insiders') in their new residences. Ethnic and cultural differences are a probable cause of conflict.
5. The social and economic situation of those resettled must be monitored long after the displacement. Mines ought to take responsibility for the fate of displacees, by, for instance, providing them with work.
6. Resettled people should be empowered to negotiate the terms of resettlement with administrative mining bodies. Their position during such discussions is plainly asymmetric and they have no real means enabling them to affect the final outcome. Greater symmetry can be achieved, however, by easier access to low-cost legal assistance and with the engagement of non-governmental organizations. The negotiation of economic principles according to which displacements proceed plays a key role in assuring their future situation. The total advantage of businesses in the resettlement processes may lead to the economic marginalization of displaced people.
7. Displacees should be informed about their rights, granted by the World Bank guidelines on involuntary resettlement.
8. Furthermore, they should be acquainted with potential economic and social risks. Predicting negative environmental phenomena becomes relevant as well. Mines and local authorities might mobilize people to participate in professional education programs in order to limit the risks associated with their situation after displacement.
9. Resource exploitation should be based upon the principles of sustainable development and be as eco-friendly as possible. Another important issue is the implementation of corporate social responsibility directives in the mining sector.
10. Financial compensation should contribute to the development of local areas. People must have the opportunity for (and be encouraged to) entrepreneurship so as to avoid emigration. Micro credits can play a crucial role too.
11. The business sector and local authorities ought to constantly control whether mining-caused displacement leads to homelessness and unemployment.

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**Summary**

Contemporary economic development leads to a significantly greater scale of resettlement than just a decade ago. Over the last sixty years, the global scale of development-induced displacement and resettlement has grown to an estimated 250-420 million people. Over fifteen million people each year are forced to leave their

homes following big development projects (dams, irrigation projects, highways, urbanization, mining, national parks, etc.). Anthony Oliver Smith goes even further in estimating that current scale of DIDR amounts to 15 million people per year. The annual scale of development-induced displacement greatly outnumber the other categories of internal displacement: conflict-induced displacement and environmentally-induced displacement. There are at least eight main causes of DIDR: 1. hydrological projects (e.g. the construction of dams, irrigation projects, the creation of artificial reservoirs); 2. the construction of communication networks (e.g. highways, roads, railways); 3. urbanization; 4. agricultural expansion (including the creation of large monoculture plantations); 5. the creation of national parks, biosphere reserves, and other protected wildlife areas; and 6. mining (especially the creation of open-pit or open-cast mining).

Mining is currently not a statistically significant category of development-induced displacement. Nevertheless, the social costs of exploitation are great, and that is why the topic is worthy of a wider and more profound scientific analysis. The first displacement caused by mining dates back to the late nineteenth century. As pointed out by Walter Fernandes, in the Indian region of Jarkhand alone, mining has led to the displacement of 2.55 million people. Contrary to the opinions of some specialists, the problem of mining-induced displacement and resettlement is a global problem, occurring on all continents. Countries with particularly large-scale MIDR include: India, China, many African countries (e.g. Ghana, Botswana), and even Indonesia and Papua New Guinea. The problem of forced displacement is also a consequence of open-pit coal mining in European countries like Germany and Poland. Although mining-induced displacement is a global phenomenon, problems experienced by the displacees in many parts of the world differ greatly. The largest portion of the displacement is caused by open-pit mining (associated with the extraction of lignite, copper, and diamonds).

Social problems affecting displaced people are divergent depending on where they live. Resettlement caused by mining is a part of the broader context of development-induced displacement and resettlement. The poor situation of displacees may be the result of several factors such as inadequate compensation, chaotic plans of resettlement, and lack of systemic social support in the new place of residence. Wealthy western countries, with a democratic form of government and significant citizen participation in government, are characterized by much higher standards of resettlement than Asian or African countries.

Mining-induced displacement violates many human rights, especially those of an economic and social nature. Among the common problems we can find are: 1. inadequate compensation for lost property; 2. lack of participation of local communities in the division of profits from the exploitation of resources; 3. infringement of social and cultural rights (especially indigenous and tribal people); 4. cultural devastation caused by resettlement; 5. violation of housing rights; 6. violation of other rights such as economic, social, and cultural ones (e.g. lack of access to education in the new place of residence, lack of access to social

facilities). Simultaneously, the problems of displaced people are linked to the typical consequences of development-induced displacement in other categories of problems (such as the right of local communities to share in the profits of the exploited resources). The social consequences of MIDR are an extremely important and highly underrated human rights issue.

Forced population resettlement is, in fact, not the only negative consequence of mining. An equally significant group of people are indirectly affected by its consequences. Among such negative effects are: mining damages; loss of quality of agricultural production; problems with water; health risks; and land pollution. Many of these problems indirectly force people to migrate.

## Annexes

**Annex A.**
**Selected municipalities displaced as a result of mining development:**

| Country | City |
|---|---|
| **Ghana** | Atuabo |
| | Abekoase |
| | Akontanse |
| | Bodwire Agya |
| | Damang |
| | Huniso |
| | Kojokrom |
| | Kyekyewere |
| | Mandekrom |
| | Nkwantakrom |
| | Sofo Mensakrom |
| | Tarkwa |
| | Teberebie |
| **India** | Baranj Mokasa |
| | Borua Tola |
| | Borwa Tola |
| | Budna Tola |
| | Chak Branj |
| | Chichordi |
| | Damanjodi |
| | Duru Muslim Tola |
| | Duru Kasmar |
| | Ganju Tola |
| | Jaduguda |
| | Jharna Tola |
| | Jogwa Tola |
| | Muslim Tola |
| | Sonora |
| | Sonu Guttu |
| | Sukrigud |
| | Turi Tola |
| | Upper Dera Tola |
| **Germany** | Berrenrath |
| | Garzweiler |
| | Grefrath |
| | Habbelrath |
| | Haidemühl |
| | Horno |
| | Konigshoven |
| | Lich-Steinstrab |
| | Morken-Harff |
| | Haidemühl |
| | Mödrath |
| **China** | Look Niu |
| | Korng Hak |

| | |
|---|---|
| | Kung Nim |
| | Mong Khamg |
| | Nam Arng |
| | Nam Par Moong |
| | Nam Poon |
| | Paeng |
| | Peng Oo |
| | Ta Sarm Poo |
| | Wan Parmg |
| **Mali** | Farabakouta |
| | Niamboulama |
| | Sadiola Hill |
| | Yatela |
| **Serbia** | Vreoci |
| **Sierra Leone** | Foinda |
| **Republic of South Africa** | Ga-Pila |
| | Motlhotlo |
| **Zimbabwe** | Chiadzwa |
| **Mozambique** | Moatize |
| **Philippines** | Kasibu, Nueva, Vizcaya, Igorot |
| **Bolivia** | Ayllu Jesus de Machaca |

Source: T.E. Downing, J. Moles, I. McIntosh Ian and C. Garcia-Downing, *Indigenous Peoples and Mining: Strategies and Tactics for Encounters*, International Institute for Environment and Development, London, 2002; T.E. Downing, *Avoiding New Poverty: Mining-Induced Displacement and Resettlement*, International Institute for Environment and Development, London, 2002.

**Annex B.**
**The most well-known examples of mining-induced displacement and resettlement around the world:**

| Region/Country | Type of resource |
|---|---|
| **Tarkwa region (Ghana)** | Gold mining |
| **Jharkhand, West Bengal and Orissa regions (India)** | Coal and copper mining |
| **Andhra Pradesh (India)** | Bauxite industry |
| **Grasberg Mine, Ok Tedi Mine, Porgera Mine (Papua Island)** | Gold, silver and copper mining |
| **Peru** | Copper mining |
| **Chile** | Copper mining |
| **Germany (100,000 people resettled over the last sixty years)** | Lignite industry |
| **Poland** | Lignite mining |
| **Philippines** | Coal mining |
| **Zimbabwe** | Diamond mining |
| **Mozambique** | Coal mining |
| **Mali** | Gold mining |
| **Namibia** | Copper and gold mining |