

The Impacts of Development-induced Displacement on Human Security

a study of dam finance

Georg Caspary

Dam construction can severely impact human security by inducing forced displacement. Financial institutions therefore need to integrate individual security considerations into their decision-making process.

THIS ARTICLE WILL DISCUSS HOW development-induced displacement can severely impact human security. It will then present evidence on the relative success of a number of financing institutions engaged in projects that lead to development-induced displacement, examining to what extent these financing institutions have put in place appropriate mitigation and monitoring mechanisms to counter the negative impacts on human security. The example with which this will be illustrated throughout the article is the example of large dams—arguably one with the highest impact.

HOW DEVELOPMENT-INDUCED DISPLACEMENT IMPACTS HUMAN SECURITY

First, a broad conception of human security that is in line with interpretations of human security such as the one cited by Bajpai, encompassing impacts such as deprivation of the fulfilment of basic needs, disease or displacement, is needed.¹ According to Bajpai, human security goes

far beyond the traditional state-based security paradigm set out in realist², liberal realist, or neorealist theories,³ accepting the individual as the primary referent of security (with security of the state serving the security of the individual, rather than security of the state being an end in itself).⁴ Moreover, this concept of security also goes beyond traditional ideas of security, believing the threats to security go beyond the military; instead these threats are economic, environmental and cultural (the viewpoints grouping such non-military factors under the security concept are sometimes referred to as ‘comprehensive security’).⁵

Here the type of threat to human security that will be explored is development-induced and leads to the displacement of persons. In line with security literature such as the Independent Commission on Disarmament and Security Issues⁶, this article will argue that development interventions (defined as the financing and implementation of development projects or policies by national governments or development agencies, such as the World Bank) may, via the ‘comprehensive’ set of security threats

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affect human security. In particular, of course, the article makes references to those scholars who have previously argued that the security paradigm may apply to (forced) migration.⁷

Thus, in junction with the broadening of security literature and the conception of security and possible threats, this article recognizes the now widely-accepted view among development researchers and policymakers of a need to weigh other factors besides those linked to economics and financial gain when considering development.⁸

Table 1 below summarizes the direct violence as well as the indirect violence that may affect human security.⁹ Development-induced displacement

brought about by dams affects human security via all the indirect violence factors mentioned in the table's second column; affected communities may lose access to safe drinking water, as the dam lowers local water quality; may experience higher incidences of disease, as the dam's reservoir provides a breeding ground for insects carrying diseases such as malaria; may experience disasters, such as the dam breaking; may be displaced as the ground is prepared for the dam and the reservoir and may experience environmental degradation, as the reservoir and changes in the streamflow alter or destroy local ecosystems.¹⁰

TABLE 1: DIRECT AND INDIRECT VIOLENCE AFFECTING HUMAN SECURITY

Direct Violence

- All forms of violent death / disablement, including war
- *Dehumanisation*, including e.g. slavery and trafficking in humans or use of child soldiers
- Discrimination and domination, including e.g. discriminatory laws or practices

Indirect Violence

- Deprivation of access to basic needs and entitlements (including food and safe drinking water)
 - Incidence of diseases
 - Natural and man-made disasters
 - Population displacement
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KEY DAM IMPACTS ON HUMAN SECURITY

Large development projects—or large infrastructure projects in the transport, energy or water sectors—have, despite their potential for development, strong, negative, social side-effects. While the concept of human security remains somewhat diffuse or even poorly defined,¹¹ for some broader conceptions of human security, large development projects can be said to have profound impacts on human security by causing displacement. These negative impacts come a) from people having to be resettled to make way for the project and b) from secondary effects of the project on people's livelihoods even in the new lands that they settle in. For instance, transport projects such as highways, airports or railway lines use up considerable amounts of land that may previously have been

housing communities or used for activities such as through hunting, gathering or agriculture. Power plants of any kind may have less severe land-use effects but will often have other negative effects on their surroundings, including on those lands onto which displaced people are likely to settle. Dangerous emissions from fossil fuel-powered plants are the most prominent example but only one. Even “clean” energy sources such as wind power have important impacts—taking up vast areas of land and having strong impacts on the look of the landscape.

Dams, the type of development used here to illustrate, have vast human security impacts because of the development-induced displacement, which results. The overall global level of physical displacement from dams could range anywhere from 40 to 80 million.¹² According to official Chinese

government statistics, dams have displaced 10.2 million people in China between 1950 and 1990 (which is 34 percent of all development-related displacement in China during that period, including all displacement due to urban construction).¹³ Independent sources estimate that the actual number of dam-displaced people in China is much higher than the official figure, with 10 million displaced in the Yangtze Valley alone;¹⁴ the level of displacement increased substantially after 1990 with the construction of projects such as Three Gorges dam project. Similarly, large dams in India have displaced an estimated 16 to 38 million people in the same time period.¹⁵ Finally, among the projects involving displacement funded by the World Bank, large dams account for 63 percent of displacement worldwide.¹⁶

Until the mid 1970s, all resettlement matters in the context of dam building were solely the responsibility of the state authorities, even where



foreign institutions (such as the World Bank or other international financing institutions) were involved. Gradually, over the two decades to follow, it became internationally accepted practice—notably for development agencies represented in the OECD Development Assistance Committee—to incorporate resettlement into the projects and to set quality standards for its implementation.¹⁷

Problems for the communities in the project's path begin long before the dam is in the construction phase. There tends to be a long lead up to building a

dam. During this time, however, private investment plummets and banks already refuse to give loans to members of likely-affected communities. For instance, the Tehri Dam in India was first envisioned in 1949, detailed investigations were made in 1963 and construction started in 1978. The first phase of reservoir filling began in December 2001.¹⁸ In other words, the development prospects of the affected communities—and ultimately their human security—have been severely hampered for several decades prior to the actual displacement.

Even if cash compensation ends up being provided and is adequate, it is often ineffective.¹⁹ For example, cash compensation cannot wholly make up for the people's loss of the land where they previously lived, for example a spiritual element connected to the land as was the case in several of the dams studied, such as the Panguue Dam in Chile. Another problem is that many rural communities in developing countries tend to rely heavily on common property resources, which are rarely provided at resettlement sites. Some prominent sociologists argue that dam-induced involuntary displacement may affect some communities and cultures so dramatically that they have termed it 'social impoverishment'.²⁰

Arguably the key problem that communities face is that of finding new livelihoods after the dam has destroyed traditional livelihoods—notably if the reservoir covers a valley which was until then used for hunting and gathering, agriculture or less common activities such as gold panning. Dams tend to have temporary positive employment impacts in the region concerned.²¹ However, given the engineering qualifications required for the operating staff, only a minority of these tend to be retained once the dam is operating.

THE CURRENT LACK OF KNOWLEDGE ON ECONOMICS OF RESETTLEMENT

Resolving the problems raised by forced displacement (caused by dams or other types of large development projects) is made more difficult by the

Box 1:*The most frequent forms of reported under-compensation*

- Undercounting of assets for which compensation is due (Mahapatra 1999; Parasuraman, 1999)
- Arbitrary valuation of assets (Nayak 2000; Ota and Agnihotri 1996).
- Non-recognition of non-physical or non-market losses or methodological difficulties in measuring these adequately (Koenig and Diarra 2000; Pandey et al 1998)
- Costs arising from temporary assetlessness due to late payment of compensation (Mahapatra 1999; Guha 2001; Gibson 1993)
- Diversion of compensation money by officials (Maybury-Lewis 2003; Parasuraman, 1999)
- Upward changes in asset prices after compensation has been paid (e.g. sudden rise in land price due to sudden rise in demand) (Downing and Garcia-Downing 2002)

distribution of either costs or benefits among project stakeholders is often ignored.

A requirement for considering dam-induced displacement during the process would be a large improvement but would likely stop most dam projects from taking place. Nevertheless, according to Cernea, economists have arrived conceptually at an uneasy compromise by using distributionally-sensitive weights to evaluate the gains and losses of a project. Yet, Cernea argues, systematic use of such weights in project appraisal or cost-benefit analysis is rare in practice.²³

One key problem is that many compensation mechanisms have failed to adequately compensate those affected; the sum provided is often less than what is necessary to

fact that economists have traditionally overlooked population displacements as a dysfunctional by-product resulting from dam construction or other large infrastructure projects. Given the high stakes, the lack of basic research by professional economists on population displacement is surprising. Similarly, at a practical level, there are hardly any specialist techniques available for economic and financial analysis of resettlement operations at the project level.

The absence of economic research partly explains the obsolete methodology of economic and financial analysis employed in the planning of involuntary resettlements and thus accounts for some of the enormous difficulties and failures of such operations. As Cernea notes, "The method of cost-benefit analysis, and the conventional project risk and sensitivity analyses used in projects entailing resettlement, are incapable of answering displacement's economic and financial challenges and in practice tolerate the structural under-financing of resettlement options."²² Cost-benefit analysis fails, because it justifies project investments when the estimate of the aggregate of the project's benefits outweigh the sum of a project's costs by an acceptable margin. The

repurchase the assets lost, even when compensation is paid at the replacement cost level. Reasons for this include transaction costs, start-up costs of new activities, limited land markets and raised prices due to sudden demand; Box 1 indicates some further reasons according to the displacement research literature. In other words, the "(...) magnitude of the combined material and non-material impoverishment risks and losses experienced by those displaced far exceeds the redeeming powers of narrow compensation-centered solutions offered by conventional economics."²⁴ Therefore, the relevant authorities cannot rely on compensation alone. Targeted investment financing is necessary to aid the development process in taking root in the post-displacement phase. This was done in the case of the Cana Brava dam; for Cana Brava, the relevant authorities targeted investments the local 'hard' infrastructure (e.g. rehabilitation of roads and bridges) and 'social infrastructure' (e.g. building schools or health centres) of the affected communities and provided initial investments in income opportunities in farming or animal husbandry. Generally, the key areas in which economic research needs to progress with

respect to remodeling the resettlement process and calculating fair compensation is a true evaluation of risk analysis, cost analysis, the internalization of costs, poverty mapping, distributional inequities, the design of safety nets and rationale for financial investments in reconstruction.²⁵

THE RESPONSE OF (DEVELOPMENT) FINANCING INSTITUTIONS

Financial institutions, which continue to be key in providing monetary and technical assistance for large development projects (including dams) in developing countries, have come under increasing pressure from civil society groups to address these problems.

There are three main kinds of public financial institutions (PFIs) involved in financing dams in developing countries: multilateral development banks; OECD-country bilateral public financing institutions, consisting mostly of Export Credit Agencies (ECAs) and developing country PFIs, notably national development banks.

In addition, a set of data on PFIs that are heavily involved in dam financed is therefore taken into consideration in drawing conclusions. The findings here presented²⁶ evaluate the efforts of these institutions at addressing the negative impacts of dam-induced displacement at two levels—firstly the level of institutional policies and secondly the level of actual dam projects financed by these institutions. For both, the study establishes a set of benchmark criteria against which institutions' performance is measured. These benchmark lists were then completed for a set of financial institutions using written questionnaires, structured interviews and field research. Refer to Table 2 for the evaluative criteria at the institutional policy and to Table 3 at the project level.

Some key elements of a successful mitigation plan, or of effective social mitigation Measures, include a summary of all potentially significant adverse impacts that are anticipated, full details of each planned mitigation measure, references to the anticipated impacts, monitoring and reporting procedures, capacity development, training, clearly defined responsibilities for

mitigation and monitoring and an implementation schedule and cost estimates. Social monitoring concerns the question of whether the living conditions of a displaced population are being monitored adequately. Monitoring serves two prime purposes:²⁷ to ensure that the action is implemented as described in the assessment and to ensure that its actual impact are no greater than those predicted in the assessment. Key social monitoring measures include monitoring of the resettled population with respect to income and of quality-of-life or human development measures—notably those relating to health and availability of education and work.

Taken together, the conclusions drawn in the two tables show that multilateral PFIs have made the greatest progress to date in mitigating and monitoring development-induced displacement in large dam projects. Bilateral PFIs have made less progress on both the mitigation and monitoring front; this is more pronounced at the project level than at the institutional level. In other words, national PFIs have made great efforts to meet the same standards as multilateral PFIs on paper; however they are still considerably lagging behind multilateral and bilateral PFIs on all accounts related to the application of these standards in practice.

This difference in performance between multilateral and bilateral PFIs is mostly explained through the differing settings in which these two types of PFIs make financing decisions. Multilateral PFIs usually accompany a project through the entire project cycle—from the feasibility stage to project completion—and are thus able to influence human security-relevant issues during the project cycle. By contrast, bilateral PFIs (especially Export Credit Agencies) are required to make financing decisions under immense time pressures, namely during the short period between the time the firm in the home country is awarded a contract (e.g. to supply the turbines for a dam) and when a financing solution for the contract has to be found. This likely affects their capacity to influence human security impacts of the projects that bilateral PFIs finance.

The study furthermore revealed a certain ranking among the different institutions studied;

TABLE 2: CONCLUSIONS ON DIFFERENCES BETWEEN MULTINATIONAL AND NATIONAL PFIs (INSTITUTIONAL LEVEL)

Criterion	Progress	Common Remaining Issues
• Efforts in evaluating alternatives	• Greater attention to weighing social impacts early on	• Economic and financial considerations still dominate the decision-making process, even though social impact considerations do play an increasingly important role at the feasibility stage.
• Obligatory social screening	• Social screening now widespread	• Several PFIs still do not cooperate, and there is little progress in adopting social screening at private banks.
• Insistence on site visits	• Reasonable progress among some multilateral PFIs	• Little use of site visits among bilateral PFIs and private financing institutions.
• Existence of guidelines on social impact mitigation	• Guidelines of considerable sophistication in World Bank Group among others.	• No clear guidelines on social impact mitigation in ADB, in a number of bilateral financing institutions and in most private financing institutions.
• Monitoring and evaluation: obligatory monitoring and evaluation of compliance with the social requirements of loans	• Obligatory among all multilateral PFIs bar the ADB.	• Not obligatory in ADB and some bilateral PFIs. Hardly ever obligatory among private financing institutions.
• High degree of importation disclosure	• Several public financing institutions, notably World Bank Group, ADB and Ex-Im Bank, have strong information policy.	• In almost all financing institutions, remaining problems with -timing of release of relevant documents, -translation of information into relevant local languages-ease of accessibility-frequent use by financing institutions of business confidentiality arguments vis-à-vis client to justify lack of adequate information provision.
• Mandatory public consultation	• Almost all multilateral PFIs have strong mechanisms for public consultation.	• Almost all financing institutions still have progress to make on public consultation mechanisms and to ensure that results of public consultation are in fact represented in appropriate changes in project design.
• Evaluation mechanisms	• Strong evaluation mechanisms in almost all multilateral PFIs, as well as in some bilateral institutions	• Projects to be evaluated are rarely selected randomly. Evaluation is rarely done by a wholly independent third party, but rather by a unit within the organization that is independent of operations.
• Grievance mechanisms	• Complex grievance mechanisms present in all multilateral PFIs, as well as in JBIC and NEXI (both Japan).	• Grievance mechanisms still extremely rare among bilateral PFIs and private financing institutions. Recourse to justice for project-affected peoples hardly exists.

TABLE 3: CONCLUSIONS ON DIFFERENCES BETWEEN MULTILATERAL AND NATIONAL PFIs (PROJECT LEVEL)

Criterion	Progress	Common Remaining Issues
• Options assessment included social considerations?	• Options assessment included social considerations in Brazil, Laos, Chile and China case studies, and is widespread among multilateral PFIs.	• Still very rare for the No-Project-alternative to be chosen on basis of social considerations at the Options Assessment stage.
• Social assessment: quality, breadth, timing, public availability.	• Good social assessments usually conducted by multilateral PFIs and some bilateral PFIs (notably Japan).	• Social Impact Assessment often not complete by time project construction starts. Often impossible for social assessment to argue that project should not go ahead. Progress to be made on transparency.
• Quality of social impact mitigation plans	• Good social impact mitigation plans usually prepared by multilateral development banks and JBIC (Japan).	• Many financing institutions often prepare partial Social Impact Mitigation Plans. Progress to be made on transparency.
• Social mitigation measures of loans	• Social mitigation measures applied, to mitigate impacts of forced resettlement itself and medium- to long-term impacts from project.	• Progress to be made on financial resources and appropriate expertise.
• Social monitoring	• Social monitoring frequently conducted.	• Progress to be made on financial resources and appropriate expertise.
• Responsiveness to criticism	• Notably multilateral development banks have tended to be highly receptive to criticism by project-affected people.	• Lip-service (e.g. through set-up of commissions of inquiry) still more widespread than concrete changes in project design in response to criticism.

among multilateral PFIs, the World Bank Group clearly had gone the furthest in addressing the human security threats of development-induced displacement, followed by the ADB, IADB and AfDB respectively. Among bilateral PFIs, three “tiers” of progress emerged. The first (most stringent) tier included the Ex-Im Bank, the Japan Bank for International Co-operation and the German Kreditanstalt fuer Wiederaufbau. The medium tier included USAID, the French COFACE and the Canadian Export Development Corporation. Finally, the third (least stringent) tier included the German Export Credit Agency Hermes and the Austrian OeKB.

PFIs generally have, on the basis of the evidence collected, made much less progress than

either multilateral or bilateral PFIs. This is likely to be explained by the fact that all multilateral PFIs as well as many bilateral PFIs have taken on the task of developing and applying human security-related mitigation and monitoring practices. PFIs, on the other hand, weigh human security impacts and mitigation and monitoring measures in light of the risk of damaging their reputation (see e.g. OECD Environment Committee 2004).

Nonetheless, these results should be seen in comparative terms and should not necessarily mean an endorsement of the policies of the institutions that have ‘done well’ in this study. The conclusions of this study only compare levels of controlling the human security impacts of these institutions. To judge the “correct” level of mitigation and

monitoring of any of the criteria employed, e.g. the precise levels of compensation to be paid, would be a much more complex question.

Thus, one of the key experts consulted by the author of this study, Professor Scudder, argues that none of the institutions analyzed here provides truly sufficient protection for human security. Professor Scudder points to studies—including by the World Bank itself, the ‘best-performing’ institution—which show that the record on restoring incomes after dam-induced resettlement has still been unsatisfactory due to reasons such as those indicated in Box 1.²⁸ Conversely, other commentators, however, would argue that the PFIs scoring relatively high in this study already now have too stringent mitigation and monitoring systems.

Moreover, while there are success stories on some of the criteria employed (e.g. relevant social assessments to gauge ex-ante the likely human security impact of a dam project are by now fairly widespread), others still need to be addressed better. This is particularly the case for appropriate methodologies to calculate and ultimately provide fair compensation, as discussed at length in Section 4 above.

CONCLUSION

Development-induced displacement may impact human security severely. Institutions financing the development projects that give rise to development-induced displacement have a considerable hand in lessening these potential human security impacts of their business. Doing so requires action at various stages of the project cycle, including in the preparatory phase (e.g. by evaluating various project alternatives for their relative human security impact); during the building and operation of the project (through appropriate mitigation and monitoring of human security impacts as

they arise) and ex-post, through evaluation of the longer-term human security and the effectiveness of the mitigation measures. Financing institutions’ motivations should, of course, ideally include a concern for human security itself, but may also include, especially in the case of private financing

institutions, more business-centered risk management focused on reputation.

All in all, the research presented here shows that the record on financing institutions’ success in integrating human security considerations into their financing

decisions is so far only partially positive. In general, great steps forward have been made on paper, with many institutional policies now recognizing these human security impacts and proscribing adequate responses; however, action at the project level is still lagging behind this. Moreover, multilateral financing institutions appear to have made greater efforts than bilateral financing institutions, with the greatest progress still to be made among PFIs.

Current key areas of concern on which improvements are still needed include brining social considerations into a decision-making process still dominated by economic and financial ones, allowing public consultations to be reflected in changes in project design, ending the lack of grievance mechanisms for affected communities, ameliorating the timeliness of social assessments, improving the quality of social impact mitigation and monitoring plans and providing a provision for adequate financing and an expertise to fill them. 

"Financing institutions’ motivations should, of course, ideally include a concern for human security itself, but may also include, especially in the case of private financing institutions, more business-centered reputational risk management."

Notes

¹ Kanti Bajpai "Human Security: Concept and Measurement" *Kroc Institute Occasional Paper* 19 (August 2000).

² Edward Hallet Carr. *The Twenty Years Crisis 1919 to 1939: An Introduction to the Study of International Relations* (Palgrave Macmillan, 1951); Hans Morgenthau. *Politics among nations* (New York, NY: Knopf, 1967).

³ Kenneth Waltz. *Theory of International Politics* (Addison-Wesley, 1979); Stephen Walt. "International Relations: One World, Many Theories" *Foreign Policy* 110 (1998); Robert Gilpin. *The Political Economy of International Relations* (Princeton, NJ: Princeton University Press, 1987).

⁴ Roland Paris. "Human Security: Paradigm Shift or Hot Air?" *International Security* 26.2 (Fall 2001): 87-102.

⁵ Eric Stern. "Bringing the Environment In: The Case for Comprehensive Security", *Cooperation and Conflict* 30. 3 (1995): 211-237; *The Stockholm Initiative on Global Security and Governance, Common Responsibility in the 1990s*. Paper published by the Prime Minister's Office, Government of Sweden, Stockholm (1991).

⁶ The Independent Commission on Disarmament and Security Issues. *Common Security: A Blueprint for Survival* (New York, NY: Simon and Schuster, 1982).

⁷ Astri Suhrke. "Environmental Change, Migration, and Conflict: A Lethal Feedback Dynamic?" in Chester A. Crocker, Fen Osler Hampson and Pamela Aall (eds.). *Managing Global Chaos: Sources of and Responses to International Conflicts*. (Washington, DC: United States Institute of Peace Press, 1996).

⁸ Giovanni Andrea Cornia, Richard Jolly and Frances Stewart (eds) *Adjustment with a human face: Protecting the vulnerable and promoting growth*. (New York, NY: Oxford University Press, 1989); Santosh Mehrota and Richard Jolly. *Development With a Human Face: Experiences in Social Achievement and Economic Growth* (New York, NY: Oxford University Press, 2000).

⁹ Bajpai. 2000. op.cit.

¹⁰ Patrick McCully. *Silenced Rivers. The Ecology and Politics of Large Dams* (London: Zed Books, 1996); World Commission on Dams. *Dams and Development – A New Framework for Decision-Making* (Earthscan, London, 2000).

¹¹ Alex Amouyel. "What is Human Security?" *Human Security Journal* 1 (2006); Gary King and Christopher J.L. Murray. "Rethinking Human Security", *Political Sciences Quarterly* 116.4 (Winter 2001-02): 585- 610.

¹² *World Commission on Dams*. 2000. op.cit.

¹³ Asian Development Bank. *China Resettlement Policy and Practice- Review and Recommendations*. Draft, Regional Technical Assistance Project (Asian Development Bank, Manila, 1999).

¹⁴ Jun Jing. *Displacement, Resettlement, Rehabilitation, Reparation and Development*. China Report to the World Commission on Dams

¹⁵ W. Fernandes and V Paranjpye (eds.). *Rehabilitation Policy and Law in India: A Right to Livelihood*. (Pune, New Dehli, ECONET, Indian Social Institute of Energy, Idaho Operations Office, 1997).

¹⁶ World Bank, *Resettlement and Development. The Bankwide Review of Projects Involving Involuntary Resettlement. 1986-1993*. Paper 032, Environment Department Papers, Environment Department. Washington, DC: The World Bank (1996).

¹⁷ OECD. OECD DAC Guidelines on Aid and Environment No. 3: *Guidelines for Aid Agencies on Involuntary Displacement and Resettlement in Development Projects*. (Paris: OECD, 1992).

¹⁸ Vijay Paranjpye. *Evaluating the Tehri Dam – an extended Cost Benefit Appraisal*. (Indian Natural Trust for Art and Cultural Heritage, Delhi, 1988).

¹⁹ Michael Cernea Risks. "Safeguards, and reconstruction: a model for population displacement and resettlement" in Cernea, M. M. and McDowell, C. (eds.), *Risks and Reconstruction: Experiences of Resettlers and Refugees* (Washington DC: The World Bank, 2000); Michael Cernea and Kanbur Ravi. "An Exchange on the Compensation Principle in Resettlement ", Working Paper, Department of Applied Economics and Management (Cornell University: Ithaca / NY, 2002).

²⁰ Theodore Downing. "Mitigating Social Impoverishment when People are Involuntarily Displaced" in McDowell (ed.) *Understanding Impoverishment: The Consequences of Development-Induced Displacement*, 1996.

²¹ International Committee on Large Dams (ICOLD): *Dams and Environment – Socio-Economic Impacts*. Bulletin 86, Paris (1992).

²² Michael Cernea. "The Economics of Involuntary Resettlement – Questions and Challenges." *Economic & Political Weekly*. India. (1999).

²³ Cernea. 2000. op.cit.

²⁴ Cernea. 2000. op.cit.

²⁵ Cernea. 1999. op.cit. 6

²⁶ Based on Georg Caspary. *Institutional incoherence in development policy? The case of environmental and social 'safeguard' systems in OECD country public financing for large dams in developing countries*. (Sciences-Po Paris, 2007).

²⁷ World Bank. 1996. op.cit.

²⁸ Clive George. "Environmental Monitoring, Management and Auditing". in Lee, Norman and George, Clive *Environmental Assessment in Developing and Transitional Countries*. (Wiley Publishers, Chichester, 2000).

²⁹ World Bank. 1996. op.cit.

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