



## Colombia, Peru & Mexico Site Level Report 2/4

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**REDUCING  
RELOCATION  
RISK**  
IN URBAN AREAS



**FLACSO**



**dpu**  
Development  
Planning Unit

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## Preface and Acknowledgements

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The present regional report provides a summary of the research findings, conclusions and recommendations on decision making and implementation in cases of population relocation and resettlement under conditions of hydro-meteorological hazard and stress in three large Latin American countries-Mexico, Colombia and Peru. This research endeavor has been undertaken under the institutional sponsorship of the Latin American Social Science Faculty-FLACSO- and comprises the second phase of a project financed by the Climate Development Knowledge Network- CDKN- on the topic of climate induced urban resettlement. A first phase of diagnostic studies was completed in July 2015. Future work will concentrate on the social and economic impacts, the outputs, of resettlement; on developing training modules; on the dissemination of results and on the formulation of policy notions and instruments for promoting balanced and socially inclusive relocation-resettlement in the future. Similar research activities have taken place in Uganda and India under the auspices of the Development Planning Unit-DPU- at University College London and the Indian Institute of Human Settlements-IIHS- in Bangalore. The five country study comprises an integrated whole searching to provide ideas that can and should facilitate improvements in the practice of resettlement where climate change will most surely increase the already very high number of climate hazard prone communities and families in the future.

The present report is based on the coordinated research results provided by Elizabeth Mansilla in Mexico; Angel Chávez in Peru and Omar Dario Cardona and Maria Pilar Perez in Colombia, in the framework of conceptualization, research questions and general ideas and conclusions generated initially by its coordinator, Allan Lavell. Lavell also participated in the research process in the three countries. The text has been revised and commented by Anthony Oliver Smith, project advisor. The complete Spanish language reports of the research findings in the three countries can be found as annexes to this English language summary report. Reading of these is critical in terms of fullness and richness of analysis country by country and comparatively. For ease of reading, the present report will not use bibliographic references unless referring to an aspect not touched on and referenced in those reports, where full bibliographic referencing is available. Our prime reference are the three country reports as such and the analysis and conclusions we derive from them. Our collective thanks to all those in the three countries who gave of their time, knowledge and experience to generate the data, information, knowledge and analysis herein presented. This includes academics, national and local government officials, NGOs, and most importantly the population resident in the studied areas of resettlement or proposed resettlement in the future.



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## Introduction

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Historically, human spatial movement characterizes numerous territories, nations and communities. Relocation and resettlement of whole cultures, large and small towns, communities, individuals and families have been registered or reported worldwide and have been inspired by diverse factors including environmental degradation and the loss of on-site agricultural productivity, famine, war, the promotion of new development initiatives and hazards associated with our natural and not so natural environments. In the latter case those associated with hydro-meteorological hazards due to climate variability and now climate change, have led to the greatest continuous and recurrent social and economic disruption as compared to geological, geophysical and geomorphological processes, despite the more onerous human loss many times associated with the latter processes.

The present research endeavor concentrates on urban communities and populations subjected to processes of relocation or resettlement under conditions of climate and hydrological stress. Although the promotion of such processes can and should learn from experience with resettlement induced by other socially or naturally constructed hazards, our concentration on climate induced movements and processes in urban areas has a clear logic.

Climate variability and the series of large, one off, or medium and small scale more recurrent damaging physical events associated with this (floods, drought, land-sliding, tornadoes, hurricanes, El Niño, etc.) have had important and still rapidly growing impacts on human settlements, social welfare and economic production worldwide. Such impacts are projected to increase in the future if more efficient and deliberate efforts are not directed to reducing them. Climate induced disaster loss is said to account for more than 80% of all loss worldwide in any typical year. With climate change, the magnitude and recurrence of damaging events is projected to increase significantly

with important spatial variance in their occurrence and effects. The magnitude of future climate induced human movement is difficult to estimate, but the numbers have been put in the hundreds, rather than tens of millions. Whatever the magnitude of this movement may be, we do know it will be predominantly a movement towards, within or from one urban area to another. Although lower in Africa and Asia, urban population now accounts for near to 80% of the population of Latin America and is still growing, mainly, but certainly not exclusively, in medium sized cities. Production and population are now predominantly urban and there seems to be no going back in the foreseeable future.

A significant corollary of the climate induced hazard factor and the predominantly urban base of population and production is that urban disaster risk and climate change adaptation needs are the most dominant, even if still relatively neglected or underworked topics, for disaster risk and climate change adaptation specialists and on the ground professionals. Relatively little work has been done on such topics despite the role of urban society throughout the world. Disasters have for many years been seen more through lenses of rural society than urban existence and many NGOs and governments are now busily trying to adapt ideas, thought and instruments for intervention to this “new” reality.

The present report is structured in five major sections. Section one will summarize the principle concepts or notions that inform and finally derive from the research work undertaken in Latin America. This includes ideas on the terminological debate as to relocation and resettlement, on urban resettlement as a component of disaster risk management and this in itself as part of development planning, and as to a typology of resettlement contexts and solutions for urban risk. Here we combine points of origin for our research with conclusions derived from that research summarizing an evolving debate and discussion on how urban resettlement should and could be seen. A second

section provides a summary of the approach taken to research and the methodological aspects of the project as developed in Latin America. A third section provides summary details of the case studies chosen in the three countries.

A fourth section systematizes and summarizes the major findings deriving from the research. Here the presentation is structured around key aspects relating to

the decision making and implementation processes. A final section will provide conclusions, recommendations and guidelines for the formulation of policy and policy statements on the resettlement problematic.

Finally, we reiterate that this summary report does not substitute nor can it do justice to the richness of analysis to be found in the detailed country reports. These should be read parallel to this comparative, summary analysis.

During a pre WP 2 meeting of the Latin American team a series of research considerations for WP 2 were developed based on WP 1 diagnostics and meeting discussions. These appear in Annex 1. Following the meeting the three research teams elaborated ideas as to the content and approach to research in each country on

decision making and implementation These appear in annexes 3-5. A summary of these in English appears in Annex 2. Only in the case of Mexico was it necessary to reduce the research goals as established in that document and concentrate on cases in one area of Mexico- Yucatan- This was due to cost restraints.

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## 2. Some concepts, notions and terminological aspects.

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### 2.1 On population movement.

A consideration of the extensive literature on voluntary and involuntary population movements, relocation and resettlement (terms used frequently in the English language and expanded on in the Spanish language to include others such as reubicación-resiting- or reacomodo-readjustment- etc.) clearly shows that we are dealing with a complex topic that has common roots but also exhibits clear differences in context and circumstances. Understanding what is what and recognizing the diversity of different circumstances and conditions is essential. This diversity also indicates that we are perhaps not dealing with a single integrated easily identified problematic but rather with a series of different circumstances which if examined jointly show common features but also a sum of significant differences.

When applied to the problem of classifying, constructing typologies or systematizing the different conditions and circumstances under which movement takes place or is induced, this must be accompanied by a diverse understanding of the proposed or possible solutions to the problems identified. Here we will provide a view from the inside that derives from a consideration of prior terminologies and ideas, but now colored by the experience of the present project. Neither here or later are we postulating a conceptual frame for the research as such (although this is implicit in what is said and analyzed), but rather an advance on conclusions derived from the research itself. Here it is not our intention to review existing terminologies and notions- a task undertaken in prior documents of the project- but rather to derive a conclusion as to the most appropriate notions and terms to be used in understanding and constructing typologies of causal factors, conditions for and solutions to the problem of hazard prone urban populations, all based on evidence from work in the field and colored by prior conceptual considerations.

The notion of typology or classification can be substantiated empirically through a hierarchical and systematic process derived from an analysis or consideration of diverse contexts and case studies.

The starting point for any discussion on terminology and concept is the notion of the **spatial movement, mobility or displacement** of population and, in many cases, of their livelihoods and social and economic infrastructural or service support systems. Such movement may be **voluntary**, planned as a collective response, or spontaneously undertaken at an individual family level, normally stimulated by the search for betterment or security. Or, it may be **involuntary or obligatory**, dictated by a hierarchically more pervasive social institution or force, normally some level of government, which applies the law according to established norms or imposes its will through some form of repression. Repression and force may and have been used by private sector interests in the search to valorize geographical sites and territories for motives of economic gain. This is a form of usurpation which constitutes theft unless undertaken with the complicity of the State which may give it some appearance or status of legality. Land grabbing is now a major problem in the developing world for example.

Voluntary or involuntary movements in response to climate related hazards may occur under a series of different circumstances or contexts.

Firstly, and most dominantly, as a response to a disaster event which seriously impacts the existing population or community. Secondly, in response to a series of smaller sequenced events that accumulatively have led to damage and loss, insecurity and fear of the future and which stimulate thought and maybe action by population or authorities, or both. Thirdly, as a preventive measure where it can be shown or it is perceived that a serious event could and will occur in the near to medium term future. And fourthly, where the average

climate conditions have changed to such a degree that livelihoods as practiced are no longer viable at the present location (this situation can be increasingly expected in areas severely affected by climate change and where there is dependency on agricultural or natural resource based initiatives).

Under any of these conditions the voluntary or obligatory movement and relocation of persons may in fact be justified in terms of reduced disaster risk. At the same time obliged movement may also at times be explained by ulterior motives such as potential revalorization of the abandoned site, development needs, redevelopment of city centers etc. by private sector and government actors. In fact nothing undermines credibility of government or private sector more than the use of abandoned land for private or public gain and when this was not explicit when the resettlement was proposed. In the case of preventative (as opposed to post impact) movements the onus of responsibility for justifying the move, the complexity this involves and the technical arguments favoring it are seriously increased due to uncertainty and the fact that resettlement will seriously interrupt accepted on going livelihood processes and patterns and service provision on site.

Considering the population that may move under conditions of climate and hydrological stress we can identify two different contexts.

Firstly, **entire communities or zones of a city** (including at times multi community zones, contiguous in geographical terms). These may be of very varied sizes from small- let us say 15- 30 families-, to very large, up to or above 15000 population. At times whole towns have been relocated or the functions of cities reassigned to new locations even though the original city persists with changed or modified functions (for example the re-siting of the capital of Belize in Belmopan due to hurricane threats to government functioning).

Secondly, **individual families or small groups of families from diverse hazard prone communities** in the same urban center who are selected at the same time or in the frame of the same relocation-resettlement process or political decision. Such a process normally follows the occurrence of hazard events that seriously affect various parts of a town or city contemporaneously and which have affected some but not all of the community. The impacts of such "splitting" of communities or families can be considerable reducing access to social networks and livelihood options. Resettlement, particularly of this sort, can also occasion considerable emotional stress and sentiments of loss and alienation that can affect the adaptive process to the new environment.

## 2.2 On options and solutions to voluntary and involuntary movement and the idea of typologies.

In any attempt to provide a conceptual basis for understanding the processes of planned human movement under hazard stress it is necessary to also consider the **range of options** that can exist as regards a solution to the problem of hazardous location. Here evidence (including that from the present research) suggests various generic types of solution.

Firstly, the **wholesale movement of a community, small or large, to a single alternative location point**, where access to an adequate site is critical in the decision.

Secondly, the wholesale movement **of more than one community** from different or the same part of a town or city to a single new site and where access to adequate land and considerations of intercommunity cooperation and social networks will be outstanding factors to consider.

Thirdly, the creation of new communities in safer locations made up of **individual families from different hazard prone locations** in the same or different cities or towns.

Fourthly, the movement of families or individuals from an existing community to **diverse and different parts of a town or city** according to their own choices and options for purchase or renting of alternative accommodation. This may include such schemes as those where persons offered relocation to a common site may reject this but are given the option of finding a family from a non-hazard prone area that does want to occupy the new location and where the original beneficiary occupies their house. This demands that the house is certified to be in a safe and adequate location. This implies, without actually stating it, that people will be integrated into existing communities, which may occasion a series of problems and challenges with respect to competition with the host community for resources as well as potential for conflict on ethnic or class bases.

In terms of typologies of populations in movement and the creation of new living habitats and spaces clearly, if we consider the different conditions that stimulate movement, the range of types of population that move and the range of solutions that exist, any such typology would be very large. Here, if we assume defined types of population situations or contexts determine the need for specific and identifiable optimums in terms of types of solution, such a crossing of typologies could be a basis for evaluation of real cases and the factors governing their success or not.

### 2.3 On terminology

The LAC case studies, and past experience, lead us to a reflection on terminology in the search to discriminate between significantly different contexts or situations which will be of importance when considering process, success and failure, the social and economic impacts of change. The terminologies we derive here may, and do differ from other terminologies developed or used by international organizations, in particular.

A basic difference in types of movement, their spatial and social aspects, requires a consideration of the relationship between livelihoods and the social structure of the original and the new location. Although the physical distance between these is important in any distinction, the notion of social and functional distance is more important. Thus, population that is moved or moves but can, without additional cost or major effort maintain its current livelihood schemes, its access to services and determined levels of social relation and cohesion can be considered under one category of movement. This category we can refer to as **“relocation”** (equivalent in Spanish to *relocalización* o *reubicación*). This category can include whole communities, large and small, single or composite, or individual families and persons from different or the same locations that are dispersed in the city or located together in a new habitat.

On the other hand, where movement clearly interrupts or seriously modifies the existing livelihood options and the types of access to existing services, and involves a need for consideration of past, or the development of new social relations and patterns of coexistence, we will refer to this as **“resettlement”** (*reasentamiento* in Spanish). This derives from a consideration of the term settlement itself which constitutes a condition characterized and defined by the creation of habitat and the generation and consolidation of livelihood options and social relations between members of a new community.

An alternative to this form of definition and more in line with ongoing developments in international work on the

topic would be to consider all movements as planned (or administered or supervised), relocation and then distinguish between the two contexts discussed above using some new terminology. From our perspective the key distinction between relocation and resettlement derives from the fact that the notion of settlement as such implies a complex development of multiple dimensions of human existence whereas relocation does not necessarily mean this as structures, relations, behavior patterns and goals may stay the same despite change of location (relocation). A distinction should be made between forms of resettlement that bring a resource bundle, however meager or inadequate, and outright displacement with no assistance of any sort.

Finally, the relevance of the details we provide in the examination of the multiple factors that change and condition the population movement scenario can be found in its relevance for an understanding of decision making and implementation. Clearly, given the array of different circumstances under which movement takes place and for which solutions are sought, there can be no single theory or materialization of decision making and implementation procedures. Certain key factors and circumstances can be seen to come into play, but beyond these generic aspects, many cases show *sui generis* and idiosyncratic characteristics, and the notion of standard processes and procedures or set policy briefs and recommendations becomes difficult to achieve (there is now a plethora of guidelines developed internationally regarding relocation, forced movement and resettlement related to climate, and based many times on the knowledge derived from prior development induced movement and the guidelines developed for this). Relocation and resettlement are dynamic, context related processes that show an enormous range of options, decisions and implementation challenges. This does not of course mean that lessons cannot be learnt from a comparative study of different cases nor that such study cannot identify a series of key elements which, if not taken into consideration, will lead to severe implementation and outcome problems. In pointing out the idiosyncratic character of many schemes we are merely indicating the need for caution when decisions are taken and implementation made effective.

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### 3. Methodology and overall approach to research in project countries.

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In order to examine hypotheses and derive conclusions as to the process of decision and implementation, case studies of relocation and resettlement were selected in three large, hazard-prone Latin American countries—Mexico, Colombia and Peru.

In all three, despite original project objectives, a decision was taken to include more than one case per country in the analysis. This was justified given the wide range of different contexts that make up the relocation and resettlement scene and where no one case is sufficiently typical to provide more than circumstantial evidence as to the complexity of decision and implementation. An attempt was made to select cases that covered corrective and prospective risk management principles, had been undertaken at different time periods in the same or proximate locations, were enacted under different political, normative and legal conditions and stimulated by different government authorities at different hierarchical levels. It was accepted from the beginning that despite common aspects in each country, each comprises a different reality, socially, economically, politically and administratively and reveal different facets and approaches to a common problem. The larger the range of cases we could examine, the more comprehensive would be the conclusions and knowledge of the diverse realities that exist.

The decision to examine more than one case in each country has an inevitable impact on the level and detail of analysis achieved. Each research team originally had 16 days research time available. This was later extended to 25 days and complemented by the presence of the global research coordinator during a week of field work on site in each country. During the allocated time period documentary analysis, identification of research sites, preliminary visits and setting up of interview schedules, interviews on site and report writing were undertaken. Such a time limitation signifies that the results of the research are indicative and exploratory and less than complete, offering a balanced and succinct exploratory

analysis of contexts that invites further research in the future. In all cases results are comparative within country between the different cases—multiple cases in Colombia in one city—Manizales, five in Mexico in the same State of Yucatan and three in Peru in three different regions—Cuzco, Iquitos and Arequipa (see section 4 for details).

In the Colombian case, the rationale for the multiple case study in one city approach is that the city of Manizales has a long and rich history of relocation or resettlement schemes with no set policy or normative controls established and also is one of the more iconic cities in Colombia and elsewhere in terms of disaster risk management. Having well documented studies available for a long series of relocation-resettlement schemes undertaken over the last 30 years or more, and the presence of many key social actors that participated in these schemes and who were available and willing to be interviewed as to their ideas and experience, offered a unique opportunity for a longitudinal study of decision making and implementation in a single city, in a country where relocation-resettlement is a local prerogative in terms of action (with regional and national support where needed).

In Mexico, post disaster resettlement does not have a long history, although experiences of relocation following the 1999 flooding do exist (see work by Oliver Smith, Macias, Vega and Aguirre) and it is post 2010 that the country developed guidelines and norms for a national disaster risk resettlement programme. The Federal structure of Mexico means high levels of autonomy and power for State government and it is within the State structure that resettlement processes normally take place with national support, and little power in the hands of local government. The State based nature of much resettlement along with the pre and post 2010 policy framework context led to the selection of various pre and post 2010 cases, in a single State—Yucatan— which is very much subject to hydro-meteorological events and climate change impacts—hurricanes, flooding and drought in particular.

Moreover in the principle town studied- Celestun- the opportunity to examine a now finished pre 2010 scheme and a scheme in process of development today, in an area where land use conflicts exist due to impingement of human settlements on natural mangrove reserves, was an added attraction given the worldwide problem of population impingement on natural reserves and ecological service areas and domains. This may be accelerated where resettlement schemes do not provide adequate options for livelihood support and population invades natural areas in order to subsist.

Peru is the only case in Latin America that has a national law and framework for resettlement, approved in 2012 in the wake of the passing of a new, very updated and modern disaster risk management system (SINAGERD using its acronym in Spanish) that places great emphasis on disaster risk reduction and prevision in addition to disaster management and reconstruction. Selection of study sites was based on the idea of pre and post law resettlement schemes and finished and ongoing schemes. Moreover, in the case of Belen, Iquitos, an ongoing resettlement scheme, particular importance was conceded to the fact that beyond the guidelines of the new resettlement law (2012), the process is also guided by the precepts of a special national law on Belen itself and the need for its resettlement (2014). Contributing to improvements in, and analysis of the functionality of the new national resettlement law informed site selection. This allowed the project to be accepted by national authorities interested in improving the resettlement law and process.

Overall, site selection in the three countries has provided a rich range of diverse cases pre and post development of specific policy and legal conditions, longitudinal, single city or comparative regionally, preventative and corrective and led by different Ministries or agencies. Here we would point out again that the range of cases and processes that exist with regard to resettlement not only in LAC but elsewhere does not signify that the chosen case studies cover the whole field but it does guarantee that the diversity of existing processes may well be revealed adding to the hypothesis that when referring to relocation and resettlement we are talking of a very varied and normatively diverse thing.

In the case of Peru and Mexico one central case was studied in greater detail-Celestun in Mexico and Belen in Peru. The other cases were used as a mirror to analyze differences in context and process in the same country or State and involved less on site research. In Colombia the case of La Playita in Manizales was of particular importance given its recent nature and novel approach to relocation. The research process in each country varied. This was a result not only of the different circumstances of the selected cases but also due to familiarity or not with the research contexts and the ease of research in these. Moreover, the variety of research techniques used

illustrates the use that can be derived from each. In all cases the short time available for research and the pre-existence of studies and data on the included cases was a major reason for not, in general, undertaking individual interview schedules with local populations. Instead, focus groups were used selectively to derive relevant information. Interviews with government decision makers and implementers was common in all countries. Research in each country was carried out in the following specific ways:

**Mexico:** All sites in Mexico were green site locations subjected to little or no prior research, beyond existing census and questionnaire based surveys by government agencies of beneficiary populations. Research consisted of preliminary collection of information based on documentary evidence and individual interviews with local populations and authorities and, following this, more in depth interviews again with population organized in focus groups and with a more wide-ranging group of government officials at the State and local levels.

**Colombia:** Secondary research evidence provided by local researchers over time, itself based on interviews with population and in focus groups; personal knowledge of the project researchers who have either held key public positions in disaster risk management or have played major advisory roles in the city; interviews with key actors from government and local development agencies with direct knowledge of the sum of the resettlement schemes researched, were the principle sources of information and basis of analysis. The well documented and researched nature of the theme in Manizales allowed an approach based on secondary documentary sources and complemented by interviews with key social actors in the decision making and implementation processes.

**Peru:** Wide-ranging documentary information on Belen, based on survey data collected by the Ministry of Housing, Construction and Sanitation, was complemented by focus group and individual interviews with local population and local and national government officials gleaned during two visits to the field site and in Lima. The Cuzco area research was based on documentary evidence, interviews on an individual and focus group basis with local population and government officials and a structured questionnaire applied to 32 persons in the resettled community. Moquegua (Ubinas volcano) based research was purely documentary and with select interviews with national government officials. On site and documentary evidence was complemented with the co organization of two major meetings. One in the framework of resettlement related to El Niño and the other, a meeting specifically organized with the Centre for the Estimation and Prevention of Risk-CENEPRED- on the topic of resettlement and attended by multiple sector agency representatives.



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## 4. Case studies in each country: characteristics

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The particular cases chosen in each country were as follows.

### 4.1 Mexico:

**Barrio FONDEN**, Celestun, Yucatan- a 2007 to 2010 corrective urban relocation project financed by the national disaster prevention fund-FONDEN- following hurricane Dean in 2007. Eighty three of over 300 families identified as impacted by the event were relocated, coming from different parts of the town but predominantly from one area. None were moved more than two kilometers from their original locations.

The project was instrumented by the Yucatan Secretariat for Community and Social Policy and the national level Secretariat for Social Development –SEDESOL- in the framework of its Post Dean housing reconstruction programme. Celestun is a town of near to 10000 persons today that grew rapidly through migration of ex henequen workers during the 1960s. The population is dedicated to fishing and salt collection principally, with tourism activities, and near to 85 percent of the population are poor or extremely poor. Celestun is located on one of the principle areas of mangrove swamp in Mexico and which is a nationally protected and internationally recognized natural area.



FONDEN: Original and new location. Source: E. Mansilla.

**El Arenal-Las Charcas, Celestun.** A recently initiated process of prospective relocation-resettlement in order to recover degraded nationally owned and controlled mangrove swamps and reduce disaster risk due to flooding and wave action. It is promoted by the Secretariat for Urban Development and Environment (SEDUMA) of Yucatan with the support of the municipality of Celestun within the frame of the Secretariat for Agricultural, Territorial and Urban Development- SEDATU's- Programme for the Relocation of Population in Risk Zones- REPZOR. Different to

the FONDEN project the scheme for relocation seeks to reduce risk, recover natural areas and order urban development. That is to say it has multiple mutually reinforcing elements different to the FONDEN project with it's purely disaster risk reduction objectives. 2298 persons live in 763 houses in the Charcas area and are subject to an ongoing discussion as regards resettlement. This is a third of the population of Celestun. The population varies between those with precarious and high poverty levels to more consolidated housing owned by those more stably occupied.



Las Charcas: Types of housing in the existing risk area: a) precarious; b) semi-consolidated; c) consolidated Fuente: SEDUMA-SEDATU-AXIS

General views of Las Charcas. Source: E. Mansilla.

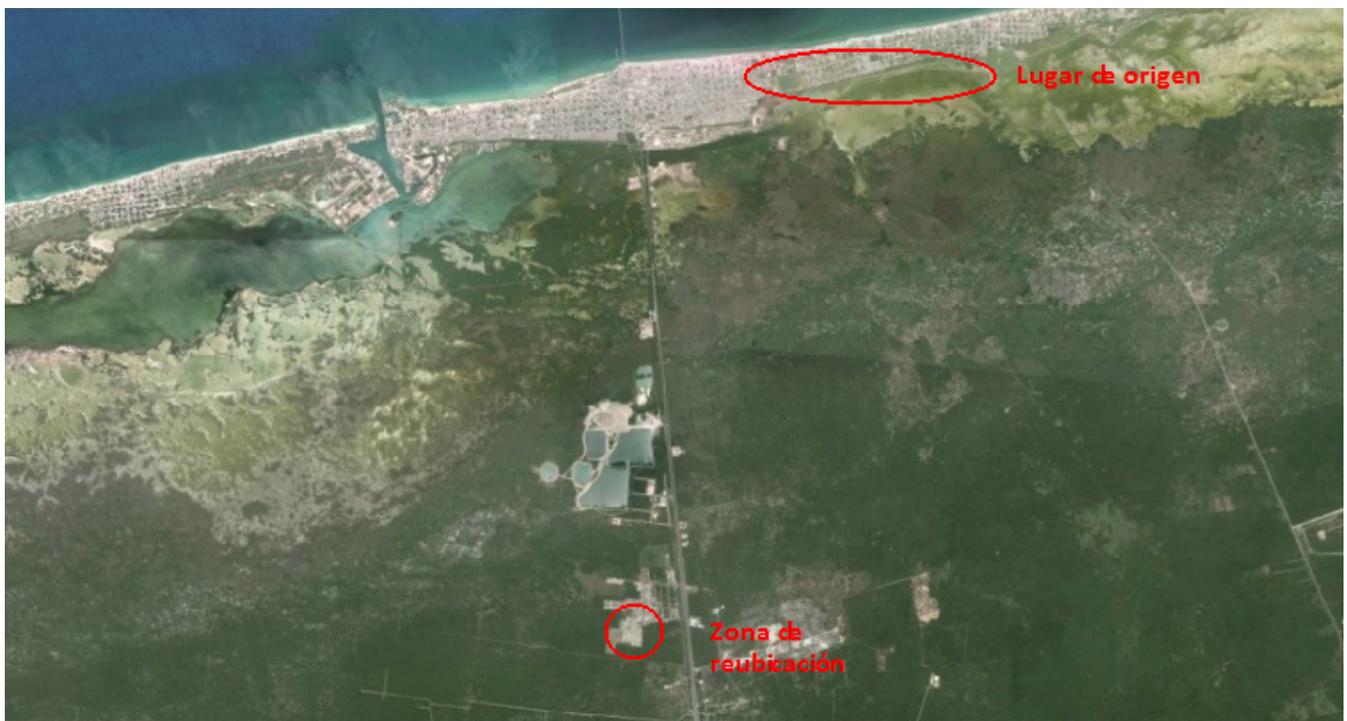
**Campestre Flamboyanes, Progreso Yucatan.**

Relocation of 321 families, 8 kilometres from their original flood prone site located in an environmentally fragile area of mangrove swamps.

Begun in April 2011, construction was finished in six months but property rights were only granted later in April 2013. The occupied area already had services and infrastructure given it was the site of previous construction schemes for other types of population.

The scheme was instrumented by the National Housing Commission's- CONAVI- Special Programme for relocation of population in risk zones, taking advantage of funds available from the State of Yucatan via SEDUMA, IVEY and a fund available from the private sector construction industry.

Progreso is a coastal municipality near to Merida with a total population of 40000 persons, 50% poor. It is a tourist centre and dormitory suburb for Merida.



Origin and destination of Campestre Flamboyanes Resettlement, Progreso



New Housing in Campestre Flamboyanes.

Fuente: PROVIVAH.

**El Escondido y Tigre Grande, municipio de Tzucacab.** Two small rural ejidal (collective land ownership) communities located near the Campeche and Quintana Roo border that were relocated near to the original settlements due to severe, unusual flooding in 2002 associated with the passing of Hurricane Isidore (flooding of up to 10 metres that lasted for more than two months and occurred a week after the passing of the hurricane and for which no one has an adequate explanation of the origins of the flood waters as such). Comprising 34 and 31 dwellings and families respectively the relocation took place in areas very proximate to the original sites and was finalised in

2004 two years after the event, during which time the population occupied temporary shelters. The population are migrant farmers and also cultivate subsistence crops and earn a meagre income from monies given for the maintenance of environmental services associated with their 40 ha agricultural and woodland plots. The Institute for the Development of Mayan Culture (INDEMAYA) headed the scheme but with funds that came from the French government and Carrefour a French retail company, channeled through an NGO dedicated to attending indigenous children and headed by Ofelia Medina a famous Mexican actress. The scheme was designed by her brother Fernando Medina.



Housing in Tigre Grande Resettlement



Resettlement housing in El Escondido Source E Mansilla.



Location of studied resettlement schemes: Mexico

## 4.2 Colombia (Manizales City).

**Barrio Holanda.** An onsite upgrading scheme undertaken at the end of the 70s with support from the Dutch government and implemented by the corporation for the Defense of Manizales, Aranzazu, and Salamina (CRAMSA) now the Autonomous Regional Corporation for CALDAS-CORPOCALDAS. Environmental protection was combined with upgrading of housing. A good part of the original population or their families still live there. The area was subject to landsliding.



Barrio Holanda today. Source: Dora Suarez, 2015.

**Barrio Paraíso.** According to documentary sources this was the first officially organised prospective, preventative, relocation scheme in Manizales undertaken by local government in 1987. 425 families from five different high flood and landslide risk areas, including Barrio Bajo Andes were allocated land in the barrio and built their homes with materials at their disposition individually. Today the barrio is a consolidated element of the urban structure but the neighbourhoods from which population came have been continuously repopulated by new population, thus reconstructing risk.



Barrio Yarumales, 2015, Dora.C.Suárez



**Yarumales** A resettlement scheme promoted between 1993 and 1995 for 36 families from different parts of the city under flood and landslide threat, and promoted by the Fund for Popular Housing in collaboration with a religious NGO Minute of God and with technical and architectural support from the National University. Today essentially the same population occupies the neighbourhood and the scheme is considered by many a model for the future.



Barrio Samaria, 2015, M. Pilar Pérez

**Barrio Samaría.** In 2003 the city of Manizales was seriously affected by two cases of heavy rains and landsliding in March and October. Due to this Barrio Samaria was created as a resettlement scheme for families from different parts of the city affected by the phenomenon. The mayors office along with the Municipal Office for Prevention and Attention of Disasters and the Fund for Popular Housing, in support of the Caldas government's Department for Disaster Prevention and Attention, the National Directorate for Disaster Prevention and Attention and the Housing Fund of the Ministry of Housing and Environment-FONVIVIENDA decided to sponsor the Samaria resettlement scheme. Families were relocated from the existing Camino Viejo a Villamaría, Andes, Carmen, Sierra Morena, Avanzada, 20 de Julio, El Aguacate, Chachafruto, Camino del Medio, Tachuelo, Nevado, Albania, Bosconia, communities amongst others. Families needed cofinancing from other sources than the promoting agencies. By 2004 housing had begun to be handed over to the affected population.

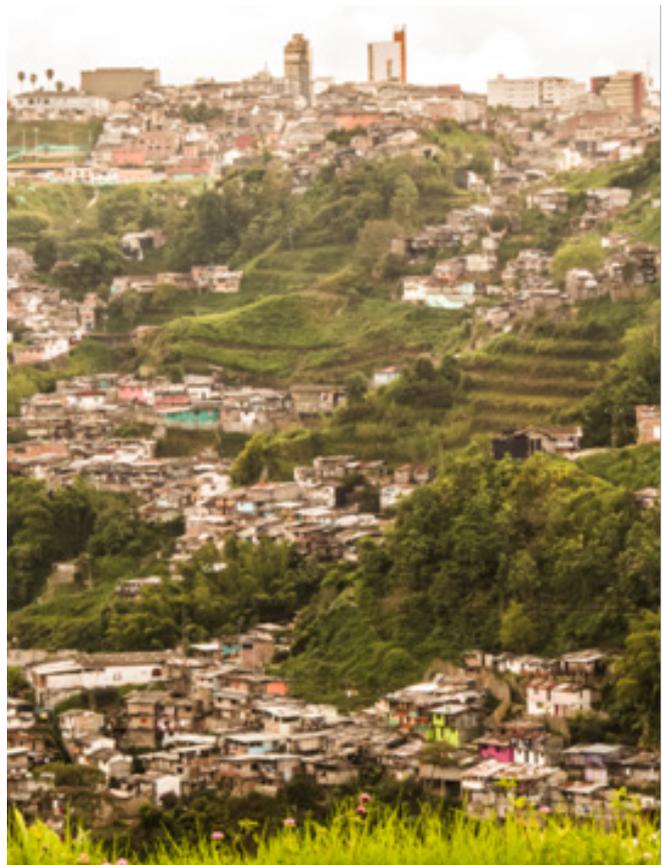
**La Playita.** In 2003, 15 families from La Playita were relocated to Samaria due to destruction of their houses by flooding. In 2005 a landslide caused damage and panic in the remaining community leading to a process of resettlement that would last 3 years in all. 324 houses, approximately 600 families, were resettled in diverse and different parts of the city given the lack of access to land sufficient for a single community structure. The scheme was led by the mayor of Manizales along with the Municipal Unit for Disaster Prevention and Attention

**Urban Renovation, San José.** From 2008 onwards a nationally inspired programme for the renovation of the San Jose area of the city has taken place involving the planned resettlement of 1615 families from landslide high risk areas under an urban renovation scheme.

To date few of the families have been resettled in high rise apartment buildings proximate to their original locations, due to ongoing problems with the scheme



La Playita. riverside. 2003 Unidad de Gestión de Riesgo de Manizales.



Northern slopes, San Jose, Manizales, 2015, Dora C.Suárez



The 2005 landslide .  
Unidad de Gestión del Riesgo Municipal.



La Playita prior to resettlement. Unidad de Gestión del Riesgo de Manizales- Zulma Arias

### 4.3 Peru

**Lower Belen, Iquitos.** Sixteen thousand households are marked for resettlement from the Lower Belen area next to the Itaya river, tributary of the Amazon river in Iquitos. Over 80% of the population is poor to very poor and illness and insalubrity are common in the area due to contamination of water sources and lack of drainage facilities.

A special law was passed in 2014 providing legal backing for the resettlement which is being promoted and executed by the Ministry of Housing, Construction and Sanitation. Households will be relocated to a 56 ha site 12 kilometres from the present location in a flood safe area. Prior attempts to upgrade the present area failed and resettlement is seen to be the only solution given the predicted migration of the Amazon river to the present site of Belen



Flooding in the Lower Belen area



Relocation site at Varillalito, district of San Juan Bautista. Fuente: PNC-MVCS, 2015. Tomado: Ing. David Ramirez





Lay out and buildings for New Belen resettlement project

**Tongobamba, Lucre, Cuzco.** Severe flooding in 2010 in the whole Urubamba Valley and Cuzco area led to the proposal and Presidential promise to resettle population from the Huacarpay-Lucre area to Tongabamba, a zone where USAID and COSUDE had placed affected population in shelters. Resettlement took a year to complete and was undertaken by the Ministry of Housing, Construction and Sanitation. 242 housing units were built for 200 families some half to a kilometre from the original site on secure land.

**Moquegua: Volcán Ubinas, Querapi.** The 2013 reactivation of the Ubinas volcano led to a proposal for resettlement of more than 1,300 families located in risk zones in the district of Ubinas. Two hundred families were prioritized from Querapi as they were the most at risk. Resettlement is planned to another province in the same department called Pampas de Jahuay which is in the area of influence of the Pasto Grande irrigation project an eminently agricultural area



Tongabamba resttlemnt project.

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## 5. Towards an understanding of conditioning factors for decision and implementation of relocation and resettlement schemes.

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The case studies undertaken in the three project countries, four central and 10 collateral cases, provide a wide range of evidence as to the diverse process of decision and implementation involved in resettlement-relocation. Here we reiterate the notion that resettlement refers to very varied circumstances, under very different conditions and despite many facets in common always seems to have idiosyncratic elements that make them *sui generis per se*. Taking evidence and empiria from the cases studied in this major substantive section we will attempt to highlight defining generic elements that allow us to draw up a common set of guidelines, but also outline idiosyncratic elements as revealed in the country case studies which require specific treatment and guides. The nature of this summary regional, comparative English language report signifies that we can only summarize indicatively and derive generic conclusions *viz a viz* decision processes and implementation schemes. This report is no substitute for a reading of the full country reports where detail and analysis are specific and more thorough.

### 5.1 Legal precepts normative controls and technical specifications.

The legal and normative structures and systems in place in each country with regard to resettlement vary enormously from the very formal to the disparate and undefined. Clearly both decision and implementation are conditioned by such structures and the facility they offer or not for the process of resettlement. An outstanding question we are faced with pertains to whether the existence of clear legal requisites is a positive thing or not or whether a more broadly interpretable set of guidelines and allocation of functions is more appropriate. In our three cases we have structures that are precisely legally defined in Peru, guided by policy considerations and no law in Mexico and basically guided by indications as to responsibility for resettlement processes in Colombia with no explicit

law or policy frame but clear indications as to the local nature of the process and a series of supporting elements for implementation.

Peru passed a specific national law and its regulations on resettlement from areas of high unmitigable risk, in 2011 (law 29869), the same year that the country passed its most recent and innovative national disaster risk management law, with increased attention paid to corrective and prospective risk management as opposed to disaster reaction and response (law 29664). The two were contemporaneous but not concatenated or linked specifically. The resettlement law established a complex institutional and methodological process initiated at the local and regional levels and supported by national institutions, predominantly the National Centre for Risk Estimation and Prevention, a part of the national disaster risk management system, and the Ministry of Housing, Construction and Sanitation. At present some 24 schemes for resettlement affecting 21000 persons are being considered under the new law and a few cases have been commenced or completed to date. Early evidence would suggest that the bureaucratic and technical process and its multiple steps will be unwieldy and slow, involving many interinstitutional relations and needs of coordination, apart from needs for study and approval by many instances of government including that which declares that new sites for location are not on archeological sites. Recently, the law has been accompanied by rules that allow housing bonds previously available for poor population for new house building or purchase to now be allocated for disaster affected or potentially affected populations in order to purchase used housing without need for new settlements or small urban developments.

The generic national law in Peru is accompanied by the option to pass more specific laws related to specific cases of needed resettlement where it is determined this is in the public interest and effective expropriation of

current locations and housing is deemed necessary. This is the case of a special law passed in 2014, following a Presidential promise of relocation from the flood prone area of lower Belen in Iquitos, Amazonia, our principle case study in Peru. The law circumvents various clauses of the national resettlement law thus making decision and implementation more easy. It names the Ministry of Housing as the executing agency, assigns 176 million soles or near to 60 million dollars for the resettlement scheme and determines that the original site on the Itaya river will become public property once resettlement takes place. Population resettlement is considered obligatory, in the public interest. Despite the existence of a generic national law some now see the Belen law as a model for future resettlement schemes where these involve large numbers of population as is the case with Belen where 16000 persons and 2600 housing units are involved- that is to say almost as many as are being considered today under the national law on resettlement (21000). The specific law completely inverts the national law in the sense that decision and implementation are ordered from above as opposed to below. With this, the whole process of negotiation and coordination, support and opposition changes viz a viz the national resettlement law and its processes and precepts.

The limited experience with the national law and its regulations shows its inapplicability and difficulties,

especially when technical aspects are crossed with political considerations and changes. In Querapi, the first scheme to be undertaken under the new law all has been suspended or unfinished due to the difficulties of operation, finance and decisión associated with the long list of requirements demanded by the law and legal demands and political changes. Bureaucratic thoroughness castrates operational efficiency in response to a very real demand and need for solution. The technical requirement of cost-benefit analysis for on site upgrading or risk mitigation via resettlement is complicated by the compexity of the new CENEPRED risk evaluation procedures.

In Manizales despite advances in introducing technical criteria, resettlement has obeyed legal, political and responsibility criteria as opposed to technical criteria to date. This is mainly so where resettlement is seen to be an obligation post impact and is corrective as such. In prospective schemes technical considerations are more likely to be considered and in Manizales an agile relationship between university and local government and population allows opportunities for manageable technical criteria to increase in decision making. For example a consideration of the needs associated with corrective, prospective and prescriptive intervention has led to the following summary view and table which guides or can guide Manizales decision makers.

Level of	Implicit and configured risk	Risk Levels	Prospective Intervention	Corrective Intervention	Prescriptive Interventions according to demand
5	Highly probable instability	Very High	Total prohibition of structures and population	Resettlement	Explore how to reduce hazards
4	Feasible instability	High	Hazard reducing Works and early warning systems	Risk reduction Works and early warning	Reduce hazard and protect the area
3	Improbable instability	Medium	Hazard reduction works	Control works	Control the hazard and protect areas
2	Remote instability	Low	Hazard reduction works	Impede growth of hazards	Control the hazard and monitor its development
1	Very improbable instability	Very low	Controls on increase in hazards	Impede growth of hazrds	Verify no increase in hazards

The development of criteria to substantiate different approaches to risk reduction and control in Manizales occurs in a legal and normative frame where no explicit policy or legal frame exists. Resettlement takes place in a more ad hoc fashion than would be the case with set rules and procedures and is facilitated in a less bureaucratic way by the existence of resettlement or relocation considerations in housing ordinances, land use planning principles and norms, housing finance options etc. This seems to give sufficient flexibility and guidelines for action placing resettlement in ongoing planning and financing concerns as opposed to making it a topic of special and separate concern, isolated from inherently related contexts and needs. It does, however, require specific legislation defining rights and needed levels of wellbeing. In Colombia, as in Peru recently, the needs of resettlement and particularly the acquisition of housing component has been facilitated by changes in the law allowing access to financing for the purchase of used housing as opposed to newly built homes, as is the case normally with resettlement schemes.

Mexico comes half way between the legal structures of Peru and the more flexible approach in Colombia. From a special programme for relocation of population in risk zones promoted by the National Housing Commission in 2009, the country now has a young 2014 initiated Programme for the Relocation of Population in Risk Zones (REPZOR) which resulted from the impact of tropical storms in the country in 2013. Having changed leadership on at least one occasion to date the programme has inspired a number of relocation schemes on a pilot basis but it is difficult to judge its efficacy as a whole in comparison with other approaches to legality and policy. Here its financial instrument is through the national Fund for Disaster Prevention- FONDEN- which as we will see later has not been a very good means of promoting socially adequate house building after disaster.

## 5.2 History of a theme and problems for the execution of resettlement schemes.

The lower Belen area has been subject to various attempts at resettlement over time, when the periodic annual flooding has taken its toll of housing and persons. Some 30 years ago the local government relocated population to safer sites but in not demanding that the original properties be handed over to government this merely led to the sale of the new properties and move back to the original site where commerce and economic activity could be more easily undertaken. Between 2001 and the end of the last century while President Fujimori was in power the regional authorities also undertook a scheme for relocation of more risk prone persons and families, however, again expropriation of original sites was not demanded and

this, plus corruption, permitted non risk populations to accede to the land allocations and also led to sale of the new lands and return to the original sites. Post 2012 flooding resettlement of population from Belen, San Juan Bautista, Punchana y Maynas was undertaken without access to basic services nor land titles in the Calipso area which is very near to where to lower Belen will be resettled, The Calipso area has continued to receive population impacted by 2013-2014 flooding but has failed dramatically with many, but not all residents moving back to their old areas and selling or renting new housing.

More recently, in 2014, the national government through the Ministry of Housing's Our City programme commenced an urban on site renovation scheme for the lower Belen area. Intended to upgrade 2000 housing units for 12500 persons, providing water and drainage to unsafe and insalubrious housing, the scheme was allocated 200 million soles, more than that allocated the now ongoing resettlement scheme for Belen population. Somewhere over 100 dwellings were upgraded prior to the scheme being suspended due to financial problems and technical problems in the design of sewage systems and allocation of building contracts. The decision to suspend the programme was never fully understood by or explained to the local population but is now a cause of a severe lack of confidence in the Ministry and national government. This has stimulated opposition to the new scheme for resettlement. Based on arguments as to the un-Constitutional nature of the Belen resettlement law, infringement of the rights of indigenous groups and the proven success of the housing provided by the Sustainable Belen programme, a group of parliamentarians promoted an attempt to suppress the law with the support of political and population groups in the Belen area. This failed due to opposition from other groups in the zone and the support given by national government agencies, but served to demonstrate the contrasting attitudes and interests involved in this resettlement scheme, which, due to its size, inevitably brings together all types of interest groups and stakeholders.

In Colombia in a single city like Manizales history is not reflected in continuity or consolidation of schemes. The cases analysed and instigated over a 30 year period are all basically different and inspired by different motives and processes, institutions and support mechanisms. But accumulation of experience along with increased planning leads to new strictures and reflexions and need for technical aspects and study.

## 5.3 Stakeholders and Interest Groups and the Decision Making Process

The Belen case in Peru provides an excellent case for

examining interest groups and their influence and impact on decision making. This is due to the application of a concept and method for evaluation of such influences undertaken by an independent consultant under contract to the Ministry of Housing, Our Cities programme. The method, conceptually supported by academic work and writings, was applied to a large series of interests and interest groups ranging from the President of the Republic through national parliamentary committee members, to regional and local authorities, traders, farmers, fishermen, churches, NGOs, bureaucrats etc. These were categorised according to the type of involvement and interest in the resettlement programme from beneficiaries, through those involved in decision and implementation to those with collateral interests. Measuring the levels of salience of each group in the decision making process, through the use of indicators on power (coercive, utilitarian and normative), legitimacy and urgency of each interest group, the analysis undertaken demonstrated the complexity of the different demands and interests associated with the particular role and position of actors in the programme and the lower Belén area. According to whether the interest group or person qualified highly on one, two or three of the criteria they were qualified as either latent, expectant or definitive in influencing decisions. Amongst the actors, the President of the country, the Ministry of Housing and the parliamentary commission on housing, the President of the regional government and the Governor of Loreto, the Provincial mayor of Maynas, mayor of Belén, the commercial interests and neighbourhood committees were qualified as definitive in decisions. Thirty three different groups or individuals were identified in the classifying of interests and interest groups.

Farmers, fishermen and street market traders are opposed to the resettlement due to distancing from their work places and opportunities for income generation; persons involved in illegal activities from drugs to prostitution, money laundering to sale of arms, are opposed due to the way resettlement would harm their interests and force them out of illegality into the formal system; mothers and students and churches are in favor given the opportunity for service infrastructure and greater security for children and livelihoods; politicians are divided on and even within party lines depending on how they see the balance between election benefits and disadvantages; and NGOs are undecided due to the potential impacts on their traditional ways of project development and incidence in the Belén area.

As Chávez points out in his report, “the messages of diverse groups are well known because they are widely disseminated by the press or through gossiping. It is important to point out that messages are polarized and lead to confusión amongst the population. For the population it is very important who says things and how

it is said, they rely and confide a lot on the word of their leaders.... Stake holder analysis reveals that decisions transcend the political, technical and scientific fields... resettlement processes demand a new practice for decision making that affects a collectivity... normative considerations are questioned by all those actors that have not been consulted previously, are little convinced or will be highly affected by the programme... the absence of the State in Peru for years has favoured a type of clientele politics which conditions the attitude of the population..it is conditioned by the receiving or not of kickbacks from the different interests in play... in the case of Belén a low level of appropriation of the project can be seen and this has been complicated by the distrust that the failure of the Sustainable Belén project caused... the July 2016 change of government will weigh on the decision to continue or not..in the meanwhile the programme continues and the new land is now ready for building, a process favoured by the economic recession suffered at present in the selva and which stimulates local politicians to promote the process in order to create new employment opportunities in building for unskilled labour”

While local politicians move with the winds of changing attitudes to resettlement among the population, and regional politicians “support, oppose, or show indifference” according to political convenience, amongst the population itself no new mechanism and organization that guarantees support for resettlement exists. Although a considerable number of persons are willing to consider relocation especially when they see the project consummated in real buildings and services (especially if they manage to maintain their present homes for other uses), opposition to the scheme supported by some local interests, fomented by sections of the press and in line with the interests of commerce, illegality, proximity to work contexts, tend to still dominate. However, from the angle of the Our Cities programme the scheme continues and all know that if it finishes those who want to move will do so, open space will be given to other demand groups and the major challenge will be what to do with those that remain in the area and disobey the law as to the recovery of land under public property rights. The art, under conditions where government will change in July 2016, is to advance contracts and building as far as possible making cancellation of the scheme more difficult.

The INDECI Sustainable City programme shows how more than 50% of Iquitos is at high risk of flooding and a good part of the population in those areas needs resettlement. The lower Belén resettlement is an experiment for the future and resolution of the high demand for resettlement from high risk non mitigable areas that regularly suffer small scale or severe flooding in Iquitos

The whole resettlement process is also influenced by the decisions of the Ministry of Finance that no investment can take place in high risk areas. With this, in theory, the investment that has taken place in housing, services, escape routes etc can no longer occur. The process by which government has institutionalised risk is in principle cut back on. Time will tell how society circumvents such prohibitions and the incentive they give for resettlement.

In the Mexican case the comparative study of 5 resettlements or relocations shows how improvisation, the prevalence of different government stake holder interests and the vertical nature and centralization in decisions, with predominance of Federal in support of State and little participation of local authorities is the dominant and repetitive circumstance. Local government is only considered in the best of cases as a support mechanism in executing and implementing processes but not in decision making as such. The population affected by events or beneficiary of resettlement schemes are treated as typical disaster victims and in none of the cases was consulted as to their needs and requirements or with regard to needs that would improve their future lives in a new location.

Who decides, following what social and technical criteria and when are things that vary case by case. They depend on the particular economic, social and political moment and circumstances. They do not in general respond to procedures and protocols that have been previously established, planned and analysed or reflected on in the light of previous experiences.

The ways in which resettlement has been stimulated and decided in the Yucatan case studies over a 10 year period illustrates the changing influence of institutions and their prime objectives and interests. Post impact schemes are normally financed by FONDEN. But, when control over the real process of implementation changes in 2012 from the Secretariat of Social Affairs to that of Urban and Rural Development and their State level counterparts, both the modalities and the impetus change. With preventative schemes such as Las Charcas and Progreso (and others not studied in Merida itself) it is clear that these occur when there is coincidence between urban planning and redevelopment and particularly in our cases, the need for environmental recovery, and also the existence of an at risk population. Although the latter is used to justify resettlement the former are the real motivation and guide context and action. In such cases the State level representations of the national Secretariats exercise a good part of the control over the processes.

In Manizales due to strong decentralization in the country, the majority of decisions are taken using local parameters guided by the political context of the

moment. This is principally defined according to the responsibilities assigned to different actors, should it be for the non implementation of a resettlement programme post disaster or in order to avoid this when faced with the recognition of risk according to the studies undertaken. In La Playita, the community was involved in the definition of needs and the type of resettlement they wanted-originally, a single site for resettlement. This type of participation placed great pressure on the process. Nevertheless, when faced with the realities in the city (lack of land availability, cost) such requirements were dropped as the decision passed from a collective one for a collective solution to an individual one and individual solutions.

#### **5.4 Demand and supply of livelihood protection and services: trade offs between different expressions of risk and need.**

Chavéz in the Peruvian case study states that “Decisions take place in the context of an exchange of goods and services, behaving much like a market. That is to say, there is a set of relations where those that take decisions on services and goods exist and there is a passive or active demand for those goods.... No mechanical rationale exists where demand stimulates an offer...flood prone populations do not necessarily convert their problems in a social demand for security against flooding and its consequences... Neither do poor populations explicitly demand better living conditions... the population may be so absorbed by its day to day needs that a wider social demand is not conceived. If in the rainy season there is a demand for greater security and protection, in the dry season this is forgotten and the demand is for security against criminality and delinquency. This fragility in the generation of demands may be conditioned by the low levels of citizenship of the poor who are accustomed to clientelist and assistencialist practices... politicians and providers of services and goods must receive benefits from their decisions in order to compensate the possible negative costs and externalities of these”.

Questionnaire based evidence shows the play off between every day and disaster risk factors in the lower Belen area. Over 40 percent of the population neither know of the law on resettlement or the risks associated with flooding and its future predicted patterns and many even if they know are not overly concerned given their present access to different life style satifiers and their knowledge that government always provides protection and goods during flooding. At the same time considerations as to personal security, drugs, delinquency, insalubrity and health concerns dominate the mindsets of the population. 56% declared themselves to be against resettlement in the Our Cities questionnaire, but in another section

this result was turned around and a majority favoured resettlement but under certain conditions—seeing the product of the building scheme advanced or completed, maintaining rights to their existing land and housing etc. The political nature of the problema does however make objective questionnaire results as risky a concern as election result surveys and their prediction of results in national or local elections.

Overall it is clear that the social and economic circumstances of the population are looked at in segregated fashion and the aspects that dominate are those most immediate to needs and every day demands. Little is done to show how apparently independent problems are linked in concatenated or integral ways—different manifestations of risk are related and mutually reinforcing. An holistic approach to solution is more productive but the nature of social demands and political offerings are always segregated, sectorialized.

As the Mexican cases of the FONDEN colony, Progreso, and the rural communities show, where movement is short and the ability to maintain livelihood inputs and employment schemes as well as access to established services is maintained, the contradiction between increased security against flooding but increased every day risk does not exist, making relocation as opposed to resettlement a more viable objective. This can be seen in Manizales where movement of population larger distances has led to severe problems while such schemes as Yarumales and La Playita have been far more successful given the consideration or action taken to maintain or recreate livelihood options and service provision.

### 5.5 Move me, but let me be.

A significant finding, applicable in the Peruvian and Mexican cases, relates to what is done with the land and properties that are left when resettling population. How this problem is dealt with has a great bearing on the acceptance of resettlement or not by the population. In Peru, in the case of Tongabamba, the population accepted resettlement without much opposition, frustrated with having lived in temporary housing for a year after the event and the trauma associated with this. The event itself was extraordinary in the collective memory and experience of those affected such that a need to resettle was perceived. But, beyond these reasons, the process that followed once the resettlement scheme had been handed over is part of the reason why resettlement was easily accepted as an option. The population was not obliged to cede ownership of their original houses which were in themselves larger and more comfortable, having access to internal and external services. The resettlement housing was small, and basic services were not provided til much later if

at all. Given the population maintained ownership of their original housing this has led to most returning, or renting or passing their new home on to family members. Many have invested in upgrading of original site dwellings using more “noble” and flood resistant materials and also building higher off the ground. The new resettlement homes thus become a place of refuge should the area flood again and in the meanwhile the population returns and enjoys all of the comforts of employment, service provision and transport at the original site. This can of course only happen if the new site is near to the original site and the work options are the same, as is the case with Tongabamba.

In Belen although movement has not taken place as yet and many doubts exist as to how this will work out, many are playing with the idea of maintaining their old houses in the flood zone while receiving free housing in the safer area. This is an active move on their part despite the fact that the law makes confiscation and destruction of the housing obligatory and the rules of the game will only allow them to take the pieces of their old houses with them to extend the small houses they will be donated.

Although the sustainability of life in flood areas is difficult for vulnerable populations such as children, adolescents, the elderly and the disabled, the only safe areas are on the northern route out of Iquitos to Nauta 10 km or more from their present homes, or across the water from Puchanas, if the planned new bridge is built. In the Nauta area those affected by flooding over the last few years have been resettled near to Varillalito, where the lower Belen population will be resettled and one of few places where security against flooding is guaranteed. If the project is completed the area will be under great pressure from many others searching for security in the wider Iquitos area.

In Mexico, also, the original housing of the FONDEN project beneficiaries was never confiscated and families accepted the move to a safer area with much smaller and less comfortable housing due to the fact they could keep their old properties and according to the norms dedicate them to other uses. They thus get a double kick back from moving—increased security and livelihood options at the original site. In the rural area of Tigre Grande new housing was of low quality and needed upgrading by the population. At the same time it was small and congested in comparison with original housing and plots, and this led to opposition by the population. Confiscation of houses was obligatory and their destruction mandatory, although resistance was shown to this measure. Only by threatening to cut off services was it possible to get the population to abandon their old homes. The population still uses the old land for agricultural production however, and regularly meet for social occasions on the land near to the flooded areas.

Overall it is clear that moves from larger more comfortable houses to the small resettlement housing will never be attractive such that the option to maintain control and use over the original site is an added advantage and can be critical in the decision to relocate peacefully. Where such processes are accompanied by severe delays in the granting of property titles for the new dwellings, as was the case in the FONDEN project and the rural communities, people tend to migrate back to their original houses, repair them and carry on. This is also revealed by the fact that the new locations are often as hazard prone as the original sites due to lack of available land and bad planning. This has led to parents going back to original dwellings leaving the new dwelling to their children when they marry.

In Manizales, after early experience with similar problems to Peru and Mexico were encountered, the Samaria and Playita schemes demanded voluntary demolition of houses and access was given to the materials for new building purposes. Moreover, in order to have access to a housing subsidy beneficiaries have to show that the old house was demolished and that their ownership of land has been ceded to the State.

### **5.6 Talk to me but dont make me a true participant in decision making.**

A common refrain in Latin America goes: "I participate, you participate, we participate and they decide". A common facet of the resettlement process is the deficient or absent process of real participation by the affected population as to selection of new sites, new housing and new urban design. Vertical processes whereby population is informed of what will happen and persuaded to collaborate, as opposed to being part of the process of happening, are common and well depicted in the cases studied.

In Belen, although widescale questionnaire studies have been promoted as to the characteristics of the population, its attitudes and rationale as regards resettlement, preferences and opposition to this, a vertical local leadership process has been followed to date regarding participation and decision-making and much of this is now when the scheme to build New Belen is under way, land has been purchased and cleaned and building is starting. The urban and housing models are clearly Lima based and designed with little attempt to model them to local vernacular or cultural needs and standards. Ordered, self-sufficient sectors with all services provided will replace the large, wide street, wooden structures now used and part of the image of Belen and its population-the Venice of Latin America as it is affectionately but erroneously called. Any play on the need for greater space is expressed in the right to take materials from the old house in order to expand the 120 square metre lot, 60 square meter house that

will be handed over to them. Technical, financial and architectural convenience is substituted for cultural and local needs and customs. Any attempt to explain this way of doing or thinking can only be based on the idea that technical specifications are above cultural considerations as are cost considerations and the rapidity of building in order to make progress as fast as possible-maybe due to the perceived risk that the scheme will be cancelled with the 2016 change of government.

The same arguments are valid in Mexico where specifications for building by FONDEN derive from the decision of the Fox Presidential administration that no new houses would be built with non durable materials. This led to use of cement and block in rural areas using urban building models, designed or thought out by Mexico City based personnel with no experience of local conditions and where the solution is to provide a house not an adequate home. And this has occurred despite the fact that Mayan building in vernacular fashion has been praised internationally as hazard resistant and sustainable and of lower cost than industrial solutions. In Mexico the dominance of post impact FONDEN financed relocation guarantees a lack of consultation given that all is determined by pre-designed technical specifications. Houses are built in one way and according to one set of specifications and population needs and suggestions are not taken into account. Options for reconstruction of preexisting housing according to local cultural mores are not accepted. This process inevitably leads to the abandoning of housing and return to original sites. In the Chacras scheme where resettlement is being planned in a social vacuum, consultation is being undertaken in circumstances where the population does not even know that resettlement is being planned. The reasoning for this is political not technical.

In Colombia the subsidies that are given for house purchase define the design characteristics in terms of space and area and the need to obey seismoresistent norms means most houses will be of concrete, brick or similar materials. Acceptance of any other type of building material more in accord with popular imaginaries is rarely accepted. Due to this the resettled community is rarely taken into account when dealing with typologies of housing, needs and optimum size and these will almost inevitably be smaller than in their places of origin.

### **5.7 Urban land for resettlement: urban rent and lack of accesibility.**

It is clear that access to adequate land is a major problem in resettlement. Urban rent considerations, growth pressures, the nature of land ownership and the lack of community or municipal land are major contributing factors to this.

In Belen, the size of the proposed resettlement led to the location of land some 12 kilometres from the original settlement site in a direction commensurate with the planned expansion of the Iquitos area in neighbouring municipalities. But although safe from flooding, the site has raised certain doubts in terms of impacts on local ecosystems and certainly in terms of distance from sources of work and the cost this will signify to the population. This is a fact that affects the cost structure of families in Belen who never consider transport costs in their daily budgets or investment of time in movement.

In Mexico, ejidal (communal) control of land and urban land speculators are common problems for access to adequate land. And, in most cases it is not so clear that the risk of flooding has been reduced much in the new locations while the population still maintains control over original locations with their flood threats.

But it is in Colombia that difficulties of access to land are most apparent, especially in the city of Manizales with its mountainous terrain and lack of level land. However, it is here that this very condition has led to a series of “solutions” that are interesting to consider more generally in the light of the challenges of resettlement. The case of La Playita is revealing of various factors.

Firstly, its size did not allow the local government or the population to identify an adequate site in the city limits where the whole population could be relocated—a single site was, at the beginning, a requirement of the local population. A number of alternatives were also opposed by persons in the areas considered for relocation as they saw the beneficiary population as a source of delinquency and robbery etc—ignoring the fact that their own communities were plagued with this anyway! Finally when no site could be identified a decision was taken to propose to the population that they search for and purchase used housing in safe areas on a random individual basis. Finance was provided through subsidies by local and national government (in the latter case with a change in housing finance laws to make the purchase of used houses possible). This was the solution adopted in the end and the very first to relocate were the very community leaders who had insisted on a single site to begin with. This solution took three years to enact but was successful, although as the process proceeded access to adequate houses got more difficult due to increased demand and prices started to climb. One conclusion that derives from this experience is that the notion of community is at times mythical and exaggerated and in fact a single contiguous population group does not as such necessarily constitute a community in a real sense. Strong divisions may exist within many so called communities which allows partitioning to take place successfully. Moreover, this type of solution where

individual choice is taken into account can be extended in its content to cover other cases of resettlement processes. Thus in Brasil schemes have been enacted whereby a collective solution is proposed and built (normally high rise apartments) but individual families who don't want to move there are given the option to search for a house somewhere else and offer that family an opportunity to live in the resettlement site in place of them. Such a solution could be thought about for Belen dwellers who do not want to be moved 12 kilometres distant to the new site.

A second aspect of the Manizales scene is the latest San Jose redevelopment schemes that recognize the value of central urban land, and its danger to poor families but also its potential for urban redevelopment and increase in urban rent and profit under other commercial uses. The population will be moved out to nearby highrise buildings while the abandoned land will be engineered for safety and used commercially with much increased urban rent and land safety. This does of course challenge the notion of high risk unmitigable areas because this becomes socially hierarchical and economically determined. What is non mitigable in terms of low cost resettlement for the poor is not necessarily the case for private enterprise supported by government whereby the return benefits of commerce, taxes, urban rent allow far greater investments in conditioning land and reducing hazards than in the case of low cost schemes for resettlement.

## 5.8 Use and reuse of abandoned land.

A critical aspect for successful resettlement, or at least an impediment to movement back to preexisting areas, is the use given to recovered land, the land that population is obliged or not to hand over to authorities once movement to new sites takes place. Previously, we have covered the cases where such hand over was not obligatory and both its positive and negative consequences.

Peru and Colombia, where transfer of original sites has normally been obligatory, provide interesting cases for analysis and reflection. The redevelopment of the slopes of the San Jose area of Manizales and the value added in urban rent terms has been discussed widely. Here, the cost benefit equation although benefitting the municipal government and the land developers and commercial users in particular, could be seen to be positive overall given the increased safety for population and the still good access to work opportunities and services that location near to the original sites signifies. In the case of La Playita the abandoned area was then used as a dumping site for urban rubbish and building materials or excavated land and has since been converted into a reforestation zone resulting in urban upgrading and new ecological service provision.

Such a scheme also incites us consider the opportunities that could be found with a resettlement scheme such as Belen where the population is tied to place for reasons of employment or custom while at the same time the occupied area is a potentially rich area for future ecological diversity, agricultural production and ecosystem management. It is interesting here to consider the opportunities that could exist for co-use of the abandoned land by its old owners individually or collectively and government. At present it is postulated that the land will revert to State ownership and the area converted into an ecological refuge of value to the city in terms of tourism, cleanliness etc even if local authorities are at times ignorant of the scope and importance of such a move. Here it can be suggested that in order to reduce opposition of the population to a move distant from their existing homes, work places and opportunities, the recovered land could be co-used for productive and ecosystem service purposes with the population gaining employment advantages and income from the area through agriculture, fishing, tourism etc. This would be similar to Mexico where the population was not obliged to give up ownership of existing land but must dedicate this to alternative uses (the fact that reoccupation for housing purposes took place is incidental in this argument).

### 5.9 Those left behind.

Where resettlement takes place there are at times many more persons and families in the same area that also need relocation or on site upgrading.

In the Belen case the scheme is directed to one area of a city that in each of its four municipal jurisdictions has numerous other families at risk from severe flooding- Puchanas, Iquitos, Belen y San Juan municipalities. It also takes place in an area where demand for housing is high even from non flood prone communities and families. In such a context the inevitable question is as to why lower Belen and not the rest was chosen for resettlement. And, if New Belen is not successful in attracting the identified beneficiary population it has been built for, as seems the case today with the majority of dwellers resistant to the scheme, who will occupy the new housing. Some ideas can be derived from relocations associated with previous flooding in areas near to Varillalito- Calipso in particular. Population from the different areas of Iquitos relocated to the Calipso scheme have manifested that despite slowness in service provision families place a high value on the tranquility of living in a flood safe area where children dont drown or become ill all the time as they did during the flood season in Belen. Also they no longer spend on wood for walkways to escape from flooding and children can play all day all year anywhere. Here one would suggest, the government is in a win-win situation given demand for flood safe housing and housing in

general in the area. Filling up with non Belen population is the first obvious solution and sales of houses to disadvantaged groups who need housing is a second option. What is sure is that the housing will not be left empty.

### 5.10 Those around the new scheme and the impact of the new scheme on population dynamics

One is accustomed to hearing how population in areas about to be resettled by others object to this, claiming that it will perturb local harmony, peace and customs. Such is the case of La Playita in Manizales as well as in Progreso, Mexico. In the case of New Belen it would seem that this has not occurred and in fact the local population sees the advantages of proximity to areas with new schooling, hospitals and clinics and recreational facilities they can share. A collateral negative process is the continuous invasion of surrounding private property in the anticipation of increases in land values and options for access to services and employment.

In Mexico at the Progreso relocation it seems that the beneficiary population has created a new urban neighbourhood which although near to other social groups located there previously, little contact exists between them.

### 5.11 What sort of house and plot am I going to?

The evidence suggests that many schemes provide very inadequate housing solutions seen from the perspective of size, location and design. The Belen resettlement scheme is based on designs that combine size controls due to financial reasons along with standard housing and overall settlement design which are more appropriate for coastal and Lima based locations than the selva as such. Little concern for the vernacular or cultural modes is accommodated even though, in principle, organizations such as the Construction Directorate in the same Ministry of Housing that leads the resettlement scheme, do attempt to promote the use of local, vernacular building schemes and customs. In Mexico, a standard FONDEN based model of house designed and instrumented through Mexico City based personnel is used wherever the scheme takes place, independent of location and culture. When NGO and other interests came into play in rural areas of Yucatan, an attempt to copy traditional Maya building failed due to cost and architectural limitations. The only schemes that really offered adequate housing and plots were the Yarumales and Playita schemes in Manizales. The first due to a unique combination of work done by NGOs in collaboration with architects from the National University, along with the early nature of the

scheme which meant land was still available in more or less central areas near to work and services. In the case of La Playita this was so because of the policy of letting people search for and purchase used housing in the city according to their own needs for services, location, work proximity etc. The play of national policy and economic interests must however be considered here as it can seriously affect how resettlement is seen and how housing needs are satisfied. Today the planned construction of 100000 homes for the poor in Colombia has been stimulated by the need to deal with a crisis economy where construction is seen to be a stimulus and economic imperative. However, it can have consequences for resettlement as the dominance housing solutions takes in the formula may be to the detriment of more integral considerations and socially

balanced approaches. Moreover the donation of housing with no price sharing by the population has been considered to go against appropriation and good resettlement practice.

The adequacy of high rise housing for the resettled, as used in the San Jose urban renovation scheme has been severely questioned by some in Manizales despite low cost considerations. Community integration is compromised whereas the advantage of two story homes is that one floor can be used for livelihood support mechanisms. Comment has been made as to the case of a lady who had pigs on the 13th floor of her apartment building in order to provide livelihood support and given she had no back yard where to keep it!

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## 6. An overview of settlement practice, contexts and challenges: decision making and implementation and the key to successful and unsuccessful practice as deriving from case study.

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A starting hypothesis suggests that the historical process associated with original settlement in hazard prone areas combines with existing structural conditions associated with governance, economy, polity and bureaucracy to impede successful resettlement unless particular conditions are present that allow a breaking with custom, convenience, ignorance and lack of cultural and social affinity and sensitivity of defining social actors. This is so both with decision makers and implementers and the population affected by risk. This affirmation leads to the following substantive considerations supported by case study evidence.

a. Relocation and resettlement must be seen in a majority of cases as reflections of prior “failures” of society in the planning and control of land use in cities and wider development planning concerns. Poverty, accompanied by lack of applicable and applied municipal norms, the lack of options for access to secure land by poor populations for cost or other reasons, the lack of land reserves for formalizing informal land use occupancy, amongst other reasons, explain settlement in unsafe places. But with this occupancy, the unsafe nature of which is no surprise in general to affected populations, history is made, a new culture is created, links and social relations and modes of life are created. These in turn are normally reinforced by the willingness of local governments, for political or humanitarian reasons, to provide unsafe sites with diverse services and support. Relocation or resettlement thus takes place with reference to historically constituted, socially relevant population and territorial units with customs, life styles, and needs that are clearly established and permanent. **Relocation and resettlement, in most cases, are measures to compensate historical errors, but where history has been constructed and turns an original “error” into a current, cotidienne reality.** Or they may respond to demands and pressures from private sector interests with ulterior motives in terms of urban development and planning. From this perspective the

problem of resettlement does not lie in the process of resettlement as such, but, rather, it lies in the process by which the decision to settle originally was achieved and as to what circumstances and restrictions to implementation exist. Outcomes from resettlement and relocation processes (seen in terms of costs and benefits, advantages and disadvantages etc) are directly related to the ways decision and implementation are achieved and how these take into account the history of and the present construction of existing settlements and their livelihood and material existence. In this sense, **methodologically there is no separation between understanding decision and implementation and understanding and explaining outcomes** (this idea will be followed up on in work packet 3 of the present project).

Original settlement is clearly a response in many cases to political interests and even corrupt land trafficking processes. In this sense the only real and effective way of avoiding the problem is through **improved urban governance and land controls** which in themselves require provision of safe land for poorer populations. All other solutions including resettlement will fall short as finance will never exist for all needed on site upgrading or resettlement schemes.

b. Relocation and resettlement in search of disaster risk reduction and control do not take place in a social, temporal and spatial vacuum. They do not, as processes, evolve with reference to a singular objective, defined in terms of disaster risk reduction, which is “uncontaminated” by other processes and needs. They do not constitute a sectoral theme that has its own clearly identifiable objectives and unequivocal ways of achieving them. When faced with the high levels of failure that are recorded with resettlement processes, where more than sufficient is known as to the reasons for failure in the past, any explanation of such failure must be phrased in terms of what can be called “conflicting interests”, special interests and differing

“value frames and criteria”. That is to say, relocation and resettlement are not clear cut, self contained and single minded processes but rather actions that may and do challenge status quo and involve conflicting or non compatible interests which need to be taken into account in the search for a solution to hazardousness and disaster risk. Three series of factors may be postulated in this respect (and we would say, proven by analysed circumstances).

- Firstly, and very much related to aspects of poverty and access to land, disaster risk associated with hydro-meteorological hazards, influenced or not by climate change, is but one aspect of the lives of the poor and only one expression of the range of risks they have to deal with daily or recurrently. Under such circumstances reducing disaster risk can only be adequately considered and enacted where consideration is taken of what this means in terms of other risks faced by the affected populations. Reducing or controlling every day risks associated with unemployment, health, violence, security, in a wider social sense, many times becomes a priority and is prioritized over reducing disaster risk. Or, the requirements for reducing disaster risk are seen more in terms of short term solutions or reactions, such as early warning, evacuation routes, structural solutions and disaster response, than in terms of final solutions such as resettlement to safer areas. The growth of hazard prone, generally poor to very poor communities, or individual housing, is a primary result of poverty and political convenience and coercion. The consolidation of such areas is the result of a process of institutionalisation of risk and the development of disaster risk tolerance in the face of every day risk reduction. Both conditions make resettlement a difficult task to face successfully. Poverty is expressed through the need to many times occupy unsafe, non controlled land. Political convenience and manipulation is expressed in the ways land invasions are supported for electoral gains purposes and political cooptation while at the same time ignorance of existing land use planning dictates is pursued. Institutionalisation is expressed in the ways local governments provide hazard prone communities with needed services and support during emergencies. And risk tolerance is expressed in the ways poor population construct culture and every day opportunity in hazard prone locations thus diminishing their concern for disaster risk as such. The combination of some or all of these historical facets provides a structural context whereby resettlement interrupts the very essence of polity and every day existence. **Any option for succesful resettlement thus requires a view and operation that can construct new polities and every day existences commensurate with political gain and livelihood advance.** Logically, one can thus asume that the difficulties of resettlement may be found in the existing conditions that explain risk prone communities and the success

that can be achieved in overcoming their effects and the social attitudes they help conform.

- Secondly, notions of community vulnerability to hazards is based on the notion of community as such. As many resettlement and relocation processes are based on the notion of community and deal with spatially segregated and constituted communities it is clear that community is a prevalent notion in the process and “maintaining community” becomes a major factor in many socially inclusive processes attempted by governments. However, it may be postulated that in many circumstances where contiguously constituted urban barrios or neighbourhoods exist, fomented by land invasion and illegal occupancy and crossed by numerous social divisions and conflicts, the notion of community may be far fetched and exaggerated and at times basically inapplicable, despite ideologies to the contrary. We then face the idea of the “myth” of community and therefore, the myth of the need to move whole communities from one site to another in order to maintain “community integrity”. Such integrity may be a myth and with it the idea of wholesale movement of whole communities may also be a myth or restriction to the imagination of other more dispersed solutions. This does not of course mean that community is not a powerful force for adaptation to new circumstances and an objective to be achieved in resettlement processes.

- Thirdly, resettlement many time signifies a contradiction and even confrontation between different interpretations of risk and its solution. Disaster risk and development specialists many times working out of central locations and with little knowledge of local conditions or needs and with little contact with other specialist interests dominate over local population decisions on site, urban and house design and livelihoods

c. Problems of institutional collaboration, difficulties with the introduction of holism in planning principles and approaches to social integration and action derive from competition and undefined principles and roles whereby disaster risk reduction-the primary aim of resettlement as we consider it in this study-is seen to be a specialised concern with its own mechanisms and institutional bases. The jurisdictional element is a critical factor in understanding success and failure or options for both. Resettlement processes involve intimate knowledge of context and local population, making it a process that must necessarily be led locally even though counting on national or regional support. At the same time, relocation or resettlement of population, where housing, services, livelihood planning and social integration are or should be major concerns, can be led by different agencies or Ministries according to how the problem is interpreted and understood from their sectoral perspectives. It may be postulated that when faced with the clear and

unequivocal need for integration and holistic approaches, the nature of the lead institution can and will affect the final outcome and determine the level of concentration on specific aspects as opposed to the proposal of more integrative solutions. Thus, if the problem is seen to be one essentially of housing and led by housing authorities this can and will lead to a different approach and emphasis as compared to if the problem is seen from a land use and urban planning or environmental angle, a social integration and poverty angle or a community development angle. Overcoming specialized interpretations and action formats then becomes critical.

d. The commitment of governments to resiting and resettlement is compromised by the fact that substantial investment has normally been made in service provision for those that invade or “illegally” occupy land. Such a process may be explained by different political and humanitarian factors, but the very fact it happens is a serious antecedent to any attempt at resettlement because government has invested in, and the population has had access to both services and emergency response mechanisms and support which color their view of location and movement away to another place. Invasion sites are also prey to political cooptation whereby any idea of movement away from the area compromises political support for certain groups but increases support in other areas. Even where areas occupied by illegal invasion are declared of high non mitigable risk thus leading to the prohibition of investment in such areas, legal processes based on civil rights and humanitarian principles lead to such rulings being overturned and investment taking place. Once service provision is guaranteed and existent the adaptability of local populations guarantees determined levels of livelihood support and a tying to area and place, a process also added to be cultural affinity and history. The various interests of different stakeholders, from politicians to local commerce, illegal activity and population circumscribes any future attempt to relocate population and must be seriously considered in any negotiation or plan for resettlement in the future. Plans that allow maintenance of past gains while widening options are more likely to be successful. Confidence that livelihood options and transport costs are accesible greatly increases support for resettlement. For this reason the following experiences and approaches have had, or could have more success:

- Where resettled population is permitted **to maintain possession** of risk prone sites but under the condition they are dedicated to other uses in the future-economic, artisan, etc
- Where free options supported by pecuniary means are made available to choose sites and houses in any part of the city, **purchasing available used housing**.

- Where original land passes in co ownership to government and the population and it is **reconditioned for ecological, environmental and agricultural use** with earnings distributed between government and the population.

- **On site upgrading** that increases building resistance and reduces hazard occurrence and intensity whie allowing benefits to be derived from past investments.

e. Housing design and funcionality, respect for cultural norms and mores, spatiality and distribution of facilities are clearly important in the choice to move or choice to stay once moved. Small houses on small plots for persons used to large lots and larger houses can only work where persons are abolutely convinced that they are safer from flooding etc but livelihoods are also guaranteed. The access to adequately designed and built houses seems to be conditioned by local government appropriation of the processes in agreement with local populations. A centre-periphery relationship can not work whereby persons unfamiliar with local needs and culture take control of the process. This then means that **locally led and directed schemes with regional and national support** is the only real way to go.

f. Resettlement can only be succesful and must always be seen as a multi facetic process in which urban area and house design and comfort, livelihood support, service provision and other aspects are succesfully covered and provided for. Clearly participation and open consultation and partnership in decision making are important prerequisites. However the whole notion of integrality, holism, multi facetic problems and in consequence solutions seems to be distant from the mind sets and practice of government bureaucracy, where sector concerns dominate and relations with others are scarce or difficult. Given resettlement can be promoted by any one of many local or national level institutions from the Ministry of Housing and the Risk management sytems thru to social welfare institutions or environmental ministries, NGO or private sector, approaches and central concerns can differ and aspects of little concern to the central administrator of projects may be ignored completely. Housing ministries will be concerned with houses, environmental ministries with environmental recovery, social integration units with social welfare etc. On the other hand national level institutions will be more concerned with national level concerns and approaches wheras local level institutions are more concerned with local appropriation and problems. Where national government policy in general favours such concerns as economic growth and employment creation, resettlement will be increasingly dominated by concerns for housing construction and less so

for more subtle affairs such as social welfare and integration, alternative housing solutions to that of building new units etc.

g. In terms of legislation and norms for resettlement it seems the more appropriate and flexible solution or way forward is not necessarily thru specific laws and ordinances. Policy prescriptions that lay out the basics and requirements for a resettlement process should be accompanied by

a clear insertion of the resettlement problem in the policies and laws on disaster risk management in a development framework and provided for in the norms and laws on territorial organization, environmental management and poverty reduction. Resettlement must be seen as and dealt with as one option for disaster risk reduction and control not an option in itself and the criteria for deciding on its appropriateness should be seen in the light of other options in balanced fashion.

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## Annex 1. Research meeting considerations

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### Some defining aspects deriving from the debate in Costa Rica and considerations taken from the diagnoses

An overall consideration of settlement and resettlement and the process of climate related risk leads to a broad classification of possible cases of settlements at risk.

- Settlements that due to spontaneous processes have landed up in unsafe areas— land invasions and other similar processes. These may be divided broadly into those that lack services and have been ignored by government and those that have in fact been given services and are therefore far more consolidated. Resettlement for one or the other is a different process and probably subject to different decision making.
- Settlements at high risk exist that have been promoted and consolidated by government initiatives.
- Settlements at high risk can be found that originally were not so. However processes of degradation associated with deforestation, slope mining through to seeping of water and waste into the substrata have created a socio natural hazard pattern ex post original settlement.

Debate and consideration of diagnostic results and future options for research led to the following generic considerations which will be taken into account as the three research teams develop concrete ideas for the next stage of research.

1. Any consideration of resettlement due to risk or disaster and the decision and implementation process must be looked at in the wider frame of DRM and its objectives and other overarching policies related to land use planning, housing policy, social integration goals and objectives etc. This is accompanied by the conclusion that resettlement is simply not a

viable solution for the large number of demands for security of human settlements due principally to the large and increasing numbers of settlements located in high risk areas which simply exceed any possibilities financially and organization wise. This means that decision as to resettlement will remain mainly on the post impact side of the equation. Here decision making takes on other characteristics under the pressure of post impact circumstances, when compared to any attempt at pre-impact movement, where the concept of non mitigable risk is applied but with, many times, no real criteria or information to reasonably decide how this is consummated in real decision criteria (there are cases of pre impact movement in Colombia in particular but not extensively elsewhere). Due to these considerations research must take up on the question as to how can we improve land use planning and DRM prospective principles such that settlement in highly dangerous areas is avoided in the first place. This remits us to urban and land use planning, availability of land for settlement for poorer groups etc.

2. Although climate related resettlement is the central objective of the research much may be gained from also considering evidence and experiences from resettlement associated with civil conflict, development initiatives etc.

3. As most cases of resettlement are sui generis and follow no established guidelines as yet, being the result of individual processes guided by different decision makers, studying one case in each country will not give us much relevant information, although the sum of results would be relevant as it would show the diversity of processes involved, but not contribute much to advising on needed change and development in a generic fashion. Therefore a comparative approach must be sought in all three countries. Clearly in Mexico and Peru where recent policy and legal developments have ensued that supposedly

provide a frame for decision and action, post and pre change cases could be looked at. In Colombia this is not the case and resettlement is an ad hoc process informed by much experience but little as regards fixed guidelines. However Colombia has the advantage for our Project that a single city like Manizales has a vast wealth of experience and cases which will allow a comparative study on site of various cases of resettlement. Financial limitations of the project will need to be considered in reaching a decision on comparative study as opposed to single case approaches.

4. The former considerations signify that although we are promoting a regional component to the Project which is composed of cases from three countries, the results will essentially be the sum of the individual country results which themselves can be brought together to gain a greater understanding of decision and implementation in general, but not necessarily with results that are generally valid across countries. This can be extended as an argument to India and Uganda. Place specific characteristics mean processes work out differently according to place and difference in culture, economy, politics etc. Impacts as regards costs and benefits will clearly be affected by original decision and implementation procedures and we can hope to establish or examine this relationship over a series of cases studied.

5. Given the sequential relationship between decision, implementation and subsequent and prior costs and benefits consideration and options need to be considered to consider WP 3 processes in WP2

6. Despite the essentially country by country decision making process in terms of what exactly to study and where, and the accumulative nature of research results, as opposed to then being strictly comparable, there are certain themes that can be looked at in comparative fashion. These essentially derive from the existence of different legal and normative, policy and implementation frameworks and where guiding questions can be: what explains the different advances and positions viz a viz legal and policy frameworks between countries? Why have the policy and legal developments as played out in Mexico and Peru recently been undertaken and not so in Colombia despite its far greater experience with resettlement and DRM in general? What are the different visions of resettlement as a goal and process as played out in the minds and minds sets of different organizations and institutions that may be leaders in the process of resettlement—mainly DRM, housing, territorial planning and social integration and support ministries? Is there any way of concluding as to the best legal and organizational set up for resettlement—with laws, or policies or ad hoc approaches guided by dictates in different normative statements, etc?

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## Annex 2. Summary of Research proposal

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### Considerations as regards WP 3 objectives and case studies deriving from the regional research meeting in San Jose.

Taking up on WP2 research objectives in the light of the differences between the three LAC countries involved in the study, a varied approach has been outlined taking advantage of different contextual and legal-normative characteristics and experience with resettlement in each country. Decision and implementation remain the central concern, with certain advances to be made with cost-benefit analysis seen in quantitative and qualitative terms- the central concern of WP3.

Decision- making is seen from both the perspective of the how, why and relevance of existing legal structures, norms, processes etc. and from the perspective of particular cases of resettlement. Overall, the end result of research will not necessarily be a strictly directly comparable package of results but rather, evidence relating to the overall problem of decision and implementation which, along with results from Uganda and India, will help fill in our knowledge of such processes and help identify good practice and ways of going forward. This does not mean of course that immediately comparable aspects will not be dealt with. For example, how technical criteria as regards non-mitigable risk are applied across countries or how different legal frames affect the success of decision making and implementation.

#### Colombia.

A country that despite, or maybe because of its vast experience in DRM and resettlement, has no law or explicit policy on the subject of climate induced (or other hazard related) resettlement, a topic which as such is a prime prerogative of local governments. The country has experience with other types of resettlement, including that which is development

project induced or due to civil conflict. The city of Manizales, unlike many other cities in LAC, has a vast experience with DRM and resettlement over time. Therefore it is necessary to take advantage of this situation and look at resettlement in the light of the overall development of preventive DRM in the city, examining resettlement as part of its overall logic and practice and its relationship to territorial organization goals and practice in the city.

The central goal of research is to examine various cases of resettlement undertaken over time in Manizales in order to examine central aspects of decision and implementation, effectivity, social, economic and institutional conditions, resettlement characteristics etc. This will be done using the Playita resettlement process as an axis, a point of articulation around which other cases can be analyzed. This will offer a backdrop for analysis of costs and benefits and these will be advanced during the WP 2 process. Among the outputs of the study it is hoped to show how the Manizales experience has influenced national policy (scaling up of experience), how resettlement has linked to territorial organization planning, how technical criteria are applied and how the subtleties of risk evaluation are used and the difficulties present in their application.

The study is thus a single city study of multiple examples of resettlement enacted over time in a city that has given much emphasis to DRM and land use planning due to its hazardous location and conditions and the shortage of high grade land for residential and commercial use. Emphasis will be made on analyzing the break-down or adhesion to land use planning dictates that municipalities should implement in their Territorial Organization Plans. This is critical in order to understand the difficulties faced by municipalities in ordering their territories and also because resettlement is a symptom not cause or problem as such arising many times due to inadequate means of evaluating risk and ordering territory and land use.

### **Considerations as regards WP 3 objectives and case studies deriving from the regional research meeting in San Jose.**

Taking up on WP2 research objectives in the light of the differences between the three LAC countries involved in the study, a varied approach has been outlined taking advantage of different contextual and legal-normative characteristics and experience with resettlement in each country. Decision and implementation remain the central concern, with certain advances to be made with cost-benefit analysis seen in quantitative and qualitative terms- the central concern of WP3.

Decision- making is seen from both the perspective of the how, why and relevance of existing legal structures, norms, processes etc. and from the perspective of particular cases of resettlement. Overall, the end result of research will not necessarily be a strictly directly comparable package of results but rather, evidence relating to the overall problem of decision and implementation which, along with results from Uganda and India, will help fill in our knowledge of such processes and help identify good practice and ways of going forward. This does not mean of course that immediately comparable aspects will not be dealt with. For example, how technical criteria as regards non-mitigable risk are applied across countries or how different legal frames affect the success of decision making and implementation.

#### **Colombia.**

A country that despite, or maybe because of its vast experience in DRM and resettlement, has no law or explicit policy on the subject of climate induced (or other hazard related) resettlement, a topic which as such is a prime prerogative of local governments. The country has experience with other types of resettlement, including that which is development project induced or due to civil conflict. The city of Manizales, unlike many other cities in LAC, has a vast experience with DRM and resettlement over time. Therefore it is necessary to take advantage of this situation and look at resettlement in the light of the overall development of preventive DRM in the city, examining resettlement as part of its overall logic and practice and its relationship to territorial organization goals and practice in the city.

The central goal of research is to examine various cases of resettlement undertaken over time in Manizales in order to examine central aspects of decision and implementation, effectivity, social, economic and institutional conditions, resettlement characteristics etc. This will be done using the Playita resettlement process as an axis, a point of articulation around which other cases can be analyzed. This will offer a back

drop for analysis of costs and benefits and these will be advanced during the WP 2 process. Among the outputs of the study it is hoped to show how the Manizales experience has influenced national policy (scaling up of experience), how resettlement has linked to territorial organization planning, how technical criteria are applied and how the subtleties of risk evaluation are used and the difficulties present in their application.

The study is thus a single city study of multiple examples of resettlement enacted over time in a city that has given much emphasis to DRM and land use planning due to its hazardous location and conditions and the shortage of high grade land for residential and commercial use. Emphasis will be made on analyzing the break-down or adhesion to land use planning dictates that municipalities should implement in their Territorial Organization Plans. This is critical in order to understand the difficulties faced by municipalities in ordering their territories and also because resettlement is a symptom not cause or problem as such arising many times due to inadequate means of evaluating risk and ordering territory and land use.

#### **Peru.**

Peru is the only country in LAC with a specific law for resettlement, passed in 2011 and regulated in 2013. This took place parallel to the passing of a new and innovative disaster risk management law also in 2011. These laws were formulated and passed independently reflecting the fact that the previous law on disaster management and its application were in the hands of military civil defense authorities for which post impact temporary evacuation and settlement was the only goal and consideration (emergency planning). The Ministry of Housing was responsible for the resettlement law, while the new DRM law did not explicitly consider resettlement although it did open-up opportunities for risk reduction in general. Differences in approach between the housing sector and DRM mean that preventive resettlement was not central in housing and urban development plans and policy.

The regulations for resettlement were placed in the hands of the Centre for the Estimation and Prevention of Disaster Risk- CENEPRED-, an institution created by the new DRM law of 2011. CENEPRED has also developed a risk evaluation tool which is the basis for the identification of non-mitigatable risk which is in itself the basis for decisions on resettlement, according to the law. Thus, in principle, this allowed a law formulated under the housing ministry to be considered in the light of DRM principles.

Risk evaluation is however in the hands of a natural science institution meaning that hazard analysis is of primary concern as opposed to social analysis.

Moreover, little experience exists with the participatory development of laws and norms and technical criteria, taking into consideration local conditions and actors as opposed to importing ideas from other contexts. Both contexts are interesting to examine as part of this research endeavor. As a result of the new resettlement law and CENEPREDs work 24 cases for resettlement were identified affecting 18000 people.

The subsidiary nature of the new law allows for support from the national level for initiatives undertaken and led at a local or regional level or where all three levels interact commensurately. Little study of the efficacy and efficiency or satisfaction with the new law exists.

Thus, the proposed study will “reconstruct cases of resettlement in order to revisit the new law and examine the heterodox approach to starting up and undertaking resettlement processes”.

Specific objectives of the study in Peru are:

- To examine and understand the origins, reasons, approach, the whys and where of the new resettlement law. Identify root causes, principles, values and interests that explain decisions and levels of implementation success, examining whether the new law or its regulations require revision and change.

- To compare the ongoing decision making and implementation process in Belen, Loreto province, with the case of Lucre in Cuzco where resettlement had been completed prior to the new law. This allows comparison of preventive and reactive resettlement looking at actors, motives and interests in play. An additional analysis of the case of Volcan Ubinas in Moquegua will be undertaken as this is a case of resettlement strictly following the conditions established in the 2013 regulations of the 2011 law.

## **Mexico.**

Overall Mexico does not have a single legal frame for resettlement, neither does it have a consolidated policy process or existing documentation of cases of resettlement due to risk or disaster, the majority of the cases of which date from relatively recently. This means additional supporting research is needed to fully substantiate WP 2 research goals and process. Three criteria will guide WP 2 research:

- The need to take the overall DRM frame as a point of reference in order to examine how resettlement contributes to overall risk reduction goals and if it is the best option. The play off between reduced disaster risk and increased every day risk is an essential question to be examined.



## Annexo 3. Propuesta de Investigación Colombia

### Reasentamiento Poblacional En Zonas Urbanas Por Impacto Del Cambio Climático: Colombia

#### Antecedentes

Con el diagnóstico realizado para Colombia referente a la normativa y los posibles casos de estudio que se presentaron y teniendo en cuenta las discusiones de trabajo del taller realizado en Costa Rica, se plantea la necesidad de enfocar el trabajo en el logro de los objetivos inicialmente trazados. Es importante mencionar que el país no cuenta con una ley o política específica en los temas de reasentamiento y/o relocalización, pero que con su basta normativa y reglamentación cubre los aspectos necesarios para que se realicen y se hayan realizado hasta el momento este tipo de movilizaciones; cubriendo aspectos de ordenamiento territorial, gestión del riesgo y planificación que apuntan y son la base para la toma de decisión.

Adicional, se debe tener en cuenta que no sólo existen las posibilidades de reasentamientos por cuenta de problemas relacionados con el clima (especialmente eventos hidrometeorológicos) sino que también se han vivido experiencias por procesos de tipo geológico y otros de tipo antropogénico como el desplazamiento por violencia o por, proyectos de desarrollo; los cuales tienen un valor agregado en su implementación. Se presentan en el diagnóstico varias experiencias del país, pero especialmente se hace referencia a algunos de los procesos llevados a cabo en la ciudad de Manizales, la cual ha demostrado a través del tiempo que está en la línea de la gestión del riesgo y que debido a un sinnúmero de causas, sus gobernantes han enfrentado la toma de decisión y por ende sus implicaciones, de enfrentar las situaciones que la rodean.

Debe ilustrarse como la ciudad a través del tiempo, ha logrado debidamente la incorporación del riesgo en la planificación desde una visión preventiva, adicional a los

proceso que inevitablemente, a raíz de emergencias, ha tenido que implementar y como a través de aciertos y desaciertos, se plantean las decisiones.

#### Objetivos

Se continúa con el objetivo principal de la investigación, exponer el entorno social, político y económico que es base para el entendimiento de la toma de decisiones y los esquemas de implementación.

#### Caso de Estudio. Manizales

A partir de lo expuesto se plantea integrar en un solo estudio de caso varios de los procesos llevados a cabo en la ciudad de Manizales, teniendo como eje de análisis la Reubicación del Barrio La Playita. Se propone ilustrar aspectos de diferentes casos emblemáticos alrededor del caso central, con el cual se podrá hacer una comparación en cuanto a los procesos de toma de decisiones, efectividad, condiciones de los reasentamientos, características individuales y específicas de cada uno, errores y aciertos. Esto llevará hacia la posibilidad de poder en la próxima fase mostrar el costo beneficio de este tipo de intervención.

Adicionalmente, presentar como se ha llegado a influir desde lo local a lo nacional, teniendo como base estas experiencias, el entorno de gobernabilidad y gobernanza, legalidad y normativa que han existido. Igualmente, ahondar más en aspectos técnicos que inciden en una toma de decisiones apropiada, tal como identificar el vínculo sutil que tienen las evaluaciones del riesgo en la decisión misma, su pertinencia y posibilidades reales de realización, lo cual está directamente ligado a una estrategia tácita de reducción del riesgo desde el punto de vista correctivo y prospectivo que debe estar en la forma de llevar a cabo los estudios y del tipo de metodología utilizada. Esto aunado, a lo que se considera más relevante en este caso, como lo es el Ordenamiento Territorial, visto

como el adecuado uso del suelo, teniendo en cuenta su capacidad y aptitud. Ilustrar el asocio de este tema con el reasentamiento preventivo y como en Manizales se ha avanzado en esta temática vinculada a una planificación con sostenibilidad y entendiendo la relación riesgo-territorio-desarrollo en forma integral.

### **Metodología de Indagación**

Se propone realizar esta fase a través de acercamientos directos con los actores involucrados y las instituciones encargadas del tema, ya que se cuenta con la posibilidad y acceso a los casos de reasentamiento más relevantes en la ciudad, además de las experiencias propias de los analistas. Adicionalmente, se tiene contacto con la administración municipal, la autoridad ambiental, la academia y otras instituciones que son relevantes en los temas complementarios de desarrollo indicados, los cuales son la base en la política actual de

la ciudad frente a la Gestión del Riesgo.

Con ello, se podría visualizar de igual forma la tercera fase de identificación de costo – beneficio desde la perspectiva del tomador de decisiones y la viabilidad de acercamiento con la comunidad.

### **Productos esperados**

No se plantean modificaciones mayores a los productos del WP 2, no obstante se quiere introducir algunos aspectos que se consideran relevantes y cómo inciden en aportar mayor conocimiento en busca de entender la visión integral que se requiere en el tema.

### **Requerimientos**

Al estar de base en la ciudad, no se plantean por el momento requerimientos especiales.

## Annexo 4. Propuesta de Investigación Peru

### Reasentamiento poblacional en zonas urbanas por impacto de eventos climáticos: Perú

#### Antecedentes

En el año 2011, se promulgó la Ley 29664 Ley del Sistema Nacional de Gestión del Riesgo de Desastres (SINAGERD) y meses después se promulgó su reglamento. El mismo año se promulgó la Ley N° 29869, Ley de Reasentamiento Poblacional para las Zonas de Muy Alto Riesgo No Mitigable y su reglamento se implementó 2 años después. Si bien ambas normas no se articularon inicialmente, en el proceso de reglamentación han ido realizándolo, esto se expresa con el cambio de liderazgo para el diseño del reglamento, que paso del Ministerio de Vivienda Construcción y Saneamiento (MVCS) al Centro Nacional de Estimación, Prevención y Reducción del Riesgo de Desastres (CENEPRED).

A consecuencia de las mencionadas normas, se ha producido una visualización de la agenda pendiente en reasentamiento poblacional por riesgos de desastres en el país. Al menos se han identificado 24 casos de reasentamiento poblacional por peligros por factores geodésica interna, geodinámica externa y aunada por la intensificación de la variabilidad y el cambio climático. Estos procesos de reasentamiento vienen involucrando a más de 18,000 personas directamente afectadas en el territorio nacional. Las regiones que manifiestan esta problemática de manera activa son: Apurímac, Cajamarca, Cusco, Huancavelica, Junín, Moquegua, Loreto y San Martín (CENEPRED, 2014).

Durante la vigencia del Sistema Nacional de Defensa Civil-SINADECI (1970-2011), la problemática nacional de reasentamiento poblacional estuvo in-visibilizada y/o postergada por décadas y que fue manejada de manera reactiva hasta el año 2011. Las normas establecían que la atención fuere solo por emergencia

y peligro inminente, esta última condición implicaba que las acciones inmediatas como evacuación o reubicación tenían carácter temporal, significando que la población ubicada en albergues, al finalizar el periodo de emergencia regresara a las zonas de peligro. Con la ley del SINAGERD y la ampliación de los conceptos de gestión del riesgo no se concibió el concepto del reasentamiento o de alto riesgo no mitigable, pero si acciones para la reducción del riesgo que pueda cambiar la condición de peligro inminente o una situación de mayor seguridad.

El CENEPRED, que fue una entidad creada con la ley del SINAGERD el 2011 y que cuando se elaboró la ley de reasentamiento aún no existía. Luego de 2 años, 2013, el CENEPRED posicionado y fortalecido en la GRD, se encargó de liderar el proceso interinstitucional de creación del reglamento de la ley de reasentamiento poblacional. Además el CENEPRED se ha encargado de crear metodología para la evaluación del riesgo (denominado EVAR) para la determinación de los niveles de riesgo del territorio y establecer el nivel de alto riesgo no mitigable. Condición que permite determinar la condición para iniciar el proceso de reasentamiento poblacional. De acuerdo al reglamento de la ley de reasentamiento y como viene ocurriendo en varios casos del país, el Instituto Geológico Minero y Metalúrgico (INGEMMET) que es la entidad técnica científica de análisis de riesgo geológico y ambiental y es quien ha venido determinando las condiciones de peligro inminente, alto riesgo no mitigable y estableciendo los requerimientos de reasentamiento poblacional en los territorios.

Idealmente las normas se deben diseñar luego de un proceso de investigación exhaustiva en la realidad para responder a una problemática social, objetivos predefinidos y establecen adecuadamente los medios para lograr los fines ulteriores. En América Latina y en particular el Perú, muchas normas no se crean en laboratorios sociales o como lo llaman los

antropólogos en la realidad social, se realizan copias de políticas de otros países aislándolo del contexto o de los factores de causalidad que dan éxito a dichas políticas, prescindiendo de la investigación aplicada para determinar el diseño de las normas y/o políticas públicas.

La Ley de reasentamiento poblacional siendo una política pública de carácter nacional y que se implementa de manera articulada del nivel nacional, regional y local, las competencias son subsidiarias, con el fin de asegurar la capacidad técnica, institucional y financiera en los niveles que lo requiera para asegurar la implementación de la política, por tal motivo en el país, se puede ver experiencias heterogéneas de reasentamiento conducido por el nivel municipal, regional y otros articulados en los tres niveles de gobierno (nacional, regional y local).

Si bien luego de la promulgación de la ley de reasentamiento se han empezado a documentar experiencias de reasentamiento por riesgo de desastre son muy pocas consideraciones que se han realizado para determinar la eficacia y nivel de satisfacción de la ley de reasentamiento para los beneficiarios. La presente estudio postula reconstruir los casos de reasentamiento para visitar la ley de reasentamiento, determinar por qué existen formas de empezar y conducir los procesos de reasentamiento de manera heterodoxa en el Perú.

## Objetivos

- Documentar el enfoque, intereses y supuestos que concibieron la ley de reasentamiento poblacional para determinar cuál fue las ideas motrices para la elaboración de dicha norma, contra que problemática social se enfrenta la ley y a qué demanda explícita e implícita respondía y por qué obtuvo determinadas características.
- Sistematizar la experiencia de reasentamiento poblacional del distrito de Belén, relacionarlo con otros procesos de reasentamiento (Lucre y Ubinas) que permitan dar una lectura de la continuidad de los desastres y de la distinción dicotómica del reasentamiento preventivo y post-desastre y que utilidad tiene dicha dicotomía en la articulación caótica de actores, intereses y movilización de recursos que se generan en el territorio.
- Identificar las causas desencadenantes (valores, principios, intereses) para la toma de decisión, establecer los mecanismos de toma de decisiones y los niveles de éxito de implementación del proceso de reasentamiento que determinan si la ley de reasentamiento requiere ser modificada para efectos de mejora de su eficacia.

## Caso de Estudio

El distrito de Belén está ubicado en la provincia de Maynas, Departamento de Loreto. Tiene una superficie de 649 km<sup>2</sup> y una población estimada de 68,806 habitantes, de los cuales poco más del 13% (9,241 habitantes) son menores de 5 años (INEI 2007).

El distrito de Belén está compuesto por 2 urbanizaciones y 11 asentamientos humanos. Por su relieve, se diferencia en zona de alta y zona baja. Dentro del distrito, se ubica una zona denominada como Zona Baja Centro Inundable (ZBCI), constituido por los asentamientos humanos Zona Baja Belén III Etapa. En su conjunto, estos asentamientos constituyen, aproximadamente, 38.2 hectáreas en las que viven 16,380 personas en 2,600 predios de vivienda.

Casi todos los años Loreto se ve afectada por lluvias intensas que se transforman en inundaciones, la población riverense se ha adaptado a dichas formas de exposición, construyendo formas elevadas de viviendas y servicios básicos. Aunque la temporada de lluvias del 2011-2012 generó inundaciones que superaron los límites históricos, dejando 229,412 damnificados (significado el 23% de la población), 138,161 personas afectadas (14% de la población), generando daños materiales de 72,642 viviendas, 1724 centros educativos, 54 establecimientos de salud, 170 locales comunales, 151 km. caminos afectados, 27,821 hectáreas de cultivo, 50% superficies sembradas pérdidas, 29,000 productos afectados y 40 millones en pérdidas.

Nuevamente, las inundaciones de Loreto el 2014-2015 generó 14 mil personas que perdieron sus viviendas, 15 mil has cultivos destruidas, 8 mil familias por inseguridad alimentaria y 148 mil personas afectadas, 1 hospital de Essalud, 36 establecimientos de salud, 521 instituciones educativas inoperativas,. Se genera un problema a la salud pública (dengue, el chikungunya, la malaria, leptospirosis e inseguridad alimentaria) de dicha población damnificada. Esta situación se viene repitiendo severa y frecuentemente en la última década en el departamento, por lo tanto el gobierno continúa en su insistencia de reasentar

## Belén.

En Noviembre del 2014, se emitió la Ley N ° 3943 que declaró en emergencia y de necesidad pública de reubicación de la zona baja de Belén, provincia de Maynas, departamento de Loreto, por ser una zona de constantes inundaciones producida por el río Itaya, y que la emergencia del 2012 superó toda capacidad de resiliencia de la población.

El proyecto pretende trasladar a 2,600 familias que viven en condiciones insalubres a un conjunto habitacional donde se les asignará casas de concreto. El proyecto asignará a cada familia una casa de 40 m<sup>2</sup> en un terreno de 120 m<sup>2</sup>, son 50 hectáreas disponibles. El terreno asignado por el Gobierno Regional de Loreto para el proyecto se encuentra a 30 minutos de Belén. Conocido como Varillalito, está ubicado en el kilómetro 12.6 de la carretera de Iquitos hacia Nauta. El proyecto habitacional está siendo previsto entregarse para abril 2016. El costo estimado de la reubicación de la ciudad de Belén ascendería a S/. 174,290,400 millones de Nuevos Soles, asumidos por el presupuesto institucional del MVCS. Los temas a financiarse son: conformación del terreno natural (S/. 2,000,000), habilitación urbana 40 has (S/. 84,000,000), construcción de 2,600 viviendas (55,754,400), servicios públicos complementarios (S/. 10,000,000), malecón (S/. 22,500,00).

### Metodología de Indagación

El estudio tendrá una perspectiva nacional sobre la política pública para el reasentamiento poblacional, se realizará a través de entrevista a los actores involucrados en el proceso de diseño e implementación de la ley de reasentamiento poblacional, primera etapa a cargo del Programa Nuestras Ciudades (PNC) del Ministerio de Vivienda Construcción y Saneamiento (MVCS), segunda etapa a cargo del CENEPRED para elaborar el reglamento de la ley y de los posteriores instrumentos metodológicos. Luego de conversar con los actores de manera bilateral se organizará una reunión con los expertos para generar una reflexión colectiva.

Los casos analizados deben determinar si la ley de reasentamiento ayuda a un adecuado proceso de reasentamiento poblacional y para ello se establece las siguientes acciones de estudio.

### Trabajo de campo del estudio central

El proceso de investigación en campo se enfocará en el caso del distrito de Belén en el departamento de Loreto, que es la experiencia de reasentamiento más importante y costoso que tiene el país. Se entrevistarán a los actores del proceso, gobierno regional, municipio distrital, organización de vecinos, dirigentes de mercados, entre otros.

Se realizará una búsqueda y análisis detallada de la información que viene generando el proceso en Belén, hecho que permitirá complementar el análisis de la información de campo.

### Caso comparado

Para tener una visión de lo que significa un caso de reasentamiento finalizado se realizará una sistematización de reasentamiento en el distrito de Lucre en Cusco, para determinar el grado de éxito y satisfacción de la experiencia finalizada. Para este caso también se realizará un análisis documental y trabajo de campo.

Finalmente, solo a nivel de información documentaria y de informantes en Lima se realizará el análisis de la experiencia del Volcán Ubinas, esta es una de las pocas experiencias donde se ha implementado siguiendo estrictamente lo establecido en la ley de reasentamiento poblacional.

### Productos esperados

De acuerdo a los productos establecidos en el WP2, son los siguientes temas se cumplirán los objetivos establecidos:

- Ley de Reasentamiento Poblacional por Alto Riesgo No Mitigable revisitada de acuerdo a los actores que la diseñaron y un breve balance de acuerdo a los 4 años de implementación
- Estudio del proceso de reasentamiento que se viene implementando en el distrito de Belén-Departamento de Loreto, siendo es el caso más importante del país porque participan los 3 niveles de gobierno y con la asignación presupuestal de casi 200 millones de soles para reasentar a más de 2 mil familias.
- Estudio del reasentamiento de Tongobamba en Lucre-Cusco 2010 que es un caso finalizado en el reasentamiento poblacional, que permite comparar los mecanismos existentes previos a la ley de reasentamiento poblacional.
- El Caso del reasentamiento de Querapi por el Volcán Ubinas, es una de las pocas experiencias donde se está aplicando la ley de reasentamiento al pie de la letra y genera mucha información de pro y contras sobre la norma en mención.

### Requerimientos

Para el trabajo de campo del nivel nacional no se requieren mayores recursos para realizar la investigación. Se intentará organizar un taller de expertos, el mismo que se puede incurrir en gastos de un coffebreak. Para los trabajos de campo en Loreto y Cusco, al menos se requerirán 9 días de trabajo de campo, 5 para Belén y 4 para Cusco. A continuación se presenta un estimado de costos para la realización del trabajo de campo.

## Annexo 5. Propuesta de Investigación Mexico

### Reasentamiento poblacional en zonas urbanas por impacto del cambio climático: MEXICO

#### Contexto general

A partir del Diagnóstico realizado sobre casos, política e instrumentos legales para la reubicación de poblaciones en zonas urbanas en México por efecto de fenómenos climáticos, fue posible identificar diversos casos de reasentamiento de población ya sea por proyectos de desarrollo, por recuperación y protección de zonas con valor ambiental, por conflictos agrarios, por violencia o por desastres. De todos ellos, los casos de reubicaciones por desastres son de los que menos información pudo obtenerse, siendo también los que parecen ser los más recientes en el país (finales de la década de los noventa del siglo pasado) o, al menos, los primeros documentados que fue posible identificar.

El hecho de no contar en el país con un marco legal específico para reubicación de asentamientos, con una política institucional consolidada, ni con estudios profundos o información documental sobre la mayor parte de los casos de reubicación por desastres conocidos o por otra causa, dificulta la ejecución de la segunda fase del proyecto tal y como se tenía prevista e implica ampliar el espectro de investigación. Pero ampliar el espectro de investigación también se deriva de reflexiones propias y del debate sostenido durante la reciente reunión del grupo de trabajo para América Latina en la ciudad de San José, en días recientes. En el caso de México, tres son los aspectos básicos que consideramos deben guiar la segunda fase del proyecto (WP2) y las fases subsiguientes (en especial WP3), los cuales se resumen a continuación:

1. **Los reasentamientos de población por desastres deben abordarse desde la perspectiva más amplia de la gestión del riesgo**, indagando si se pueden considerarse la mejor opción o no

en función de la complejidad o de las experiencias existentes, pero también considerando que un reasentamiento de población es justamente el punto de quiebre entre la reducción del riesgo al tratar de eliminar la exposición y la construcción de nuevos riesgos a partir de la creación de asentamientos con nuevas formas de vulnerabilidad y exposición a nuevas amenazas cuando se hacen en condiciones inadecuadas. Considerando que la reubicación de población, especialmente por factores climáticos, parece tender a convertirse en una práctica que se extenderá por todo el mundo bajo los pronósticos del Cambio Climático, se considera que este punto es fundamental de considerar en la presente investigación.

2. **El análisis de un solo caso de reubicación es insuficiente**, ya que no es posible realizar estudios rigurosos sobre un tema de tanta relevancia y complejidad a partir de una sola experiencia que con toda seguridad estuvo marcada por factores coyunturales difíciles de replicarse y/o aplicarse a otros casos conocidos desarrollados en momentos y condiciones distintas. Esto es particularmente importante para el desarrollo de las dos fases sustanciales del proyecto: WP2 (análisis del sistema de toma de decisiones) y WP3 (costo beneficio), por lo que se considera necesario incorporar el mayor número de casos posibles, dado el tiempo y los recursos disponibles.

3. **Ampliar el debate de la reubicación de poblaciones por desastres y abordarlo desde la perspectiva del desarrollo**, en temas asociados al ordenamiento territorial; en especial, por tratarse de casos de reubicaciones de población en zonas urbanas y donde sería imposible entender el fenómeno del riesgo y de la lógica de los nuevos asentamientos, sin contemplar la forma en que operan los mercados de suelo en cada país y ciudad específica. Pero donde tampoco podría entenderse la reubicación de poblaciones como una opción de reducción de riesgo

y desarrollo sin considerar las posibilidades reales de acceso a suelo seguro para ejecutar este tipo de proyectos en condiciones y zonas adecuadas para la población.

## Objetivo de la investigación

### Objetivo principal:

- Se mantienen los objetivos principales de la investigación para WP2 y WP3: análisis de toma de decisiones y relación costo beneficio del reasentamiento de población por efecto de fenómenos climáticos.

### Objetivos paralelos:

- Analizar la reubicación de poblaciones por desastres (preventivas o ex-post) a la luz de la política de gestión del riesgo en el país, con el fin de establecer su contribución a la reducción del riesgo o a la generación de nuevas condiciones de riesgo para las poblaciones afectadas.
- Analizar la toma de decisiones para la reubicación de población por desastres a la luz de los propios casos de estudio y el contexto de la política de ordenamiento territorial del país, con el fin de determinar las posibilidades reales de consolidación de la política de reubicación de poblaciones en zonas de alto riesgo que se ha comenzado a implementar desde 2014 y ver si esto se corresponde con la intencionalidad gubernamental de consolidar también una política de ordenamiento territorial en el país.
- Analizar casos de reubicación por desastre en paralelo al análisis de casos de reubicación por razones distintas, esto con el fin de contar con mayores elementos para el cumplimiento de los objetivos principales de la investigación, pero también para contar con experiencias suficientes que permitan determinar si las reubicaciones de población deben ser consideradas como opciones de política pública o si se debe optar por ellas únicamente en casos extremos (relación costo beneficio).
- Con la incorporación de nuevas perspectivas y líneas de investigación, se espera: sustentar el análisis de toma de decisiones y costo beneficio de las reubicaciones por desastre (objetivos principales de la investigación); y aportar nuevos elementos al debate regional o internacional sobre el tema, considerando que la atención sobre desplazamiento forzado por cambio climático va en aumento.

## Metodología

En general, la metodología de trabajo del proyecto de

investigación se mantiene, variando únicamente en los siguientes aspectos:

### Investigación de gabinete:

- Se incorporan nuevas líneas de análisis y debate a la investigación, lo que implica mayor reflexión e investigación, pero sin alterar el programa, costo o productos esperados por el proyecto.
- Se amplía la búsqueda documental de casos de reubicación.
- Si bien el eje de la investigación gira en torno a la reubicación por desastres de origen climático, para el análisis del sistema de toma de decisiones y la relación costo beneficio se incorporan no solo casos de reubicación por desastres climáticos en zonas, sino todos aquellos que sea posible documentar en forma suficiente y que aporten elementos para establecer un análisis sustentado y consistente, del que se puedan derivar conclusiones útiles y bien informadas.

### Investigación de campo:

Se requiere analizar en profundidad más de una experiencia de reasentamiento, por lo que se debe hacer trabajo de campo en el mayor número de casos posibles. Considerando la serie de casos incorporados en la tipología de casos que acompaña el Diagnóstico, se propone analizar detalladamente y visitar los siguientes casos:

#### 1. Villahermosa, Tabasco

Ciudad altamente vulnerable muy cercana a la costa del Golfo del México y expuesta a los efectos de fenómenos hidrometeorológicos, además de estar asentada en la parte baja de dos de las cuencas hidrográficas más importantes del país. Existe una política local, aunque de iniciativa presidencial, ya en marcha desde hace varios años a través del Plan de Manejo Hídrico que, entre otras cosas, estima la necesidad de reubicar a más de 15 mil viviendas. Alrededor de 2,500 viviendas ya han sido reubicadas en al menos 3 asentamientos dentro de la misma ciudad: Gracias México con 438 viviendas; 27 de octubre con 885 viviendas y Tres Ceibas (que posteriormente fue llamado Ciudad Bicentenario) con 1,338 viviendas.

La complejidad geográfica de la ciudad y la magnitud del problema del riesgo en la zona, así como de las medidas que se están tomando para mitigarlo, hacen de este caso el escenario más adecuado para analizar sistema de toma de decisiones y relación costo beneficio de las reubicaciones frente a otras opciones de mitigación.

## 2. Mérida y Progreso, Yucatán

Dos núcleos dentro de una misma zona de influencia urbana, altamente vulnerables a los ciclones tropicales que afectan la Península de Yucatán cada año y donde se pudieron ubicar al menos 2 casos de reubicación de poblaciones por inundaciones. Si bien ambos casos se originan por desastres, los proyectos se dan en el marco de una política local de carácter estatal que paralelamente busca reducir el riesgo de desastre, recuperar zonas con valor ambiental dentro de la ciudad, ordenar el territorio y atender a poblaciones marginales. De manera preliminar estos casos se presentan como los únicos donde claramente parece haber intención de dar un manejo integral a las condiciones de riesgo, principalmente de poblaciones marginales y tener un destino claro de los sitios recuperados, evitando también con ello que las personas reubicadas puedan regresar a él. Asimismo, parecieran ser casos con cierto nivel de éxito.

## 3. Chilpancingo, Guerrero

Se trata del primer proyecto de reubicación en el marco de la política federal vigente para la reubicación de poblaciones en riesgo que se ha propuesto para todo el país. El análisis de este caso permitirá entender el esquema y visión actual de las autoridades federales para la atención del riesgo, que busca consolidarse y convertirse en una política pública de largo alcance. Por ser la política vigente, el caso es importante en el sentido de que es a estas autoridades (tanto locales como federales) a quienes irían dirigidas las recomendaciones que se deriven de la investigación.

Desde nuestra perspectiva, con estos casos tendríamos variedad y material suficiente para un análisis más profundo y realista de las condiciones en el país y de hacia dónde va la política pública en materia de reubicaciones por desastres.

### Metodología para el trabajo de campo:

El trabajo de campo contempla:

- Entrevistas con autoridades locales.
- Recopilación de información in situ.
- Recorrido por los lugares de origen y los nuevos asentamientos.
- Entrevistas a los afectados/beneficiados de los proyectos de reubicación.
- Identificación de otros actores clave.

- Eventualmente, la realización de reuniones con grupos focales (en caso de que existan condiciones para su realización).
- Cumplir con las actividades previstas tanto en WP2 como en WP3.

Y requiere desarrollarse en tres etapas:

**Primera etapa.** Contempla un viaje de reconocimiento por parte de la responsable de la investigación en México, para establecer contacto personal con autoridades locales y pobladores y realizar las primeras entrevistas, identificar actores relevantes y realizar un primer recorrido por las zonas intervenidas y los nuevos asentamientos, así como para hacer una recopilación de materiales documentales locales. En esta primera etapa se visitarían las ciudades de Villahermosa, Mérida y Progreso.

**Segunda etapa.** Contempla un segundo viaje, conjuntamente con el coordinador para América Latina, para la realización de entrevistas complementarias (a actores clave), la realización de los grupos focales (en caso de que puedan organizarse) y un segundo recorrido a las zonas intervenidas y los nuevos asentamientos. En esta etapa se visitarían las ciudades de Villahermosa, Mérida, Progreso y se agregaría la visita a la ciudad de Chilpancingo, la cual no es necesario visitar en la primera etapa dado que se trata de un asentamiento muy reciente y que puede ser cubierto con una sola visita.

**Tercera etapa.** Contempla un tercer viaje de la responsable de la investigación en el país para la devolución de resultados y conclusiones a las autoridades locales y actores claves del proceso. Esta etapa y la modalidad en la que se presenten los resultados de la investigación, dependerá del interés que muestren las autoridades locales y se realizaría al concluir las actividades del WP3. Se esperaría sostener reuniones con autoridades de Villahermosa, Mérida-Progreso y Chilpancingo. Eventualmente podría programarse una reunión de presentación de resultados con las autoridades federales en la ciudad de México.

### Productos esperados

No se modifican los productos esperados establecidos en el proyecto original. Sin embargo, con esta nueva perspectiva de la investigación, se considera que dichos productos serán de mayor calidad y utilidad para tomadores de decisiones y estudios posteriores sobre el tema, al complementarse y contar con una mayor riqueza analítica.



