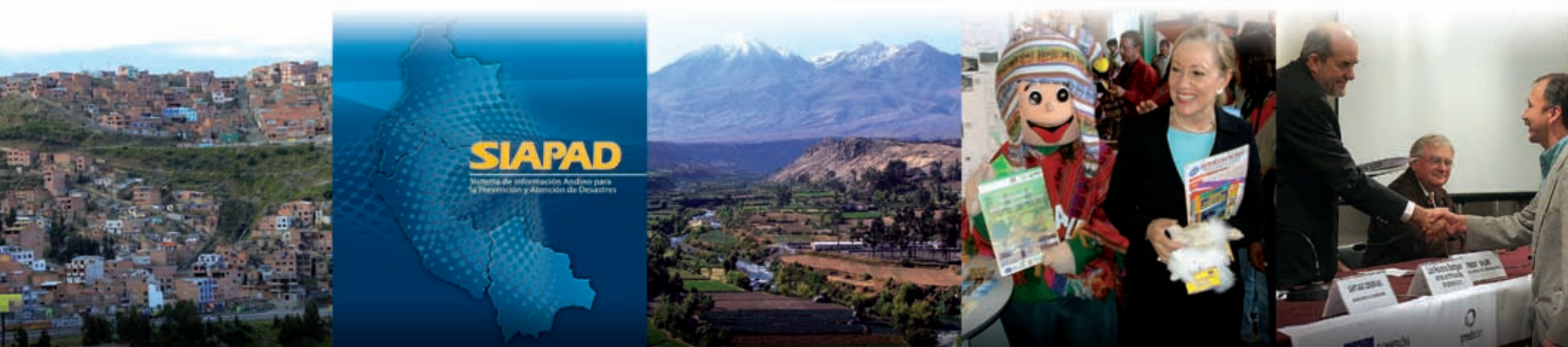


PREDECAN: Final Report



5 Years Supporting Disaster Prevention in the Andean Community



Bolivia - Colombia - Ecuador - Peru



PREDECAN: Final Report 5 Years Supporting Disaster Prevention in the Andean Community

Project to Support Disaster Prevention in the Andean Community –PREDECAN

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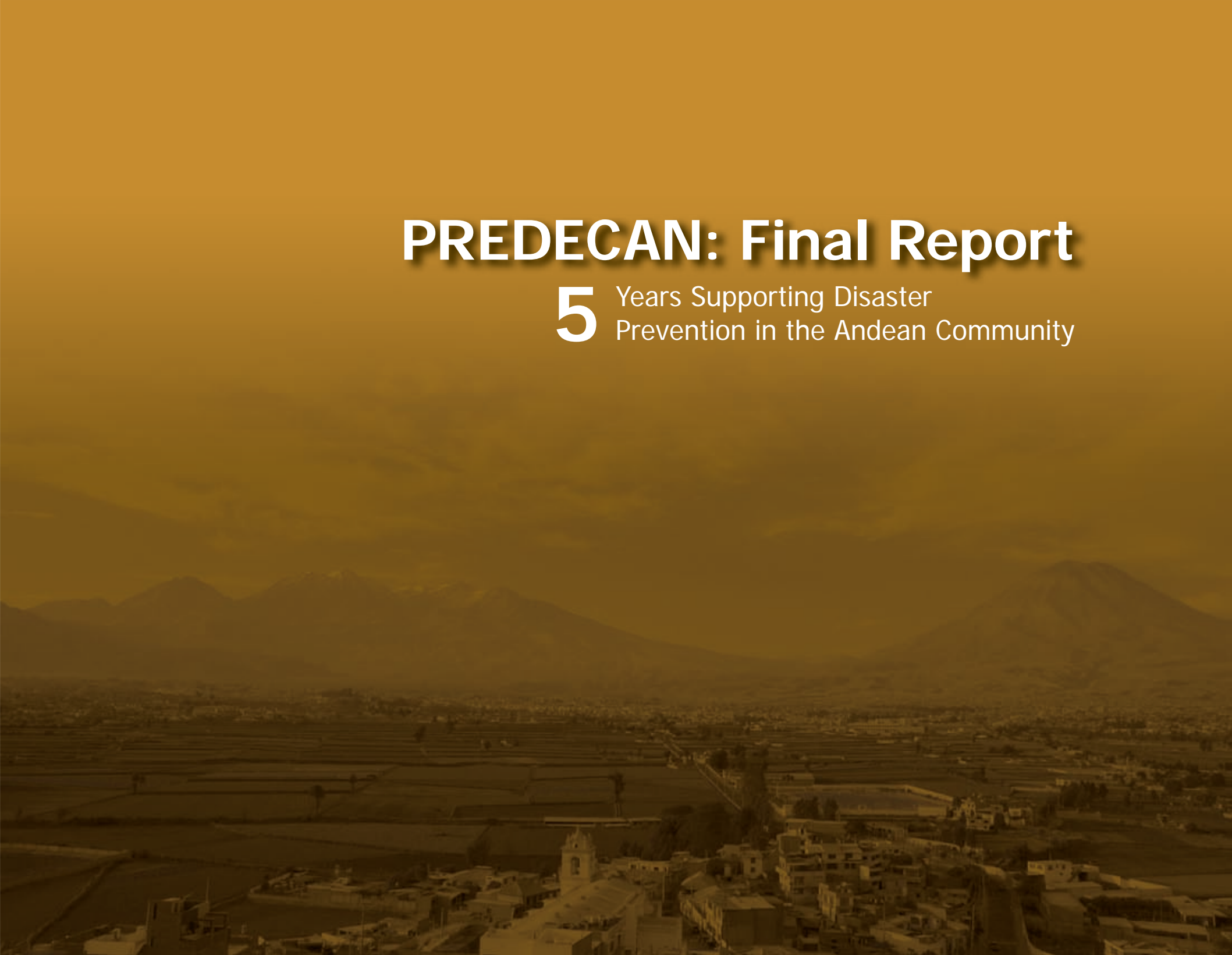
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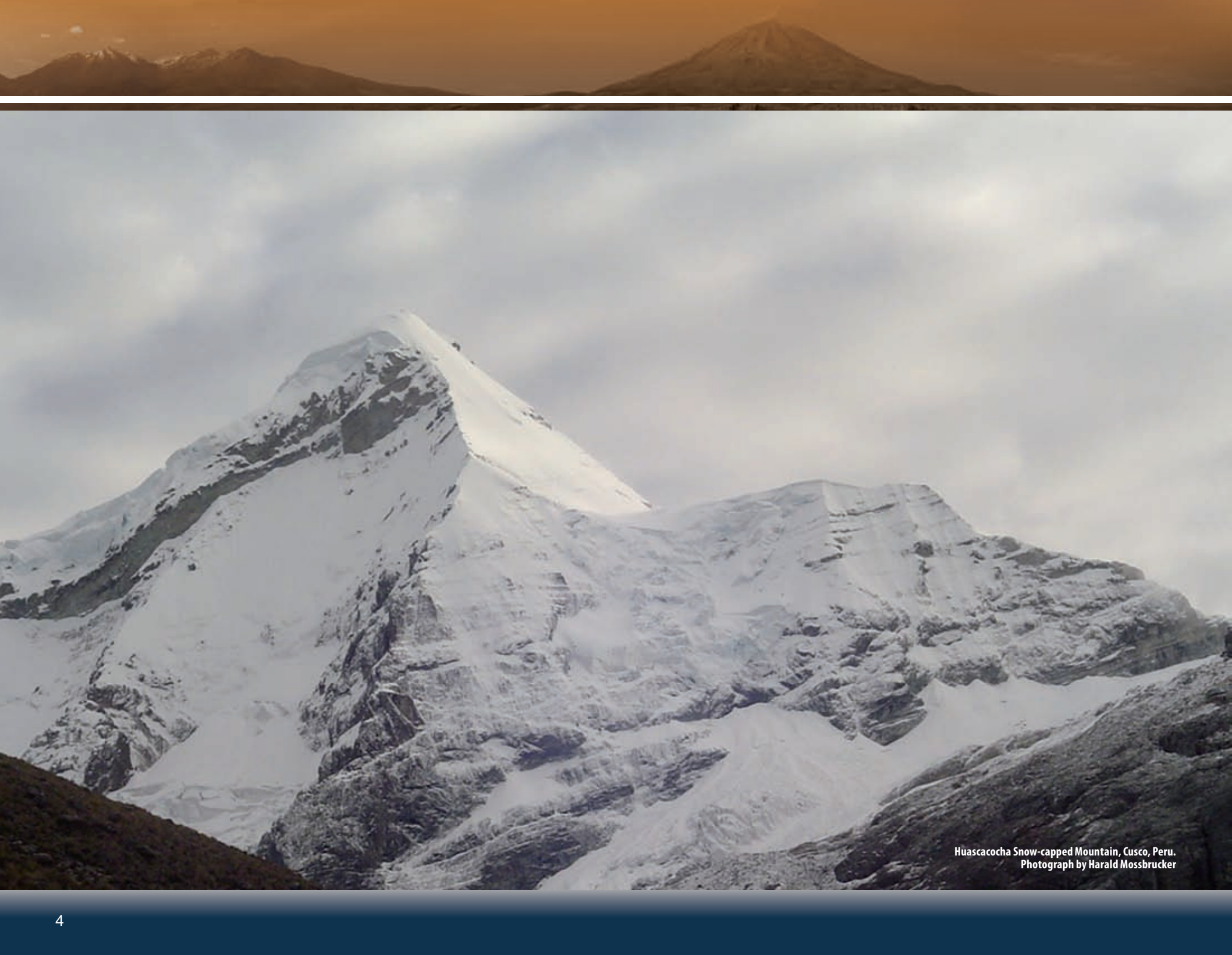
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Lima, Peru, October 2009

PREDECAN: Final Report

5 Years Supporting Disaster
Prevention in the Andean Community





Huascacocha Snow-capped Mountain, Cusco, Peru.
Photograph by Harald Mossbrucker

Table of Contents

Prologue	9	Improved Services in Risk Management Integration into Development Planning	75
Presentation of the PREDECAN Project: From Words to Facts	11	Approach	77
Executive Summary	13	Processes and Actors	79
Acknowledgements	17	Achievements and impacts	81
Background and Project Context	21	Improved Services in Education and Communication for Disaster Risk Management	89
Risks and Disasters in the Andean Subregion	23	Approach	91
Andean Institutional and Strategic Intervention	25	Processes and Actors	92
The Presence of the European Commission in the Andean Subregion	27	Achievements and impacts	94
Intervention Approach of the PREDECAN Project	31	Improved Services in Participation and Local Disaster Risk Management	103
Conceptual Approach of Disaster Risk Management	33	Approach	105
Intervention Logic: Improve Risk Management Services	36	Processes and Actors	106
Facilitating Project Philosophy	41	Achievements and impacts	108
Financial Resources	44	Lessons learned	117
Improved Policies, Organization, Follow-up and Financing Services for Risk Management	47	Project Impact and Sustainability: The Beneficiaries' View	125
Approach	49	Impact	127
Processes and Actors	50	Sustainability and Challenges	135
Achievements and impacts	52	PREDECAN Project Cooperators	139
Improved Information and Knowledge Services for Disaster Risk Management	61	List of Products and Tools	149
Approach	63	References	153
Processes and Actors	65		
Achievements and impacts	67		

Acronyms

ATCO	Amazon Cooperation Treaty Organization	DIRDN	United Nation's International Decade for Natural Disaster Reduction (1990 – 1999)
BiVa-PAD	Andean Virtual Library for Disaster Prevention and Relief	DNP	National Planning Department - Colombia
CAF	Andean Development Corporation	DRM	Disaster Risk Management
CAMRE	Andean Council of the Ministers of Foreign Affairs	EAPAD	Andean Strategy for Disaster Prevention and Relief
CAN	Andean Community	EC	European Commission
CAPRADE	Andean Committee for Disaster Prevention and Relief	ECHO	European Commission Humanitarian Office
CC	Climate Change	ECLAC	UN's Economic Commission for Latin America and The Caribbean
CD	Civil Defense	EGP	Project Promoting Entity
CDEMA	Caribbean Disaster Emergency Management Agency	EPN	National Polytechnic School, Ecuador
CEPREDENAC	Central America Natural Disaster Coordination Center	EU	European Union
CIIFEN	International Center for "El Niño" Research	FAO	Food and Agriculture Organization of the United Nations
CIMNE	International Engineering Numeric Methods Center (Universidad de Cataluña)	FLACSO	Latin American Social Sciences Faculty
CISP	International Committee for the Development of People (NGO, Italy)	FORSUR	Fund for Reconstructing the Southern Area of Peru
CONAGE	National Council of Geological Information Systems of Ecuador	FUNDEPCO	Foundation for the Community Participative Development Foundation (NGO, Bolivia)
CONSUAN	Andean University Council	GEORiesgo	SIAPAD Information Searching Tool
COOPROCONAS	Associated Work Cooperative (NGO, Colombia)	GEOSUR	Geo-spatial Network for South America (CAF Project)
CRID	Regional Disaster Information Center	GTZ	German Technical Cooperation (Deutsche Gesellschaft für Technische Zusammenarbeit)
DCC	Colombian Civil Defense	HFA	Hyogo Framework for Action
DESINVENTAR	Disaster Database System	ICDE	Colombian Spatial Data Infrastructure
DGR	Risk Management Directorate - Colombia	IDB	Inter-American Development Bank
DIPECHO	Disaster Preparedness Program of the European Commission Humanitarian Aid Office	IDECAN	Andean Community Spatial Data Infrastructure

IDEP	Coordinating Committee of the Spatial Data Infrastructure of Peru	PCM	Presidency of the Council of Ministers - Peru
IDNDR	International Decade for Natural Disaster Reduction	PDL / M	Local / Municipal Development Plan
IFRC	International Federation of the Red Cross and Red Crescent Societies	PIP / IP	Public Investment Project / Public Investment
IGAC	Agustín Codazzi Geographic Institute- Colombia	POT	Territorial Organization Plan
INDECI	National Civil Defense Institute - Peru	PREDECAN	Andean Community Disaster Prevention Project
INGEOMINAS	Colombian Geology and Mining Institute	PREDES	Disaster Study and Prevention Center (NGO, Perú)
ITDG	Practical Solutions (NGO, Peru)	RRD	Disaster Risk Reduction
ISDR	UN International Strategy for Disaster Reduction	RREE	Foreign Affairs
ITA	International Technical Assistance	SAI	Andean Integration System
MEF	Ministry of Economy and Finance of Peru	SDC	Swiss Agency for Development and Cooperation
MIJ	Ministry of Internal Affairs and Justice of Colombia	SDI	Spatial Data Infrastructure
MPD	Ministry of Planning and Development - Bolivia	SENPLADES	National Planning and Development Secretariat - Ecuador
MDG	UN Millennium Development Goals	SG CAN	General Secretariat of the Andean Community
NC	National Coordinator of the PREDECAN Project	SIAPAD	Andean Information System for Disaster Prevention and Relief
NGO	Non-governmental Organization	SINADECI	National Civil Defense System of Peru
NW	National Workshop	SNPAD	National Disaster Prevention and Relief System - Colombia
OCHA	United Nations Office for the Coordination of Humanitarian Affairs	STGR	Technical Risk Management Secretariat - Ecuador
OFDA / USAID	Office for Foreign Disaster Assistance of the United States	UASB	Universidad Andina Simón Bolívar
	Agency for International Development	UDCA	Universidad de Ciencias Aplicadas y Ambientales Colombia
OGC	Open Geospatial Consortium	UN	United Nations Organization
OSC	Seismological Observatory of San Calixto, Bolivia	UNDP	United Nations Development Program
OSSO	Seismological Observatory of Southwest Corporation, Colombia	UNICEF	The United Nations Children's Fund
PAHO	Pan American Health Organization	VIDECI	Vice Ministry of Civil Defense of Bolivia
		WB	World Bank



Lima, Perú.
Photograph by PREDECAN

Prologue

As in many parts of the world, the Andean Community Member States face enormous challenges that seriously threaten the development of the region, such as the disordered growth of its cities and the concentration of 75% of its population in urban areas, overexposure of natural resources and the accelerated changes in land use. The sub-region is a territory prone to earthquakes, landslides, tsunamis and volcanic eruptions given its location within the "Pacific Ring of Fire". All this, together with the certainty that the climate will keep changing and extreme hydro-meteorological events will keep increasing, confirms a continuous process of risk construction.

Acknowledging the different existing risk factors, and as a consequence of the El Niño Phenomenon in 1997 - 1998, multiple meetings took place leading to the creation in 2002 of the Andean Committee for Disaster Prevention and Relief - CAPRADE - by the Andean Council of Ministers of Foreign Affairs - CAMRE, as well as the approval of the Andean Strategy for Disaster Prevention and Relief (EAPAD). Both initiatives were created to reduce vulnerability of the population and their livelihoods and contribute to the sustainable development of the member countries of the Andean Community (CAN).

In parallel, and with the same goals, the "Andean Community Disaster Prevention Project - PREDECAN" was prepared and approved through Decision 555 of the CAMRE in June 2003; financed with cooperation resources from the European Union and the Member States of the Andean Community and implemented by the General Secretariat of the CAN, in coordination with CAPRADE.

In the implementation process of the Andean Strategy, the PREDECAN Project has played a role of facilitating and catalyzing proposals from each of the countries from the Andean Community, in order to implement the proposals contained in the thematic axis, programs, subprograms and strategies of the Andean Strategy.

The continuous training processes promoted and facilitated by PREDECAN, with more than 8 500 participants, have openly contributed an integrated

approach to risk intervention that, in parallel, aims at avoiding the creation of new risks, reducing existing risks and capacity-building to respond to disasters.

In an explicit manner, risk management has begun to be inserted in the institutionality of each of the countries, acknowledging the experience of the entities, promoting the participation of actors who traditionally have not been involved in the topic and technically accompanying organizations and national and local government departments in the creation of new areas and intervention tools.

The implementation of activities of the PREDECAN Project were possible thanks to the participation and commitment of multiple actors from the governments at the different territorial scales, the scientific and academic community, regional and international organizations, organized and non-organized civil society, volunteers and some representatives of the private sector. That is how the development of PREDECAN activities has relevant significance, not only because it has allowed the articulation of representatives from different territorial levels, but also because it has been a very important element in favour of sustainable development.

It is imperative at this moment that the different actors maintain a stable and constant commitment that allows the continuity of the implementation of the Andean Strategy. The challenge now is to continue exploring the paths proposed during these years. Each institution and each professional must make an effort to continue with this permanent improvement process and to face the challenges that will appear on the way.

Delegation of the European
Commission in Peru

General Secretariat of the
Andean Community



Santafé de Antioquia, Antioquia, Colombia
Photograph by Gabriel Jaime Arango

Presentation of the PREDECAN Project: From words to facts

Each earthquake, flood, landslide or volcanic eruption that affects a country in the Andean region makes the news and makes everyone think about disasters and get interested momentarily in this topic.

The sequence hardly ever changes: report of the event, histories about the lives of those who survived, reflection on similar events that occurred in the past, questions about how and when will the area recover and sometimes reflections on the background; and concrete facts and specific actors are identified that contributed, due to their action or omission, to build the risk conditions before the disaster occurred.

For some time there is awareness of the fact that our territories are exposed to dangerous phenomena – such as earthquakes, floods and landslides –, that the way in which the environment that sustains our lifestyle has been used has worsened the risk of disasters because we occupy our territory in an insecure and unsustainable manner, and that the changes in climate are affecting us in a more recurrent and daily manner.

However, after some months, words start to space: the disaster is not news anymore and a feeling that normality has come back appears; just a few ask themselves when will the next disaster occur and wonder what should be done to avoid it, or at least to reduce its impact.

In most cases, questions remain unanswered and disaster risk keeps growing, the topic moves to the middle of the road and new social demands call the attention of communication media, institutions and population in general, and that goes on until the next catastrophe arrives and the cycle begins one more time.

In addition to this, local and recurring disasters affect the same areas over and again, creating increasingly unsustainable livelihood

conditions, where disaster becomes chronic and permanent and where the development capacities and opportunities for affected communities and regions turn more and more uncertain.

Worldwide, it has been openly recognized that sustainable human development can only be possible if disaster risks are reduced; that communities, governments and cooperation agencies must join in coordinated and efficient efforts if they want to overcome the vicious circle of poverty; and that progress on preparation and response shall be completed with permanent prevention and risk reduction strategies and efficient actions.

But moving from goals to action, from words to facts are a big challenge, the most important of which could possibly be the certainty that this is not only possible but also essential for development and the population's wellbeing.

The Andean Subregion has taken important steps through each of the Member States prior to 2004 and jointly since then, with the adoption of the Andean Strategy for Disaster Prevention and Relief –EAPAD–, led by the Andean Committee for Disaster Prevention and Relief –CAPRADE– and updated in August 2009, by means of Decision 713 from the Andean Council of Foreign Affairs Ministers (CAMRE). In this updating, EAPAD has been articulated with the Hyogo Framework for Action, a policy document from United Nations member countries that summarizes the purposes and objectives of 168 States regarding Disaster Risk Reduction at a global scale for 2015.

The concern to achieve the implementation of EAPAD and the Hyogo Framework for Action is shared by national institutions and international cooperation agencies or organizations that have supported CAPRADE in this task. The purpose has been precisely to generate changes in the way risk management has been addressed; breaking the cycle whereby it is only when disasters occur that action

is taken, passing to a situation where permanent risk reduction strategies become part of the public policies and development processes.

The “Andean Community Disaster Prevention Project – PREDECAN,” financed by the Andean Subregion countries and the European Commission, and implemented by the General Secretariat of the Andean Community, evolves as part of this interest of pushing forward the implementation of this integrated vision of risk intervention with an emphasis on prevention.

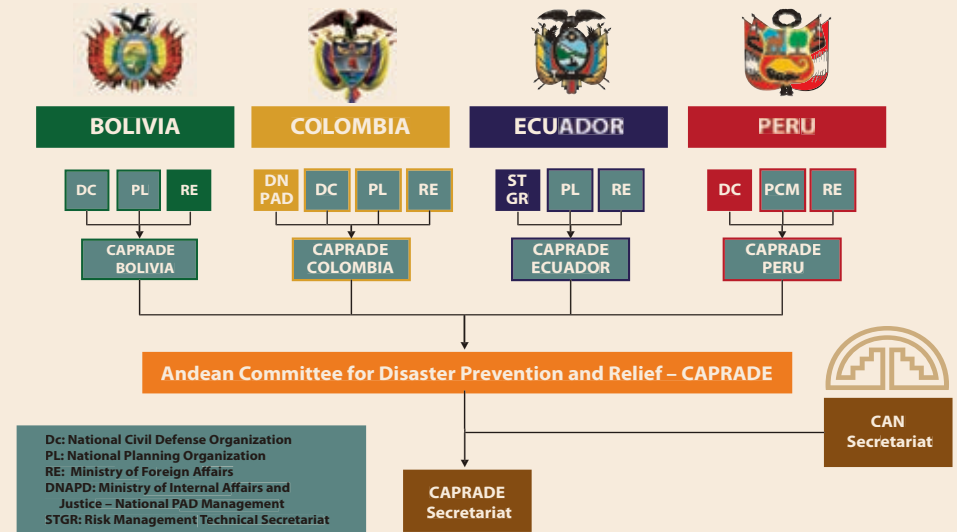
The task of taking the discourse of risk management into practice implies understanding the problem of risk as a social construction implicitly related to development dynamics, generating adequate understanding of disaster risk, prioritizing essential and high-impact actions, and designing concrete tools to test them through demonstrable and replicable experiences. All this has been designed and implemented in a participative manner with social actors and institutions in charge of the topic in each country. This was the method that guided the development of the PREDECAN Project during five years, 2005 - 2009.

The present document synthesizes the development of this Project, presents its results and impacts and emphasizes lessons learned and the main challenges proposed for the end of its implementation period.

The objective of this summary report is to contribute to keep the interest in disaster risk management alive, show that it is possible to act in the case of risks and propose reflections on how the Andean Subregion institutions have been doing this over the last five years.

Although it is true that the progress made on the topic in the Andean Community is important, there is still a long way to go from words to facts on disaster risk management in each of the regions and areas that are part of it. There is a need to reflect on the route taken, verify its length and breadth and walk even faster based on the achievements obtained. Only then will the countries make the most of this experience and reach the objectives of territorial safety, wellbeing and development of individuals and of their livelihoods in our countries.

Andean Committee for Disaster Prevention and Relief – CAPRADE



Executive Summary

The “Andean Community Disaster Prevention Project” (PREDECAN) is an initiative of the Andean countries, represented by the General Secretariat of the Andean Community with financial support from the European Commission, designed and implemented to improve the services on risk management in the Andean Sub-region, through the strengthening of policies, institutions, and the coordination of activities in these areas.

During the technical implementation period, 2005 – 2009, the PREDECAN Project provided its support to the Andean Committee for Disaster Prevention and Relief (CAPRADE) in the context of the promotion and implementation of the Andean Strategy for Disaster Prevention and Relief (EAPAD).

PREDECAN being a facilitating Project, its activities were based on accompanying national and subregional entities on topics such as policy proposal, development of information systems, public planning and investment, education and communication, participation and local risk management, contributing thus to reducing vulnerability to natural hazards in the Andean Subregion.

As a specific objective, the project proposed to improve the services in risk management through the strengthening of national policies and institutions and the coordination of activities among them. That is the reason why the fundamental actors or interlocutors of the project were very extensive, covering almost all the institutions directly involved with the different management processes of disaster risk management at the national level.


Taking EAPAD as a foundation, the Project was organized and implemented according to five topics or results: (1) policies,

organization, follow-up and evaluation, (2) information and knowledge, (3) planning and development, (4) education and communication, and (5) participation and local risk management.

Each topic was followed by a six stage process that was implemented in a participative manner: (1) Conceptualization and approach, (What does it imply to work on the topic of risk management in this specific field and what is the range of this work?); (2) Strategic planning and guidelines (What to do?); (3) Creation of methodological tools and capacity-building (How to do or implement this?); (5) Practical articulation at the national and local level through pilot experiences (validation, appropriation); and (6) Preparation of strategies for institutionalization (mechanisms and steps for its inclusion in the duties, procedures and regulations).

In the frame of the work on **policies, organization, follow-up and financing**, the Project promoted the positioning of risk management as a priority at the sub-regional, national and local levels, supporting the Andean countries in the proposal of strategic plans, in the definition and agreement of a conceptual approach, in the strengthening of National Systems/Platforms for Disaster Prevention and Relief/Risk Management/Civil Defense in organizational and coordination aspects, in the review of their legal foundations and financing mechanisms.

As a result of this process, a systematization of information that is relevant for risk management exists, the development of a shared conceptual frame in the sub-region was achieved, the proposal of National Strategic Agendas for Risk Management Strengthening was undertaken, the strengthening of inter-institutional organization and coordination through a process approach was stimulated, efficient



financial mechanisms to reduce fiscal vulnerability in each country were proposed, and the consolidation of CAPRADE as a coordination instance for this topic in the Andean sub-region was achieved.

The presence of PREDECAN as a dynamizing element – although not the only one – allowed the concept of risk management to be internalized in the institutional network of each of the countries. The beneficiaries' feeling is that the subregion is now in a more proactive scenario, where the different institutions, more specially the planning ministries, have started to favor measures such that risk management may become an aspect of institutional culture.

In the field of **information and knowledge**, the mechanisms and capacities for the generation, systematization, conservation and dissemination of adequate, timely and systematic information applied to the different risk management processes of the countries were strengthened.

Starting with a diagnosis of the status of development of information Systems, the conceptualization and participative design of an Andean Information System for Disaster Prevention and Relief (SIAPAD) was achieved, under an integrating, distributive, standardized and dynamic approach.

SIAPAD became a web services network based on the philosophy of Spatial Data Infrastructures (SDI), used in order to integrate processes, institutions and systems at the Andean Sub-region level, without replacing or invalidating them, but rather articulating them , completing and strengthening them through standardization and inter-operability.

SIAPAD is made up of more than 40 interconnected websites that allow users with different needs the search for, visualization and access to available information resources: (1) GEORiesgo (an information searcher), (2) BiVa-Pad Network (Virtual libraries networks – documentation) y (3) DesInventar (disaster database).

In addition to that, in the knowledge field, a geographic and historic vision of disasters was obtained through the Atlas of Andean Territorial dynamics: Population and goods exposed to natural hazards.

Through the work of SIAPAD and its different tools, an increased visibility and access to existing information was obtained, with better possibilities of exchange among national and sub-regional entities through the management of standards.

Regarding **planning and development**, the inclusion of risk management in territorial organization processes, local development planning, sector management and planning (agricultural and livestock sector, linked to climate change) and in public investment projects was promoted, as fundamental tools in the materialization of public policies for local, national and sub-regional development.

After a first stage dedicated to assessment, guidelines and implementation strategies from each country these were consolidated and their validation was obtained through the application of demonstrative Pilot Projects. In addition to this, specialized technical assistance and training was provided to key development planning actors.

Through the component of planning for development, it was possible to share a conceptual and methodological vision for the construction of safe territories and sustainable development processes in the Andean subregion, sustained in an extended participation of key institutional actors in territorial organization, local development planning, management of public investment projects and from the agriculture and livestock sector in each country. It has been a facilitation process dynamizing work which is highly valued by beneficiary entities.

In the framework of **education and communication**, CAPRADE's Andean subregional plans were considered. Strategic activities focused on the inclusion of risk management in the culture were implemented.

The work in communication and the media for risk management, besides the opening up of reflection and discussion spaces as regards the way this topic should be handled, encouraged the creation of a Virtual Network of Educators and Communicators for Risk Management, as well as the generation of a specialized window on risk management in the virtual platform of the Communication Initiative.

This process was accompanied by multiple activities that allowed the strengthening of learning and facilitated coordination and alliances among professional associations, achieving the training of 350 social communicators on this topic and the running of the Andean Subregional Journalism Contest on Risk Management.

In the field of education, an assessment was prepared on the current status of risk management considering basic formal education in each country. Existing illustrative curricular and teaching material development experiences were identified and systematized, and the Ministries of Education were accompanied in the design, validation and formalization of guidelines to introduce risk management in the curricula, including follow-up and evaluation indicators.

Educational and communicative materials, such as infographies and sound documentaries were produced to support the work of teachers and communicators.

At the higher education level, 25 key professionals in the subregion received a scholarship for their participation in the postgraduate virtual course called Disaster Risk Management, including a tutorship for the best students. Besides, self-instructive virtual modules on risk management were developed, which will allow the education of interested professionals; and the creation of the Andean Network of Risk Management and Climate Change Universities was facilitated. This network includes more than 32 academic entities who are already exchanging information, have a website and have started working to develop learning programs (a diploma course on risk management at the subregional level and, later, a postgraduate degree on this matter).


There is no doubt that one of the sectors where the new risk management approach has had a deep impact has been the education sector, where the ministries of education of the member states have started working at the regulative and operational level to turn this topic into laws, study plans, teachers guides and teachers and professor's training centers. Regarding communication, a theoretical and methodological vision was agreed upon and validated regarding the potential ranges the social communication processes may have in the cultural transformation required for disaster risk management, trying to have a more proactive attitude by all social actors involved in this topic.

In the field of **participation and local risk management**, demonstrative Pilot Projects were implemented where products obtained through other thematic areas were validated and the experiences implemented by other actors were documented.

The implementation of Pilot Projects was enacted through risk diagnoses, the preparation of tools such as the local risk management plan and its inclusion into the local development plan, the land use /municipal territorial organization plan, a community risk management plan, the emergency plan, the training of social actors, the inclusion of the risk topic in school education, the strengthening of municipal organization for risk management and the participative implementation of risk reduction works.

The Pilot Projects were conducted in municipalities selected in each country through a committee made up of CAPRADE entities, sector, technical-scientific and civil society institutions. Those municipalities were: San Borja (Bolivia), Los Patios (Colombia), Portoviejo (Ecuador) and Calca (Peru).

On the other hand, CAPRADE had prioritized the need to identify and learn from local risk management initiatives developed in each of the countries. In this context, the Andean Contest on Local Development Practices and Policies towards Disaster Risks: Identification of Significant Experiences in the Subregion



was conducted, with 229 experiences identified that entered an evaluation stage by the committee following the established criteria. Then, 12 cases from each country were selected and presented in a series of national events and included in a Virtual Catalogue. Later, the four most significant experiences for each country were selected and systematized through field visits, workshops, focus groups, testimonies, interviews and secondary information analysis.

During a subregional meeting, four winning experiences were selected from the total finalist 16 and these were documented extensively and the project representatives had the chance to visit the Autonomous Province of Trento in Italy to make contact with European experiences, to feedback on the lessons learned and analyze the chances of future cooperation for CAPRADE.

Through the practical experiences and systematizations at the local level, it was possible to confirm that there are multiple paths to address the topic of local risk management in the framework of development, such as increasing food security, poverty reduction, sustainable production or social protection, among others, and that the possibility of reducing disaster risk conditions through these strategies is based on the way in which the territory is occupied, the relationship with the environment is conceived, and the way planning, implementation, follow-up, evaluation and control of these activities are addressed.

Throughout the Project, in order to foment the participation of different actors and conduct the continuous training processes, 230 events were conducted: workshops, technical meetings and courses, attended by more than 8 500 people (38% women) and by means of which it was possible to generate multiple work and agreement spaces among the different entities related to risk management, including those in charge of civil defense and emergency management, environmental, territorial and development planning, public investment, the technical-scientific sector, the academic sector, the ministries and sector entities and non-governmental organizations.

This multi-institutional approach allowed the integration of theoretical concepts and the practice of risk management in the different national systems and platforms responsible for risk and disaster in each country, raising the interest and involvement of many entities that traditionally have not been involved in this topic.

That is how, after almost five years of contributing to risk management in the subregion, PREDECAN has contributed countless experiences and has shared the topic with promoters and beneficiaries in each of the countries, always having in mind that the learning capacity is the greatest richness humans have. Now the challenge of continuing with the sowed actions remains, where PREDECAN may be considered as part of a “process in construction” in the Andean Community.

Acknowledgements

After 5 years supporting risk management in the Andean Community, while thinking about and remembering the history of the implementation process of the PREDECAN Project, countless memories come to mind; these memories have been shared both with a valuable human team from the European Commission, the General Secretariat of the Andean Community, the Andean Committee for Disaster Prevention and Relief, as well as all the promoting entities and beneficiaries in each of the countries in the subregion.

It is worth admitting that five years ago, the outlook and the efforts required to begin and to articulate the different activities in each of the thematic areas or results appeared to be a huge challenge, even more so given the number of actors and countries involved. In the beginning the goals appeared to be out of reach.

Many days and months have passed since then, we have gained valuable experiences, we have shared ideas and practices with the promoters and beneficiaries of this topic in each of the countries, we have overcome difficulties and obstacles, always having the firm belief that the learning capacity is the greatest richness humans have. That is why the first feeling that comes to mind now in the closing stage of the Project, is thankfulness to all the actors involved; for the opportunity of having shared valuable knowledge and experiences, for your great professionalism, and most important, for your enthusiasm and commitment to the topic.

We experience a feeling of satisfaction when today we see the results and achievements, product of the efforts of a large human team that has worked together, creating synergies to change visions, strategies and actions that aim to turn risk environments in safer places for current and future generations. We need to thank each of the persons that one way or the other were present in the activities and the building of the process and the achievement of its fruits, because they considered the products as theirs, because they took advantage

of the opportunity for their capacity-building, participated in countless workshops and meetings and, above all, shared with us their lessons learned.

None of that would have been possible without the support from the European Commission, the General Secretariat of the Andean Community and the representatives of the Andean Committee for Disaster Prevention and Relief–CAPRADE. There have been many persons that from these entities that have contributed to the different stages, from the identification and proposal of the Project, through to its approval. That is why we must side with those who had the vision of putting in practice a new way of cooperation in the topic of risk reduction in the Andean countries, building a proposal that meant a great challenge to address disaster risk management, and above all, prevention in all its components, reflecting the conceptual and strategic progress that was being proposed at the international level.

It is also worth acknowledging the support and flexibility of those who, from the promoting instances, understood the needs and difficulties of the implementation process. There were many persons with whom we outlined the routes and strategies to move forward day by day, solving the obstacles that arose and sharing the achievements and expressions of thankfulness from the different beneficiaries.

In these 5 years, we have found many local, national and regional initiatives: cooperation entities; multilateral bodies and from the United Nations system that were supporting the work in this field in the subregion, with whom we have tried to join energies and share challenges, and whom we acknowledge today as great partners and allies in the road we have traveled and who share with us these achievements.

We have left for the end the team of people that were part of the managing entity: national coordinators who, from CAPRADE entities, day by day and shoulder to shoulder, were always open to help and turn proposals into concrete actions in each of their countries; to our international advisors for sharing with us their experience and knowledge and helping us adequately guide the conceptual and methodological approach; to our board of advisors and technical results coordinators, who facilitated the implementation, the articulation of activities and actors, the supervision and follow-up of studies, consultancies and training courses, becoming a fundamental part of a well oiled machine; to subregional and local consultants and firms that facilitated and supported the development of specific and very important topics and products; to the communication team, who disseminated, gave visibility to the actions and color to the publication of results and products; and finally, but not least important, the whole administrative team, which was always dealing with the hiring processes, logistics and all the support necessary for the process to move on adequately.

A task with the dimensions represented by PREDECAN, was not possible to achieve without people with high professional and personal qualities, with a high quota of commitment and love for this topic, and for integration. To each and all of the members of our team, thanks for your patience, flexibility, dedication and efforts, for giving the best of yourselves, on occasions with personal sacrifice which is highly valued.

We personally believe this was worth it, the satisfaction of having achieved the goals and the words of recognition from our interlocutors are today our pride and largest satisfaction.

To all and each of you that we cannot mention in person but who contributed to the process, we dedicate this Report. We hope that this opportunity that life gave us to work together is only the beginning of this large network of people, initiatives and efforts, and that we may meet in other space and moment to continue building this large "cobweb", with the aim of consolidating disaster risk management as a priority, as a tool and as a fundamental part of the culture of the Andean sub-region countries.

Ana Campos García
Regional Director

Harald Mossbrucker
Head of International
Technical Assistance
(November 2004 – March 2009)

Jan Karremans
Head of International
Technical Assistance
(April – November 2009)





CAMRE Meeting, August 19, 2009.
Photograph by CAN General Secretariat

Background and Project Context

Background and Project Context



Building from the CAN General Secretariat, Lima, Peru.
Photograph by PREDECAN

Risks and Disasters in the Andean Subregion

The Andean Subregion countries: Bolivia, Colombia, Ecuador and Peru, not only share one of the territories with the largest biodiversity on the planet, but they also keep historic and cultural links that join and characterize their approximately 97 million citizens.

Unfortunately, all the Andean Countries have a long history of disasters to describe and remember. Their territories and communities exhibit high risk conditions given the differences in the social and natural dynamics that make them prone to the occurrence of disasters associated with different types of phenomena such as earthquakes, volcanic eruptions, floods, landslides; and droughts.

According to the database recently created for Bolivia, Colombia, Ecuador and Peru, during the last 37 years, more than 50 000 registries of losses of different magnitude have been counted, an average

of almost 1 100 events each year, which becomes a real challenge to development and also puts investments and other efforts that are taking place to reduce poverty in the frame of the Millennium Development Goals at risk (MDG) i .

Some high-impact events, such as the earthquake and subsequent flood that affected the Region of Huaraz, in Peru, in May 1970, and the eruption of the of the snow-capped volcano of Ruíz, in November 1985 in Colombia, report record figures worldwide in terms of people killed, with more than 70 000 and 22 000, respectively.

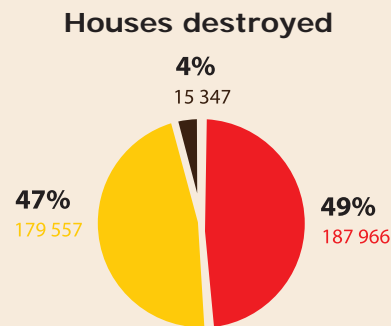
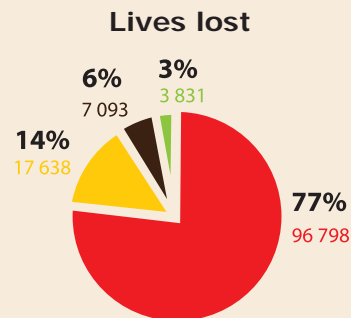
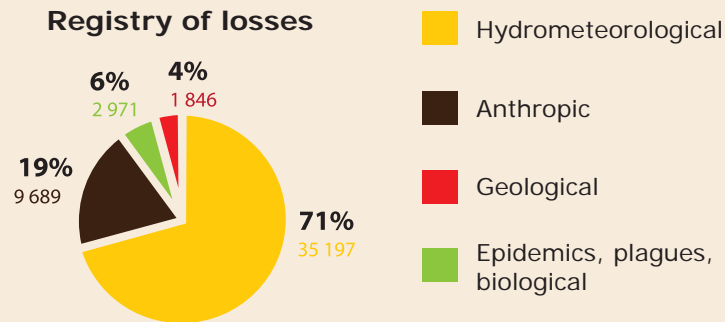
In the Andean Community Member States, the accumulated record of disasters for the 1970 – 2007 period reports 125 thousand people killed, 380,000 houses destroyed, 8,6 million directly affected victims and 28 million people indirectly affected.

Registry of losses due to disasters in the subregion, 1970 – 2007

Country	Registries	Fatal victims	Victims	Affected	Houses destroyed	Houses affected
Bolivia	2 337	1 326	594 718	844 678	5 342	7 012
Colombia	23 373	37 762	3 366 808	22 782 518	173 649	478 940
Ecuador	4 028	3 915	324 096	1 243 949	11 519	42 045
Peru	19 928	82 357	4 333 677	3 527 208	192 361	313 561
Andean Community	49 666	125 360	8 619 299	28 438 353	382 871	841 558

Source: *Atlas of the dynamics of the Andean territory: Populations and goods exposed to natural hazards (2009)* . Data of losses by country: EPN (2008), ITDG (2008), OSC (2008) and OSSO-EAFIT (2008), Disaster database, DesInventar.

Registry of losses in the subregion by event, 1970 - 2007



Source: Atlas of the dynamics of the Andean territory: Populations and goods exposed to natural hazards (2009)ⁱⁱ. Data of losses by country: EPN (2008), ITDG (2008), OSC (2008) and OSSO-EAFIT (2008), Disaster database, DesInventar.

Effects in terms of destroyed livelihoods and material damage have seriously compromised the development options of many impoverished areas in the subregion, making evident the need to integrate risk prevention into planning and management of development as an absolutely necessary strategy to achieve progress and social welfare goals outlined by governments and international organizations.

In the Andean Community, hydro-meteorological phenomena, with patterns of recurrence and severity that have been affected by global climate change, represent 71% of the total register of local disasters reported in the last 37 years, showing there is a high vulnerability in the subregion to hazards related to climate, specifically to events such as floods and landslides.

According to the 2009 United Nations Global Assessment Report on disaster risk reduction, disaster risk is increasing worldwide and the poorest communities suffer a disproportionate part of relative economic and absolute human losses due to disasters. In the subregion, the percentage of poor and extremely poor households, according to the Unmet Basic Needs method is 47% and 24% respectively, which together with the potential for the occurrence of dangerous events can clearly show the dimensions of the risks and disasters problem for the Andean countries.

- Disaster risk is increasing in the Andean Subregion as a consequence, on one hand, of the growing population exposed to dangerous phenomena (unsafe occupation of the territory) and, on the other, of an increase of the degradation patterns of the environment. In addition to that, climate change is influencing the recurrence and severity of disasters associated with hydro-meteorological phenomena.
- Disasters associated with hydro-meteorological phenomena (floods, landslides, flash floods or huaycos, strong winds) are the most frequent and their local effects have the largest negative consequences in the Andean Subregion.
- Disaster risk specially affects the poorest strata in the Andean countries and tremendously limits the economic and social development opportunities.

Andean Institutional and Strategic Intervention

The process of integration of the Andean countries started with the creation of the Andean Pact. The main objective of the Pact was an acceleration of the process of integration in South America as established by the Cartagena Accord, subscribed in 1969. Many political advances happened during the first year, but the integration was principally consolidated and strengthened after 1989, when the new Strategic Plan was approved, and furthered since 1996 with the signing of the Trujillo Protocol, in which a new name was established for the regional entity: Andean Community (CAN) and a new structure was given in the Andean Integration System (SAI)

The SAI's purpose is to effectively coordinate all constituent bodies and institutions of intergovernmental and community character, in order to deepen the Andean subregional integration, promote its external projection and consolidate and strengthen all actions related to this process.

As an answer to the problematic of risks and disasters, the Andean Committee for Disaster Prevention and Relief (CAPRADE) was created in 2002 (Decision 529)iii with the purpose of uniting, in one institution, all the main entities related with risk reduction and emergency management, which in turn represent the Systems or National Platforms for Disaster Risk Management, Prevention and Relief or the Civil Defenses of the sub-region.

That is how CAPRADE synthesizes the direct risk and disaster institutionality of the four countries as made up of the National Entities responsible for Disasters Risk Management, Prevention and Relief or Civil Defense, along with the national bodies in charge of guiding Development Planning and the Ministries of Foreign Affairs.

Organizational Chart of the Andean Integration System



Objective of CAPRADE: "Contribute to the reduction of the risk and impact of natural and anthropic disasters that may occur in the Andean Subregion, by means of coordination and promotion of policies, strategies and plans, and the promotion of activities for disaster prevention, mitigation, preparation, attention to, rehabilitation and reconstruction, as well as by cooperation and mutual assistance and the exchange of experiences on this topic".

After its creation, CAPRADE took up the challenge of creating a long term strategy to promote disasters risk prevention, reduction and control in the context of sustainable development, advancing a modern focus that benefits the planning at different levels and the promotion and implementation of national and sub-regional policies under this model. By 2004, it formulates the Andean Strategy for Disaster Prevention and Relief (EAPAD) for the 2005-2010 period.

On the other hand, at the international level, the UN declared the years between 1990 and 1999 as the “International Decade for Natural Disaster Reduction” (IDNDR) as a mechanism to incorporate the topic in the international public agenda. After the decade finished, and after evaluating the accomplishments and the pending challenges, the International Strategy for Disaster Reduction (ISRD) is created, which seeks to reduce the risks of disasters as a central element of public policies and interventions, without neglecting the importance of the response and rehabilitation components.

The International Strategy for Disaster Reduction celebrated its first World Disaster Risk Reduction Conference in Kobe, Hyogo, Japan in 2005 where it proposed the Hyogo Framework for Action –HFA– (2005-2015): Increased Resilience of Nations and Communities facing Disasters, as a global strategic framework for implementation by the countries, regions, UN Agencies and civil society.

The Hyogo Framework for Action was signed by 168 countries, including the four that make up the Andean Community, which is why, in the year 2007, CAPRADE proposes the harmonization of the EAPAD in the light of this document, a task which is formalized by the Decision 7131 of August 19, 2009, and adopted by the Andean Council of Ministers of Foreign Affairs (CAMRE).

- The Hyogo Framework for Action, ratified by 168 UN Member States at the World Conference on Disaster Risk Reduction celebrated in Kobe, Japan in 2005, comprises all countries to make their best effort to reduce disasters in their own countries by year 2015.

Relationship between HFA and EAPAD

“Hyogo Framework for Action” (2005-2015), approved by the World Conference for Disaster Reduction, Kobe, Hyogo, Japan, February 2005	Andean Strategy For Disaster Prevention and Relief (2009 – 2015); Decision 713 from CAMRE, August 2009
1) DR a national and local priority with a solid institutional basis for its application.	1) Capacity-building at all levels to make the reduction of disaster risks a national and Andean subregional priority.
2) Identify, evaluate and monitor disaster risks and improve early alerts.	2) Promotion of research and knowledge for the identification, monitoring and evaluation of disaster risks and improve the early alert
3) Using knowledge, innovation and education to create a culture of security and resilience at all levels	3) Promotion of the education, communication and participation to build a culture of security and resilience at all levels
4) Reduce underlying risk factors	4) Reduction of underlying risk factors
5) Strengthen the preparation in case of disaster iso as to ensure an effective response at all levels	5) Strengthening of systems and preparation, relief and mutual assistance mechanisms in case of disasters, at all levels.

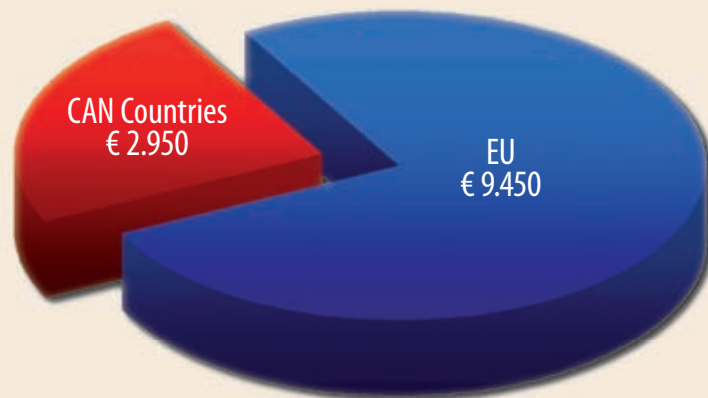
¹ Bill that modifies Decision 591 dated July 2004 regarding the Andean Strategy for Disaster Prevention and Relief.

The Presence of the European Commission in the Andean Subregion

Since its approval at the heart of the Andean integration, the EAPAD has been the guiding scheme for international cooperation in the matter of disaster risk management. The European Union has been the Andean Community's main partner in its implementation, by giving its support through a number of initiatives, the materialization of its purposes and fundamental objectives.

Through PREDECAN, the European Commission supported disaster prevention actions in Bolivia, Colombia, Ecuador, Peru and Venezuela² between 2005 and 2009, having as leading participants the governments and responsible institutions from each country. The contribution from the European Commission and the countries of the Andean Community was 12.4 million Euros.

Financial contributions to implement the PREDECAN Project



Amounts in thousands of Euros
Total € 12.400

² Venezuela announced the Agreement of Cartagena in April 2006 and participated in the activities of the PREDECAN Project until July 2007.

In addition, through the European Commission for Humanitarian Office (ECHO) and its Disaster Preparedness Program (DIPECHO), there has been a permanent presence in the subregion taking care of the main humanitarian crisis from the last years, those associated with natural phenomenon as well as social conflicts; contributing significantly to mitigate the suffering of the affected people and encouraging opportunities for their future recovery.

“In CAPRADE’s seven years of existence, five have been linked to the support of the European Commission, through PREDECAN in the prevention area and the humanitarian assistance in response to disasters”

General Luis Felipe Palomino, Head Officer of the Peruvian National Civil Defense Institute

The support of the European Commission through the action plans of DIPECHO for disaster preparedness in the Andean sub-region between 1999 and now have summed approximately 33 million Euros. DIPECHO’s projects are geared towards the betterment of the local response capacity, supporting the coordination mechanisms and the information and awareness operations in those areas exposed to natural phenomena, in a context of significant environmental fragility.

The European Commission currently has a Support Strategy for the Reduction of Catastrophes Risk in developing countries vi, formalized in February 2009, through an official communication to the European Council and Parliament. Through this strategy, the EC ratifies its commitment towards the implementation of the HFA, furthermore it highlights the regional and thematic priorities and expresses the importance of this topic within its cooperation policies.

“In the framework of cooperation of the European Commission, we are looking to materialize a support strategy for the reduction of risk with the purpose of contributing to the implementation of the HFA and the adherence to the United Nations Millennium Development Goals”.

Antonio Cardoso, Head of the European Commission’s Delegation in Peru.

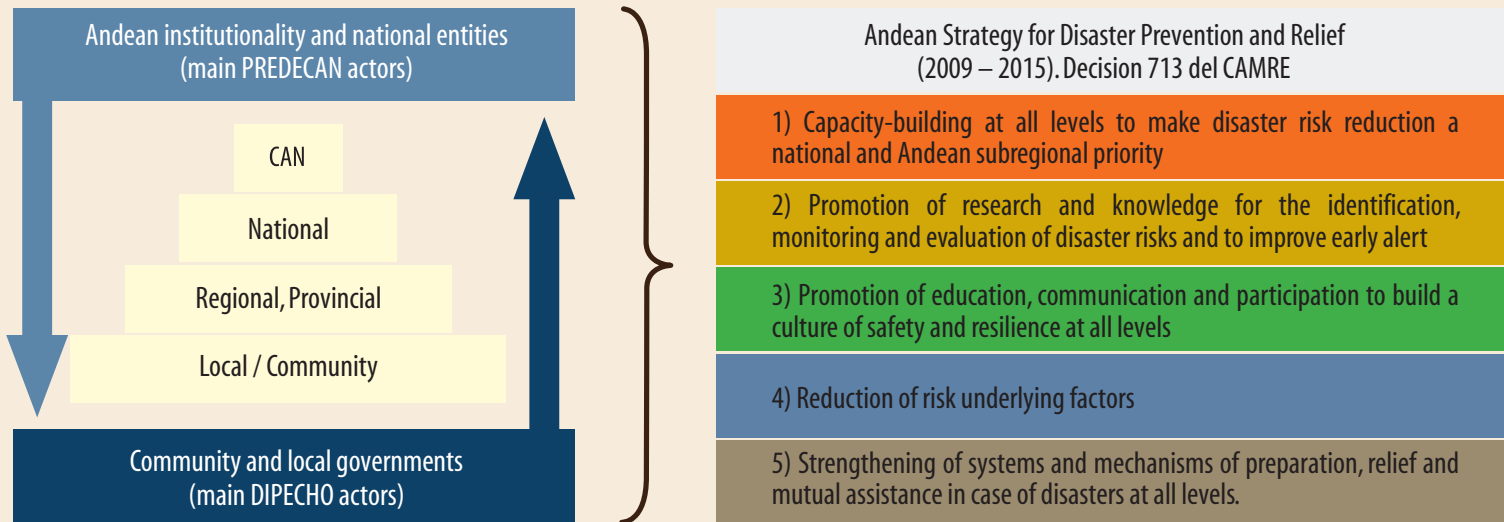
Background and Project Context



Building from the Delegation of the European Commission, Lima, Peru.
Photograph by the European Delegation

Complementing relationship: PREDECAN - DIPECHO

PREDECAN: Emphasis on prevention - mitigation (capacity-building, information systems, knowledge on risk, planning, education, demonstration actions in local risk management)



DIPECHO: Emphasis on the preparation (training, awareness, early alert systems, coordination facilitation, emergency plans) and small scale, mitigation demonstrative work



Edificio "Vista Panorámica" Tour del
de Central N° 133, 2° Piso, V
Frente a la Municipal

SECRETARÍA
Solidaridad
"PASADIZO SNT"
DE INTERCOMUNICACIÓN Y SERVICIOS
DE LA MUNICIPALIDAD DE LIMA

128-0
CARPINTERO

Quarter outside Lima, Peru
Photograph by PREDECAN

Intervention Approach of the PREDECAN Project

Intervention Approach of the PREDECAN Project



Hillsides from Bogotá, Colombia
Photograph by Gustavo Wilches-Chaux

Conceptual Approach of Disaster Risk Management

When people think of “natural” disasters, they usually picture devastating images of destruction associated with earthquakes, winds, floods, landslides or volcanic eruptions that unexpectedly affect people, destroying their lives and interrupting the economic and social development in the impacted regions.

People tend to believe that these disasters are exclusively caused by natural phenomena and forces of nature, thus traditionally they are called “natural disasters”, and are usually considered as unpredictable facts (without prior warning) and their consequences at random. However, when the history of the circumstances that led to damage and loss is analyzed in detail, it is found that the facilitating or enabling circumstances for the disaster occurrence or its impact to increase were due to human actions or omissions. Among the more common circumstances are:

1. Insecure occupation of the territory: It is when socio-economic elements (communities and their livelihoods: houses, crops, factories, schools, etc.) are located in vulnerable conditions (weakness and/or lack of resiliency) in areas of potential occurrence or presence of dangerous physical phenomena.
2. Unsustainable transformation of the environment: When new dangerous physical phenomena are created by human actions as consequences of inappropriate transformation practices in the environment (socio-natural events such as most of the landslides caused by the deforestation of hydrographic basins or slope intervention).

In the Andean sub-region thousands of people have died and trillions of dollars have been lost in assets due to these underlying disaster causes, which indeed show disasters are NOT natural. Therefore, risk is a complex problem which combines physical environmental elements with societal actions and decisions.

Obviously, there are natural phenomena considered as “extreme”, which can trigger disasters exceeding any real prevention options that human society may address. However, these types of events are very unusual. Most of the losses in the Andean Community countries are related to recurrent and well-known phenomena, usually affecting the same areas and regions in the countries provinces.

Disasters always have a history; the process of construction of vulnerable conditions when faced with dangerous physical phenomena is a social process determined by specific forms of use and transformation of the territory. Therefore risk, a previous condition for disaster occurrence, is closely related to the development.

A society that has not reached minimum territorial security levels, through sustainable policies and actions of social and economic development, is a society with more disaster incidence, and the areas with higher impact will correspond to the population with lower levels of territorial security; thus disaster risk is a development problem.

Awareness processes at the international level have been accompanied by a change in approach that has significant impacts as to intervention in risk causal processes on a corrective or mitigation and prospective or preventative basis

Intervention Approach of the PREDECAN Project

The group of policies, instruments and measures in favor of prevention, reduction and permanent control of disaster risk factors in society, has been called risk management. It is made up of prevention, mitigation and preparation (ex-ante) activities, as well as, relief and rehabilitation (ex-post) activities, and has as a goal the articulation of different intervention types, especially the development of policies for risk reduction in the long term to significantly reduce disaster occurrence.

Likewise, risk management should be concerned with the fact that reconstruction processes do not lead to the same vulnerabilities present before the disaster occurrence, but rather to the consolidation of safer development, looking for sustainability in the reconstructed areas.

Prospective risk management aims to anticipate future risk, which, together with development processes and territorial planning, demands that new programs and projects set forth criteria considering possible hazard and vulnerability conditions. Land use planning based on corresponding restrictions and potentialities, the appropriate environmental management of new infrastructure projects and productive activity rationalization in a sustainability framework, are considered prospective actions for risk management. This perspective implies that risk management should be part of an inherent environmental management and sustainable development process, in which planning is one of the fundamental tools.

Compensatory or corrective risk management is based on existing vulnerability and hazard reduction in the territory, risk factors that are the product of a historic accumulation of development patterns non in tune with the environment. Compensatory interventions such as retrofitting, land slope stabilization and housing relocation, among others, are required to reduce existing risk.

Risk reduction processes require medium to long term management periods; therefore, it is also important to provide supporting institutional and population capacity-building in order to obtain an efficient short term response in case of disasters, which some people have called reactive risk management. In this sense, activities are developed such as emergency response planning, early warning system development and capability strengthening.

The social organization required for disaster risk management implies the participation of several types of institution with different specialties and scopes that jointly develop activities at the national, sub-national, sector, local and international levels. This is a complex organization that needs to be understood and managed as an integrated system.

In general terms, it has been determined that the mission of these integrated systems or platforms is the articulation, organization and coordination of all the institutional and social actors, related to disaster risk management, aimed at preventing and reducing risk factors in society and ensuring the appropriate response, recovering and reconstruction post disaster; bringing protection and security to the population and their livelihoods, as well as sustainable development (Narváez, Lavell and Pérez, 2009 vii).

Key or mission processes of the system are those that directly respond to the mission or purpose of the system or platform; in the case of disaster risk management, these processes are: (1) Generate knowledge on disaster risk in different scenarios; (2) Prevent future risk; (3) Reduce existing risk; (4) Prepare response; (5) Respond and rehabilitate; and (6) Recover and rebuild.

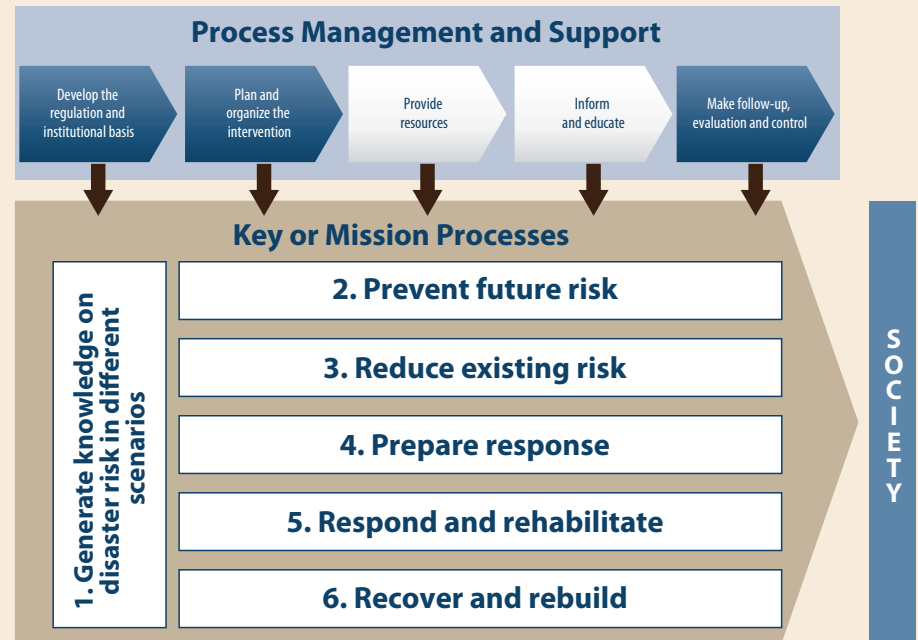
Key or mission processes require support and management processes by means of which they receive the needed resources and guidance to comply with their mission.

Generally, the following are considered management processes: **“Develop the institutional and organizational basis”**, this includes preparing and setting forth the organization standards, as well as, the regulations needed for their proper operation; **“Plan and organize the intervention”**, through which action plans, strategies and organization of the system are implemented in order to execute those strategic actions; and **“Follow-up, evaluate and control”**, that is required for all the executed activities in the different key processes, in order to measure, through indicators, their outcomes and effectiveness in the achievement of goals and the accomplishment of the common mission, as well as, defining and applying corrective measures as needed.

Supporting processes are the ones through which needed resources and communication are provided in order to allow the operation of key and mission processes, to achieve their objectives and ensure the sustainability of the developed actions. In an integrated system or platform for risk management, two supporting processes are fundamental: **“Provide resources”** and **“Inform and educate”**.

The graphic shows a basic scheme or “map of processes” for disaster risk management. The final beneficiary of the improved services will be the whole of society.

Map of processes for an integrated disaster risk management system (conceptual)



Disaster risk management in short:

- Seeks prevention, reduction and permanent control of disaster risk factors in society.
- More than a discipline or specific practice, it is a development policy: it must be aimed to goals achievement for sustainable human welfare, economic, environmental and land development.
- It is permanent, it is not defined as a project or a specific product, it is based on the continuous application of management principles and actions and sustainable processes.
- It should be subject to active participation and application by community members and their organizations.
- It should be fostered and promoted from permanent and sustainable institutional and organizational structures.
- It seeks the integration, organization and coordination of social actors at different territorial levels.

Intervention Logics: Improve Risk Management Services

PREDECAN arose from an initiative of the Andean Community and the European Commission with the purpose of helping with the reduction of the vulnerability of people and their assets when faced with natural and socio-natural hazards, as well as to promote sustainable development in the country members of the Andean Community.

To that end, the following has been proposed as a specific goal:

“Improve the services of the risk management area by strengthening national and institutional policies and coordinating activities in these areas”.

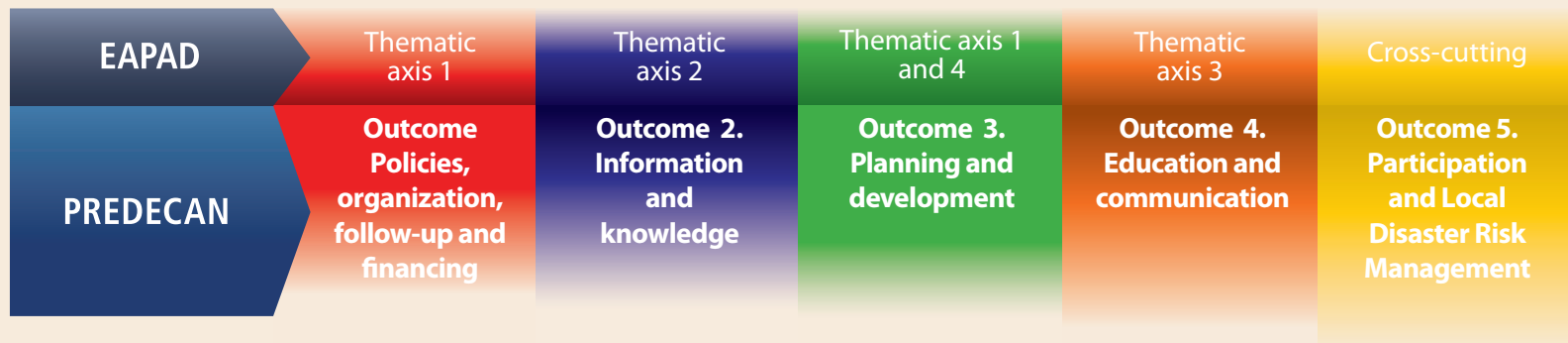
Through the PREDECAN Project, promotion and coordination areas were strengthened to allow for knowledge exchange between different actors related to disaster risk management, including

institutions, NGOs, educational institutions and private sector, aimed at taking advantage of existing initiatives and articulating efforts for international cooperation with those initiatives developed in the national and local area.

PREDECAN provided technical assistance to the institutions responsible for this topic in each country and, specialized studies and training activities were developed at the sub-regional level. Equipment donation was supported for capacity-building in the technical institutions making up the National Systems for Disaster Risk/ Prevention and Disaster Relief Management and/or Civil Defense in the Andean countries.

This Project, as a supporting branch of CAPRADE for EAPAD implementation, organized its activities in five areas intervention or outcomes areas:

Relationship Between the Outcomes of PREDECAN and EAPAD



Outcomes were identified and prioritized according to critical aspects for risk management in the Andean sub-region and they were related to the management and support processes for national systems and CAPRADE.

Outcome 1. Policies, Organization, Follow-up and Financing

In the framework of CAPRADE actions, the Project worked under the premise that risk management should be positioned as a local, sub-regional and national priority, supporting Andean countries in the formulation and later evaluation of policies and strategic plans; in the definition of a conceptual approach; in the organizational strengthening of the National Systems for Disaster Risk/ Prevention and Disaster Relief Management/ Civil Defense and the evaluation of its legal foundations and financing mechanisms.

Outcome 2. Information and Knowledge

The PREDECAN Project supported CAPRADE in strengthening the mechanisms for the generation, systematization, preservation and distribution of adequate, timely and systematic information to be applied in the different processes of information, coordination, planning, implementation and follow-up of activities related to risk management in the countries.

In a supplementary fashion PREDECAN has worked on providing an integral vision of the hazard problem, examining the incidence of recurrent events, their hazard levels, exposed areas, and existing social and environmental dynamics associated with risk causation.

Outcome 3. Planning and Development

PREDECAN, as a project supporting CAPRADE, promoted the inclusion of risk management into land use planning processes, development planning, sector planning, and public investment as fundamental tools to implement public policies for development at the local, sub-regional and national level. All this was done with the aim of improving the development process, thus enabling the shaping of the concept of security in the localization, construction and operation of investment projects and, also in achieving sustainability in the use and occupation of land in the Andean Community countries.

Outcome 4. Education and Communication

The development of a culture that includes disaster risk management as a process requires the participation of different political, social and educational actors. Education, training and awareness are fundamental activities due to their important impact on how citizens build their world concept and promote the proactive participation of different actors in decision-making and in the activities through which risk management is actualized.

Outcome 5. Participation and Local Risk Management

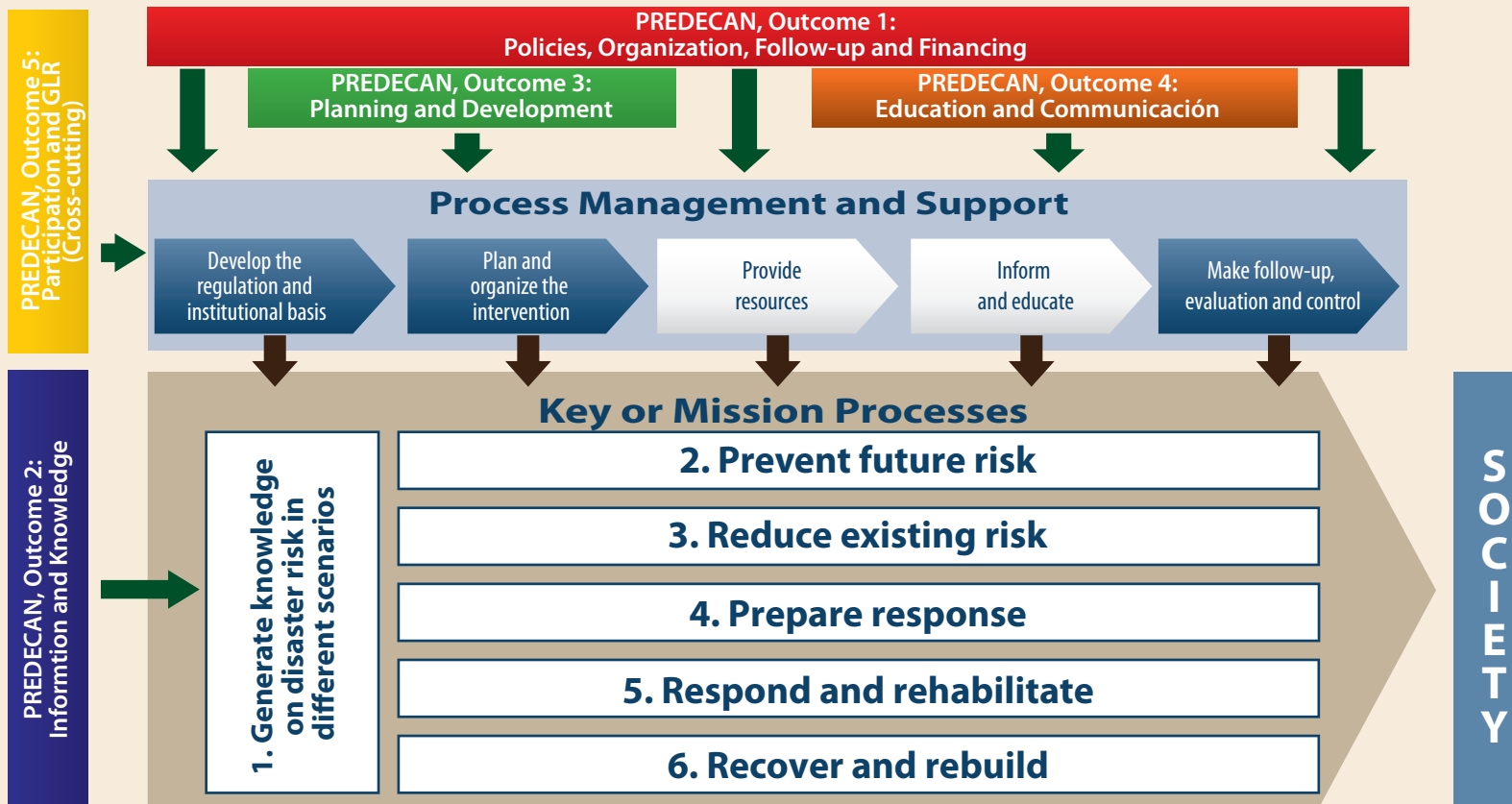
Within the framework of CAPRADE actions, PREDECAN proposed to contribute to capacity building on local risk management in the Andean subregion. To do so, two work areas were prioritized: (1) implementation of participative Pilot Projects for local risk management in four municipalities of the subregion thus enabling approaches and tools to be built on the basis of outcomes from other PREDECAN activities and goals; and (2) identification, systematization and divulgation of significant local intervention experiences promoted by other actors that provided lessons for the future implementation of policies and practices in local risk management.

Intervention Approach of the PREDECAN Project

Despite the fact that Project emphasis was on “prevention”, its actions provided some support in all disaster risk management areas and topics, including processes for operation, management and support in the five central topic areas identified and supported by PREDECAN.

The following graph provides a simplified view of the topics or outcomes of the PREDECAN project in its conceptual approach to the processes for disaster risk management. Likewise, substantial improvements in the societal security, sustainability of development processes and vulnerability reduction were planned accomplishments of the project.

Relationship Between PREDECAN Outcomes and Disaster Risk Management Processes

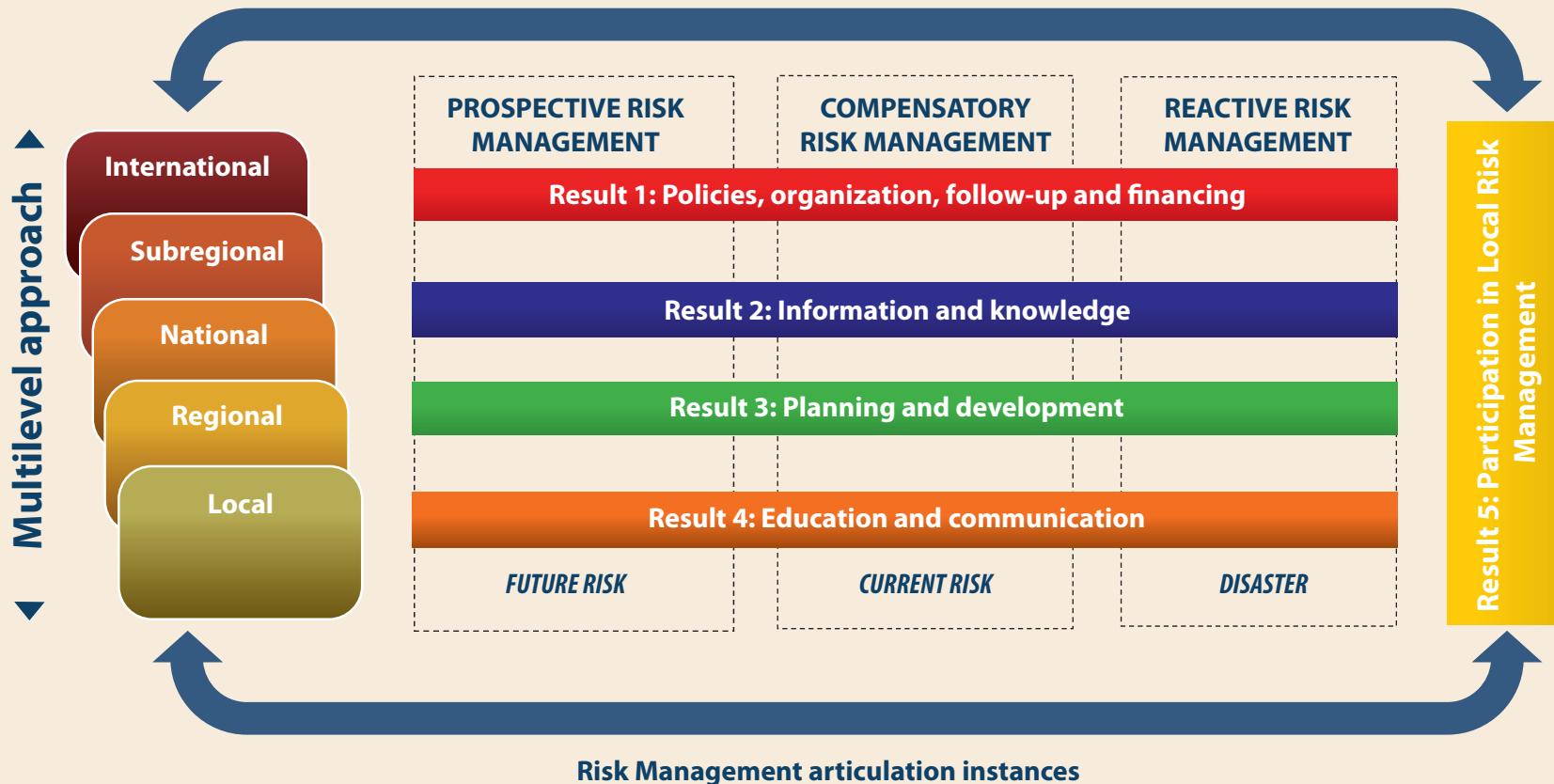


Additionally, the project approach considered different territorial levels for its implementation, being the Andean sub-regional and national levels, the immediate action scope for PREDECAN. At the local and regional level, the intervention was developed through Pilot Projects (local risk management).

“PREDECAN has served as platform to articulate CAPRADE with other regional organizations such as CEPREDENAC and CDEMA, sharing a common approach based on the Hyogo Framework for Action”.

Luz Amanda Pulido, National Director of Risk Management of the Ministry of Internal Affairs and Justice of Colombia.

PREDECAN Multilevel intervention approach



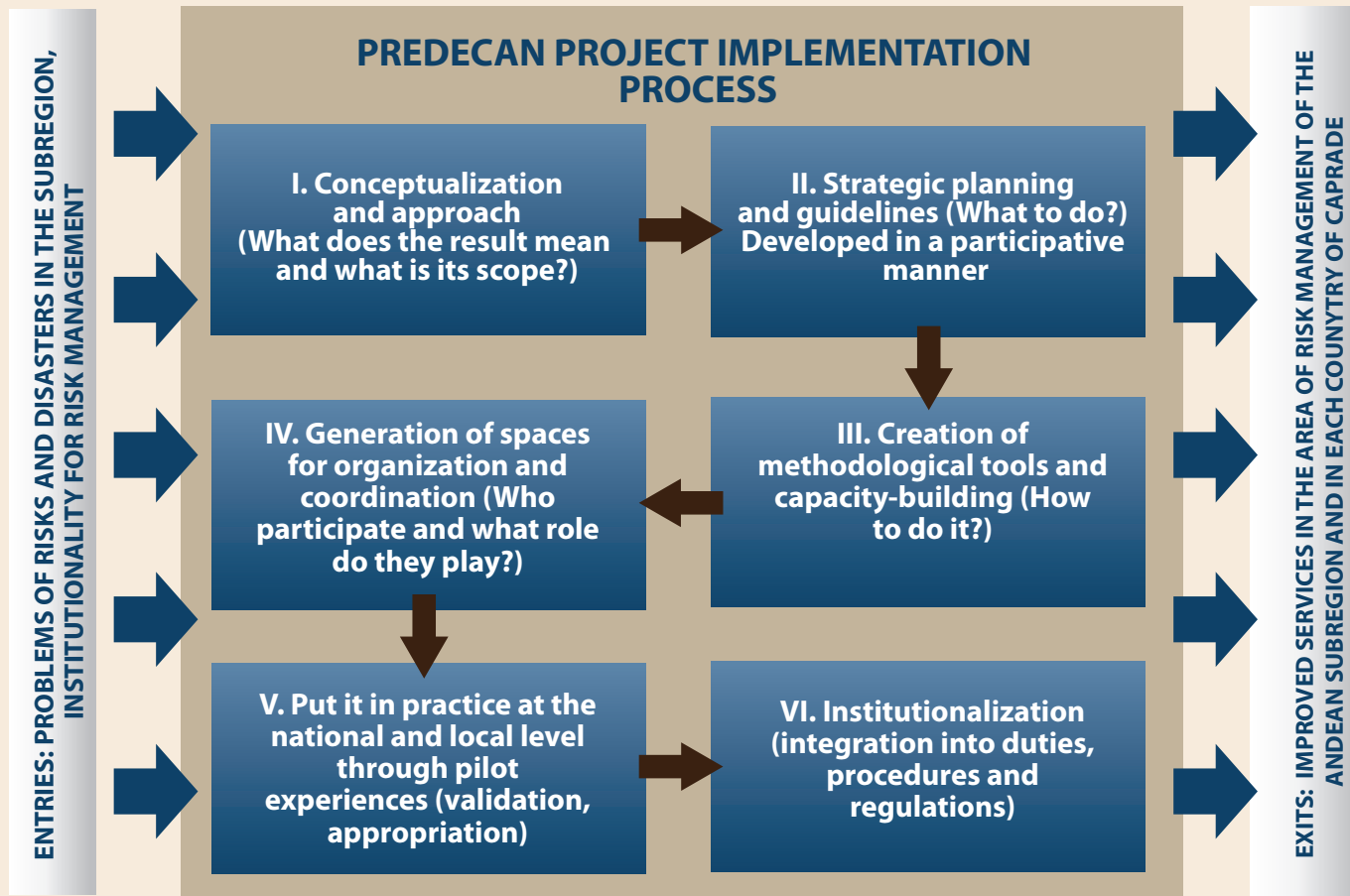
Intervention Approach of the PREDECAN Project

For the achievement of the expected Project outcomes, summarized in the specific goal the “improvement of risk management services”, each outcome was focused on six participative stages, as it is shown in the next figure.

“PREDECAN is a Project that has enabled CAPRADE to have a support branch for processes of the countries within the framework of risk management”.

Lorena Cajas Alban, Secretary of Risk Management of Ecuador

Stages or components developed in each PREDECAN result



Facilitating Project Philosophy

A facilitating project is characterized by having its actions undertaken in close coordination with the institutional actors responsible for this topic in each country. In this way, the specific and concrete project outcomes are as important as the process used to obtain them.

In order to have a successful facilitating project, a high level or complete participation of the institutional actors responsible for risk management and their different constituent processes is required.

In a facilitating project such as PREDECAN, processes and products are implemented by the beneficiaries and are adjusted to country specific demands. This is an ideal model to promote structural changes at the institutional and regulatory level.

Instead of establishing new structures, the PREDECAN Project promoted the exchange of experiences and knowledge, coordinated with actors from different fields (planning, civil defense, academics, environmentalists, international cooperation, bilateral cooperation and NGO). Likewise, PREDECAN, seen as a coordination and participation platform, promoted and took advantage of existing and planned initiatives to improve them, achieving synergies with international cooperation efforts and national and/or local initiatives.

For the implementation of the Project, CAPRADE named a national coordinating entity in each country. These institutions actively led the activities and achievement of the different outcomes in the Andean subregion.

PREDECAN Project national coordinating entities

COUNTRY	NATIONAL COORDINATION
Bolivia	Ministry of Foreign Affairs and Cult
Colombia	Risk Management Directorate – Ministry of Internal Affairs and Justice
Ecuador	Risk Management Technical Secretariat
Perú	National Civil Defense Institute

“The Ecuadorian vision of risks and disasters is changing; we used to have a vision centered on disasters, now we have a vision focused on development. PREDECAN has become, as it jointly works with authorities of the country in different areas, an important support in the cross-cutting task of risk management in different development themes”.

Lorena Cajas Alban, Technical Secretary of Risk Management of Ecuador

Intervention Approach of the PREDECAN Project

From 2005 to 2009, the PREDECAN Project enabled the celebration of 230 participative events, with more than 8 500 people, mainly institutional and civil society representatives at the national, sub-regional, and local level.

For implementation of the PREDECAN Project, seen as a facilitating structure, an Entidad Gestora de Proyectos – EGP (Project Promoting Entity) was created with a minimum number of personnel responsible for interacting with the beneficiaries and enabling the development of programmed activities. CAPRADE worked as the Coordination Committee.

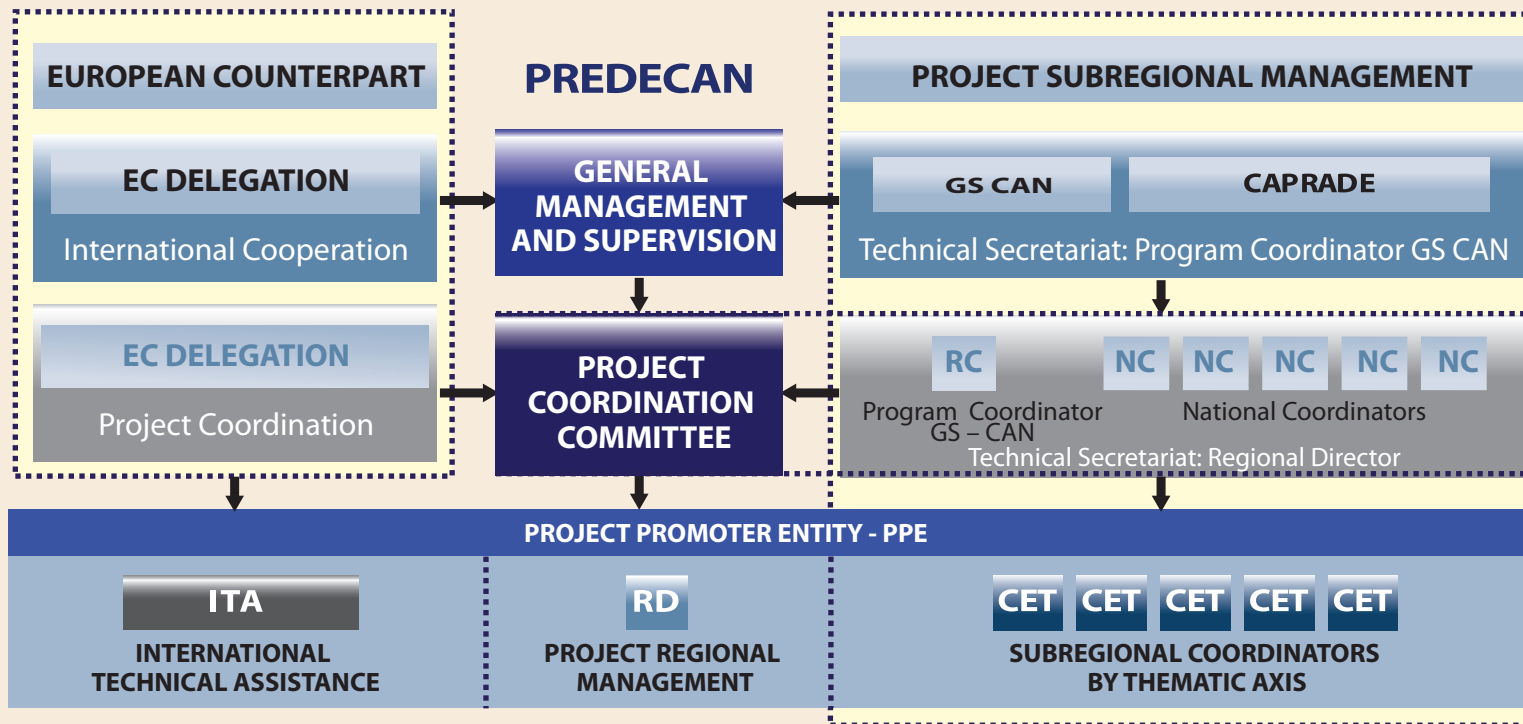
Participation of actors in PREDECAN Project 2005 - 2009

Andean subregional workshops	36
National workshops in beneficiary countries	172
International training courses	7
International workshops (with presence of countries other than from the CAN)	3
CAPRADE meetings supported by PREDECAN	12
Our trained participants	8 556
Trained men	62%
Trained women	38%

PREDECAN Project (basic summary):

- Initiative for supporting CAPRADE to achieve vulnerability reduction in people and their assets exposed to natural and socio-natural hazards and to promote sustainable development in the Andean Community countries.
- Financial support from the European Commission and Member Countries of CAPRADE.
- Technical execution in charge of the General Secretariat of the Andean Community.
- Organization around five outcomes, corresponding to the Andean Strategy for Disaster Prevention and Relief.
- Project aimed at institution capacity building for Disaster Risk Management, especially prevention.
- Facilitating project: wide and total participation of institutional actors for risk management in each country.
- Implemented tasks: technical consulting, training, specialized studies, equipment supply and illustrative actions.

PREDECAN Project management model



(*) Implementation and administrative control of the Project is conducted by the Regional Directorate, together with the support of the Operations and Finance General Management of the GS - CAN

Financial Resources

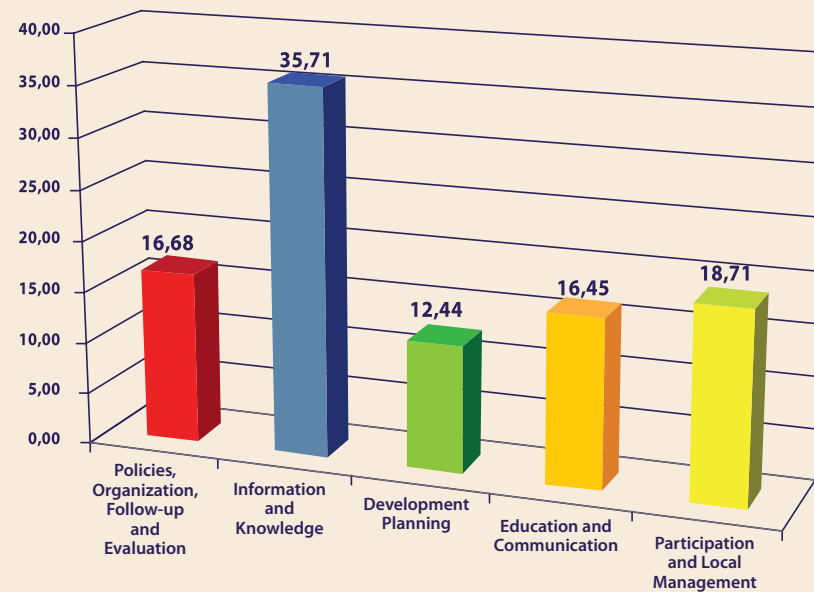
The use of resources within the PREDECAN Project framework enabled expected outcomes, according to media, time and quality, to be achieved efficiently.

The information and knowledge management area received the major investment, representing 35.71% of the total budget, aimed at designing, developing and implementing the Andean Information System for Disaster Prevention and Relief –SIAPAD- and their three portals. Following this personnel training, specialized software and hardware supply assumed a second position in investment

priorities. The implementation of initiatives at the local level enabled the validation and implementation of developed proposals and approaches and these along with risk evaluation studies and illustrative projects and works, represented 18.71% of investment.

The work in policy, organization, follow-up and financing topics, as well as education and communication, each represented 16% ; and the strengthening of planning processes for development and public investment 12.44%, corresponding to training, technical assistance, tool generation and publication activities.

Percentage of investment according to thematic area of PREDECAN Project





Cuenca, Ecuador
Photograph by Lilliana Narváez



La Paz, Bolivia
Photograph by Gabriel Jaime Arango

Improved Policies, Organization, Follow-up and Financing Services for Risk Management

Improved Policies, Organization, Follow-up and Financing Services for Risk Management



Photograph by PREDECAN

Approach

In the past, disaster was only viewed as a response and recovering problem. This is why it was considered that the only responsible for this matter were the institutions specialized in humanitarian assistance and disaster response. Today, it is known that risk is a social construction due to non-resolved development problems. Thus, achieving its reduction requires the participation of all relevant social actors, where each institution, civil organization, company and individual, should have a proactive role in risk prevention, reduction and control.

To achieve the expected efficiency and effectiveness, there is a need to have clear agreements, a logical organization and coordination scheme among all the participants in the different disaster risk management tasks and to be conducted as a shared responsibility.

The fundamental questions in searching for efficiency in an organizational system for risk management are:

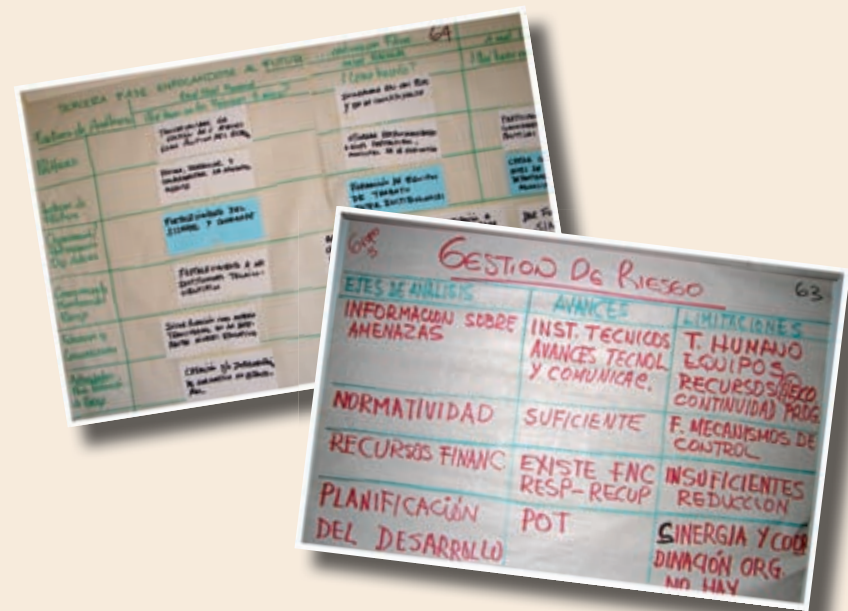
- What is the level of advance in each country?
- What has to be done to improve and move on?
- How should the organization and processes be strengthened and which tools should be used?
- Who should participate, with what processes and what will be the outcomes?
- How should the different actions be financed, what are the mechanisms?

Regarding this premise, the PREDECAN Project supported the strengthening of National Systems / Platforms for Disaster Risk / Prevention and Disaster Relief Management / Civil Defense,

including the inter-institutional agreement definition (as standards), the identification of important or key actions (as plans and work agendas), the determination of roles and responsibilities (through a process approach) and the promotion of mechanisms for financing support.

“Risk reduction must be a priority in all territorial levels and should have a solid institutional, legal and financial basis for its application”.

HFA, priority number 1



Processes and Actors

During the last five years, the PREDECAN Project supported CAPRADE in improving risk management services, including policy and strategy formulation, organization and coordination, follow-up and financing of activities. The developed processes were:

1. Systematization and conceptualization of the information on disaster risk management advances in each country.
2. Support for document preparation on strategic planning and political guidance to strengthen risk management in each country.
3. Accompaniment on initiatives for building risk management organization and coordination, according to specific contexts in different National Systems/Platforms in each country.
4. Alternative assessment and identification for improving disaster risk management financing, including financial deduction and transfer strategies at the sub-regional and country level.
5. Strengthening of the Andean sub-regional coordination scheme based on the Andean Committee for Disaster Prevention and Relief – CAPRADE.

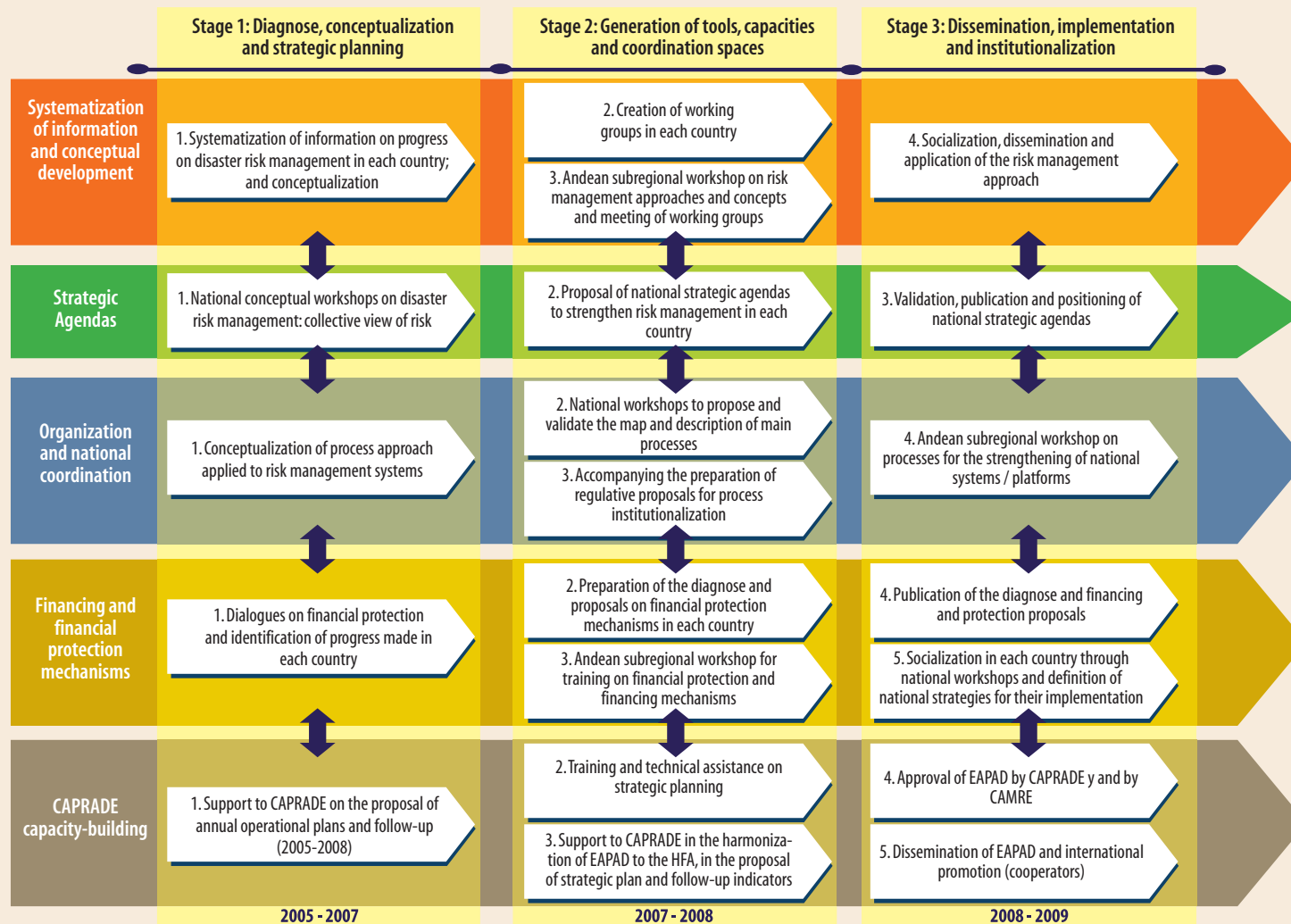
Within the framework of this topic area, 82 events were held on training, consensus and product manufacturing (8 Andean sub-regional workshops, 62 national workshops and 12 CAPRADE meetings) were developed, with 3 040 participants (35% of which were women).

All these activities were framed within the Action 1 component in the Andean Strategy for Disaster Prevention and Relief, which in the Project context was coordinated with the Hyogo Framework for Action.

The key actors who participated in these activities were:

- CAPRADE institutions: national institutions for Disaster Risk Management/ Prevention and Disaster Relief Management and/or Civil Defense, national institutions responsible for development planning and Ministries of Foreign Affairs.
- Agents responsible for Ministries of Finance / Economy in each country.
- Institutions responsible for critical development sectors in the Andean sub-region: agriculture, housing, environment and health.
- Technical-scientific institutions responsible for information on risks and disasters.
- Educational and research institutions
- United Nations System Agencies
- Organizations for international cooperation
- Non-governmental organizations related to different processes of disaster risk management

Processes and milestones in the implementation of the thematic area: policies, organization, follow-up and financing



Achievements and Impacts

Through this component and the active participation of key social and institutional actors from the national systems and platforms, the concept and practice of disaster risk management is established, moving from an approach based on ideas and actions for post disaster response to a concept based on the understanding of the social processes of risk construction, its relations with development and integral intervention (prospective, corrective and reactive) especially promoting the prevention element. Additionally, fundamental strategic planning processes are strengthened for work management and prioritization in the topic in each country and sub-region; methodological elements such as analysis according to processes are supported for helping inter-institutional organization and coordination, advances and strategies are established both at the country and sub-regional level for improving financial protection in case of disasters in the Andean Community.

Initial evaluation: The first baseline on risk management in the Andean subregion

As an outcome of the initial evaluation of disaster risk management advances in the Andean sub-region, it has been verified that all the countries have developed important initiatives and efforts for developing regulatory frameworks, organization and coordination outlines and resource allocation. In this labor, international support has been fundamental in the sub-region, both with humanitarian assistance in case of disasters, and with risk prevention and mitigation actions.

"The PREDECAN Project has awakened the interest in debate and sown a seed as regards the Disaster Risk Management matter, but finally the countries are the ones that have to be aware, provide sustainability and follow-up".

Allan Lavell, International Advisor of PREDECAN.



A basic starting point: The conceptual development for disaster risk management

A starting point for strengthening disaster risk management was the definition of a conceptual approach shared among the different countries in order to achieve a mutual understanding of the disaster risk problem and intervention forms.

Thus, a reference conceptual document was prepared, considering innovative contributions at the international level and that was presented and discussed later at the Andean sub regional and country level respectively.

“The PREDECAN Project has allowed us to change from a Disaster Prevention and Relief approach, exclusively, to Disaster Risk Management”.

General Luis Felipe Palomino, Head of the National Institute of Civil Defense of Peru



The collective definition of goals and proposals in disaster risk management: National strategic agendas

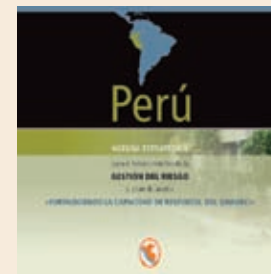
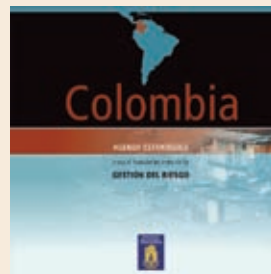
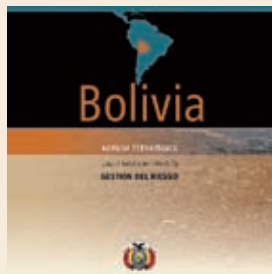
By understanding and assuming disaster risk management as a sustainable development strategy, many questions may arise on how to implement it. The impression may exist that there are so many activities that it would be impossible to make plans and execute them in reasonable terms and with suitable management indicators.

In each country of the Andean sub-region, CAPRADE organizations led a highly participatory process in order to identify the main strategic actions needed for strengthening disaster risk management over a five-year term and for implementing and managing existing policies at the sub-regional and national level. Through this process National Strategic Agendas were developed and published.

“The Strategic Agenda was used in the National Planning as an input to introduce disaster risk management in the National Development Plan 2006 – 2010”.

Alexander Martínez, Coordinator of Risk Management Group,
National Planning Department of Colombia.

These agendas do not replace current policy documents in each country, rather, they prioritize and place emphasis on specific topics that require more attention; in that sense, agendas have been used as an input to incorporate this topic in the National Development Plans in the cases of Bolivia, Colombia and Ecuador and to define the current actions according to specific measures in each country (in the case of Peru, the components for the preparation and response came out of the lessons derived from the earthquake of August, 2007).



Strategic Agendas for Risk Management in Bolivia, Colombia, Ecuador and Peru

“The European Commission, through the PREDECAN Project, has enabled Bolivia to change from a reactive to a prospective approach”.

Franklin Condori, Technical Advisor of Vice-ministry of Civil Defense of Bolivia.

The proposal for efficient Systems / Organizations: Disaster risk management, an approach based on processes

When the risk management goal is shared by multiple social actors, appropriate organization and coordination outlines are required, thus enabling the clear definition of roles and responsibilities for each party.

CAPRADE defined the process approach to make advances in the organization and coordination of National Systems / Platforms for Disaster Risk / Prevention and Disaster Relief Management/ Civil Defense in the Andean sub-region. This approach required clear knowledge and definition of the system mission, the “Map of Processes” (including operating, managing and supporting processes), and the description of key processes.

Strategic elements are provided through this analysis for strengthening the organization, according to specific outcomes and management indicators, exceeding the prevailing work vision based on independent and separate operative units.

Differentiated schemes in each country were:

- Colombia: Process analysis according to the Disaster Risk Management Directorate of the Ministry of Internal Affairs and Justice (MIJ) as head of the National System for Disaster Prevention and Relief, according to Regulation number 872 of 2003viii, which sets forth that all institutions of the State should implement a quality management system based on processes.
- Ecuador: The work was based on local experience evaluations with replicating options nationwide, to describe the “response” process in the specific case of the Province of Guayas, coordinating with the Technical Secretary of Disaster Risk Management, Ministerio del Litoral (Ministry of Coastal) and local institutions.
- Peru: The National System of Civil Defense (SINADECI) was studied as a whole, reformulating the System Mission and

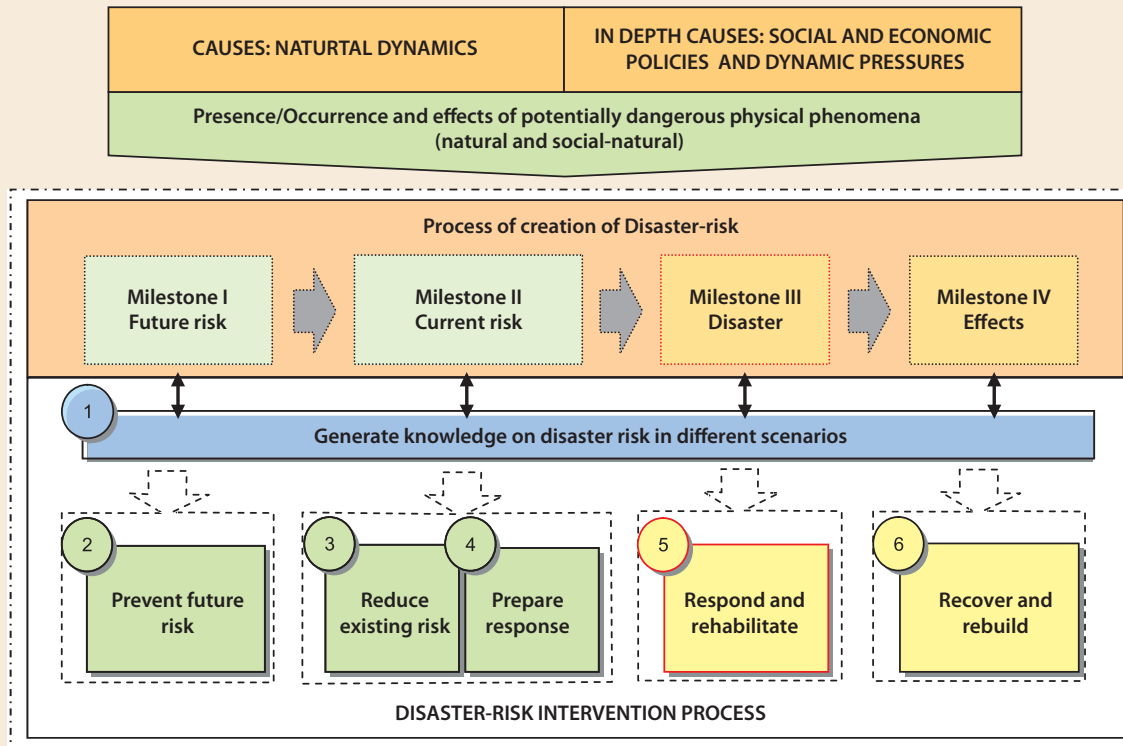
Vision, establishing the map of processes and describing the participative operation processes. The work is an outline and antecedent for the Reformulation Law of SINADECI.

“The work with the process approach in Colombia was acknowledged at the Ministry of Interior and Justice level, as a pilot experience and, used as feedback on the development of quality management”.

Luz Amanda Pulido, National Director of Disaster Risk Management of Ministry of Internal Affairs and Justice of Colombia.



Disaster Risk Management: A process-based approach



Disaster risk as a contingent liability: The need for developing efficient financial mechanisms to reduce fiscal vulnerability in the Andean sub-region

Disasters cause great losses that governments must urgently replace; therefore, several development goals are delayed when confronting disaster, since available resources (most of them limited) are many times used to repair losses.

The previous calculation of probable losses – contingent liabilities – is important in order to be able to anticipate and plan in detail the cost/benefit equation of their mitigation and reposition, and the establishment of financial protection mechanisms and strategies.

In this context, existing initiatives are evaluated for financial protection and feasible proposal implementation at the sub-regional and country level, in order to reduce fiscal vulnerability.

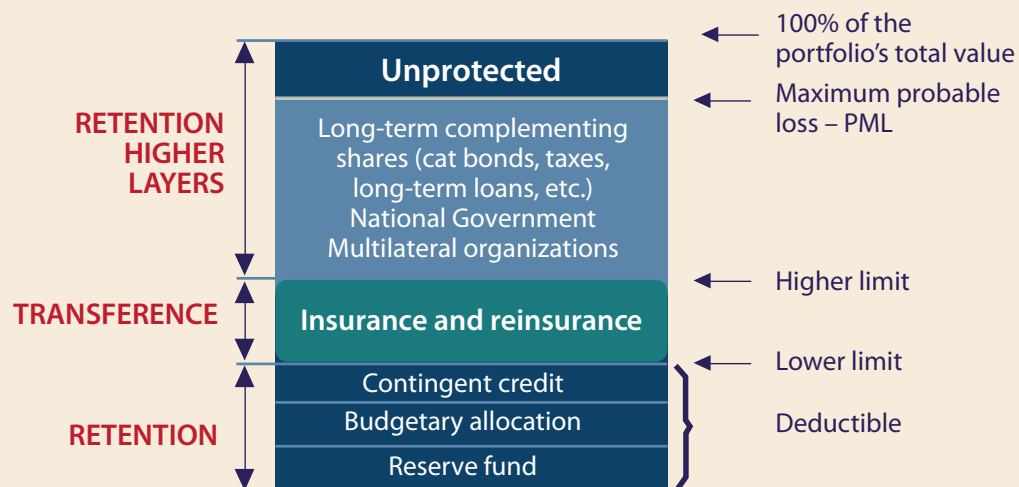
“When a planner from a Ministry of Finance makes growth estimation for the country and does not consider disaster costs, he leaves aside a significant part of the reality, especially in the case of those countries from our sub-region, in which disasters have increased. In these cases, it is strange that the fiscal potential impact of the disasters is not considered. There is the idea that it is not possible to estimate the cost, but today very precise estimation models are available”.

Omar Darío Cardona, International Advisor of PREDECAN.



Disaster Risk Financial Management. Retention and Transference Tools for the Andean Community

EVALUATION OF ALTERNATIVES, structure of retention and transference



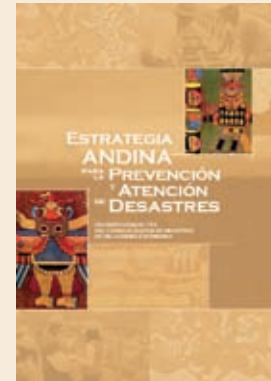
Prepared by Omar Darío Cardona, 2007

Strengthening the coordination scheme in the sub-region: CAPRADE in the Andean Integration System

At the sub-regional level, CAPRADE is the Andean referent on disaster risk management. This regional and international positioning is important to promote this topic in each country and, at a global level, especially when faced with growing exchange opportunities among regions and international support.

The PREDECAN project helped CAPRADE in its consolidation as a sub-regional scheme for articulating and promoting risk management, generating multiple essential products. The following aspect may be highlighted:

- Andean Strategy for Disaster Prevention and Relief coordinated with the Hyogo Framework for Action and passed through Decision 713 August, 2009 of the Andean Council of Ministers of Foreign Affairs –CAMRE (both documents have an implementation term until 2015).
- Andean Strategic Plan for Disaster Risk Reduction and Relief 2009 – 2015, prepared, approved and socialized.
- Annual Operative Plans of CAPRADE are prepared in a participatory manner.
- The discussion for consolidating CAPRADE, where the representatives of the Member Countries agreed on the need for strengthening the Technical Secretariat in the General Secretariat, but without considering its financing.
- Strategic Planning Training for the Committee.
- Evaluation at the national and sub-regional level for implementing risk management in the HFA context, and supporting indicator and document preparation in the country.
- Project portfolio for continued support to EAPAD and a supporting cooperative matrix for its later financial management.



Andean Strategy for Disaster Prevention and Relief – EAPAD, Decision 713 of the Andean Council of Foreign Affairs Ministers.

“As Andean sub-regional countries we are strengthened and brought together by the work that has been developed related to the mutual relief in case of disasters; to that end, international cooperation has provided an important support mechanism; this is one of the CAPRADE’s strengths developed over the last five years”.

Hernán Tuco Ayma, Vice-ministry of Civil Defense of Bolivia.



"Those of us who have worked in this project believe that several opportunities have been opened for future work with CAPRADE".

Ambassador Nilo Figueroa, Titular Chief of CAPRADE, Ministry of Foreign Affairs of Peru

Consolidating the process and building the next steps on topics related to the organization, coordination and financing of risk management in the Andean sub-region

Although the processes and products obtained until now are an important advance in the Andean sub-region, the acknowledgement and indication of the challenges involved in achieving the goals proposed in HFA and EAPAD is still required. Amongst these, the following may be highlighted:

Organization, coordination and follow-up:

- Consolidate the push for risk management organization and coordination seen from an integrated (prospective, corrective and reactive), systemic (by processes) and mainly participative and articulated angle with the different actors and at the different territorial levels (subregional, national, regional and local).
- Continue with the updating and standardization of the regulation frameworks and their application tools.
- Promote the participation of private sector and civil society.
- Constant analysis of the level of fulfillment of plans and goals and risk management performance through appropriate indicators.

Financing:

- Definition of budget allocations for GdR (detailing minimum percentages and action types that could be executed with such resources).
- Strengthen reserve and/or compensation funds.
- Foster co-financing of risk reduction projects (differentiated from the ex-post intervention).
- Evaluation and models that enable a calculation of the passive contingents of disasters.
- Evaluate insurance coverage and guarantees at least for all public buildings.

"Capacity building and institutional development is the main goal of CAPRADE, due to this it is the base to implement the Andean Strategy, and the national plans in each country through its articulation".

Percy Alvarado, National Coordinator of PREDECAN Project in Peru



Policies, organization, follow-up and financing regarding risk management in the Andean countries and at the subregional level

Problem diagnosed	Progress made with the support of PREDECAN
2005	2009
<ul style="list-style-type: none"> Lack of information on the progress status of risk management in the Andean countries. 	<ul style="list-style-type: none"> Baseline with systematized information on the topic of risk management to guide decision-making and planning, including actors, regulatory frames and progress made in each country. Comparative analysis of the state of the art among countries to facilitate subregional coordination.
<ul style="list-style-type: none"> Insufficient policies, strategies and plans and that are not articulated to the HFA and EAPAD. 	<ul style="list-style-type: none"> Strategic Agendas (one by country) proposed with the participation of more than 150 institutions, validated and published in support of national and subregional policies on risk management. In the case of Colombia and Ecuador, they served as a basis for the National Development Plan. Andean Strategy for Disaster Prevention and Relief articulated to the Hyogo Framework for Action. Andean Strategic Plan that integrates common elements from the National Strategic Agendas, in harmony with the HFA. Andean capacity-building reached regarding strategic planning for risk management, with conceptual and methodological tools, focused on local contexts.
<ul style="list-style-type: none"> Lack of clarity of the roles from the actors in charge of implementing risk management policies and weak coordination of action among them. 	<ul style="list-style-type: none"> Direct PREDECAN beneficiaries trained and applying a methodology that enables them to strengthen organizational and coordination processes. Mission, management and support processes determined in key instances for risk management, with specific ranges according to the reality of each country. Implementation of new processes for the strengthening of national Systems or Platforms.
<ul style="list-style-type: none"> Lack of knowledge on the level of financial protection in case of a disaster in the Andean subregion. Insufficient financing to adequately support risk management processes. 	<ul style="list-style-type: none"> Diagnose of the state of the art of financial protection in each country regarding disaster, with specific recommendations to increase the financial protection level and of risk management financing. Institutions in the subregion, beneficiaries of PREDECAN, strengthened on their knowledge on disaster risk management. Book published about this topic available.
<ul style="list-style-type: none"> Andean Committee for Disaster Prevention and Relief recently created and with requirements of support for integration and coordination. 	<ul style="list-style-type: none"> Video-conference rooms in CAPRADE entities in each of the countries, equipped with high technology (computers, video projectors, DVD recorder and player) and used for the articulation and improvement of communication channels among countries. New coordination mechanisms and monitoring and follow-up systems available for the delegates of the CAPRADE entities. CAPRADE portfolio of priority projects, focused on continuing with EAPAD implementation. CAPRADE more clearly positioned in the subregional and international level, which in the future will contribute to its technical, political and financial sustainability.



Quito, Ecuador

Disaster Improved Information and Knowledge Services for Disaster Risk Management



SIAPAD

Sistema de Información Andino para
la Prevención y Atención de Desastres



Approach

It is hard to imagine appropriate and effective interventions and policies to reduce and control the negative effects of hazardous phenomena if these are not based on knowledge and management information. This should enable the access, exchange and search for information by all the social actors involved, aimed at providing data and information required in the different processes of coordination, planning, execution and follow-up related to risk management.

Information is an essential element in all the areas related to disaster risk management. From the development of mitigation and prevention plans through the immediate emergency response and later recover. Each task involving decision-making requires knowledge on characteristics and current or probable state of hazards, their spatial and temporal distribution, the vulnerability factors, as well as the technical, legal, economical and human resources available for mitigation, response and reconstruction.

Risk management processes also produce the information required for implementing decision-making, such as regulatory and policy documents, prevention and development plans, acting projects and programs, territorial organization maps and recommendations, orders or emergency protocols for coordinating response groups.

In several cases, this information should be publicly available to contribute with the education and socialization of risk management, to promote the meeting of recommendations and standards through the provision of booklets, guides, educational material and community training. Civil society also needs access to reliable information in case of early warning or predictions, thus enabling preparation and collaboration before emergencies or in cases of mitigation or recover activities.

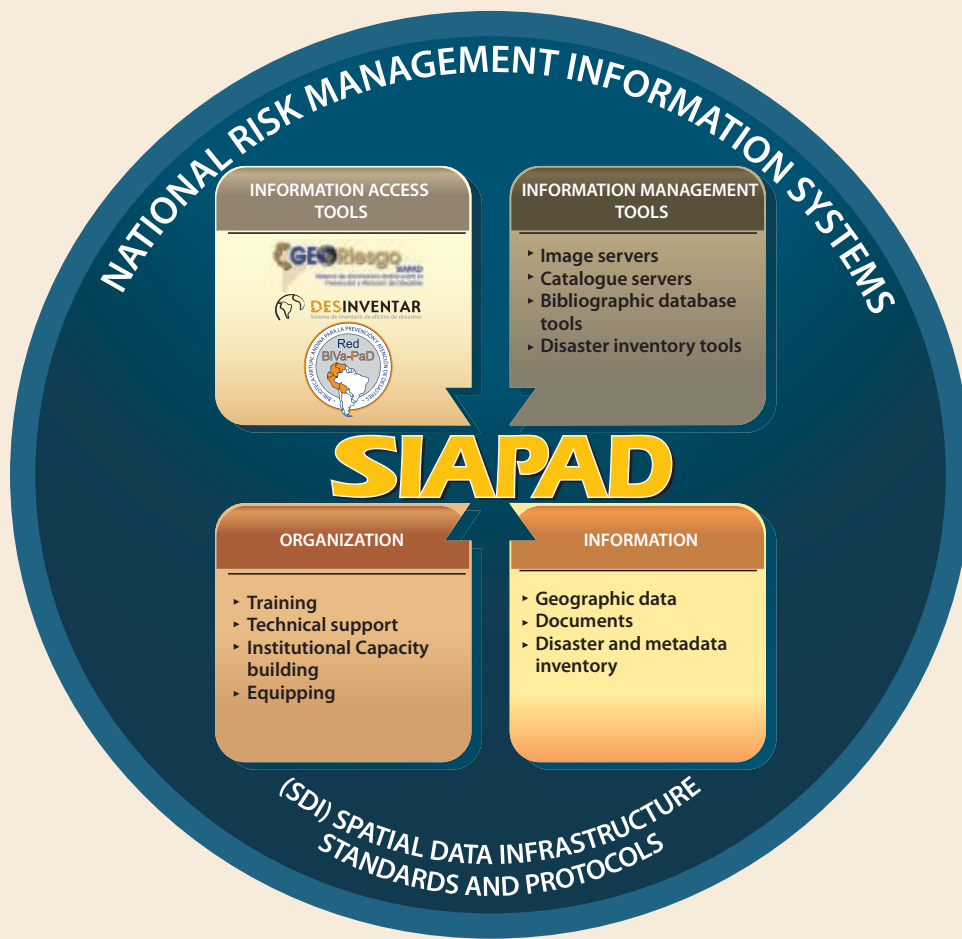
“As long as organizations increase their interaction, they share information. When the organizations share information, they increase the coordination. As long as coordination among organizations increases, they become more efficient”.

Louise K. Comfort^{ix}

On the other hand, due to the inter-disciplinary and multi-institutional nature of disaster risk management, the multiple actors that participate in it (institutions at all the State levels, technical-scientific institutions, nongovernmental organizations, communities, etc.) require efficient information exchange for properly meeting with their corresponding regulations and goals.

For the efficient collection, storage, distribution, searching, access and integration of all the documents, data and maps used in different disaster risk management processes, which are usually spread throughout different institutions and territories, in different formats and classification systems, information management and communication of distributed systems is required. Ideally, these systems archive the information in digital format and should use standards enabling search, dissemination and access, without the need to centralize or copy the information (unless it is needed for security or effectiveness).

The role and need to share information, and to strengthen information management systems, are revealed in the Andean Strategy for Disaster Prevention and Relief in the Hyogo Framework for Action, and these were undertaken by CAPRADE through the PREDECAN project, by generating the Andean Information System for Disaster Prevention and Relief (SIAPAD).



SIAPAD in short:

- It is a sub-regional Information System based on a network structure for supporting decision-making processes in the disaster management risk area, through implementing mechanisms that enable the information access required by the different social actors related to this task.

It is characterized by being:

- **Integrative:** It involves a group of information-generating entities and establishes communication bridges with and among different users to facilitate generation, access and use of information on disaster risk management.
- **Distributive:** The sources of information are the institutions from the Andean Community Member States, which generate information on the planning and implementation of activities focused on disaster risk management. Access to information is centralized but not the information itself.
- **Standardized:** It uses standardized procedures at the national and international level which allows for interaction as in an information network.
- **Dynamic:** It can be easily adapted to changes at the information sources, new information products or technological adjustments, as well as to user's demands.

Processes and Actors

The implementation of information systems for disaster risk management is a process that should be developed in stages, taking into account institutional and technical capabilities, generating the appropriate consensus on processes and policies to define the assigned functions of the systems and involving all the relevant actors and resources in its design, implementation, adoption and sustainability.

During the last five years, CAPRADE received PREDECAN Project support for improving information and knowledge services. The processes developed were:

1. Diagnostic, design, collective conceptualization, development and implementation of the Andean Information System for Disaster Prevention and Relief (SIAPAD) and its tools: software and hardware of three portals: GEORiesgo (browser), BiVa-PAD Network (Network of Virtual Libraries – documentation) and on line DesInventar (disaster database).
2. Capacity building for managing information, free software and information standards, including supporting national and sub-regional initiatives for developing Spatial Data Infrastructures (SDI) enabling information flow among institutions and projects and guaranteeing inter-operability.
3. Information, integration and exchange, including alphanumeric data, metadata in the document centers, historic disaster database, a system for risk and disaster risk management indicators, and the Atlas on Andean territorial dynamics and its exposure to natural hazards.

“For identification, evaluation and follow-up disaster risk management requires the development and maintenance of capacities and infrastructures; the use of risk maps, statistic information on losses and indicator systems for risk and vulnerability”.

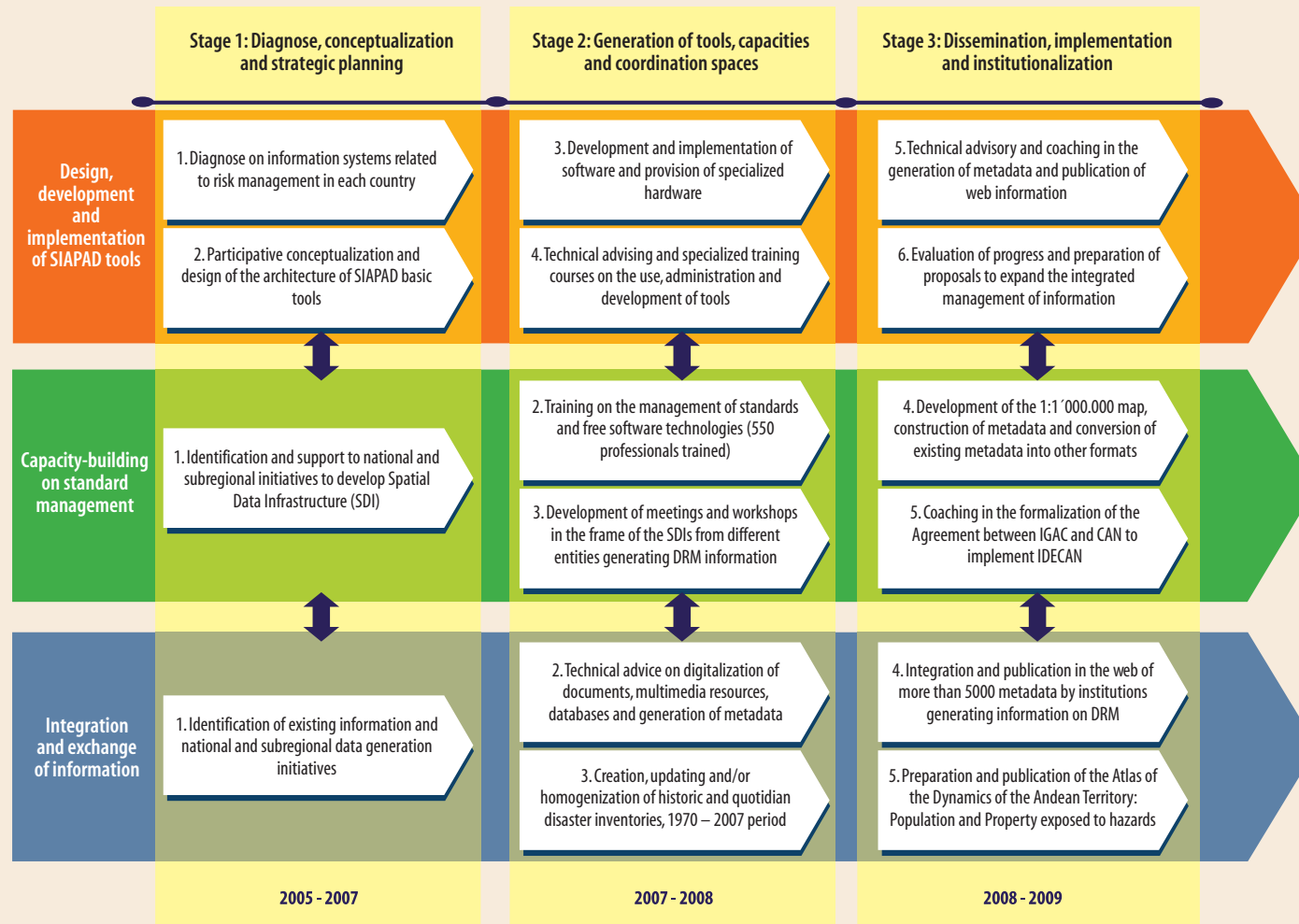
Words into Actionx . EIRD, Specific recommendations for implementing HFA.

The key actors for the implementation of these activities were:

- CAPRADE institutions: National institutions for Disaster Risk Management / Prevention and Disaster Relief Management and/or Civil Defense, national institutions responsible for development planning and Ministry of Foreign Affairs.
- Technical-scientific institutions responsible for generating information on disaster risk management: Geological and geophysical services, hydro-meteorological and environmental monitoring services, among others.
- Statistical institutions of the Andean countries
- Geographical institutions of the Andean countries.
- Universities and research institutions
- Nongovernmental organizations and cooperation agencies
- Sub-national or local organizations or governments (at least three by country)

In the knowledge and information frame related to this area, 48 events for training, consensus and product preparation (10 Andean subregional workshops, 7 training courses and 31 national workshops) were developed with 1 257 participants (34% of which were women).

Processes and milestones in the implementation of the thematic area: information and knowledge for risk management



Achievements and Impacts

Through this component, major visibility and access to existing information were achieved, with better exchange possibilities among national and sub-regional institutions by managing the standards and philosophy of the Spatial Data Infrastructures (SDI), consolidated in the Andean Information System for Disaster Prevention and Relief –SIAPAD- and a better knowledge of the hazards and exposure of the population and its assets to disaster risk management, through the production and socialization of the *Atlas of Andean Territorial dynamics*.

Building a collective vision on information administration for disaster risk management in the Andean Community

As a starting-point for improving information on disaster risk management, a diagnosis on the existing information system operations was developed in the Andean sub-region. It is related to different processes for risk prediction, prevision, reduction and control.

It has been verified that the Andean Community had access to important information, but it was disorganized and disarticulated, which did not allow its efficient use in disaster risk management or development planning. Likewise, the costs for its management and software and hardware requirements restrained key institution actors in operating the existing systems and platforms.

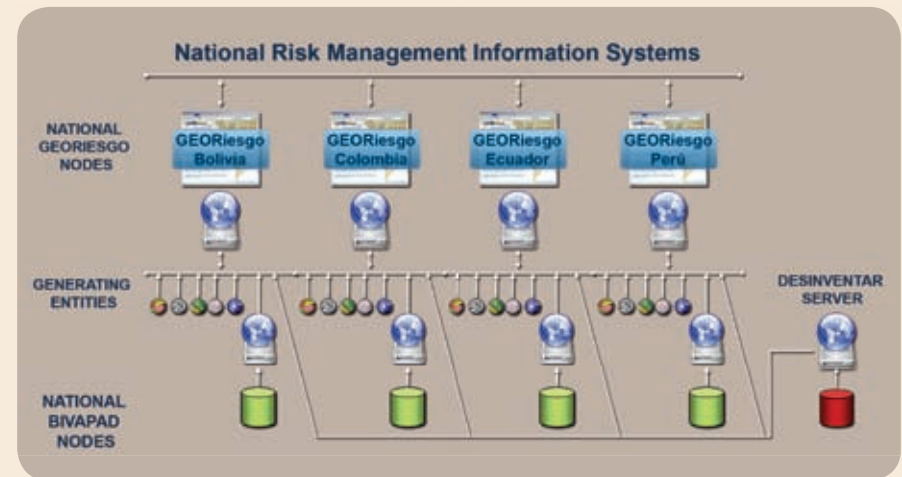
As a result of consensus and experience exchange among the experts of the key institutions in the sub-region, the conceptualization and design of the Andean Information System for Disaster Prevention and Relief – SIAPAD was implemented, according to an integrated,

distributive, standardized and dynamic approach, and the use of free software.

The SIAPAD brought about an important change in information management related to disaster and risk topics, since it allowed the generation, dissemination and use of documents and geographical information through national nodes at the country and sub-regional level.

“PREDECAN has visualized and completed a series of institutional goals through these years, such as SIAPAD”.

Carlos Díaz, Director of Meteorology and Hydrology National Service of Bolivia.



Making truth a great challenge: Development and implementation of SIAPAD

With SIAPAD, three tools were put in operation for access and use of information: GEORiesgo, BiVa-PAD Network and DesInventar, making visible the advance in the creation and consolidation of Spatial Data Infrastructures – SDI, at the national and sub-regional level. SIAPAD is an example of a SDI topic, specialized in disaster risk management.

GEORiesgo portal enables documented and cartographic information search and access (four national portals currently in operation).

The Network of Andean Virtual Libraries for Disaster Prevention and Relief – BiVa-PAD Network-, is used for the collection, organization and dissemination of documented information (four physical centers and national portals currently in operation) and more than 40 associated institutions.

The Disaster Database System –DesInventar- enables the analysis of recurrent disaster patterns in the sub-region and at the intra country level, at the highest levels of spatial resolution possible—municipality or district. It also allows online queries.

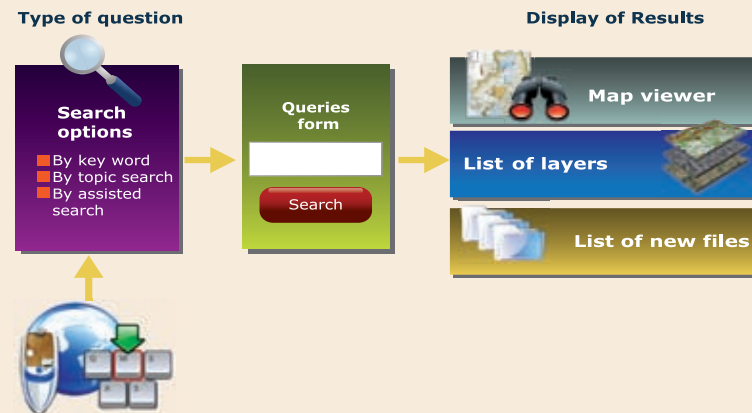
The technological capacity of the institutions generating information was strengthened with more than 26 servers.



GEORiesgo
<http://bolivia.georiesgo.net> - <http://colombia.georiesgo.net>
<http://ecuador.georiesgo.net> - <http://peru.georiesgo.net>

“In the last years, thanks to the PREDECAN Project an appropriate coordination level of knowledge based institutions was achieved, aimed at establishing which is the relevant data for disaster risk management, the type of standards to be used and the information exchange mechanisms to be implemented”.

Lilia Patricia Arias, Agustín Codazzi Geographic Institute, Colombia.



The standards and spatial data infrastructures, a proposal for Inter-operability: Policies, inter-institutional agreements and training for information management

To guarantee the appropriate operation of SIAPAD information management tools, the formalization and integration processes of existing institutions was accompanied in its strengthening; this task encouraged special activities in each country.

In the framework of SIAPAD technical assistance was provided to participant institutions, in the definition and/or setting of standards that allowed the organization and dissemination of the information generated, increasing the project and product visibility, and a major knowledge transfer. At the same time, information exchange was enabled among the different actors.

In this context, initiatives currently in operation and/or in definition were supported for information standard management at the national level: CONAGE³, IDEP⁴, ICDE⁵, among others; and at the sub-regional level: CAF-Geosur⁶, IDECAN⁷. All of them look for developing a Spatial Data Infrastructure thus enabling information flow among institutions and projects and ensuring their inter-operability.

Additionally, CAPRADE, through the PREDECAN Project, supported a cooperation agreement between the General Secretariat of the Andean Community and Agustín Codazzi Geographic Institute (IGAC) of Colombia to consolidate the Spatial Data Infrastructure of the Andean Community (IDECAN).



Information exchange and integration and capacity-building for knowledge and information management

At the documentary information level, the digitalization of over 4 000 important documents for disaster risk management, the systematization of over 200 multimedia resources and a directory of more than 800 contacts from organizations and institutions was implemented.

Access to news sources on the development of activities related to risk management was improved, with a file of more than 1 500 news items, published in mass media related to this topic; and more than 300 links to reference Web sites, information about events and academic training options on risk management.



Network of Andean Virtual Libraries for Disaster Prevention and Relief:
BiVa-PAD Network

Bolivia: www.bivapadbolivia.org.bo

Colombia: www.bivapadcolombia.org

Ecuador: www.bivapad.gov.ec

Peru: www.redbivapad.org.pe

³ National Board of Geo-informatics of Ecuador ⁵ Colombian Spatial Data Infrastructure - SDI ⁶ Network for disseminate geographic information in South America

⁷ Spatial Data Infrastructure of the Andean Community

Improved Information and Knowledge Services for Disaster Risk Management

Likewise, more than 5 000 metadata entries under the responsibility of different institutions were available for the region, an important amount of which is geographical information.

Creation, updating and/or homogenization of disaster inventories, involving historic and recurring events at the Andean subregion level for the 1970 – 2007 period, was improved through a virtual tool (DesInventar 8) used for executing classifications and searches of a database with more than 57 000 entries⁹.



Online DesInventar: <http://online.desinventar.org>

Based on existing information, and taking advantages of its standardization, a subregional information exercise was developed, aimed at visualizing the main hazards and the population's, regional infrastructure and some economic variable exposure to these through the construction of an Atlas of Andean territorial dynamics: Population and assets exposed to natural hazards. The sub-regional population, production, infrastructure and commerce exposure

to nine of the more important and recurring phenomena such as earthquakes, volcanic eruptions, frost, floods, droughts, mud and debris slides, and El Niño and La Niña phenomena was depicted.

"Not only is it important to know about hazards, but also it is necessary to work with institutions, communities and authorities in order to implement disaster risk management".

Martha Calvache, Sub-director of Hazards of Instituto Nacional de Geología y Minas of Colombia, INGEOMINAS



Atlas of the dynamics of the Andean territory: Populations and goods exposed to natural hazards

Likewise, existing exercises on disaster risk management indicators in the sub-region were collected and compiled, and a report of a baseline description for 2009 on risk management advances was prepared by country and sub-region.

In all the developed processes, technical advising and training to officials were provided on topics of standards, inter-operability and management of SIAPAD. A total of 550 professionals (30% of which were women) from 40 institutions of the Andean Community participated in the different specialized courses.

⁹ Including Venezuela. This country announced the Agreement of Cartagena in April 2006 and participated in the activities of the PREDECAN Project until July 2007.

During the final stage of the project, the consolidation and appropriate process of SIAPAD tools was supported, through a series of periodic coordination meetings aimed at having experience exchange among the institutions to resolve questions and disseminate more data, searching the implementation of system management.

Type of organization	Bolivia	Colombia	Ecuador	Peru
National node administrators (risk management entity / civil defense)	VIDECI	DGR	STGR	INDECI
Planning Ministries/Departments	MPD	DNP	SENPLADES	PCM
Geographic institutes	IGM	IGAC	IGM	IGN
Statistical institutes	INE	DANE	INEC	INEI
Hydro-meteorology	SENAMHI	IDEAM	INAMHI	SENAMHI
Geology and geophysics	SERGEOTECMIN, OSC	INGEOMINAS	SGN, IGEPN	INGEMMET, IGP
Other organizations	SIA, GMLP, SNA	DCC, SIR, DIMAR	CLIRSEN, MAE, DMSC	MTC, PREDES

Consolidating the process and building the next stages for information management in the Andean subregion

Based on the analysis of the current information management on disasters and risks, and its comparison with the final goals foreseen in the Andean Strategy for Disaster and Relief, a series of proposals was formulated aimed at building capacities and use of information systems for risk management processes in the Andean Community.

These proposals look for consolidating the SIAPAD integrated role, as well as improving and extending institution system operation according to the needs detected by the institutions, which are registered in the document on Information Systems for Risk Management in the Andean Community: Realities and proposals.

Actions for the future SIAPAD consolidation:

- Implementation and training in local and regional areas
- Improve the easy operation and its integration with other systems
- Improve SIAPAD capacity for alarm distribution and visualization

Proposals for the extension of institution information systems:

- Integration of monitoring networks
- Analysis of potential effect on several scenarios
- Management for response to emergencies
- Integration of control and follow-up mechanisms

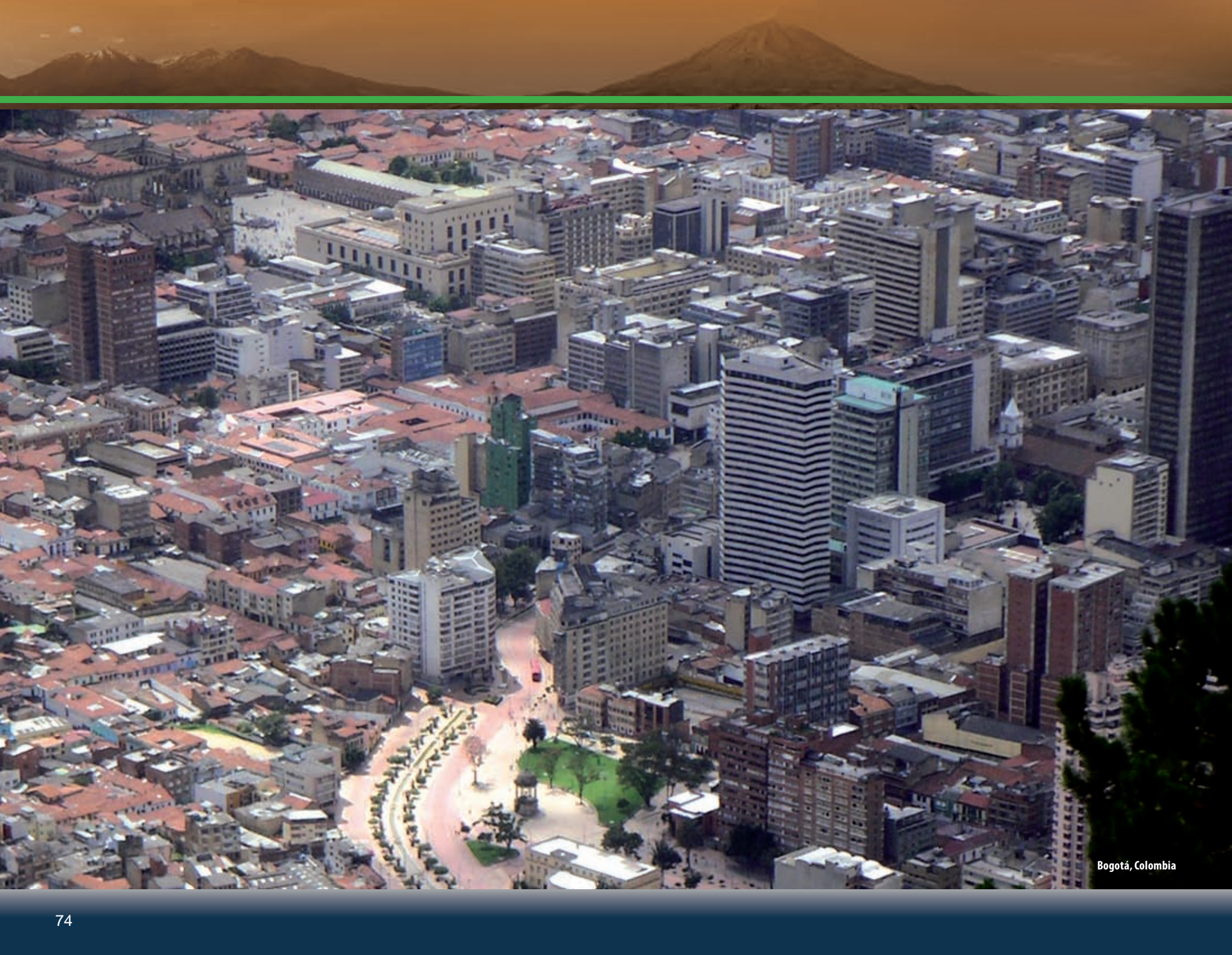


Information Systems for Risk Management in the Andean Community: Realities and proposals

Information and knowledge regarding risk management in the Andean countries and at the subregional level

Problem diagnosed	Progress made with the support of PREDECAN
2005	2009
<ul style="list-style-type: none"> Information on risks was spread, not updated and not accessible decision-making actors. 	<ul style="list-style-type: none"> More than 40 catalogues of metadata from 40 institutions (around five thousand metadata of geographical and documentary information), which are able to interoperate, offered by the institutions that work on topics related to risk management in the region. The classification of the information is made according to risk management processes available through the SIAPAD portals. Network of Virtual Libraries to improve the access and quality of documentary information in the Andean Community: Digitalization of 4000 documents, more than 200 multimedia resources, databases of contracts and equipping in each of the countries and trained staff.
<ul style="list-style-type: none"> Difficulties in the search of information, multiplicity of forms, and reduced interoperability of tools and technologies for their processing. 	<ul style="list-style-type: none"> Andean Information System for Disaster Prevention and Relief – SIAPAD with four national nodes in operation that allow the search, dissemination and use of cartographic, geographic and documentary information. SIAPAD is made up of 3 subregional portals (GEORiesgo, Red BiVa-PAD and DesInventar). National and subregional initiatives to establish standard procedures for the production, storage, updating, distribution and use of the information generated by the different national institutions. Spatial Data Infrastructure from the Andean Community (IDECAN) formalized and with results in the topic of risk management. Regional cartography (scale 1:1 000 000), agreed-upon and prepared for the planning of subregional projects. Proposal of portal to access basic geographic information to support decision-making related to the implementation of infrastructure projects in South America, articulated to the Geosur program from the Andean Development Corporation – CAF
<ul style="list-style-type: none"> Weak integration of research works and verification of data and registries by competent institutions or institutions related to risk management. 	<ul style="list-style-type: none"> Databases of historic and daily disasters between 1970 and 2007, harmonized for Bolivia, Colombia, Ecuador, Peru and Venezuela. On-line tools: DesInventar and DesConsultar to feed and make searches in the databases regarding historic disasters. Analysis of databases regarding disasters and preparation of maps in the consolidated subregional level.
<ul style="list-style-type: none"> Low visibility and awareness on the location and distribution of hazards regarding natural phenomena and the existing level of exposure of population, property and production in the subregion. 	<ul style="list-style-type: none"> Atlas of the Dynamics of the Andean Territory: Population and property exposed to natural hazards. It contains more than 50 maps associated to 9 phenomena: earthquakes, volcanoes, frosts, floods, droughts, landslides, mud and rubble flows, El Niño and La Niña phenomena and exposure of people, infrastructure and main production to these phenomena. State of the art of progress on risk management in the Andean subregion (baseline) based on the study of indicators that measure HFA compliance.





Bogotá, Colombia

Improved Services in Risk Management Integration into Development Planning

Improved Services in Risk Management Integration into Development Planning



Countryside from Arequipa, Peru
Photograph by Gabriel Jaime Arango

Approach

“A great part of the obtained progress in risk management integration into development is due to political and institutional changes. Modifying development practice in hazard-prone countries and regions is the next crucial step. In this regard, several initiatives such as, the development and application of methodological guidelines, disaster risk indicators, training materials and institutional support have been performed. Many of the risk assessment programs and tools that have been created could be easily adapted to be applied in risk sectors and projects, in order to generate precise information regarding the nature and level of risk, and to help guarantee that the appropriate measures for its reduction are adopted.”

Charlotte Benson and John Twigg.^{xi}

Infrastructure location, or the alternatives for energy, telecommunication, water and sewage network design with security standards, and the definition of characteristics, structure type and materials to be used for these networks in order to resist different phenomena such as wind, rain, earthquakes or ash fall are part of the decisions to be made through the different public planning and management instruments and processes available. These are as decisive in the prevision and construction of risk situations, and therefore, in disaster occurrence, as the presence of the triggering physical phenomena themselves.

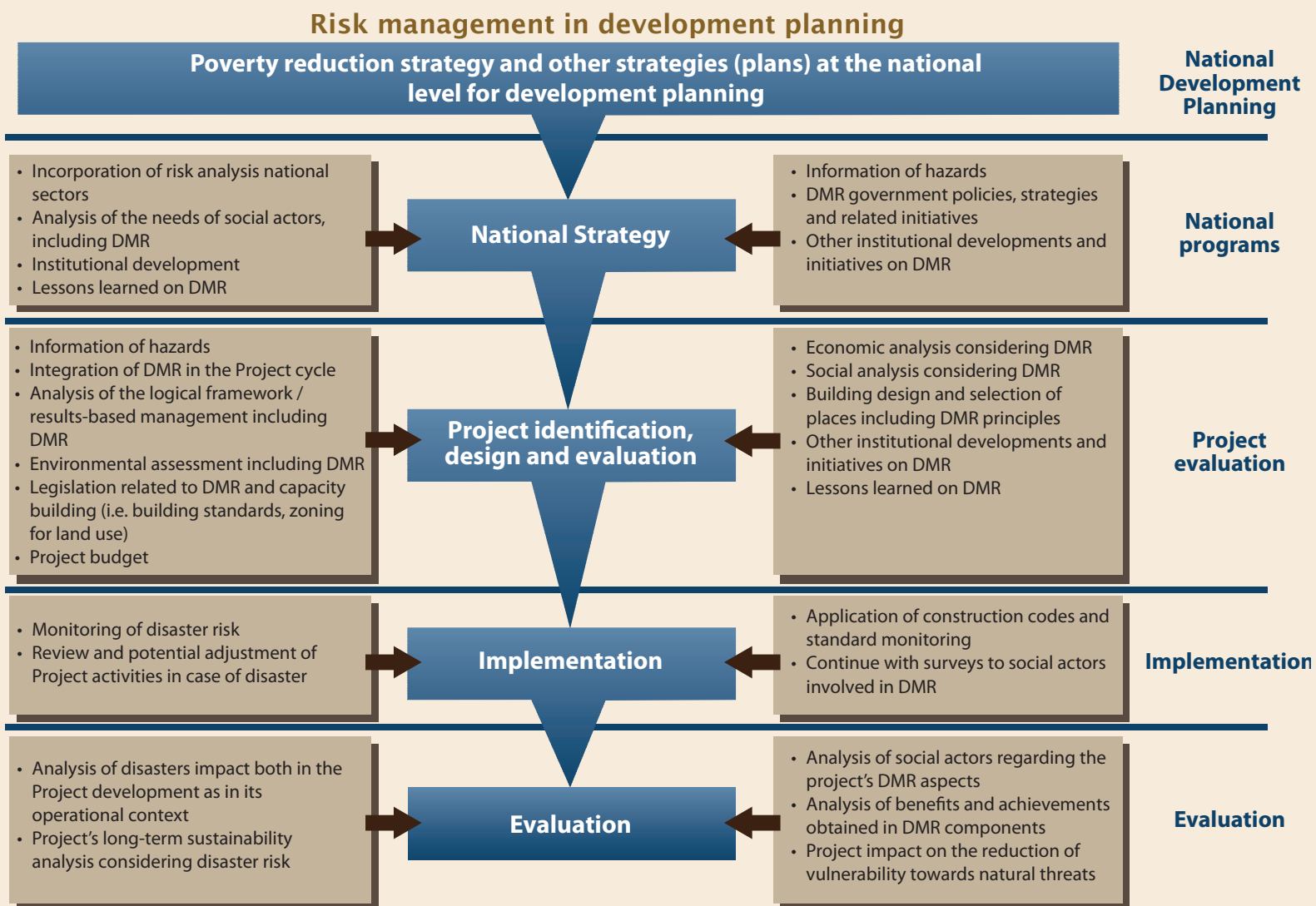
If a social conscience about disaster risk management is created, it is possible to prevent risk when action on the underlying factors is taken in advance. Basically, this implies using risk knowledge as a determinant factor when the society makes decisions on land use, occupation and transformation.

Territorial, sectoral and development planning processes offer the possibility to transform words into actions, to create a conscience about the future that allows a foreseeing of the possible impact and consequences of the developments, and to operate on them. In order for the planning to be adequate, tendencies and opportunities must be identified, and the obstacles in achieving goals and objectives for development should be anticipated. For this matter, specific objectives should be established, available resources should be safely oriented, inter-institutional action and the participation of all relevant actors should be promoted, and the organizational structure should be adapted to harmonize and to allow development purposes.

According to this, CAPRADE in coordination with PREDECAN Project implemented a series of strategic and priority actions for the Andean sub-region, regarding risk management integration into planning and development processes in the four countries.

“The sub-region is now facing a more proactive scenario, where the different institutions, especially planning departments, have started to create measures as regards this matter which become part of the institutional culture. The transformation of national plans for development, the implementation of specific budget items and studies for risk disaster transference have increased in countries such as Peru and Colombia. Also, agriculture and livestock insurance have regained importance, as well as the inventory of the Government Assets and its analysis on the current coverage.”

Jorge Escurra, Ministry of Economy and Finance of Peru.



Adapted from Charlotte Benson and John Twigg, "Tools for Mainstreaming Disaster Risk Reduction: Guidance Notes for Development Organisations". Provention Consortium. (2007)

Processes and Actors

The planners' ability to anticipate risk occurrence and to consider safety criteria in the conception of territorial and sectoral processes is vital for development sustainability. This has been acknowledged by the Andean Strategy for Disaster Prevention and Relief (EAPAD) and by the Hyogo Framework for Action –HFA– (Thematic axes 1 and 4). Consequently, CAPRADE has taken the lead in implementing four strategic processes to integrate disaster risk management into planning development in the Andean sub-region through the PREDECAN Project:

1. Development of concepts and analysis on integrating risk management into planning processes for territorial development and public investment, and in the planning of the agriculture and livestock sector, considering climate change in Andean Community countries.
2. Preparation of outlines and training to integrate disaster risk management into: (1) territorial organization, (2) local development planning, (3) formulation of public investment projects and, (4) into agriculture and livestock sector planning and management.
3. Validation of outlines by demonstrative experiences in local areas, and by providing the required training and technical guidance for its implementation.

The key actors implementing these activities were:

- The institutions that belong to CAPRADE: Government institutions of Disaster Risk Management/Disaster Prevention and Relief and/or Civil Defense, government institutions in charge of development planning and the Ministries of Foreign Affairs.

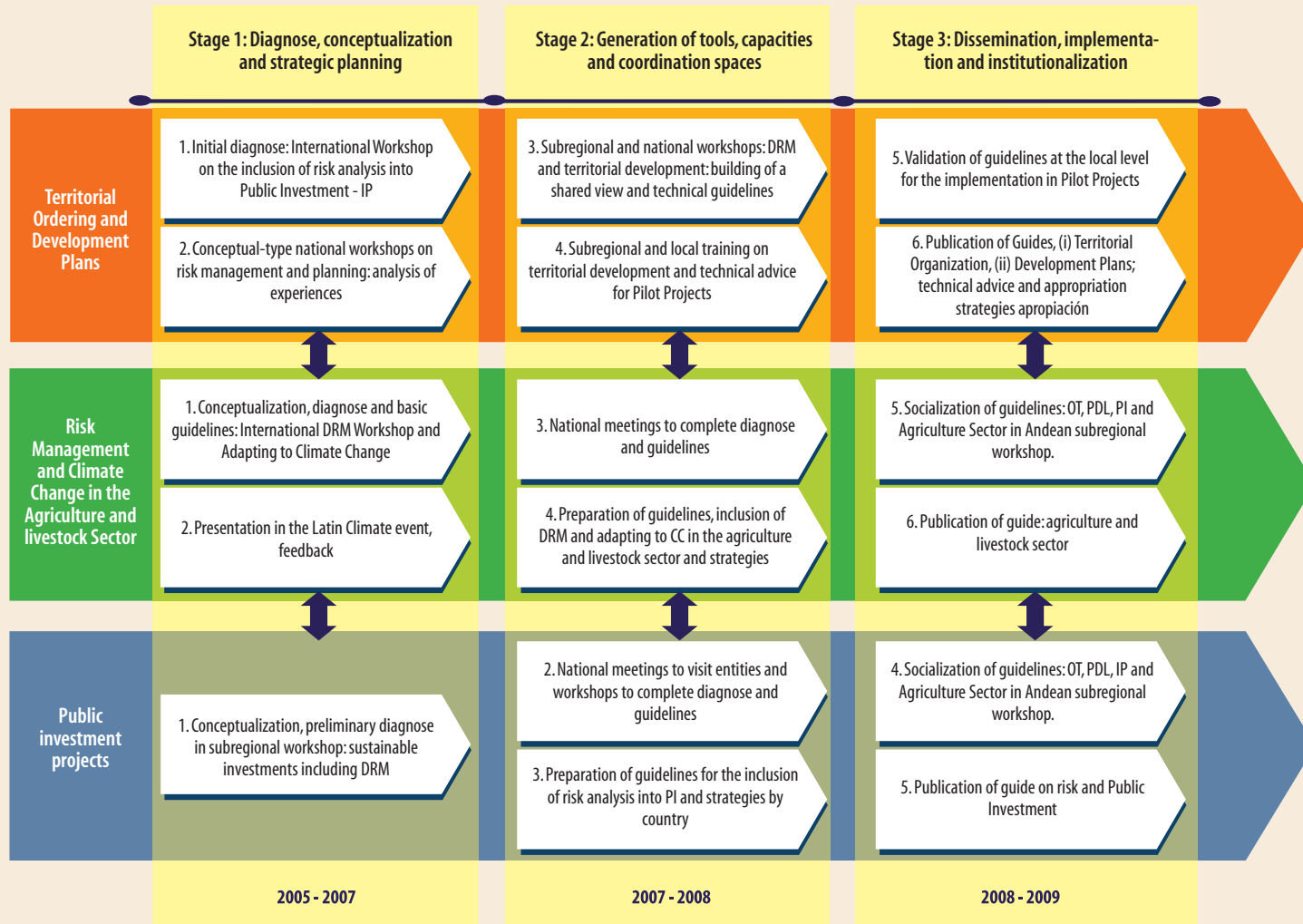
- Ministries of Agriculture.
- Ministries of Housing, Construction and Urbanism.
- Departments of Environment.
- Associations of Municipal or Regional/Provincial governments of the Andean countries.
- Universities and research institutes.
- Non-Governmental Organizations and cooperation agencies in planning, development and climate change areas.
- Municipalities of Pilot Projects.

“Throughout this period, we have been able to see and understand that beyond emergency relief, we must establish effective measures, from the development phase, that allow creating secure places for life, for production and for investment.”

Andrea Carrión, Counselor for SENPLADES Secretaría Nacional de Planificación y Desarrollo del Ecuador (National Secretariat of Planning and Development of Ecuador).

Regarding the planning topic, 33 training, coordination and product creation events were held (6 sub regional workshops, 25 national workshops, and 2 international workshops), for a total number of 1 254 participants (36% women).

Processes and milestones in the implementation of the thematic area: Integration of risk management into development planning



Achievements and Impact

Through training programs and the outlines definition and validation processes at a local level, it was possible to share a conceptual and methodological vision regarding the construction of safe territories and sustainable development processes in the Andean sub-region. This vision was based on the participation of institutional and social actors, on the coordination and formulation of territorial organization guidelines, local development plans, public investment project management, and the planning and management of the agriculture and livestock sector.

Building an initial vision of disaster risk management in planning development and public investment processes in the Andean subregion

In order to analyze progress in incorporating disaster risk management into development planning, territorial organization and public investment, the International Workshop “Incorporating Risk Analysis into planning and public investment processes in Latin America and the Caribbean” was held in September 2005. It was organized by CAPRADE with the support of the PREDECAN Project and in coordination with the Ministry of Economy and Finances of Peru, the German Technical Cooperation GTZ, the Swiss Agency for Development and Cooperation (SDC), the International Strategy for Disaster Reduction (ISDR), the United Nations Development Program (UNDP), the Economic Commission for Latin America and the Caribbean (ECLAC) and the Amazon Cooperation Treaty Organization General Secretariat (ATCO).

The analysis, published in 2006, increased the interest of several institutional, political and academic agents in the sub-region, and defined the intervention strategy for years to come.

Based on the information gathered and on the experience exchange after the International Workshop, it was possible to establish a common vision on the scope of some “technical outlines” or guide criteria to incorporate risk management into planning processes that became an integration mechanism of common reference among similar institutions in the sub-region.



Incorporating Risk Analysis into planning and public investment projects in Latin America and the Caribbean

Territorial organization: The key instrument in the construction of safe and sustainable territories

The analysis confirmed that many initiatives regarding territorial organization and environmental planning existed in the Andean sub-region. However, they were not a widespread and mandatory practice at all territorial levels in all countries, and there were some concerns as to how to advance in this regard.

Acknowledging this need and intending to provide technical guidance to incorporate risk management into territorial planning, the Project supported a process that comprised four stages:

1. Discussion about territory, development, land use planning and territorial organization topics and their relation with disaster risk management. This allowed understanding the following concepts: What is territorial management and planning?, What steps should be taken and what should be done in each step in order to integrate disaster risk reduction into territorial management and planning?
2. Preparation of sub regional-oriented outlines to be used as the minimum criterion to be followed regarding risk in territorial planning. This allowed creating a common vision on: How to evaluate risk? and How to integrate disaster risk reduction into territorial management and planning through restrictions and conditions.
3. Editing and publication of outlines through the technical guide: *Territorial planning and management: Interpretation and application of the analysis of hazards and risks by natural phenomena*. This document comprises the analysis of four types of hazards: landslides, floods, earthquakes and volcanic eruptions, and it emphasizes that instruments should be created to facilitate the identification and selection of policies, strategic goals, regulatory provisions, programs and risk reduction projects, in order to integrate them in territorial organization plans and other instruments.
4. Finally, a technical guidance process was provided in order to create distinct strategies to strengthen ordering and the implementation of each developed instrument in each country. This process was oriented to solve concerns regarding how to implement the guidelines and which are the next stages for consolidating the integration process of risk reduction into territorial planning and management in each country, in accordance with their development level.

“When natural phenomena such as floods, droughts, windstorms, earthquakes and wildfires occur along with “risk sources” such as the increase of urbanization, a deficient urban government, the vulnerability in rural livelihood and the degradation of ecosystems, these can cause human suffering at large scale and immeasurable economic losses”.

Ban Ki-Moon, Secretary-General of the United Nations

The Development Plan: A model of political, social and economic integration of disaster risk management.

Incorporating risk management into territorial organization represents an opportunity to create safe and sustainable municipalities, where the environmental characteristics of the land will not pose a threat to development options. Instead, through appropriate regulations and good management, these characteristics should be able to support local economic and social development.

Additionally, development plans, as instruments guiding the action of the different actors of a territory throughout one or several government terms, represent the objectives, goals, policies, programs, subprograms and development projects that guide the public administration. Hence, it is possible to prioritize risk prevention, reduction and control as a vital aspect of the development and welfare of the population.

In this regard, the Project supported CAPRADE in defining the outlines to conceive development plans that include risk management, and at the same time, that would be closely related with territorial organization, assuring the conceptual and methodological consistency in both processes and its practical articulation. This proposal is materialized in the document *Incorporating Disaster Risk Management into Development Planning: Outlines to formulate plans at a local level*.

Articulating risk management and the adverse effects resulting from climate change in the agriculture and livestock sector: A sustainable development strategy emphasizing food safety

The Andean Strategy for Disaster Prevention and Relief defines the agriculture and livestock sector as one of the most vulnerable in the Andean sub-region, and definitely, the most affected one by the negative effects of climate change in each country. In 2006, CAPRADE countries chose this sector to initiate the process of integrating disaster risk management into planning, considering its importance for food security, protection of rural livelihoods, environment, investment retention and the producing of assets.

The international workshop “Risk Management and Climate Change Adaptation in the Agriculture and Livestock Sector in Andean and Amazon Sub regions” offered a preliminary diagnosis regarding the situation of risks associated with climate change in several countries, and more efficient financial mechanisms and the role of the different actors in this matter (producers, businesses, Government) were identified. Furthermore, the criteria and outlook to incorporate risk management and to adapt instruments of sectoral planning to climate change were described, as well as the criteria to improve information management.

The progress in information knowledge, systematization and disclosure are especially important regarding climate change in the agriculture and livestock sector, as well as the establishment of financial mechanisms for risk-disaster reduction, stimulating the confluence and coordination between other instances in the Andean Community such as the Comité Andino Agropecuario (Agricultural and Livestock Andean Committee), CAPRADE, Comité Andino de Autoridades Ambientales (Andean Committee on Environmental Authorities), and international cooperation agencies such as GTZ.

Moreover, PREDECAN supported the institutions responsible in each country to generate a unanimous and validated proposal of technical outlines to integrate disaster risk management and climate change adaptation in the Andean subregion, as well as application strategies considering each country's differences. The outcome of this process is explained in the document: *Articulating Risk Management and Climate Change Adaptation in the Agriculture and Livestock Sector: Outlines for sectoral planning and management*.

“The validated outlines for integrating risk management and climate change adaptation into agriculture and livestock sector planning are vital to plan consistent and suitable actions for maximizing the sector resources to benefit the farmers and their families”.

Juan Antonio Clavijo, Directorate of Sectoral Policy.
Ministry of Agriculture and Rural Development of Colombia).

Risk management into public investment projects: An opportunity to manage public policies safely and sustainably

Most public infrastructure destroyed by a disaster was originally built through development projects that did not consider risk situations. So, instead of benefitting the population, these “unsafe” investments cause more suffering and damage to communities, especially to low-income ones.

One of the Strategic Goals of the Hyogo Framework for Action consists into guaranteeing that investment projects will not become new risk conditions for society, including post-disaster reconstruction activities.

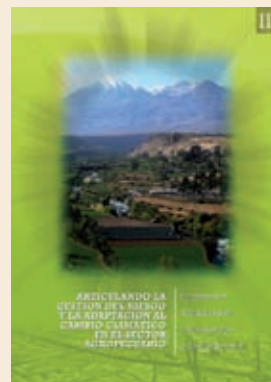
Improved Services in Risk Management Integration into Development Planning



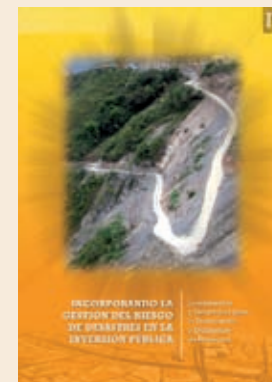
Territorial planning and management: Interpretation and application of the analysis of hazards and risks by natural phenomena



Incorporating Disaster Risk Management into Development Planning: Outlines to formulate plans at a local level



Articulating Risk Management and Climate Change Adaptation in the Agriculture and Livestock Sector: Outlines for sectoral planning and management



Integrating Disaster Risk Management into Public Investment: Guidelines and strategies for project proposal and assessment

The tools and products used in the planning process, such as: policies, plans, programs and projects represent the foundation to execute public investment decisions operatively. Consequently, they become a fundamental stage of this process and a unique opportunity to integrate risk prevention practices.

Considering that integrating disaster-risk analysis contributes to investment safety and sustainability and that it must be included in every project stage, outlines emphasizing pre-investment research were formulated, such as to create standards that support the Public Investment Systems of the Andean sub-region in analyzing and assessing this matter. It is expected that they will contribute to the efficiency of the investments in the development processes in the Andean Community. The proposals can be found in the document: *Integrating Disaster Risk Management into Public Investment: Guidelines and strategies for project proposal and assessment.*

Guidelines validation through demonstrative experiences in local areas: Supporting the implementation of Pilot Projects

Regarding the integration of disaster-risk reduction into development planning and practices; training sessions, workshops, and forums for several types of actors involved in disaster risk management were held in each country. Thus, discussion spaces in political, technical, academic and community sectors were created, allowing cooperation among institutions and the participation of international organizations, in order to support planning actions and the coordination of tool management – Information Systems – to be applied according to the specific needs of each country.

The Pilot Projects received ongoing support on local disaster risk management, related to assessment methodologies and risk analysis and how to apply them at a local level. In this way, it was possible to test and provide some feedback on the outlines for territorial organization and development plans in municipalities such as Calca (Peru), Los Patios (Colombia), Portoviejo (Ecuador) and San Borja (Bolivia).

Consolidating the process and building the next steps in secure development management



Based on the progress obtained so far and considering the constraints when integrating risk management into development planning processes in Andean countries, it can be concluded that there are still important challenges to overcome in the future, such as:

- Develop and strengthen socialization spaces and permanent articulation mechanisms among the Ministries of Planning, Environment (territorial organization and climate change), institutions in charge of Public Investment (at a general and sectoral level) and the institutions coordinating Risk Management/Disaster Prevention and Relief and/or Civil Defense, in order to share a common vision on the issues that allow the implementation and follow-up of integrated actions.
 - Update regulatory frameworks regarding territorial organization, development planning and public investment, considering disaster risk as a determinant factor in land use and occupation.
 - Create more training and education programs for more professionals, in order for risk management to be applied at all sectoral and territorial levels.
 - Design and to apply verification processes regarding regulations compliance.
-
- A secure territory is the one where natural hazards are considered in development planning and management.
 - The goal, when integrating disaster risk management into development planning, is to use the concept of security in localization, construction and functioning of investment projects, and to achieve sustainability in land use and occupation.

Integration of disaster risk management in Andean subregional countries development planning processes

Problem diagnosed	Progress made with the support of PREDECAN
2005	2009
<ul style="list-style-type: none"> Lack of clear strategies for territorial organization to avoid the generation of new risks according to the territory restrictions and capabilities. 	<ul style="list-style-type: none"> Preparation and publication of the document Incorporation of Risk Analysis in planning and Public Investment Processes in Latin America and the Caribbean, which contains a diagnose and subregional comparative analysis face risk and its intervention in territorial organization, development planning and public investment including the identification of instruments and experiences in the countries. Promotion of integration disaster risk reduction into development planning and practices by means of training, workshops forums and publication of the guides on territorial organization and development plans addressed to multiple actors involved in risk management. Opening of discussion spaces in political, technical, academic and communitarian sectors that have enabled acknowledging synergies among institutions, the participation of international bodies to support planning actions, and coordination in the use of tools – Information Systems – applicable to the particular needs of each country. Definition and consensus building of technical guidelines to incorporate risk management territorial organization and development planning. Analysis and recommendations for articulation with the existing instruments in each country.
<ul style="list-style-type: none"> Weakness in integration of risk management activities in public investment processes at a national, local and sectoral level. 	<ul style="list-style-type: none"> Construction and spreading of a diagnose and a sub regional comparative analysis facing risk and development planning the different levels, and facing risk in formulating and implementing public investment projects, including identifying instruments and experiences in the countries. Participative formulation of subregional outlines and publication of guides to incorporate risk analysis in public investment, and the development of national strategies for implementing and adapting existing methodological tools, from each country's special features. Systematization and dissemination of information facing the impact of climate change and the risks in the agricultural and livestock sector and identification of mechanisms to reduce climatic risks and financial protection, favoring as well the agreement and coordination among other bodies in the Andean Community (Agricultural and Livestock Committee, CAPRADE, Andean Committee of Environmental Authorities) and international cooperation agencies (GTZ). Preparation and publication of a guide to articulate risk management and adaptation to climatic change in the agricultural and livestock sector and the implementation strategies.





San Cristobal Hill, Lima, Peru
Photograph by Gabriel Jaime Arango

Improved Services in Education and Communication for Risk Management

Improved Services in Education and Communication for Risk Management



Photograph by PREDECAN

Approach

The scientific knowledge of risk, organizational schemes, regulatory developments, technical tools and the appropriate equipment to reduce disaster risk are not enough to improve the services in the disaster risk management area, if they are not based on the real participation of all involved actors, including communities at risk and vulnerable groups, who must have access to knowledge and to decision-making. Education and communication are vital in order to achieve this goal.

Synergy between communication and education in the disaster risk management proposal is clearly evidenced in the development of a series of actions. These actions are oriented to strengthen and to go beyond the formal teaching-learning environment, and to provide communication of transformative, innovative and committed foundations to everyone.

Given this background, CAPRADE with the support of PREDECAN has taken the lead in the implementation of a series of activities considered as a priority for the Hyogo Framework for Action (HFA) and the EAPAD in the Thematic Axis 3: Promotion of education, communication and participation to build a safety and resilience culture in each level. These activities are oriented towards improving awareness, knowledge and participation levels in disaster risk management.

The proposed approach mainly considers the design of an educational-communicative strategy on disaster risk management, oriented to strengthen the capacity of the different institutional and social actors and sectors in order to readily participate in disaster risk management processes.

*“Education itself transforms the interior of the human being and it influences the way he perceives, understands, interprets, and reacts to his reality.”
Andean Sub regional Plan of Formal Education “Learning to prevent”.*

CAPRADE 2005^{xiii}.



Processes and actors

In order to strengthen prevention as part of the everyday lifestyle, awareness and knowledge actions about risk were implemented, and outlines and strategies involving social actors of education, journalism and communication were formulated.

The implemented actions comprise four main processes:

1. Participative analysis and design of education and communication strategies, in order to support the priorities established by CAPRADE.
2. Integration of disaster risk management and capacities strengthening in social communicators and journalists spheres in each country, and risk management awareness to several key actors.
3. Integration of disaster risk management into school education and tools development. Provide support to the involved authorities and actors in each country.
4. Integration of disaster risk management into higher education and provide support in creating alliances among academic actors in the Andean Community.

“Disaster risk management must be acknowledged, claimed, and executed as a human right itself, but also as a requirement to exercise other rights, like the Right to Life.”

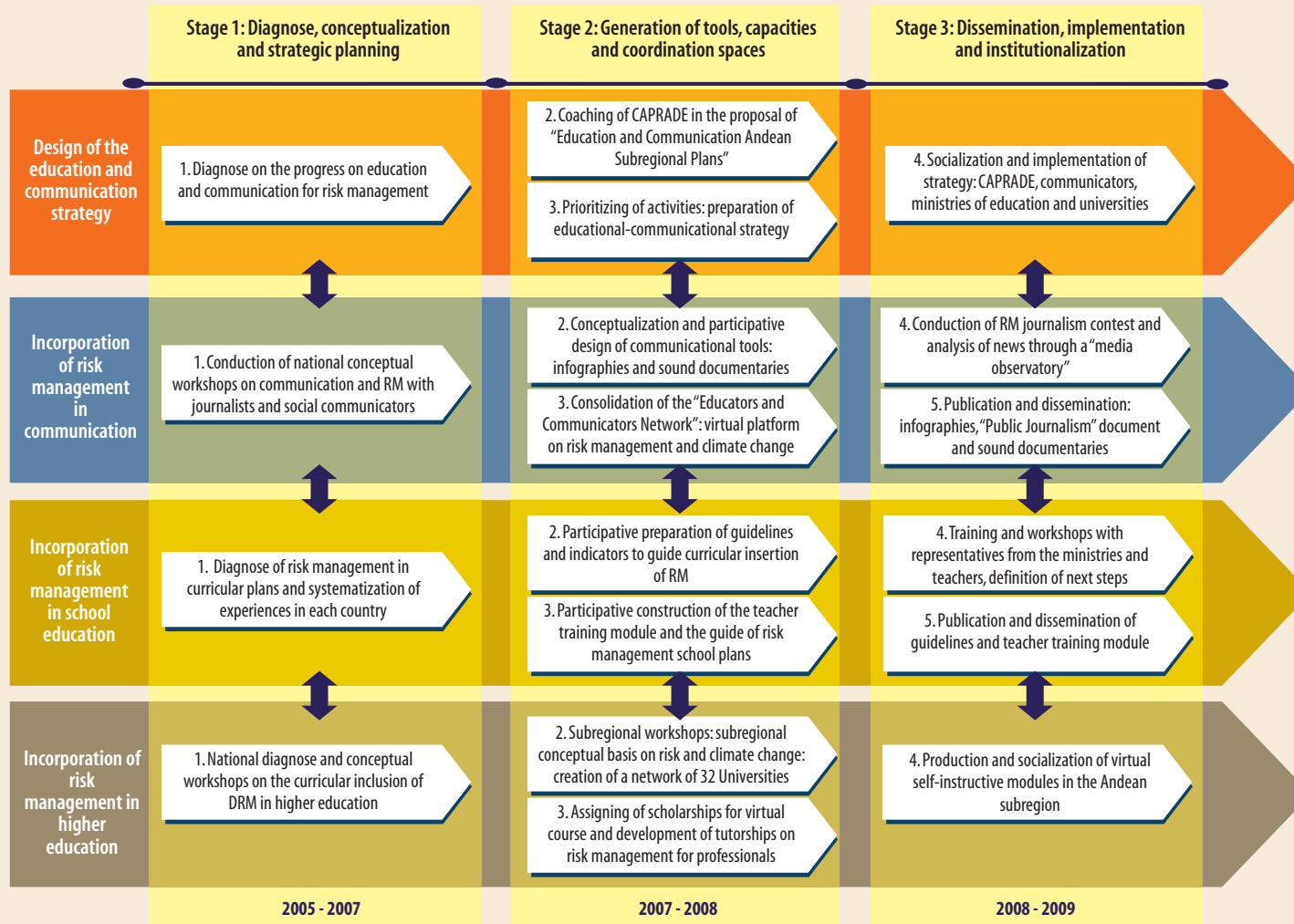
Gustavo Wilches-Chaux, International Counselor for PREDECAN

Key actors in implementing education and communication activities were:

- The institutions that belong to CAPRADE: Government institutions of Disaster Risk Management/Disaster Prevention and Relief and/or Civil Defense, government institutions in charge of development planning and the Ministries of Foreign Affairs.
- Communicators, educators and officers from the Government institutions of Disaster Risk Management/Disaster Prevention and Relief and/or Civil Defense of each country or their counterparts.
- Ministries of Education and Personnel in charge of Curricula Design.
- Social communicators and journalists.
- Coordinators and implementers of higher education and postgraduate programs.
- Non-governmental organizations and international organisms such as the OAS, and some others from the UN System, including ISDR, UNICEF and UNESCO.

Regarding the education and communication topic, 51 training, coordination and product creation events were held (8 sub regional workshops, 42 national workshops, and 1 international workshop), for a total number of 1 614 participants (46% women).

Processes and milestones in the implementation of the thematic area: Education and communication for risk management



Achievements and Impacts

Through the conceptual discussion spaces and the participative development of tools with communicators, journalists and academic representatives, it was possible to harmonize and validate a theoretical and methodological vision on the potential scope of educational and social communication processes in the cultural transformation required for disaster-risk management. Also, it is important that all social actors involved in this matter act more proactively.

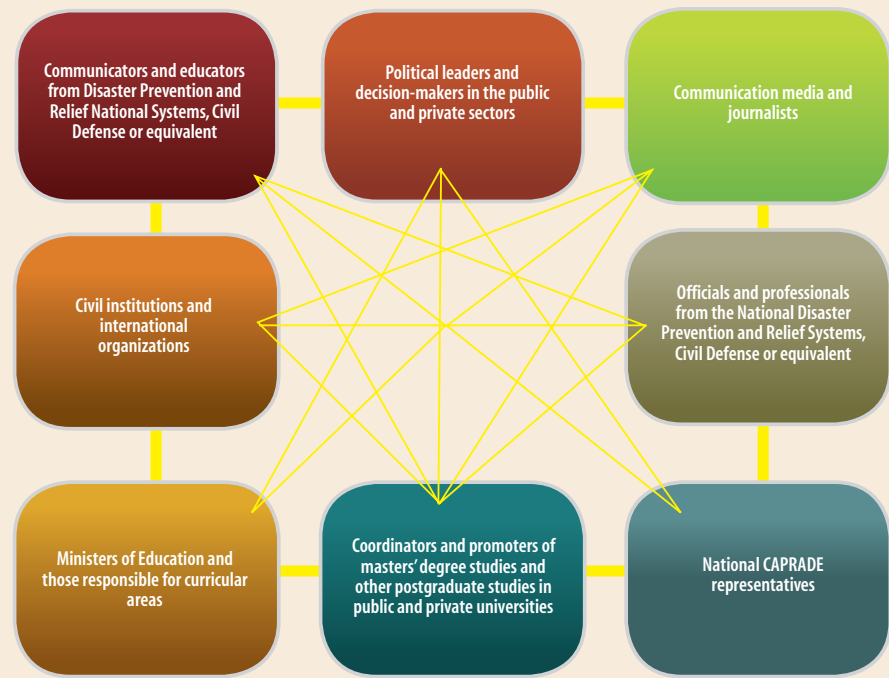
Laying the foundations for an educational-communicative process: Scope analysis and definition

As a result of the participative analysis between countries performed in 2005 regarding the progress in disaster risk management communication and education in the Andean sub-region and considering the process for the creation of the Andean Sub regional Plans for Education and Social Communication, the main issues, among others, were identified and validated:

- The lack of a culture integrating disaster risk management and the scarce use given to the media in the awareness process.
- The lack of integral training programs for disaster risk management.
- The lack of specific knowledge of the educational sector officers, regarding disaster risk management in different territorial levels.
- The lack of spaces designed to exchange experiences that allow the strengthening and horizontal cooperation between different countries.
- Disaster risk management, overall, has a limited presence in education.

According to this analysis, communication and educational activities were designed and organized in an implementation strategy coherent with the HFA and the EAPAD. The stimulus to processes already initiated in the different countries and the integration of all social actors involved, defined this strategy.

Target Public in the Education-Communicational Strategy



Source: Gustavo Wilches-Chaux

Restructuring relations with the media and citizen participation in disaster risk management: Communication strategies and tools

The media are a key element in societal development, not only because of its coverage, but also because of the evident influence they have on people's perception of the world. The social communicators and journalists are determinant social actors in the configuration of collective imaginaries regarding disaster risk and disaster risk management.

The media should be considered strategic actors and allies for influencing public policies. If the media only focuses on damages and victims reports, without researching disaster precedents, the social construction of risk and the efforts performed by societies to prevent and reduce it, the message would be incomplete.

In the Andean sub-region, CAPRADE is aware of the role of social communicators and journalists' in the construction of a prevention culture, so it created discussion spaces and proposals on their role in risk mitigation by defining concepts and promoting a critical and analytic approach. Furthermore, it was possible to gather print, radio and TV media in training sessions organized by the Government institutions of Disaster Risk Management/Disaster Prevention and Relief and/or Civil Defense, and alliances with journalists unions and associations in each country were established. Overall, more than 350 communicators and journalists were trained.

Journalists and other interested people formed The Virtual Network of Educators and Communicators for Disaster Risk Management (with over 3 200 members), which has been promoted since 2007 with the technical guidance of Fundación Imaginario, through the Communication Initiative platform. The thematic website of disaster risk management was created in this platform as a virtual space offering society information about the subject.



Thematic website in disaster risk management: www.comunit.com/es/mainpage/549

In this space, reviews of education, communication experiences and newsletters were published and a news search engine was implemented, the virtual forum The media role in disaster risk management and the Andean Journalism Contest were held, promoting a new approach to news coverage regarding disaster risk management.

The award ceremony as well as the closing of the process regarding communication in disaster risk management took place in the Sub regional Workshop Journalism and Communication challenges in Disaster Risk Management Development that was held in August 2008. Here, an agenda to continue the implementation of the Andean Sub regional Plan of Social Communication for Disaster Prevention and Relief was established.

In order to be able to promote a consistent and technical labor with the media, the research on the press coverage regarding disaster

Improved Services in Education and Communication for Risk Management



Poster from the “Journalism in Disaster Risk Management” Andean Contest



Public Journalism for Disaster Risk Management



Press coverage of Disaster Risk Management in the Andean Subregion: Journalist speech and communication approaches for social change

risk management in the Andean Community was entrusted to the Observatorio de Medios from Universidad Del Norte de Barranquilla. The results are published in the document: *Press coverage of Disaster Risk Management: Journalist speech and communication approaches for social change*. It is worthwhile mentioning that this document is the first one to comprise complete information from the four countries.

The results express the major challenges still to overcome with the media, which in most cases, do not consider risk as a social process, but as only related to physical phenomena and isolated from social and communitarian dynamics and realities. Additionally, the need to use new communicative tools and proposals is conceived for long-term disaster risk management, beyond the short-term specific actions that just create a limited impact in the participative and empowering processes.

The document *Public Journalism for Disaster Risk Management* summarizes what was learned and the insights generated in the training and discussion processes with the different actors, where new alternatives for journalism on the subject are suggested. It is expected that this approach contribute to social change through public debate, talk, and participation and its promotion by the media in order to include the citizens’ proposals in public agendas and policies.

The production, validation and disclosure of educational and communicative material were some of the actions performed in the Project framework, as a support of CAPRADE in the implementation of the EAPAD. This consisted on the production of five musical documentaries called No risk with risk, along with one jingle, two commercial spots, a user’s guide and a conceptual document which were disseminated through 120 community radio stations and



Series of sound documents: “No risk with risk”
www.comunidadandina.org/predecan/progradio.htm

through the Kichua Satellite Network of the Latin American Radio Association, where 32 radio stations were involved. Also, this material was distributed in the Communication Offices of the Institutions of Risk Management/Disaster Prevention and Relief and/or Civil Defense, in CAN Radio, and in the PREDECAN website, as well as in other institutions in order to promote a massive dissemination.

Risk prevention starting from school: Curriculum that includes disaster risk management and other tools for educators

The change in the conceptual and practical perspective regarding the understanding of disaster risk management from the social construction of risk point of view means also a change in the way risk management concepts and emphasis are addressed in education. This implies integrating it in the school curriculum and in the institutional plans, with a wider vision of what safety represents for school infrastructure and surroundings; and to understand that emergency plans and drills are an important –but not the only- components for risk reduction.

In coordination with the Ministries of Education and the CAPRADE institutions, an analysis on the current situation of education regarding risk management plans, policies, programs and projects was performed as an encouragement to the ongoing initiatives. Also, an inventory and an analysis of over 180 risk management publications and materials in education, and the systematization of 12 experiences of disaster risk management integration into the school curriculum were undertaken in order to design the *Outlines for integrating disaster risk management into school curriculum for Bolivia, Ecuador and Peru.*

The outlines are considered as a conceptual and methodological guidance to incorporate disaster risk management into school curriculum. They allow coordinating, joining and addressing efforts from the government, international and non-governmental organisms in order to form individuals and a community with management capacity, within the framework of sustainable development, and with the ability to face risk situations.

Additionally, a management indicator system was executed in order to measure the progress of the implementation of the designed and validated outlines in the different countries.



Outlines for Integrating Disaster Risk Management into the Bolivian Pluricultural Educational System



Outlines for Integrating Disaster Risk Management into Basic Education for the Ecuadorian Educational System



Outlines for Integrating Disaster Risk Management into Regular Basic Education for the Peruvian Educational System

Improved Services in Education and Communication for Risk Management

“When referring to a new school curriculum in the Plurinational State of Bolivia, we are only incorporating what ancient peoples already knew about risk prevention in their culture”

Germán Jiménez, Vice-minister of School Education from the Ministry of Education of Bolivia

As the outlines for school curriculum insertion were formulated by the Ministries of Education, they were backed up at all times to be further integrated in the education reforms, and they represent a task that the Ministries have undertaken with the political support and the great participation of the Bureaus of Education and Communication and from international cooperation.

Moreover, a Subregional Workshop was held in September 2008 in order to articulate initiatives and efforts of all the involved actors for more efficiency and effectiveness in the process. It was organized in coordination with UNICEF and with the participation of the Departments of Education, CAPRADE representatives, the Organization of American States, organizations of the UN System such as the ISRD and the UNESCO, cooperation agencies and international NGOs. In the workshop, commitments were defined and actions for developing the Course Structures at length, for strengthening the teachers’ capacities and for promoting safety in school infrastructure were coordinated.

One of the commitments made in the Project’s final stage was the production of a training unit in risk management for teachers and a guide to formulate school plans on risk management. This guide aims to promote infrastructure and surroundings safety, acknowledging the former progress made by the participant organizations and the systematization results, in order not to duplicate efforts and to the contrary, move forward according to the experiences gathered in the sub-region.

On the other hand, infographies were elaborated in order to support educational work in the classroom; they allow graphic representation



Module:
Education for Disaster Risk Management. Conceptual and methodological tools for its integration in the curricula

of several concepts associated with disaster risk management. The infographies cover subjects such as “School plans for Disaster Prevention and Relief” and “Disaster Risk Management” concepts. Peru and Ecuador continued this activity by printing more material with resources of their own.



The professionals of the future: Supporting the creation of university programs for disaster risk management

Through university programs, it was possible to promote the integration of risk management into post-graduate education and the search of appropriate methodological ways to integrate it. In 2007 and in coordination with the Rural and Sustainable Development Program of the German Technical Cooperation (GTZ), this activity was initiated with the discussion of the integration of disaster risk management and climate change in the academic curricula, and in 2008, it was consolidated with the establishment of the first strategic alliances with four academic partners in the Andean countries, such as: Universidad Andina Simón Bolívar –UASB-, in Bolivia; Facultad Latinoamericana de Ciencias Sociales –FLASCO- in Ecuador; Universidad de Ciencias Ambientales Aplicadas –UDCA- in Colombia; and Universidad de Piura in Peru. These institutions cooperated with the development of national workshops and they considered implementing this subject in their post-graduate programs.

As a result of this effort, the Andean Network of Universities on Disaster Risk Management and Climate Change was created and formally established in 2009 during the Andean Subregional Workshop on Conceptual, organizational and institutional foundations of the Andean Network of Universities on Disaster Risk Management and Climate Change. Also, a work plan including academic events, research projects and the creation of new post-graduate programs at Andean sub regional level was defined. The network comprises 32 universities in strategic alliance with the Andean University Council – CONSUAN – with the support of the General Secretariat of the Andean Community.

Furthermore, 25 scholarships were granted to professionals of the Andean sub-region that participated in the online course “Disaster risk management” administered by the International Center of Numerical Methods and Engineering from the Universidad Politécnica de Cataluña. It also granted to the top eleven students an internship in the city of Manizales, where they could see a series of good practices regarding disaster risk management performed by the different institutional, academic and social actors.

“With the establishment of the Andean Network of Universities on Disaster Risk Management and Climate Change, the PREDECAN Project was able to promote and continue processes and initiatives started long ago.”

Orlando Sáenz, Universidad de Ciencias Ambientales y Aplicadas de Colombia



On the other hand, four online self-teaching units for disaster risk management were produced and designed to support the education of interested professionals in the matter and to capitalize the knowledge developed in the framework of these activities. These products were made available for the society, for CAPRADE institutions and for the university academic actors. These can be displayed and downloaded online.



Self-teaching modules on Disaster Risk Management:
www.comunidadandina.org/predecam/publicaciones.html

Establishing the process and building the next steps in education and communication for disaster risk management

According to the insights of the key actors regarding sustainability and the challenges that education and communication pose to the future, the following main aspects that should be addressed have been identified:

- Provide follow-up to the coverage and quality of the disaster risk management approach in the professional activity of social communicators and journalists.
- Provide sustainability to the Virtual Network of Educators and Communicators for Disaster Risk Management through ongoing strengthening and publication of briefs of experiences regarding education and communication.
- Put into practice the validated guidelines to focus the curriculum insertion of disaster risk management, through local pilot experiences and according to the particularities of each country.
- Provide more training to educators according to guidelines and local experiences' feedback.
- Implement new training academic programs and research projects on disaster risk management through the Andean Network of Universities and promote exchange of experiences.

- One of the essential processes to strengthen prevention as a daily practice is to educate and communicate for disaster risk management, which is determinant for creating a safety and resilience culture at any level.
- There is a need to implement assertive education and communication processes that involve all key social actors, in order for disaster risk management to become a daily practice.
- Education professionals and teachers are key actors for converting disaster risk management into a cultural value. Consequently, work at course structure levels, capacities strengthening, and appropriate tools for development are vital.
- Social communicators and journalists are determinant actors in the formation of collective imaginaries regarding disaster risk and risk management.

Education and communication in risk management in the Andean and at the subregional level

Problem diagnosed	Progress made with the support of PREDECAN
2005	2009
<ul style="list-style-type: none"> The communication media have little knowledge about risk management, which limits the possibilities for dissemination and awareness raising on this approach. 	<ul style="list-style-type: none"> More than 350 journalists and social communicators trained Andean Journalism Subregional Contest: 3 articles awarded from 37 proposed documents. Journalist unions and associations committed with the topic: (1) community radio networks aware of risk management, and broadcasting sound documentaries produced, (2) Latin American Radio Association (ALER) broadcasting a series of sound documentaries "Con el riesgo ni de riesgo" ("No risk with risk") in Kichwa network in satellite newsreel. Conclusions and proposals resulting from debates as documented in a book on <i>Periodismo Público en la Gestión de Riesgo</i> (Public Journalism in Disaster Risk Management) and in the document <i>Cubrimiento periodístico de la Gestión del Riesgo en la Subregión Andina: Discursos periodísticos y perspectivas desde la comunicación para el cambio social</i> (Journalist Coverage of Risk Management in the Andean Sub Region: Journalist discourse and perspectives from communication for social change).
<ul style="list-style-type: none"> Weakness in integral programs on risk management that surpass thematic and sectoral address. 	<ul style="list-style-type: none"> Post Graduate Virtual Course: Disaster risk management, the virtual aspect developed by Universidad Politécnica de Cataluña and its Centro Internacional de Métodos Numéricos en Ingeniería (CIMNE) and the classroom teaching by Universidad Nacional de Colombia, Manizales headquarters. Twenty-five professionals received grants in the sub region. Self-teaching program with four virtual modules in risk management validated, produced and distributed.
<ul style="list-style-type: none"> Dissimilar advances in incorporating disaster risk management in formal education programs (including post-graduate programs) and little exchange and coordination among the different actors at a sub regional level. 	<ul style="list-style-type: none"> Diagnose on the situation of education in risk management, inventory of existing materials, 12 experiences on education in risk management selected and systematized, prepared. Workshops to train teachers on risk management, developed (Bolivia, Ecuador and Peru) and carried out. Inventory and analysis of 174 materials. Documents Outlines for integrating Disaster Risk Management into School Curriculum (Peru, Colombia and Bolivia), built with different actors working on the topic and taken up by the Ministries of Education as part of their policies Teacher training module on risk management. School plan formulation primer for risk management produced jointly with UNICEF. Andean University Network on Risk Management and Climatic Change officially formed, with 32 universities committed and organization and a work plan agreements.
<ul style="list-style-type: none"> Weakness in the exchange of strengthening experiences and a better horizontal cooperation among the different countries. 	<ul style="list-style-type: none"> Virtual network of communicators and educators with 3 220 subscribers, within the framework of the Virtual Platform of the Communication Initiative and its risk management Website. Publication of 18 newsletters for journalists, 523 reviews, a specialized browser of news and interchange of experiences through a virtual forum (77 participants).



Work from the Calca Pilot Project, Cusco, Peru
Photograph by PREDECAN

Improved Services in Participation and Local Disaster Risk Management

Improved Services in Participation and Local Disaster Risk Management



Photograph by PREDECAN

Approach

The local space is ideal for disaster risk management, not only because here risk is manifested more specifically, but also because in this space the civic involvement and the coordination of actors and interests is materialized. Also, in this space, the action at the different territorial and sectoral levels is articulated.

The promotion of local disaster risk management is congruent with the decentralization processes performed in the countries of the sub-region. Through this process, more responsibility is given to the municipal, district, quarter and parish governments and to other similar political-administrative units, regarding promotion and management of local sustainable development. This requires, among other things, greater capacities to reduce and control disaster risk.

Albeit that risk expresses itself at a local level, generally the causes are a result of processes and actions that occur beyond this territorial level. This implies that the implementation of processes for local risk management has to be articulated with other territorial levels of intervention, whether regional, national or international.

Acknowledging this approach, CAPRADE, through the PREDECAN Project, has committed to strengthen the capacities for local risk management in the Andean sub-region. To this end, knowledge transference and knowledge dissemination; actors' awareness and the implementation of demonstrative projects capable of being adapted to the realities of other countries were considered essential.

In this respect, two fundamental fields were considered:

1. Local validation of methodologies and tools for participative local disaster risk management, through the implementation of Pilot Projects in four selected municipalities of the Andean sub-region (managed by the local governments and supported by non-profit organizations, chosen by tenders made in each country). Systematization and dissemination of the product and the processes.
2. Identification and systematization of significant experiences regarding local disaster risk management and knowledge dissemination in the Andean sub-region.

“Public management is a dynamic, integrated, systematic and participative process that articulates the planning, execution, follow-up, assessment, control and the accountability of the development strategies in the economic, social, cultural, technological, environmental, political and institutional areas of an administration, according to goals that are democratically set. In that regard, planning guides management, and consequently, it is materialized in the first stage of that process.”

National Planning Department of Colombia^{xiv}.

Processes and actors

The implementation of Pilot Projects is cross-cutting to all EAPAD and HFA Thematic Axes as it materializes aspects related to institutionalism and local capacities strengthening (Thematic Axis 1); risk research, knowledge, assessment and follow-up (Thematic Axis 2); reduction of underlying risk factors (Thematic Axis 4) and disaster preparedness and relief (Thematic Axis 5); and it is basically positioned in the Thematic Axis 3 Promotion of a Prevention Culture with Social Participation, that aims to improve disaster risk management practice in the population and at the community level.

Implemented actions can be grouped into three different processes:

1. Design, prioritization and selection of Pilot Projects, including the scope and selection criteria coordination and validation, the creation of assessment committees and follow-up in each country.
2. Implementation of Pilot Projects in the selected municipalities, of technical guidance and result validation.
3. Systematization of experiences and knowledge dissemination at a local, national and Andean sub-regional level.

Regarding activities for local risk management, 12 training, coordination and product creation events were held (4 subregional workshops and 8 national workshops), for a total number of 1 057 participants (36% women).

Key actors in executing activities were:

- The institutions that belong to CAPRADE: Government institutions of Disaster Risk Management/Disaster Prevention and Relief and/or Civil Defense, government institutions in charge of development planning and the Departments of Foreign Affairs.
- Departments of Environment and institutions in charge of territorial ordering.
- Local authorities of the municipalities benefited by the Pilot Projects.
- Technical-scientific institutions in charge of the disaster risk assessment and analysis of the Pilot Projects.
- Local communities involved in experiences and knowledge systematization in disaster risk management.
- Associations/federations of different municipalities in each country.
- Civil organizations, NGOs in charge of Pilot Projects and of the systematic experiences, and international cooperation organizations and agencies.

“We used to be a much disorganized community. People did believe neither in institutions nor in projects. Our greatest task was to convince ourselves that we could actually change our reality. Today, we are an organized community: we have surveillance and emergency equipment and works that on one hand mitigate risks and on the other, allow children to go to school.”

Sergio Duarte, Community Leader of “Las Cumbres” neighborhood, Municipality of Los Patios, North Santander, Colombia.

Processes and milestones in the implementation of the thematic area: Participation and local risk management



Achievements and Impacts

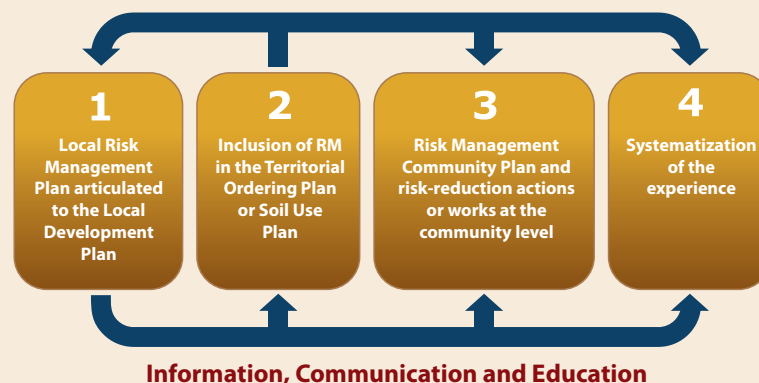
Through the implementation of the Pilot Projects, the approach on disaster risk management went from words to action in four municipalities of the sub-region and the knowledge that these experiences provided – and another 16 implemented by other actors - were identified. This proved that there are many ways to approach local risk management in the development framework: through food security, poverty reduction, sustainable production and social protection initiatives, among others. The possibility to reduce disaster risk conditions through these strategies can be found in the way the land is being used, how the relations with the environment is conceived, and how the participation of the different actors in planning, execution, follow-up, assessment and control of activities is established.

Beginning a demonstrative experience on local risk management: Harmonization of selection and assessment criteria of Pilot Projects

The Andean Sub-regional Workshop of European and Andean exchange of experiences on integrated management of risk associated to hydro meteorological hazards and slope movements held in 2006, offered the opportunity for each country to define, in a participative and consensual manner, the selection criteria for the implementation and assessment of Pilot Projects with the technical and financial support of PREDECAN.

According to the defined criteria, each country created a selection and follow-up committee formed by CAPRADE representatives, technical-scientific and territorial ordering institutions. Each committee selected around four or five eligible municipalities in each country, which were invited to present proposals in alliance with non-profit organizations.

Main components of Pilot Projects



Once the proposals were assessed and following the established criteria for the tender, the chosen municipalities were: (1) Bolivia, Municipality of San Borja/Beni, through OXFAM G.B. and FUNDEPCO; (2) Colombia, Municipality of Los Patios/North Santander, through the Colombian Red Cross and COPROCONAS; (3) Ecuador, Municipality of Porto Viejo/Manabí, through CISP; (4) Peru, Municipality of Calca/Cuzco, through Welthungerhilfe (German Agro Action) and PREDES.

The projects had to be participative and able to be replicable, original and integrated in two aspects: Thematically, they had to cover planning, territorial organization and disaster risk reduction; and regarding social actors, they had to cover the participation of population; of NGOs; of local, regional, national as well as of scientific institutions.

CAPRADE disaster risk management concepts and tools put into practice: Implementation of Pilot Projects

The projects were converted to processes in each municipality, encouraging methodology development and application in order to integrate disaster risk management in the planning and management instruments of local, territorial and community development.

Nationwide, the Technical Support Committees were created and strengthened with the participation of the CAPRADE and scientific institutions, and different ministries, such as: Ministry of Environment, Ministry of Finances, Ministry of Housing and Ministry of Education. Locally and regionally, involved institutions readily participated, and the Department of Civil Protection of the Autonomous Province of Trento, Italy provided counseling.

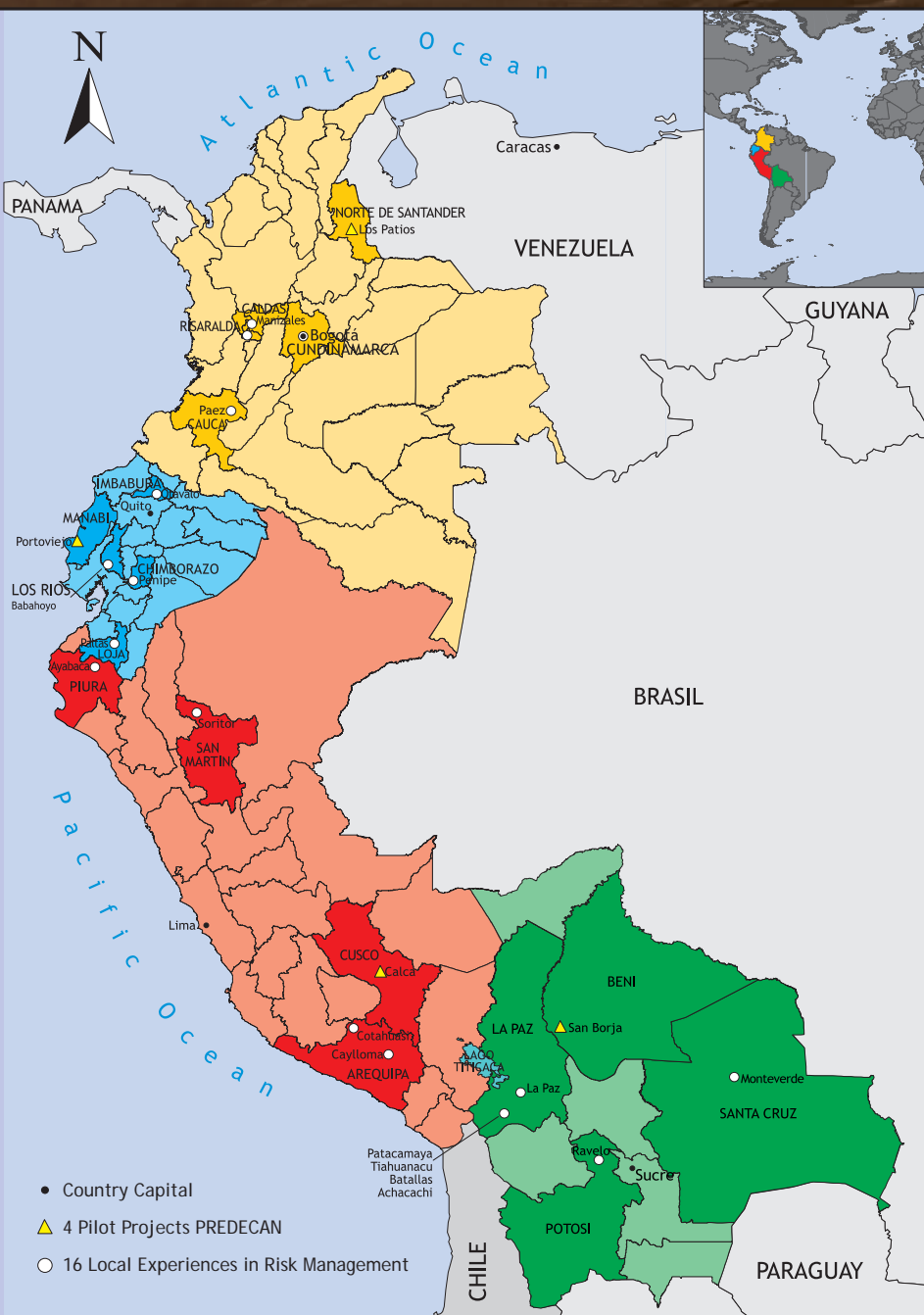
The Pilot Projects incorporated in the municipal and institutional agenda disaster risk management through: (1) a local disaster risk management plan, (2) a land-use or territorial organization plan, (3) a development plan, (4) a community action plan, (5) communication strategies, (6) training activities and topic integration in the education sector, (7) emergency plans, and (8) the institutional and organizational consolidation and strengthening of the authorities and different local actors. Moreover, mitigation works and demonstrative and training activities were performed in a participative manner at a community level.

“The records (studies) will allow us to identify where we should build a school, a health center or our homes, so as not to be the target of hazards and vulnerabilities.”

Armando Sedamano Ortega, President of Base Territorial Organization,
Municipality of San Borja, Department of Beni, Bolivia.



Improved Services in Participation and Local Disaster Risk Management



Identifying and appraising local practices on disaster risk management: Systematization of significant experiences

The identification and gathering of relevant knowledge and local experiences on disaster risk management was possible in coordination with the European Commission Humanitarian Aid Office and its Disaster Preparedness Program (ECHO/DIPECHO), municipal associations, the General Secretariat of the Andean Community and CAPRADE, through the Andean Contest: Local Development Practices and Policies facing Disaster Risk: Identification of significant experiences in the Subregional countries. This contest allowed the detailed systematization of four experiences in each country, for their further comparative analysis and socialization, regarding local disaster risk management in local, environmental and territorial development framework.

229 applications were received (Bolivia 63, Colombia 63, Ecuador 42, and Peru 61) and the proceedings and instruments to be used by the National Committees of Experience Selection in the assessment, qualification and pre-selection processes were formulated. In total, 146 experiences were considered eligible (Bolivia 28, Colombia 47, Ecuador 38, and Peru 33). Later on, the National Assembly on Experience Socialization took place, where the characteristics, innovations and knowledge from the 12 pre-selected most significant experiences in each country were reported.

The summary of these 48 experiences were disseminated through the Online Catalogue of Significant Local Experiences in Risk Reduction in the Andean subregion. The complementary information gathering and processing of the 16 most significant experiences of the subregion (four per country) was developed through field work including reunions with focal groups, interviews and collection of testimonials among the different actors involved, whether directly or indirectly.

In the last stage of the contest, four sub-regional winning experiences (one per country) were selected, and their representatives had the opportunity to share their knowledge during an internship in the



Online Catalogue of Significant Local Experiences:
www.comunidadandina.org/predecan/catalogovirtual

Autonomous Province of Trento, Italy, and to analyze the future cooperation possibilities for CAPRADE.



The winning experiences were:

- Bolivia: Agricultural insurance as an instrument for risk management in the agricultural production in the Plateau of North Bolivia and Strategies design for agricultural risk management based on the recovery of bio-indicators in two municipalities of the northern plateau.
- Colombia: Local Risk Management in an Andean City: Manizales. An Integral, Illustrative and Assessed case.
- Ecuador: Territorial development program in a hazard period produced by the activation of the Tungurahua Volcano, Municipality of Penipe.
- Peru: Population adaptability to Climate Change in the Integrated Management Processes in the High Sub-Basins of Ocoña River, Region of Arequipa.

Improved Services in Participation and Local Disaster Risk Management

Knowledge dissemination: Retrieval of the experience gathered in the Andean subregion on local disaster risk management

The resulting experiences from the implementation of Pilot Projects and of systematizations, were made public through: (1) the PREDECAN website; (2) a series of national workshops on instruments, experiences and knowledge; (3) the development of the sub-regional workshop Disaster Risk Management: Visions, strategies and practices from global, national and local perspectives, which was held in November 2008; and (4) the publication of 22 summarizing documents as part of the series: Significant experiences of local development facing disaster risk.

This series aims to draw the attention of the different actors involved in disaster risk management and of the national, regional and local authorities towards the alternatives and opportunities to create a link between sustainability, risk and development management and the articulation that must necessarily exist in the activities implementation to be performed by governmental institutions and by civil society at the different territorial levels.





Series: Significant local development initiatives facing disaster risk

Consolidating the process and building the next steps in local risk management

The local experiences and Pilot Projects systematization offered an opportunity to think about the challenges to overcome in the Andean subregion, in order to strengthen future actions regarding local disaster risk management. Some of these are:

- Assessment and creation of public policies, as part of the institutionalization of the proposed outlines and strategies in the different topics, and the allocation of funds for disaster risk management to be an integral part of the territorial and sectoral development processes.
- Establishment of co-financing funds, strategic alliances and synergies between the national, regional and local levels in order to promote implementation activities for disaster risk management.
- Establishment of the validated outlines to integrate disaster risk management into planning and development processes as a widespread practice, and articulate them with poverty reduction, food safety, sustainable production, social protection, climate change adaptation initiatives, among others.
- Training and technical assistance from national and regional levels to strengthen local capacities in small and medium-sized municipalities.
- Promoting the experiences and knowledge exchange among regional and local governments, at the subregional and national level.

Participation and local risk management in Andean countries and at a subregional level

Problem diagnosed	Progress made with the support of PREDECAN
2005	2009
<ul style="list-style-type: none"> Few opportunities for local and participative validation of methodologies and tools to integrate risk management to local development management processes. 	<ul style="list-style-type: none"> A participate Pilot Project in each country, with a decided and effective commitment of municipalities and the significant participation of national bodies, comprising: <ol style="list-style-type: none"> (1) a local risk management plan, (2) a land use plan or a territorial organization plan incorporating the risk component, (3) a development plan incorporating the risk component, (4) a community action plan for disaster risk management, (5) communication strategies for disaster risk management, (6) training and incorporation of risk as a topic in the educational sector, (7) emergency plans, (8) institutional consolidation and strengthening to prevent and attend disasters, (9) demonstrative works (mitigation)
<ul style="list-style-type: none"> Weaknesses in the knowledge of local initiatives and practices of risk reduction and control, with replication potential and able to contribute through their lessons to strengthen public policies on the topic. 	<ul style="list-style-type: none"> Defined methodology to systematize experiences and defined evaluation and selection criteria. Short listing of 12 experiences in each country from numerous applications and summaries received. National socialization encounters, field visits, secondary information surveys. Creation of a virtual catalog of the 12 shortlisted experiences. Four experiences selected in each country during the Andean sub regional workshop, which were systematized through visits, interviews and focus groups with actors and recipients, edited and published. Learning socialization in sub regional workshops, selection of a winning experience per country to carry out an internship in Trento, Italy, together with four CAPRADE representatives.





San Isidro, Lima, Perú
Foto : Gabriel Jaime Arango

San Isidro, Lima, Peru
Photograph by Gabriel Jaime Arango

Lessons Learned

Lessons Learned



Los Patios Pilot Project, Colombia
Photograph by PREDECAN

Lessons Learned

After reflecting on the PREDECAN experience as a project focused on improving disaster risk reduction services, we can take some relevant lessons to guide the design of other future projects and programs.

From a broad point of view and according to the testimonies of multiple actors involved with the project, success is related to the following key factors:

1. Emphasis given to the multiple instances from different levels and sectors through an effective coordination.
2. The methodological decision to take advantage of the existing structures and experiences at the beginning of the Project, avoiding the creation of parallel structures.
3. Respect and acknowledgement of the differences between different countries. This brought about confidence among the parties, and helped reaching consensus and sharing objectives, strategies and a methodological vision of how to conduct disaster risk management.
4. Institutional capacity-building, both from the organizational side and the training of human resources on tools and approaches; which yielded harmonized points of view and a better coordination of the multiple instances at different levels. This process was reinforced with material produced on key topics, validated by the same actors.
5. Continuous feedback of experiences and progress throughout the PREDECAN intervention process, guaranteeing commitment by all those who were involved in the project achievements.
6. Finally, the quality of the Project's technical team is emphasized as a key factor for success.

All this is echoed in the words from the people surveyed by the Project:

- "A key factor for the Project's results was the dissemination actions, very interesting and didactical, and above all, easy to apply in every level of society. I would like to emphasize the workshops, seminars and especially Pilot Projects that were activities with plenty of exchange of experiences on this matter among specialists and those who were not specialists from the countries that belong to this Region." (Peru)
- "A lesson learned is the importance of having a strategy that actively involves all strategic political actors and strategic decision makers in society." (Colombia)
- "We learned that the disaster risk management topic needs to have a strategic approach, from which synergies are generated among institutions and actors in order to face the topic and project its results to others socially interested." (Bolivia).
- "I believe that the understanding of the fact that disaster risk management is a complex topic that concerns society as a whole has been one of the lessons learned." (Ecuador).
- "The handling of the topic, the expertise of almost all consultants and in particular its organization (mainly the programmatic and financial aspects), turned the PREDECAN Project into a model to be followed." (Colombia).
- "The concurrence of a series of institutional, political, academic and other actors in the reflection on this topic and the joint actions that have been implemented at different levels and areas, have yielded interesting results that make us think there will be continuity in this joint work." (Ecuador)

“The use of free software allows most public institutions facilitating the continuity of SIAPAD, as a key aspect to make institutions relate among them and also educate the user to be able to adequately access information.” (Peru)

Below please find a summary of the most relevant lessons learned, as the result of the reflections made by the PREDECAN’s technical team and compared to the evaluation and perception reports made by the beneficiaries. This summary shows the commitment from national actors to the sustainability of results.

Lessons learned (summary)

- There is a need to show sensibility and flexibility before political and institutional changes, ensure a political and institutional consensus building at all times during the project implementation, adapting the processes and the products to the different requirements among the countries.
- For this purpose, it is essential to ensure the constant participation of key actors from each country in decision-making, and also invite other national bodies for consensus building and/or training activities.
- All this resulted in the change of an initial resistance of recipients, into trust and credibility on the project and its results, and therefore in a resolute and active commitment. Without this, neither the full participation of recipients, nor the sustainability of the results would have been achieved.

Topic: Context of the policies and the Project, including institutional capacities

Specific lessons:	Actions developed by PREDECAN:
The Project must be aware of political and institutional changes in recipient countries and the way these may affect their development. It must be flexible to build consensus and redefine strategies to implement the activities in the context of new actors or new political orientations, so that the Project as a whole may incorporate the priorities of recipients at all times.	A permanent strategy of convergence and negotiation was implemented with all the key actors or bodies for developing the project. The actors’ priorities were consulted and learned, and as far as possible, the strategies were adjusted to implement the scope of the project activities to these priorities in each country.
Consensus building at a political level must be the grounds for consensus building at a technical level. The project must achieve a permanent dialogue with the highest authorities during all the implementation stage.	By organizing a network of videoconferences, permanent dialogue with recipient entities was achieved. PREDECAN POAs were harmonized with CAPRADE Operative Plans.

Topic: Project planning and design process	
Specific lessons:	Actions developed by PREDECAN:
Flexibility when facing specific situations or demands from the actors in line with the project actions and relevant purposes.	In topics with sectoral interest, the work scope was socialized and the roles were defined in terms of coordination and concerted planning of the activities.
As a facilitating project, there must be flexibility when facing different scopes among the countries with regard the intended purposes, to give coherence to the regional approach.	The scope of the process analysis was adapted to the different demands in the organization and coordination of risk management in each country. This involved advancing differential agreements in work methodology.
When accompanying the political guidelines formulation process (national application minimal reference criteria), the sufficient flexibility must be considered so that they can be used in any local context, as municipalities are quite dissimilar. Additionally, validation and testing activities of such instruments must be considered to ensure applicability and sustainability.	The design of flexible policy guidelines was considered important, so that they may be useful for a wide range of municipalities. A technical criteria validation process was developed with municipalities of different sizes and capacities through the Pilot Projects and the political positioning of the different territorial levels (national, regional and local) was accompanied to ensure replication.

Topic: Management and participation	
Specific lessons:	Actions developed by PREDECAN:
Possible discrepancies in approaches and expectations must be analyzed and mediate actively among the actors and seek conciliation and commitment to ensure appropriation and involvement.	Visits were made to CAPRADE authorities and CAN General Secretariat, to conciliate the actors' interests. Instrument produced. PREDECAN and EAPAD coincidences matrix.
The entities summoned show a higher level of responsibility when invited by national order entities leading the topic. This contributes with the sustainability of initiatives.	The involvement of the entities in all the stages of the activities design process was promoted, to plan the activities that involved the participation of national order entities, together with entities responsible for thematic coordination. These included: design and planning of the activity as such and of the invitation to participate.

Topic: Management and participation

Specific lessons:	Actions developed by PREDECAN:
<p>Direct and permanent technical support builds confidence in institutional technical staff. Work relationships are established which help to achieve objectives and develop work plans.</p>	<p>In each of the countries, a team of expert consultants in technical topics was hired. There was a process of permanent accompaniment for institutions. Technicians in the institutions had a local referent to request support. Periodic visits to the institutions were scheduled to review advances and make adjustment to the work plans.</p>

Topic: Resources

Specific lessons:	Actions developed by PREDECAN:
<p>During the project formulation, the relation with and demands of Human Relations must be analyzed in view of the short and long term hiring of consultants goals and modalities.</p>	<p>Consensus was built with the countries, CAN General Secretariat, and EC Delegation to carry out long term consultancy that were not originally programmed and that took some time to restructure and hire. The long-term consultants were in charge of coordinating and to make a follow-up and continue the process. Short-term senior advisors accompanied the process in specific moments according to the needs and the advances of the project, ensuring the pertinence of their task and the applicability of results.</p>





Quito, Ecuador
Photograph by PREDECAN

Project Impact and Sustainability: The Beneficiaries' View

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Portoviejo Pilot Project, Ecuador
Photograph by PREDECAN

Impact

Considering that the Project has just finished its implementation stage, it may be considered ambitious to talk about PREDECAN’s impact. It may be anticipated that the new institutionalization (still in the process of consolidation in several countries), the totality of actions, coordination, sectorization, risk transference, increased information and sensitizing and increased disaster risk management, will begin to yield results in the future, especially facing the reduction of vulnerability, beyond the Project range.

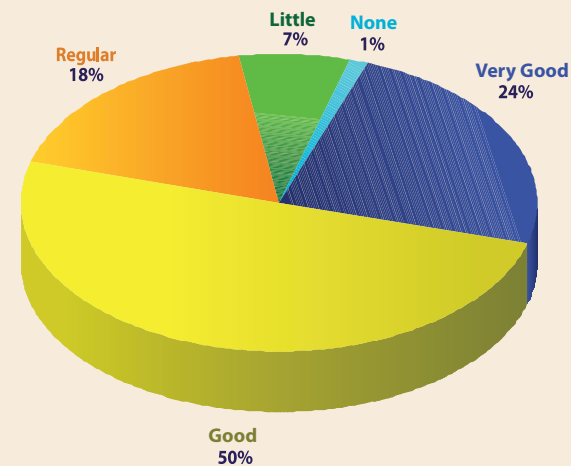
It is worth mentioning that the changes observed in the target countries and that were reported by beneficiaries are not an exclusive contribution of PREDECAN. Achievements obtained are the result, in the first place, of the commitment assumed by the representatives of the Member States, and of the sum of efforts and the support of several international entities that have worked on this issue in Latin America, such as ISDR, UNDP, ECLAC, PAHO and other UN bodies; multilateral banking such as the CAF, IDB and the World Bank; and cooperation agencies, among others.

Starting from this basis, and with the purpose of measuring the Project objectives, a virtual survey and a series of in-depth interviews were conducted to learn about the vision of the beneficiaries on this topic. In this sense, a search of what were the effects from each of the activities, expected results and objectives from the PREDECAN intervention was made. To do so, the definition of impact was used: “Long-term effects, positive or negative, primary or secondary, produced directly or indirectly by the intervention, intentionally or not”; and the indicator selected was the comparative analysis of the institutionality-building and the risk management processes in the Andean Sub-region.

Results from the 33 surveys received show that beneficiaries in general terms consider that all the strategic areas of the PREDECAN have had a “good or very good” impact, according to 74% of the answers; while 18% consider it “regular”; and 8% that it had “little or no” impact.

The largest impact level is related to the strengthening of CAPRADE; the preparation of development planning strategies, policies and tools; and the inter-institutional coordination and the exchange of information through SIAPAD; and the dissemination of teaching material and risk management studies. The following Table shows in detail the opinion of those who were interviewed:

Percentage of answers in the survey indicating the degree of general impact of the PREDECAN Project .¹⁰



In addition, in 2009, and to learn about the effects of the Project, in-depth interviews were conducted by an external consultant with 27 officials who intensively participated in PREDECAN activities, both from the government and non-government sectors. The results, divided in groups by topics, are presented as follows.

¹⁰ Data derived from a virtual survey that was conducted between May and June 2009 to actors related to the PREDECAN Project.

Impact of PREDECAN initiatives according to surveys (May – June 2009)

Evaluation Topics	According to the most frequent answer, the respondents consider that PREDECAN impact in these aspects must be graded as :					
	Global Aspect:	Bolivia	Colombia	Ecuador	Perú	CAN
How do you grade the impact achieved by PREDECAN in these aspects:						
Strengthening the organization, strategies and plan for the operation of CAPRADE	CAPRADE	good	very good	good	good	good
Strengthening the Andean subregion regarding the planning strategies, policies and instruments for disaster prevention and attention.	Strategies and Policies	good	good	good	good	good
Strengthening Disaster Prevention and Attention National Systems or Platforms and the improvement of interinstitutional coordination.	Interinstitutional Coordination	regular	from good to very good	very good	good	good
Enhancement of the DRM information exchange and availability through SIAPAD (incl. GEORiesgo, Red BiVa-PAD and DesInventar).	SIAPAD: information management	good	good	regular	from good to very good	bueno
Strengthening of human capital (training) to keep SIAPAD working adequately, including information updating.	SIAPAD: operation	regular	good	bueno	bueno	bueno
Strengthening of institutional and other actors' capacities to lead initiatives to incorporate DRM in development and sectoral planning, Territorial Organization and Public Investment.	DRM: Planning	good	good	good	good	good
Strengthening of institutional and other actors' capacities to apply and spread guidelines/school guides and to lead initiatives to incorporate DRM in school and university curriculums.	DRM: Education	from regular to good	good	good	good	good
Considerable increase of DRM information availability (mass media, dissemination material, web pages, Networks, workshops).	DRM: Information	good	good	good	good	good
Strengthening social actors (communicators, teachers, cooperators) to train and/or inform on DRM from the social and developmental point of view.	DRM: Training	regular	good	good	good	good
	average:	good	good	good	good	good

1. Risk management: from a “fashionable” concept to its internalization

An analysis of the regulative frames that rule risk management in the Andean countries shows that, to a large extent, they include laws that were articulated before regulative frames, they consider few spaces for prevention and mitigation, but their efforts were focused mainly on emergency relief. The presence of PREDECAN as a dynamizing element, although not the only one, allowed the internalization of the risk management concept in the institutional framework from each of the countries.

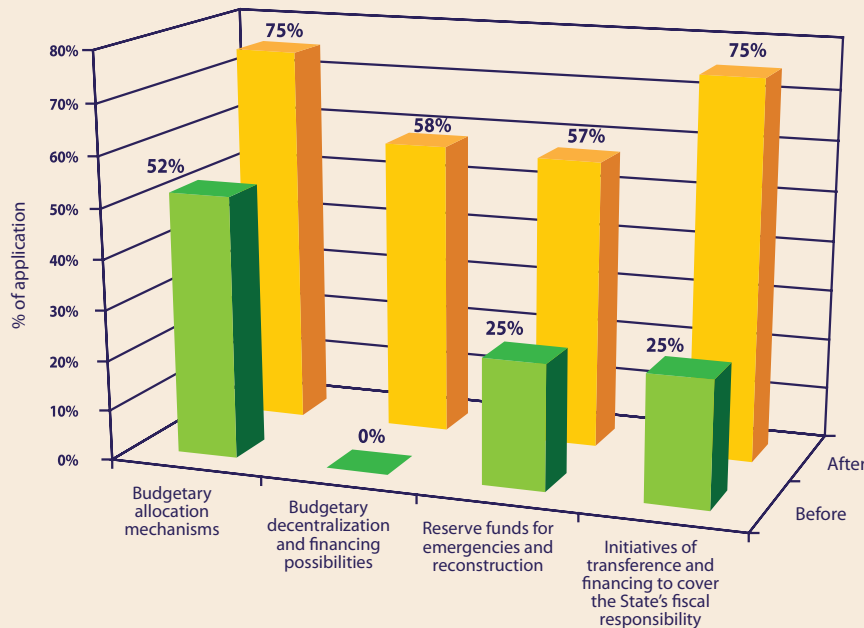
Beneficiaries consider that the sub-region has today a more proactive scenery, where the different institutions, especially planning

ministries, have started to favor measures so that the argument may become an aspect of the institutional culture.

National development plans of Bolivia, Colombia and Ecuador include the topic of risk management; at the same time, specific budget lines, new studies for risk management, promotion of farming insurance and the State’s asset inventories and their current coverage have increased in countries such as Peru and Colombia.

Acknowledging that several international agencies have been promoting the topic in Latin America, PREDECAN has allowed dynamizing the internalization of Risk Management in the four CAN countries, making the expertise of its staff, the means for promoting national and sub-regional meetings and the multiple thematic publications available for them. It has been a process facilitation and dynamizing work that is largely valued by the representatives from surveyed countries.

Axes of progress in the internalizing of the Risk Management concept



2. Reduction of structural differences between the traditional views and the modern concept of disaster risk management

In the national systems of Disaster Risk Management / Disaster Prevention and Relief / Civil Defense, the language shown looks for conciliation and approach to multi-sector platforms, giving space to other sectors and actors in the platform, especially the development planning and environmental bodies.

It is clear that the Hyogo Framework for Action (HFA) has influenced this multi-sector approach, and the countries try to comply with its postulates; but, for those who were interviewed, there is no doubt that PREDECAN has favored these changes. Its facilitating strategy is considered positive, since it allowed confidence among institutions and achieved the development of its activities in the high spheres of the institutional framework.

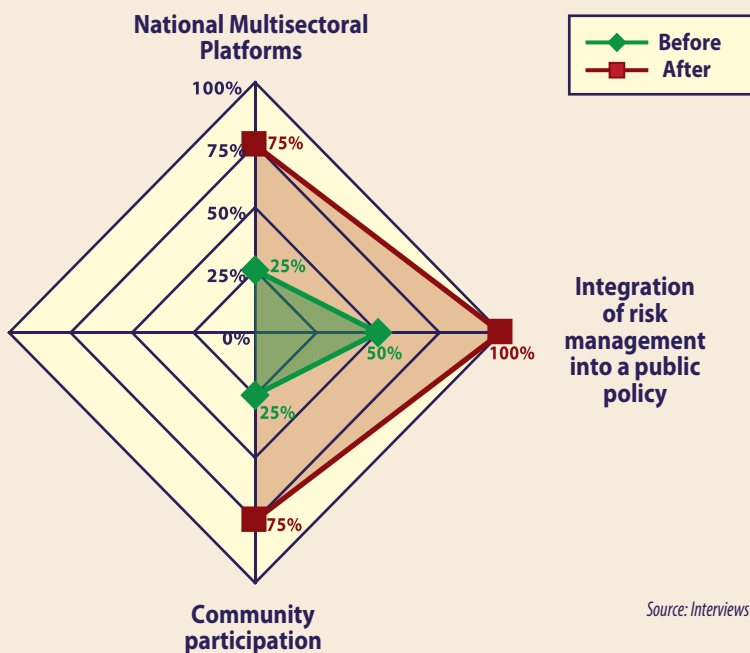
According to the opinion of those interviewed on the progress made in the four countries for the first priority of HFA, the topic that has obtained more progress is national platforms.

Project Impact and Sustainability: The Beneficiaries' View

3. The different actors acknowledge themselves as part of the system and reduce abrasiveness among institutions

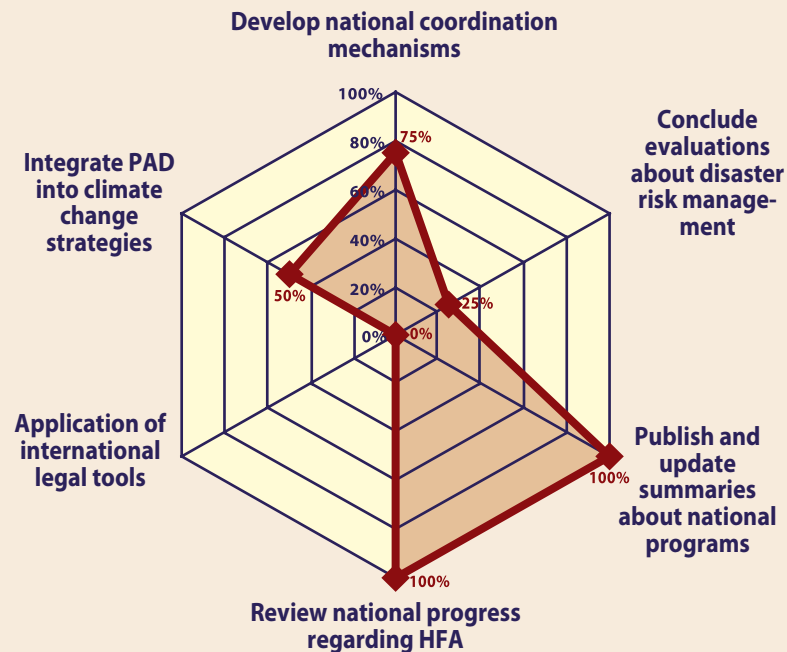
PREDECAN, through its process analysis, improved coordination mechanisms, and with the multi-sectoral and pluralist participation, obtained a reduction of differences that appeared in the past; besides, it helped people understand that risk management is the responsibility of the different governmental institutions, civil society, communication media and private actors.

Progress on Priority 1 of the HFA: To guard that disaster risk management become a national and local priority with a solid institutional base for its application



Source: Interviews

Progress of the States' responsibility in face of the HFA



4. Cross-cutting disaster risk management and its inclusion into the planning of the economic, social and physical development of countries

In parallel to the strengthening of platforms in each country, work was conducted in the institutions from the different sectors, and although processes required a greater effort, they also registered progress in the PREDECAN implementation period. The management made demonstrates considerable changes in the vision of technical experts

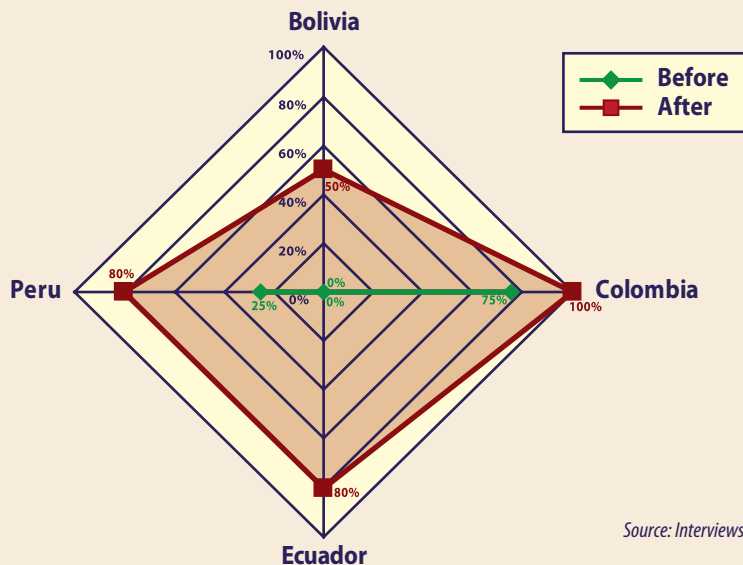
on the cross-cutting of disaster risk management. In general, in three out of the four countries (except for Colombia, who had already advanced some actions on this regard), evident changes have taken place, such as the inclusion of the topic in the new constitutions of Bolivia and Ecuador, in the development plans of Bolivia, Colombia, Ecuador, the generation of the inter-institutional disaster risk management platform in Peru, and the application of the local risk management concepts in 110 municipalities of Colombia, through an initiative from the National Risk Management Direction, with the support from the World Bank.

5. Preventive measures are starting to be adopted from the point of view of financial strategies to face disaster risk

Regional exchanges between the representatives from the ministries of economy and finance, facilitated by CAPRADE/PREDECAN have enabled the countries to think about the importance of implementing retention, financing and risk transference mechanisms, articulating proposals and initiatives from multilateral organizations such as the IDB and the World Bank.

From the four criteria suggested for this topic for the IDBxv, the following is the status in the subregion:

Estimation of the DRM cross-cutting strategy in CAN countries

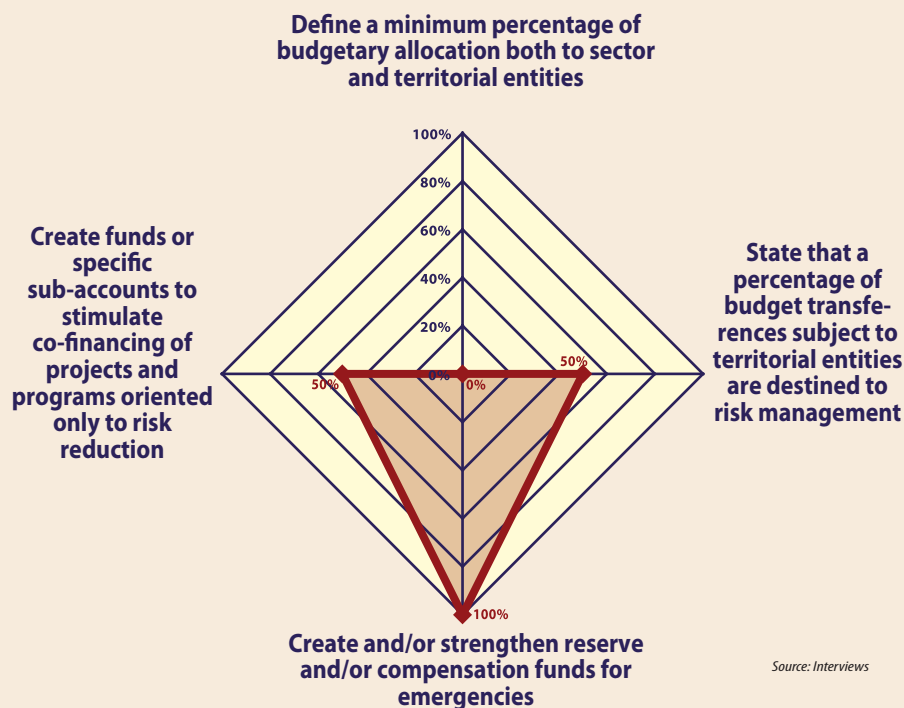


- Define a minimum percentage of budget allocation to sector and territorial entities: there are initiatives such as in Peru where they declare that for the 2010 budget, a change will be introduced in the programmatic approach to provide a space for risk management. Colombia has already made progress in this regard.
- Establish that a minimum percentage of budgetary transferences conditions to territorial entities is allocated to disaster risk management: although the particular status of this regard is not known in detail, Peru and Colombia are working on this regard.
- Create and/or strengthen reserve and/or emergency compensation funds: this is with no doubt a mechanism that had been advanced in all four countries. Peru has a revolving fund, Colombia a national calamities fund that works with permanent allocations that can be extended in case of extraordinary emergencies. Ecuador has considered as well – in its new functional model – a special fund for disasters. Bolivia has legal devices that allow using resources from the national budget to be used in extraordinary occasions.
- Set up funds or specific sub-accounts to stimulate project co-financing and programs focused on risk reduction only: This is referred to as the creation of a budgetary allocation so that each

Project Impact and Sustainability: The Beneficiaries' View

State entity (at the different territorial levels) may assign resources to finance risk management. To this regard, there is a need to add that such resources have been destined to a large extent to prevention works that – even though they are positive – distort the original concept of the initiative.

Allocation and sustainability of DRM investments



6. From the lack of knowledge, identification and analysis of hazards to the construction of risk scenarios that feed development planning processes

In the answers from those interviewed, it was common to find that there was no updated and detailed documentation of disasters that had occurred in the countries, or much information about risk scenarios that would allowed introducing them into the development planning processes. Generated data bases and the DesInventar website were tools that provided information on historic disasters, helping those in charge of planning development in the countries take into account this variable in the process.

7. From per se risk management instruments to the use of inter-operating information management tools with the approach to spatial data infrastructures.

According to the responses to the interview, most of the information produced by technical-scientific entities on hazards and exposure, was not socialized and systematized enough for its use by final beneficiaries. Most of the information produced was used internally. The fear to open their websites has been one of the largest discussions that arose among Project specialists and information systems staff from each of the entities.

In this sense, SIAPAD has shown that it is possible to socialize information among users and generators without the need to have a large centralized database. Besides, this has allowed the coordination among information technology directors of the institutions involved, who have gained awareness on the importance of coordinated work.

In Colombia, it is worth mentioning the creation of a group of a Colombian Spatial Data Infrastructure – ICDE- and the agreement of the 2007-2010 Action Plan. To date, some progress has been made in each of the strategic items defined by the Vice-Presidency of the Republic, synthesized in the integration of institutional and sectoral efforts regarding the organization and supply of products and services derived from spatial technologies, for the consolidation, production and massive use of fundamental geographic information for the development of the country.

Ecuador has found valuable leadership in SENPLADES, which, in its purpose of having a national information system has taken possession of SIAPAD, making use of the tool's design as the basis for the development of its own system. Together with the STGR, they share the responsibility of feeding the information. This latter entity is currently in the process of designing a national risk management system, where for sure SIAPAD will be welcomed.

In Peru, since 2003, there is a National Electronic Government and Information Technology Office (ONGEI, for its acronym in Spanish), initially destined to look for the approach from government to the citizens, placing on the web information about the different proceedings required by the public. At present, this same structure is focused on the management of a SDI, and is hosting SIAPAD. The institutions generating the information are in charge of updating it and preparing new documents.

8. From the traditional emergency management practice to the setting up of a risk management culture in the school education sector

There is no doubt that one of the sectors where the new disaster risk management approach has had a deep impact in the countries has been the education sector. Three out of the four countries (excluding Colombia, with previous progress on this topic) has introduced the topic into laws, study plans, teachers' guides and teachers training centers.

Bolivia: Has introduced the topic at the curricular level and plans to restate the education law. In Article 80 of the New Political Constitution of the State, a paragraph is introduced setting as educational objectives the integrated instruction of individuals and the strengthening of social awareness and critics in life and for life. It also mentions – among other topics – the trend towards conservation and the protection of the environment, biodiversity and the territory in order to live well. One of the articulating axes in the new educational model is referred to living in harmony with nature and community life which, according to the Ministry of Education, includes the topic of risk management. In the new education law (draft bill), Article 3 (objectives), paragraph No. 7 says "...develop an

integrating and balanced awareness between the human being and nature..." From this, a base document has been prepared for the curricular network, as well as the plans and programs, material and regulations.

Ecuador: The Ministry of Education has internalized the disaster risk management concepts and is preparing a new education bill to adjust it to the new Constitution, and has prepared a new curriculum for basic and intermediate education, training modules for teachers and professors, guide for the application of school risk management plans and communication material for community radios.

Peru: It has modified the National Curricular Frame, material and guides for professors. The topic has considerably influenced the authorities from the Ministry. UNICEF, with resources from the DIPECHO Action Plan, will finance an executing unit within the Community Education Directorate to provide continuity to this topic.

9. Communication and awareness actions have rekindled the interest of Andean universities to promote changes in the sub-regional university sector

The Andean Network of Disaster Risk Management and Climate Change Universities, promoted by PREDECAN and the GTZ, has a website and has started the work to develop training programs (a diploma on disaster risk management at the subregional level and later a postgraduate degree on this matter). The enthusiasm and the level of commitment of prestigious universities suggest that this will be a successful and sustainable process.

10. A subregional organization in the process of being strengthened, although eager for support and mentoring

The Project has worked at the level of CAPRADE and of the countries, strengthening a culture towards risk management and aiming to consolidate multi-sector platforms. In the current stage, countries have made significant progress regarding structures, regulation frames, sector incidence and inclusion of risk management financing mechanisms. Besides, considerable qualitative changes

Project Impact and Sustainability: The Beneficiaries' View

are appreciated in the sub-region, especially in the operation of CAPRADE, harmonization of EAPAD to HFA, appropriation of tools and methodologies, among others. However, in the opinion of those interviewed, CAPRADE is still a structure in a consolidation process, which requires financial structures for its sustainability and continuity in the implementation of its actions.

CAPRADE is currently acknowledged as a privileged speaker on the topic among cooperation bodies and as a reference before other sub-regional instances and the ISDR. Regarding the responsibilities defined in the HFA for this kind of instances, CAPRADE is considered as having made progress in the promotion of regional programs (it currently has a profile of project and eventual financers) and, in the words of those who were interviewed, it is evident that PREDECAN as a support to CAPRADE, has facilitated the growth of the Committee facing the commitments assumed by the HFA.



Sustainability and Challenges

The degree in which the Project results will endure time, that is, the chances that the flow of benefits produced continue once the external support has ended, has been estimated both by beneficiaries through a survey and in-depth interviews, and by the PREDECAN technical team through an internal reflection process.

In general terms, sustainability of Project achievements is very likely, both according to the opinion of technical staff and beneficiaries, although some effects generated by this may have some trouble to ensure financing. The empowerment of products by the actors help conclude that there is political and technical will to continue with the processes started in the frame of National Disaster Risk Management /Disaster Prevention and Relief and / or Civil Defense Systems, and that will provide financial, technical and human resources for their operation. The same is expected as well for the operation of SIAPAD and its tools, for which the introduction of the free software has been a key decision.

As a basis for sustainability, human resources from beneficiary institutions in each country have been trained throughout the Project, although one of the weaknesses that may arise is the high rotation rate of such staff. At the same time, the political will of moving agreed-upon changes into legal regulations and promoting citizen and community participation on Risk Management has been noted. However, there is a risk that changes of government or other decisions at the political level in CAN Member States affect the implementation of EAPAD and the operation of CAPRADE.

Different aspects of the PREDECAN design and implementation that makes the sustainability of results likely can be grouped in five key factors:

- **The methodological design of the facilitating project:** The process approach and the integrated and participative vision of Disaster Risk Management, supporting the existing structures; the inter-institutional vision when coordinating with actors from different sectors; articulation with the HFA and the emphasis on supporting CAPRADE in the implementation of EAPAD, have enabled each of the processes undertaken to find an echo in the corresponding institutions, and that is why there seems to be no chance that such processes be abandoned due to the lack of ownership.
- **Management:** Appointing coordinators for each country; a small EGP; frequent internal and external exchange meetings, discussion and consensus; a tight coordination with the EC Delegation and within CAN; and the flexibility of action planning, acknowledging needs and changes in the countries, were key factors for an efficient Project management.
- **Capitalization of the human resource:** Officials from the beneficiary entities have been strengthened through training, participation in the building of products and the dissemination of technical documents, manuals and guides, which reinforce what has been learned and disseminates knowledge to a wide public on the proper application of the integrated view of risk management.
- **Institutional capacity-building:** Obtained through proposals to improve institutional processes, their organization and their technological capacity; making SIAPAD available, which allows an exchange of information and inter-

Project Impact and Sustainability: The Beneficiaries' View

operability among actors; and taking the best advantage of high-level international consultants, who were for this reason accepted by beneficiaries.

- **Political support:** The Project has been aligned with the national, sub-regional and international policies, and hence, it has not been an isolated initiative without political backing. CAPRADE is made up of the national platforms coordinator from each country, the ministries of planning and foreign affairs and has all the interest to continue performing its task and guiding the countries in their efforts to internalize the topic more and more each time. The organizations from the United Nations keep a close coordination with CAPRADE, since they recognize it as the speaker on this topic in the sub-region. On the other hand, strategic alliances with ISDR, UNICEF, PAHO, the DIPECHO program for the European Union's Humanitarian Aid Office, multilateral banking, among other actors, provide additional opportunities for sustainability.

The services from the Project have been assumed by the National Risk Management Platforms. The institutional and political process of positioning the topic and obtaining more resources to implement the HFA continues for them. Although these arrangements will not fade with the closing of the Project, given the appropriation of processes and products, it is worth noting that the task will be affected by the budgetary constraints of each country's entities, since the lack of resources continue to be a weakness for some activities related to Disaster Risk Management; in addition, the participation of the private sector is weak.

At the same time, the increasing interest on the topics by the different planning actors, ministries of education, technical-scientific entities and other bodies from different areas is evident; they are convinced about the need to include in each sector the topic of risk management, about SIAPAD advantages and other tools that have been generated.

However, it takes time for each sector to assume the topic as part of the institutional culture, and that is why there is a need to make substantial efforts to supplement the development of regulations; expand the training and information possibilities; provide continuous technical assistance from coordinating entities; continue the constant exchange between different institutions; make a feedback of what was learned; and make a proper follow-up and evaluation of the progress made in risk management processes.

Although this reality is stronger at the national level, in the sub-region there still remains a commitment to anchor the CAPRADE process more strongly. The Andean Committee has been supported and strengthened by PREDECAN during these five years and the Andean Strategy for Disaster Prevention and Relief has been recently renewed and reaffirmed at the ministerial level. Although consensus was reached among the representatives of the countries so that the Committee continues working as such, with the support of a Technical Secretariat within the General Secretariat of the CAN, the financial resources for this purpose are not secured, and this may have consequences in the implementation of EAPAD at the sub-regional level.

An important recommendation to this regard is, precisely, the need to establish the Technical Secretariat of CAPRADE with an adequate fund to operate and, from it, manage the financing of projects by different cooperation bodies to guide, coordinate and continue developing their tasks.



La Paz, Bolivia
Photograph by Gabriel Jaime Arango



PREDECAN Project Cooperators

PREDECAN
Project Cooperators



REGIONAL DIRECTORATE

Ana Campos García: Director
(March 2005 – November 2009)
Harald Mossbrucker: Head of International Technical Assistance
(November 2004 – March 2009)
Jan Karremans: Head of International Technical Assistance
(April 2009 – November 2009)
Lizardo Narváez: Directorate Advisor
(July 2005 – September 2007)
Carolina Díaz: Directorate Advisor
(January 2008 – June 2009)
Flavio Miglio: Manager
(July 2005 – December 2006)
Diana Rivera: Manger
(January 2007 – December 2009)

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Bolivia: María Cecilia Martínez (2005 – 2007), Ministry of Foreign Affairs; Yovanna Soria Galvarro (2008 – 2009), Ministry of Foreign Affairs
Colombia: Gustavo Gutiérrez (2005 – 2006), Risk Management Directorate (MIJ); Ibeth Castro (2007 – 2009), Risk Management Directorate Riesgo (MIJ)
Ecuador: Gloria Roldán (2005 – 2009), Risk Management Technical Secretariat
Peru: Percy Alvarado (2005 – 2009), Nacional Civil Defense Institute
Venezuela: Raúl Deffit (2006), Ministry of Planning and Development

TECHNICAL RESULTS COORDINATORS

Fernando Ramírez Gómez: Coordinator of Result 1
(February 2007 – September 2007)
Lizardo Narváez: Coordinator of Result 1
(October 2007 – June 2009)
Rubén Vargas: Coordinator of Result 2
(September 2006 – June 2009)
Nancy Zapata: Coordinator of Result 3
(March 2007 – January 2008)
Doris Suaza: Coordinator of Result 3
(September 2008 – June 2009)
Claudia Cárdenas: Coordinator of Result 4
(September 2006 – August 2007)
Giovanna Núñez: Coordinator of Result 4
(November 2007 – June 2009)
Lenkiza Angulo: Coordinator of Result 5
(November 2006 – September 2008)

ADMINISTRATIVE SUPPORT AND VISIBILITY

Kharla Herrera: Communication and Visibility
(February 2006 – February 2007)
Ibis Liulla: Communication and Visibility
(August 2007 – June 2009)
Marco Ramírez: Virtual Media
(February 2007 – February 2008)
Luis Gallegos: Virtual Media
(May 2008 – February 2009)

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Marcos Castellanos: Virtual Media, design of publications and visibility material

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Fabiola Pérez Albela: Design of publications and visibility material

(December 2007 – November 2008)

Leonardo Bonilla: Design of publications and visibility material

(October 2008 – June 2009)

Enrique León: Editing of publications

(May 2009 – October 2009)

Maritza Yactayo: Administrative assistant

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Amalia de La Puente: Administrative assistant

(October 2006 - April 2007)

Yéssica Cárdenas: Administrative assistant

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(August 2005 - November 2009)

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Juan Bermejo: Coordinador del consorcio, responsable seguimiento y asesoría.

International Technical Assistance

Alex Gracia: Territorial ordering and water management

Allan Lavell: Risk management Approach and conceptual framework

Ana María Miralles: Public journalism

Antonio Borile: Administration of cooperation projects

Claudio Bortolotti: Civil protection

David Smith: Risk management policies and indicators

Elena Ferretti: Monitoring, evaluation and Project cycle

Francesca de Francesch: Geological threaten and risk, urbanistic planning

Francisco Boshell: Farming sector and adapting to climate change

Gustavo Pérez: Strategic planning, organization and process approach

Gustavo Wilches-Chaux: Education and communication in risk management

Graciela Magrín: Farming sector and adapting to climate change

Juana Mariño: Territorial ordering and environmental management

Koert Sijmons: Cartography and data from remote sensors

Lorenzo Malpaga: Mountain basin management

Mabel Marcuello: Information, education and communication in development projects

Marco Ehrlich: Planning and territorial ordering

Mario Pergthem: Engineering and stabilization works and emergency plans



Martín Molina: Information systems
 Omar Darío Cardona: Financial protection mechanisms
 Oscar Ávila: Project monitoring and evaluation
 Philippe Masure: Territorial planning and ordering
 Roberto Barbiero: Meteorology and alert systems
 Salvador Bayarri: Information systems and spatial data infrastructures
 Sergio Fatorelli: Hydrological studies and hydraulic

SUBREGIONAL CONSULTANTS

Fernando Ramírez Gómez y Andrés David Drews: Strategic Agendas for risk management in CAN countries
 Carlos Sandoval: CAPRADE Project Profile
 Francisco Linares: Information technology topics
 César Peña: Atlas and risk management indicators
 Fernando Ramírez Cortéz y Diana Rubiano: Risk and Territorial Planning
 Jairo Bárcenas: Risk management in the territorial ordering
 Juan Carlos Camargo / Ligia María Arias: Inclusion of risk management and Adapting to Climate Change in the Farming Sector
 Milton Von Hesse / Catherine de la Torre: Risk and Public Investment Projects
 Gladys Monge: Handling of dangerous products and radioactive material
 Luisa Fernanda Guevara / Héctor Vásquez / Ximena García: Curricular Inclusion of Risk Management in the Andean Community Countries
 Lilian Reyes / Martha Dávila: Self-teaching Virtual Modules on risk management

Javier Pava: Interventor – Works in Colombia and Ecuador
 Hugo O’connor: Interventor – Works in Peru and Bolivia

NATIONAL CONSULTANTS

Lilian Reyes: Systematizations in Bolivia
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 Luís Malambo: Risk management processes analysis in Colombia
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 Diego Vallejo: Risk management processes analysis at the local level in Ecuador
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Gonzalez, Maria Elena Canchari, José Miguel Sato

CONSULTING FIRMS

Hexagon: Systematizations in Ecuador

Spazio Ingeniería y Ambiente: Systematizations in Perú

Corporación OSSO: Disaster data bases

Corporación OSSO and CIIFEN: Atlas of the Dynamics of the Andean Territory

Sun Gemini: SIAPAD analysis and functional design

IVER Information Technologies: Implementation of SIAPAD

Fundación Imaginario: Design and administration of the Virtual de Educators and Communicators Platform

ICONIA: Radio Programs

Universidad del Norte: Media coverage of risk management and climate change

Universidad Nacional de Manizales and Centro Internacional de Métodos Numéricos e Ingeniería - UPC: Virtual Course of Higher Risk Management Education

Consortio DARA – FLACSO: Risk management baseline indicators

AGREEMENTS

PAHO / EIRD / CRID: Functional network of Information Centers on Disaster Prevention and Relief in the Andean Subregion

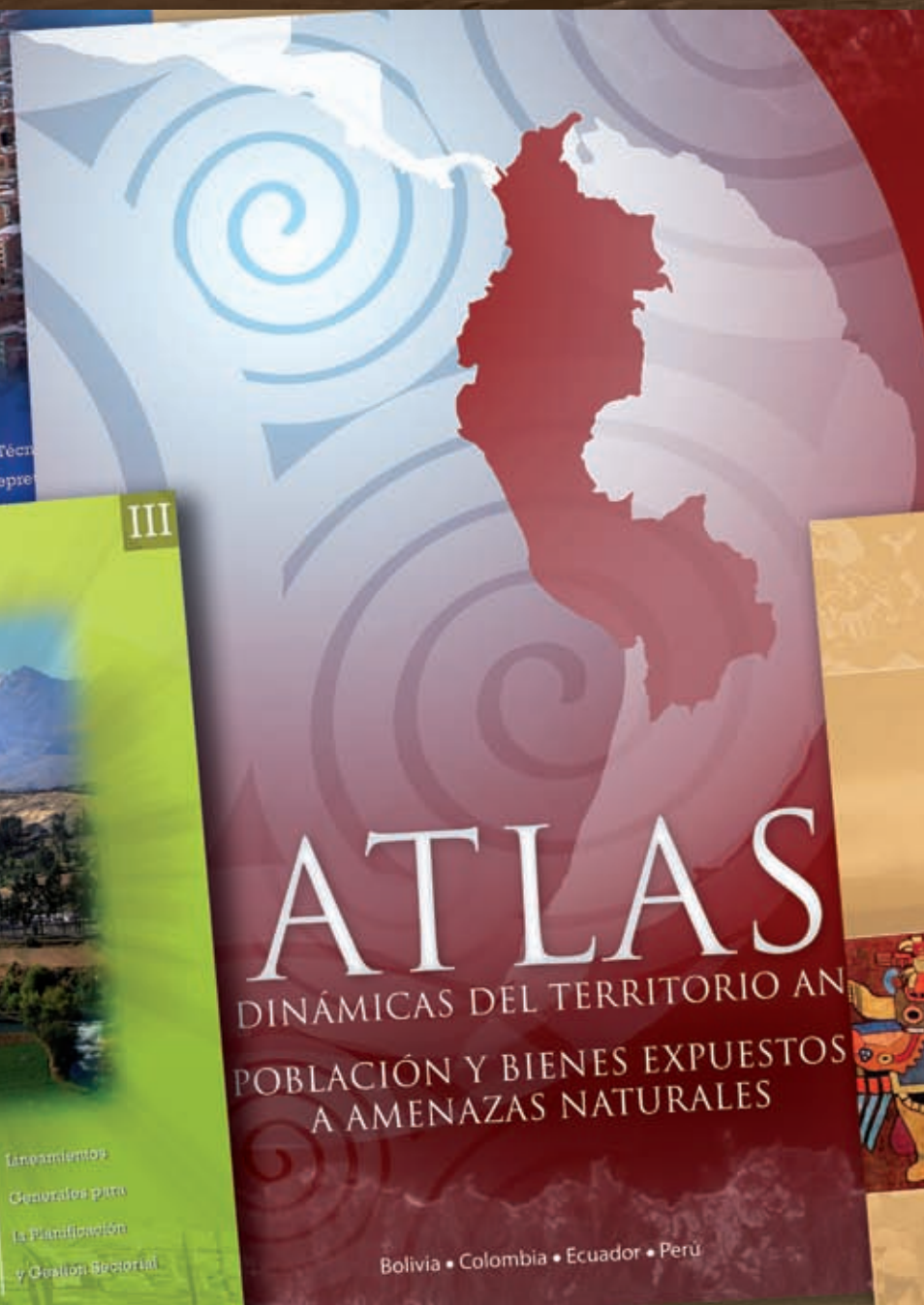


The Colca Valley, Arequipa, Peru
Photograph by Gabriel Jaime Arango



CORPORANDO LA
GESTIÓN DEL RIESGO

Guía Técnica
para la Interpretación



ATLAS

DINÁMICAS DEL TERRITORIO ANDINO
POBLACIÓN Y BIENES EXPUESTOS
A AMENAZAS NATURALES

Bolivia • Colombia • Ecuador • Perú



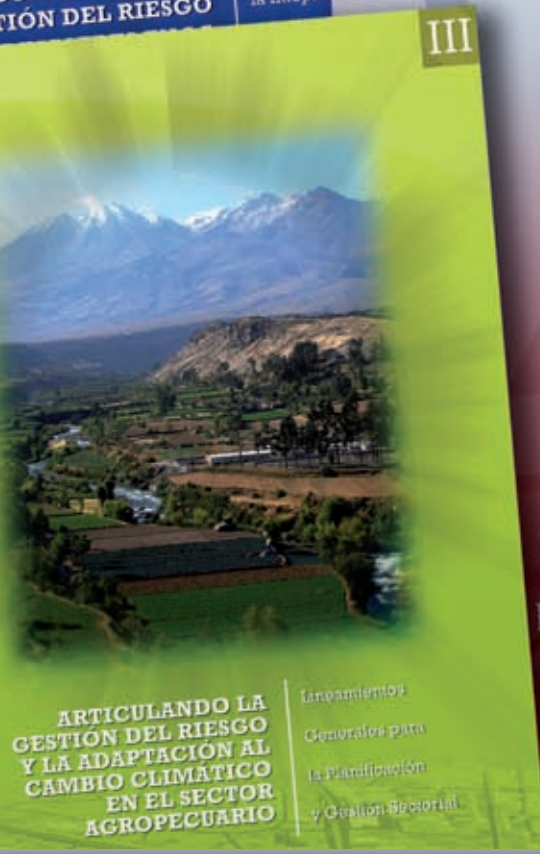
CORPORANDO LA
GESTIÓN DEL RIESGO DE
DESASTRES EN LA
PLANIFICACIÓN DEL
DESARROLLO

Líneas
Generales
de la
Formulación
de Planes
de Desarrollo



CORPORANDO LA
GESTIÓN DEL RIESGO
DE DESASTRES EN LA
POLÍTICA PÚBLICA

Líneas
Generales
y Estrategias para
la Formulación
y Evaluación
de Proyectos



III

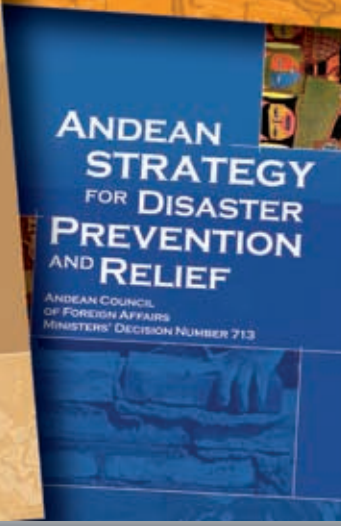
ARTICULANDO LA
GESTIÓN DEL RIESGO
Y LA ADAPTACIÓN AL
CAMBIO CLIMÁTICO
EN EL SECTOR
AGROPECUARIO

Líneas
Generales para
la Planificación
y Gestión Sectorial



ESTRATEGIA
ANDINA
PARA LA
PREVENCIÓN
Y ATENCIÓN
DE
DESASTRES

DECISION NÚMERO 713
DEL CONSEJO ANDINO DE MINISTROS
DE RELACIONES EXTERIORES



ANDEAN
STRATEGY
FOR DISASTER
PREVENTION
AND RELIEF

ANDEAN COUNCIL
OF FOREIGN AFFAIRS
MINISTERS' DECISION NUMBER 713

List of Products and Tools

List of Products and Tools



List of Products and Tools

Products and tools generated by CAPRADE with the support of the PREDECAN Project will collectively allow multiple actors to explore the topic of risk management from a wide range of perspectives and interest areas, to face the many-sided nature of vulnerability to risks.

GENERAL DOCUMENTS:

- Andean Strategy for Disaster Prevention and Relief – EAPAD, Decision 713 of the Andean Council of Foreign Affairs Ministers. Version with double presentation, Spanish and English.
- Triptych of the Andean Committee for Disaster Prevention and Relief, version in Spanish and English
- Triptych of Progress Made on Risk Management in the Andean Region with the contribution of the PREDECAN Project - Achievements 2005 – 2009, version in Spanish and English

THEMATIC AXIS 1:

Capacity-building at all levels

- Disaster Risk Management: A process-based approach
- Disaster Risk Financial Management. Retention and Transference Tools for the Andean Community
- Strategic Agendas for Risk Management in Bolivia, Colombia, Ecuador and Peru

THEMATIC AXIS 2:

Promotion of research and knowledge

- Websites of the Andean Information System for Disaster Prevention and Relief –SIAPAD:
 - GEORiesgo (geological risk)
 - BiVa-PAD Network
 - DesInventar (disaster inventory)
- Information Systems for Risk Management in the Andean Community: Realities and proposals
- Atlas of the dynamics of the Andean territory: Populations and goods exposed to natural hazards

THEMATIC AXIS 3:

Education, communication and participation promotion

- Public Journalism for Disaster Risk Management
- Series of sound documents: No risk with risk – Voices from the Andean Community about Risk Management
- Press coverage of Disaster Risk Management in the Andean Subregion: Journalist speech and communication approaches for social change
- Outlines for Integrating Disaster Risk Management into the Bolivian Pluricultural Educational System
- Outlines for Integrating Disaster Risk Management into Basic Education for the Ecuadorian Educational System
- Outlines for Integrating Disaster Risk Management into Regular Basic Education for the Peruvian Educational System
- Module: Education for Disaster Risk Management. Conceptual and methodological tools for its integration in the curricula
- Self-teaching modules on Disaster Risk Management (in digital format only)

THEMATIC AXIS 4:

Reduction of underlying risk factors

- Series: Significant local development experiences for disaster risk management (22 documents)
- Incorporating Risk Analysis into planning and public investment projects in Latin America and the Caribbean
- Territorial planning and management: Interpretation and application of the analysis of hazards and risks by natural phenomena
- Incorporating Disaster Risk Management into Development Planning: Outlines to formulate plans at a local level
- Articulating Risk Management and Climate Change Adaptation in the Agriculture and Livestock Sector: Outlines for sectoral planning and management
- Integrating Disaster Risk Management into Public Investment: Guidelines and strategies for project proposal and assessment

THEMATIC AXIS 5:

Strengthening of systems and mechanisms for the preparation, relief and mutual assistance in case of disasters

- Andean Subregional Plan for the prevention and response to emergencies produced by chemical products and radioactive material

These publications can be reviewed in the Andean Community's website: www.comunidadandina.org/predecan, in the sections of "Publications" and "Documentation Center".

They can also be found at the CAPRADE's website: www.caprade.org

* Series: Significant experiences of local development facing disaster risks

Andean Community

- Disaster risk reduction at the local level: Lessons from the Andean Subregion.
- Local disaster risk reduction: Lessons from the Andes

Bolivia

1. Participative pilot Project on local management of disaster risk in the municipality of San Borja
2. Participative community research: Agro-ecological strategy and agriculture insurance for risk reduction in the high plains of Northern Bolivia.
3. Approach to risk management in La Paz through a resilience study towards disasters in five city quarters.
4. Community forest management and risk management as strategies for integrated territorial development in the community origin territory of Monte Verde
5. Food security in the municipality of Ravelo, Potosí: An opportunity to find out about the relationship between quotidian risk-disaster risk and local development.

Colombia

1. Participative pilot Project on local management of disaster risk in the municipality of Los Patios
2. Local risk management in an Andean city: Manizales, an integrated, illustrative and evaluated case
3. Risk prevention and reduction through territorial planning tools in Bogotá
4. Conception of the world of the Nasa indigenous people in Colombia: Integrated reduction of risks, planning and sustainable development
5. Knowledge as the connecting thread in the environmental management of risk in the Department of Risaralda

Ecuador

1. Participative pilot Project on local management of disaster risk in the region of Portoviejo
2. Territorial development of region of Penipe: Preventing the consequences of the activation of Volcano Tungurahua
3. Flooding control: Urban development in the city of Babahoyo
4. Sowing Water. Micro-basin management: Water for the Catacocha Parish and the rural communities
5. Rikuryana Project: Community response to emergency and disaster mitigation in the province of Imbabura

Peru

1. Participative pilot Project on local management of disaster risk in the district of Calca
2. Agreed-upon and sustainable management of the territory and biodiversity in the high sub-basins of Ocoña River to overcome poverty
3. Municipal association-capacity as a strategy to overcome risk conditions in the districts from the Province of Ayabaca
4. Root Project: From emergency to recovery and protection of livelihoods affected by frosts in the District of Caylloma
5. Territorial ordering plan in the district of Soritor: Local wills put into practice

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Available at: www.caprade.org
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The Colca Valley, Arequipa, Peru
Photograph by Gabriel Jaime Arango

“By reducing disaster risk, you can also reduce poverty, safeguard development and move forward in adapting to climate change, facilitating at the same time other fundamental aspects such as security, stability and world sustainability.”

**EIRD, Global evaluation report
on disaster reduction, 2009**

ISBN: 978-612-4054-12-9



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