

13 CLIMATE ACTION



15 LIFE ON LAND



1. CLIMATE CHANGE

1.1. Context

LAC regroup several countries with a strong and varied potentialities, with a wide diversity, particularly, in regard of climate, natural ecosystems, biodiversity and communities. **Climate change** is an obvious and serious threat for the LAC region, in which the region has a responsibility (8.3% of **greenhouse gas** worldwide)¹ and is an important part of the solution. The challenges that climate change presents for development are important as the economic, social and political costs of an uncontrolled climate change constitute one of the most important spheres of action for the political decision-makers today. This chapter, using existing potential and concrete experiences in the region is intended to present the position of CA and its partners about Climate Change, its threats and effects (current and anticipated changes), the stakes and diverse challenges and an overview of the **resilience capacity** of the region and its populations. It also attempts to outline strategic and practical approaches to fight the impact of climate change and strengthen community resilience.

1.2. Actual situation of climate change in the LAC and projections

1.2.1. Climate situation

Climate variation is observed on a large scale in the region. Certain phenomena associated with the observed variation and changes have already produced considerable effects in terms of **socio-economic and environmental consequences**². The local temperature over the last fifteen years shows an increase from the average of 0.5 to 2 degrees Celsius (°C)³. This increase in temperature will potentially have significant impacts, particularly on the region's **water resources**. Glaciers are threatened by rising temperatures, especially in countries like Peru and Bolivia where most of the tropical glaciers are concentrated. Regarding rainfall, an increase has been noted especially in south-eastern Brazil and parts of Bolivia. While in western Central America, in areas such as southern Chile and Peru, and in the Caribbean, especially in Haiti, a decrease in rainfall has been observed and the situation is exacerbated by El Niño and Niña with prolonged drought and recurrence of devastating flood events due to extreme rainfall⁴.

¹ CEPAL, 2018

² GIEC, 2007

³ GIEC 2014. Incidences, adaptation et vulnérabilité. Disponible en ligne https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/WGIIAR5-IntegrationBrochure_fr.pdf - Kaenzig Raoul et Pigué Étienne, 2011. Migration et changement climatique en Amérique Latine : Quels enjeux.

⁴ Migration et changement climatique en Amérique Latine : Quels enjeux. 2011. Disponible en ligne <https://journals.openedition.org/vertigo/11488#tocfrom1n2>

1.2.2. Rising sea level

Rising sea levels will have a severe impact on the region in terms of the extent of marine coasts found there. According to the fifth GIEC report (2014), the sea-level rise during the 21st century is estimated at 0.18-0.59 m. In Latin America, the rise of the average sea level is likely to amplify the losses and damages, particularly related to the effects of climate change on biodiversity, fishing, tourism, infrastructure and services in the **coastal areas**. The number of individuals living at an altitude of one meter above the average sea level is estimated to be between 2.9 and 9.9 million. An estimated population of 15 and 27 million individuals, respectively, is estimated to live in areas at altitudes ranging from 5 to 10 meters above sea level⁵. The island states in the region face a high risk of negative impacts on small territories⁶. The hurricane Matthew in 2016 that destroyed the great South of the Haiti, is an example. Most of the seaside sites including the access roads to these were destroyed by this hurricane.

1.2.3. Natural disasters

Natural disasters are exacerbated in the region as much by their frequency, intensity and duration as by the extent of the territories they affect, particularly in Honduras, Haiti, Nicaragua and Guatemala. The latter are respectively among the 10 most **vulnerable countries** in the world according to the Global Climate Risk Index 2017. Their effects are felt, on one hand, on the most vulnerable⁷ sectors and on vulnerable populations and social groups. The tropical hurricanes striking the Central America region and the Caribbean have become more frequent and have increased in intensity.

1.2.4. Projections related to climate change for LAC

By the middle of the century, the projections reveal that climate change can lead to a reduction of forest area especially in the east of the **Amazon** under the increase of the temperature and the aridity of the soil, a substitution of semi-arid vegetation with arid vegetation, **loss of biodiversity** in Latin America, reduced agricultural production and livestock farming that can exacerbate people at risk of famine, reduced water for human consumption, agriculture and energy production due to melting glaciers and also generate detrimental effects on settlements, socio-economic activities and ecosystems by sea level rise (GIEC , 2001; 2007 et 2012).

The projections of climate change impacts also affect small islands through **intensification of floods** related to the rising of sea level, storm surges, erosion and other dangerous coastal phenomena, coral bleaching, reduction of water resources in most small islands especially during periods of low rainfall which will result in unsatisfied water demands, the invasion of exotic species at medium and high latitudes, etc.

Regarding natural disasters, projections indicate that **floods and droughts** would be more frequent, an increase in solid loads during floods altering the quality of water in some areas; ranges of some infectious diseases will gain altitude and move to the pole, increasing vulnerability and exposure of the population to diseases such as malaria, dengue fever or cholera. Plants will not be spared, and peasants and farmers will face new pests that will greatly affect crop yields. A possible increase in damages affecting people, property and ecosystems due to heavy rainfall, floods, storm surges, high

5. Kaenzig Raoul et Pigué Étienne, 2011.

6. UNFCCC (2005) climate change, Small Island developing States. Available on https://unfccc.int/resource/docs/publications/cc_sids.pdf

7. Par exemple, les effets de l'ouragan Matthew en 2016 en Haïti sont encore visibles dans les communautés vulnérables des régions côtières touchées par le passage de l'ouragan. Le rapport PDNA du PNUD a fait un bilan exhaustif des secteurs vulnérables et fortement affectés par l'ouragan de 2016

winds and recurrent cyclones could also occur. It is likely that an increase in heavy rains will **accompany tropical hurricanes**.

1.3. Issues and challenges regarding climate change

1.3.1. Forest resources and change in soil land-use

Forests are among the most productive ecosystems in the world. LAC region holds a global importance for its climate regulation services (23% of forests, 50% of biodiversity, 21% of terrestrial ecoregions...) ⁸. However, the region faces a set of threats including deforestation. The land-use change in the region is due to various causes, including conversion of forest land to agricultural land, intensification of slaughter, increasing demand for firewood, expansion of major projects infrastructure and weak institutions. The FAO Global Forest Resources Assessment Report (2015) shows that between 1990 and 2015 the extent of forest cover is reduced by -2.3% in Honduras, by -1.5% in Nicaragua, -1.4% in El Salvador, -1.2% in Guatemala and -0.7% in Haiti.

In addition to these human-induced challenges, the region is also affected by the impact of global warming, the El Niño phenomenon, La Nina, recurring fires and decreasing rainfall (IPCC, 2007).

1.3.2. Water resources

The water resources of the LAC region are 72.1% used by agriculture, 16.9% by domestic activities and 11.0% by industry. Water potential is threatened by climate change. Prolonged drought can lead to increased water and soil salinity, drying up of drinking **water sources**, depletion of lakes and river flow, decreased hydro potential and exacerbation of glacier melt from Latin America. These are essential mainly for sports activities, mountain tourism, agriculture, navigation and hydroelectricity.

1.3.3. Coastal and low land areas

Coastal regions constitute a vast territory at the global level and represent more than 2 million km of shores distributed around the different continents and the numerous islands ⁹. The LAC region is one of the **most sought-after coastal and island regions in the world**. The coastal areas of the region contain highly productive habitats containing **high biodiversity**, extensive infrastructure economic activities and host a high concentration of the population.

1.3.4. Communities livelihoods

As mentioned above, the region holds significant potential. Most of these are under exploited. The region's economies depend on oil (41%), natural gas (29%), charcoal and coke (4%) and renewable energy (1%). Under exploited, "LAC have about 25% of the world's hydroelectric potential, significant wind potential and abundant geothermal resources". **Agriculture** is the main source of livelihood for most countries in the region. Climate change threatens the contribution of this sector to the regional economy representing 5% of regional GDP, 23% of regional ¹⁰ exports and 16% of jobs

⁸ CEPAL, 2018

⁹ Christophe Lefebvre, « La gestion intégrée côtière et marine : nouvelles perspectives », VERTIGO - LA REVUE ELECTRONIQUE EN SCIENCES DE L'ENVIRONNEMENT [En ligne], Hors-série 9 | Juillet 2011, mis en ligne le 13 juillet 2011, consulté le 15 novembre 2015. URL : <http://vertigo.revues.org/10985> ; DOI : 10.4000/vertigo.10985

¹⁰ Les principales espèces cultivées dans la région sont le maïs, le riz, racines et tubercules, les oléagineux, les fibres, les légumes et les fruits. Durant ces 30 dernières années, plus d'un quart de la production du maïs du monde en développement provient de la région AL&C. Il en est de même pour la production de fruits et des cultures maraichères qui a fortement augmenté pendant la même période.

in the region's economically active population¹¹. By 2080, it is likely that **agricultural productivity** resulting from climate change will range from -11.8% to -23.8% per hectare with or without the effect of fertilizers¹².

1.3.5. Climate change, vulnerability and migration

The GIEC (2001) considers that in the LAC human systems do not have a great capacity of adaptation to the extreme climatic events such as droughts, floods and extreme hurricanes. Communities are poorly prepared to deal with the consequences of climate change. Poverty, **environmental degradation**, limited access to basic services and infrastructure, particularly in rural areas and in indigenous communities, are closely linked to the exacerbation of the **vulnerability of families** to climate change.

Indeed, the new World Bank study in 2018 on "internal migration caused by forced displacement due to droughts, poor harvests, rising sea levels and worsening storm surges" reveals that the regions of sub-Saharan Africa, South Asia and Latin America can face globally more than 140 million internal climate migrants by 2050. And 17 million will affect LAC. Furthermore, this study shows that at the international level, if efforts are intensified to reduce CO₂ emissions and at the local level strong development plans are implemented, the number of climate migrants could be reduced by 80% or by about 100 million people. The catalysing factors (hurricanes, drought, bad harvests, etc.) are likely to trigger **waves of climatic migration**. For example, research in Nicaragua and Honduras after Hurricane Mitch revealed an increase in migration among **economically vulnerable populations**¹³. The interviews¹⁴ carried out reveal that:

- The submersion or even the disappearance of human settlements, the contamination of water sources, the degradation of infrastructures and basic services, the infrastructures of drinking water, the destruction of crops aggravating food insecurity, malnutrition and migration towards cities, the destruction of roads blocking land transport are among the effects of extreme weather conditions in the region. These will only **increase the vulnerability of precarious communities**.
- Vulnerable populations in remote rural areas and indigenous and Afro communities are the main victims during extreme weather events. On the educational level, children suffer. Roads cut in remote areas prevent children from going to school. Health care is often unavailable during floods. Population health is also threatened by the supply of contaminated water.
- In the **Amazon**, including areas where CA works, poor weather conditions lead to the massive seasonal migration of agricultural workers.

1.3.6. Climate change, gender & intersecting inequalities

In LAC, the poorest and most marginalised communities are those most exposed and affected by conflict and the growing impact of **climate hazards**. Climate change effects increase **inequality gaps** in communities in the region. In addition, the UN (2016) also emphasises that **structural inequalities** also increase the vulnerability of the poor to the effects of climate hazards. This is the case for human settlements

Quant à l'élevage, près de 26% des bovins des régions en développement se concentrent dans la région AL&C (FAO, 2001).

11. FAO, 2016. Climate change threatens the basis of food security in Latin America and the Caribbean: agriculture. [Online] <http://www.fao.org/americas/noticias/ver/en/c/428177/>

12. CEPAL, 2018

13. Kaenzig Raoul and Pigué Étienne. Migration et changement climatique en Amérique Latine : Quels enjeux. 2011.

14. Sondage and interviews with Mara Luz (LAC Head of Division), Emma Donlan (Bolivia), Carlos Perez (Central America) and Amilcar Kraudie (Regional).

located in high-risk areas, particularly on precarious hill slopes, in landslide sensitive areas, in floodplains including major riverbeds¹⁵.

The LAC region is the **most unequal region** in the world. The analysis of the data consulted indicates that one person out of three is poor and one on eight cannot meet their nutritional needs. Inequality is also present in the sub-region. This is the case, for example, in Haiti and Honduras, where 70% of the population lives in poverty. Effects of natural disasters exacerbated by climate change affect more **women and children** than men. The risk of death in case of natural disasters is 14 times higher for women and children. As for floods, the number of deaths among women is four times higher in countries where gender inequalities are more pronounced¹⁶.

Inequalities also affect indigenous women, children and the elderly living in isolated forest communities in the Amazon. In Brazil, indigenous and Afro (Quilombos) communities, landless and poor communities are the most affected in terms of **inequalities and impacts of climate hazards**. Environment and land defenders have been subjected to **violence** and many murders have been recorded in the region. According to the Global Witness (2016)¹⁷, during the year 2016, more than 200 land defenders were victims and 60% of cases are associated with Latin America, particularly in Brazil. Indigenous people account for more than 40% of the most vulnerable victims and groups. As for murder by sector, mining constitutes the most dangerous sector for the defenders of the ground. Reducing structural inequalities is therefore an important step to mitigate the exacerbation of these by climate change.

1.4. Strategic actions for Christian Aid in LAC

Based on the above, the exchanges carried out and the data and information collected, two strategic axes have been retained:

1.4.1. Strengthening climate resilience

This axis aims, among others, to strengthen **advocacy actions** in the region; research and promote resilient solutions, capacity building and climate information systems (table below). To strengthen the **adaptation and resilience** of communities, we need, as for some country programs, strategic priorities that will be complemented by concrete solutions that focus on agriculture¹⁸ and food security, coastal zones, watersheds, water resources and investments, of course, by ensuring that the **resilience** of targeted sectors and communities and populations is enhanced or revitalised.

Most of the actions identified in table 1 are part of some programmes of CA and/or the partners. Actions implemented by CA partners and identified during the data collection process were used as benchmark actions to be scaled up in one or more countries in the region simultaneously¹⁹.

¹⁵Nations Unies. Les inégalités accentuent les conséquences des aléas climatiques subis par les pauvres. 2016. Disponibles en ligne sur le lien <https://www.un.org/development/desa/fr/news/policy/wess-2016.html>

¹⁶ Femmes et changement climatique. Disponible en ligne sur :

<https://www.wikigender.org/fr/wiki/femmes-et-changement-climatique/>

¹⁷ Global Witness. 2016 Defenders of the earth. Disponible sur internet:

<https://www.globalwitness.org/en/campaigns/environmental-activists/defenders-earth/>

¹⁸ Au sens large: agriculture proprement dite, forêts et pêche.

¹⁹ Selon l'analyse les enquêtes conduites auprès des acteurs régionaux et locaux clés. 2018

Proposed strategic actions for the implementation of the climate resilience strengthening axis

- Reduce the exposure, sensitivity and vulnerability to climate change effects of sectors and / or groups targeted by CA and partners;
- Develop participatory mapping in vulnerable communities to identify climate hazards threatening community resilience and prioritise community-level actions;
- Improve knowledge, preparedness and response capacity of vulnerable communities and groups to climate variability and change²⁰;
- Develop participatory tools for assessing the vulnerabilities and capacities of vulnerable communities to climate hazards (drought, intense rain causing floods) and hydro meteorological events (cyclones);
- Following recurring disasters, scaling up participatory approaches to assessing post-disaster responses in affected communities at the regional level so that lessons learned for future improvement can be formulated directly by the affected communities;
- Establishment of infrastructures resilient to adverse climatic events;
- Scaling up innovative adaptation and mitigation actions and solutions such as climate smart agriculture, drought resistant agricultural crops, retention pond, dam, solar pumping irrigation;
- Strengthen and expand CA's ADAPTA (Anticipation and Adaptation to Climate Change) programme in Central America (Guatemala, Nicaragua, El Salvador and Honduras);
- Promote the sustainable management of ecosystems and natural resources as well as watersheds;
- Enable the region's agro-forestry systems (diversification and integration of climate change resistant crops) to become and be built into resilience centres that contribute to improved livelihoods through partner support;
- Establish production systems that include crops and seeds that are better adapted to the climate;
- Diversify livelihoods and sources of income for small farmers and indigenous communities;
- Promote alternative energy for vulnerable women (cooking);
- Develop women's entrepreneurship;
- Support ecological tourism that generates sustainable revenues by protecting and enhancing the environment;
- Strengthen communities and populations as well as organisations of the society by giving them access to financial means (budget allocation with accountability requirements) to meet their expressed needs for adaptation and management of the consequences of climate change;
- Strengthen the funding and capacity of local actors (vulnerable groups, local organisations, financial institutions) for adaptation to climate change.
- Increase investments in renewable technologies and sustainable development models, particularly in all country programs;
- Continue to strengthen communities and organisations at different levels of the country, particularly with a focus on the effective participation of women and vulnerable groups.

1.4.2. Reaching the objectives of Paris COP 21

The contribution aims to make the Paris Agreement (COP 21) a reality by allowing that the objectives set are achieved by putting in place **sustainable strategies** and actions at **regional and local level**. It is a multi-stakeholder process at both local and regional level. This axis proposes a set of strategic actions to be developed or scaled up at local and regional level (table below) in line with the national objectives set in the Intended National Determined Contribution (INDP) and with a view to achieve the objectives of

²⁰ A l'instar de ce qui se fait dans le cadre du Projet Transfrontalier Haïti - RD

the Paris Conference (CdP). (1,5° C). The following table presents a list of proposed actions in line with the Paris Conference (CdP) objectives:

Proposed strategic actions to reach the Paris COP 21 objectives	
<ul style="list-style-type: none"> • Develop and/or scale up integrated irrigation and drinking water projects, (IWRM approach) particularly in rural areas (<u>Amazon</u> region, rural region in <u>Haiti</u>). Certain models based on the renewable technologies are already experimented in <u>Bolivia</u> or in other partner countries of CA (solar pump to access water, solar lighting, solar dryers, solar ovens in rural and indigenous communities); • Develop and/or scale up solar energy projects in rural area (<u>Amazon</u> region, vulnerable groups, rural area in <u>Haiti</u>); • Build photovoltaic power station to increase the electricity production; • Scale up basic irrigation systems in the region, which are supplied by solar pumps, mainly in the arid regions; • Scale up small family irrigation system based on solar pump in dry areas; • Scale up the solar cook- stove project as part of the fight against deforestation; • Advocate based on existing initiatives in <u>Central America</u> for a greater use of renewable energy (biomass, biogas, wind power, hydroelectric, ...) while inducing financial partners to invest more into these energy sources than fossil energy and locally developing innovative systems adapted to the targeted community's needs; • Promote the payment of eco-systemic services. 	

1.4.3. Identification of common strategic points to the region and major national specificities²¹

Given the fact that many issues and challenges are common or shared, some interventions or actions could be implemented at the same time in several countries of the LAC region by making the necessary adjustments / adaptations at the local level.

N°	Joint actions proposed	Sector	Example in the region	Possible scale up
1	Facilitation of information sharing, the awareness-raising measures, organisation raising-awareness workshop and trainings in bordering countries dealing with the same issues and challenges.	Advocacy and Capacity building	Haiti/DR	Bolivia/ Brazil Binational Amazon Central America
2	Scale up at regional level the post-disaster response participatory evaluation approaches in communities affected and vulnerable groups.	Disaster Risks Reduction Management (DRRM)	Bolivia	Regional level
3	Knowledge improvement, strengthening the communities and targeted groups preparedness and capacity response to high climate variability and climate change and, developing vulnerabilities participatory evaluation tools and vulnerable communities' capacity to address climate risks (drought, intense rain causing floods) and extreme events (cyclones, floods).	DRRM	Bolivia Central America	Regional level
4	Promotion of renewable Technologies (Photovoltaic station to increase the annual	Renewable energy	Bolivia Haiti	Bolivia Haiti

²¹. Travaux existants sur le BigShift comme les rapports de cadrage sommaires pour le Nicaragua, El Salvador et la Bolivie et celui en suspens pour Haiti-RD.

	electricity production).			
5	Use of solar pumps for pumping drinking water and irrigation; dissemination of solar lighting, promotion of solar stoves for family or collective use. Facilitating access to solar cook-stoves and ovens for vulnerable women.		Bolivia Brazil	Haiti/DR
6	Contribution to the development and dissemination of smart agriculture to climate; set up exchanges and capitalisation platforms on climate-resilient agriculture (sharing of lessons and experience, systematization of techniques and technologies); ecosystem-based adaptation measures; integrated water resources management.	Exchanging expertise and feedbacks	Bolivia Brazil Central America	Haiti/DR (dry and semi dry areas)
7	Sharing lessons from positive experiences in different programs in the region. Research and promotion of resilient solutions.			Regional level
8	Development of environmental and protection policies	Advocacy, Education Awareness	Bolivia Brazil	Haiti/DR
9	Setup of climate information systems and forecasts		Guatemala	Haiti/DR (dry area)
10	Crops and seeds production adapted to climate.	Adaptation agriculture	Nicaragua	Haiti/RD
11	Sustainable management of ecosystems and natural resources; integrated watershed management. Diversification of livelihoods and sources of income for small farmers and their families. Livelihoods through support of agroforestry systems / diversity and more climate-resilient crops.	Natural resources management	Bolivia & Brazil Binational Amazon Strategy	Haiti/RD
	Support for ecological tourism that generates sustainable income by protecting and enhancing the environment.	Ecotourism	Bolivia	Regional level
12	Strengthening funding ²² and adaptation capacity.	Adaptation funds	Regional	Regional level
13	Development of women's entrepreneurship.	Entrepreneurship	Brazil Haiti/DR	Regional level
14	Capacity building of partner organisations.	Capacity		

²². Taking into account the reality of the region, existing financial institutions, among others.

15	Reducing the exposure of sectors to the effects of climate change (see Actions 1-10).	building	Regional	Regional
16	Promotion of commercial private forest to address local demands in timber, wood energy, and forest products.	Forestry/ agroforest-try	Nicaragua	Haiti
17	Promotion of micro hydropower station in rural areas	Renewable energy	Guatemala	Haiti/DR

1.5. Mechanism for the implementation of the strategic actions

It is important for the positioning note to be technically and financially supported by multiple categories of partners. Below a non-exhaustive list is proposed:

1.5.1. Financial

The financial resources are mostly from the international cooperation (bilateral or multilateral) and resources at the national level can be also mobilised through the local financial institutions and the private economic operators (banks, companies). The multilateral financial partners will be requested, depending on the contexts.

1.5.2. Technical, scientific and operational

For the experimentation and scaling innovative actions, CA has currently excellent partners in LAC. However, CA needs not only its traditional region partners, but also new ones for actions to scale-up and to experiment. Among the new partners to consider, it will be necessary to integrate research institutes, specialised regional platforms²³, universities which can help in the experiment and in the development of techniques, tools and innovative models.

1.5.3. Strategic

This type of partnership is / will be important in thematic domains such as climate change, agriculture, water, renewable energy, etc. It must facilitate the development of the partnership and synergies with other partners, entities and institutions having the same visions around specific actions. The partnerships can be of political, technical, financial, and scientific.

1.5.4. Constraints and opportunities to influence at regional and national level

The region has both strengths/potentials and constraints /weaknesses. The actions identified in the process of collecting and exchanging with CA's managers, experts²⁴ and partner organisations show that there is a need to work both on **strengthening the population resilience** and on **mitigation actions** that also meet the Paris objectives (reduction 1,5^oc).

²³ GNRD (Global Network for Rights and Development)

²⁴ At global, regional and local level

SUMMARY OF THE STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS OF THE LAC REGION

Existing Strengths/potentials in the region	Weaknesses to improve at regional and local level
<ul style="list-style-type: none"> - Very coherent team on climate impact thematic with an agenda containing powerful and ambitious elements. - Well-trained LAC team working with partners having relatively high technical capabilities. - Impressive natural potentials of the region, surprising natural resources available. - Significant diversified and available sources of clean energy in the LAC region (solar, wind, thermal, hydro, natural gas). Real potential for clean development. 	<ul style="list-style-type: none"> - Renewed capacity building at region and country programme level, with a coherent approach between countries, region and the rest of the world. - Large urban centres in the LAC region far from meeting minimum sanitary and sanitation standards. - Advanced degradation status of some BVs and ecosystems. - Less and less resources and institutional capacity respectively dedicated and devoted by policy makers to mitigate and reduce climate risks. - Lack of promotion and/or improvement of exchanges between the specialists and the structures. - Lack of sharing and valorisation of high-cost interventions, particularly in the areas of energy and resilience building that should be replicated in other countries.
Opportunities	Threats that may prevent the achievement of climate change goals
<ul style="list-style-type: none"> - Possibility of mobilising resources from Big shift to access funding intent to the implementation of projects well adapted to the reality of the region - Capacity building of interested stakeholders at regional and local level - Possibility of access to the climate fund available for the region - Increased interest in allocating funds for the region under the Paris Agreement. 	<ul style="list-style-type: none"> - Socio-political Instability (Brazil, Haiti, Nicaragua, Honduras, Guatemala, El Salvador). - Frequency and magnitude of natural threats (cyclones, prolonged drought, earthquake). - An existing gap between the components of the international agenda for climate change and what is happening on the ground.

1.6. Conclusion and recommendations

The **main strengths** of the LAC region are based on its natural resources, the richness of its ecosystem, the high concentration of its biodiversity, the opportunities linked to the sources of raw material that can be used in the industry and energy sectors. The coastal areas are in high demand in tourism industry and related infrastructures. A great number of the population lives in the coastal and insular region of the LAC.

The **impacts of climate change** in the LAC region would be more worrisome on the access to water for consumption and hydropower generation would represent a major challenge. Given the global warming, the challenges in water supply are likely to increase in the coming years. Significant variations in rainfall are already observed in the region. Variations are exacerbated by El Nino and Nina phenomena. Climate change causes considerable **economic losses** in agriculture, coastal areas, green infrastructure and degradation of the ecosystem. On the social level, extreme weather events affect infrastructure and basic services depriving and penalising the population, which further increases the precariousness of the most vulnerable groups, including

women. Actions and interventions are essential to strengthen **communities' resilience** according to strategic priorities, expectations objectives of the partners in regards of adaptation and mitigation.

1.6.1. General orientations

It is very important to maintain links between the **three pillars**:

1. climate monitoring and modelling
2. resilient livelihoods approach
3. policy of dialogue at different levels (local, regional, national and international).

The actions must be **structural and infrastructural** to provide communities and based organisations with tools to intervene sustainably in mitigating the effects of climate change. Tools must be developed to systematise, capitalise and finally learn from positive experiences in the different programmes in the region.

It is important to build on the needs expressed by communities and to develop **community action plans** that can be used to monitor progress and encourage the implementation of concerted and coherent actions and resource mobilization (not necessarily those from CA). These plans will facilitate local authorities to mobilise more support and resources, including, public to build and amplify the selected projects. It is important to work with a **gender perspective**. Interventions promoting dependence reduction, resilience strengthening, and women empowerment must be prioritised. It is essential to include the most vulnerable people and to strengthen them and their organisations in participatory and inclusive processes.

It is important to identify solutions addressing **local problems** and contributing into solving global problems. It is essential to invest more in **new renewable technologies** and invest in sustainable development models in the Amazon.

It is imperative to innovate and experiment with new ways of working - new technologies, new tools, and new partnerships. At the same time, is important to extend existing knowledge and inform/educate the region's populations on climate change and its related issues and impacts.

Starting from **community based organisations** and constructing/getting involved in wider platforms and networks both at national and regional even global, will be important for LAC to develop a **common shared vision**. This will be made possible to carry out more joint relevant advocacy initiatives; strengthen partnerships particularly, strategic ones; motivate all different actors involved and particularly the governments to greater transparency; to encourage the institutions and companies holding eligible funds to invest more in tackling climate change.

It will be important and urgent:

- To work with community²⁵ and territorial organisations, to strengthen them so that they become responsible and engaged stakeholders in the development process while integrating them into local **territorial management plans**. I
- To seek in the LAC region a shared vision on the theme that can emphasise the undertaken actions. It is desirable to promote, whenever possible, the establishment of **cross-border programmes** with a view to **strengthen solidarity** between populations and launching joint advocacy actions.
- To identify the **advocacy goals** that make a difference in the lives of communities and populations by setting, with partners, platforms for dialogue, debate and reflections for interventions and joint actions.
- To promote and strengthen **dialogue and exchanges** between country teams around major issues related to climate change, especially between programmes that face the same type of challenges.

²⁵ Emphasising the effective participation of women and other vulnerable groups.

- To promote **concerted actions** with other organisations that invest climate change and share the same lines of intervention. It is also desirable to maintain relationships with authorities, programme managers and project managers working on climate change. These are important for **maintaining exchanges and dialogue** and for bringing more transparency in the public actions and in the international programme engaged in the process of tackling climate change. It is important to **disseminate lessons learned** to influence and inform local politics and the process of allocating public resources.

ANNEXE Glossary of terms from GIEC 2012

Climate change A change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcing, or to persistent anthropogenic changes in the composition of the atmosphere or in land use.

Climate extreme (extreme weather or climate event) The occurrence of a value of a weather or climate variable above (or below) a threshold value near the upper (or lower) ends of the range of observed values of the variable. For simplicity, both extreme weather events and extreme climate events are referred to collectively as 'climate extremes.

Exposure The presence of people; livelihoods; environmental services and resources; infrastructure; or economic, social, or cultural assets in places that could be adversely affected.

Vulnerability The propensity or predisposition to be adversely affected

Adaptation In human systems, the process of adjustment to actual or expected climate and its effects, in order to moderate harm or exploit beneficial opportunities. In natural systems, the process of adjustment to actual climate and its effects; human intervention may facilitate adjustment to expected climate.

Resilience: The ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions.