TOWARDS THE NEW URBAN AGENDA IN LATIN AMERICA

Contributions of GIZ to Environmentally Sustainable and Resilient Urban Development

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DEUTSCHE ZUSAMMENARBEIT

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Table of Contents

Preface

The present systematization of experiences and lessons learnt of German (technical) cooperation is a result of a joint effort of 2 GIZ sector networks in Latin America and the Caribbean: RED-LAC (Governance and Democracy) and GADeR-ALC (Environmental Management and Rural Development). The main task of sector networks on behalf of the Federal Ministry for Economic Development and Cooperation (BMZ) is knowledge management within GIZ and to provide a platform for joint learning and exchange of experiences.

The two sector networks jointly analyzed their projects in order to get a more multisectorial and comprehensive approach from a regional perspective. This approach reflects demands from partner countries and partner cities and is aligned with the orientation and structure of the New Urban Agenda and the Agenda 2030. Both agendas establish a holistic understanding of urban development and planning, that combines technical with governance elements. Such an understanding is essential to mitigate risks of urbanization and at the same time create an inclusive and sustainable approach for future activities.
The key message and lesson learnt from the analysis is that cooperation and coordination between different priority areas holds multiple opportunities: for creating innovation, for developing integrated and consolidated approaches as well as for efficient knowledge management on good practice. Hence, cooperation and coordination are indispensable to meet and address the challenges that the above mentioned agendas establish and more importantly, the challenges that our partners face in their everyday work.

In order to facilitate joint learning, knowledge management and innovation, the regional sector networks in Latin America and the Caribbean RED-LAC (Governance and Democracy) and GADeR-ALC (Environmental Management and Rural Development) provide an ideal forum and will continue their cooperation.

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1. Introduction

Sustainable urbanization and climate change

Cities and climate change are intensely intertwined and mutually dependent. On the one hand, cities are responsible for about 70% of global greenhouse gas emissions and are therefore major contributors to climate change. On the other hand, cities are highly vulnerable to the consequences of climate change and therefore suffer from extreme phenomena such as heat, storms, precipitation, landslides, air pollution, droughts, floods, water scarcity or increasing sea levels. At the same time, cities are catalysts with a strong potential for change and innovation. They hold significant potential to play a key role for climate change mitigation (efforts to reduce emissions of greenhouse gases) and adaptation (coping with the effects of climate change). Hence, it is crucial to consider the topic of climate change as a top priority for sustainable urban development strategies in order to avoid carbon-intensive path dependencies and to create resilient urban environments. Climate change mitigation and adaptation are closely interrelated to multiple urban challenges such as environmental protection, water management, economic development, infrastructure, transportation and mobility, basic services delivery, public health, social development, poverty reduction or energy provision. Hence, a holistic and governance oriented understanding of urban systems is required as a basis for integrated and inclusive urban planning and development strategies embedding climate change mitigation and adaptation as well as focusing on co-benefits for relevant urban sectors. Moreover, the consideration of different governance levels and the involvement of various stakeholders play a significant role for successful implementation of integrated urban development strategies.

Global policies for sustainable urban developmen

While in the last decades global initiatives and networks formed by cities and municipalities have emerged to respond to climate change (such as Cities for Climate Protection or ICLEI - Local Governments for Sustainability), the complex interrelations between cities and climate change are increasingly acknowledged by global development policy. In this context, three processes are of key importance:

1. The 2030 Agenda for Sustainable Development which was signed by 193 United Nations (UN) member states in October 2015 defines 17 Sustainable Development Goals (SDG) demonstrating a systemic understanding and putting significant emphasis on sustainable urbanization and climate change. Particularly, SDG No. 11 (Sustainable cities and communities) focuses on the role of cities in the context of climate change and adaptation and defines a specific target for adopting and implementing integrated policies and plans towards mitigation and adaptation to climate change and holistic disaster risk management. However, the key role of cities for sustainable development goes well beyond SDG No. 11 as it is estimated that cities and urban stakeholders are relevant for achieving 65% of all SGD targets (Misselwitz et al 2015). With regard to climate change, SDG No. 13 (Climate action) focuses on policy, strategic planning, capacities and finance for cli-mate change mitigation and adaptation. Also, other SDGs (No. 1: No poverty / No. 2: Zero hunger) refer to the effects of climate change and the need for respective action (UN 2015a).

2. The Paris Agreement on climate change which was signed by 195 countries in the context of the United Nations Framework Convention on Climate Change (21st Conference of the Parties – COP 21) in December 2015 defines its objective as "holding the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change" (UN 2015a: 3). Although the Paris Agreement primarily establishes a commitment at the national level, it also acknowledges the role of cities in reducing greenhouse gas emissions while providing several explicit and implicit references. For example, it mentions the importance of cities in the formulation and implementation of national climate change policies and strategic plans as well as the cooperation between national and sub-national governments for the implementation or the distribution of financial resources (UN 2015b).

3. The Habitat III process addresses the complex challenges of sustainable urbanization in a joint effort on a global scale. Its expected result is the declaration of the New Urban Agenda (NUA) in Quito, Ecuador in October 2016. The NUA provides a unique chance to tackle the complexity of issues involved in sustainable urban development and to establish an international framework to guide its implementation. Even though it has not been yet approved, the NUA draft (draft document for adoption in Quito as of Sept 10, 2016) presents a holistic vision of sustainable urbanization with central principles along the dimensions of social, economic and environmental sustainability. On this ground, the implementation plan defines three transformative commitments and complementary areas for effective implementation. Within the NUA draft, the topic of climate change in the context of sustainable urban development is playing a significant role being positioned in the overall shared vision as well as included in various components of the NUA implementation plan – specifically in the chapter referring to environmentally sustainable and resilient urban development. (UN Habitat 2016)

Urbanization in Latin America and the Caribbean

When discussing strategies for sustainable urban development, it is crucial to consider regional differences. Latin America and the Caribbean (LAC) are unique with regards to their urbanization patterns in comparison the rest of the world. The region has experienced high urbanization rates throughout the 1960s and 70s, which have led to the highest regional shares of urban population worldwide (around 80%). While the growth of large cities and metropolitan regions has been significantly intense in the past, it is the intermediate sized cities, which are currently growing the most and accommodate about half of the urban population in LAC.

Altogether, the urbanization process in LAC has resulted in complex consequences. On the one hand, urbanization has provided positive opportunities such as economic growth, increased access to infrastructure and basic services, and poverty reduction. On the other hand, it has resulted in complex challenges such as environmental degradation, informal economy, insufficient housing, social disparities and violence. A key challenge for Latin-American cities is their vulnerability to climate change effects, which is relatively high due to the concentration of e.g. people, infrastructure facilities and built structure. Consequently, cities in LAC are prone to extreme situations such as heat waves, increasing sea levels, floods, water scarcity and multiple other threats related to climate change. Most probably, the intensity and frequency of these events will continue to increase in the future leading to even more severe challenges. This situation calls for urgent action in order to adapt to the consequences of climate change and

demands cities to play a proactive role. Similarly, as Latin-American cities are massive energy consumers and emitters of greenhouse gases, they need to play a leading role in climate change mitigation.

However, sustainable urban development is not at all a new topic in Latin America. There is a great variety of innovative approaches and solutions, which go back to the commitment of numerous public, private and civic stakeholders. Therefore, a rich and diverse basis of experiences and solutions are already in place to provide future initiatives considering there is still a need to fulfill the international commitments of the Paris Agreement, the Sustainable Development Goals and the expected New Urban Agenda.

Contributions of german technical cooperation

The German Government - through its technical cooperation programs implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH - has a long history of supporting sustainable development in Latin America and the Caribbean including urban development. During the last years, a strategic focus has been set on environmental protection and climate change. Complementary to this, the good governance approach is playing an important role in the overall strategy. This is supported by different policies and strategic positions such as the Guidance of the German Federal Government for International Cooperation for Sustainable Urbanization – Partner in a World of Cities, the Policy on Climate Justice and Development of the Federal Ministry of Economic Cooperation and Development (BMZ) as well as the Position of the German Government to Habitat III and the New Urban Agenda.

Objectives of this study

Within the portfolio of GIZ, a significant share of projects is related to the field of sustainable urban development and climate change. Approaching the New Urban Agenda and subsequent implementation efforts, these projects will be of increased importance. Therefore, the regional sector networks of GIZ (RED-LAC - Governance and Democracy in Latin America and the Caribbean and GADeR-ALC - Environmental Management and Rural Development in Latin America and the Caribbean) have initiated this study with the objective to identify, analyze and present contributions to environmentally sustainable urban development and climate change adaptation/mitigation in Latin America and the Caribbean. Through qualitative assessment of selected projects, exemplary results in the terms of innovative approaches, key methods and instruments in this field are presented providing an insight into the various contributions of GIZ towards the expected New Urban Agenda – particularly regarding its transformative commitment for environmentally sustainable and resilient urban development.

2. Environmental sustainability and climate change in the New Urban Agenda

General content and structure of the NUA

The New Urban Agenda´s draft (NUA draft document for adoption in Quito as of Sept 10, 2016) defines a shared vision for cities and human settlements comprehensively considering multiple dimensions of sustainable urban development comprising social, economic, environmental, physical, functional and governance-related factors.

On the basis of the stated vision, the following central principles and commitments are defined:

> **(a) Leave no one behind**, by ending poverty in all its forms and dimensions, including the eradication of extreme poverty, by ensuring equal rights and opportunities, socio-economic and cultural diversity, integration in the urban space, enhancing livability, education, food security and nutrition, health and well-being; including by ending the epidemics of AIDS, tuberculosis, and malaria, promoting safety and eliminating discrimination and all forms of violence; ensuring public participation providing safe and equal access for all; and providing equal access for all to physical and social infrastructure and basic services as well as adequate and affordable housing.
>
> **(b) Sustainable and inclusive urban economies,** by leveraging the agglomeration benefits of well-planned urbanization, high productivity, competitiveness, and innovation; promoting full and productive employment and decent work for all, ensuring decent job creation and equal access for all to economic and productive resources and opportunities; preventing land speculation; and promoting secure land tenure and managing urban shrinking where appropriate.
>
> **(c) Environmental sustainability,** by promoting clean energy, sustainable use of land and resources in urban development as well as protecting ecosystems and biodiversity, including adopting healthy lifestyles in harmony with nature; promoting sustainable consumption and production patterns; building urban resilience; reducing disaster risks; and mitigating and adapting to climate change." (UN Habitat 2016: 3)

Together with a call for an urban paradigm shift addressing various dimensions of implementation, these principles are being further operationalized in the Quito implementation plan for the NUA which is structured around the following three transformative commitments:

1. Sustainable urban development for social inclusion and poverty eradication,
2. Sustainable and inclusive urban prosperity and opportunities for all,
3. Environmentally sustainable and resilient urban development.

Complementarily, three areas for effective implementationare being defined:

- A Building the urban governance structure: establishing a supportive framework,
- B Planning and managing urban spatial development,
- C Means of implementation.

Environmentally sustainable urbanization and climate change in the NUA

The NUA draft refers to the topic of climate change in different ways. On a general level, climate change is reflected in the shared vision of the NUA draft as "to adopt and implement disaster risk reduction and management, reduce vulnerability, build resilience and responsiveness to natural and man-made hazards, and foster mitigation and adaptation to climate change" (UN Habitat 2016: 3).

More specifically, various dimensions and strategic aspects in the context of climate change and environmental sustainability are considered mainly within the third transformative commitment (environmentally sustainable and resilient urban development). Hence, the NUA recognizes the vulnerability of cities to the multiple threats resulting from environmental degradation and the consequences of climate change. At the same time, it acknowledges the central role of cities to achieve climate change adaptation and mitigation in order to contrib-ute to the goals of the Paris Agreement adopted under the UNFCCC. On this ground, various commitments are made regarding the complex task of environmental sustainability and resilient urban development including sustainable management of natural resources; reduction of greenhouse gas and black carbon emissions; establishment of multi-oriented disaster risk management; creation of multi-functional open spaces and protection of environmentally sensitive areas; development of sustainable land use and ecosystem-based solutions to ensure sustainable consumption and production patterns; environmentally sound waste management and reduction; sustainable and efficient use of raw and construction materials; promotion of renewable energies and energy efficiency; strengthening resilience of cities and human settlements through the development of quality infrastructure and upgrading informal settlements; develop climate action for adaptation and mitigation and support cities to be important implementers; promote awareness raising and multi-stakeholder participation in the context of climate action; support medium- to long-term adaptation planning processes, as well as city-level climate vulnerability and impact assessments to inform adaptation plans, policies, programs, and actions.

Effective implementation

In order to establish an enabling framework for realization, the NUA defines three areas for effective implementation:

A Building the urban governance structure: establishing a supportive framework

The New Urban Agenda prioritizes effective governance structures as a central precondition for its successful implementation. This is also relevant for the implementation of environmentally sustainable urbanization including climate change mitigation and adaptation measures and the promotion of climate-friendly urban development. Along the complexity of relevant factors related to governance, the NUA prioritizes six main aspects. First, urban policies are to guide urbanization processes and should be accompanied by appropriate national, sub-national and local policy, institutional and regulatory frameworks. Second, coordination between different administrative scales/levels as well as sectoral policies is deemed crucial to ensure coherence of policy formulation and complementary responsibilities for implementation. Third, each level within the governance system shall be equipped with the respective capacities and means to perform its specific function within appropriate fiscal, political, and administrative decentralization. Fourth, local authorities shall be empowered as decision makers and supported in determining their own administrative and management structures in order to adapt to local needs while being enabled to effectively implement policy. Fifth, part-nerships in a multi-level governance structure between different stakeholders from government, civil society/communities and the private sector will be supported to join forces for achieving sustainable urban development and creating awareness and ownership among different actor groups. Sixth, inclusionary and participatory

approaches and means of cooperation between different stakeholders are to be supported at all stages of the urban policy and planning processes, from conceptualization to design, budgeting, implementation, monitoring and evaluation.

B Planning and managing urban spatial development

The NUA supports integrated planning approaches and balanced territorial development policies that take into consideration synergies and interaction between cities, within metropolitan and inter-municipal scales and between peri-urban and rural surroundings. Urban planning should be based on principles of equity, efficiency, sustainability, compactness, polycentrism, density, connectivity, multiple use of space as well as mixed social and economic uses. Planning should integrate different sectoral issues such as housing, upgrading/integrating informal settlements, green/public spaces, transport/mobility, land management, water/waste-water management, solid waste management, urban drainage/storm water management, energy, food and nutrition as well as culture and heritage. Urban planning approaches should furthermore integrate aspects such as disaster risk reduction, climate change adaptation and mitigation and measures for urban safety as well as crime and violence prevention. Moreover, urban planning processes shall be participatory, inclusive and gender-responsive.

C Means of Implementation

With regards to finance, the NUA calls for integrated national and international financing frameworks embedded into legal and policy frameworks, sound and transparent systems of financial transfers from national to sub-national levels of government, vertical and horizontal models of distribution of financial resources as well as collaboration with international/regional financing institutions, the private sector and insurance companies. Furthermore, it is committed to enhance the basis for revenue generation at the local level, as well as the creation of adequate capacities for financial management at all levels of governance, in addition to the development of sustainable frameworks for municipal borrowing as well as transparent and accountable local expenditure control. A special focus is set to create new opportunities and allow climate actions finance through accessing different available funds and to develop feasible financing solutions.

Regarding capacity development, the NUA places great importance on strengthening capacities of national, sub-national, and local governments. It promotes capacity development as a multi-oriented, multi-level and cross-sectoral approach addressing individual, societal and institutional capacities. Moreover, it seeks to strengthen different means of cooperation. The NUA identifies various thematic demands in both sectoral/technical as well as managerial topics and recognizes the need to apply innovative methodologies of capacity development especially taking into account vulnerable groups. A further focus is set on the establishment of multi-stakeholder partnerships and voluntary collaborative initiatives for the implementation of the NUA.

Furthermore, the NUA promotes science, research, and innovation as key drivers for sustainable urbanization. Central importance is given to collection, analysis and dissemination of high-quality data to improve urban planning, monitoring and evaluation. The capacities for data collection and statistical services shall be enhanced at all levels and the public dissemination of information shall be improved through the use of open communication technologies and e-governance. (UN Habitat 2016)

3. Contributions of GIZ to environmentally sustainable and resilient urban development in Latin America

German technical cooperation has a long tradition in Latin America and the Caribbean providing support to partner countries aiming at the promotion of sustainable development. Funding is being provided by the German Government mainly through the Federal Ministry of Economic Cooperation and Development (BMZ) and the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB). On their behalf, technical cooperation projects are being implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). By far, the highest volume of BMZ is being invested in the priority areas of environmental policy, protection and sustainable use of natural resources followed by energy and democracy, civil society, public administration.

In this context, a significant number of projects are being implemented in the field of sustainable urbanization related to urban environmental management, urban climate change adaptation and mitigation as well as good urban governance. However, official urban projects within this thematic scope are not being considered as a defined focus area - neither as a priority area for German Development Cooperation nor as an internationally defined purpose code of the Development Assistance Committee (DAC). Hence, a systematic approach to identify relevant activities does not exist.

Figure 2: Selected key projects in the field of sustainable urban development and climate change

To show how German technical cooperation can contribute to the implementation of the expected New Urban Agenda and particularly to its third transformative commitment environmentally sustainable and resilient urban development, this study has been initiated by the two regional GIZ sector networks RED-LAC (Governance and Democracy) and GADeR-ALC (Environmental Management and Rural Development). A special focus is set on the implicit and explicit interrelation between the topics of urban development and climate change mitigation and adaptation as key aspects for sustainable development. By analyzing relevant results of respective measures, this study contributes to knowledge management and dissemination of good practices.

As a basis of this study, 16 related key projects which are currently operating within this thematic scope in Latin America and the Caribbean have been selected from the portfolio of GIZ. On this regard, the study does not necessarily represent a complete picture of all related initiatives – it rather provides a representative overview with further insights in selected key results in terms of innovative approaches, methods and instruments that were developed to address challenges of sustainable urban development and climate change. Their relevance to the third transformative commitment of the New Urban Agenda (Environmentally sustainable and resilient urban development) is presented structured along its three areas of effective implementation.

3.1 Building the urban governance structures: establishing a supportive framework

Several projects of GIZ corresponding to the third transformative commitment of the NUA (Environmentally sustainable and resilient urban development) are providing support related to the first area of effective implementation defined within the NUA: Building the urban governance structures: establishing a supportive framework.

Governance models

The NUA emphasises governance as a key element to establish a supportive framework in order to achieve its transformative commitments. Involving public, private and civil society stakeholders within governance structures at different levels, it is expected to contribute to more integrated, inclusive and implementable policies as well as implementation frameworks for sustainable urban development. Effective governance structures support multi-stakeholder commitment and coordination as well as coherence between different scales and sectors. In several projects supported by GIZ in the area of environmentally sustainable urban development and climate change, multi-stakeholder coordination between public and private institutions as well as multi-level consultation models between different governmental levels were initiated.

In Mexico, an interdisciplinary working group, consisting of public administration, private sector and civil society organizations was established in order to develop a holistic concept for "Ecozona Toluca" to coordinate various activities in the environmental area and to clarify responsibilities. [10]

In the Mexican housing sector, a Housing Round Table was established as a sectoral coordination platform to secure alignment of the national housing policy to the sustainable Housing NAMA approach (Nationally Appropriate Mitigation Action). Through the active participa-ion of the institutions involved, the Housing Round Table harmonized the various financing criteria and mechanisms based on the NAMA design and developed approaches for increasing international cofinance to implement measures within the Mexican housing NAMA. It also helped the diverse stakeholders of the sector to achieve a common policy vision towards a sector-wide transformation in the medium and long-term. [11]

Transformation of the Mexican housing sector - Housing Round Table

To pave the way for a sustainable urban development at a national scale, the Mexican Government aims at strengthening and consolidating the Public Housing Sector Policy. The new policy of SEDATU (Urban Development Ministry) and CONAVI (National Housing Commission) focuses not only on residential development, but also on the consolidation of cities and the urban environment, such as intra-urban housing, mobility, densification and verticality of housing, and incorporation of new measures that improve quality of life and dignity of citizens. Furthermore, SEDATU and CONAVI intend to establish the Housing NAMA as public policy with the aim to coordinate the diverse actions and provide funding across Mexico's Housing NAMA initiatives.

To achieve these goals, in 2012 CONAVI established a Housing Round Table (Mesa Transversal) as a sec-toral coordination platform to bring all relevant stakeholders together and align all technical activities towards the new housing policy. Since 2014, the NAMA Financing Facility supports the implementation of the Housing NAMA which will contribute significantly to the transformation of the Mexican residential housing sector from the baseline situation where energy efficiency considerations were largely absent towards a sustainable housing sector where ambitious energy efficiency technologies are integrated into the market. In addition to the aimed reduction of GHG emissions, the project will also contribute to generating important cobenefits such as: better living conditions of the residents, additional employment and growth in the construction sector.

Partners: Secretariat of Environment and Natural Resources (SEMARNAT); Secretariat of Agrarian, Territorial and Urban Development (SEDATU), National Housing Commission (CONAVI)

SDG´s:

· Make cities and human settlements inclusive, safe, resilient and sustainable (SDG 11): targets 11a and 11b
· Take urgent action to combat climate change and its impacts (SDG 13): target 13.2 and 13.3

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Program:
NAMA Support Project Mexico, Implementation of Housing NAMA

To promote public-private partnerships in the water sector of Colombia, a non-governmental organization was supported to act as an intermediary body between the private sector, public administration and civil society. The NGO accompanies joint initiatives and trains business developers to develop and implement public-private water stewardship initiatives which pro-mote awareness and support measures addressing scarcity and pollution of water resources. [1]

Protection of local water resources – Implementing a Water Stewardship approach

Objective: sustainable management of the ecosystem Paramo Santurbán through stakeholder coordination (including city administration) to ensure water supply for 2 Million inhabitants in Colombia.
In the Norte de Santander and Santander departments of northeastern Colombia, the unique Páramo Santurbán mountain grasslands supplies a rapidly changing population with critical water resources and ecosystem services. Nevertheless, unsustainable land use practices, discharge of untreated wastewater, and illegal mining affect the ecological health of the páramo ecosystems and jeopardize crucial water supply, purification, and regulation functions on which all downstream residents depend. To address these threats to water security, multiple actors in the region have joined together to adopt a water stewardship approach to protect local water resources. Taking immediate action makes economic sense while delaying conservation action could cause significant ecosystem degradation, water contamination and shortages, hurting economic and social prosperity and resulting in much higher restoration costs in the future. In 2015, local, national, and international actors from the public, private, and civil sectors joined together in a collective effort to explore options to address competing needs and established a multi-stakeholder cooperation platform known as the Alianza BioCuenca. Particularly, this included the City of San José de Cucuta, the sixth largest city of Colombia and departmental capital of Norte de Santander, as a major stakeholder. The partnership's objective is to protect and ensure the future sustainability of water resources by establishing a multi-stakeholder cooperation platform to improve water governance and by adopting a water fund framework in which downstream water users contribute to a trust fund that finances water security measures. First actions include the conservation and reforestation of crucial areas of the watershed. PROMAC has supported the establishment of this water stewardship through various advisory capacities and technical analysis (e.g. quantification of ecosystem-based services, hydrological studies, portfolio of potential interventions). Moreover, during the establishment and first phase of the water stewardship, the stakeholder coordination process was moderated, in order to mediate differing interests, and to build up trust as well as to ensure quick wins. Beyond this, PROMAC will continue to support the first operative phase and to further institutionalize the Alianza BioCuenca from a pool of interests to a trust fund.

Partners: Department of Norte de Santander; Regional environmental authority CORPONOR (Corporación Autónoma Regional de la Frontera Nororiental); Ministry of Environment and Sustainable Development; Municipality of San Jose de Cucuta and its Water Works EIS (Empresa de Acueducto y Alcantarillado de Cúcuta S.A. E.S.P.); Bavaria Brewery S.A.; Chamber of Commerce of Cúcuta

SDG´s: · Clean water and sanitation (SDG 6) · Indirectly, remaining SDGs (except for quality education, SDG 4)

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Program:
Environmental policy and sustainable management of natural resources in Colombia (PROMAC)

In Ecuador, multi-level cooperation between administrations on different spatial levels is being supported to identify common measures in cities and municipalities (e.g. in watershed management and ecosystem-based service delivery) in order to perform coordinated planning and budgeting. In this context, the program Strengthening Good Governance supports the Ecuadorian Ministry of Environment to strengthen the governance structure of the Macizo del Cajas biosphere reserve and to develop an integrated multi-stakeholder governance model for the biosphere reserve to guarantee water supply for the third biggest city of Ecuador and 78 further urban and rural municipalities. [2]

Improving urban water supply through a management model in a biosphere reserve

Objective: Strengthening governance structures of the Macizo del Cajas biosphere reserve to guarantee water supply in urban and rural municipalities

Since 2013, the Macizo del Cajas biosphere reserve (ABMC) and its national park is part of the UNESCO World Network of Biosphere Reserves. It covers an area of 5.6 million ha and comprises four provinces, 15 urban municipalities and 64 rural municipalities. Several ministries are involved in its management. This national park provides Cuenca, the third biggest city of Ecuador, with more than 60% of its water reserves and is essential for water supply of its other urban and rural municipalities, in total about 840.000 inhabitants. In the context of climate change, the reserve requires protection and sustainable use due to its importance for water supply. Until now, the reserve counts with a small committee that promotes its functioning, but it still lacks an efficient and integrated governance model, multi-stakeholder coordination and integrated planning instruments.

The GIZ, on behalf of the Federal Ministry of Economic Cooperation and Development (BMZ) supports the Ecuadorian Ministry of Environment (MAE) - national institution responsible for all of Ecuador's biospheres- with the design of an integrated management model for the Macizo del Cajas biosphere reserve and a territori-al agenda. The management model comprises the institutionalized participation of all relevant public, private and civil society stakeholders and coordination mechanisms. The territorial agenda integrates the biosphere reserve management into the development plans of the urban and rural municipalities.
The number and diversity of the stakeholders require mechanisms for comprehensive coordination and articulation. This is primarily a multi-level governance issue which comprises the articulation of diverging interests within the different actors. GIZ's support concentrates on strengthening MAE to assume its strategic roles as coordinator and facilitator in the biosphere reserve management model. This should result in the consolidation of the biosphere reserve as a territorial stakeholder, assuring the adaption to climate change of the region and the protection of water supply for the region.

Partners: Ministry of Environment (MAE), National Planning Secretariat (SENPLADES), National Water Secretariat (SENAGUA), 15 urban municipalities, 64 rural municipalities, municipal water companies, private stakeholders and civil society.

SDG´s:

· Ensure availability and sustainable management of water and sanitation for all (SDG 6): targets 6.3; 6.5; 6.6; 6.b
· Make cities inclusive, safe, resilient and sustainable (SDG 11): targets 11.a and 11.b

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Program:
Strengthening
Good Governance.

Legal framework

The NUA stresses the importance of sound legal frameworks to be able to deploy sustainable, people-centered and integrated approaches to urbanization. Legal frameworks enable local authorities to effectively implement national urban policies as well as to empower them as decision-makers. Moreover, legal frameworks support local governments in their role to partner up with local communities and the private sector to develop and manage the effective provision of basic services and infrastructure. To support the establishment of legal frame-works in the context of sustainable and climate-sensitive urban development, GIZ´s projects have developed several approaches.

In Mexico, a legal ordinance was developed through which sustainability was transferred to an operational level for local urban development processes. Furthermore, the Ministry for Land Use Planning and Urban Development was supported through stakeholder workshops to further develop their local urban development programs. Complementarily, a handout for cities was prepared to guide the application of respective planning tools. [10]

In the area of sustainable housing, the state of Veracruz (Mexico) and its municipalities were supported in updating the building code, the manual for urban development and the regulation for the construction of public and private buildings in terms of sustainability. As a result, these include references to national standards on renewable energy and energy efficiency, and, among others, basic elements for energyefficient construction, the use of renewable energies, water management, site selection, and building materials. The results were presented at various seminars to other institutions and interested communities. [5]

To improve the normative and regulatory framework for the energetic use of municipal waste in Mexico, normative and regulative barriers were identified. Based on that, a study about the harmonization of standards and legislation is currently under development. [9]

Awareness raising

Raising awareness is important to increase the understanding about implications of urban development and climate change. It is crucial to involve different kinds of stakeholders in order to contribute to the complex effort of sustainable urban development and climate action. Moreover, it has an important role for the dissemination of knowledge as a basis for informed decision making and action. Thus, several approaches for raising awareness have been developed within different projects of GIZ.

To sensitize the Mexican low-income population to topics such as energy saving and energy efficiency, tailored education and information campaigns were developed and implemented. The campaigns were executed through the existing communication infrastructure and busi-ness channels of the private company Grupo Salinas (retail, banking and television). Specifically, gender issues were addressed through awareness campaigns tailored to women's needs. [5]

In Central America, a guideline was developed to communicate the importance of spatial planning to specific target groups such as political decision makers, public media and popu-lation. [4]

To increase the connection rate of private households to the public sewage system in peri-urban areas in Bolivia, a local steering committee was established to promote the willingness of private households to connect to the sanitation system. As a first step, focus groups in the target areas were built up to assess population´s needs. On this ground, public campaigns with respective communication instruments and tools were designed to convey simple and clear messages about the importance, the benefits and advantages of the sewage system. Furthermore, households were visited to follow-up on the campaign. [13]

Local steering committees for improving peri-urban sanitation in Bolivia

Bolivia's biggest city, Santa Cruz de la Sierra, is the 14th-fastest-growing city in the world. Running water demands are exclusively met by groundwater resources. Most of the water used is expected to return back to the aquifer but the natural recharge process is problematic due to contamination of groundwater, particularly due to 75% onsite sanitation. Bolivia's government is promoting resilient urban environments by protecting its groundwater sources and currently invests in several large-scale sewer systems in Santa Cruz. The aim is to reach 100 % coverage of sanitation by 2025.

Through the "Program for Sustainable Water and Sanitation Services in Peri-urban Areas" of Bolivia (PERIAGUA), GIZ is supporting national sector institutions as well as local governments and water companies in Santa Cruz to achieve sustainability in the provision of sanitation services in order to secure the availability of drinking water for a growing population in the future.

Despite the risk of groundwater contamination, the demand for improved sanitation has been very low in the past and hence, it has not become a political priority for local governments. Additionally, water companies lack technical expertise in sanitation and are suddenly being confronted with new political expectations, i.e. assum-ing sanitation services in addition to provide the population with potable water comes as a shock to the water company. This was the case in Mineros, a municipality in the Santa Cruz region with a population of 23.000 inhabitants. A new sanitation system designed for 1750 households was introduced. However, the water provider and the local government struggled to promote new household connections.

Jointly with the National Authority for Sustainability in Water and Sanitation Services (SENASBA), PERIAGUA developed an innovative pathway. A local steering committee for sanitation was created. Formed by the political authorities of the local government and water utility. GIZ and SENASBA promoted an intense process of negotiation and dialogue, which finally led to a political consensus between the local government and the water utility. This paved the way for technical advisory of the key processes necessary for a sanitation system to work. The integration of sanitation services within the water utility's organizational culture envisaged and guaranteed the sustainability of sanitation infrastructure.
A key element for both processes, the political and the technical, were spatial information systems. GIZ and SENASBA used maps to explain to stakeholders the technical aspects of the system and continued with a close monitoring of households connection rates to the new systems. The IT tools reduced uncertainty, which enabled an open dialogue between the technicians and the decision makers. This sustainability strategy proved to be successful as 700 households have connected to the new sanitation system so far.

Partners: National Authority for Sustainabilityin Water and Sanitation Services (SENASBA)

SDG´s:
· Ensure availability and sustainable management of water and sanitation for all (SDG 6): target 6.6

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3.2 Planning and managing urban spatial development

Within its second area of effective implementation (Planning and managing urban spatial development), the New Urban Agenda places high emphasis on the improvement of urban planning frameworks as means for guiding and implementing sustainable urban development. A fundamental principle of successful urban planning is the integration of different sectors and disciplines as well as the participation of the different stakeholder groups that are directly involved or affected. Furthermore, it calls for various related aspects supporting and informing planning efforts through consolidated information and data. Within the portfolio of German Technical Cooperation, several approaches have been developed that support the improvement of urban planning processes towards sustainable and climate-friendly urbanization.

Sustainable planning approaches

With regards to urban planning, GIZ has developed a number of approaches focusing on issues of environmental sustainability and climate change that are crucial to be considered for the formulation of planning strategies and need to be integrated in urban planning processes.

In Colombia, the integration of ecosystem-based climate change adaptation, environmental protection and risk management elements into local planning processes was supported. In this context, the link to financing and implementation was particularly addressed as well as the multi-level coordination between national, regional and local level. [1]

In Ecuador, the adaptation of municipal development plans and budget plans to integrate the regulations of environmental protection zones was supported. A special focus was set on the cooperation and coordination between different municipalities (inter-municipal networks) as well as other key institutions and stakeholders to plan, fund and implement cooperation projects. [2]

A guideline for integrating climate change mitigation and adaptation into municipal spatial plans was elaborated to systematically include climate change throughout the entire process of local level planning. This guideline provides a toolbox for data collection, analysis and conceptualization. It was disseminated throughout the eight countries of the Central-American integration system (SICA). [4]

The City of Santiago de Chile has been selected as a pilot to implement the climate proof urban development model in order to ensure that city development strategies, urban designs, land use and master plans, and all related investments are resilient and adaptable to the current and future impacts of climate change. Furthermore, corresponding climate protection measures aiming at decarbonization are to be developed. [14]

Cities Fit for Climate Change

Objective: Existing concepts and approaches for resilient low carbon urban development are to be analyzed and compiled in a sourcebook, with the findings contributing to the conceptualization of a new climate-proof urban development model.

Cities are both contributing to and affected by climate change: they consume 70 per cent of the world's energy and produce over 75 per cent of global CO2 emissions. At the same time many urban agglomerations already suffer from the negative impacts of climate change, with accelerated urbanization exacerbating these problems. Conventional concepts of urban development need to be reexamined in order to incorporate climate change mitigation and adaptation more strongly. Thus far, urban practitioners have paid insufficient attention to the adverse impacts of climate change.
The project is currently in its starting phase. Initial fact-finding missions have been completed in the partner cities of Santiago (Chile), Chennai (India), and Durban (South Africa). The first fact finding missions will provide the basis for conceptualizing an individualized climate-proof urban development model for each city. Peer-to-peer and knowledge exchange formats for the three selected partner cities will contribute to cross-regional learning and collective thinking.

Different regional contexts require tailored approaches for each city. The adequate strategies need to be de-veloped jointly with partners which take time. Keeping in mind that the global project has a limited life span this can create considerable time pressure. Moreover, cities are on different levels regarding their knowledge of climate sensitive urban development which makes peer-to-peer learning challenging.

Thus far, the three partner cities have been identified jointly with the national partner ministries. First fact-finding missions and launching workshops have been completed in the partner cities of Santiago (Chile), Chennai (India), and Durban (South Africa). Key city partners have been invited to a study tour to German cities with a proven track record of making cities resilient and low-carbon. A comprehensive study on the situation of urban climate finance in the three partner cities has recently been commissioned. Promising city practice will be showcased at the German Congress on Urban Development Policy and the Habitat III conference.

Partners: Chile: Ministerio de Vivienda y Urbanismo (MINVU) India: Ministry of Urban Development (MoUD) South Africa: Ministry of Cooperative Governance and Traditional Affairs (COGTA)

SDG´s: · Make cities inclusive, safe, resilient and sustainable (SDG 11)
· Take urgent action to combat climate change and its impacts (SDG 13)

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Program: Cities Fit for Climate Change

In Cartagena (Colombia), the city administration and other local and regional stakeholders have been supported in the prioritization process of ecosystem-based adaptation (EbA) measures under the city's climate change Plan 4C: A Competitive and Climate Change Compatible Cartagena. Guided on this prioritization, the EbA measures that will be implemented are: the restoration of mangroves and the recuperation of streams and canals that drain into the city's most important coastal lake. In order to ensure sustainable financing for the implementation of these measures, innovative finance solutions have been identified and implemented, supporting tree-planting goals under the Urban Forestry Plan. [6]

Sectoral support tools for sustainable urban planning

The NUA highlights the importance of integrating strategies for environmental sustainability and climate change adaptation and mitigation action into urban development and planning processes. In this context, thematically focused sub-strategies considering specific sectoral issues can help to improve integrated urban planning concepts. Hence, GIZ has developed several approaches for addressing energy efficiency, water/wastewater management or solid waste management as crucial aspects strongly related to sustainable and climate-sensitive urban management. These support tools are to inform and improve urban planning efforts and hence it is fundamental to integrate them into respective urban planning processes.

Energy efficiency

In order to compare the energy efficiency of public buildings in Mexico and to derive concrete proposals for improving energy efficiency, a benchmarking system for buildings was developed. [5]

Energy efficiency benchmarking system for buildings in Mexico

A comprehensive methodology in Mexico for comparing the performance of office buildings regarding their electricity consumption, so far, has not existed. Within the framework of the Green Buildings working group of North-American Commission for Environmental Cooperation (CEC), the United States, Canada and Mexico agreed on harmonizing metrics, standards and norms related to green buildings. The Energy Star system for buildings was adopted for the three countries. With GIZ's support, the system has been adapted to the Mexican conditions. All relevant variables for Mexico were gathered and statistical analysis was run to create a benchmarking tool to assess the energy performance of buildings. A first version was developed as an Excel-based tool which was later programmed for CONUEE's webpage. The algorithm was developed for office buildings, banks, medical centers, schools and hotels.

Today, the EE Benchmarking System is used to select the winners of the National Award for Energy Efficient Buildings from the Public Federal Administration, and the rating is an obligatory measure for all buildings reporting to the federal government. A further expan-sion of the system has now been developed to also engage the private sector and to provide an official label to the buildings' owners who achieve a minimum score of 75 points (out of 100).

Partners: CONUEE (National Commission for Energy Efficiency); INECC (National Institute for Ecology and Climate Change); Commission for Environmental Cooperation (CEC)

SDG´s

- Integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change (SDG 11): targets 11a and 11b
- Renewable energy (SDG 7): target 7.2 Access to clean energy research and technology, including renewable energy, energy efficiency (SDG 7): target 7a

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Program:
Sustainable Energy Programme Mexico

For determining the eligibility of housing projects to be supported within the Housing NAMA in Mexico, urban sustainability criteria were developed considering requirements regarding location of new settlements, public transportation etc. and has been included into the new housing NAMA policy. [11]

In order to increase the greenhouse gas mitigation potential and to reduce energy consumption in Mexico's social housing sector, a study on the market evolution and current situation as well as future demand of eco-technologies and sustainable building materials was elabo-rated. In particular, it has defined the path for entry of more efficient and sustainable products in housing sector in Mexico covering issues like quality parameters, procurement, CO2 mitigation and economic feasibility, both for the private as well as for the public sector. [11]

For a better implementation of mandatory standards to limit heat gains through the residential building envelope in Mexico, which are often rejected by the private sector with the argument of higher investment costs, a manual was produced, which supports the evaluation of follow-up costs and a calculation software. The manual is accessible to all users via the internet and has been downloaded by 2,382 potential users in 2015. [5]

Water companies in Peru are being supported in order to increase their mitigation potential based on a multi-sectoral nexus considering water, energy and food in an integrated way, and focusing on enhanced energy efficiency in water and wastewater management. Con-crete technological options are being introduced and their mitigation potential is being assessed through cost-benefit analysis. The water company in the City of Cusco has been supported to develop the first climate plan in the Peruvian water sector. These experiences are being disseminated to all water companies countrywide. [15]

In Mexico, guidelines for selecting technologies in wastewater treatment based on criteria for cost-effective energy emission-efficiency have been elaborated together with a national university following the objective to integrate anaerobic wastewater treatment into the funding programs of the National Water Commission (CONAGUA). [15]

Water and wastewater management

A calculation was conducted to estimate the current and the potential availability of treated wastewater generated in the existing wastewater treatment plants managed by Lima's water and sanitation authority. These figures are compared with the current and future demands of treated water of the local governments, i.e. for the irrigation of urban parks. The results support the water and sanitation authority in developing a plan for the use of treated wastewater. [12]

In Salamanca, Mexico, an urban planning concept was supported to use treated wastewater for the irrigation of a central urban park. In addition, an urban planning concept for the renaturation of the polluted river Lerma was elaborated. [10]

Based on a diagnosis of service supply, the condition of the infrastructure networks and the economic situation, annual operating plans were developed for 4 water companies in Santa Cruz (3) and Tarija (1) in Bolivia to systematically improve tasks such as water consumption measurement, collection efficiency, commercial processes improvement, water pressure management, calibration of the water meters, accounting, customer and technical cadastral and administrative information management. In addition, the development of a management software was supported which integrates accounting, inventory, storage and staff management and significantly reduces time and cost efforts of administrative processes. This software has been tailored to the needs of the (cooperative) Bolivian water supply companies, which have allowed disseminating the software to other water companies after successful piloting. [13]

Financial efficiency of water and wastewater utilities in Bolivia

Many water companies in Bolivia are not oriented towards sustainable and efficient management of water resources. This is especially problematic in peri-urban areas with a rapid and disorderly growth. In the future, it is expected to lead to severe problems – also due to the impacts of climate change. The objective of the working field financial efficiency of the Bolivian-German program PERIAGUA implemented by GIZ is to cover the operational costs for the provision of water supply and sanitation through operational revenues. This is particularly challenging as the water tariff system is not regularly updated and costs are continuously increasing. Therefore, the water utilities in Bolivia need to optimize their technical processes of production and distribution of drinking water and collection of wastewater, their strategies for commercialization and revenue generation as well as their administration and accounting systems. This concern needs careful consideration in order to ensure the continuous and sustainable service provision, considering population growth and the increasing water demand in urban and suburban districts in Bolivia.

Throughout its cooperation with four water utilities in Bolivia, PERIAGUA supported the optimization of technical, administrative and financial processes, which has led to increased annual revenues and a decrease of operational costs. Moreover, the modernization and automation of commercial, technical and administrative processes was supported. In addition, the utility companies were provided with modern equipment (e.g. mo-bile devices for measuring meters, devices for leakage detection, software and equipment for telemetry of wells), infrastructure (laboratories for the calibration of meters), low-cost technologies (proportional macro-metering), optimized processes and human capacity development for improved performance.

Partners: Ministry of Environment and Water (MMAyA); Cooperative for Public Services "Pampa de la Isla" (COOPAPPI); Cooperative for Services of water and sewerage "Villa Los Chacos" (COSCHAL); Cooperative of Public Services "San Juan Bautista" (SAJUBA); Cooperative of water and sewerage of Tarija (COSAALT).

SDG´s:
· Ensure availability and sustainable management of water and sanitation for all (SDG 6): targets 6.4 and 6.a

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For sustainable drinking water and sanitary services in sub-urban area (PERIAGUA)

Solid waste management

In order to improve urban waste management in La Paz, Mexico, current waste management practices were analyzed. Based on the results, priority actions were defined for an integrated waste management system. Also in Toluca, the local waste management company was supported in the development of an integrated waste management system. This experience and good practices were shared with other municipalities in the region of Toluca. [10]

A register of potential demonstration projects for energetic use of urban waste in Mexico was developed together with various project partners in order to raise awareness and disseminate a good practice scheme. Furthermore, a roadmap was prepared to use sewage sludge for biogas generation. [9]

A feasibility assessment approach was introduced to determine the potential and appropriate location for a landfill in the municipality of Portachuelio (Bolivia). [13]

For a highly contaminated former industrial area in Mexico, a decontamination plan for the soil pollution of the abandoned site of Tekchem, a former pesticide plant, was elaborated, which will be implemented from 2016 onwards. In addition, a groundwater study methodology was elaborated to explore possible contamination of the aquifer. [10]

3.3 Means of Implementation

Various projects within the portfolio of GIZ have developed innovative approaches that sub-stantially contribute to the various demands stated in the NUA's third area of effective implementation. These comprise different means of implementation such as financing, capacity development as well as research and in the context of environmentally sustainable, resilient and climate-sensitive urban development.

Finance

As a fundamental prerequisite for planning and implementation, the NUA highlights the availability and accessibility of financial resources. GIZ has supported partner institutions to develop instruments linking standards of sustainability and resilience to financing instruments. Furthermore, support is provided to develop financing options, to access available funding sources and to prepare feasible and bankable projects.

Sisevive-Ecocasa is a registration module and qualification system for residential buildings, which is used to provide loans and subsidies for energy-efficient residential building projects in Mexico. It was implemented as a pilot project on the online platform of the central register for residential buildings of Mexico. In this context, 23,900 housing units in 32 municipalities were registered and evaluated through Sisevive-Ecocasa. As a result, 4,600 loans and grants to 6,500 apartments were awarded. [5]

The Mexican housing commission (CONAVI) was supported to introduce a new mechanism for the assignment of subsidies prioritizing new housing projects which comply with the NAMA criteria and the reduction of carbon dioxide emissions. [5]

In order to support the generation of energy from urban waste in Mexico, funding sources and mechanisms were identified and evaluated. In order to make the results widely available, they were disseminated and published in a handbook and public events were organized to inform about funding sources and acquisition options. [9]

The C40 Cities Finance Facility (CFF) supports Mexico City as well as the City of Bogota with the preparation of climate-friendly investment projects, the identification of possible funding options as well as the development of respective capacities. Support is provided through international and local experts and lessons learnt will be disseminated to other cities for replication. [16]

Capacity development

For further implementation, the NUA calls for increased efforts of capacity development enhancing the individual and organizational capacities of multiple stakeholders and institutions at all levels of governance to formulate, implement, manage, and enforce public policies to-wards sustainable, resilient and climate-friendly urbanization. Capacity development is a major focus for German Technical Cooperation and therefore, various results have been achieved in developing innovative approaches of capacity development in different topics.

a) Planning

In Colombia, capacity development measures are being implemented to support the integra-tion of ecosystem-based adaptation to climate change and environmental protection into spatial planning at different administrative levels. [1]

In Central America, four training modules on spatial planning focusing on economic development, gender, climate change adaptation and disaster risk management with respective tool boxes based on good practices from the whole region have been developed and are being offered to partner institutions in eight countries. [4]

b) Energy efficiency

National competency standards for energy efficiency and renewable energy have been established in Mexico for improving consultancy in the fields of water supply, construction industry or housing. Through qualification courses these competency standards are taught to technical experts in order to qualify them in aspects of energy efficiency and renewable energy. [5]

c) Water, wastewater and solid waste management

To improve quality within the water sector in Bolivia, several training courses for lab staff of the control station for water quality were conducted in order to improve skills for measuring water quality ensuring compliance with the minimum standards and basic parameters. Furthermore, university classes on water quality regulations in Bolivia were conducted. [13]

In Ecuador, municipalities were supported to improve their performance in planning and managing solid waste with special focus on tariffs, paying culture and strategic planning. Moreover, the local public utilities were supported to increase their efficiency e.g. through introduction of a calculation model for the operational costs. All the applied instruments were compiled in a handbook and transferred to a virtual training program which is open to all local governments. [2]
In Santa Cruz, Bolivia, staff of three water companies was trained in joint training programs for the development of annual operating plans to improve water services efficiency. [13]

An energy performance and carbon emission assessment and monitoring tool has been developed in order to increase the mitigation potential of water companies in Mexico. It has been integrated into the training program of the National Association of Water and Sanitation Utilities (ANEAS). [15]

d) Exchange

In Latin America the International Cities' Platform Connective Cities contributed to capacity development of urban practitioners, offering opportunities for exchange, learning, networking and cooperation through dialogue, project workshops, joint project developments, webinars and a launched online platform (www.connective-cities.net).

According to the demand, Connective Cities focused on topics of sustainable urban mobility, which is a key factor of urban development in Latin America, concerning social integration, economic development and climate change mitigation. Using a good practices scheme in terms of sustainable urban mobility from Latin American and Germany, urban practitioners got fast access to proven local experiences comprising both technical as well as governance aspects resulting in exchange of experiences and lessons learnt. After the organized dialogue events, Connective Cities further facilitated the urban stakeholders to support each other as a "community of practice" in their respective local planning and project implementation

processes of sustainable urban transportation solutions. Four learning networks have been initiated, moderated and accompanied in Mexico in order to improve the energy efficiency in different fields such as water supply or governmental buildings. [5

Research and monitoring

The NUA stresses the important role of scientific research for creating evidence-based information and guidance for informed decision making aiming at sustainable urban development. This includes the creation of reliable and open databases accessible to different stakeholders, as well as respective capacities for analysis and monitoring in order to assess the impacts of policies and planning efforts.

A water observatory is being set up with collaboration of the private sector that improves data availability in the water sector in order to support the implementation of the water management plan for the Chillón-Rímac-Lurín river basins in Peru. [12]

4. Conclusions and outlook

Although the New Urban Agenda is still expected to be officially adopted during Habitat III in Quito in October 2016, this portfolio debrief shows that GIZ is well positioned to contribute to its implementation in Latin America and the Caribbean. Particularly, regarding the third transformative commitment of the NUA Environmentally sustainable and resilient urban development, GIZ has developed various innovative approaches, methods and tools in all areas defined by NUA for effective implementation. So far, a particular emphasis with concentrated efforts is evident in the areas of governance-related models, planning approaches and supportive tools, financing models and various capacity development models supporting environmentally sustainable urbanization and climate change adaptation and mitigation.

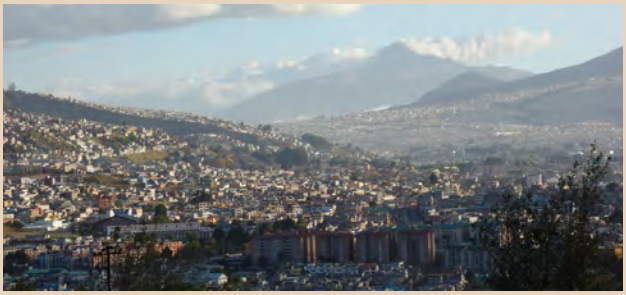
The German Government has formulated clear priorities for cooperation within the NUA context such as the Guidance of the German Federal Government for International Cooperation for Sustainable Urbanization – Partner in a World of Cities, the Policy on Climate Justice and Development of the Federal Ministry of Economic Cooperation and Development (BMZ) as well as the Position of the German Government to Habitat III and the New Urban Agenda. The GIZ-Experiences outlined in this publication within the context of environmental sustainability as well as climate change adaptation and mitigation in Latin America and the Caribbean represent a valuable contribution towards this agenda. Currently, several new technical cooperation measures are being prepared in the field of sustainable urban development. Among these are the new Sustainable Secondary Cities program in Ecuador (financed by BMZ) and two new programs in Brazil: Energy Efficiency for Sustainable Urban Development (financed by BMZ) and National Agenda of Sustainable Urban Development (financed by BMUB).

Knowledge management, based on a thorough analysis of the lessons learnt from past measures is of significant value for the future engagement of GIZ in the field of sustainable urban development. As shown in this study, related projects are implemented as part of different priority areas such as Environmental policy, protection and sustainable use of natural resources, Energy or Democracy, civil society, public administration. Therefore, project concepts and results typically draw on the expertise and experiences of their respective professional field. However, sustainable urban development is per se a multidisciplinary and cross-sectoral endeavor calling for integrated approaches combining different sectoral perspectives and blending technical, managerial and governance-related approaches. Therefore, cooperation and coordination between different priority areas hold multiple opportunities: creating further innovation, developing integrated and consolidated approaches as well as efficient knowledge management on good practices and lessons learnt. In order to continue facilitating this, the regional sector networks in Latin America and the Caribbean RED-LAC (Governance and Democracy) and GADeR-ALC (Environmental Management and Rural Development) provide an ideal platform.

Anexo

Selected projects of German Technical Cooperation:

No.	Project Title	Country	Objective	Funded by
1	Environmental policy and sustainable management of natural resources in Colombia (PROMAC II)	Colombia	Efficient implementation of sectoral policies and strategies for the protection and sustainable use of natural resources	BMZ
2	Strengthening Good Governance	Ecuador	Improvement of deconcentrated and decentralized provision of public goods and services as part of the construction of a democratic, intercultural and pluri-national state. For example: ecosystem-based urban service delivery	BMZ
3	Community of Practice for Sustainable Urban Development (City Platform)	Latin America	The city platform „International Community of Practice for Sustainable Urban Development" is being used for the systematic, application-oriented and multi-directional exchange on potential solutions between stakeholders from politics, admin-istration, economy, academia, and civil society.	BMZ
4	Spatial planning and sustainable development in Central America	Central America	Innovative strategies and instruments based on the Central American Agenda of Spatial Planning are implemented in selected countries of Central America.	BMZ
5	Sustainable Energy Program	México	Improvement of frame condi-tions for increasing energy efficiency and use of renewable energies.	BMUB
6	Strategies for eco-system-based adaptation to in Colombia and Ecuador (EbA)	Colombia and Ecuador	Project partners plan and implement locally appropriate measures for ecosystem-based-adaptation to climate change.	BMUB
7	Energy Efficiency in Urban Mobility (started in 2016)	Brazil	The conditions for the development of energy efficiency potentials in urban mobility Brazilian cities are improved.	BMZ
8	Energy Efficiency in Water Supply (started in 2016)	Brazil	The framework conditions for the increase of energy efficiency in urban supply are improved.	BMZ



No.	Project Title	Country	Objective	Funded by
9	Energetic utilization of urban waste	Mexico	The energetic utilization of urban waste is implemented in Mexico.	BMZ
10	Urban-industrial environmental management II	Mexico	Cities and enterprises in Mexico improve their environmental management and give incentives for sustainable consumption, production and services.	BMZ
11	NAMA Support Project for Implementa-tion of New Housing NAMA	Mexico	Housing sector transformation promoting cost effective energy-efficient building concepts across the housing sector with a particular focus on low-income housing.	BMUB
12	Adaptation of water resources management in urban areas to climate change with private sector participation	Peru	The water resource management in the catchment areas of the rivers Chillón, Rímac and Lurín (ChiRiLu) is aligned to climate change adaptation with the participation of the private sector.	BMZ
13	Program for sustain-able drinking water and sanitary services in periurban areas	Bolivia	Access and quality of drinking water supply and sanitation is improved especially in periurban areas.	BMUB
14	Cities fit for climate change	Global (incl. Santiago de Chile)	Selected cities apply a "climate proof" urban development model.	BMUB
15	Water and wastewater companies for climate mitigation (WaCCliM)	Brazil	The CO2 balance of water utilities in partner countries is improved through the application of emission-reducing technologies while maintaining the level of performance.	BMUB
16	C40 Cities Finance Facility (CFF)	Global (incl. Mexico and Colombia)	C40 cities in developing and emerging countries are supported in preparing sustainable urban investment projects for financing and developing respective capacities with the aim of reduced greenhouse gas (GHG) emissions and increased climate resilience	BMZ

Bibliography

BMUB and BMZ (2015), Habitat III und die New Urban Agenda - Position der deutschen Bundesregierung.

BMZ (2015), Mit gemeinsamen Werten und Interessen Zukunft gestalten: die neue Lateinamerikaapolitik des BMZ, Bonn: BMZ.

Deutscher Bundestag (2015), Leitlinien der Bundesregierung zur internationalen Zusammenarbeit für nachhaltige Urbanisierung – Partner in einer Welt der Städte.

Gesellschaft für Internationale Zusammenarbeit (2016), BMZ Portfolioanalyse „Städtische Vorhaben“ in der Entwicklungszusammenarbeit, Bonn: GIZ.

Misselwitz, Muñoz, Walter and Salcedo (2016) The Urban Dimension of the SDGs: Implications for the New Urban Agenda, Berlin: TU Berlin Habitat Unit.

UN Habitat (2016), New Urban Agenda - draft outcome document for adoption in Quito.

United Nations (2015a), The Paris Agreement.

United Nations (2015b), Resolution adopted by the General Assembly on 25 Sep 2015 - 70/1. Transforming Our World: the 2030 Agenda for Sustainable Development.

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