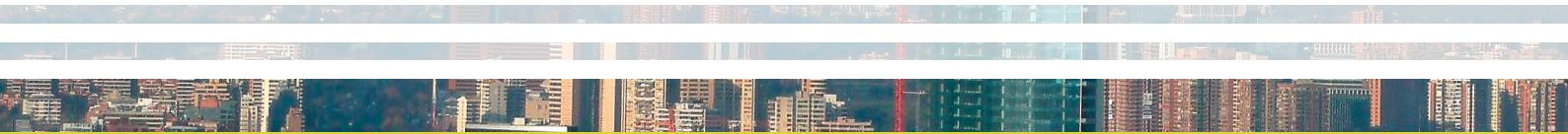




cities fit for climate change



**“The governance of local climate action and
how to foster multi-sectoral collaboration”**

**International Dialogue Forum on Climate-Proof Urban Development
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I. Cities Fit for Climate Change project

Project description

The global project “Cities Fit for Climate Change” implemented by GIZ on behalf of the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) cooperates with various partners internationally, in Germany and in particular with its three partner countries Chile, India and South Africa. The project aims to strengthen cities as actors of sustainable development.

Coping with Climate Change Begins in Cities

Our cities are both contributing to and affected by climate change: they consume 70 per cent of the world’s energy and heat up the earth’s atmosphere by producing over 75 per cent of global CO₂ emissions. At the same time many urban agglomerations already suffer from the negative impacts of climate change: in low-lying coastal areas they are threatened by rising sea levels and storm surges; in drier climate zones they must contend with droughts and water shortages; and cities everywhere have to deal with heat islands in the densely built-up urban landscape. Accelerated urbanisation exacerbates these problems.

By 2050, 6.5 billion people, or two thirds of the world’s population, are expected to live in sprawling metropolises. Therefore, new forward-thinking strategies for mitigation and adaptation to the impacts of climate change need to be integrated into conventional concepts of urban development in order to safeguard urban ways of life.

Trajectories for a Climate-Proof Future

How can cities as drivers and victims of climate change cope with the risks and become custodians of a livable climate? This global project is focused on finding answers to this question.

Because there are no universally applicable solutions, existing concepts for resilient low carbon urban development are to be analysed and compiled in a sourcebook, and selected cities are to be supported in developing case-specific climate-proof strategies.

This work is guided by the “Leipzig Charter on Sustainable European Cities” and the BMUB Memorandum “Urban Energies – Urban Challenges”. The important issue of securing financing for required infrastructure investments is also addressed.

The experiences of our partner cities are shared at international conferences. The knowledge thus gained helps to support the UNFCCC process (United Nations Framework Convention on Climate Change) and contributes to the implementation of the “New Urban Agenda”, the international agreement of the Habitat III process.

Climate-Proofing Provides Orientation

The existing urban development guidelines and concepts of our partner cities are to be adapted according to climate-proofing principles. Climate-proofing means 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 need to be taken, and they must be aimed at decarbonisation.

These steps provide the basis for designing an individualised climate-proof urban development model for each city. An example of how carbon emissions can be reduced while at the same time adapting to climate change impacts is through urban green space, which helps prevent heat island effects and flooding, absorbs carbon from the atmosphere and improves air quality and citizens’ quality of life – a win-win situation for the inhabitants, city budgets, and the climate.



Image 1: Partner Cities Map



Source: GIZ

Our Partners in Chile, India and South Africa

The partner cities, Santiago in Chile, Chennai in India and eThekweni/Durban in South Africa, were selected in agreement with the relevant national ministries and authorities: the decisive factors were the commitment of the mayors and city councils, and the cities' level of climate change vulnerability. The cities determine their project priorities, which might be, for example, the climate-proofing of instruments, strategies and regulations, or the implementation of participatory city development strategies, or the development of financing options for realising available climate protection and adaptation concepts.

The partner cities are to exchange knowledge with each other and with German and further cities within the framework of the exchange workshops. To facilitate this, each of the partner cities is hosting an annual dialogue forum where representatives from German cities and the other partner cities are coming together to share their insights into climate-proof urban development.

International Learning Exchange Workshops

The exchange sessions are intended to enable and facilitate peer-to-peer knowledge sharing, support and collaboration, the joint generation of new knowledge, and

the promotion of innovation with regards to the planning of low-carbon and resilient urban development.

Three “inter-connected” dialogue forums are planned in each of the participating partner cities, where a bottom-up approach to conceptualising new elements of climate-proof urban planning can be incrementally developed into a new urban development approach that draws on real city-level case studies, as opposed theoretical discussions. Such an approach revises analysis tools, city development strategies, planning approaches, implementation frameworks etc. to reflect climate change considerations with the resultant outcome: to make cities low-carbon and resilient to the impacts of climate change.

The overall objectives of the dialogue forums are:

- To strengthen the exchange of experiences among the Cities Fit for Climate Change project (CFCC) partner cities as well as with German cities at different levels and areas of intervention;
- To identify good practice examples from the cities that can be used for an international exchange with other cities around the world;
- To provide peer-to-peer advisory services for planning instruments in application and processes in a conducive and creative dialogue forum environment;



- To conceptualise and prepare joint planning interventions that will be developed further in the course of the dialogue forum series;
- To initiate a practice oriented learning process over the duration of the project that includes different exchange and learning formats and seeks to strengthen capacities of urban practitioners;
- To interrogate innovations in spatial planning and policy which can lay the groundwork for conceptualising a new urban development approach.

Durban Dialogue Forum

The first partner-city dialogue forum took place in Durban, in February of 2017, where the focus was on the integration of climate change aspects into urban development instruments, strategies and initiatives.

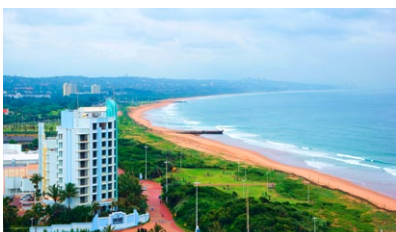
During this dialogue forum, five main concepts or themes emerged related to the successful and replicable incorporation of climate change considerations in cities:

- Motivation
- Mainstreaming

- Multi-Stakeholder Engagement
- Multi-Functional Solutions
- Modeling

The cities were encouraged to develop action plans to be discussed with their respective authorities, relevant organisations, and national GIZ advisors, in order to facilitate further engagement during the second dialogue forum Santiago de Chile

Box 1: Partner Cities



Source: Official Site of eThekweni Municipality - www.durban.gov.za

Durban – eThekweni
 Located in the province of KwaZulu-Natal, is the largest city in this province and the third largest city in the country. It is a cosmopolitan city of over 3,4 million people (2011 Census). It has a well-managed and busy port, and is also a major centre of tourism because of its warm subtropical climate and extensive beaches.



Source: Chennai District Site - www.chennai.tn.nic.in/

Chennai
 Chennai is the capital city of the state of Tamil Nadu, as well as an important district, located in the south east of the Indian Peninsula. It is a cosmopolitan city, with a population of over 7 million inhabitants, and used to be the chief centre of the British empire, with the development of its institutions and administration.



Source: Regional Government of the Metropolitan Region of Santiago - www.gobiernosantiago.cl

Santiago
 Santiago is the capital city of Chile, located in its central area, in the Metropolitan Region of Santiago. The city gathers more than 40% of Chile's population, with over 6,5 million inhabitants. The Santiago province is compound by 32 municipalities with its 32 Mayors.



II. Santiago Dialogue Forum

Santiago was the second partner city dialogue forum of the CFCC project, and the dialogue forum activities took place from September 12–14th 2017. The title of the dialogue forum was “**The governance of local**

climate action and how to foster multi-sectoral collaboration”, and the focus was on the institutional patterns that need to be addressed in order to achieve integrated urban development.

Participants

This dialogue forum involved the participation of actors from seven different cities, including the three partner cities of the CFCC Project, in addition to four German cities (Leipzig, Nuremberg, Frankfurt and Munich). The German cities were invited to participate in order to share information regarding their work on climate-proof urban development and also to learn from the CFCC partner cities. The CFCC team was also present through its representatives from Chile, South Africa, India and Germany.

Dialogue forum participants included the following individuals, among others: From Chile, the

Undersecretary of Housing and Urban Development, Mr. Iván Leonhardt Cárdenas. Undersecretary of Housing and Urban Planning, Mr. Aldo Ramaciotti; the Mayor of the Municipality of Providencia, Mrs. Evelyn Matthei; the Mayor of the Municipality of Independencia, Mr. Gonzalo Durán; and the Country Director of GIZ in Chile, Mr. Jürgen Klenk. From India, the Commissioner of Chennai, Mr. Doss Karthikeyan. And from Germany, the Head of Division of BMUB, Division SW I 1, Fundamental Aspects of Urban Development Policy, Dr. Oliver Weigel; Dr. Daphne Frank, Head of CFCC Project for GIZ.

Image 2: Dialogue Forum II – Santiago de Chile





Dialogue Forum objectives

The main objectives of the Santiago CFCC dialogue forum were:

- Generate networking opportunities between CFCC partner cities.
- Learning and exchange regarding municipal practices related to climate-proof urban development experiences from the participating cities.
- Analysing existing projects of the partner cities from India, Chile and South Africa, as well as Germany, to identify institutional patterns that facilitate climate friendly urban development
- Actively participate and contribute to further developing a climate-proof urban development approach that is promoted in the framework of the CFCC project.

Methodology

The methodology utilised for the dialogue forum included the identification of common points of understanding between the different participating cities as a primary component, in order to stimulate and exchange of experiences, ideas and recommendations relating to both potential solutions and lessons learned. The exchange between dialogue forum participants was particularly oriented towards governance for the incorporation of climate change into urban development, promoting multi-sectoral collaboration. Each dialogue forum day was framed by a theme:

Day 1: Building a common understanding

Day 2: Learning from real projects as laboratories

Day 3: Energising commitment through joint action

The first day of activities was based primarily on generating a climate of participation and familiarity among dialogue forum participants, and providing the primary conceptual definitions. The definitions utilised during the dialogue forum, were responding to the questions: what do we mean by a Climate-Proof Urban Development Approach (ClimPUDA), and what are the principles and primary components of the four fields of action that have been defined, as elements needed to apply this approach in the city (see boxes 2 and 3). It was considered essential to establish a common basis of understanding regarding the conceptual approach to Climate Proof Urban Development, in order to assure a common conceptual framework for the dialogue forum.

Box 2: Conceptual Framework: Climate-Proof Urban Development Approaches

Climate-Proof Urban Development

“Climate-proofing” includes methods, instruments and procedures that ensure that plans, programmes and strategies, as well as the associated investments towards the current and future impacts of climate change, will be made resilient and adaptable, and that they also aim for the corresponding plans, programmes and strategies to take into account the aim of climate change mitigation.

(Birkmann and Fleischhauer, 2009:118)



Box 3: Conceptual Framework: Proposed Fields of Action of the ClimPUDA

Fields of Action
Action areas of the climate-proof urban development approach

<p>Governance</p> <p>Issues related to decision making, institutional actors involved, participation processes, etc. Coordination and communication.</p>	<p>Planning instruments, policies</p> <p>Planning and strategic tools, related to each institutional level, and how climate change factors are taken into account.</p>	<p>Implementing, financing</p> <p>How to carry out the planned actions. Importance of considering measurement, monitoring and evaluation of these actions.</p>	<p>Capacity development, Training</p> <p>Knowledge and involvement of institutions and population. Consider training to increase knowledge and involvement.</p>
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Along with a presentation and open discussion of the primary concepts, a series of short presentations were given by various cities using the Pecha-Kucha methodology, which consists of a 7-minute PowerPoint presentation, made up purely of images, in which each slide is shown for only 30 seconds. This provides for a fast-paced, dynamic and descriptive presentation, in which the most pertinent information is presented on a given topic in a way that also captivates the audience.

During the second day, dialogue forum participants visited two projects currently under development in Santiago, which represent concrete examples of urban

development projects that hold the potential for mainstreaming climate change. During these on-site visitations, participants analysed the challenges and opportunities for the integration of climate change into urban development initiatives (details of the projects are given below).

The third day was oriented towards the application of each participant’s experiences to specific case study initiatives, in order to take advantage of different lessons learned from the experiences of the various participating cities, and potential areas of collaboration between different cities.



Agenda

The Santiago Dialogue Forum was developed over a span of three days, including the above described structure. The activities associated with each day were organised as in Box 4.

Box 4: Santiago Dialogue Forum Agenda

<p>Day 1: Main concepts: common understanding of climate-proof urban development (CPUD) and fields of action.</p>	<p>Presentations:</p> <ul style="list-style-type: none">- Key note, by Dr. Oliver Weigel, BMUB.- Conceptual framework: Climate-proof Urban Development Approach (ClimPUDA), by Dr. Daphne Frank of GIZ.- City challenges.	<p>Exercises:</p> <ul style="list-style-type: none">- Photo selection: CPUD in my city.- Pecha Kucha methodology: Chennai, Durban, Santiago, Frankfurt, Munich, Nürnberg and Leipzig.
<p>Day 2: Practical examples of CPUD in Santiago de Chile: learning from real-life initiatives as CPUD laboratories.</p>	<p>Site visits:</p> <ul style="list-style-type: none">- Integral Urban Development Project "Bajos de Mena".- "Ciudad Parque Bicentenario".	<p>Exercise:</p> <ul style="list-style-type: none">- How to incorporate climate change challenges into the two projects visited.
<p>Day 3: Energising commitment: Applying what was seen and discussed into each city reality, and committing to future efforts.</p>	<p>Presentations:</p> <ul style="list-style-type: none">- Next steps for the CFCC project, by Dr. Daphne Frank of GIZ.	<p>Exercises:</p> <ul style="list-style-type: none">- Partner cities' CPUD projects: CRIP, Buckingham Canal and Climate Change Academy. Project advise from different cities and points of view.- Lessons learned.- Networking space.



III. Key Aspects of the Dialogue Forum

Exchanging and learning from city experiences: Pecha-Kucha presentations and stakeholder reflection

The Pecha-Kucha presentations were developed in order for each city to present relevant initiatives as an initial approach to the work being done by the various cities in the context of CPUD. Presentations were given by the German cities Munich, Frankfurt, Nuremberg and Leipzig, as well as the three partner cities Santiago, Durban and Chennai.

All the presentations coincided in terms of the need for integrated urban planning in cities, considering urban development processes that include strengthening the participation of various actors (local communities, municipal officials, companies, politicians, etc.), and in which different variables (environmental, social, mobility, commercial, etc.) are integrally evaluated. These cases highlight the need for inter-sectoral collaboration and support, in order to make progress on the development and implementation of initiatives. In this way, some key aspects that emerged out of the Pecha-Kucha presentations were:

- The importance of education and communication for climate change and sustainable urban development, using the latest technical and technological support (social networks, innovative participatory mechanisms and methodologies, etc.) as a way of getting through to people.

- Transparency regarding the transfer of information related to decision making, the development of urban initiatives, public regulations and standards, and urban development patterns in the context of climate change, considering both recognition of past mistakes, and the lessons learned from such mistakes.
- Co-creation of the city together with local communities.

Based on the information received from the Pecha-Kucha presentations and the conceptual development discussed throughout the day, dialogue forum participants reflected upon the various experiences of the participating cities in regards to their own city contexts, and the potential for learning and exchange during the dialogue forum. These reflections were written down and shared during a plenary session in order to discuss the most important takeaways from the Day 1 activities.



Image 3: Feedback of Day 1

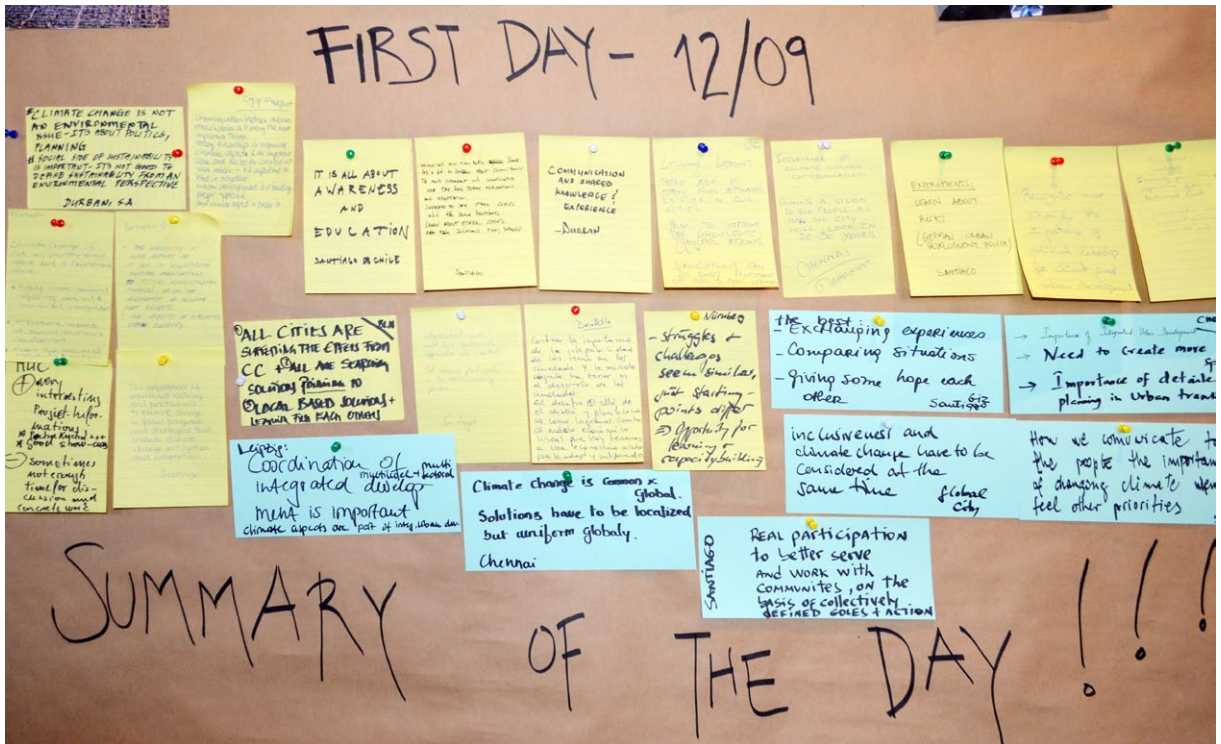
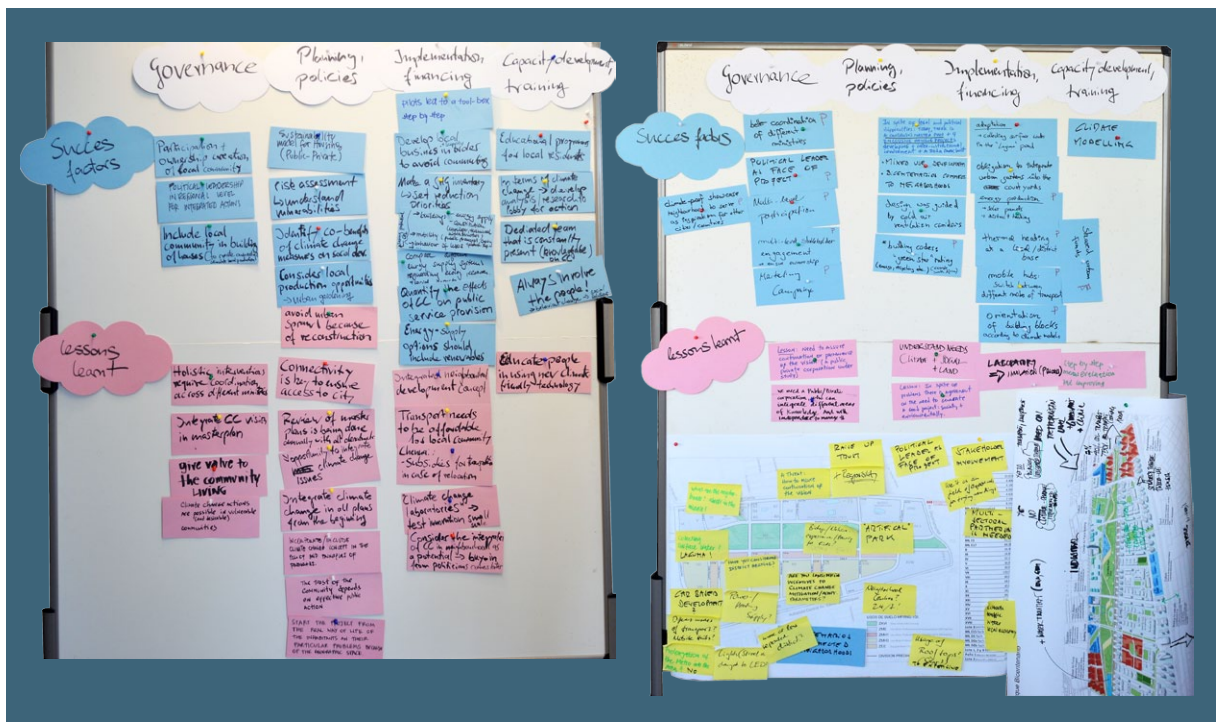


Image 4: Day 2 Activity Results





Climate change aspects in urban development projects in Santiago

During the second day, dialogue forum participants visited two current projects being implemented in Santiago: Bajos de Mena, in the municipality of Puente Alto, and Ciudad Parque Bicentenario, in the municipality of Cerrillos. Both projects were selected to represent examples of national policy implementation in urban development, as well as to stimulate conversation regarding the challenge of integrating climate change related elements into such projects. In addition, participants identified potential opportunities that the projects represented, both in Santiago and the other participating cities. For more information on these two projects, see **Boxes 5 and 6**.

Participants identified and discussed success factors and lessons learned regarding the incorporation of climate change factors into each project, in relation with the four fields of action, and in light of other best practices

provided by case study presentations by the German cities of Leipzig and Nuremberg.

The Ciudad Parque Bicentenario project was highlighted as a possible blue print for future urban development projects in Santiago, and maybe also in other Latin American cities. It is a type of project that needs great coordination between different sectors and a strong mandate or leadership to guide the process. Emphasis was given to initiatives such as water collection in the lagoon, obligation to integrate urban gardens into the courtyards, climate modeling of the constructions and its orientations, and connection with surrounding neighborhoods. Finally, it was recommended that insulation and energy supply (such as solar panels) is integrated in the new buildings, and, as it is a laboratory, it would be important to evaluate the outcome of every step of the project.

Box 5: Project Description: Ciudad Parque Bicentenario

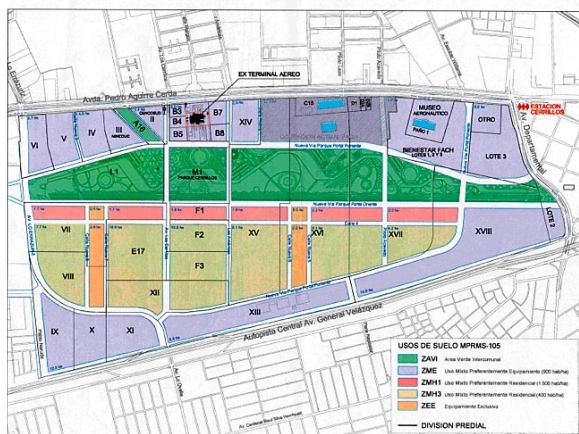
PARK CITY BICENTENARIO (Ciudad Parque Bicentenario)

Located in a central area of Santiago, on a 250-hectare plot previously occupied by the Cerrillos Airport (in the Municipality of Cerrillos), the project consists of fully equipped neighborhoods (16,500 houses, 10 schools, 18 sports centers, civic community center, among others) and high standards of public spaces and green areas.

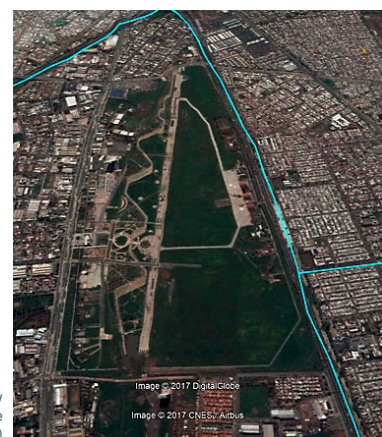
Currently, only the central park and some elements of public infrastructure have been built, with work still ongoing regarding the negotiations of public-private partnerships for the completion of the remaining services.

There is an enormous opportunity for implementing climate change aspects into the planning and future construction phases of the project, as one of the primary interests of the project is the development of an integrated urban initiative for improving the quality of life of the population.

The project is led by the Ministry of Housing and Urban Development (MINVU), in coordination with other public institutions.



Park City Bicentenario Plan (MINVU)



Aerial view of the landscape (Google Earth)

Box 6: Project Description: Integrated Plan Bajos De Mena

INTEGRATED PLAN "BAJOS DE MENA"
(Plan Integral "Bajos de Mena")

Bajos de Mena is a historically neglected area, 20kms away from Santiago (in the Municipality of Puente Alto), with more than 120,000 inhabitants, which was initially built to provide social housing, but without territorial planning.

This plan seeks to provide the area with services (banks, supermarkets, police, public, services, etc.), improved housing quality (isolation, bigger spaces), connectivity, public areas, focused on sustainability in terms of living standards, both in social and environmental terms.

One of the primary challenges is to incorporate climate change adaptation, by generating pilot development projects which include renewable energy, water efficiency, among other actions, in order to evaluate the impacts and results of such interventions, and determine the feasibility of scaling up such interventions.

The plan is led by the Regional Government of the Metropolitan Region of Santiago, in direct coordination with various public and private services.



Integrated Plan (Regional Government of the Metropolitan Region)



Current View of Bajos de Mena

In the Bajos de Mena social housing project, there is a high level of participation of the local community and thus a sense of belonging with the area. In addition, the project highlights the co-benefits and synergies between the various social and climate related challenges, by incorporating adaptation initiatives that respond to both social and climate problems identified by the local community, such as flooding in certain areas of the various neighborhoods. However, there is still work to be done in terms of transportation and connectivity, as well as energy efficiency and supply. The experience generated

by the project points towards a recommendation to clearly understand the pertinent climate change risks prior to any urban intervention, by performing a vulnerability and risk assessment. This allows for climate change related challenges to be integrated from the beginning of the project, instead of having to integrate such considerations after the development phase has begun.



Partner City Case Studies

On the third day, the case-study activity analysed three initiatives developed in the partner cities and supported by the CFCC project: Rehabilitation of the Buckingham Canal in Chennai, Climate Resilience Implementation Plan (CRIP) in Durban, and the Climate Change Academy in Santiago (Box 7).

During the day, a space was provided in which participants were encouraged to generate a network of contacts relevant to the various challenges regarding climate-proof

urban development in their respective cities, through the exchange of information and experiences. This was done through an activity called “Networking Space”, in which participants defined topics of interest, according to their status as “providers” of information and/or experience, or “seekers” of assistance for certain projects or issues. These issues were consolidated, leading to the establishment of thematic tables in order to identify common points where different cities could generate future links.

Box 7: Partner City Case Studies



Rehabilitation of the Buckingham Canal – Chennai

Consists of the restoration of the Buckingham Canal, which has been generating various social conflicts, related to high levels of pollution as well as periodic floods. The restoration is planned for 3 km of the canal in the southeast sector of the city, and consists of cleaning the river, fencing it off, constructing tracks for running and protecting dikes and other activities. Following the implementation of this project, the restored area could be used as a model for the rest of the canal.



Climate Resilience Implementation Plan (CRIP) – Durban

City instrument that allows climate change to be understood in the context of urban development. This instrument provides a framework that aids in responding to climate change and how integrating resilience into urban development can contribute to the transformation of the city. The plan and its proposed actions/projects have been formally approved by the municipality through the inclusion into the 2017/2018 Spatial Development Framework. The next step is to seek confirmation from line departments that the proposed projects and actions will be budgeted for and implemented."



Climate Change Academy – Santiago

Through a series of dialogue forums with key actors at the metropolitan region and municipal levels, a number of urban development projects (in differing stages of planning and implementation) were analysed from the perspective of regional-scale climate change problems and challenges. The result was an assessment and identification of the elements needed to accomplish a consensual vision of climate-proof urban development.

Table 1: Santiago Dialogue Forum Lessons Learned

Governance	Policies, instruments, strategies, planning, guidelines	Implementation, Financing	Training, awareness raising, capacity development
<p>Dare to use the territory or the city as a laboratory, as you can obtain innovative and satisfactory results from it (i.e. case of Nuremberg).</p>	<p>Incorporate climate change challenges into the processes for the formation of all urban development policies, instruments, projects, etc. Avoid the opposite, incorporating climate change as a last step once everything has been completed; in this way, better and more effective actions and results can be achieved</p>	<p>Take advantage of existing projects/initiatives (whether written proposals or recently developed projects), as it is neither efficient nor necessary to start from scratch. There are always certain aspects that can be utilised to project climate-proof urban development.</p>	<p>Consider the utmost importance of communication and participation: how to communicate climate change, how to communicate what is being done, how to involve citizens in the process. This depends on the particular contexts of different cities, the reach of the policies or projects being developed, required technical knowledge, among other factors.</p>
<p>Look to prove innovative and sustainable systems used in other cities that could solve issues in one's own city. There is no need to "reinvent the wheel".</p>	<p>Climate change should be transversally integrated into all divisions and lines of work in any institution. The Climate Resilience Improvement Project (CRIP) in Durban, for example, aims at considering climate change components of climate change components in all the municipality's departmental budgets.</p>	<p>Recognise the importance of measuring baseline conditions in order to be able to compare with the future conditions as a result of new policies and/or projects.</p>	<p>Utilise an approach capable of integrating local communities directly, and being able to communicate fluently with such communities (especially when different languages or dialects are involved).</p>
<p>Transparency in all processes is key. The lack of transparency, is evident to local populations and stakeholders, and produces high levels of resentment and illegitimacy. As such, it is very important for all information to be shared, despite the implications, as it is far better to clarify areas of discontent in order to work on such issues, rather than to risk generating mistrust and misinformation.</p>	<p>Take advantage of inter-institutional and multilevel synergies and cooperation is very valuable in order to obtain satisfactory results for a project or plan that responds to different sectorial challenges and levels of governance.</p>		
	<p>Recognise the importance of understanding the problems related to climate-proof urban development entirely, and developing a detailed assessment, before providing recommendations and proposed solutions.</p>		



Main Results

The various activities developed throughout the three-day dialogue forum, lead to important lessons learned for the participants, regarding both their individual work and for some of the projects currently being developed in their cities.

The basis for all activities was focused on the four fields of action of the climate-proof urban development approach. The following results are organised based on their conceptual relationship to these fields of action.

Image 5: Day 3 Activities – Case Studies



Image 6: Day 3 Activities – Networking





For both of the projects visited in Santiago, the Bajos de Mena social housing project and Ciudad Parque Bicentenario, as well as for the three case studies from the three participating cities that were analysed on the third day (Buckingham Canal in Chennai, CRIP in Durban and Climate Change Academy in Santiago), all dialogue forum participants acted as professional consultants during a group work exercise, observing significant

challenges and proposing various recommendations to the leaders of each initiative (Box 8). These recommendations were based on the experiences of each participating city, and the activity led to enriching discussions, based on applying the lessons learned from various international experiences to integrating climate change into the planning processes and the implementation of urban development projects in cities

Box 8: Recommendation for Case Studies of Partner Cities

Buckingham Canal

- Involvement of local communities.
- Involvement of the private sector is essential, as participation of this sector is fundamental in order to move forward.
- Importance of support from academia, and continuing to work together with this sector.
- Similar initiatives that serve as bank of ideas: 42k (Santiago), Community based ecosystem adaptation (Durban).
- Upcoming dialogue forum in Chennai: need to show more progress regarding project implementation.

CRIP

- Importance of transparency for building trust with local communities.
- Communication and participation: putting all available information on the table.
- Need for individuals on the team to develop direct approaches with local communities (considering the different languages used).

Climate Change Academy

- Identification of actions needed to fill gaps, and empowering actors to take on such actions.
- It is not about creating new projects, but rather integrating those that are currently being implemented or in process of being planned and developed.
- Possibility for replication in Chennai and Durban



IV. Conclusions and final reflections

The climate-proof urban development approach represents an important framework for how to pursue climate change adaptation and mitigation in the context of urban planning. Throughout the dialogue forum, certain key words and ideas were consistently reiterated (Image 10), emerging as the main components to consider in climate-proof urban development initiatives.

Based on the experiences of the participating German cities, many interesting ideas, urban development processes and lessons learned were identified, with the potential of being of great use for the cities involved in the CFCC project, as well as for other cities experiencing similar difficulties regarding climate-proof urban development. Among the examples and experiences shared by representatives of the participating German city are:

- Public-private transportation network (Nuremberg)
- District heating system (Nuremberg)
- Citizen participation mechanisms as local participatory planning (Munich)
- Integrated urban development planning and spatial planning (Frankfurt and Leipzig)

Integration

One such aspect was the importance of integrating different sectors in such initiatives, as climate change is a multi and inter-disciplinary field that is cross-sectorial by nature, and is more of a planning-based issue than an environmentally oriented problem. This is due primarily to the fact that most significant climate change impacts affect local territories and populations directly, and corresponding social, economic, infrastructural and critical resource systems simultaneously. As such, the nature of climate change in the context of urban development, needs the participation and cooperation of different institutions in urban development plans or projects, in order to be able to adequately integrate the complexity and the variety of dimensions and factors involved.

Image 7: Day 3 Activities – Networking



Image 8: Day 3 Activities



Communication

On the other hand, participants highlighted the need to properly communicate information related to climate change and its link with urban development, so that local communities become better educated on the topic and to raise awareness among all stakeholders. This element is also important in order for stakeholders to be well acquainted with proposed climate-proof urban development plans and/or projects, so that they feel involved and take ownership of such initiatives.

Participation

Regarding how to best implement climate-proof urban development initiatives, some fundamental factors to consider include the participation and direct involvement of local communities, collaboration between different actors and stakeholders (based on the exchange of information, knowledge and experiences that can be useful for other cities, institutions, or projects, in order to replicate success factors or to avoid poor practices), and finally, positive and pro-active leadership and the political will required for the successful development and implementation of any urban development initiative. Without the leadership (and ideally political leadership) required to transform an idea into an action, it is very difficult to implement concrete and effective climate-proof urban development projects.

Leadership

As a final takeaway, it is very important to consider how each city operates in terms of administration, the role of city leaders, the capacity for inter-sectorial and multi-level team work, pointing to the importance of transversal integration of climate change throughout the urban planning and development regime, as key points regarding the need to work and collaborate between different areas and institutions.

Working together, synergies and support can enrich an initiative, and make a simple idea into a great idea with the potential for significant impacts.



Image 9: Key Concepts Identified in the Santiago Dialogue Forum



Voices from the Dialogue Forum ...

Box 9: Highlighted Participant Quotes in Take-Away Activity

Climate Change is not an environmental problem. It is a planning problem that requires collective action.

(Emmanuel Letebele. Durban, South Africa)

Not re-invent the wheel. Take co-working examples from partnering cities and replicate.

(Arun Krishnamurthy Chella. Chennai, India)

More ideas for our city projects. We want to share our learning with other cities.

(Silvana Frontier. Santiago, Chile)

Similar challenges, issues and tasks, but different starting points: opportunities for learning and capacity building.

(Stefan Bege. Nürnberg, Germany)



Annex 1: Dialogue Forum participants

Name	Position/Institution	Country
Constanza Abusleme	Municipality of Providencia	Chile
Claudio Araya	Ministry of Housing and Urban Development	Chile
Paulina Astudillo	Ministry of Housing and Urban Development	Chile
Carolina Casanova	Ministry of Housing and Urban Development	Chile
María José Castillo	Urbanist advisor – Municipality of Providencia – Santiago, Chile	Chile
Felipe Díaz	GIZ Chile	Chile
Gonzalo Durán	Mayor of Independencia Municipality – Santiago	Chile
Carolina Eing	Facilitator	Chile
Silvana Frontier	Regional Government of Metropolitan Region	Chile
Donatella Fuccaro	Environmental advisor – Municipality of Independencia – Santiago, Chile	Chile
Tomás Gómez	Universidad Católica de Chile	Chile
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Jürgen Klenk	Country Director – GIZ Chile	Chile
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Ivan Leonhardt	Undersecretary of Housing and Urban Planning	Chile
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Pablo Piñones	Ministry of Housing and Urban Development	Chile
Aldo Ramaciotti	Regional Ministerial Secretary of Housing and Urban Development	Chile
Camila Sepúlveda	Consultant	Chile



Name	Position/Institution	Country
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Igor Strika	Regional Ministerial Secretariat of Housing and Urban Development	Chile
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Paola Alfaro	CFCC Consultant, TU Berlin	Germany
Stefan Bege	City representative, City of Nuremberg	Germany
Joachim Eckard	City representative, City of Frankfurt am Main	Germany
Daphne Frank	Head of CFCC project	Germany
Jochen Gauly	CFCC consultant, Leipzig	Germany
Klaus Illigmann	City representative, City of Frankfurt am Main	Germany
Philipp Kühl	GIZ Berlin, Advisor	Germany
Lea Kulick	GIZ Bonn, Junior-Advisor	Germany
Mary Uhlig	City representative, City of Leipzig	Germany
Oliver Weigel	Head of Urban Development Division, BMUB	Germany
Doss Karthikeyan	Comissioner, Greater Chennai Corporation	India
Arun Krishnamurthy Chella	NGO India	India
Sudakhar Krishnan	GIZ India	India
Zane Abdul	GIZ South Africa	South Africa
Nongcebo Hlongwa	Representative eThekweni municipality	South Africa
Emmanuel Letebele	Representative eThekweni municipality	South Africa



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