



WORLD SUMMIT CLIMATE AND TERRITORIES TOWARDS THE COP21

Inspiring action for urban
and regional planning



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PREFACE |**Inspiring action for urban and regional planning**

Territorial and urban planning promoted by subnational and local governments is an effective instrument to tackle climate change.

Subnational and local governments are often responsible for the development and implementation of policies, plans, strategies, programs and initiatives that directly influence GHG emissions and address the impacts of climate change. This is the case of policies and legislation in the field of land management and urban organisation (mobility, housing, access to basic services, agriculture, natural spaces), economic and social inclusion, resources management (energy, water), waste management and risk protection. Then, the United Nations Development Programme (UNDP) estimates that 50% to 80% of adaptation and mitigation actions necessary to tackle climate change relate to subnational or local competences.

As we approach COP21, Nrg4SD, the Network of Regional Governments for Sustainable Development and FNAU, the French Network of Urban Planning Agencies are delighted to share some inspiring practices that illustrate how territorial and urban planning can be an effective tool to tackle climate change. It is our view that territorial and urban planning offer an opportunity of an integrated approach and a way to promote and enhance the dialogue on how to design and improve resilience, envisaging low-carbon cities and territories in the future.

Besides articles provided by our own members, the compilation also brings cases provided by our partners, ADEME, CODATU and URBACT, as well as cases extracted from the International Guidelines on urban and territorial planning – Towards a Compendium of Inspiring practices, organized by UN Habitat.

This compilation of cases calls attention to the importance of territorial and urban planning promoted by subnational and local governments to address climate change. Although it indicates good practices, it is important to highlight that territorial and urban planning must be adapted to each specific scale and context and include various institutional levels that intervene in the territory. It should be collaboratively built with citizens and stakeholders.

Planning is a process and a tool that helps decision making and capacity building to tackle climate change.

*Mr. Jean Rottner,
Mayor of Mulhouse
and President of FNAU*

*Mr. Santiago Vila,
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YANGTZE RIVER DELTA | CHINA

The Transformative Power of Integrated Regional Planning

The Yangtze River Delta (YRD) is located in the middle of China's Eastern coast and covers three provincial territories, housing over 160 million inhabitants. Since the 1980s a fast growth has led to economic disparity and ecological degradation. The need for a comprehensive and coordinated approach to the territorial planning of the region was identified as the only way to reconcile these imbalances.

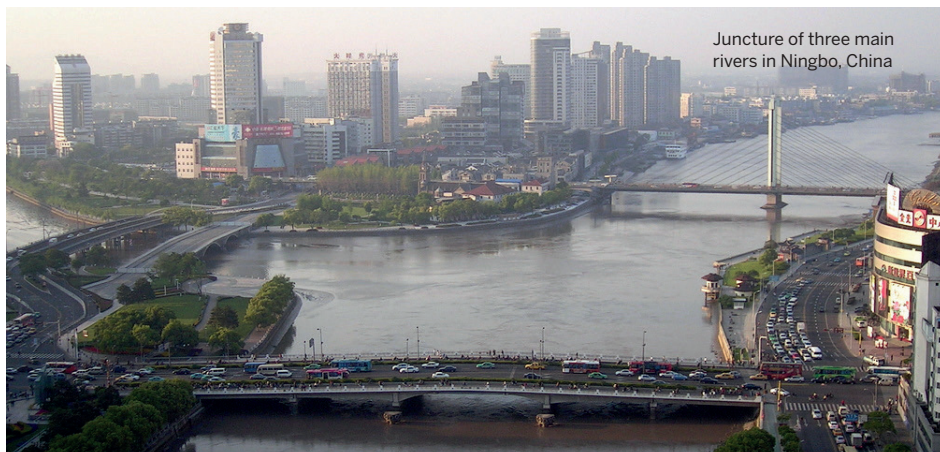
The Shanghai Economic Region (SER) and a planning office were established in 1982 to coordinate planning strategies with a roundtable of mayors and governors. They approved the first SER Development Strategy in 1986. Following on from this, provincial and municipal governments formed the Yangtze River Delta Plan in 2004, with integration as the major concept, later adopted as common principle by local authorities in their local plans. Further developments of the integrated YRD came from academics and entrepreneurs who actively took part in research and planning, establishing think-tanks, forums and symposium to contribute to the open and growing dialogue surrounding the

YRD's coordinated development. This comprehensive system of regional planning and coordination worked to bring together stakeholders from various circles, and raise crucial issues of competition and cooperation.

The benefits gained thanks to this collaborative approach have been numerous. Improved connectivity between regions made travel distances between most cities just one hour by high-speed train. By validating the polycentric urban structure with diversified and complementing urban functions, the regions development disparities were greatly mitigated.

Even today, more national reforms and development experiments are taking place such as urban-rural integration and new models of modernization, which demonstrates the adaptability of the YRD and supports its sustainable urban development into the future.

From "International Guidelines on Urban and Territorial Planning" – Inspiring Practices annex, UN-Habitat (2015). By Hongyang Wang, Nanjing University, Shi Nan, Urban Planning Society of China



GREATER MUMBAI | INDIA

Urbanisme on Its Way to Climate Change

Greater Mumbai is the world's sixth most populated agglomeration. Tropical city built partially on reclaimed areas, Mumbai is highly sensitive to climate change effects. Current urban transformations change space organization and its resilience to face climate change. Land management is regulated by the 1994 Development Plan Regulation (DPR), based on zoning principles and low built up densities with derogations for higher densities on specific functions and projects. Due to land reservations, heritage and protection measures, Transfer Development Rights are applied on a large scale towards the suburban areas without primary locations, complicating amenity and utility programming.

The present DPR revision, managed by the Greater Mumbai Municipal Corporation in cooperation with IAU, Paris Region Planning Agency, introduced goals coping with climate change mitigation and adaptation. It concerns limitation of vulnerability and a better link between urbanism and transport. A spatial vision and a development strategy have been defined to double green spaces, increase capacities for amenities and utilities, triple built up areas potentials for housing and activities, and limiting urbanization on sensitive areas. Different densities have been localized regarding urban heritage and environmental protection, most accessible areas and urban fabric...

In terms of transportation, soft mobility has been encouraged and limitation measures on car use have been fixed. Remedies such as improving the balance between housing and activities in



Slums nearby central districts

each area, or maintaining low-income population in the central areas have been chosen. In definitive, a polycentric shape has been defined to reduce mobility needs.

The current public debate on the document shows contradictions in the Mumbaikar society with different positions among environmental NGOs, municipal corporators, slum dwellers, landlords, etc. Final choices to be made on the new Development plan for 2034 will fix the capacity for Greater Mumbai to deal with climate change effects both on mitigation (mobility reduction) and adaptation (reducing vulnerability and temperature regulation).

*By Eric Huybrechts, architect and urbanist
in charge of international relations at Paris Region
Planning Agency (IAU Île-de-France)*

ADDIS ABABA | ETHIOPIA

Building Strong Linkages between Urban Renewal and New Mass Transportation Systems

Addis Ababa is a booming capital in Africa with 2.7 million of habitants in 2007 and 3.1 million in 2013. Facing huge upgrading challenges, both Addis Ababa City Government and Oromiya special zone decided to prepare a common integrated Master-Plan under the responsibility of a special agency entitled Addis Ababa and Surrounding Oromiya special zone Integrated Development (AASOID). Finalized at the end of 2014, the plan reflects ambitious choices embedded in a clear land strategy aiming to save resources and improve city carbon footprint: urban intensification; anticipation for the development of facilities, strategic projects and new infrastructures; and protection of natural lungs (5 green “fingers”, mountains, riverbanks, views, parks and local green areas). The creation of 5 regional parks in the surroundings of the built-up area is one of the most important decisions of AASOID. Among all the work done within the last years, Lyon Planning Agency (French metropolis) assisted AASOID to reach optimized height regulations, to integrate the landscape issue (streetscape, cityscape, big scale landscape) and to design the Local Development Plans (LDPs) studies.

Another major outcome is the transportation issue. Following the recommendation of the global Master Plan elaborated by AASOID, Ethiopian Authorities are currently pursuing two pilot projects. Firstly, the implementation of a North–South and East–West Mass Light Rail Transit (LRT) with the assistance of a loan from the Chinese Government is on the verge to be finalized by Ethiopian Railway Cooperation. Secondly, the Addis Ababa City Administration (AACAA) wishes to foster the development of major public transport projects, in coordination with the on-going construction of the Addis Ababa LRT. In this regard, the Addis Ababa Road and Transport Bureau (AARTB) has decided to design and build an ambitious Bus Rapid Transit (BRT) 7 lines



LRT line building site near central districts

network. The first pilot project the BRT B2 is mainly funded by the French Development Agency (AFD) for the investments and two consultancy services packages (detailed design studies until works supervision; project management coordination for AARTB). The 16 km line is due to open at the end of 2017. Both BRT and LRT are considered as tools to generate a high quality of urban renewal along the selected corridors. A Nationally Appropriate Mitigation Actions (NAMA) is on-going with a focus on establishing a Transit-Oriented Development (TOD) approach for 10 LRT stations in Addis Ababa. Investments in social housing estates and commercial property development for SMEs may be incentivized under the pilot TOD and also set up public–private partnerships (PPP). The BRT B2 project is also aiming to kick start significant public realm enhancements subprojects along the corridor. The objective is to intertwine the integration of BRT B2 with the on-going urban densification of the inner quarters of the city, which will be served by the new line.

By Pierre-Arnaud Barthel and Anne Chapalain, AFD

BASQUE COUNTRY | SPAIN

Strategic Territorial Planning Tools

The Basque Country grew rapidly in the second half of the 20th century, mainly as a consequence of a heavy industrialization. This had serious impacts on the sustainability of the territory. As a consequence, the Basque Government approved the Territorial Planning Act (1990), which foresees the following set of territorial planning instruments.

1. The “Territorial Planning Guidelines” is to define the territorial strategy of the whole region by setting principles in relation to density, the environmental protection, the global distribution of human activities in the region, and also the protection of the territory. As regards the climate change mitigation, the Territorial Planning Guidelines has been pioneering in establishing a set of criteria for the urban plans.

2. The “Territorial Plans”, one detailed Plan for each of the 15 areas identified in the Basque Country. The Territorial Plans bring the Territorial Planning Guidelines to the concerned area by identifying special places to protect; by defining land reserves; by promoting new developments integrated with the existing towns; by establishing minimum densities in order to consume less energy and to reduce the urbanization of new soil; and by promoting the use of public transport systems, among others.

3. The “Sectorial Territorial Plans” are applicable to the entire region. They provide specific guide-

lines in order to guarantee, for instance, the protection of riversides, the location of industrial areas; or to lay out the territorial criteria in relation to mobility and transport infrastructure. In the field of climate change mitigation, it is noteworthy the Sectorial Territorial Plan on Riversides as it establishes the criteria for the uses of the land surrounding the riversides dependent bearing into account the risk of floods.

4. An inter-institutional body for decision-making: the Basque Territorial Planning Commission is composed of representatives of all the administrations involved in territory policies and its opinion is required in the procedures to adopt territorial or urban plans.

Our Territorial Planning Instruments aim to control and limit the expansion of towns and cities by concentrating the growth on the existing city. We promote the regeneration of urban areas; high densities and a mix of uses; the use of public transport...

We encountered several challenges, such as: having many administrations involved in the decision making process; having many sectors involved (sometimes with conflicting interests), or the need to develop public participation together with raise of awareness efforts.

However, today we can state that the resilience of the territory has increased, our governance in terms of territorial planning has improved, and

the agents involved in the spatial planning are more concerned with the territory and its management from a climate change perspective.

*By Elena Lete, Department
for the Environment
and Territorial Planning*

Territorial tools to preserve
natural resources



CATALONIA | SPAIN

Riumar Urban Plan in the Ebro's Delta River

The most vulnerable area to climate change impacts in Catalonia is the Ebro Delta in terms of risk of flooding and subsidence of the delta. These are the conclusions of the study "Vulnerability and risks of the Ebro Delta to climate change" carried out by the Catalan Office of Climate Change and the conclusions of Catalan Strategy for Adapting to Climate Change. Riumar Urban Plan stated that the construction of 499 residences and 11,000m² of land allocated to tourist facilities (hotels and apartments) in the area are highly vulnerable.

The Riumar Urban Plan was submitted to the strategic environmental assessment process where the Catalan Office of Climate Change warned of the degree of vulnerability of the area and the flood risks entailed for people and materials for the construction of these houses on the first line of the sea. It was required to analyze vulnerability considering the impacts of climate change and propose adaptation measures.

Main challenges encountered when including climate change mitigation and adaptation considerations in future regional planning structures

are related to the technical approach and capacities of practitioners involved in the planning process, essentially at regional and urban level. This approach often lacks sustainability and fails to consider the pressure on available resources and the mitigation measures that need to be applied. The business as usual approach has to be replaced by an integrated territorial planning where natural, rural, rural-urban and urban areas are interconnected and where the services they provide are safeguarded.

As a result of our efforts, we have been able to introduce an adaptation to climate change analysis in the Riumar Urban Plan Environmental Assessment process allowed definition of the priority measures and the most significant actions to be undertaken to reduce the vulnerability and increase resilience. In particular, the environmental report established the liability to additionally back off the constructions 100 metres from the sea line.

By Salvador Samitier Martí, Catalan Office of Climate Change of the Catalan Government



View of Ebro's River nearby Riumar

MINAS GERAIS | BRAZIL

A Planning Tool to Preserve a Vulnerable Territory

Minas Gerais is a landlocked state in the west of Brazil with a population of some 500 million people which has been committed for several years in the fight against climate change. Back in 2008, the State Environment Agency named FEAM published an initial state-wide inventory of greenhouse gases emissions. It is believed, without taking in account impacts of extreme events, that if nothing is done, additional costs caused by climate change could reach more than one billion euros in the next decades. A situation that could potentially accentuate regional disparities since areas most at risk are also the ones less developed.

With respect to this situation, and taking advantage of the framework of an effective inter-

national cooperation between Region Nord-Pas-de-Calais (France) and FEAM (Brazil's Foundation for Environment), the French Environment and Energy Management Agency (ADEME) offered assistance to start an ambitious project. Indeed, ADEME provided support to the development and elaboration of drawing up a Regional Climate and Energy Plan (better known as PCET) from a technical and financial standpoint.

Thus, the Plano de Energia e Mudanças Climáticas de Minas Gerais, is a transversal public policy with a medium/long term vision (2020-2030). Built through a participative process, its main goals are the promotion of a transition to a low carbon economy, the reduction of climate change vulnerability on the territory of Minas Gerais and a coherent harmonisation of every initiative



View of Belo Horizonte, capital city of Minas Gerais

planned in this purpose. The Plan takes place in the framework of an integrated territorial strategy but declines sectorial actions in the field of attenuation, taking in account sectors of energy, agriculture, transports etc.

The PCET began by the end of 2013 whereas an action plan was presented in November 2014. Actions identified (like use of wind turbines) could allow Minas Gerais' CO₂ emissions to decrease by 17% or 20%. Thus, this type of evaluation can identify focus sectors and territories where to take the first steps. Finally, the plan proposes the creation of an observatory and a platform to consolidate information generated by the plan and support decisions.

From a project by ADEME

PROVENCE ALPES CÔTE D'AZUR | FRANCE

A Regional Climate-Energy-Air Scheme

View of Les Mées,
village in PACA Region



The SRCAE scheme was adopted in summer 2013, presenting a real roadmap for energy transition in the PACA region. The local level participated in strategy formation via elected officials for issuing planning documents (PLU, PDU, SCOT) and plan shares (CFEP, Agenda 21) for SRCAE main objectives. Likewise, local records of SRCAE were implemented by relevant criteria of department; PNR; country; and SCOT inter-municipality, providing concrete tools for regional territorial objectives. In a first phase, territories were analysed by State and Region services in order to adapt to their needs. The second phase was a series of 18 meetings in 2014, wherein the Region decided on “energy transition for the economic development of its territory” by ADEME and DREAL standards. Phase II meetings addressed mayors and their deputies, as well as chief of staff of relevant intercommunal services. Discussion topics centred around three main objectives: energy transition; supporting role of state services (ADEME) and best local initiatives for territorial strategy; best practices that could be shared at regional level.

A Prefecture (Sub-Prefect, Secretary General, Director) representation was elected at the Regional Council, with more than 530 people participating across these 18 meetings.

All phases allowed discussions with the audience on territorial projects, wherein options to strengthen the commitments in relation to energy, air and climate issues were debated for green growth. In addition, over 120 files were handed in by participants, stating their expectations for the energy transition. These expressed their satisfaction on the joint initiative of State / Region and the decentralized organization of the meetings, with some pointing to difficulties around “taking action” decision-making.

The following results have been achieved thanks to the SRCAE: Know-how and access to existing support group, and implementation of some specific projects, such as establishment of wind turbines, connecting photovoltaic farms, implementing green waste management, etc.

By PACA Government

RABAT-SALÉ-ZEMMOUR-ZAER | MOROCCO

A Plan to Fight Against Global Warming

The Plan to fight against global warming is a pilot operation conducted in February-March 2010 in a region that is part of the Moroccan central plateau. It is characterized by three relief units: the high country, topographical middle and lower levels and the coastal plateau. The region has substantial ground water as well as the green belt of Rabat Temara and forests of Dar Salam, which protect the land from erosion.

The PTRC is used to identify mitigation, adaptation or transverse projects, carried out either by public or private regional actors, and classified by respective sectors. The PTRC recorded primarily regional mitigation projects of the National Energy Strategy 2008, led mainly by public actors. Some projects also relate to modes of transport, inclusive of public transport development, suburb transport arrangement, city cycling, efficient driving in road traffic regulation, etc.

The Region's economy relies mainly on agriculture, tourism, crafts, industry, trade and services. Agriculture is based on the exploitation of a fairly well-balanced agro-sylvo pastoral system. Forest activities engage directly or indirectly about 11% of the riparian forest assets via reforestation, nurseries, cork work etc. Surface water is regulated via dams that play a key role in meeting the needs for drinking water, industry and agriculture. Manufacturers try reducing their energy consumption by modifying their industrial processes; the projects aim to recover and upgrade the heat emitted by industrial processes and control the energy performance.

As a result of the PTRC, we have achieved mitigation projects via reducing waste and methane emissions from landfills or treatment plants, as well as via waste-

water, and focus on carbon storage by forest development. They are based on energy optimization in all its forms and development of green spaces. In the agricultural sector, these concern carbon storage, for example through the development of production plantations and the processing of agricultural practices.

As a consequence of the PTRC, public and relevant professional awareness is gradually shifting toward principles of "zero consumption". Adaptation projects aim to prepare for the consequences of global warming, and to reduce vulnerability to impacts of climate change and avoid environmental damage of material, financial and human nature. Some projects also focus on social monitoring of human exposure to climate, via infrastructure restrictions in risk areas for floods, rising sea level, fires, etc., as well as via development of regional epidemiological surveillance systems.

The PTRC was launched as part of the National Human Development Initiative for the fight against poverty and social exclusion (INDH).

By the Government of Rabat-Salé-Zemmour-Zaer



El Kansera lake in the region of RSZZ

DAKAR | SENEGAL

An Integrated Territorial Approach for Environment

Dakar, capital of Senegal, is the 19th most populated city of the African continent - with more than 2.5 million inhabitants – but already is the second most polluted city of Africa. This situation is due to energy industries, an obsolete fleet of buses and taxis and use of air conditioning.

Marks of a great vulnerability to climate change are also the fact that today, still 100% of energy is from imported fossil fuel or that Dakar's drinking water supply is only ensured by one lake.

In order to prepare the future of this territory, authorities decided two years ago to get involved in a process of implementing an Integrated Territorial Climate Plan (ITCP) as a tool to reach sustainable development.

For the purpose of reducing greenhouse gas emissions and adapting the city to climate change, project management assistance has been provided to the regional council of the Senegalese capital thanks to a decentralised cooperation with Region Île-de-France (represented by ARENE, its regional environment and renewable energies agency). ITCP is led at a regional

capital level (associating the city of Rufisque as well) and mobilizes national authorities.

In order to identify the specific troubles related to climate and energy, two diagnoses of territory have already been made by ARENE: an energy balance of greenhouse gas emissions and a review of land vulnerabilities, to enable a precise representation of climate change's impact on territory (and vice versa).

To define concretely ITCP strategic orientations, some thematic workshops such as "Rich and vulnerable territory" and "Active and independent territory" took place and brought together various territorial stakeholders. Issues were declined (waste management, energy...) objectives stated and solutions listed. Next steps scheduled are: construction of action sheets, provision of various formations – such as "sustainable development and climate change" or "financial engineering" – but also seeking of the necessary finance to implement the action plan.

From a project by ADEME

View from Madeleine Hospital in Dakar



BREST | FRANCE

Local Factor 4 Planning : an Integrated and Low Carbon Approach

The Local Urban development Plan (PLU in french) of Brest Métropole (207,000 inhabitants), by adding the mention "Factor 4"¹ to its name, serve as both a Local Housing programme (PLH) and a Mobility Plan (PDU). With the same timing and governance framework as for the Territorial Climate Energy Plan (PCET), this plan asserts the convergence of these four planning documents.

Integrating these documents in an intermunicipal urban development plan required a common project and a substantial human and material organisation. A valuable asset for Brest lies in the reunion of intermunicipal competences under the supervision of a same directorate general (housing, urbanism, mobility, economic development), and the technical involvement of the urban planning agency, generating a cross-sectoral working method.

This new approach on collective work – held throughout three years – is based on a steering committee of elected representatives, and thematic clusters with elected representatives, technicians as well as associated stakeholders and an external facilitator.

The "PLUi Factor 4" highlighted the need of a behavioral change to reach Factor 4 goals. For example regarding mobility management, the goal was to increase tramway use and reduce individual car use. The urban plan favours a compact city well served by collective transportation and to upgrade public space with more comfort and safety for active modes such as pedestrians and bicycle. In the economic field, the downtown



Brest city at sunset

area is targeted for main metropolitan functions and tertiary activities. Densification and renewal of existing lots and activity zones are encouraged. The plan has fixed objectives for energetic rehabilitation of housings.

The benefits of a joint elaboration for urban and energy and climate approaches are undeniable. The territorial Climate Plan is not a stand-alone document, and the energy and climate issues are now well better integrated into all public policies. It supposes collective and cross-sectorial processes and organization.

1. Factor 4 is the name of the national initiative aiming to cut gas emissions by 4 by 2050.

From "Dossier FNAU n°33 – Planification et Facteur 4". By Adeupa (Brest urban planning agency)

MALMÖ | SWEDEN

An Eco-District of the Future

Malmö is the third largest city in Sweden in terms of population (320,000 inhabitants). Västra Hamnen's (The Western harbour) polder of Malmö was particularly affected by plant closures in the 1990s, becoming a wasteland suffering from contamination and affected environment. The municipality, with financial assistance of government, intended to revitalize the district thanks to a new sustainable development approach, combined with an evolution towards services and tertiary sectors (construction of the emblematic "Turning-Torso" tower).

Indeed, during a European Habitat Conference in 2001, the 30 hectares area was chosen to welcome the construction of a new eco-district named Bo01 "City of tomorrow", with residential buildings, offices, shops and other services, all sharing one common point: environmental quality and a 100% renewable energy objective.

A fundamental ecological approach to planning, building and construction was a key tool in the

creation of the district – becoming to be a leading example of environmental adaptation in a densely built urban environment. In just a decade Western Harbour has transformed into a full-scale demonstration of what could be the environment-friendly city of the future.

By Myriam Jacquet, FNAU



Turning Torso tower rising over Bo01

GRENOBLE | FRANCE

From an Eco-District to an Eco-City

Marked by a contrasted temperatures and constrained by surrounding mountains, Grenoble city (160,000 inhabitants) has been innovating for many years to handle its transformation by processing its own reconstruction. With an infatuation for sustainable approaches, French cities were willing to operate a change of scale and generalize innovations and good practices to entire conurbations.

Thus, when the former de Bonne barracks site of 8 hectares was vacated in 1994, it was the ideal opportunity to experiment an eco-district project, by declaring it Concerted Development Area. Among constructions, 900 accommodations (of which 25% are social housing), a positive energy

office building, a shopping centre and primary school have been created. Grenoble can now dream bigger, moving from an eco-district to an eco-city approach. A whole urban ecosystem can be set up. Scaling up make new solutions possible, particularly by pooling energy and mobility.

A lot of eco-districts are now being built across Europe as a way to implement projects at a local scale. The French ministry of housing, territorial equality and rural areas has initiated in 2012 a national approach to favour common reference frameworks, exchanges and dissemination of practices.

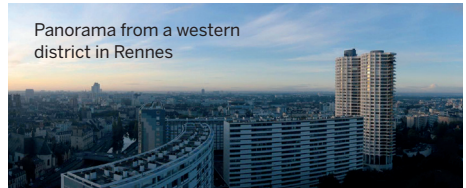
By Myriam Jacquet, FNAU

RENNES | FRANCE

Managing Land Use through Planning

Gathering 43 cities and 427,000 inhabitants, Rennes Métropole has set up effective urban planning policies to protect farming lands from an urban sprawl phenomenon. By doing so, Rennes Métropole has avoided most of other negative patterns -like social discrimination or main cities congestion – by developing three main policies. First of all, planning rules have been created so that the urban area develops as an “Archipelago-City”. “Urban fields” – meaning spaces precisely bounded – give farmers a guarantee that their fields will never be used for something else than farming. In order to keep welcoming new settlers, the last two Urban Master Plans encouraged creation of secondary urban centers connected by transportation towards the core of the metropolis.

Moreover, secondary urban centres limit urban sprawl and farming lands decrease. By welcoming new settlers, those medium cities are de facto in charge of precarious population. In suburbs, housing renewal and new constructions tend to greater density, in order to limit land use. Finally, a land



Panorama from a western district in Rennes

policy was settled in the 1970s to manage land use, rightfully seen as a non-extendable resource. A dedicated tool, the Local Public Land Establishment has been created. Each year Rennes Métropole purchases some land before real estate operations, what leads global prices down. These different policies were established in a collaborative way and created a sense of solidarity between all cities. The level of equipment among municipalities has significantly increased; enabling the metropolis to deal with environmental issues, especially energy changes and fight against climate change.

By Henri-Noël Ruiz, AUDIAR and Marianne Malez, FNAU

LYON | FRANCE

Metropolitan Planning Towards Inclusion and Quality of Life

For the last 40 years, Lyon's main challenges have been metropolitan coordination, economic development, integration of deprived suburban districts, quality of urban life especially through public spaces. To address these challenges, planning frameworks were designed and several master plans have been successively approved to design the main lines of development areas for future urban projects based on the urban regeneration. Those master plans have also envisioned new metro and tramway lines to inclusively connect the city center and the suburbs. Programs for urban renovation, renewal and revalorization

have been developed since 2008 with ambitious commitment about energetic transition.

Lyon has developed strong technical tools to implement those policies : some mutualized metropolitan teams, gathering all the stakeholders, a urban planning agency at the metropolitan level, some dedicated public operational bodies to drive the implementation of urban projects and some specific plans to enable the master plans implementation (land use plan, the Green plan for the protection of natural areas).

By Brigitte Bariol-Mathais and Marianne Malez, FNAU

DUNKERQUE | FRANCE

Targeting Habitat to Stimulate a Larger-Scale Change

Thermography of urban areas in Dunkerque



The Dunkerque Urban Community (CUD), 21 municipalities for approximately 200,000 inhabitants, has been committed for several years in tackling climate change. Beginning in 2004, a thermography of the territory was made available online showing buildings heat loss used as an awareness tool for the public. To accompany inhabitants willing to improve their homes' energy efficiency, the CUD has created a special team and an assistance fund. Entitled «Réflex'énergie», this device is based around 3 main axes: observation, consulting and assistance.

Eight years later it concretely led to: promoting of energy-effective materials and equipment; facilitating production of renewable energies; supporting local economy and train building trade professionals.

If a balance for this same time period shows that nearly 3 million euros were allocated as subsidies, it was estimated that every euro spent pumped 11 euros into local economy. Moreover, this device alone allowed achieving 25% of Territorial Climate

Plan objectives. The scheme extended within the framework of a General Interest Program named "fight against fuel poverty"¹. A special "Réflex'énergie" testing was led on 10 homes (also identified as National Agency for Habitat Improvement beneficiaries) who find themselves in difficulty in this particular regard.

Encouraged by these results and rewarded in 2014 by European label Cit'ergies gold, new objectives have been fixed for the next 5 years. For now, 3 projects are on the agenda: participation to a regional project creating a third-party financing indirectly individual housing's energy refurbishment; diffusion of a solar land register for everyone to know its thermal or electrical production potential; a first extension of district heating network that will enable social landlords and homeowners to connect housings to local, carbon-free and competitive energy.

By Franck Mèrelle, AGUR (Dunkerque urban planning agency) and Myriam Jacquet, FNAU

MELBOURNE | AUSTRALIA

Turning a Great City Green

Capital of Victoria State and metropolis of around 4.4 million inhabitants, the city of Melbourne has experienced in recent years extreme climate conditions such as record breaking low rainfalls to extreme heatwaves. Rising temperatures in Australia are expected to outpace global warming worldwide.

Urban forests have proven to be one of the most effective methods for mitigating heat retention, particularly in central business districts. It appears that the city's urban rainforest is an invaluable environmental asset although 23% of it is estimated by scientists to be lost by 2020 (and up to 39% by 2030) as a result of drought. Endangered by climate change, the City of Melbourne's response to this threat is to develop a new approach to urban planning through an ecosystem-based climate adaptation program. This program embraces a "nature-sensitive urban design and planning" with three facets: protect,

pestore, create. Its primary goals are to reduce drought vulnerability and cool the city by 4°C. The programme is underpinned by the Open Space Strategy, wich aims is to increase green space by 7.6% and by the Urban Forest Strategy, which is projected to to double the City's canopy to 40%. The program has already led to the planting of 12,000 trees to increase urban forest diversity. Other components of this approach are indeed improvement of vegetation health through a monitoring of trees' diversity and resiliency (tree instability, register of pests and diseases, soil salinity...).

Regarding water sensitive urban design incorporation and exten-

sion, big and small scale system are planned: swales, water sensitive tree pits, raingardens, or prototype for in-road stormwater capture.

The city decided in 2010 to dedicate a multi-million dollars to the Urban Landscapes Adaptation Program. Also, a four-year citizen engagement program is part of this strategy to sensibilize and raise public awareness on the importance of this urban policies.

Expected benefits are numerous: climate resilience, improvement of air quality, reduction of energy demand and associated costs, reduction of illness and morbidity, increase of city liveability and thermal comfort and improvement of visual amenity of the public realm.

From "International Guidelines on Urban and Territorial Planning" – Inspiring Practices annex, UN-Habitat (2015). By Yvonne Lynch, City of Melbourne



Swanston Street, Melbourne

RIO DE JANEIRO | BRAZIL

Rio Rural: a Sustainable Rural Development Programme

The Rio Rural Programme was created with the objective to promote sustainable development of the agricultural sector, within a scenario of environmental degradation and rural impoverishment caused by historical land use cycles of unsustainable and low productivity agriculture systems. This situation has been exacerbated due to lack of planning and lack of integration of public policies to address the main social, economic and environmental problems in territorial level.

The goal of Rio Rural is to engage small farmers in global efforts to reverse land degradation, deforestation and soil erosion.

Rio Rural have been using micro-watershed as a methodological approach fostering improvements in rural production processes within a framework of market-driven agricultural development, provision of environmental services and adaptation of the rural sector to climate changes. It focuses on sustainable intensification of smallholder farmers, adding value and improving market linkages.

Programme promotes family farmers' empowerment, strengthening community organization through capacity-building processes and encouraging associativism, raising awareness about environmental issues and promoting farmer's social and productive inclusion, so they can act as main partners in the sustainable management of natural resources and eco-friendly agriculture.

Implemented by the State Secretariat of Agriculture and Livestock of Rio de Janeiro, with funding from the World Bank (2010-2018), Rio Rural promotes the adoption of sustainable management practices that can provide environmental services: soil conservation and water protection, carbon sequestration and conservation of the biodiversity of the Atlantic Forest.

Rio Rural is now present in 251 micro-watersheds in 72 municipalities, extending its actions to almost 80% of the State (366 micro-watersheds). Until 2018 the Programme will engage 47,000



Farmers from the Rio Rural Programme

farmers in development actions, achieving 200,000 hectares of agricultural land under improved production systems. As a counterpart to their production systems, farmers agree to implement conservation and restoration practices in their lands, contributing to water protection and conservation of Atlantic Forest biome.

These households are increasingly adopting practices such as reforestation, spring protection, recovery of riparian vegetation and protection of water recharge areas, among others with direct impact on natural resources.

In order to stimulate smallholder's transition to sustainable and agro-ecological systems, Rio Rural articulated the Network of Research, Innovation, Technology and Sustainable Services in Micro-watersheds, involving 19 partners among universities and other research, educational and extension institutions in participatory processes to improve dissemination of agro-ecological systems. With focus on organic food production, the network have fostered adoption of good agricultural practices and supported certification of 100 farmers, contributing to increase organic food supplying in Rio de Janeiro, the second largest consumption market in Brazil.

By Nelson Teixeira Alves Filho, Sustainable Development Superintendence / State Secretariat of Agriculture and Livestock of Rio de Janeiro

SAO PAULO | BRAZIL

Serra do Mar and the Atlantic Forest Mosaics

The largest area of preserved Atlantic Forest of Brazil is in the state of São Paulo in the territories of the Serra do Mar State Park. The Serra do Mar State Park alone consists of 332,000 acres in 24 municipalities of São Paulo, which contribute to climate regulation, promote the quality of water supply and provide shelter for mammals, amphibians and reptiles, and half of the bird species of the biome.

The illegal occupation and consolidation of these areas have brought harm not only to the preservation of the Park, but also the actual resident population. The so-called “bairros-cota” were built in one of the weakest parts of the forest, with high geotechnical risk. In over 40 years of occupation, there has been a worsening of environmental impacts – with deforestation, exploitation of species and pollution of the Cubatão River. At the same time, the vulnerability of families reached alarming rates, especially considering the precariousness of many households and the risk of serious accidents.

This program is both a social and an environmental recovery project, aiming to eliminate risk areas by working with the community and promoting the conservation, sustainable use, and environmental restoration of the biome “Serra do Mar”. In December 2010, a contract was signed between the Government of the State of São Paulo and the Inter-American Development Bank (IDB) to carry out the Serra do Mar and Atlantic Forest Mosaics System Social and Environmental Recovery program. Their guidelines, however, were based on the work that has already been carried out since 2007, especially the registration of families of bairros-cota in the municipality of Cubatão, conducted by CDHU (Housing and Urban Development Company of the State of São Paulo), and the survey of geotechnical risk presented by the IPT (Technological Research Institute). Following actions were developed.

1. Protection of Environmental Conservation Units.

2. Social Investment in the Serra do Mar: Relocation of homes which are in risk areas, urbanization of homes so that they don't face risks, community empowerment (Center for Solidarity Economy and Local Development; Community Communication).

3. Monitoring of Fully Protected Conservation Units: involves training and equipment provision to the Environmental Police (PMA) for the implementation of surveillance activities in the terrestrial and marine Conservation Units, as well as for the development of a monitoring system.

As a result of this project, the following results have been achieved:

- 4,000 families already relocated to safer areas, remaining 2,700 families yet to be assisted;
- Forest recovery of vacated areas and eradicating 200 hectares of exotic species;
- Building protection infrastructure deployment and public services inside conservation units;
- Implementation of management plans for Serra do Mar Park and protected marine areas; and
- Procedures for environmental monitoring in order to prevent the reoccupation of risk areas.

By Martina Müller, São Paulo State Secretariat for the Environment,



Serra Do Mar

QUEBEC | CANADA

Transitioning to a Low-Carbon Economy

In order to reduce its GHG emissions to a greater extent, the Government of Quebec developed and implemented a regional carbon market mechanism that would enable carbon pricing throughout the economy while guaranteeing that GHG emissions would drop.

In 2013, Quebec moved forward by setting up a cap-and-trade system for GHG emissions allowances (C&T system), which became the cornerstone of Quebec's strategy to fight climate change. Quebec linked its C&T system to California's on January 1, 2014, at once creating the biggest carbon market on the continent and the only one in the world to have been designed and operated by sub-national government in two different countries.

It is aimed at reducing GHG emission in selected economic sectors while offering companies a measure of flexibility to enable them to comply with environmental requirements. Companies that succeed in lowering their emissions below the level of their allotted emission credits can sell the surplus on the carbon market to companies whose emissions exceed their quotas.

In Quebec, the carbon market covers companies in the industrial and electricity-generating sectors, as well as distributors of fossil fuels such as

gasoline, diesel oil, propane that are used in transportation and heating and that account for at least 25,000 metric tons of equivalent CO₂ emissions per year. The system currently covers 85% of GHG emissions in Quebec.

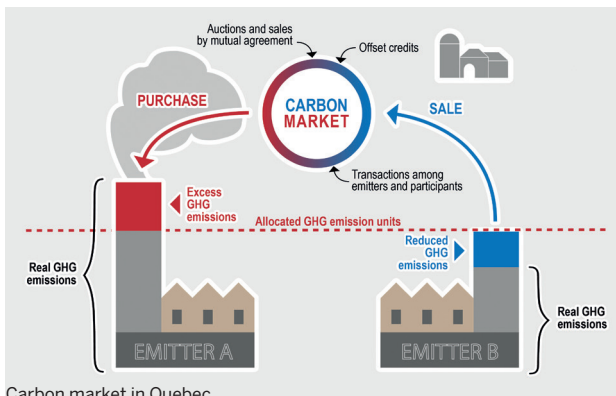
The government holds GHG emission unit auctions four times a year. All income from the carbon market is reinvested to implement the measures stipulated in Quebec's 2013-2020 Climate Change Action Plan. The measures set out in the action plan help reduce GHG emissions, prepare Quebec society to adapt to the impacts of climate change and accelerate the shift to a strong, innovative and resilient low-carbon economy.

The Quebec and California cap-and-trade systems are based on a common design concept. However, a number of integration issues arose when the two partners decided to fully link their systems. One of the challenges stemmed from the fact that the systems operated in different linguistic and legal contexts. In Quebec, it was written in French using the Civil Code, while California used the English language and the principles of Common Law.

The WCI carbon market It is now functioning efficiently, and is being rolled out as planned, which testifies to its judicious design. The principle of quotas on companies incentivizes them to

adopt eco-responsible practices by improving their energy efficiency or using alternative and renewable energy sources. In this way, the carbon market stimulates creativity and technological and business innovation while engendering new motors for low-carbon economic development.

*By Claude Audet-Robitaille,
Ministry of International
Relations and Francophonie
of the Government of Quebec*



BRISTOL | GREAT BRITAIN

An Integrated Approach to Food Resilience

Bristol is the largest city in the South West of England with a population of around 432,500 people. It has been an active participant in the URBACT Sustainable Food for Cities project. Each city partner has promoted an integrated strategic approach to producing, distributing and enjoying food. The food chain accounts for some 31% of the EU's carbon emissions and the project has emphasized city authorities' role in tackling this through their procurement, planning and influencing functions.

Bristol has adopted an ambitious strategic approach to food systems planning. Through the establishment of the UK's first Food Policy Council (2011) it created a framework for improving the local food system. As an independent body, the FPC has also promoted the principle of multi-stakeholder involvement, and participation is at the root of the city's activities.

An important starting point in this process was the establishment of baseline data through an independent evidence gathering exercise. This work – funded by the city and health authority – was a comprehensive review of the city's food system. The resulting 'Who feeds Bristol?' report considered environmental, economic and social issues and recommended a series of actions articulated through what is now the Good Food message, the city's food planning framework. Bristol's approach consists of a range of integrated activities designed to encourage local food production, distribution and healthy consumption. The city's planning approach prioritizes the use of land for food production and includes support for community-based food producers.



One of these, founded in 2010, is Sims Hill, a "Community Supported Agriculture" project of several acres just 3 km from the City Centre that involves 65 members. The Sims Hill Shared Harvest is one example of an inspiring initiative that reintroduced traditional market gardening onto high quality agricultural land that could otherwise have been lost to food growing.

At the other end of the food chain, the city actively supports citizens' capacity to produce healthy meals from locally sourced products. One example is the Square Food Foundation Cookery School And Kitchen, located in one of Bristol's most deprived neighbourhoods, where residents are less likely to eat well. This model now offers 'transition' food, offering a pragmatic compromise between junk and wholesome food after the failure of a 100% wholesome version.

By Melody Houk and Eddy Adams, URBACT

GREATER TORONTO AREA | CANADA

Long Term Food Security Through Planning

The Greater Toronto Area is formed by the central city of Toronto and four neighbouring municipalities, with a total of 6 million inhabitants. In order to secure agricultural production and prevent the transformation of rural land into a sprawling urban landscape, the government of the province established in 2005 the Greenbelt Plan (GP). It specifies three main goals: protecting agricultural and land base from loss and fragmentation; permanently preserve natural heritage and water resource systems (wetlands) with sustain ecological and human health.

The Greenbelt forms a broad band of protected countryside that ensures permanent protection to natural systems but also to human economic and social activities associated with rural communities.

Implementation of the Greenbelt Plan occurs through the coordination of upper and lower tier municipalities and amendments to their respective planning documents. It has ensured the effective protection of nearly 2 millions of acres of land and 5,500 productive farms. As a result, food security has been adressed within the region, providing jobs and reducing the energy consumption due to the proximity of agricultural lands and markets. It also increased the green systems connectivity and the environmental quality of the region as a whole.

From "International Guidelines on Urban and Territorial Planning" – Inspiring Practices annex, UN-Habitat (2015). By Prof Wayne J. Caldwell, University of Guelph, Canada

RABAT-SALÉ | MOROCCO

Interdependence between Urban Development and Environment

Rabat-Salé is a conurbation of 1.5 million inhabitants. The areas has many assets such as a long coastline and green belt. As the willing of local authorities is to convert Rabat into a sustainable city, an experimental study was led in Al Boustane neighbourhood, with the expectations of taking into account environmental and energy aspects in urban planning. Since 2009, Rabat-Salé's urban

planning agency initiated the realization of a development urban plan of this neighbourhood (250 hectares), last urban wasteland available in the city. With financial and methodological assistance of both ADEME and Lyon Planning Agency, the Environmental Approach of Urbanism (AEU) methodology was chosen to integrate an environmental dimension in the planning and construction of this eco-district. The AEU often takes the form of assistance in project management: its function is to permanently question the project and measure its environmental impact. Solutions identified to this day are: creation of a park crossing the district from east to west, a greater mixity between housing, offices and malls, a coherent new transportation network.



Green alley near Great Mosque of Salé

From a project by ADEME

AHMEDABAD | INDIA

Connectivity, Integration and Inclusion through Transport

Ahmedabad is the largest city in the western Indian state of Gujarat, key industrial, commercial, economic and educational hub with an estimated population of 5.8 million inhabitants. In the late 1970s the administrative capital of the state was moved to the new city of Gandhinagr. This political shift, together with the deceleration of industrial activity and the instability brought by political and social agitation, marked the start of a long period of Ahmedabad's decline. Subsequent underinvestment in infrastructure and services led to a string of transport challenges including poor service quality, such as unreliability, an exponential increase in private vehicles with high levels of congestion and pollution.

To face this deteriorated situation, under the framework "Accessible Ahmedabad" the decision was taken in 2005 to build the Janmarg Bus Rapid Transit (BRTS) to attract latent transit demand, improve air quality and promote the compactness of the city. The project was developed in line with the Ahmedabad Integrated Transit Strategy aimed to develop an intermodal system comprising bus system, BRT, suburban railway and a metro. The objective was to increase the public transport share from the existing 17% to 40% over a period of ten years. As a result, 26% of two-wheeler users have shifted to BRTS and the system saves 200,000 vehicle kilometres per day. The network serves many low-income areas as higher-income communities. Furthermore, from the urban planning perspec-



Bus entering a BRT station in Ahmedabad

ive, the project managed narrow right-of-way and encouraged urban regeneration via several innovations: fully pedestrian and transit street sections, one-way bus lanes, new roads and bridges.

The implementation has enhanced accessibility, connectivity, environmental quality in Ahmedabad, but also has encourages urban regeneration and new housing building, catalysing development throughout the city and proving that BRT system works for the Indian context if adapted to the local context and culture.

From "International Guidelines on Urban and Territorial Planning" – Inspiring Practices annex, UN-Habitat (2015). By Shipra Narang Suri, Vice-president, ISOCARP, India

GREAT ABIDJAN | COTE D'IVOIRE

Transportation, Plan, Tool Sustainable et Development

Great Abidjan is a region comprising 19 municipalities with an estimated population of 5.4 million people growing at a fast pace. The last Transportation Plan of Abidjan expired in 2003 whereas the last Master plan did not led to satisfactory implementation.

In this context, an Urban Master plan of Great Abidjan (named SDUGA) was realized in 2014 with a 2030 vision. The document was designed to include the Strategic Transport and Mobility Plan and feasibility studies for a few structuring or integrated urban transport projects. Such bias allows to better aligning with the National Strategy for sustainable development 2012-2016 objectives. Regarding transport, the aim is to

reduce its negative externalities by allowing implementation of a less space and energy consuming mass transportation system, to face an increasing mobility demand highlighted by a new Household Travel survey.

By addressing simultaneously various facets of urban planning (urban renewal, spatial management, public housing...), the territory is more likely to magnify environmental advantages of all projects and ensure continuity of identified actions.

From "La Planification intégrée, outil de développement durable des transports urbains : cas du Grand Abidjan". By Y.G. Konan, CODATU

HANGZHOU | CHINA

The Success Story of a Bike-Sharing System

Hangzhou, a city of 8.7 million people, is approximately 90 miles away to Shanghai. Before April 2006, Hangzhou's public transportation options consisted only of local buses and taxis, with no common fare collection media. To provide an

attractive alternative to car use, the municipal government opened the first of 11 planned Bus Rapid Transit lines and three additional ones and established a bicycle-share program.

Two years later, the first bicycle-share stations were opened on almost every block in the city, making it today the largest system of its kind in the world. Indeed, the network progressively expanded with a total of 60,000 bicycles available throughout the system at more than 2,400 stations. In 2010, 75 million bicycle trips were made using Hangzhou's bicycle-share system – an average of 205,000 trips each day.

The success of Hangzhou's bicycle-share program is due to the convenient locations of the bike stations throughout the city but also to its minimal cost (first hour is free) and the high level of connectivity with public transportation.



One of the bike stations, Hangzhou

By Myriam Jacquet, FNAU

MEDELLIN | COLOMBIA

Reshaping Medellin through Social Urbanism



A BRT line path
in Medellin

Medellin and the capital of the department of Antioquia, and constitutes with 9 neighboring cities the second largest agglomeration of Colombia with approximately 2.4 million inhabitants. During the eighties and nineties, the city faced severe challenges due to drug trafficking, fragmentation of the territory and violence. Nevertheless the city registered a demographic growth and urban sprawl, due to rural exodus. Since 2003, the elected mayors brought a more holistic paradigm to territorial planning, defined by social urbanism. Public places were made safer, welcoming and accessible. To restore social cohesion, a solidarity-based cohabitation was encouraged and environmental factors revised by fostering community and individual participation in urban regulation, economic integration and reduction of violence.

The specific tool that enabled these transformations was the Integral Urban Project (IUP). The IUP envisioned a set of innovative, original and adapted development projects to leverage urban mobility for inhabitants, installing improved transportation systems and urban services especially

within unprivileged areas – hosting 40% of the population in order to connect them to the city centre. Through the IUP, Medellin managed to articulate its Structuring Master Plan with fixed interventions in order to impulse territorial dynamism and connection.

Automatic escalators, the Metrocable and the Library Parks are known worldwide and attract leisure and professional tourism. Even more remarkable, as a result of the transparent and efficient management of the projects and resources, tax collection has increased by 35% between 2003 and 2007. Furthermore, the homicide rate has been reduced by 80% over the past twenty years, which subsequently improved the economic growth. This demonstrates how social urbanism in Medellin has contributed to the construction of peace by establishing a new civic culture.

From "International Guidelines on Urban and Territorial Planning" – Inspiring Practices annex, UN-Habitat (2015). By Elkin Velasquez, UN-Habitat Regional office for Latin America and the Caribbean and Luc Aldon, consultant UN-Habitat

MORONA SANTIAGO PROVINCE | ECUADOR

The TARIMAT Plan, La Vida Plena

We are concerned about mankind insisting on social and economic paradigms that are unable to solve the basic problems of society. In the Amazonian province of Morona Santiago, we have been working since 2009 on a project of alternatives to developments. Our reference is TARIMIAT or “full life” / “good living” (vida plena). Our territory covers 24,054 km² with forests, oil and mining reserves, and rivers. We preserve our territory and resist extractivism, as well as irrational progressivism of our Amazonia. The political principle that we have propose is to construct a public co-administration with social actors and organisations. It is not a question of institutionalising the social structure, but including our people’s ancestral vision of the world, looking into the past to plan the future. Based on this perspective, we have formulated our TARIMIAT and territorial development plan.

The main actors of the TARIMIAT Plan are social organisations with a similar structure. The basic unit is the centre or community which has a community representative, and the steering group. The group of communities is called Association, represented by a president and its governing board and finally the organisation of several associations forms the Federation which is run by a President and its governing board. In the province there are:

1. The FICSHE: Interprovincial Federation of Shuar Communities of Ecuador, an organisational structure created in 1964, grouping together 45% of the population, with 70,000 inhabitants, and it is comprised of 500 centres. Its structure spreads over 29.8% of the territory
2. The NAE: Achuar Nationality of Ecuador, created in 2005 in Morona Santiago. This organisation groups together 8603 people, 12 associations and it extends over 14% of the territory.
3. NASCHE: Shuar Nationality of Ecuador, created in 1960 with 11 associations and a population of 18,000 inhabitants, it covers 10% of the total territory of the province.



The Pablo Sexto Canton in the Morona-Santiago Province

tional committee, with rotating presidency, set up in 1998. The objective is to produce proposals, initiatives and actions that benefit its members. As an organisational space, it has been strengthened around the construction of a “political project” or territorial plan called “TARIMIAT”. To manage issues relating to public policies and institutional decisions, it has been extended and it includes the first two elected authorities – Prefect and Vice-prefect – and the Provincial Coordinator of Pachakutik – a political movement – becoming the Special Provincial Commission, called and managed by the latter.

The TARIMIAT has represented a discussion process over the last five years, territorialised by the communities and associations, and approved in the inter-federational committee and the special commission. To this end, a system of social participation has been developed (regulation/ordinance) which is framed within the management model that responds to our territorial reality and is based on “Ordering by Obeying”, that is this decision is in the hands of the communities. As a consequence of this initiative, the organisational structure of the Province has also been strengthened.

By Government of Morona Santiago

SUD KOMOÉ | IVORY COAST**Developing Awareness through Ecological Schools**

Agricultural production remains the basis of the Ivorian economy. With overexploitation of forests for timber and fuelwood by 16 million hectares at the beginning of last century, the rainforest decreased from 9 million hectares in 1965 to approximately 2.5 million hectares today. Therefore, for South-Comoé region reforestation remains a concern, emphasizing community agroforestry by planting trees in schools.

As a consequence, the Regional Council of South-Comoé has helped educate future generations in the fight against environmental degradation. To that end, the Council has developed activities to accustomed students to collective work via environmental and training activities addressed to students have been developed with the aim to make youngsters respect the environ-

ment and to make them future concerned citizens in their local neighbourhood.

The project requires awareness campaign materials for students, parents and teachers in all localities of the South-Comoé region. To that end, communication tools such as posters, TV spots and radio, T-shirts, caps, advertisement in newspapers etc. have been used.

As a result of the developed efforts, the collective work has become regular among student behaviour; with environmental education in forest degradation and greenhouse gas emissions being effective.

By Dominique Koumane, Regional Council of Sud Comoé

WESTERN PROVINCE | SRI LANKA**Educate Children to 3R Concept**

This concept was initiated and developed by the Western Provincial Department of Industries to enhance the knowledge of the 3R concept of

school children to aware them of the need to achieve a sustainable development.

This project uplifts the carpentry and light Engineering Industrialists while contributing at certain amount to the national policy in the construction field though resource repairing, minimizing resource waste, motivating the students to public property and training them in the 'reuse' concept, which is a component of the 3R philosophy.

Although the achieved results are satisfactory, additional efforts will be made. For instance, although awareness programs were conducted on maintaining school furniture, there was not enough significant reduction in broken school furniture and transport facilities should help.

By Nayanananda Nilwala, Western Provincial Ministry of Agriculture, Agrarian services, Minor Irrigation, Industries, Environment, Arts and Cultural Affairs



Educating to furniture reuse

AZUAY PROVINCE | ECUADOR

A Field-City Agri-Production Solidarity

Globalisation created an economic geographical division between centre and periphery, contributing to the concentration of wealth in a few hands, and establishing a dynamics of products and prices based on unequal exchanges and relations. As a consequence, it generates the marginalisation and exclusion of small producers, especially of agro-producers of food for local consumption, who, due to their operational, administrative and organisational weaknesses find their access to the market hindered and therefore are easy prey to intermediation.

The recovery of the concept of fair by the implementation of fair marketing spaces, has been a priority of the Provincial Government, not only as a commercial exchange space but also, and above all, as a mean to generate a fair and supportive economic culture among agro-producers and consumers.

For this purpose, it is supported by 36 organisations of agro-producers from the province of Azuay, but it also has alliances with fishermen from the coastal area, as well as with producers from the Amazonian region in the south of Ecuador, in order to diversify and complement the offer of food for the population and for the actual producers. The priority has been to generate an Agricultural Fair Management Model in Azuay, which is based on 5 priority lines:

1. Producer – consumer relationship,
2. Production and local consumption,
3. Direct sale without intermediaries,
4. Comprehensive education process,
5. Monitoring and follow-up.

The fair definitely has social and political elements. On the one hand, the need to recuperate the com-



The Azuay Market

munity vision in the rural area, by promoting associations and social self-control to guarantee better agricultural products. On the other hand, the need to promote that community vision in urban spaces, generating a greater awareness in the consumers towards social and economic responsibility when they decide which product to buy or not.

Therefore, the commitment of the Provincial Government of Azuay means promoting not only new production methods but also, and above all, recovering the cultural visions of the minga (farm work carried out in exchange for food) and meeting, understanding that our province does not only advance with the action of the public institutions, but that it demands social co-responsibility of each one of the inhabitants who, with their actions, may have an influence on better living conditions not only at an individual and family level but also on a territorial level.

Great results have been achieved. 200 small agri-entrepreneurs have improved their income by 72% and market their products directly. About 1,500 families are now purchasing at the Fair and have diversified and improved their food diet.

By Eduardo Idrovo Murillo, Empresa Agroazuay GPA

SURABAYA | INDONESIA

Championing Green Community Development

Surabaya is the capital city of East Java province, and the second largest city in Indonesia with a population of 3.1 million inhabitants, facing a fast-paced urbanisation and dealing with environmental problems (destruction of mangroves, polluted rivers...). A significant challenge for the city has been to address improvements in the “kampongs”, which are dense and traditional settlements but mostly informal and low-income areas. Carrying indigenous socio-cultural values, they provide homes for 63% of the population, and are recognised as part of the identity of the city. Thus, in 2005, the flagship Green Kampong program was established, and soon became a citywide approach alongside with an innovative planning and development strategy, combining tools for governance and development, such as participatory planning and budgeting decisions and environmental management. The e-governance platform for map-based community budgeting has strengthened social cohesions.

At the city-level, Surabaya introduced a Citizen Park Space Program, a sub-project who worked with slum communities to re-locate them from degrading riverbanks and to transform the areas into popular green community parks with the help of local private companies hence transformed into sponsors of Surabaya’s sustainable development. At the neighborhood level, Surabaya has encouraged communities to generate revenue through their own small-scale green entrepreneurship. Through strategic territorial planning policies, a more com-

pact and environmental friendly city has emerged with green neighbourhoods at the centre of the urban development proposal. The Green Kampong program has delivered a community based solid waste management system, leading to revenue generation and employment.

Local media and private sector key players have been mobilized in support of community driven initiatives for green and safe public spaces. The increasingly active and informed urban community have influenced decision-making in promoting a long term vision of sustainable urbanization.

From “International Guidelines on Urban and Territorial Planning” – Inspiring Practices annex, UN-Habitat (2015). By Imam S. Ernawi, Ministry of Public Works, Indonesia



Taman Bungkul Park in Surabaya

MULHOUSE | FRANCE

A Smart City Tackling Climate Change

Mulhouse Alsace Agglomeration is a conurbation of 267,000 inhabitants of eastern France. The first source of greenhouse gas emissions turned out to be residential and commercial buildings (38 %) then transport and mobility (32%). Local community sees citizen participation as an essential smart city mainstays, a concept used in search of a more sustainable city.

Since a smart city is based on the ability to gather and rely on all its residents' intelligence or user experience to define relevant public policies, various projects mixing participation and/or digital technology are currently conducted.

Thus, a consultation web platform was launched. For now named www.mulhousecestvous.fr (meaning Mulhouse it's you) it will serve as a

suggestion box, a support for surveys, and may also include a crowdfunding section. Indeed, in order to link citizen's ideas to local governance, new information technologies constitute a real opportunity to reach a wider audience, aiming those who may not take part in conventional citizen councils.

On another hand, an electric shuttle service is about to be implemented. With intent to set an example of energy transition, vehicles will operate in addition to the regular network. This high frequency line accessible to disabled people has another advantage: users can track vehicles via a phone app thanks to free Wi-Fi Internet in the streets. Shuttles are free, but open to donations. Revenues will finance green actions identified by associations and submitted to Internet user's votes.

Thus, everyone is called upon to become "climate actors" – an idea spread by "Climat box"; a discounted price kit created by the Urban Community. Filled with technological tools, this playful presentation encourages to actively combat global warming contains for instance: a booklet with tips on housing renovation, a LED bulb and water flow restrictor among others. In order to tackle the greenhouse effect, every Mulhouse citizen is prompted to do a bit for the environment...

By Myriam Jacquet, FNAU



The "Climat box" kit

NORWAY |**“Cities of the Future”, addressing climate change at a local level through legislation**

Norway is a Scandinavian country of Northern Europe with a population of just over 5 million inhabitants. Its economy is dominated by oil and gas export making it one of the top 20 countries with the highest CO₂ emissions. Mean temperature is expected to rise by 3.4°C whereas precipitation has already increased by 20% since 1900. To reverse the trend of environmental degradation, Norway’s strategic bias was to assume that municipalities played a vital role in mitigating climate risk, influencing the urban environment but also attitudes towards energy consumption. In 2008, the government issued planning guidelines requesting public municipalities to prepare climate and energy plans and then ratified the

Planning and Building Act, stating climate change as one of the main focuses of planning.

The “Cities of the Future program” supported this legislation and invited 13 cities to a collaborative project promoting liveable urban forms and reduction of gas emissions. Thus, Norway improved its resilience to climate change and created an ongoing dialogue between key actors.

From “International Guidelines on Urban and Territorial Planning” – Inspiring Practices annex, UN-Habitat (2015). By Hilde Moe, Department of Planning, Ministry of Local Government and Modernisation, Norway

LEIPZIG CHARTER |**Supra-national Coordination for Universal Sustainability**

European cities differ greatly in their urban models and the development challenges they face regarding their diverse historical, economic, social and environmental backgrounds. Since twenty years, European cities and governments have built a common “urban acquis” about sustainable urban development. Thus, European Union proposed a supra-national policy to integrate urban management across the member states. It is from this perspective that the EU Member State’s ministers responsible for Urban Development Policies adopted the Leipzig Charter on Sustainable European Cities in 2007. Based on the principles of integrated urban approach and social inclusion of deprived areas, these common strategies meant to achieve sustainability are addressed at a national, regional and local level. Government agreed to initiate political debate to integrate its principles into local development policies. Ministers adopted also a “Reference

Framework for Sustainable European Cities” (RFSC), which operationalized the Charter. The RFSC is an online tool helping local actors to question and assess the degree of sustainability of their urban development projects, providing grids or indicators. It also established a peer-to-peer network of cities, for sharing experiences and methods about urban strategies.

European Union also led a specific program about cross-border cooperation helping by dedicated funding initiative, planning, projects and governance tools. European Union and Governments are currently working about the “European urban” agenda for building “Cities of tomorrow”.

From “International Guidelines on Urban and Territorial Planning” – Inspiring Practices annex, UN-Habitat (2015). By Andre Mueller, BBSR, Germany, Brigitte Barriol-Mathais, FNAU and Elke Pahl-Webr, Berlin Technical University



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