

Realized for the World Urban Forum of Cairo (Egypt) in november 2024
on the theme "It All Starts at Home: Local Actions for Sustainable Cities and
Communities"

Working group summary
2023- 2024

ADAPTATION: ADAPTING TO ENTER RESILIENCE





For this 12th edition, PFVT has relied on and further developed prospective works gathered across the years. The following elements are based on recommendations and projections for 2050 produced by the groups that previously worked on “Cities and Biodiversity” & “Resilience”, in preparation for the last Forum in Katowice in 2022. Relying on these projections, and together with international experts, the youth and all parties involved, we’ve attempted to envision a desirable future with the key steps to achieve adaptation and resilience, in Benin and in France.

Previous recommendations to recall:

Biodiversity to fight climate change

- Preserve the existing biodiversity
- "Avoid, Reduce, Compensate" principle
- Challenges across topics and fields

Biodiversité as a tool for democracy

- Acceptability of policies
- Growing awareness about biodiversity challenges

1. Include reasoned resource use and resilience to the 2030 pathways
2. Diversify funding means to improve the efficiency of public funding allocated to transition
3. Strengthen the monitoring and assessment processes of projects and of public policies
4. Organize training and capacity building
5. Grant technology a “fair” role
6. Promote a positive vision of a decarbonated future



Editorial

Do we have to flee cities to survive?

Everywhere in the world, the effects of climate change shape up differently: changes in rain levels, in temperature averages; tsunamis, hurricane, coastal erosion, etc.

Climate change manifests in different ways, and these episodes affect the most vulnerable people among us. For a long time, the idea of "climate refugees" was only thought to apply to population movements going from the South to the North. Now, it applies everywhere. Soil artificialization and service destruction, extreme temperatures, sea level rising or coastal erosion force people to leave their homes, if not their countries. This has become the cause of new great migratory waves, due to the lack of urban adaptation in the face of climate change.

In Paris like in other big French and European cities, density works together with land artificialization and urban sprawl. Heat waves have dramatic effects on people's health and on biodiversity. In some places, where temperatures can reach 50 degrees, some cities may become unlivable within the coming years.

We've established three directions to think about how cities can adapt to climate change: Protect, Renaturalize, Renovate.

What roles can cities and urban stakeholders play to answer ecological challenges?

Maud LELIÈVRE
President of the French committee of the International Union for Conservation of Nature (IUCN)

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Introduction

There is no room left for doubt: the natural catastrophe episodes of the last decades that have been happening more and more, with increasing intensity, are the direct and indirect consequences of man-made climate change. And although cities cause most of greenhouse emissions responsible for global warming, cities are also the place where we can take action and develop avant-garde solutions.

“Resilience” relates to a system’s capacity to keep on functioning despite shocks. “Adaptation”, on the other hand, relates to the capacity to anticipate on climate change effects, in order to limit its impact and even draw some benefits from it. This emphasizes the importance of connections and co-dependencies between cities and territories.

Although climate adaptation approaches date back to the 90’s already, adaptation policies were set aside for the longest time to the benefit of policies focused on decarbonation. We’re now at a crossroad, where each decision we make will impact the future. We need to implement these two types of strategies together, simultaneously, and urgently, if we want to make our territories resilient.

No country is protected from the growing number of natural catastrophes, nor from the limits dwelling above natural resources; yet some countries are more equipped than others to take action. Based on the world regions, punctual climate disruptions (heat waves for instance) and evolutions that affect the long run (drought, erosion) impact vulnerable

systems and populations, in greater proportion – in regard to topics such as water access, economic activity loss, forced migrations, etc. The social, economic and environmental costs of ill-adaptation (or non-adaptation) go way beyond the sole cost of adapting to vulnerabilities.

To achieve adaptation, all parties involved – states, public authorities, economic stakeholders - have to commit to it by including social matters to their lines of thought. If we want to act efficiently against climate change, we need to accept that our actions go beyond the limited frame of our own borders and of our cultural resistances.

How to adapt climate resilience to each context and its specificities?

The three PFVT work sessions led to establish crossed perspectives between France and Benin on cross-topic challenges relating to climate change adaptation and to our resilience by 2050. We’ve made projections on how to adapt in the short and long run. This led us to develop a set of graduated solutions, and to see adaptation as a long-term process rather than as a goal; the sessions also allowed us to co-design recommendations to be implemented as of today in order to work toward more territorial resilience – including a 2050 perspective, and the targets set by the UN’s Sustainable Development Goals for 2030.



PART 1: COLLECTIVE CHALLENGES

Scientific projections foresee a 3 degree Celsius average increase by the end of the 21st century. In France, a 4-degree increase hypothesis is used as the projection we agree on.

Adaptation can't wait any longer. For a long time, we thought climate change would mainly impact countries from the South, future generations, future political mandates, etc. Yet the growing occurrences of heat waves, land fires or floods in France for instance reveal our vulnerabilities. A great deal of policies targeting climate change in cities and in territories tend to reveal urban inequalities and create more inequalities, thereby burdening the poorest populations. This is why reaching carbon-neutrality isn't enough; we must also tackle structural factors behind vulnerabilities. Adaptation policies vary depending on geographic areas, environmental specificities, socio-economic and institutional contexts; depending also on available resources and on programs available to monitor hazards, etc.

One condition to solve the equation : knowledge & anticipation

Capacity inequalities in the face of climate change


Talking about capacity building brings the inequalities of actions and of solutions at the heart of the conversation on climate change. It shows that inequalities are an obstacle to adaptation and resilience. Each territory is unique. We can't perfectly replicate adaptation solutions from one territory to the next. How can we tackle inequalities? The question emphasizes the importance of adaptation capacities, and of solution capacities, both at individual and collective levels. Capacities to adjust, technically, financially, politically, socially, are bring into question cities' and territories' socio-economic models in terms of equality - regarding namely gender, if we consider that women are the first confronted to climate change.

Towards a new vision of urban informality

Informal neighborhoods will be the place where half of the world's urban population will increase by 2050. In the meantime, these areas will remain the most vulnerable in the face of climate change: floodable lands, bad housing quality, bad access to essential services, lack of legal and financial protection. In Africa, cities are informal in essence. Urban informality grows and is a constitutive part of the cities, meaning also of urban solutions – whether we talk about the economy, housing or institutions. Urban informality composes with what's "already here". It is flexible, able to accurately adapt to urban challenges: jobs, resilience, economic adaptability and flexibility, alternative services, areas and spaces with strong social and community value. Decision makers have an important role to play to link institutions with actions taken by local communities. To do so, we must shift paradigm on informality.

Vulnerable infrastructures in the face of climate change

Climate change has trickling effects on telecommunication, electricity, water, transportation networks, as well as on food chains, biodiversity, etc. This makes infrastructure and their envi-



ronments a key to build resilience. Adapting networks and infrastructure isn't limited to maintenance and renovation. It also implies considering ecosystems and their environments as levers to absorb vulnerabilities. That's why cities and territories should include such aspects into their adaptation plans, and pair this process with fighting poverty, and looking to ensure food safety and protecting biodiversity.

What tools can we make better use of?

The systemic approach as a bridge to more cooperation

Adaptation calls for an effort to cross disciplines and topics. The process must involve different sectors, actors, and scales. It calls also for multi-actor management, with a variety of actors, in order to co-design and co-develop solutions that can adapt to contrasted realities. It implies as well to draw away from compartmentalized approaches of urban planning strategies and make room for holistic approaches that embrace the interconnected issues between territories, at various decision levels.

Democratic participation, for more equal adaptation

Consulting citizens and choosing for democratic approaches allow to map each territorial context in collaboration with local populations – especially in informal neighborhoods – to try and stick to the local needs and thereby engage with fair policies.

The benefits of nature-based adaptation solutions

A certain number of cities rely on services that biodiversity and ecosystems provide. These are what we call nature-based solutions (NbS). Nature-based solutions have the advantage of being adaptive and reversible, and cheap, and of not relying on heavy infrastructure with heavy environmental costs. The associated costs and benefits of these solutions make them strong action tools to build resilience and adaptation, ensuring the protection and restoration of nature ecosystems, the management of natural hazards on territories, and the decrease of costs and vulnerabilities.

Some tools lacking adaptation facing imminent risks

Lack of funding diversity for adaptation versus inaction costs

Only 7% of all climate-related funding goes to funding adaptation. The costs to adapt to climate change will rise from 170 billion dollars today to 320 billion dollars by 2030, based on UNEP. But this isn't actually much if we compare it with the costs of inaction (cf. STERN report). Yet accessing and securing funding isn't easy, and this situation makes financial inequalities even worse. The question arises of the funds available for urban planning, training, local investment and insurances, and of the obstacles to access and use those funds efficiently. Last but not least, we need to ban funding that supports solutions that damage water, air and biodiversity.

Urban engineering faced with ill-adaptation processes

Territories are both the victims of climate change and the carriers of solutions to adapt, also in regard to technical adaptability. Redeveloping neighborhoods and removing-resettling populations if not of entire cities and territories, are ideas to be included to resilience and adaptation plans. According to Oxfam, some projections envision a 260 million climate refugees increase by 2030, and up to 1.2 billion by 2050. IPCC 's previsions tell us that France won't be spared either and that the city of La Rochelle for instance would be surrounded by water by 2100. The climate emergency forces us to think about actions by composing short-, mid- and more importantly long-run policies. Urban engineering and planning play the role of a foundation for resilience, against "false good solutions", meaning solutions of ill-adaptation.

PART 2: GUIDELINES FOR 2050

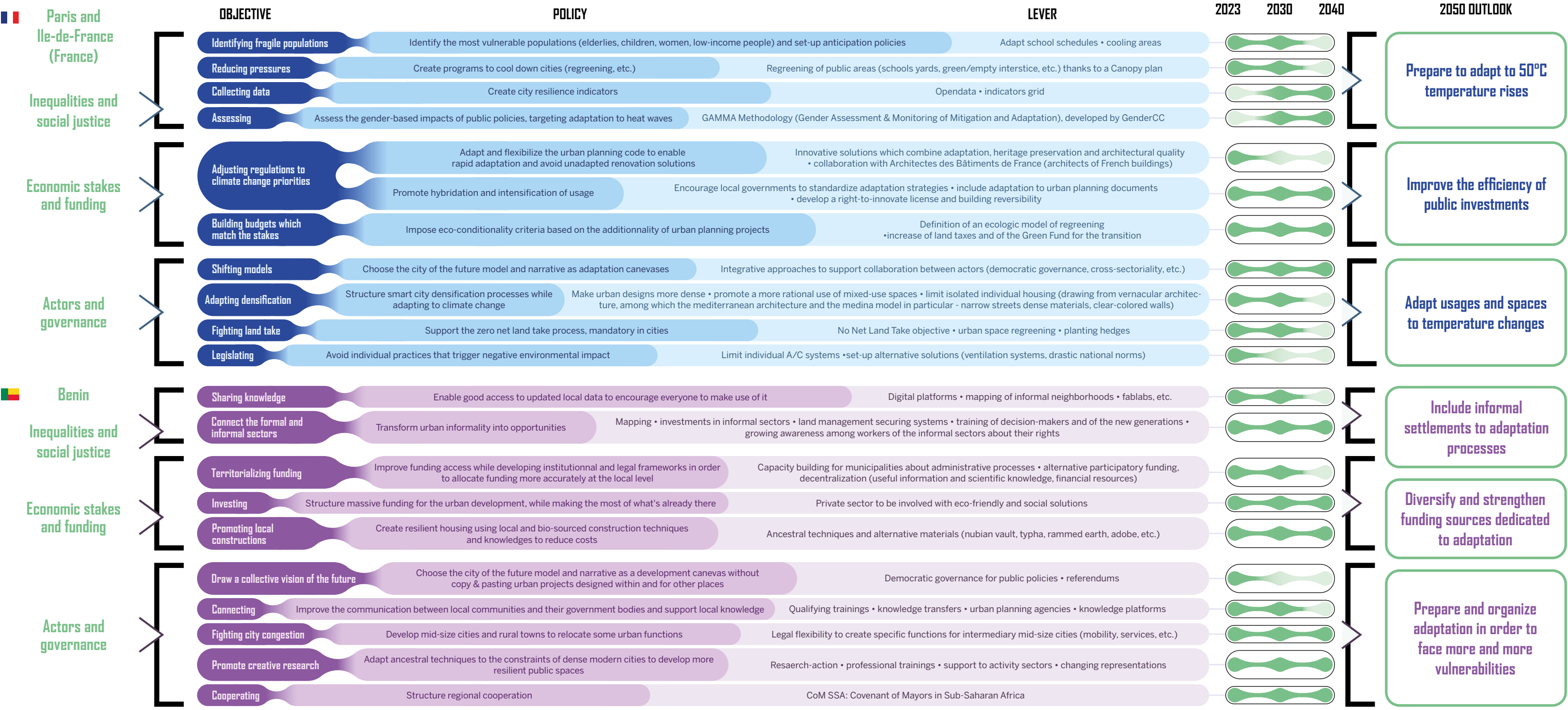
Two-way perspective: France - Benin

The PFVT "guidelines" are operational synthesis that rely on the outcomes of workshops and crossed perspectives held between French and international actors. They are structured around three axes of reflections, crossing different topics: 1, Actors and governance; 2, Disparities and social justice; 3- Economic stakes and funding. Using these documents, PFVT intends to support territories in respecting their commitments to the 2030 Agenda and to provide a set of concrete policies, actions and tools for the short-, mid- and long runs.

TACCT (territories' adaptation pathways to climate change) was developed by ADEME, the French Agency for Ecological Transition. It helped guiding prospective works of the PFVT's group working on Adaptation. The purple guideline results from it. Yet all territories being different, we can hardly copy and paste adaptation policies from one place to the next.

Paris will have to adapt to 50 degrees temperature levels by 2050. The blue guideline suggests concrete s to adjust strategies and operate change. The pink guideline, relating to Benin, suggests action to acknowledge that adapting will involve embracing urban informality as a potential and a resource of the cities. Capitalizing on this knowledge, PFVT defines pathways' key steps, to see first flexibility as a constitutive part of long-term adaptation solutions, and to then identify actions to be implemented as of now while making sure they do not compromise the future.





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PART 3: RECOMMENDATIONS

Working towards the long run

The presented recommendations encompass three lines of intervention that echo each other, to avoid ill-adapted solutions:

1. Limiting consequences upfront by promoting sober resource use.
2. Adapting cities as of now to reenforce habitability to deploy resilient strategies.
3. Protecting populations thanks to actions with immediate effects, to include the most fragile populations.

Recommendation 1

Observation : Local authorities are on the front line to manage climate-induced issues. Yet, they are often excluded from decision-making processes despite their environmental knowledge, their needs and priorities.



Designing and implementing adaptation policies for the local scale, to guarantee more accurate representations of local needs and solutions

- Encourage the mutualization of capacities at a local scale, considering technical and financial advantages that a territory may have since it can grow these capacities in-house.
- Plan adaptation policies at a local scale, by fitting adaptation strategies to the local contexts, developing local diagnosis and local production capacities.
- Rely on local populations to get a better understanding of territories' specificities.

Eco.Fenua Label, French Polynesia, 2021 (FRANCE)

This environmental label was created by ADEME in partnership with the Polynesian club of eco-responsible businesses (EPER) and the Chamber of Commerce, Industry and Services (CCISM). It supports Fenua actors involved with sustainable practices. It also intends to be a guideline to make companies more sustainable; to be a trust indicator for clients and buyers; and become a measuring tool for public authorities to know about sustainable and eco-responsible companies in French Polynesia.





Recommendation 2

Observation : Cities cumulate a lack of sufficient tax resources, of national funding allocated to the local scale, of private funds (since the ones existing are mainly for attenuation measures), and of equal access to international funding.



Supporting the allocation of funding to local policies of adaptation

- Territorialize funding, relying on cost & benefit analysis and on territorial diagnosis, in order to target vulnerabilities.
- Combine technical support systems with the strengthening of local financial engineering, with funding means dedicated to adaptation in mid-size cities
- Make existing funding more readable, using collaborative knowledge platforms about the existing funding opportunities dedicated to adaptation policies (and their impacts)

The AdaptAction program by AFD, 2017

Since 2017, AdaptAction has been supporting 15 countries and regional organisations that are particularly vulnerable to the impacts of climate change in implementing their adaptation strategies. AdaptAction offers technical assistance and capacity-building activities to consolidate their climate governance.

Recommendation 3

Observation : Increasingly frequent and intense heatwaves force us to rethink and protect the habitability of cities, by regulating the massive use of energy demand in artificial urban environments, such as AC systems.



Relying on bioclimatic architecture to turn construction into a tool to adapt to climate change

- Make the climate adaptation of buildings a central element of decision-making from the construction phases all throughout renovations (orientation, materials, reversibility ventilation, etc.)
- Rely on local and ancestral knowledges and know-how's and make sure to adapt them to current conditions (geo- and bio-sourced, low tech, reclaim and recycling).
- Ban architectural solutions that aren't adapted and adaptive to future climate conditions (big glass window surfaces, buildings with big AC needs, dark paint, etc.)

The AQUAA association, French Guyana

AQUAA, or Actions for Amazonian Urban and Architectural Quality, is working to raise awareness among Guyanese construction professionals of the need to reduce environmental impact and promote bioclimatic architecture. To achieve this, it promotes local techniques and materials based on local traditions and experiences (orientation, ventilation, solar protections, local materials such as wood and mudbricks etc.)



Recommendation 4

Observation: Public spaces, as a hub of civic activity, are poorly adapted to climate change, and thus risk leaving people on the sidelines: workers, residents, passers-by, and so on.



Relying on public areas as a tool for cities to adapt

- Embrace nature-based adaptation solutions (NbS) as flagship solutions to protect cities and their biodiversity and to save water in refreshment areas.
- Make soil permeable again to allow for its re-naturalization and regeneration; develop vegetation and water to create freshness islands and shaded public spaces.
- Optimize the localisation of daily life equipments (quarter-hour city)

Oasis Schoolyard, Paris, 2017 (PARIS)

Since 2017, schoolyards have been slowly renewed to become greener, thanks to more vegetation and better water management. Thought out to be freshness islands at the heart of their neighborhoods, some of these schoolyards welcome a broader public than the usual one, outside of school times. This way, these places become refuge areas against the heat, more suitable to be in and to be shared – also for vulnerable populations.

Recommendation 5

Observation: Defined by their concrete grounds, their limited vegetation coverage, their dependency to food and energy importations, cities with growing density are increasingly exposed to climate hazards. So are their populations.



Organizing smart densification to avoid ill-adaptation

- Support what's "already there": rehabilitation, renovation, isolation, converting old buildings before building new ones, supporting experiments in urban wastelands and NbS to adapt
- Densify cities using vernacular architecture, in particular inspired by the Mediterranean area: medina (narrow paths, inner yards, thermic inertia, thick buildings, light colors on the walls).
- Use tactical urban planning (transitory, temporary, reversible) to promote and make use of existing buildings prior to and all along the development of great urban projects.

Gren' de projet, Grenoble, 2017 (FRANCE)

Since 2017, the city of Grenoble has launched a scheme aimed at 'reinventing the use of under-exploited heritage sites' by delegating the management of its assets to project developers, in the form of emphyteutic leases. The scheme, which puts the city in the position of facilitator, has a number of advantages: the city retains a certain amount of decision-making power over the projects selected, but saves on the costs of maintaining its heritage, while local residents can enjoy new attractions.





Recommendation 6

Observation: Today, the focus is mainly of formal neighborhoods. They benefit from more urban policies, regulations and investments. Yet informal neighborhoods prevail in sub-Saharan Africa. Often, informal places are seen as issues rather than opportunities.



Turning urban informality into opportunities to be part of cities' adaptive strategies

- Organize and maintain building-free areas in places known to be at risk
- Secure the land by supporting a dissociation between land and constructions, by including formal, informal and customary land rights, and by using alternative land management methods
- Create informal neighborhoods observatories to collect data, grow awareness among decision-makers about informal areas and make those areas a part of public policies

Luc Gnacadja & Olivier Hillel's White Paper, 2024

This guide, aimed at African cities, sets out the benefits of a 'nature in the city' approach geared towards residents. It underlines the importance for local authorities of a better understanding of the assets and specific features of urban informality to implement strategies that are better adapted, more sustainable and more inclusive.

Recommendation 7

Observation: Urban systems spread more and more while human connections get more and more lost. We must work for more cohesion, especially with and for the most fragile populations.



Choosing for a cohesive approach that relies on "care"

- Connect human adaptation and well-being to the rest of the living (fauna and flora's health).
- Make vulnerabilities (gender, poverty, legal status) a stronger variable in policy-making in regards to critical climate episodes, and create a "climate refugee" world status.
- Adapt existing housing and public areas to the needs of elderly populations, women, children, disabled people, and plan refuge areas (opening up public buildings, former metro stations, etc.)

The Universal City, Paris 19 (FRANCE)

This project led by GA Smart Building relies on inclusive access to facilities and usages and aims to bring down barriers between able and disabled people. The Universal City has various functions. It has a multi-sport event room, provides services to respond to users' needs and the needs of people living nearby, hosts office spaces and hospitality facilities (hotel). It won the open call for innovative urban projects named "Réinventer Paris – Les dessous de Paris"¹. The project should come to fruition in 2027. The City has applied for the Accessibility Label provided by Certivéa.

1. Reinvent Paris, Paris Underneath



SHEFFIELD
MAGISTRATES'
COURT

LOADING
ZONE

LOADING
ZONE

OUTLET



Conclusion

Reinventing life within the city

Environmental degradations affect all human activities; so much so that we will most likely be unable to reach 80% of the UN's Sustainable Development Goals – in particular those relating to poverty, hunger, health, water, cities, climate, oceans and soil.

Adaptation has become a priority to survive. It implies to give priority, as IPCC recommends, to equalitarian approaches, climate justice, social justice and cooperation. Climate change is already a dramatic and increasingly powerful factor of human migrations – directly related to the Anthropocene. This could become worse if adaptation and resilience strategies aren't thought out to include climate migrations.

Resilience and adaptation invite us to take a fresh look at our practices. They invite us to veer toward more environment-friendly lifestyles and to transcend national borders.

To direct our efforts on a shared vision of justice and sustainability, we still have a major great opportunity to transform our

urban models by including nature more, and to choose to allocate more fund toward new urban systems which, slowly but surely, will be made more resilient, inclusive, and respectful of resources.

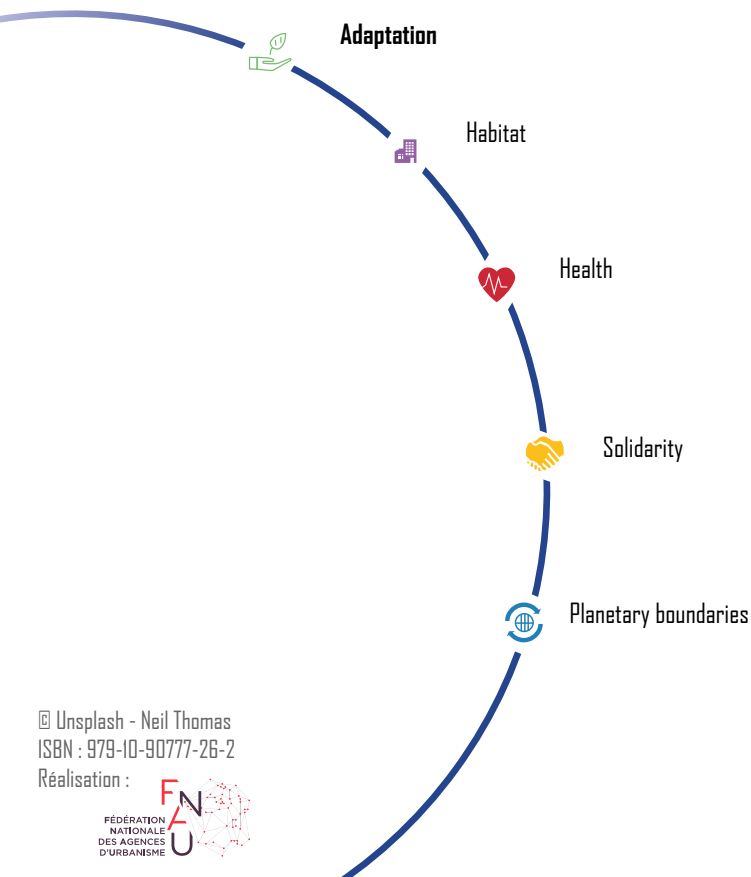
But we must take action now. Adapting our communities and infrastructure must not only be seen as an answer to a problem. It is the cornerstone upon which to build a future where resilience, sustainability and cohesion will trace the path toward better life conditions for us all.

The World Urban Forum, through its capacity to bring together all types of actors – States, local authorities, civil society, private stakeholders – has an important role to play in initiating transformational commitments that support the environment.

The Forum will be a fertile ground for current debates, with coalitions created to find solutions for the future. Such solutions will need to be collective, multilateral, and involve many actors.



Launched in June 2011, the French Partnership for cities and Territories (PFVT) is a platform supported by the French Ministries of Europe, Foreign Affairs, Culture, and Ecological Transition and Territorial Cohesion. The PFVT is a multi-stakeholder partnership and think-tank meant as a hub to exchange and showcase the expertise of French urban development actors on an international scale. It involves almost two hundred organizations reflecting the diversity of France's urban expertise, helping to build a shared French vision based on exchanges and innovative, sustainable experiences. <https://www.pfvt.fr/>



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