

## **Background paper**

FEEM Fall School “Souths of the World 2021”

### **Horizon 2050: Implications for Cities**

*By Paolo Perulli (University of Eastern Piedmont)*

#### **1. The 2050 Challenge**

We all think about sustainability, resilience and governance to understand the future of cities. The goals are clear. Decarbonization, zero carbon emission must be completed by 2050 to maintain the Earth livable for humans. Most humans, probably 2 out of 3, will be urbanite by that time. It largely depends on cities if the UN sustainable development goals will be reached or not. The 2030 will be a first step to assess the achievement of concrete results across the world.

However real mechanisms remain hidden by the current rhetoric of sustainable development by international organizations. Such mechanisms are:

- i. financial capital is still investing in unsustainable enterprises (see Morgan Stanley Corporate Index-MSCI witnessing that less than 10% of the enterprises financed by the capital market are respecting the ESG-Environment, Social, Governance standards);
- ii. land rent is in the hands of regressive policies: the value of land is considered a commodity price by multinational corporations and national governments, and land grabbing is the rule in many developing countries; however land is also a matter of social stratification of uses, entitlements and conflicts (see Wing Shing Tang and Solomon Benjamin, “Land as Situated Socio-Histories”, in M. Lancione and C. McFarlane (eds.), *Global Urbanism*, Routledge 2021);
- iii. social forces are asymmetrically disposed in the world arena: capitalists and lobbies dominate in decision-making such as G20, Davos, etc. whereas labour, intellectuals, youth and women representatives are still marginal. The oscillation of the pendulum between States and Markets is the consequence (see Paul De Grauwe, *The Limits of the market*, Oxford UP 2014);
- iv. global power relations are distorted: some mechanisms like finance and technology are global in nature, independent from and unrelated to possible local governance. However some crucial factors like land control and housing, transport regulation and urban planning are in the full capacity of cities. However cities must adopt a different view with respect to neoliberalism, which has eroded the democratic institutions

of urban government and often assumed an illiberal form (see Gilles Pinson, *La ville néolibérale*, PUF 2020).

Among cities, the global North may play a positive role through new forms of post-pandemic urban deagglomeration, new styles of consumption, green jobs and smart mobility based on digital economy. However mostly Northern companies are investing in the Souths of the World to further extract their natural resources, from oil and gas to lithium to forests.

In the Horizon 2050 the Souths of the World's cities will be determinant. The population shift occurred in just one century will be determinant. In 1950 half of the world population lived in high income countries and only 20% lived in low income countries. In 2050 the relation will be exactly the opposite: half of the population will live in low income countries and only 20% will live in high income countries (source: UN).

Hence a significant shift will occur in power relations and geopolitical domination. According to some, the new world economic capital will be somewhere in the triangle between Beijing (24 million inhabitants today), Chongqing (32 million) and Hainan (10 million), something unthinkable few years ago. The urbanization process will lead the Beijing area to something like 100-130 million inhabitants in the next decades.

It is true that the Chinese economy is developing high tech (eCommerce, ePayment, FinTech, eMobility, eHealth, eduTech) in a way unknown today. And also that the Chinese population increase will reach its peak in 2029 and then decrease. But the whole process is clearly unsustainable given the increase in emissions, pollution and migration that can be forecast.

The world is silent. But we have to say something.

It is a matter of controlling emissions due to the urban explosion, regulating informal activities, avoiding polluting transport in megacities. But it is also a matter of fostering education and sociability, reducing social and ethnic injustice, responding to youths' propensity for mobility and migration.

We need to acknowledge the great existing difference between North and South, between developed and developing countries and among developing countries, with related issues of global environmental injustice:

Tones of CO2 emissions per capita (2019) in selected countries

Argentina	4
Chile	4.4
Spain	5.4
France	4.9
Italy	5.5
Morocco	1.9
Ghana	0.4
India	1.9
Indonesia	2
Hong Kong	5.8
Malaysia	8
Singapore	6.7
South Korea	12
Thailand	4
Taiwan	11
China	7.1
Japan	8.7

Source: Our World in Data based on Global Carbon Project; BP; Maddison; UNWPP

How to cope with this unequal distribution of the burden of emissions is a matter of discussion. The main road is regulation: imposing quantitative limits to companies' emissions by governments in a coordinated way, in order to avoid free riding. Some economists ask for a global carbon tax in order to make carbon emissions more expensive for companies: but this new tax could be easily transferred to final consumers and the reduction of emissions would be limited. Economist Raghuram Rajan (*A Global Incentive to Reduce Emissions*, Project syndicate, May 31, 2012) suggests a global carbon incentive (GCI). "Every country that emits more than the global average of around five tons per capita would pay annually into a global incentive fund, with the amount calculated by multiplying the excess emissions per capita by the population and the GCI. If the GCI started at \$10 per ton, the US would pay around \$36 billion, and Saudi Arabia would pay \$4.6 billion. Meanwhile, countries below the global per capita average would receive a commensurate payout (Uganda, for example, would receive around \$2.1 billion). This way, every country would face an effective loss of \$10 per capita for every additional ton that it emits per capita, regardless of whether it started at a high, low, or average level. There would no longer be a free-rider problem, because Uganda would have the same incentives to economize on emissions as the US. The GCI also would address the fairness problem. Low emitters, which are often the poorest countries and the ones most vulnerable to climatic changes they did not cause, would receive a payment with which they could help their people adapt. If the GCI is raised over time, the collective sums paid out would approach the \$ 100 billion per year that rich countries promised to poor countries at COP15 in 2009. That would far exceed the meager sums that have been made available thus far. Better still, the GCI would assign responsibility for payments in a feasible way, because big emitters typically are in the best position to pay."

This proposal is based again on the idea that we can limit emissions through incentives, stick and carrot strategies. But how can we assume that poorest countries eventually receiving the payments from richest countries will effectively utilize it for reducing emissions? And how to avoid that richest countries will continue to increase their emissions without changing their production and consumption behaviors? All in all, annual US GDP is \$ 21 trillions: the payment would be a small percentage of it.

The future trends of each country and continent are of the utmost importance and their common governance highly problematic. Trends towards a further increase of emissions are commonly reported in most emerging and developing countries. China declared the zero carbon neutrality goal by 2060, whereas Europe, Japan and the USA are engaged in respecting the 2050 deadline. The expansion of carbon power plants is growing in China and other Asian countries. The growing number of commitments from governments, corporations and financial funds to net zero carbon emissions by 2050 are the precondition, necessary but not sufficient, for the end of fossil fuels as a major sector of the global economy

within the next 30 years. 2050 is the date at which the IPCC-Intergovernmental Panel on Climate Change says global emissions need to be zero in order to have a 50% chance of keeping global warming under the threshold of 1.5°C. The next few years will be decisive to invert the trend: by 2030 emissions need to be at half of their 2010 level.

In contrast to those commitments, according to Urgewald (a non profit organization based in Germany) some governments and companies are planning massive increases in the amount of hydrocarbons dug out and sucked from the ground. There will be no staying under 1.5° C., no long-term future for coastal cities, no hope that large parts of the world will remain livable, if this growing fossil fuel extraction and combustion is allowed to happen. Case studies were conducted in: Mozambique, Suriname, the US Permian Basin, Argentina's Vaca Muerta region, Bangladesh's Payra Hub, China's new coal power plants, India's coal mines, the Philippines, Australia's Burrup Hub, the Norway Barents Sea, East Mediterranean, the UK. Together, these 12 projects are expected by Urgewald to cause at least 175 gigatons of additional CO<sub>2</sub> emissions. This is almost half of the 395 Gt of remaining carbon budget to limit global warming to 1.5° with a 50% probability.

The main focus of the 2050 will be Asia. Infact, Asia has become, since the starting of the globalization phase beginning in 1990, the factory of the world. Hence the dramatic increase in emissions.

According to IEA, the International Energy Agency (2021), the CO<sub>2</sub> emissions of the world have increased by +63% since 1990. But Asia increased by +228%, and the Middle East by 230%, Africa by +134%, Central and South America by +94%, North America by 8.5%, whereas Europe decreased its emissions by -22% and Eurasia by -24%.

Even during the 2020 pandemic crisis, Asia increased emissions. China saw a 7% increase in emissions in December 2020 compared with a year earlier. Emissions in India rose above 2019 levels in September as the economic environment improved and restrictions were relaxed. Also in Brazil increases in gas demand in the later months of 2020 pushed emissions above 2019 levels. Instead, emissions in the United States fell by 10% in 2020 but in December emissions were approaching the level seen in the same month the year before, with an increase in coal use.

## **2. The role of cities.**

Cities are the product of the earth, cities are the product of time (Lewis Mumford, The Culture of Cities, 1938). They are emblems of the settled life with permanent shelters, water and other natural resources use, permanent buildings for protection and storage. During time changes have occurred that put at risk our civilization: the use of resources and the concentration of humans have been intensified at an unprecedented pace. The effects on cities of such processes are the focus of the 2021 SoW School. If "planetary urbanization" is the frame to understand such processes of further extraction of natural resources to feed the industrial, international transport and new housing demand, on the other side cities are urgently asked for developing new urban life styles in order to survive.

The cultural clash between these two opposite urban visions, the one 'developmentalist' the other 'ecologist', will be an important feature of the next generation of urban life. For these reasons it is fundamental to ask cities to play a more active and coordinated role in the 2050 scenario.

Before to do so, let's start with some urban history of the last 50 years. Since the 1970s a global shift occurred from the national to the global. The economy was globalized. Power itself shifted from national governments to multinational enterprises and international banks. Global cities were at the core of the period, starting from New York London and Tokyo as main nodes of the global control of finance and high value immaterial services. A world city network was created, centered upon the Western economic capitals but including soon Asia. The main economic flows were based on a tripolar network: North America, Europe and Asia. Global value chains accelerated the process: its hubs and the value created are located in North America, Europe and Asia, whereas Latin America and Africa are never hubs, remaining 'extractive' countries and final markets for global products (smartphones, apparel, and so on) (for further elaboration see Paolo Perulli, *Nel 2050. Passaggio al nuovo mondo*, Il Mulino 2021).

Only in 2020 a crisis of the global assemblage model occurred due to the pandemic. Cities played an important role in reducing mobility (both internal and external), developing smart working, increasing local forms of consumption, spending on renewable energy and soft logistics. To sum up such processes in a word, cities have become more 'glocal' than 'global'. However, this is not enough.

How to overcome the current trend running to climate global disasters? First of all a common strategy at city, national and international levels towards companies must be acknowledged. This is a complicated matter. Cities and nations, since Adam Smith's *The wealth of nations*, are committed to 'their' companies as a source of wealth. A competitive game has been since then played by nations to attract and protect 'their' companies from external competition. However this is no longer the case given the global nature of companies-in fields like extraction of natural resources, data platforms and artificial intelligence, computers and telecommunications, pharmaceuticals and vaccines, etc. This is a game played by industrial giants, that cities and nations must start regulating.

At the moment the game is dominated by opportunism and free riding: a country like China is playing a double match of imperial penetration in the developing world and intensive extraction from nature and workers (and suppression of any autonomy) at home. Among the CIB (China India Brazil) countries China is the leading emitter of carbon per capita especially from 2000 onwards, when there is an exponential upward trend (see Kala S. Sridhar, "Urbanization in the Global South: Economic efficiency, equity and sustainability", in "Equilibri" special issue, 2020). In many developing countries the opportunism of States allied to multinational capitalism is destroying their national endowment of natural

resources in the framework of the financialized, high tech capitalism based on modern slavery (see Giulio Sapelli, *Beyond Capitalism*, Palgrave Macmillan 2019).

In some ASEAN countries (including Indonesia, Malaysia, Philippines, Singapore and Thailand) around 90% of the regional commercial energy requirements are met by fossil fuel combustion. Singapore is the only country where emissions have been reduced, probably because it is the only country which has passed the 'turning point' of high GDP growth. GDP per capita is 50.000 USD in Singapore, but only 3.000 in the Philippines, 4.000 in Indonesia, 7.000 in Thailand and 11.000 in Malaysia. If so, the other countries will continue to increase their emissions. This has raised concern that the rapid growth that these countries are experiencing, on the back of high rates of energy consumption, is potentially contributing to greenhouse gas emissions and resulting climate change. In a "business as usual" scenario the power capacity of these countries is expected to increase three-fold by 2040, and coal will be the source of the 42% of the added capacity due to its abundant availability (ASEAN Centre for Energy, 2015).

How can the world react? In Asia and the Pacific a large part of the future of humanity is at stake for the unprecedented phenomena of economic development underway in that region. The use of resources such as non-renewable energy (coal and gas) and water is concentrated in that part of the world: China and India above all. The only possible answer is decoupling: decoupling economic growth and the use of energy resources. This is possible by increasing energy efficiency and is done by countries individually, but not for the region as a whole. This is due to the shift from the hegemony of resource-efficient countries, such as Japan, to inefficient countries such as China: China uses 5 times the energy per unit of product compared to Japan. Fifty years ago Japan accounted for two thirds of the region's GDP and China only 6%, today Japan has fallen to 31% and China has risen to 34% (UNEP, Global Environment Outlook, 2016).

What to do? Only decisive action for low-carbon economic development can succeed, but not only in international forums: here the rhetoric is wasted. Local action is needed, for example that of low-carbon cities: in the World Registry of these cities there are many Japanese cities, none of them Chinese (except the eccentric Hong Kong and Taiwan, both autonomous challengers of despotic communist regime). A change is needed, a different development model compared to that of Chinese communist capitalism. Japan could teach China.

Which consequences for cities can be envisaged? Climate change and rising sea levels will affect many cities, and large metropolises in the global South are located directly at the sea front, like Jakarta (Indonesia) with 35 million inhabitants. These cities and countries have neither the engineering capacity of the Netherlands, where most of the land is quite below the average sea level, nor the administrative capacity to arrange ways to cope with regular flooding



(which already occurred in 1996, 1999, 2007, 2013 and 2020)<sup>1</sup>. The Indonesia President and former industrialist Joko Widodo announced in 2019 that the capital would be moved from Jakarta to Borneo. Other responses have included the eviction of inhabitants.

A similar case is Bangkok (Thailand), whose development has occurred “against” its nature, an area of abundant water networks producing rich soil, mangrove forests along the coastline and fisheries. Regular flooding and inundation are well known. In the last decades the landscape of the city has been altered due to rapid industrialization and urbanization. Bangkok should reconsider this pattern and reconcile itself with its natural environment, creating large areas of water retention basins to prevent regular flooding and drought, which also occurs (see W. Tantinipankul, *Bangkok Against its Nature*, in G. Gee and A. Vogelaar, eds., *Changing Representations of Nature and the City*, 2019).

All these changes would create an urban sustainable world going in opposition to current climate change. According to some Western views the Global trends will be towards a more contested world: fragmentation, disparities and challenges will increase<sup>2</sup>. But international organizations like UN, OECD, ILO and others must do the game change.

In term of cities and their strategic role, we should assess and further develop the new paradigm of distributed smart urbanization (see Ashok Saraf, *Distributed smart urbanization. New paradigm for post internet era*, in “Equilibri” special issue, 2020). This is the contrary of environmentally unsustainable sprawling cities, consuming more energy by encouraging residents to live farther away from their jobs, as in the case of Indian cities (see Sridhar, cit.). The Indonesia case has also been studied (see S. Arifwidodo, “Urban Form and Residential Energy Use in Bandung, Indonesia”, in K. S. Sridhar and G. Wan, eds., *Urbanization in Asia: Governance, Infrastructure and the Environment*, 2014). This study explores the relationship between urban form and residential energy use. The most important variable affecting household energy use is the housing stock. Urban form plays a role in residential energy use, directly and indirectly. Dispersed land use brings about larger houses and more detached units, which consume more energy than smaller houses and attached units typical of more compact communities. The study concludes that combining the concept of compact urban development and energy-efficient housing design will contribute to better solutions for creating a more energy-efficient city.

### **3. A possible way forward: the European Union strategy.**

A possible way to change the rules of the game is that adopted by the European Parliament in its 10 March 2021 resolution. It states that the European Union, in its relations with the rest of the world, is to promote values and principles like

---

<sup>1</sup> Thanks to Ruediger Korff for this hint.

<sup>2</sup> See for example: National Intelligence Council, *Global Trends: A More Contested World* (2021); *The Economist*, *The World If*, 2018 Edition; Raghuram Rajan, *The Third Pillar: How Markets and the State Leave the Community Behind* (2019).

the rule of law and respect and protection of human rights, and contribute to the sustainable development of the Earth, solidarity, free and fair trade and international law. The European Union is to foster the sustainable economic, social and environmental development of developing countries with the primary aim of eradicating poverty.

This means that every company operating in the European Union and abroad, being part of the European nations or not, must follow these rules. The European Parliament states that the globalization of the economy has aggravated adverse impacts of business activities on human, social and labor rights, the environment and the good governance of States. This is a statement which breaks with the current globalization narrative of neoliberalism. European legislation would affect the social, economic and environmental development of developing countries and their prospects of achieving their sustainable development goals; this significant impact could contribute to the European Union's policy objectives concerning development.

It would be a game change. Companies should respect human rights, the environment and good governance and should not cause or contribute to any adverse impacts; corporate respect for human rights in corporate operations and supply chains is important to achieve the UN SDGs. The global supply chain is a critical aspect: since the beginning of globalization companies invest in delocalized operations in developing countries without respect of human, labor and environmental rights in such countries. However it is unclear in the European Parliament resolution if and how cities and local communities in developing countries will be empowered and receive effective control over the whole process. To do so, foreign companies in developing countries would be asked to give to cities and local communities a constitutional right to define objectives and monitoring forms. A kind of 'economic democracy' still unknown in the economic relations between North and South of the world.

In the EU resolution democracy is declared "the only form of government compatible with sustainable development"; whereas corruption and lack of transparency greatly undermine human rights. But how to impose democratic rules in the market's power relations linking Northern companies and Southern cities and local communities is a matter of game change.

Indeed, in such relations systematic subordination and even corruption has been the rule. It can have a devastating effect and lead to systematic violation of human rights in the business context. Corruption can prevent individuals from accessing goods and services that States are obliged to provide to meet their human rights obligations. Or it can increase the price of such goods and services, by encouraging wrongful acquisition or appropriation by business of land, or facilitating money laundering, or by granting unlawful licenses or concessions to businesses in the extractive sector. This is clearly a new European way of considering the natural resource endowment of developing countries today: it would be necessary to ask the same rule of conduct to other foreign investors in developing countries, like China in Asia, Africa and Latin America. Will be African and Latin American cities able to ask such power of control over their territories where foreign capital is operating?



At the moment the answer is negative. See for example their weakness in term of economic resources and welfare provisions. Very few African countries allow sub-national authorities to control 5% or more of the national budget (see Paola Pasquali, "Studying urban policies in cities of the Global South", in "Equilibri" special issue, 2020). However some emerging cases, like the new Chile constitution-building, could provide new positive answers to the community and neighborhood demand for overcoming social inequality in highly segregated cities (see Margarita Greene, "Rethinking the city in the face of the pandemic: Community and Neighborhood", in "Equilibri" special issue, 2020).

The urgency to change the global value chain logics in a way useful for cities and local communities has been showed by the pandemic. The COVID-19 crisis has exposed some of the severe drawbacks of global value chains and the ease with which certain companies are able to shift the negative impacts of their business activities to other jurisdictions, in particular outside the European Union, without being held accountable. However OECD has shown that companies that have taken proactive steps to address the risks related to the COVID-19 crisis in a way that mitigates adverse impacts on workers and supply chains, develop a more long-term value and resilience, improving their viability in the short term and their prospects for recovery in the medium-long term.

The UN Special Rapporteur on human rights and the environment has stated (2020) that the loss of biodiversity undermines human rights and that States should regulate harm to biodiversity caused by private actors and government agencies. The UN Rapporteur underlines that it is important that legislation be enacted and implemented to respect, protect and fulfil the right to a safe, clean, healthy and sustainable environment. There are 101 States where this right has been incorporated into national legislation. Especially good practices can be seen in Argentina, Brazil, Colombia, Costa Rica, France, the Philippines, Portugal and South Africa, where the right to a healthy environment serves as a unifying principle that permeates legislation, regulations and policies. In total, more than 80 per cent of States Members of the United Nations (156 out of 193) recognize the right to a safe, clean, healthy and sustainable environment.

However, the States that protect at least 25 per cent of their land include States like Brazil, where deforestation has been extensive. In total, over 15 per cent of the world's land –the size of North America– is now protected, which should help to conserve biodiversity. Sixteen States have protected at least 25 per cent of their marine territory.

The Rapporteur concludes that "ultimately, however, it must be emphasized that humanity faces a daunting and unprecedented global environmental crisis of its own making. Despite the many good practices, they are not nearly enough. There is much, much more work to be done to transform today's unjust and unsustainable society into an ecological civilization where human rights are universally respected, protected and fulfilled".

This is an example of how, to avoid rhetoric, the UN universalistic discourse must recognize the importance of processes like: gentrification in post-disaster reconstruction, neo-extractivism, or socio-environmental conflicts as collective organization processes (see Enrique Aliste and Juliette Marin, "Under urban

resilience models: New or strengthened hegemonies hidden by global discourses?" in "Equilibri" special issue, 2020).

The UN General Assembly recognized the right to safe and clean drinking water and sanitation as a human right; those rights should be covered by any possible legislation. However, the social and political power relations remain hidden in such resolutions. On the contrary the political ecology of water (see studies conducted by Gabriela Merlinsky in Latin America) clearly ask for a consideration of such asymmetric power relations.

The UN High Commissioner for Human Rights and the UN Human Rights Council have stated that climate change has an adverse impact on the full enjoyment of human rights. States have an obligation to respect human rights when addressing adverse impacts caused by climate change; any corporate due diligence legislation must be in line with the Paris Agreement.

The adoptions of due diligence frameworks and standards are voluntary and we need to create a legally binding UN instrument on transnational corporations and other business enterprises with respect to human rights. Only 37% of business (according to a survey) currently conduct environmental and human rights due diligence. France and the Netherlands have introduced mandatory due diligence frameworks; other States are currently considering the adoption of such legislation; the lack of a joint European Union-wide approach may lead to less legal certainty when it comes to business prerogatives.

Therefore, the European Commission should propose further sector-specific legislation on mandatory due diligence, for example for sectors such as forest and ecosystem risk commodities and the garment sector. The Commission should include in trade and investment agreements, provisions on the protection of human rights. The Commission is engaged to conduct a thorough review of companies based in Xinjiang (China) that export products to the European Union in order to identify potential breaches of human rights, especially those related to the repression of Uighurs.

Human rights violations and breaches of social and environmental standards can be the result of a company's own activities, or of those of its business relationships under their control and along their value chain; therefore due diligence should encompass the entire value chain. Supply chain traceability should be strengthened, and should cover trade with all trading partners, not just those with whom the European Union has concluded a free trade agreement. The framework should cover companies established outside the European Union, but active on the internal market.

We need to provide evidence through the exercise of due diligence, that the products that foreign companies place on the European internal market are in conformity with the environmental and human rights criteria set out in the future due diligence legislation.

Due diligence strategies should be aligned with the SDGs and European Union policy objectives in the field of human rights and the environment, including the European Green Deal, the commitment to reduce greenhouse gas emissions by at least 55% by 2030, the Convention on Biological Diversity and the Paris Agreement and its goals to hold the increase in the global average temperature

to well below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1,5°C.

Due diligence framework should ensure the involvement of trade unions and workers' representatives, at national, European and global levels.

Financial instruments, such as 'Aid for Trade', should be used to promote and support the uptake of responsible business conduct in partner countries, including technical support on due diligence training, traceability mechanisms and embedding export-led reforms in partner countries.

Trade instruments should be linked to the monitoring of the application of the future due diligence legislation by European companies operating outside the Union, supporting rights holders, local communities, chambers of commerce and national human rights institutions, civil society actors and trade unions.

A grievance mechanism at company level can provide effective early-stage recourse, such private mechanisms must be properly articulated with judicial mechanisms in order to guarantee the highest protection of fundamental rights. Companies should be held liable in accordance with national law for the harm the undertakings under their control have caused or contributed to by acts or omissions.

The traceability of undertakings in the value chain can be difficult; the Commission has to propose tools in order to help undertakings with the traceability of their value chains; digital technologies could assist undertakings with their value chain due diligence and reduce costs; the innovation objective of the European Union should be linked to promoting human rights and sustainable governance under the future due diligence requirements.

Due diligence legislation should apply to other applicable subcontracting, posting or supply chain liability frameworks established at national, European and international level, including joint and several liability in subcontracting chains.

A negotiating mandate should engage the European Union in the negotiation of a UN international legally binding instrument to regulate, in international human rights law, the activities of transnational corporations and other businesses. The Commission's support in relation to the rule of law, good governance and access to justice in third countries should prioritize the capacity-building of local authorities in the areas addressed by the future legislation, where appropriate.

This final point is crucial. To overcome the collective action problem of "which territory is interested in imposing limits to 'their' companies if others can do the free riding?" local authorities are the key actors.

Each locality and territory, and particularly cities, must be able to control 'their' companies in implementing the rules of the game (rule of law, good governance, and respect of environmental regulation in the various phases of urban planning, construction, renovation, operation and deconstruction of cities). In such process the role of conflict is of utmost importance. Like has been show in the case of Buenos Aires (see Gabriela Merlinksy, "Why environmental conflicts can be productive. The conflict over the environmental restoration of the Matanza-Riachuelo River Basin in Buenos Aires", in "Equilibri" special issue, 2020): "if we pay attention to the disputes taking place in the public sphere, we can identify

a series of conflicts between economic actors (large versus small businesses), between political actors (the national government, the government of the Province of Buenos Aires, the government of the City of Buenos Aires, the municipal governments), between political actors, economic actors and utility companies, and conflicts over access to urban land (disputes between owners of urban land, real property speculators, citizens without land). If we reconstruct the multiple lines of articulation and tension between those actors, we will find that it is that complex weaving of values and interests in dispute what defines a situation that can be called an environmental conflict.”

Through conflict and not only through legislation, companies must be asked to respect ESG-Environment Social and Governance rules (CO2 emission, water stress, health and safety at the workplace, work standards in the supply chain, company ethics, corruption and instability). ESG extreme risks must be addressed like: carbon and tar sands extraction, palm oil production through deforestation, tobacco, weapons and white phosphorous, UN Global Compact violation and so on (this is only a partial list).

Financial capitalism, today one main responsible for the degradation of the environment, must be asked to comply through EGS targets with the aim of financing clean economy in sectors like sustainable transport, water, renewable energies, smart agriculture, responsible food, waste reduction and recycling. The lack of harmonized definitions of ESG will be a necessary point of departure to impose a homogeneous and measurable ESG set of criteria.

**4. A new tool: 2050 cities’ matrix.**

Current world cities’ initiatives to cope with climate change and social and environmental injustice include UN Habitat, C-40, Resilient Cities Network, World Bank (Urban, Disaster Risk Management, Resilience and Land Global Practice), and others.

Looking at the Souths of the World, we can underline that 39% of GHG-greenhouse gas emissions derive from the built environment (including electricity use in buildings); and 70% of buildings that will exist in Africa and Asia by 2050 are yet to be built. Moreover 77% of world population growth by 2050 will occur in Sub-Saharan Africa & South Asia: two of the most vulnerable regions to the effects of climate change.

The Resilient Cities Network includes some of the cities of the SoW School. The diagnosis is as follows:

CITY	MAIN WEAKNESSES
Accra (Ghana)	Water pollution, causing waterfront underdevelopment, and cholera
Santiago (Chile)	Housing segregation, environmental degradation
Buenos Aires (Argentina)	Social inequalities, rainfall, flooding
Barcelona (Spain)	Infrastructure failures, natural hazards

Milan (Italy)	Heatwaves, flooding, poverty
Paris (France)	Flooding, heathwaves, air pollution, congestion
Pune (india)	Uncontrolled growth, migration, pression on urban environment

The analyses of cities' weaknesses and their related resilience strategies conducted by the Resilient Cities Network are clearly too simple and generic. Cities are complex organisms, they are the most intense concentration of energy and culture of a community (Lewis Mumford, *The Culture of Cities*, 1938). Therefore, we need to consider more variables (not only economic, but cultural, symbolic and social) to understand what really a city resilience strategy can be. We need to do more, and act as catalyzer of useful urban knowledge.

We will investigate through our local correspondents how Asian cities like Fukuoka (Japan), Hong Kong (China), Taipei (Taiwan) are coping with the 2050 scenario. At the same time we will ask to other cities of the SoW School, Accra (Ghana), Bangalore (India), Barcelona (Spain), Buenos Aires (Argentina), Marrakech (Morocco), Naples (Italy), Santiago (Chile), Toulouse (France) to develop a parallel forecast of urban trends towards 2050.

University experts will be asked for giving support to such investigation, but also civil society would be involved: for example, local companies engaged in the environmental infrastructure of cities, cultural actors of the community, and so on. Millennials and Z generation should be involved. The city is the place of integrated social relations: hence we cannot isolate one dimension from the others. Since its beginning in the city there are the temple, the market, the tribunal, the school: all such dimensions (ethical, economic, juridical, educational) are necessarily involved in a resilience strategy. We have to study how the city produces environmental, social and economic injustice and also how it is able to give justice; how the city reacts to environmental challenges (often created by itself) through its social and cultural heritage, its forms of administration and its legitimate government. Among the questions to be asked there are the following:

- how the energy supply and demand dynamics will be produced and monitored to arrive to a 2050 zero carbon strategy
- how the urban environment will change in the future based on forecast, planning and projects already implemented or only in the phase of design
- how cities are coping with the dynamics of land use and natural endowment, i.e. protecting landscapes and green areas, reducing the soil consumption and degradation, increasing the floor area ratio through regulation, etc.
- how the demographic, social and economic geography of cities will influence the fulfillment of 2030 and 2050 objectives of sustainable development
- how conflicts and conflicting frameworks of urban future can be productive of a better and fairer urban society.

Such key issues will be investigated based on a detailed questionnaire to be filled by researchers and a panel of PhD students, millennials and Z generation (a

recent survey<sup>3</sup> conducted in USA, UK, Germany and Nigeria has shown that new generations believe in social regulation of business and environmental justice, and trust coalitions of individuals more than government to achieve such results) and neighborhood representatives in each city.

The result will be a “matrix” of Souths of the World urban trends useful to develop a common, coordinated strategy of urban survival governance and ecological rejuvenation of cities by 2050. This matrix will be implemented through a proposed online platform feeded by multiple access of cities’ correspondents in order to make a constant update of data from each city.

The possible output of the School will be the creation of a new comprehensive expert-driven Roadmap 2050 for Cities in the Souths of the World (with a particular focus on the cities in the East, Southeast and South Asia) and their decarbonization process, analysed in the global context. It will also serve as a guide both for local stakeholders and for the foreign investors from the global North, interested in their sustainable development for a carbon free future. It will promote a paradigm of equal exchange between North-South and Supranational-National-Local levels, changing Cities in the South from takers of policy into shapers of the urban decision-making process.

---

<sup>3</sup> The Purpose Pulse 2021, How Millennials and Gen Z expect businesses to build back better.