

# **UN-HABITAT Contribution to the Discussion on**

## **Climate Change**

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### **Background**

Today half of humanity lives in cities. It is projected that by 2030 that figure will rise to two-thirds. We live in an age of unprecedented, rapid, irreversible urbanisation. The cities growing fastest are those of the developing world, and the fastest growing neighbourhoods are the slums.

UN-HABITAT, the agency that deals with the built environment, with cities and towns, the agency is most keen to help the settlements adapt to climate change at the local level. At the same time, developing countries shore up their defences against disasters, many of them, like floods, or droughts, brought on by climate change.

The impact of climate change takes place in cities, towns and villages. As our climate changes things are getting worse and the weather more threatening and extreme weather. If sea levels rise by just one metre, many major coastal cities will be under threat: Buenos Aires, Rio de Janeiro, Los Angeles, New York, Lagos, and Cairo Karachi, Mumbai, Kolkata, Dhaka, Shanghai, Osaka-Kobe, and Tokyo, to cite just some. Those are mega cities with populations of more than 10 million. Never mind the many more smaller cities and island nations.

UN figures show that last year alone, 117 million people around the world have suffered from some 300 natural disasters, including devastating droughts in China and Africa, and massive flooding in Asia and Africa, costing nearly \$15 billion in damages. One example – New Orleans after Hurricane Katrina, is still very fresh in our minds.

Everywhere the urban poor live in places no-one else would dare set foot – along beaches vulnerable to flooding, by railway, on slopes prone to landslides, near polluted grounds. They scratch out a living in shaky structures that would be flattened the instant a hurricane hit causing untold loss in lives and destruction.

In this new urban age, the mega-cities therefore loom as giant potential flood and disaster traps. In sub-Saharan Africa, slum dwellers constitute over 70 percent of the urban populations. In other parts of the developing world that figure is close to 50 percent. In a number of cities in the developing countries, drought refugees are migrating from the countryside to join the growing slum population.

Habitat Agenda Partners, including the African Mayors and Local Authority organizations, are deeply concerned that Africa, responsible only for 3.6 percent of global emissions, is thus extremely vulnerable to the impacts of climate change. They have sought direct access to global climate funds.

The developing world needs local funding and local solutions to this global crisis. In this new age, it is important to drive the political will for national change for local benefit.

Reduction of urban poverty will directly offset the horrors of disasters brought on by climate change. The United Nations has calculated that one dollar invested in disaster reduction and adaptation to climate change today, can save up to seven dollars tomorrow in relief and rehabilitation costs.

There is a need to make the dawn of the new urban age a bright one. There is a need to change the politics – there must be local solutions and local funding to offset global disasters.

### **Climate Change Mitigation and Adaptations through Urban Planning and Development**

UN-HABITAT is mandated to address the issue of climate change in the context of urban planning and development. As the focal point for the implementation of the Habitat Agenda (the global plan of action adopted in Habitat II in 1996), its roles include enabling the Habitat Agenda Partners to implement the mandate of the Habitat Agenda, on sustainable energy use and transportation systems..

Urban areas are major producers of greenhouse gas (GHG) emissions and therefore have a significant impact on climate change. Urban planning has become increasingly important as reflected in UN-HABITAT's Medium Term Strategic and Institutional Plan (MTSIP 2008-2013), as it has a direct impact on climate change. Well-planned cities provide a better foundation for sustainable development than do unplanned cities.

UN-HABITAT continues to collaborate with Habitat Agenda partners to use urban planning and development as a mitigation measure for climate change. Its major role is to catalyze partnerships with UNFCCC, UNEP, other relevant UN agencies, local authorities, youth and other relevant stakeholders to mitigate climate change and encourage urban planning.

Besides the overall umbrella entry point of urban planning and development, there are four other entry points for dealing with sustainable urban development. These are **transportation, home and office buildings, industrial production and poverty reduction**. Each of these entry points are major sources of greenhouse gases and therefore climate change. If each entry point is well planned, it can each greatly impact on climate change mitigation.

Transportation offers huge opportunities for advancement. Encouraging car pooling and the use of energy-efficient vehicles through incentives/disincentives (eg: offering parking lots near office buildings to those who use these transport methods) is one strategy that will reduce GHG emissions. Mass and alternative transportation options are a second strategy that will reduce the reliance on personal vehicles. These options will also encourage people to move closer to the downtown area so they can have access to these opportunities, thus reducing the need for personal vehicles and reducing travel times.

Encouraging people to move away from areas outside the city, reduces the urban sprawl, increases the density in city centers thereby increasing the need for well planned construction and renovation of buildings in these areas. Buildings, both commercial and residential are another major cause of climate change. The use of legislation to create environmental standards that all new buildings must meet is one method of reducing the impact. Unfortunately it is the older buildings that are the major cause of emissions therefore it is necessary to create incentives for renovating and upgrading these buildings. Incentives could include encouraging the use of recycled building materials, the purchase of energy efficient appliances and technologies or offering free home/office energy audits.

Free energy audits and other such incentives also could be part of the solution for industry. Industrial production emits significant amount of GHGs and educating and informing industry where there are energy losses that could turn into gains is a viable option for mitigating climate change. This could include waste heat recovery that could be reused as a source of energy. Encouraging the use of energy efficient systems by showing the longer run financial benefits or through incentives can also induce industry to opt for sustainable business practices. Disincentives are another means of mitigating of climate change within the industrial sector, for example, increasing charges or fines for the use of unsustainable practices and for exceeding emission levels.

Poverty reduction is the final entry point into sustainable urban development under the umbrella of urban planning. As long as there is poverty, there is a percentage of the population that, no matter what incentives/disincentives are given, will not see the environment as a priority. They have no choice but to use the cheapest energy options, for example, which are usually the most environmentally harmful (ex: charcoal). Approaches that can be used to mitigate climate change within this percentage of the population, include educational and training initiatives on the environment and sustainable urban development. Though they may not have an option at that moment, as poverty is reduced, they will be better able to make proper decisions. The major concern is the poverty itself and without its reduction, mitigation of climate change will never be realized. It is therefore imperative that Habitat Agenda partners continue their work on poverty reduction through the many mechanisms in place and by partnering with one another to develop new means of tackling the poverty reduction issue.

Developing countries are a stakeholder in climate change mitigation that needs special emphasis. Currently they are emitting 25% of the GHG emissions but suffer as much if not more of the consequences as the developed countries. Therefore it is imperative that

developing countries are included in the discussions and strategies on climate change as they will become increasingly important as they continue to develop and grow. This fact has not been fully recognized. With their resource limitations they are unable to take the necessary steps needed for mitigation. Developing countries need support in their efforts and to be given incentives to use sustainable technologies and practices during this high growth period. They have a unique opportunity, if they plan correctly, to learn from the mistakes made by the developed countries. The technology and information is available and if they are able to use these mechanisms, they will be able to develop sustainably from the outset and avoid having to restructure and rebuild in the future.

Government's role in climate change mitigation is different at different government levels. At the national level, they must create policies, incentives and disincentives that encourage sustainable urban development. They must also incorporate environmental education/training in all elements of the educational system, from primary school through to adult education programs (continuing education). The local level's role includes enforcing policies and regulations (ex: restricting urban sprawl). It is local government which must set the future growth strategies through urban planning. They have the ability to create mass/alternative transportation systems.

The private sector must be involved in the mitigation of climate change as well. Though it must stay within the rules and regulations set by government, this is not its only role. They must continually research and create alternatives to the harmful technologies and products/services currently on the market. A profitable approach that the private sector should use is the creation of business opportunities that promote sustainable urban development and the use of technologies/products/services that reduce their impacts and save them money. Partnering with the public sector will make the transition to sustainable business practices much easier and more successful.

Youth are a large percentage of the population, especially in the developing countries, and therefore is a major stakeholder in the mitigation of climate change. It is the youth that will be around as the effects of climate change are felt more significantly. Its role includes educating others on climate change and possible mitigation measures. It must exert pressure on the private sector through its purchasing power, demanding that the private sector take notice of the impact its are having and take action to prevent this impact. The youth must also put pressure on the governments and the private sector through lobbying for greater environmental standards and measures. Finally, as it joins the labor force, it can create sustainable businesses and encourage sustainable activities within their businesses/personal lives.

Well-planned cities are an efficient use of space and energy. They cluster large groups of people together, reducing the need for transportation and infrastructure to provide the basic services that the population requires. All stakeholders have roles they can play to encourage the activities within the four entry points, transportation, home/office buildings, industrial production and poverty reduction. Some of these roles include the creation of incentives/disincentives, education and training on climate change mitigation strategies and the research, creation and promotion of new technologies that improve the

environment. Many technological solutions however, are available for climate change mitigation, especially in developed countries. The problem is that these technologies are not being used on a wide enough scale to generate a significant impact. These technologies need to become affordable and practical in order to receive widespread application. Developing countries must be given special emphasis. They must be given the opportunity to use these technological solutions and the lessons learned from the past and must be supported in their efforts by developed countries. Partnership among stakeholders is therefore a basis for the mitigation of climate change. UN-HABITAT is prepared to pay special attention to this issue and encourages Habitat Agenda partners to approach them with ideas for partnering on the sustainable urban development and urban planning aspects of the climate change issue.

In line with its MTSIP and building on its ongoing activities on Local Agenda 21, Sustainable Cities Programme, the Water and Sanitation for African and Asian Cities Programme and other relevant programmes, UN-HABITAT is developing a new programme to improve the capacity of cities and towns to mitigate and adapt to climate change, and enhanced capacities of achieving an environmentally sustainable development. Through the new programme, a shared vision of sustainable urbanization and survivable urban development will be implemented globally. As a short-term result, norms for survivable, sustainable and harmonious human settlements development will be developed, advocated and implemented. The global knowledge and understanding of the impacts of climate change on human settlements will be improved, visions, strategies and tools for responsible local planning will be in place in at least 100 cities and towns. The capacity of local governments and authorities to cope with the impacts of climate change, their ability to adapt to it and to implement mitigation measures will be considerably enlarged. It is hoped that putting the focus on “survivability” will enable cities and towns to have a new chance for developing along the path of sustainability.

Moreover, the key focus area on environmentally sound basic infrastructures and services, a number of urban centres, including secondary and small towns will be encouraged to adopt climate change mitigation and adaptation strategies and plans in the frame of their urban development. Networks of partners engaged in the SUD-Net will be increased in comparison to previous programmes (SCP, LA21).

UN-HABITAT will continue to support national and local authorities in their effort to survive climate change and contribute to global research, monitoring and dissemination of information and best practices on survivable and sustainable urban development.