Sustainable Cities

Cities are hubs for ideas, commerce, culture, science, productivity, social development and much more. At their best, cities have enabled people to advance socially and economically.

However, many challenges exist to maintaining cities in a way that continues to create jobs and prosperity while not straining land and resources. Common city challenges include congestion, lack of funds to provide basic services, a shortage of adequate housing and declining infrastructure.

The challenges cities face can be overcome in ways that allow them to continue to thrive and grow, while improving resource use and reducing pollution and poverty. The future we want includes cities of opportunities, with access to basic services, energy, housing, transportation and more for all.

Facts and figures

- ¥ Half of humanity – 3.5 billion people – live in cities today.
- ¥ By 2030, almost 60 per cent of the world's population will live in urban areas.
- ¥ 95 per cent of urban expansion in the next decades will take place in developing world.
- ¥ 828 million people live in slums today and the number keeps rising.
- ¥ The world's cities occupy just 2 per cent of the Earth's land, but account for 60-80 per cent of energy consumption and 75 per cent of carbon emissions.
- ¥ Rapid urbanization is exerting pressure on fresh water supplies, sewage, the living environment, and public health.
- ¥ But the high density of cities can bring efficiency gains and technological innovation while reducing resource and energy consumption.

Background

The Challenge: Urbanization and Sustainability

The world is currently in the middle of one of the most dramatic demographic shifts ever seen. At the beginning of the twentieth century, only 13 percent of the world's population lived in cities. That number recently passed 50 percent and continues to increase. By the year 2050, it is estimated that the urban share of the world's population will be at least 67 percent. The United Nations (UN) projects that the global population will continue to grow from its current estimate of around 7 billion people to reach 9.3 billion also by 2050. In other words, in the next 38 years, nearly 3 billion people will move to the cities, almost doubling the current urban population. Many countries are faced with the enormous task of providing sufficient infrastructure for the new arrivals; China, for example, will see an increase of its urban population by about 400 million people from 2012 to 2030. To keep up with the influx, it will need to add 40 billion square meters of floor space, the equivalent of building a New York City every two years.

There is no question that managing this population shift will be one of the world's most pressing tasks in the coming years. This is especially true considering that the vast majority of that growth is expected to occur in developing countries – approximately 1.5 billion people in Asia, 800 million in Africa, and 200 million in Latin America will be moving to cities. These developing regions are generally the most ill equipped to handle the transition.

While this dramatic shift may seem alarming, it also has the potential to be an incredibly positive development. History shows that as a country becomes more urbanized, its economy grows

proportionately; the wealthiest nations in the world are all characterized by high urbanization rates. This is because of the inherent economic benefits provided by people living in close proximity to one another.

Think about all the activities that become possible or are made easier by living in a city: providing basic services such as electricity, water, and waste management is much cheaper; the same amount of wire used to send power to one rural family can be used to send power to an entire apartment complex. Transportation costs plummet, encouraging more trade and even allowing for the production of new products. Cities allow for job specialization not possible in rural settings, where many people are forced to rely on growing their own crops for survival. Cities often become hubs of innovation and learning as people can more easily collaborate and share ideas. Beneficial institutions such as universities, museums, theaters, restaurants or hospitals suddenly become possible with enough people nearby to support them. Child mortality rates are 70 percent lower in urban areas, reflecting the availability of better and faster medical care. It is not surprising that so many people are choosing to move to the cities.

However, the dream of urban prosperity can turn into a nightmare for cities that are underprepared. Many are already overwhelmed by the rapid influx of people and are unable to adequately provide basic services, such as clean water, energy and waste disposal. A city with just one million inhabitants must deliver an average of 625,000 tons of water, 2,000 tons of food, and 9,500 tons of fuel – daily. Handling the output is an additional challenge: the same million- person city generates 500,000 tons of wastewater, 2,000 tons of waste solids, and 950 tons of air pollutants. Cities collectively occupy only 3 percent of the Earth's surface, but produce 50 percent of its waste and 60-80 percent of its emissions. Too often cities lack the capacity to dispose of all the waste and garbage fills the streets, damaging both the beauty of the city and the surrounding environment. Pollution frequently clogs the air, causing an increased incidence of respiratory illnesses in the population. Breathing Mumbai's air for one day is the equivalent of smoking 2.5 packs of cigarettes.

In poorly planned cities, roads become gridlocked and economic growth is crippled due to insufficient or unsound transportation infrastructure. Lack of quality housing leads to the proliferation of massive slum areas, characterized by overcrowding, poor sanitation, low rates of education and high rates of crime. Cities often fail to provide the most basic services, such as safe drinking water, to these areas. At least 828 million people currently live in such conditions – nearly a third of the urban population, a number that is unfortunately expected to increase dramatically. In short, these cities are unsustainable, having already reached a point in which they are no longer able to adequately provide for their citizens or conserve the environment.

The world is not doomed, however, to a bleak future of urban decay. Environmental degradation is not an inevitable consequence of urbanization. Sustainable development is certainly complex, but there are many examples from around the world of cities that have been able to improve their sustainability through clever planning and effective management. Stockholm, for example, has been able to cut its carbon emissions by 25 percent over the last 10 years through efficiently designed energy infrastructure and the promotion of biofuels. Several countries have begun construction of "Eco-cities," urban environments built from scratch that are designed to be completely self-sustainable.

UN Response to Urbanization

At the historic Earth Summit in Rio in 1992, Agenda 21 was created to promote the international community's sustainability goals for the twenty-first century. In order to implement these goals, Local Agenda 21 was developed in order to outline practical targets that could be achieved by small-scale local efforts.[99] Recognizing the implications of a rapidly urbanizing world, many of these goals are focused on making cities more sustainable. In order to effectively implement Local Agenda 21, ECOSOC has

created several programs.

United Nations Sustainable Cities Programme

Perhaps the most significant of these is the UN Sustainable Cities Programme (SCP), which is run jointly by the UN Environment Programme (UNEP) and the UN Human Settlements Program (UN-HABITAT). While the SCP is involved in awareness building and policy formulation, its primary function is to support individual cities in local efforts. It offers expert guidance to city leaders in identifying and planning potential projects, and then provides hands- on assistance in building support and carrying out plans. This support can be particularly valuable for cities in developing nations, which are often the hardest hit by urbanization, yet have the least resources for a response.
While every city has its own unique problems, the SCP operates under a general set of guidelines. Any city that wishes to work within the SCP will pass through the three phases of the Environmental Planning and Management Process.

The first phase is to prepare an Environmental Profile, which involves identifying the city's sustainability issues, the resources available to confront them, and the stakeholders potentially involved. This is followed by a City Consultation, in which these major stakeholders are brought together to discuss and agree upon the priorities of the city. The SCP avoids working alone with the local government, seeking to also involve local businesses, non-governmental organizations (NGOs), and community members in order to ensure that the widest range of the population is invested in the project. In consulting local knowledge, innovative solutions can be identified that might otherwise have gone overlooked.

Once the group selects its priorities, they assign Issue-Specific Working Groups to each area, and the second phase begins. These groups, once again made up of participants from all sectors, will create specific action plans that detail the best paths for the city to reach its goals.

The third phase is to execute the plans, with the goal of institutionalizing changes rather than achieving short-term success. Best practices and lessons learned from the city's experience are then recorded and shared with other cities. The SCP provides a series of online books that help guide Member States through the process.

The focus of the SCP is explicitly on environment-development interactions, but this can address many different issues a city might face. Common projects include providing improved housing for slum dwellers, expanding water access, improving waste management, enhancing energy efficiency, cleaning up air quality and increasing the availability of public transport. In many cases where the SCP has been implemented, great progress has been observed.

A SCP Case Study: Zambia

One of the first cities to work with the SCP was Lusaka, the capital of Zambia. Lusaka was one of the most urbanized cities in sub-Saharan Africa, and suffered from typical urban problems of pollution, insufficient infrastructure, and poor sanitation conditions for its inhabitants. In close cooperation with local officials, an environmental profile was undertaken and identified a number of issues of immediate concern. Next, community profiles were conducted, in which inhabitants were asked to identify and prioritize their needs and suggest possible programs. This participation excited those involved and encouraged their support for later efforts. With a better understanding of the city's problems, a city consultation was then held in which over 200 leaders from the government, community and private sector came together to decide upon priorities. Several working groups were formed by local leaders, one of them being tasked with improving water supply. With the assistance of the SCP, this group planned multiple projects in which boreholes were drilled to provide clean drinking water. The

community provided all the labor of laying the pipelines, and eventually was trained to run the program entirely on their own. Lusaka is an example of the importance of involving the community in sustainability projects.

Rio+20 Conference on Sustainable Development

The 2012 Rio+20 United Nations Conference on Sustainable Development marked the 20-year anniversary of the creation of the SCP and a time for renewal of urban sustainability efforts. At the conference UNEP launched a new program, the *Global Initiative for Resource Efficient Cities*, designed to promote energy efficient buildings, efficient water use, and sustainable waste management. Also during Rio+20, UNEP released the first issue of a new annual publication: *Sustainable Cities*. This publication serves as an information-packed resource for national and local leaders, providing policy advice from experts and examples of best practices currently occurring in cities around the world.

Conclusion

The rapid urbanization of the global populations presents the world with both a great opportunity and a great challenge. Designed with sustainability in mind, cities have the ability to maximize humanity's economic potential while minimizing its environment impact, flourishing as models of efficiency, productivity and cleanliness. But left alone they can become mired in filth and disease. The flow of humanity into the world's cities will not rest while governments figure out an appropriate response; environmental problems increase every day. The international community and Member States must act quickly and decisively to improve the ability of cities to keep up with this growth.

Questions to Consider

1. What are the urbanization (city-based) challenges your MUN country faces? What is your country currently doing to tackle these challenges?

2. What can be done to reduce the environmental impact of cities? What effective policies or technological advances can be shared and implemented in other parts of the world?

3. How can economic development in cities be balanced with environmental sustainability? How can people survive and still protect the environment?

4. How can communities become more involved in supporting and maintaining sustainability projects?

5. How can UN organizations better support local city governments?

6. How can the international community improve the lives of slum dwellers?

7. What can the world do to create cities of opportunities, with access to basic services, energy, housing, transportation and more for all? How can your MUN country help?

Task

Your task is to research and gather information on this topic and your country's relationship to this topic so you can help resolve the issues related to this topic from your country's perspective. You will be a diplomat representing your country and negotiating solutions that your country can support.

Go to the following link to begin your research: http://www.un.org/en/sustainablefuture/cities.shtml Feel

free to use any of the links in the bibliographies below.

Relevant UN Treaties, Resolutions and Events

UNESCO/SS/AUW/3 – 12 February 1962
UNESCO Workshop on Urbanization Problems in Africa
A/RES/46/151 – 16 December 1991
A/RES/57/2 - 16 September 2002
GA/EF/3294 - 2 November 2010 Sixty-fifth General Assembly, Second Committee, 24th & 25th Meetings A/65/316 - 20 August 2010
Report of the Secretary-General on "Implementation of the outcome of the United Nations Conference on Human Settlements (Habitat II) and
United Nations New Agenda for the Development of Africa in the 1990s
United Nations Declaration on the New Partnership for Africa's Development
strengthening of the United Nations Human Settlements Programme (UN- Habitat)"

Bibliographies

http://etd.ohiolink.edu/send-pdf.cgi/Tettey%20Christian.pdf?akron1124911124

http://www.unhabitat.org/downloads/docs/9251_91124_Item%207%20Preparations%20for%20the%2065th%20Session%20of%20the%20General%20Assembly%20(Inf2.SG%20Report%20on%20Habitat%20II)%20(FINAL).pdf

http://www.unhabitat.org/list.asp?typeid=13&catid=234&start=11&page=2

http://www.worldbank.org/depweb/beyond/beyondco/beg_03.pdf

http://www.geography.learnontheinternet.co.uk/topics/urbanisation.html

http://www.populationenvironmentresearch.org/papers/Nsiah- Gyaabah_contribution.pdf

http://blogs.lse.ac.uk/africaatlse/2012/02/13/africas-urban-transition- challenges-misconceptions-and-opportunities/

http://www.un.org/News/Press/docs/2010/gaef3294.doc.htm http://www.un.org/News/Press/docs/2009/dsgsm478.doc.htm

http://www.un.org/apps/news/story.asp?NewsID=28431&Cr=climate+change &Cr1

http://www.un.org/News/Press/docs/2008/sgsm11805.doc.htm

http://www.africaresearchinstitute.org/files/counterpoints/docs/Whatever- happened-to-Africas-rapid-urbanisation-6PZXYPRMW7.pdf

http://web.mit.edu/urbanupgrading/upgrading/case-examples/overview- africa/regional-overview.html

http://www.cfr.org/africa/urbanization-sub-saharan-africa/p14327
http://unesdoc.unesco.org/images/0015/001570/157074eb.pdf

http://www.un.org/africa/osaa/reports/Monitoring%20progess%20for%20Africa .pdf

http://www.irinnews.org/IndepthMain.aspx?InDepthID=63&ReportID=73996

http://www.inclusivecities.org/pdfs/Achankeng_Globalization_Urbanization_M SW_Mgmt.pdf

http://www.unhabitat.org/content.asp?cid=2467&catid=1&typeid=24&subMen uId=0

http://www.pamojatrust.org/index.php/who-we-are/background http://www.pamojatrust.org/index.php/muungano-wa-wanavijiji
http://upcoghana.org/profile.php

Annotated Bibliography

The Cities Alliance/ICLEI/UNEP. *Livable Cities: The Benefits of Urban Environmental Planning.* Washington DC: The Cities Alliance, 2007. www.unep.org/urban_environment/PDFs/LiveableCities.pdf (accessed July 31, 2012).
The key purpose of this document is to "offer lessons on what has worked, what may work and what may fail elsewhere." Experiences with Local Agenda 21 projects from 12 urban areas around the world are described in detail. These examples can be studied when determining potential future projects in other urban areas.

Dobbs, Richard "Megacities," *Foreign Policy* (September/October 2010).
http://www.foreignpolicy.com/articles/2010/08/16/prime_numbers_megacities?page=full (accessed July 31, 2012).
This is an illuminating article that shows just how incredible the current urbanization trend is. It focuses on India and China, the two countries undergoing the most dramatic change and gives a number of illuminating examples to put in perspective the adjustments that will be required to provide sufficient resources for all the new urbanites.

United Nations Department of Economic and Social Affairs/Population Division. *World Urbanization Prospects: The 2011 Revision.* New York: United Nations, 2012. http://esa.un.org/unup/Documentation/final-report.htm (accessed July 31, 2012).
The World Urbanization Prospects Report provides a large set of data on past and current urbanization statistics as well as projections for the future. Data begins in 1950 and is predicted until 2050, with every country in the world represented. This report will prove useful to delegates in understanding the urbanization profile of their country, as well as understanding overarching urbanization trends.

United Nations Environment Programme. *Global Initiative for Resource Efficient Cities*. Paris: UNEP, 2012. www.unep.org/pdf/GI-REC_4pager.pdf (Accessed August 1, 2012).
This document describes the role of the new Global Initiative for Resource Efficient Cities launched at the Rio+20 Summit. It outlines the reason for its creation, the benefits of resource efficiency, and the process through which it will work with individual cities. This will be one of the most significant UN efforts in encouraging sustainable cities.

United Nations Environment Programme. *Sustainable Cities: Building Cities for the Future*. London: Green Media, 2012.
http://www.sustainablecities2012.com/ (accessed July 31, 2012).
The creation of this publication was mandated at the June 2012 Rio+20 Conference, and was written through a collaboration of many notable international organizations, including the United Nations Environment Programme (UNEP). It includes expert advice and best practice examples for nine different areas: Planning and governance, buildings and construction, energy and power, telecommunications, water and sanitation, waste management, mobility and transport, safety and disaster resilience, and mega-events.

UN-HABITAT, *State of the World's Cities 2010/2011: Bridging the Urban Divide*. Nairobi: UN-HABITAT, 2010.
http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=2917 (accessed August 2, 2012).
This is the most recent report prepared by UN-HABITAT in the State of the World's Cities series. It focuses on the dynamics of living in poverty stricken urban environments. This report is useful in understanding how slums are formed and how they negatively affect their residents.

UN-HABITAT/ICLEI/UNEP. *Sustainable Urban Energy Planning: A Handbook for Cities and Towns in Developing Countries*. 2009.
http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=2839 (accessed August 2, 2012).
This handbook was written to assist people who are working with local governments to develop and implement sustainable energy programs. It describes the need and benefits of such programs, and then lays out a 10-step process that can be followed by local leaders to carry them out. Perhaps the most interesting section of this handbook is the extensive documentation of examples in which sustainable energy programs have been effectively carried out: 76 brief case studies are presented dealing with nearly every potential issue, ranging from improving sanitation services to air quality management to urban greening.

UN-HABITAT/UNEP, *The Sustainable Cities Program in Zambia (1994-2007): Addressing Challenges of Rapid Urbanization*. Nairobi: UN-HABITAT, 2009. http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=2646 (accessed July 31, 2012).
This report was prepared by the SCP in order to evaluate progress made in Zambia and serve as a reference for future programs by showing what went well and what did not. The step-by-step process of creating an environmental profile, involving all stakeholders, and carrying out projects with the stakeholders' support is effectively illustrated here. It helps make the SCP method more concrete for delegates to understand.

UN-HABITAT/UNEP, *Preparing the Environmental Profile*. Nairobi: UN-HABITAT, 1999.
http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=1427 (accessed July 31, 2012).
The SCP has created the 9-volume Source Book Series in order to dispense detailed direction for city leaders seeking to implement projects within the SCP framework; this document represents the first of the series. It provides a guide to understanding the current state of the city's environment and areas in which projects might be implemented. It offers a useful look into the values and methods of the SCP.

United Nations. "Sustainable Cities- Rio+20 The Future We Want." 2012. http://www.un.org/en/sustainablefuture/cities.shtml (accessed August 1, 2012)
This is the official website for the UN Sustainable Cities program. It was created in order to further the goals set at the recent Rio+20 Conference. The website provides a good overview of the problem, as well as stories and videos that illustrate what is being done to solve it.