

ECOSOC

THE QUESTION OF SUPPORTING THE CONSTRUCTION OF SUSTAINABLE INFRASTRUCTURE IN DEVELOPING NATIONS

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Introduction: This topic primarily concerns the development of sustainable infrastructure, in Less Economically Developed Countries (LEDCs). For the purpose of this topic, we can consider infrastructure to be the structural amenities within an area, such as housing, public facilities, roads, electrical grid, piped water and sewage, garbage removal services, public transportation, buildings, in addition to transport and communications systems. Development of urban infrastructure, is generally viewed as constructive towards a nation's social development as it improves the nation's overall standard of living, which is key to social development, in addition to new programs in construction, and renovation boosting the national economy and furthering economic development.

Definitions of terms:

Infrastructure: "The fundamental facilities and systems serving a country, city, or area, as transportation, or communication systems, power plants and schools" (dictionary.com)

Sustainable Infrastructure: Infrastructure that enables a country's progress towards sustainable development.

Developing Nation: A Nation working towards economic development.

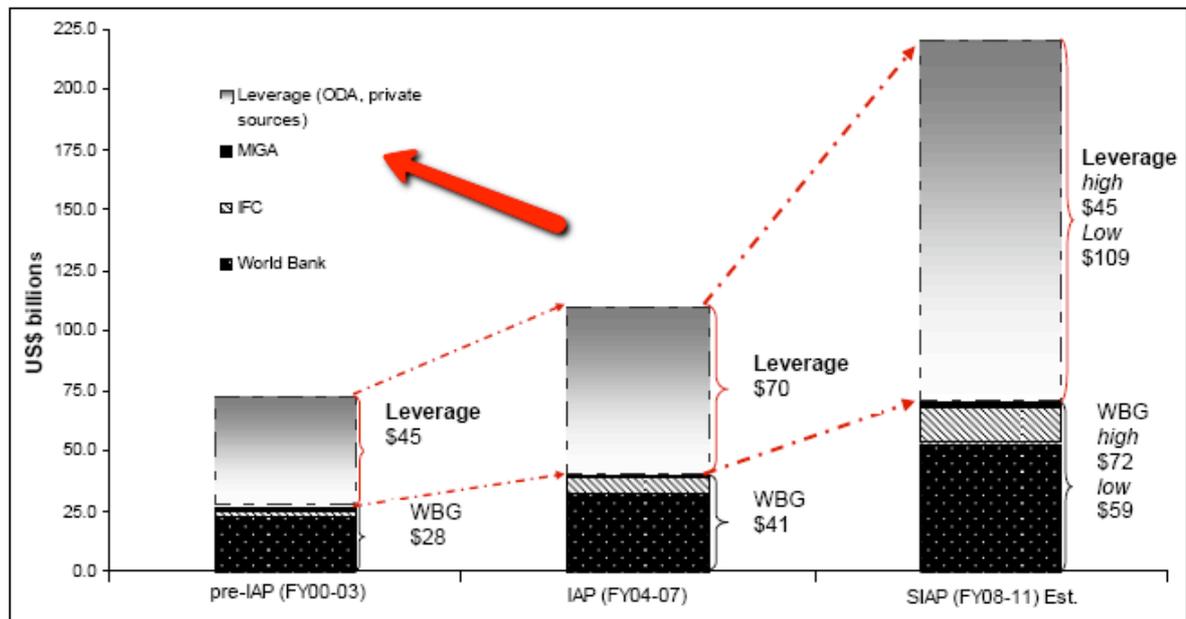
Clean Development Mechanism (CDM): A mechanism which allows countries which have ratified the Kyoto Protocol to "implement an emission-reduction project [e.g. setting up a source of renewable energy] in developing countries" (UNFCCC), which would count towards their Certified Emission Reduction (CER) credits.

Major Players

World Bank: An international organization which aims to further economic development in LEDCs by targeting economic growth and business development, in addition to focusing on

the UN Millennium Development Goals. World Bank also tries to facilitate sustainable development, in particular introducing the Clean Energy Investment Framework (CIECF), to encourage

Figure 1: World Bank Group Infrastructure Financing and Leverage



(worldbank.org)

International Financial Corporation (IFC): An organization which is part of the World Bank Group, and provides advice and investment to strengthen the private sector in LEDCs.

United Nations Human Settlements Program (UN Habitat): A UN organization which aims to develop infrastructure, and housing in developing nations.

United Nations Environment Program (UNEP): The United Nations Environment Program is a UN initiative, designed to promote environmental sustainability. It also focuses on sustainability in the field of social and economic development.

General Overview / UN Perspective

Infrastructure is essential to sustainable development, in Less Economically Developed Nations (LEDCs). This encompasses amenities such as public transportation, energy, sanitation, and effective means of connectivity and communication. However, in light of the damage that has been caused by rapid industrialization, it is vital that we move towards

sustainability, ensuring infrastructure is not only durable and long lasting, but also environmentally friendly.

The United Nations feels that the development of infrastructure in LEDCs is important to both economic and social development, and in light of recent environmental concerns, resulting from rapid industrialization, feels the need for developments in infrastructure to be done in a way that not only helps citizens of a nation, but can be used sustainably. The 7th Millennium Development Goal reads “To ensure environmental sustainability”, affirming the position that urbanization should take place in a way which does not further any destruction of the environment. In addition to this, the 8th Millennium Development Goal states “Develop a global partnership for development” indicating the heightened importance for a city to have good connectivity, and infrastructure.

Currently the countries which focus most on building sustainable infrastructure are primarily MEDCs; however Asia has become a target for improved sustainable infrastructure, as the majority of the world’s population lives within the continent, in addition to there being quite a few LEDCs which are still working towards both economic development, and the development of improved infrastructure. Currently, Canada places a major emphasis on sustainable infrastructure, specifically on low energy solutions to ensure urban planning and development is environmentally friendly. This venture is managed by multiple state departments within the country, in an effort to ensure they adhere to their targets, specified in the Kyoto Protocol. The Association of Southeast Asian Nations (ASEAN) has developed a workshop on Environmentally Sustainable Cities, aiming to enable relevant entities to develop strategies to improve the environmental sustainability of their cities.

UN Involvement

Sustainable infrastructure has also been a major focal area of the UN, with the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) set up the Export Group Meeting on Sustainable development, in 2007, to “clarify the concept of sustainable infrastructure” (UNESCAP), in addition to identifying the key issues and developments within the field.

On December 11th, 1997, The Kyoto protocol was adopted in Kyoto Japan, setting targets for the reduction of carbon emissions, specifically through tracking, Clean Development Mechanisms (CDM), and Joint Implementation (JI).

The United Nations Human Settlements Program (UN Habitat), and the United Nations Environment Program (UNEP) have also jointly begun a Sustainable Cities Program (SCP), designed to address environmental issues in urbanization, as well as to enhance urban environmental planning. The first phase of this ended in 2001, with a second phase lasting from 2002 – 2007.

Possible Solutions

Some possible methods of furthering the development of sustainable infrastructure are to introduce a “green budget” into a nation, whereby a certain proportion of the national budget will be used to ensure public ventures are sustainable, as currently infrastructure is paid for from a tax budget. Another suggestion in this area is to give grants or subsidies to businesses which specialize in the development of sustainable urban infrastructure, to encourage more development within the industry, as businesses will be encouraged by its increased profitability.

Countries might also improve their public transport, to grant their citizens increased mobility, while also being a sustainable alternative to cars, and other privately used vehicles. The improvement of public transportation services could also cut down the incidents of road accidents, while expanding a city outwards, due to increased mobility between areas.

Improving education on methods of developing sustainable infrastructure could also play a major role in this, possibly as university courses, developing a workforce more aware of opportunities for sustainability within construction.



The diagram above shows Models of cities centered on their public transport connectivity (UNESCAP Smart, sufficient, and sustainable infrastructure systems – Background Paper)

The integration of these environmentally friendly tools could also be seamlessly merged into the infrastructure, for example, it is possible for noise barriers along highways to function as solar panels as well, while potentially heating surrounding building, cutting down their reliance on fossil fuels. Another way to improve fairly large cities in bring countries, is to group them in ways which ensures the knowledge of this issue is publically available, in addition to being communicated more easily with not only appropriate authorities but to normal interviews with civilians.

Possible Problems

Financing this infrastructure would be a major concern from some national economies as improving the environmental quality of these goods would add additional costs especially with waste disposal and disposal of environmental hazards. There is also likely to be concern over the effectiveness of national governments left to improve infrastructure from within the country, without any Non-Governmental Organization (NGO), or third-party involvement, in addition to the feasibility of certain potential goals within LEDCs which lack basic modern infrastructure.

However, in light of rapid globalization, it is becoming increasingly important for developing nations to be able to compete on the global market, making sustainable infrastructure an essential step forward in the sustainable development of LEDCs.

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