China is undergoing unprecedented growth in its economy. Massive scale infrastructure developments accompany such growth and rapid urbanization rate brings severe challenges to dealing with the ecological and environmental impacts to the country. High level strategic efforts are critical to establish a sustainable pathway to such growth.

When China and Singapore formally entered into a Government-to-Government agreement to develop the Suzhou Industrial Park (SIP) on February 26, 1994, clear principles were established in pursuit of a comprehensive, harmonious, and sustainable development. Besides policies and action plans that drive industrial “transformation, optimization, upgrading and innovation”, ecological and environmental protection guidelines were also articulated through setting up of a series of scientific and strict systems on planning, construction, and management.  An overview of these principles and instruments of development that have contributed to the phenomenal success of SIP will first be presented, highlighting  the many record-setting achievements in terms of energy consumption, emission control and environmental protection and management.

Some thirteen years later, China and Singapore have once again embarked on a joint-venture for a far more ambitious and complex scale development – the Tianjin Eco City Project - which formally commenced on November 18, 2007. It covers an area of 31.23 sq. km (12 sq. miles) with a target population of 350,000. The master plan of the city is conceptualized based on four key performance indicators: (1) Healthy Ecological Environment, (2) Social Harmony and Progress, (3) Vibrant and Efficient Economy, and (4) Integrated Regional Coordination. It is also envisaged that the development mode will be replicable, practicable and scalable. Some specific eco-design goals include:  (1) 15% of all energy usage will be from renewable sources by 2020,  (2) 50% water usage will be from non-traditional sources, (3) 100% of all buildings will be “green” (meeting the Tianjin Eco-city Green Building Evaluation Standard) and (4) 3-R’s waste management system (reduce, reuse and recycle). Within this context, a demonstrative 952-unit residential development within the 4 sq. km. “start-up” area will be presented. Advanced modeling tools are deployed to analyze and evaluate the indoor and outdoor environmental performance of the design according to the requirements of Green Building Evaluation Standard.

       China-Singapore Suzhou Industrial Park

<http://www.sipac.gov.cn/english/sipprofile/200901/t20090116_36671.htm>

 China’s Building Blitz

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