

The Economy, Energy, and the Environment in Tianjin's Future Development

Xing Zhengyang

The following scenario provides a general idea of changes that will be necessary to raise the quality of the environment in the course of the overall development of Tianjin in the twenty-first century.

1. *A fundamental transformation in the mode of regional development.* The mode of development should be characterized by a high economic growth rate, a low rate of increase in resource consumption, and a negative increase in environmental pollution.

2. *A fundamental transformation in the structure of development.* This change relates mainly to industrial structure and energy structure. The adjustment of industrial structure should be completed at the beginning of the twenty-first century. The share of tertiary industry should not only surpass that of secondary industry but also should exceed 60% by 2010.

3. *A fundamental transformation in economic pattern.* The center of Tianjin's economic development, and especially its industrial development, should be shifted eastward to the new coastal area. The target is to enlarge the new coastal area to more than one-third of the whole city of Tianjin in the near future and to half by 2010. This measure will greatly relieve the environmental stress on the central downtown area resulting from economic development.

4. *A fundamental transformation in the mode of development.* This would involve a shift from an extensive mode of development to an intensive mode. It also would require the development of a knowledge-based economy and high-tech industry, which are essential for economic development and also as fundamental guarantees for sustainable development.

5. *A shift of emphasis on pollution control.* This change is necessary to achieve more comprehensive control over and prevention of atmospheric pollution. In terms of prevention, the emphasis has been mainly on pollution from coal smoke in the city. As the urban economy has developed, however, the sources of atmospheric pollution have become more complex and include also fumes from motor vehicles and dust produced by construction sites. The proportion of pollution from motor vehicles is projected to increase greatly after 2005. This source of atmospheric pollution will become the primary pollution problem, and great attention should be paid to it.

6. *A fundamental transformation in the mode of management.* Environmental management, especially atmospheric environmental management, is undergoing

a transformation, from management by administrative order to management according to laws. Therefore, all kinds of auxiliary legal systems must be further refined, and a plan must be executed so that all people will participate. We should strengthen public information and education relating to sustainable development and environmental protection, in order to increase public awareness and understanding of environmental protection measures. We should also start to formulate a plan for environmental protection in which all people participate. These measures will deepen our environmental management and speed up the transformation away from the present management by government authorities, according to administrative orders and rules, moving instead toward management according to the law and management by government authorities combined with the participation of the public.