

# Environmental Impact of the Free Market in China

## ¾¾Tianjin Free Market Environment Analysis

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### Introduction

This paper mainly discusses the environmental impact of the free market in China, especially Tianjin free market. In order to fully understand this paper, it is necessary to definite some key words at first, and then introduce the background of free market (including its commencement, its administration system and environment sanitation). The impact of free market on the environment is analyzed in detailed in the terms of water, soil, air, sound and human health. On the view of sustainable development five proposals are mentioned in order to ensure the sustainable environment.

In current China, after the economic reform in 1979, there appearances a style of trade in cities named free market, actually free vegetable market. It is spontaneous behavior by farmers and unemployed man to make a living. City Neighborhood Committees confirm the place where can run a free market and the sellers confirm the business goods, hours and so on. Here residents in cities can buy almost every home made products, from vegetables to eggs, fish, and meat and even clothes and daily necessities. Here even exists the China Vegetable Marketing Association, founded in 1987, which is a member of the World Union.<sup>1</sup>

Although the free market in China has so many advantages, it is still looked on as informal constructions by ecological scholars. Why is the free market informal? What is the criterion? What is the real situation behind the prosperity appearance? What shall we do next? This paper tries to illustrate its informality characteristics behind the formal appearance. The main resource of the free market is from Tianjin, the third biggest city in China.



Can you imagine the real situation behind this modern metropolis view?

First of all, let us make some concepts clear.

### Connotation of Key Words

- **Free market:** 'Free market' used in this paper is far from 'free trade' in the field of economics, it has a special meaning in China. It refers to designated outdoor areas in the residential areas of cities and towns where the farmers were allowed to sell their produce directly to urban consumers. It looks much like the Sunday Market in Belgium.

#### How did free market begin?

By 1979, China's government-controlled agricultural sector was in serious trouble and the government finally recognized that something had to be done

<sup>1</sup> Forum, Newsletters of the World Union of Whole Sale Markets Within IULA, 29-Oct.-00  
<http://www.wuwm.org/forum/frmtxt12.htm>

to revitalize it. The government had clearly lost the ability to stimulate and control the agricultural sector that had been the cornerstone of Maoist China.<sup>2</sup> So in 1985, the government took a bold step -- it withdrew entirely from trying to control production and distribution of non-staple crops, such as fresh fruits and vegetables, and it dissolved the People's Communes, allowing farmers to decide what to grow and allowing the market to set prices.

To enable farmers to sell their produce directly to urban consumers, the government designated outdoor areas in residential areas of cities and towns as official "free market" areas where the farmers were allowed to sell directly to consumers. It didn't take long for urban consumers to see that produce being sold by the farmers at these "free markets" was incomparably better than what they had under the government-controlled system. The "free markets" became an overnight success and the farmers began to grow rich. Today, the "free markets" in China look and operate much like the Sunday Market in Belgium or farmers' markets that have become popular in the U.S.

- **Informality:**

1. The state of being informal; want of regular, prescribed, or customary form; as, the informality of legal proceedings.
2. An informal, unconventional, or unofficial act or proceeding; something, which is not in proper or prescribed form or does not conform to the established rule.<sup>3</sup>

Urban informality: Massive spontaneity and informality appears when governments cannot provide functional control for human settlements. It reflects the basic needs of the bottom class, homeless, unemployment vagrant.

- **Sustainable development:** Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.<sup>4</sup>
- **China's Agenda 21:**<sup>5</sup> China's Agenda 21 is the national response to the 1992 United Nations Conference on the Environment and Development. The impact of China's Agenda 21 on the enactment and enforcement of environmental law will be considerable. There are five basic elements to China's sustainable development policy.
  1. Sustainable development must maintain the level of economic growth achieved since the implementation of the Open Door Policy.
  2. The creation and application of all relevant laws should be improved.
  3. The discharge of pollution resulting from economic growth ought be strictly controlled; likewise biodiversity conservation should be promoted.

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<sup>2</sup> China's Vegetable Markets: From Farmer to Consumer, by Ditty Deamer

<sup>3</sup> Webster's Revised Unabridged, 1913 Edition -includes definition (English), origin (indexed Apr 8 1997), by Gavin LaRowe

<sup>4</sup> Louis Albrechts, *Urban and Regional Planning for Sustainable Development*

<sup>5</sup> China Golden Health Medical Co. Ltd., *China Agenda 21*

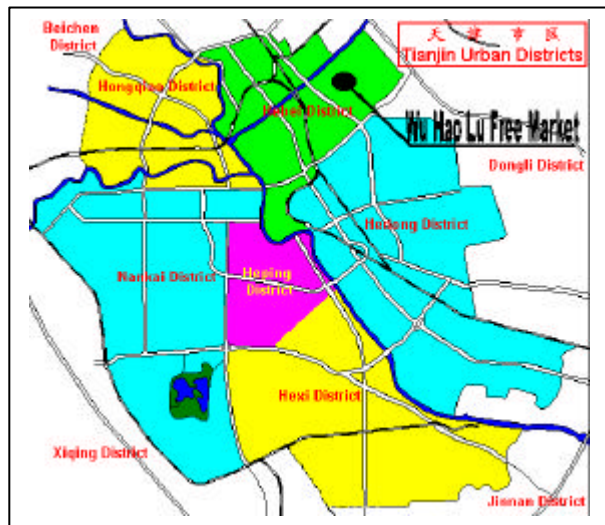
4. Foreign investment into environmental protection technology ought be encouraged in order to free up domestic funds for other important investments.
5. Scientific research in the fields of population control, environmental protection and biodiversity protection need be enhanced.

China's Agenda 21 stipulates that the policy of sustainable development will be implemented through legal measures.

## Background

- **Why is the free market informal? What is the criterion?**

According to the connotation of informality, we can say that current free market in China is an informal construction. First, although there is government control, but it is not useful and functional. The government office takes away the tax and sets up the code, but it just makes the free market legal, not formal. The free market in China is still a spontaneous by farmers and jobless. There is no code and management for the goods and environment sanitation. The free market always occupies the neighborhood road and even worse blocked the entrance of the residents' lifetime walkway. Here no car can go through it, which is originally a part of the necessary transportation. Here are no confirmed open hours, only depending the sunrise time. Let me introduce Wu Hao Lu free market in Tianjin as an example.



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1. **Place:** *Wu Hao Lu*<sup>6</sup> Free Market is located in the 7.5 meter-width narrow street named *Wu Hao Lu* between residential neighborhoods named *Cui Hua Li*,<sup>7</sup> surrounded by housing apartments. Plenty of products are sold in this free market, such as fresh vegetable, fruit, poultry, aquatic product and so on. There are a number of people streams and vehicle streams<sup>8</sup> on the narrow street, so it is very crowded and noisy.
2. **Personnel:** Consumers and vendors (including resellers) consist of the body of free market personnel. Consumers refer to the local residents buying the products from free market close to their residential area. Some vendors refer to the farmers coming from the village and selling their products in



<sup>6</sup> Wu Hao Lu means the fifth road in English meaning.

<sup>7</sup> Cui Hua Li is my home place.

<sup>8</sup> Common vehicles are still bicycles in Tianjin.

the free market. Others are Tianjin jobless. This former is called as floating population. Some vendors, shuttling between urban and rural every day, are in charge of goods transportation. Other vendors selling their products live in the temporary tents.

3. **Market hours:** There is no confirmed open hour. It depends on the sunrise time. There are two kinds of free market in *Wu Hao Lu* Free Market according to the open time.
  - Morning market: The morning market gets underway at about sunrise, and operates 7 days a week so people can get their shopping done before they head off to work. Market closes by about 8.00 am, in time for the business day to begin.
  - All-day market: All day market is open for about 12 hours a day. It is typically open around 8.00 am and generally closing about 7-8.00 pm.
4. **Transportation:** There are two kinds of transportation for *Wu Hao Lu* Free Market. One is dynamical system, which includes tractors, trucks and other



ty vehicles; the other one is manpower system, the common redesigned bicycle. Farmers or resellers have their own way of modifying a standard 2-wheel bicycle to transform it into a market cart, such as 3-wheel bicycle.

5. **Sanitation:** There are a lot of waste paper, plastic bags, rotten vegetables and fruits and other variety trash on the ground of free market. There are no water supplement facility and drainage in *Wu Hao Lu* Free Market, the same as most of Tianjin free markets, even no lavatory in some free markets. In short, sanitation condition of free market is fairly dirty, especially in summer the number of mosquito and fly is quite large.



- **What is its administration system?**

The *Wu Hao Lu* Free Market is under the government's control. The control system or the free market administration model is divided into four parts. The He Bei District Industry and Commerce Bureau has overall jurisdiction over the free markets. It has the authority to issue and retract the vendor license. Within the Bureau, the *Wu Hao Lu* Neighborhood Liaison Office has direct



administrative responsibility, and sends a representative from this office to the market every day to insure that the market runs smoothly and to collect Market Participation Fees from the vendors. The market administration office responds to administrative daily work such as to clean the environment, to safeguard the order, or to provide fire control. All in all, the office job is for the detailed work according to indicates of the Industry and Commerce Bureau. For example, through the Weight-Checking Office, which is a part of the market administration office, customers can have the weight of their purchases checked on an electronic scale. The third part of the system is the Revenue Bureau, which constitutes different types of tax such as turnover tax that abides by the market rules. The fourth



The vendor license



Weight goods on an electronic scale

part of the system is the Administration Office of Food Sanitation. It has the authority to issue the health license and to check the food sanitation quality in term. (See figure 1).

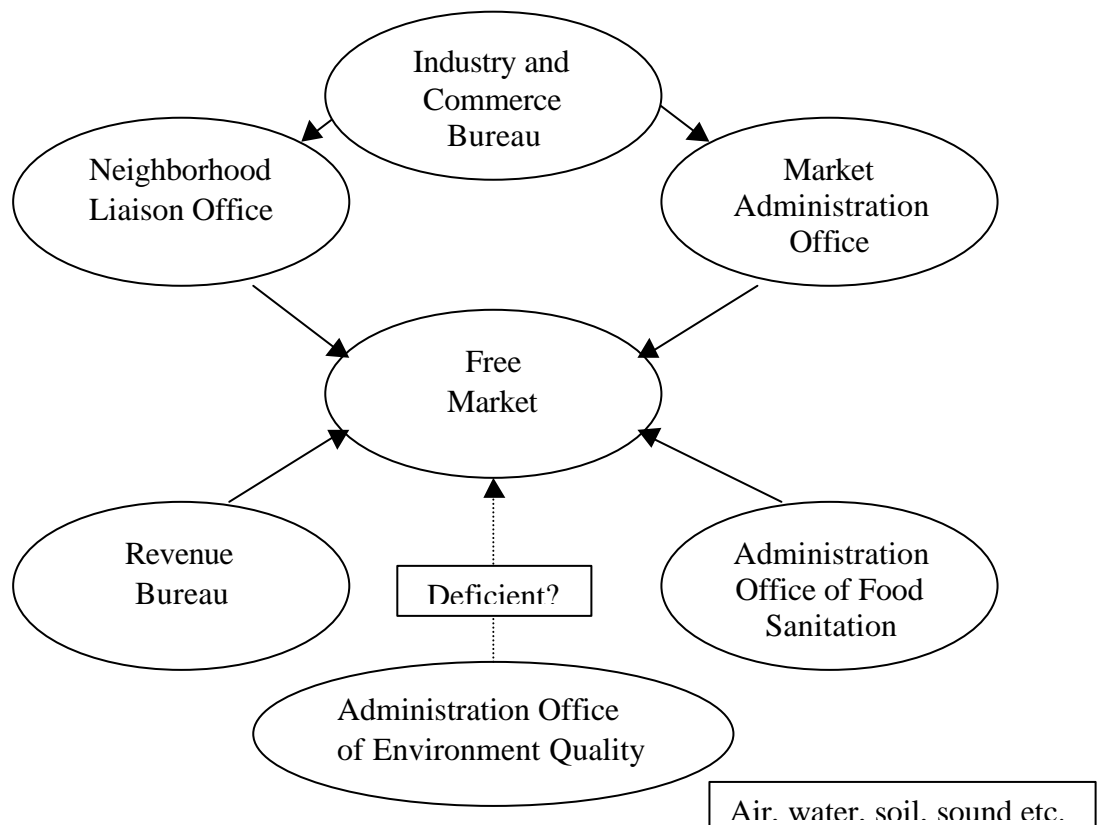


FIGURE 1: FREE MARKET ADMINISTRATION MODEL



## Problem & Analysis

Except the free market spontaneous and transitional characteristics, the main characteristic of free market looked on as informal construction is its environmental problems. In the terms of the free market situation and its administration model, free market environment is very complicated; there are many potential dangers on the environmental pollution view. The problems can be divided into five aspects.

- **Water:**

1. **Water supplement:** On one hand, most cities in China are lack of freshwater supplement. Up to now, the total amount of water deficiency in the cities has been more than  $16 \times 10^6 \text{ m}^3$  per day. In cities there appears water scarcity. Just for example, the city of Tianjin has to make use of 99% shallow level ground water in order to make ends meet. One the other hand, it is very difficult to acquire fresh water along legal



approach for resellers in the free markets because of lacking of water supplement facilities and high price of the water (1.1 Yuan per  $\text{m}^3$ ). Because of this reason, the sellers try to embezzle water illegally through setting up private utilities and then stealing water from neighborhoods. Since such kind of water is 'free of charge', resellers never attend to saving water, but wasting water careless.

2. **Water drainage:** Sellers, especially the farmer group, use water to clean vegetables, fruits, and meats. Sewage with fertilizer and pesticide residue flows into the limited drainage, and then directly pollutes the city's water body, such as lake and river. It changes the water body aging, and high-grade



nourishment. And the high-grade nourishment water stimulates organisms especially algae abnormally reproductive. For example, in Tianjin Haihe River, the each liter of water body has 50 mg nitrogen, 3.2 mg phosphorus and 10 mg potassium. It leads to algae abnormally reproductive and vast amount of fish and shrimp dead.

- **Noise:** In the free markets, normally there are two main kinds of noise. First is transportation noise, the other one is domestic noise. Transportation noise: The working sound of tractors, trucks and other heavy-duty vehicles can be up to 89-92 db. Domestic noise: There is quite high noise by the sum of people's bargaining sound, peddling sound, and even animal's horning sound. Although it has no direct harm to people, the domestic noise interrupts people normal talking, working, studying and resting. It is a big problem to the local residents because the free markets are set up among the neighborhood apartments and the domestic noise in free markets is quite high.



- **Air:** Air pollution is primarily from the use of fuel. For example, the vendors use coal as fuel for cooking. It produces granule soot after burning, which radius is less than  $1\mu\text{m}$ , thus makes the harmful soot pollution. The other one is due to transportation. The tractors and trucks use diesel oil as fuel. It produces  $\text{SO}_2$ ,  $\text{SO}_2$ ,  $\text{SO}_3$ , and  $\text{H}_2\text{S}$ , which heavily pollute the air.
- **Soil:** Due to lack of water drainage facilities, vendors have to pour the sewage and trash casually. The trash, sewage with fertilizer and pesticide residue pollute the soil seriously.
- **Human health:** According to the above-mentioned, the environment contaminations invade human body through air, water, food and so on. Those factors have harmful effects on human health directly or indirectly. Some of them are carcinogen and others are causes of disease, which can lead to infectious diseases. From the view of personnel, the vendors from the rural to the urban maybe not acclimate and have to work all day and all night, thus their immunity systems are very weak. So this



part of people is susceptible population. On the other hand, some of them carry various pathogens into the urban. Once these pathogens spread out through fitting conditions, they will influence the urban resident health (See figure 2).

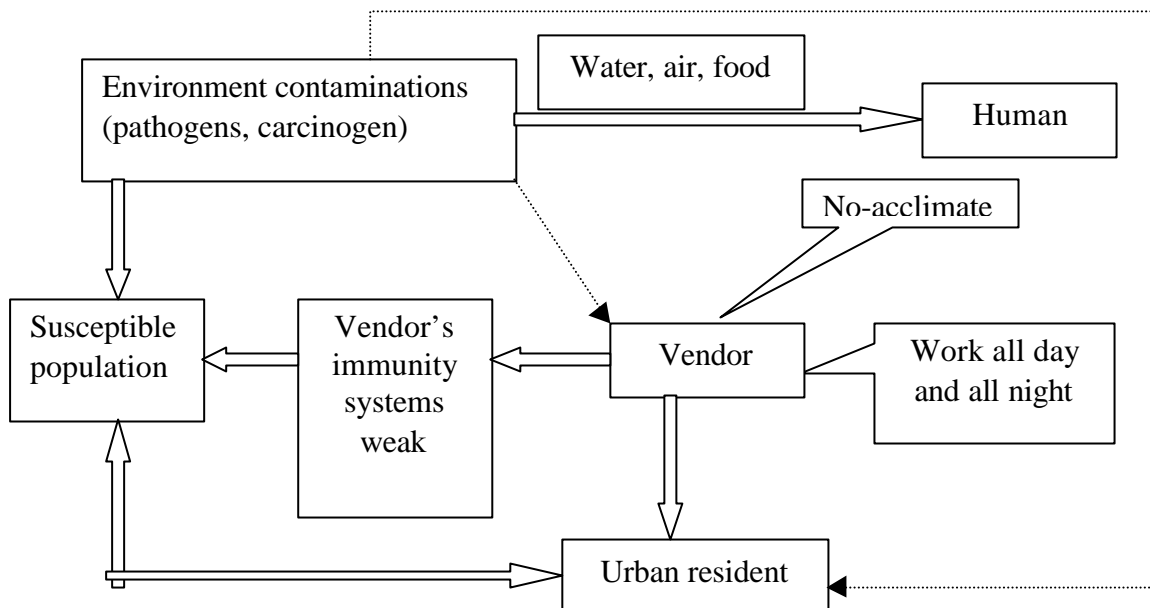


FIGURE 2: THE IMPACT OF FREE MARKET ON HUMAN HEALTH

### Proposal

Environmental protection is one of the most fundamental national policies of China. Since the United Nations Environment and Development Commission in 1992, China government has formulated a series of rules to develop both economic and environment coordinately.<sup>9</sup> China's Agenda 21 mentions that the discharge of pollution resulting from economic growth ought be strictly controlled.<sup>10</sup>

In practice, the free market improves the life level of both the urban and the rural. For the urban, they can purchase the fresh products; for the rural, they earn much more money than they had before and they can build their own houses and construct the roads in their home village. Nevertheless, the free market is not only to debase the urban environment quality and harm the people's health, but also to block the state's economic continuous development.

Although the free market has degraded the environment heavily, it is not a good idea to close the free market at present in China. On the contrary, we should develop it along the sustainable way and improve it as formal construction. What we shall do is to sustainable development under the existing physical condition. That means the government should provide certain way to improve the free market environment under the vendors affordable ability. Here we propose sustainable development theory. We suggest our government that sustainable development should be looked on as a means of integrating economic development and the environment.<sup>11</sup>

### Proposal I

**The government should constitute the relevant laws to improve the environment and reinforce the power of executing the law.** It is our pleasure for the Law of Environment Protection published in China, 1979.<sup>12</sup> And the law has been revised for several times. We hope the government can go further more than that.

### Proposal II

<sup>9</sup> Liu Tianqi, *Environment Protection in China*

<sup>10</sup> China Golden HealthMedical Co. Ltd., *China Agenda 21*

<sup>11</sup> Luc Hens, *Readings on Sustainable Development*

<sup>12</sup> Yao Zhilin, *Environment Hygienics*

**Extensively carry out the propaganda and education to improve the public consciousness of environment conservation.** We can educate the public not to litter trash and wastewater through all sorts of media, such as newspaper, magazine, TV, radio, and so on.

#### **Proposal III<sup>13</sup>**

**Suggest the government to use the taxes from free market back to serve for the free market, especially to improve the free market environment.** We suggest the government makes use of the money collected from the vendors to build the public facilities, such as water supplement utility, sewage, toilet and etc. Meanwhile, the government can build some low-income housing, social housing or basement to improve the vendors' living condition.

#### **Proposal IV**

**Suggest the government to set up Environment Quality Administration Office in the free market to carry out the environment monitoring periodically,** for example, air monitoring, water monitoring or sound monitoring. Once find the results over the standards, solve the problems in time.

#### **Proposal V**

**Suggest the government to establish a system with responsibility for the vendors' health examination.** As long as the vendors' health condition is not satisfied with the standard, especially that of infectious disease, this department has a right to stop their job. This solution not only is good to the vendors, but also protects the urban residents.

### **Conclusion**

It is not possible to stop the free market because it is necessary for city labors. The only way is to improve it, changing from informality into formality. Maybe we can call it as free market environmentalism, that is, to connect environment protection and run free market together. Here we only give the direction of our work, we hope the government can go further along its way, both functionally and usefully, to set up sustainable environment. And we hope to invoke the popular to preserve our environment while the economic develops.

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<sup>13</sup> World Resource Institute, *China's Health and Environment*