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# An Appraisal and Analysis of the Law of “Plastic-Bag Ban”

Qunfang Zhu\*

Institute of Economics, Beijing Materials University, Beijing, 101149, P. R. China

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## Abstract

This paper appraises the law of “Plastic-bag ban (PBB)” and points out that the law is necessary, feasible and effective. The success of the PBB policy is represented by the fact that the policy is consistent with the public opinion, and has definite control target. PBB has been properly carried out in supper markets, and has reduced the usage of plastic bags by two thirds. However, the public understanding of PBB needs to be further deepened. The paper analyses the cause of illegal use and wholesaling of ultra-thin plastic bags in peddler' and wholesale markets, and advances some policy suggestions including strengthening the propaganda of PBB and the regulation over peddler's markets and production of plastic bags, increasing the price of plastic bags and establishing relevant law and regulation systems.

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*Keywords:* the law of Plastic-bag ban; policy appraisal; reason; measure and suggestion

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## 1. Introduction

In China, the cost to regulate white pollution was up to 18,500,000 Yuan each year. In Beijing, 3% of house refuse is wasted plastic wrap materials with a quantity of 140,000 ton each year. The white pollution not only influences the appearance of a city, but also brings a potential hazard to environment. The wasted plastic wrap materials mixes in soil and influence crops in assimilating nutriment and moisture and causes a reduction of output. The exudation of plasticizer and additives may pollute the underground water. Being burned with urban garbage, wasted plastic wrap materials may generate harmful gas which would pollute air, harming human's health and so on. In order to understand consumers' using habit of plastic bag and their influence on consuming habit when “Plastic-bag ban” working out and the mass attitude and opinion, the teachers and students in our Lv Chao (“green wave”) workroom carried out some relevant questionnaire surveys on the law of “Plastic-bag ban” and the usage

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\* Corresponding author. Tel.: +86-010-89534178; fax: +86-010-89534211.

E-mail address: [zhuqunfang@msn.com](mailto:zhuqunfang@msn.com)

of plastic bag. We gave out 163 recyclable valid questionnaires in residential quarter and school to further appraise the effect in implementing the law of plastic-bag ban. By analysing the forming background, the effect of publicity, residents' recognition, the executive economy of cost of the law, we reached a conclusion that the principle of the law is right, while the execution of the law is not effective.

## **2. The law of plastic-bag ban complies with the sustainable development**

In order to follow a scientific approach of development, we should construct a resource-conserving society and environment-friendly society, take effective measures at the beginning, supervise and urge enterprises to produce durable and easy-to-recycle plastic shopping bag, guide and encourage the masses to use plastic shopping bag in a reasonable way, reduce white pollution, protect ecological environment, further boost the work of energy saving and emission reduction. The General Office of the State Council has released the "Notice about Limiting the Production and Selling and Usage of Plastic Shopping Bag" in December 31, 2007 and stipulated that: from June 1, 2008, plastic shopping bags with a thickness of less than 0.0025 mm. will be prohibited to be produced, sold and used; paid using plastic shopping bag should be carried out in all the commodity-retailed places like supermarkets, shopping centres, peddler's markets and so on, no plastic shopping bags could be used for free. In commodity retailing places, the price of plastic shopping bags must be marked and charged clearly along with all commodities. The Commerce Department and Development and Reform Commission would formulate specific methods to manage the paid use of plastic shopping bag in commodity-retailing places, implementing and putting it into practice and gradually forming a marketing environment of paid using plastic shopping bag. The coming of "plastic-bag ban" has good positioning and complies with the idea of scientific development and sustainable development, conforming to the masses' longing for improving environment. The "plastic-bag ban" is easy to be accepted by common people, which will contribute to a successful implementation of the ban.

## **3. The object being regulated and controlled by the law of "plastic-bag ban" is explicit**

Whether the coming and implementation of a policy on public environment could reach expected effect depends on the interaction between the executors and objects. The law of "Plastic-bag ban" includes supervising manufacturing enterprises and market of plastic bag, and the supervising made by Industry and Commerce Departments to merchants. The law has stipulated clearly that plastic bags are not allowed to be produced out of line; merchants couldn't offer plastic shopping bag for free and stop giving out no degradable plastic shopping bags, which greatly reduce the consumers' using quantity of ultrathin plastic bags.

The implementation of "Plastic-bag ban" has achieved initial success. "Plastic-bag ban" has stipulated clearly that quality control depts should establish product quality supervision mechanism in plastic-bag manufacturing enterprises. According to the "Law of the People's Republic of China on Product Quality", those who get out of line to continue producing ultrathin plastic bag, or printing quality mark on illegally made plastic bag, or other behaviour that break the law and regulation, would be given order correspondingly to stop production, be confiscated products produced or owned, and be fined and so on. The law puts importance on managing and controlling from the origin of the problem.

The supermarkets giving out free plastic bag encourage wide and vast usage, which becomes the source of plastic bag using. The Industry and Commerce depts would supervise and check when commodity-retailed places like supermarkets, shopping center, peddlers' markets selling and using plastic bags, and investigate and treat those behaviour that sell and use ultrathin plastic bag according to Quality Law. Commodity-retailing places should strengthen the management of plastic bag using in market and

supervise and urge commercial tenants to sell and use qualified plastic shopping bag. Plastic-bag marketing enterprise should establish purchase and sale account to prevent disqualified plastic bag entering market. Relevant department estimates that after the implementation of “Plastic-bag ban”, about 40 billion plastic bags could be reduced across the whole country each year, which keeps down the production of “white pollution”. For the management cost of plastic-bag ban point of view, it is more economic, reasonable, practicable and easy to control to put emphasis on supervising merchants than on consumers.

The supermarkets have high enthusiasm and do well in implementing plastic-bag ban. After the implementation of “Plastic-bag ban”, the project team has visited several supermarkets including Makro, Jingkelong, Century Mart, Wumei and so on, and find that before implementing “Plastic-bag ban”, these markets have conducted publicity by posting nation’s new policy about the use of plastic bag on bulletin board or cashier desk and present non-woven bag to consumers. The poster tells consumers that from June 1 no free plastic bag would be offered and prices of the bags are marked. The prices of the bags are decided by the markets. According to a report, hypermarkets having more than 50 chain branches, could save hundreds of millions Yuan in plastic bag each year. It is widely believed by the supermarkets that this policy could not only protect environment, but also reduce the cost in purchasing plastic bag. So this policy is seriously implemented in supermarkets.

Paid use of plastic bag is an effective measure to regulate and control the quantity of consumers’ purchasing plastic bag. People tend to consume more when something is free and calculate when need to pay. According to our survey that 71.8% consumers would use plastic bag each time if only it is free regardless of the quantity they purchase; 23.9% use plastic bag according to their purchasing quantity, and only 3.1% would bring plastic bags with them when shopping, which means that only a small part of people would provide shopping bag for themselves when plastic bags are free. Before implementation the law, 4% not use plastic bag each week; 12% use one each week, 43% use 2-3 plastic bags each week and 25% use 4-5 each week. The workers in some supermarkets said that after “Plastic-bag ban”, usage of plastic bag has been reduced obviously with only 200-300 plastic bags are sold on average each day, which is far below the daily consumption before. However, 57% of consumers theoretically support this policy, but the convenience of plastic bag makes them unable to stop using it, and 3% mentally oppose this policy and use plastic bags as usual. Nearly 7% consumers would choose reusable bags when the price of plastic bags exceeds their expectation. By half an hour observing during rush hours of shopping in some supermarkets checkout counter, we find that “Plastic-bag ban” implemented not long before has only limited the thickness of supermarket plastic bag. The elder consumers, who bring sacks or non-woven bags are in the majority, but there is a limit effect on reducing the quantity of young people’s using plastic bags. The quantity of women bring shopping bags is obviously more than men. Most consumers haven’t developed the custom of bringing shopping bags themselves. Consumers who purchasing plastic bags accounted for 33.3%. Consumers bring shopping bags themselves accounts for 17.5%. Compared with the result of 40% from questionnaire survey, it reflected a phenomenon of consumers’ inconformity in thinking and doing.

Explicit punishment force is convenient for enforcing the law. “Plastic-bag ban” has clearly stipulated that fine to those illegal behaviour is between 5000-20000 Yuan, which offer a effective basis for supervising and enforcing the law.

The policy has a wide scope of application. It has stipulated that in passenger train, passenger ship, passenger car, airplane, station, airport and tourist attraction, ultrathin plastic shopping bags are not allowed to be provided to passengers or tourists. Authority of railroad, traffic, civil aviation, travelling, etc should practically perform their duties of supervision and inspection.

There is still shortage in the publicity and implementation of the law of “Plastic-bag ban”. Publicity of policy couldn’t be simplified. The policy must be approved by objects being regulated and controlled.

Whether merchants and consumers approve plastic-bag ban concerns the effect on implementing the policy. Our survey shows that:

Consumers have no deep understanding to “Plastic-bag ban”. After media publicity of the law, 92.6% people know that “Plastic-bag ban” would be implemented from June 1; 3.1% people still have no correct knowledge on the goals of implementing “Plastic-bag ban” and mistake “Plastic-bag ban” for lowering merchants’ packaging cost, which would bring negative influence on the implementation effect of this policy. The national thickness standard of nondegradable plastic bag forbidden to use is <0.025 mm. but 66% of consumers have no clear awareness of this standard. Only 25% know that the upper limit of punishment is 20,000 Yuan. As for the places needed to be mainly supervised and controlled by “Plastic-bag ban”, 34.2% believe it is supermarkets, 25.9% believe it is farmer’s market, and 10% known no other places.

There is not a high acceptance to the effect of “Plastic-bag ban” on reducing white pollution. Only 42% people believe “Plastic-bag ban” has a great effect and 57% believe the effect is ordinary or limited. Most people haven’t fully affirmed its positive effect. 50% consumers believe that using one less or reusing plastic bag just make an ordinary contribution to reducing white pollution, 17% even believe their contribution is relatively small. Only take supermarkets and farmer’s markets as the main applicable places reflect that they have low expectation to “Plastic-bag ban”. 35.0% people believe that the effect of Plastic-bag ban would depend on improving environmental awareness, 27.6% believe that it would depend on developing a consumption custom of environmental protection, 20.9% believe that it depend on government’s enforcing the law and supervision, 14.7% believe that it depend on consensus publicity. It also reflects that improving people’s environmental awareness and developing consumption custom of environmental protection would contribute to successful implementing “Plastic-bag ban”.

#### **4. There are insufficiency in implementing “Plastic-bag ban”**

The law has not been practically executed in farmer’s wholesale markets. We found that in markets, only few consumers bring bags with them, all booths and shops still offer plastic bag for free. After “Plastic-bag ban”, as plastic bags are cheap and convenient for customers, driven by benefits, petty dealers in shops selling breakfast, fruits, etc in farmer’s markets would still offer free ultrathin plastic bags.

There are still unlawful wholesaling of ultrathin plastic bags. In plastic-bag wholesale booths in the vicinity of BaLiQiao farmer’s market, we found that although the implementing of “Plastic-bag ban”, various kinds of plastic bags, whose norms and thickness meet the standards, have been placed on the counters in the wholesale departments, however, ultrathin plastic bags have still been sold under the counters. Under the regulations on the thickness of plastic bags, the quality of illegally-produced ultrathin plastic bags is better than before, but it is still in supply. Purchasing channels are less than before accordingly; the present wholesale price is higher than that before “Plastic-bag ban”.

Problems existing in implementation and their reasons. The plastic bags in supermarkets are qualified, but a large number of illegal plastic bags could be seen everywhere in farmer’s market. The reason why “Plastic-bag ban” has been impeded in farmer’s markets is merchants’ boycott. It is not convenient for customers to bring bags when going shopping and there is also sanitation problem; people still use deserted plastic bags to hold refuse. The reasons for these problems are as follows: Firstly, people have some misunderstanding in “Plastic-bag ban”. And second is that the supervision is not strict in the course of implementing “Plastic-bag ban”. Plastic bags manufacturing enterprises are also lack of self-discipline. There are countless petty dealers in China and innumerable ones operate in mobile process, which makes it hard to regulate. Thirdly, most commodities sold in supermarkets have their own package; so plastic bag is a secondary package. But plastic bags used in farmer’s markets are mostly one-off, many commodities have no preliminary package, either bringing water or mud or even not suitable for mixed

wrapping. Even though these commodities are sold in supermarkets with free hand-tore bags, it is common for consumers to use three or five or even more than ten ultrathin plastic bags at a time when shopping in farmer's market. If these ultrathin plastic bags are changed into thickness-qualified plastic bags, even the quantity is reduced by half or two-thirds, the plastic consumption would still be amazing. Without appropriate substitutes, plastic bag ban would be too inconvenient to be executed by stall keepers and customers. The environmental protection shopping bag offered in supermarket has a relatively high price and is hard to be accepted by food shoppers in markets.

### **5. Suggestions on more effectively enforcing “Plastic-bag ban”**

Whether “Plastic-bag ban” could be implemented successfully among consumers without causing their dissatisfaction not only depends on effective publicity by policy-makers, but also on the right guidance and positive supervision made by policy actuators.

Publicity of “Plastic-bag ban” should be further strengthened. To achieve good implementation effect, “Plastic-bag ban” should be publicized in the following ways: Publicity should be rich in content and carried out in various forms. Every kind of media publicity should make consumers fully understand “Plastic-bag ban” including its specific content. The harmfulness of “white pollution” should be widely publicized to make the masses and production and marketing enterprises firmly establish awareness of saving resources and protecting environment, conscientiously and reasonably use plastic shopping bags, produce and sell qualified plastic bags according to law. During high-tide period of environmental activities as Environment Day, Earth Day and Energy Conservation Publicity Week, etc, publicity should be further carried out in popular and easy to be understood ways.

The publicizing units should be diversified and the publicity should be persistent. At preliminary stage of issuing “Plastic-bag ban”, supermarkets and media made a great a whoop and a holler, but now they rarely pay attention to this law so that there are still many people having no knowledge of the purpose of “Plastic-bag ban”. Nation and government administrative departments, environmental-protection NGOs, supermarkets, merchants and student environmental volunteers should all be the major and persistent force for publicizing relevant knowledge of “Plastic-bag ban”. Consumers should be educated and guided to improve their environmental literacy and carry out “Plastic-bag ban” on their own initiative. The resistance and the cost when implementing this policy should be reduced.

Establishing perfect legal system related to “Plastic-bag ban”. “Plastic-bag ban” has stipulated that industry and commerce depts are in charge of investigating and treating the behaviours that continue selling and using ultrathin plastic shopping bag out of line according to “Product Quality Law”. Article 35: “sellers should not sell products that state has made explicit order to eliminate and that disabled and degenerative”. This article is only suitable for those who selling ultrathin plastic bags. There is no specific stipulation on sellers offering free plastic bags. Relevant departments should make more detailed articles and provision. Restraining market sellers from using ultrathin plastic bags illegally would make “Plastic-bag ban” more effective.

Strengthen the supervision of merchants and manufactures. The supervision of markets that plastic bags are mostly used should be strengthened, and the quality and circulation of plastic bags be strictly checked to reduce using nondegradable plastic bags. Measures should be taken to improve quality regulation, intensify law enforcement, strictly execute regulations on recalling, rectification and reforming and punishment, etc. Firstly, we should strengthen the supervision of market to ensure paid plastic bags using, ensure the quality of bags is up to specification, and made the people used to the regulation. Secondly, the blind angle of “Plastic-limit” that controlled by nobody in farmer's market should be cleared away. For those retailing markets without unified checkout counters such as peddlers' markets, the Industry and Commerce Depts should supervise market management. If commercial tenants violated “Plastic-bag ban” inside market, Industry and Commerce Depts should punish the market managers, who should be in charge of managing commercial tenants. Special counter to sell qualified

plastic bags in farmer's markets should be established. All booths are prohibited from providing ultrathin plastic bags. The using of reusable bags and baskets for non-staple food as vegetables and meat, etc should be actively advocated. Thirdly, the source of ultrathin plastic bags supply should be cut off. The regulating and monitoring on plastic bags manufactures should be strengthened accordingly. The illegal transaction between wholesaler and manufacture should be cut off. The source of white pollution should be thoroughly exterminated and destroyed. In these ways, "Plastic-bag ban" could produce better effect.

Increasing the price of shopping bags gradually would be conducive for people to reduce using plastic shopping bags. Survey shows that only 2.4% of consumers mentally oppose "Plastic-bag ban" and not give up using plastic bags. When the price of plastic bags exceeds that people are willing to accept, only 30.7% would continue using plastic bags. For 55.2% of the interviewees, the price most likely to be accepted is between 0.10-0.20 Yuan; 18.4% consumers even expressed that the price they are willing to pay is below 0.1 Yuan and 19% are willing to pay 0.2-0.30 Yuan; only 4% are willing to pay more than 0.30 Yuan. Even the group that have high income are not willing to accept plastic bags with high price. To change consumption custom, proper economic means is needed. So properly increasing plastic bag price would limit its usage amount. Two years after implementing the policy, environmental tax related to plastic bag using could be levied to compel supermarkets to further increase plastic bag price and thus further restrain consumers from buying and using plastic bags.

Degradable shopping bag should be developed by using advanced science and technology. Although it is hard to find suitable substitutes materials in a short time, government could conduct subsidy and reduce or remit taxes on the research and development made by enterprises. Producing cheap substitutes bag would be a fundamental way of limiting the plastic-bag using.

Government and markets should facilitate the development of fresh-cut vegetables and non-staple food processing industry. Government and markets should promote the standardized fresh-cut vegetables sorting and packaging service, thus contributing to reducing the heavy usage of plastic shopping bags.

## 6. Conclusion

In a word, "Plastic-bag ban", which has been issued and implemented for more than two years, has been accepted by more and more people. Consumers have developed a preliminary habit of proving shopping bags for themselves. Charging reasonably for plastic bags in supermarkets has successfully reduced plastic bags usage by two-thirds. It has a satisfactory effect and reduced white pollution. But it still has a long way to go to enforcing the "Plastic-bag ban" on farmer's markets. Farmer's markets should be a key area for enforcing "Plastic-bag ban". Efforts should be made to make "Plastic-bag ban" has lasting and in-depth effect to promote the development of circular economy.

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