

PRICING FOR THE POOR:

A “Five Orientations” Approach to Protect the Low Income Groups in Water Tariff Reforms in Chongqing¹

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Abstract

Since the late 20th century, water tariff has been raised continuously in many cities in China, challenging the governments' capacity to protecting the low-income groups with sufficient living necessities. The typical traditional approach to directly provide the low-income groups a cash subsidy through public finance not only increases the government's long-term financial burdens but also has some negative implication in a long run. As a result, in the process of marketizing public utilities, tariff adjustment would not be limited to one single public sector or a certain period, it would instead become a common policy action for a wide range of public products. This would bring deteriorating and lasting influences on the low-income groups, and thus make it harder for the public finances to provide timely subsidy to these low-income groups. This paper proposes a ‘Five Orientations’ approach as a policy solution to improve existing structure of water tariff subsidy. It contributes to the study of how to protect the interests of the low-income groups, thoughts of funds for subsidization and strengthening scientific management during water tariff adjustment. It is a long time between policy conceptualization to stipulation, and to implementation, and the recommendation made in the paper still deserves attention.

There are various problems in the existing subsidizing arrangements for the low-income groups. For example, the sum of subsidy is often insufficient to cover the basic expenditures of the poor; the structure of subsidy is unspecific and does not correspond to the structure of the basic expenditures; funding sources of subsidy depend heavily on the limited public finances; management and operation of subsidizing funds are usually deficient and sometimes seriously faulted. Hence, the author proposes a ‘Five Orientations / better targeted’ approach as follows.

i) Earmarked fund-raising. The funds for subsidy could be raised through slight price increase for certain public goods or services, which could be used as a stable and sustainable channel of fund-raising. Subsidy for water supply is an example here. This would help turn social subsidy from merely a cost on public finance into a true social cost and therefore realize the shift from administrative and financial subsidy by the government alone to the market-based and society-participated subsidy by the society as a whole.

ii) Oriented subsidization. Funds collected through ‘oriented fund-raising’ should be

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entirely spent in providing water subsidy, based on the principle that resources should be used at the sector that generates them.

iii) Quantified (i.e. ‘quantitatively-oriented’) subsidization. The basic volume of water consumption per person per month of low-income groups needs to be rationally set, and it should be adopted as the benchmark of water subsidy. It demonstrates the principle to provide public subsidy moderately and to consume scarce public goods conservatively.

iv) Target-oriented consumption. Water subsidy shall be made in the form of vouchers, and the amount of vouchers should be based on the basic volume of water consumption, so that the vouchers can be used to pay for water tariff only. This will help clarify the structure of public subsidy system, prevent appropriation or abuse of public subsidy and promote the public’s right to know and to supervise the content, structure, amount and form of public subsidy.

v) Systematic management. The government shall practice ‘systematic management’ of both collecting resources for and providing of public subsidy, meaning it should set the annual total basic volume of water consumption for low-income groups based on its annual estimates, and then issue water vouchers accordingly. The vouchers shall be distributed within the existing recipient group of subsistence subsidy and used exclusively for the payment of water tariff by low-income groups.

1. Background

Due to the increasing prices of public utilities in China in recent years, protection of low-income groups has drawn great attention on all levels of government. Therefore, series of protective policies and regulations have been issued by many local governments. Though those policies and regulations has demonstrated social fairness and contributed to social stability, they are still suffering from the lack of rationality and the tendency of biasing in conceptualization, design, content and methodology. Focusing on the water tariff subsidy for poor urban residents and based on analysis of effective policies and regulations, the paper explores possible approaches to protection of low-income groups in the context of adjusting pricing policies and makes a number of recommendations to improve efficiency, effectiveness and sustainability.

2. Status quo of Water Tariff Reform in Cities in China

Water tariff reform in China has been on the government’s agenda since the late 20th century. Such reform has been driven by i) the shortage of water resources; ii) irrational social practice of water consumption and, as a result, waste of resource; iii) ineffective water tariff pricing mechanism which is slow to respond to supply-demand changes; iv) low accumulated resources in water sector, which makes the traditional public financing approach unsustainable; v) unsatisfactory supply of water services which barely meet the increasing social consumption demand; and vi) severe water pollution.

The Chinese central government set one of its guiding principle as ‘based on the demand of the socialist market economy, the water-tariff-pricing mechanism and management system should be established to meet the needs of national economy development as well as people’s livelihood, and it shall favor the development of water sector, promotes water conservancy and

supports water pollution prevention'. Guided by such principle and based on market pricing lever, water is treated as commodity goods again, and water tariff reforms have been conducted in a number of medium-to-large scale cities in China. Series of water tariff reform policies and supportive implementation plans have been issued by various local governments. By the end of 2006, the majority of medium-to-large scale cities in China have, more or less, raised its water tariff. In terms of drinking water, Beijing has raised its water tariff from Y1.30/ton in 1999 to Y3.70/ton in 2006 (including of waste water treatment fee, and the following prices also include this cost); Guangzhou from Y0.70/ton in 1997 to Y1.95/ton in 2006; Nanjing from Y1.20/ton in 2000 to Y2.30/ton in 2006; Xi'an from Y1.36/ton in 1997 to Y2.45/ton in 2006 and Chongqing from Y1.25/ton in 1999 to Y2.80/ton in 2006. In general, the average water price among 36 medium-to-large cities in China has increased by 93.86% with an annual rate of 11.66% over the 1999-2006 periods.

3. Water Tariff Reform and Protection of Low-income Groups

Water services have been an exceptionally sensitive topic for long since they relate to the fundamental consumption needs of the public. Hence the State requests that local governments take full consideration of the affordability of its population and enterprises within its jurisdiction, pay special attention to protect low-income groups, and ensure that water tariff reform can guarantee low-income families' basic needs for water can be satisfied.

In the context of urban water tariff reform, 'low-income groups' is used to describe those people whose living standards are close to the minimum level of subsistence allowance (i.e. households or groups receiving minimum subsistence allowance) and in particular, those people whose basic consumption ability is reduced and whose subsistence life standards are lowered due to higher water price after water tariff reform. According to the *Provisions for Minimum Subsistence Allowance for Urban Population, enacted* by the Chinese State Council and became effective on September 28, 1999, urban population with non-rural Hukou (household registration) and an average family member income lower than the minimum level of subsistence allowance of their resident area are entitled to get local government subsidies and to maintain their subsistence. Calculation of the minimum level of subsistence allowance for urban population usually takes full account of costs of clothes, food and housing for the need of subsistence, as well as reasonable share of costs of water, power, coal and compulsory education.

The conventional practices in most Chinese cities to ensure basic water consumption for low-income families include: i) exemption of water tariff for the volume of basic water consumption; ii) adoption of Block Tariff; and iii) raising the minimum salary level for workers as well as the minimum level of subsistence allowance for urban population. Chongqing is currently applying two approaches to protect the low-income groups – in some districts/counties, water tariff of the first 3-5 tons of water consumed by the low-income families every month is exempted; and in other districts/counties (typically in the nine urban districts/counties of Chongqing), the minimum level of subsistence allowance is raised to ensure basic water consumption of low-income families. For instance, when Chongqing Municipal Government raised the water tariff from RMB 1.20/ton to RMB 2.0/ton in 2001, it also raised the minimum level of subsistence allowance for urban population by RMB10.00. The most recent sampled

survey on the expenditure composition of low-income families in urban Chongqing indicated that those families had an average water consumption of 1.5 ton/month/person, which cost them about 2.11% of their total expenditure.

In subsidizing the poor for their water consumption, it is common in the western countries to follow a categorized billing system, which normally consists of three types of billing options: tariff choice, tariff capping and restricted tariffs. The British pioneer of tariff choices, Anglian Water Company provides the water consumers with three choices of paying metered charges – Standard tariff, Solow tariff and Aquacare Plus tariff. On the six levels of water consumption volume specified under Anglian Water's charging system, each of the three tariff choices generates a water charge corresponding to each of these six water consumption levels. Hence water consumers could theoretically pick any of the eighteen choices based on their consumed water volume to pay their water tariff. In fact, only households receiving Income Support, the Job Seekers Allowance or Family Credit are fully entitled to choose any of these three tariffs; and all other households could only choose between Standard and Solow tariffs. In England and Wales, the practice of tariff capping could be also found. Certain types of low-income groups can pay either: a) what its measured charge would be; or b) the average charge for all household consumers (measured and unmeasured) served by its water company, whichever is less. Thus the household's measured charges are essentially capped at the level of the water company's average household bill. Restricted tariffs are provided solely for specific consumer groups. For the retired in Spain, the first 15m³ in the two-month billing period is free; the next 10m³ is priced at 34% below what is charged to all other households in a given household-size-related initial block. After that, the general household tariff holds. Malta has introduced an IBT system, which is currently restricted to one-and-two-person households receiving social assistance, and it seems that virtually no one ends up outside the subsidized blocks.

4. Problems with Current Chinese Water Tariff Subsidy Policies

Protection measures have been adopted in the course of urban water tariff reform in Chinese cities to protect low-income groups, and they have played active roles in protecting the low-income groups and contributing to social stability. However, there are still a number of problems with these protection measures, as following.

i) Inadequate subsidy fails to meet the need of basic expenditures of the poors. The current minimum level of subsistence allowance for urban population in Chongqing is RMB155.00 to 200.00 Yuan/month/person (with variations among districts/counties), which is about RMB41.00 to 72.00 Yuan/month/person higher than the 1999 level. However this level still falls behind the national average and even farer behind that of the coastal cities. Notably, the Chinese CPI for the first half of 2007, which increased by 3.2% compared to the same period of 2006 and with 2.5 points contributed by the increase of food price, has dwarfed the increase of subsidy to basic expenditures. In fact, the livings standards of poor people in urban areas have been suffering from significant decrease of life quality due to sharp price increase.

ii) The coverage of subsidy is unclearly defined. International practices to protection low-income groups include the Shopping Basket Method (SBM), Engle's Ratio Method, Income Ratio Method and Life Style Method. The SBM, widely adopted in China, was proposed by Rowntree (1901), who developed a list of life necessities required to maintain merely physical

efficiency. This method has been used as the basis to list the items requiring subsidization. In the current practice in China, the subsidy to the poor has been usually made in lump-sum, and is not divided by contents of basic life necessities which are both classified and quantified in theory. The subsidizing standards fail to match the composition of life necessities, resulting the discrepancy between the lump-sum subsidy volume and the sum of sub-total of every categorized item. Moreover, these comprising elements of life necessities have changed due to the growth of socio-economy, from essentially private goods like clothes and foods to an expanded mix covering public goods like housing, education, health care and public services. In Chongqing, for instance, public goods like public transportation are preferred to bicycles due to hilly terrain, consumption propensity and expansion of built-up areas. It essentially enlarges the volume of the ‘Shopping Basket’, which in turn poses a new challenge to the approach, content, volume and structure of traditional subsidizing arrangements.

iii) The resources for public finance are limited. Conventionally and practically, except social donation, subsidy for basic expenditures to the poor has largely relied on public finance. As the coverage of public services gradually expands, governments in China on all levels have been facing a situation of increasing social demand. Under such circumstances, the traditional practice of using public finance as the only source for subsidy creates unaffordable burdens to governments, especially local governments in western China. Subsidy by the government through public finance as the primary source may not be sustainable in the long-run without expanding the sources of funding for subsidy provision, especially for those governments which don’t have sufficient financial capacity. Thus, social subsidy is not only the obligation of the government, but also the responsibility of the society. Hence, it is necessary to expand the funding sources of social subsidy.

iv) The management and operation of public subsidy system are ineffective and sometimes with loopholes. While public subsidy has been intended to ensure the basic consumption of the urban poor, the inadequate lump-sum subsidy with unclear coverage in current practice has caused a series of problems, such as: a) the sum of current subsidy is barely sufficient to cover expenditures for foods, and the consumption of water, power and gas has loaded the poor with greater financial burden, which has widened their gap between other social classes. Statistics shows that the monthly water consumption by poor households is usually lower than 1.5 ton per person, which is only half of an average family, which suggests worsening living standards of poor households. b) delay or arrearage of payment for water, power and gas is common for some low-income groups, due to their tight financial budget. c) the loopholes in the management of public subsidy allows some members of low-income groups to continue receiving subsidy even after they find jobs and have new income sources.

These problems have seriously impaired the effectiveness, efficiency and sustainability of the protection of low-income groups by the government and the society.

5. ‘Five Orientations’ Approach – A Policy Solution for Enhancing the Effectiveness and Sustainability of ‘Protection’

The effectiveness of the protection guarantees the living standards of the low-income groups regardless of the influence of price increase or inflation; and the sustainability of such protective approaches should ensure the long-term stability of their living standards. Meanwhile, protection

of low-income groups by the government shall not copy the traditional role, which passively follows the trend of price increase and only serves as a partial cure of the symptom. On the contrary, a reflexive and long-term mechanism is required to replace the passive and random subsidizing policies. In the context of price increase of public goods, such a mechanism is able to quickly ‘generate’ new sources of subsidy funds to satisfy the needs of the low-income groups for basic public goods in a timely and sufficient manner.

In the context of protecting the low-income groups in the course of raising water/waste water tariff, the author proposes a ‘Five Orientations / Better targeted’ approach, consisting of ‘Earmarked fund-raising’, ‘Oriented subsidization’, ‘Quantified (i.e. ‘quantitatively-oriented’) subsidization’, ‘Target-oriented consumption’ and ‘Systematic management’.

i) Earmarked fund-raising. The funds of subsidy for the low-income groups largely come from the public fiscal budget. Such funds provided by Chongqing public finance have been rapidly increasing since 1999, with an annual increase rate of 35.84%. The standards for providing subsidy will rise along with the development of socio-economy and the improvement of urban population’s living standards. Meanwhile, with the implementation of the coordinated urban-rural development strategy and the rapid urbanization, the size of non-rural population will expand and the number of low-income urban residents will increase as well. This will inevitably increase the demand for subsidy funds and consequently pose even greater pressure on the public finance. Obviously, mere reliance on the public finance to protect the low-income groups cannot be either effective or sustainable. Furthermore, it is unreasonable that the public finance has to bear ALL the burden of the market-generated adverse consequences which the low-income groups is suffering. Hence, both the society-based and market-based approaches should be considered in practice. We propose that the funds for water-tariff subsidy for the low-income groups be sourced from the water supply/waste water treatment companies. In addition, such funds may be considered to be part of the companies’ costs and part of the total social consumption costs.

Rough estimates suggest that about RMB3.4 million Yuan could be contributed monthly by the 8,665,700 water consumers in urban Chongqing, through a RMB 0.15 Yuan/ton increase of water tariff (app. 5% of the present-day total), which revenue is earmarked for supporting the low-income groups (about 10% of the urban population in Chongqing) to increase their monthly water consumption from less than 1.5 tons to 3 tons, which is the minimum volume of individual water consumption for a Chongqing resident. Raising the funds of subsidy through slight price increase on some particular public goods or services could reduce the burden on public finance and avoid sharp price increase. Also, according to rough estimates, this approach can save over RMB 40 million Yuan of public finance to support even urgent social needs. For example, a policy could be devised to ensure that a relatively small sum of funds should be set aside through each session of price increase and used as dedicated funds for subsidy, with capped subsidizing proportion, in match with the quantity and price of basic public goods demanded by the low-income groups. Such ‘proportion-based’ price adjustment mechanism could contribute to developing a stable, sustainable, guaranteed and ‘self-generating’ channel of fund-raising. This would help turn social subsidy from a cost on public finance into a genuine social cost, realize the shift from administrative and financial subsidy by the government alone to the market-based and society-participated subsidy by the society as a whole and encourage the shift of administrative, fiscal, random and passive government subsidy to market-based,

social, stable and pro-active social subsidy..

ii) Oriented subsidization. Funds collected through ‘earmarked funds’ should be entirely spent in providing subsidy for the sector from which the funds are raised, based on the principle that resources should be used at the sector that generates them. Such arrangements not only address the funding shortage of public subsidy, but also effectively prevent various forms of mis-use of subsidy funds. Furthermore, they support the government to efficiently manage and audit subsidy funds. Moreover, with those arrangements, recipient groups can have a clearer idea of what public subsidy is available for them. Hence, such transparency helps clarify the obligation of the government and the society in providing subsidy, and quantifies the rights of the low-income groups to receive their entitled subsidy.

iii) Quantified (i.e. ‘quantitatively-oriented’) subsidization. The consumption of water, a scarce resource, should ensure adequate needs and should avoid wasteful use. Provided that the basic living standards are maintained, the basic volume of water consumption per person per month of low-income groups needs to be rationally set, which should be adopted as the benchmark of capped water subsidy. Water subsidy shall be made in the form of vouchers, and the amount of vouchers should be based on the basic volume of water consumption, so that the vouchers can be used to pay for water tariff only. The shift in the form of public subsidy from lump-sum cash subsidy to categorized in-kind subsidy will help clarify the structure of public subsidy system, prevent appropriation or abuse of public subsidy and promote the public’s right to know and to supervise the content, structure, amount and form of public subsidy.

iv) Target-oriented consumption. Increasing Block Tariff (IBT) may protect people’s basic living standards; however it is hardly be adopted in practice because it will require most Chinese cities to have the hardware precondition of ‘one-household-one-water-meter’ installation. Further, IBT is inefficient in ensuring to meet the basic water need for the low-income groups in practice. As the tariff of each block is fixed but not focusing on protecting the poor because water consumers, large or small, rich or poor, are all effectively subsidized in the first block. Hence, in order to ensure the low-income groups basic volume of water consumption, in-kind subsidy is highly advisable. In particular, water subsidy can be made in the form of vouchers based on the basic volume of water consumption, dedicated to the payment of water tariff within a certain validity period, so that the basic volume of water consumption for the low-income groups can be guaranteed. As a result, the flow of ‘earmarked fund-raising → oriented subsidization → quantified subsidization’ will realize the purpose of ‘oriented consumption’. This will help clarify the structure of public subsidy system, prevent appropriation or abuse of public subsidy and promote the public’s right of knowledge and monitoring with regard to the content, structure, amount and form of public subsidy.

v) Systematic management. The extended flow of ‘earmarked fund-raising → oriented subsidization → quantified subsidization → target-oriented consumption’ has a further advantage of ‘system-oriented management’ of subsidy funds by the government. This effectively supports the rational conceptualization, design and monitoring of the entire subsidization process and prevents appropriation, abuse or mis-management of public subsidy. There are several possible approaches for water subsidy, for instance, a) the governmental agencies, which are responsible for public finance, price and civil administration, can set the annual total basic volume of water consumption of low-income groups with reference to its annual estimates; b) the water companies can issue water vouchers based on the total demand, and count it as a cost; c) the

vouchers shall be distributed by the civil administration authorities to the existing recipient group of subsistence subsidy; d) the vouchers can only be used specifically for the payment of water tariff by low-income groups; and e) the total costs incurred throughout all the above process can be calculated and compensated by water tariff increase.

In sum, to protect the low-income groups in the context of raising the tariff of water - a typical public good, providing in-kind subsidy with funds sourced from the water tariff will be a preferable alternative to enhance the effectiveness and sustainability.

In fact, this 'Five Orientations' approach can not only be adopted to the tariff reform of water sector, but also applicable in the tariff reform of other government-led public sectors, such as power, gas, transportation, health care and education. It deserves a particular note that this new approach may not be applicable in the context of domestic solid waste disposal, which is of 'public service' nature but at the same time constrained by billing and fee collection methods. However, this approach appears to be feasible for those public sectors which can be easily quantified, independently billed and directly transacted. For example, residents could buy power in bulk volume and consume through power meter while the power company is able to cut off power provision in the case of failure of payment by the users. The 2006 sampled survey on the expenditure composition of low-income groups in urban Chongqing indicates that a RMB0.024 Yuan/m³ (app. 2.2% of the present-day gas price) price increase for gas will be enough to support increasing the gas consumption volume of the low-income groups to the average level (i.e. 9.52 m³/person/month).

The 'Five Orientations' approach stands as only one proposal to facilitate the reform of traditional provision of public services, and it certainly requires further theoretical and empirical tests. Thus, diverse understanding of such an approach is natural and welcome. For example, some point out that, though theoretically valid, this approach can not essentially escape the trap of 'cross-subsidy'; and others hold that this approach may weaken the due obligation of the government and public finance, though it could help establish the 'self-generating' fund mechanism during price changes. However, it should be stated that no policy is perfect since its particularity, contextuality and time-boundedness are essentially its disadvantages as well. Hence, it is wise to adopt the perspective of 'total social costs or total social welfare', rather than that of any individual costs or lost of individual welfare. The disadvantages inherent with traditional subsidizing arrangements suggest that the 'Five Orientations' approach could serve as one, through not the only, option for providing public goods. The conceptualization and design of the such an approach would contribute to expansion of public subsidy coverage, relief of public finance burden, scaling-up of total subsidy volume and financial sustainability of public finance. Most importantly, such an approach focuses on transforming public subsidy from a traditional government obligation in a narrow sense to a shared social responsibility under a broader concept, and thus achieve more comprehensive and sustainable social harmony.