

## CHAPTER 6

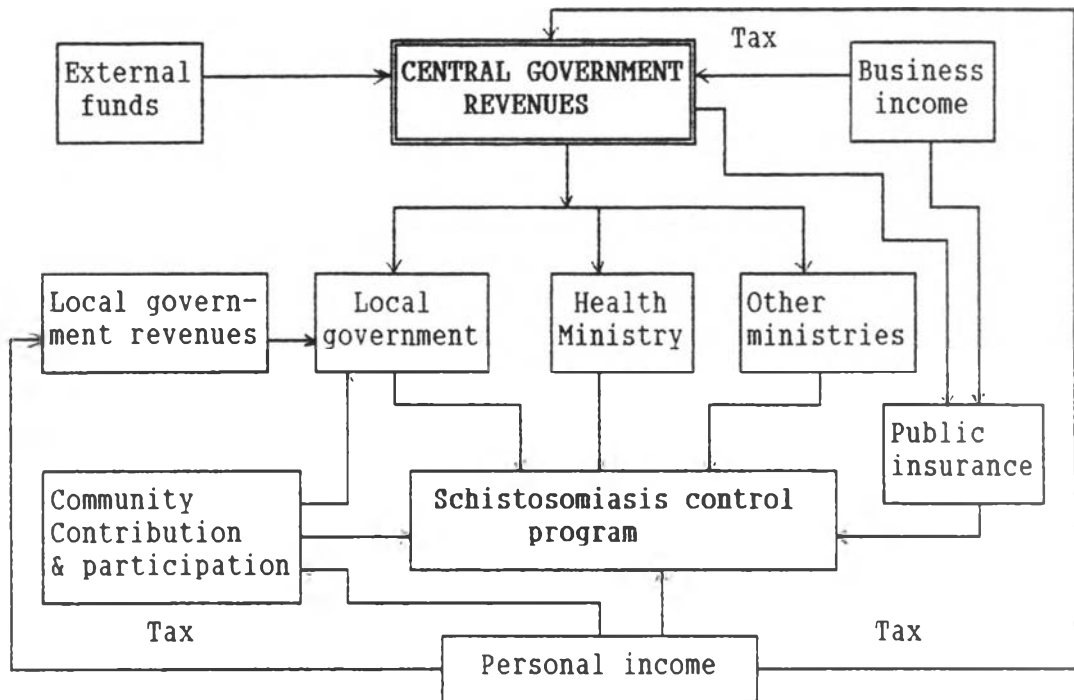
### ASSESSING PROGRAM FINANCING

Financing may be defined as raising of resources to support or pay for the goods and services used in the health sector, which may take the form of cash or in-kind contributions such as labor, organizational skills and materials. Each financing scheme may be considered as who pays, who benefits, how much, for what and through what mechanism. The criteria for evaluating health care financing schemes are the efficiency and equity concerns of the mechanisms. Efficiency refers to the yields of the financing, the stability and reliability of the financial resources and the flexibility in utilizing them. Equity concerns the distribution of benefits and burdens.

The schistosomiasis control program in China is a typical example of "public goods" financing, for which the governments take the principal responsibility. Financing schistosomiasis control, which is primarily a primary health care program in nature, is different from financing secondary and tertiary health care programs, for which more financing varieties may be used. Usually, user charge is not under consideration because the people in need do not always have the demand for the service. And more often, the externalities of interventions call for government financing. In this program, the central government revenue, which is from the business and personal taxes, goes to the Ministry of Health, other ministries and the local government, which in turn go to the specific schistosomiasis control activities. On the other hand, the local government revenues also go to the control projects through the local government investment. Community participation, either through the local government, or through the way of direct local involvement, is essential to the control program. Figure 6.1 is a brief description of the resource flow under the program.

When the financing of the program is evaluated, it should be remembered that the program is only a small part of the comprehensive health care system in China. In a very large extent, the improvement of the people's health is a complicated function of many factors, such as economic development, education, culture, religion and so on, which are interrelated each other. In this study, it is not intended to probe in detail of those factors, simply trying to demonstrate the reliability and adequacy of the possible financing scheme in the current control program.

Figure 6.1 Resource Flow of China's Schistosomiasis Control Program



#### 6.1 Government financing:

Without doubt, the government revenues are the principal financing sources for the schistosomiasis control program in China. This is primarily due to that schistosomiasis control is a "public goods" where market failure occurs when purchased. The existence of "externalities" of the control work, which is the spillover effect of a individual or a household's decision to seek the treatment or prevention activities, limits people's efforts to take up the responsibility. Furthermore, the lack of well-informed consumers of the services necessitate the government's intervention in this field.

The residents in the endemic areas are usually not fully aware of the consequences of the disease. It is reported and readily understood that the poorer they are, the more they are affected by the disease. This also justifies the equity concerns of government financing to the program. In this case, the government revenues from the general taxes go to the program, which benefit the rural poor.

Government not only plays a major role in the financing the control program, it also has primacy in overall policy making and strategic planning in the control plan. It is the political commitment and administrative efforts that make the control work operating to achieve the preset objectives.

In the first 30 years of control work, the high priority, both political and financial, enjoyed by the national schistosomiasis

control program exempted much of the worries for financing and implementing the program. However, the achievements attained in the past had relaxed the efforts of both the health care planners and administrators in the control of the disease. In 1986, the Leading Group for Schistosomiasis Control under the Central Communist Party Committee was disbanded. The responsible work was transferred to the Endemic Diseases Department of the Ministry of Public Health. Since 1985-1986, funding constraints occurred and the policy changes in the national level adversely affected the program coverage and performance. For example, schistosomiasis control is a work involving many relevant government departments such as the agriculture, water conservancy, even the industrial administration to take part in. The leading groups of different levels could coordinate the activities among government departments. Those organizational and administrative structures are one of the factors for guaranteeing the successful implementation of the program.

### 1. Resource adequacy

The allocation of the health care resources, including financial resources is dependent on the situational analysis by health care planners and administrators, who set the priorities according to different criteria, including political and epidemiologic priorities. The following table gives us the information of the financial inputs for the program in past years.

Table 6.1 The budget for schistosomiasis control from 1980-1990 (in thousand RMBY)

Year	1980	1985	1989	1990
Hubei	8000	8000	5000	12000
Hunan	5300	5300	5700	9800
Jiangxi	5900	5900	8900	8900
Anhui	4000	4000	4000	6000
Jiangsu	6500	6500	7500	7500
Sichuan	5000	5000	5000	5000
Yunnan	2000	2000	2000	2000
Zhejiang	2000	2000	2000	2000
Total	38700	38700	42100	53200
Total after discounted based on 1980's price	38700	32400	26400	32000

Source: MOPH (1992)

If we look at the endemic condition of the disease apart from the financial input, we could see that during this period, the actual government spending was decreasing using constant prices. During 1980 to 1989, the government input for controlling the disease was not increasing even in nominal terms with a ever decreasing input in real terms. As a result, the control effort was much relaxed from the administrative to professional organizations due to lack of funds. The direct consequence was that the endemicity of the disease was going up in some of the endemic areas. Even in the formerly safe "heaven" in some urban areas, acute infections, the severe form resulting from heavy attack, occurred in outbreaks in a few cities. Those serious conditions made the policy makers and administrators realize the importance of keeping a high priority to the controlling of the disease and thus led to increased financial inputs in 1990 from the government. However, the government input in 1990 was still less than that in 1980 when considered using the price deflator. From our analysis in the previous chapter, we know that government financial inputs will not be enough after the termination of the World Bank loan program, even if we want to keep the level of 1990.

## 2. Sustainability of government financing

Ideally, government financing should be stable and provide sustainable resources for the control program, if the national economy develops healthily and human resources development is on the agenda of the policy makers. Among the endemic countries of schistosomiasis, the Chinese government is one of the few which have been dedicated to the eradication of the disease.

However, government financing from the general tax revenue is not the most reliable source of finance for the health sector. This is largely due to factors such as the low political priority frequently given to the health sector in national budget decisions, the instability of economies in developing countries, the frequent use of public expenditure as a tool of macro-economic policy.

The rapid economic reform and development is bringing both the opportunity and challenge for the financing of the disease control program. On the one hand, the economic development means more material resources will be available for allocation to the health care sector. But on the other hand, if less attention is paid to the human resource development, this increase in natural resources does not necessarily mean the increase in the input for control activities. Unfortunately, the current high inflation rate coming together with the fast economic growth will eventually "eat up" the increased resource input, if any.

a. Inflation: When governments spend more than their revenues, they may finance this deficit by printing more money. However, without a simultaneous expansion in output, the increased volume of money leads to price increases (ie inflation) in order to bid resources away from existing resource users. In fact, inflation is an indiscriminate form of taxation which no one could entirely avoid. In this case, if other stable financial resources are not secured, the complete dependence of

the program on government financing means actual decreasing of the resources available.

b. Currency depreciation: Currency depreciation is a sister of inflation in the economy, and is often used as an economic tool by the policy makers to adjust the trading policy. As this control program utilized limited goods and equipment from imports, currency depreciation had a limited impact to the resources utilization. However, under the World Bank Loan Program, one of the most important resources - the production of praziquantel, was granted to a South Korean Company. So when currency depreciation occurs, it would mean that more is to be paid for purchasing the drug.

c. Structural adjustment: Under economic recession in many developing countries, government has undergone several structural adjustment policies, and the health sector always suffers from budget cuts, as it is perceived to be a "consumption and non-productive sector". This has not happened yet to the Chinese health sector, or to the schistosomiasis control program. However, it is very difficult to predict whether it will happen in the future. So it is necessary to study to what extent a real budget decrease in the program would affect the health of the population in the endemic areas and to develop policies to remedy such a situation.

## 6.2 Community financing:

Community financing and self help is defined as the contributions by individuals or family beneficiaries or community groups to support part of the cost of health service (Stinson, 1983). Abel-Smith and Dua (1988) redefined community financing as a collective communal effort on a self help basis to achieve the common community goal, either health or any other goal.

Community financing requires good organization, community participation, managerial skill, leadership, local political support and information. The pitfall is that individuals are willing to pay for personal curative service, not for prevention and community activities.

Health For All strategy stresses two major themes in the re-orientation of health services: the mobilization and effective application of under-utilized national and local resources (eg., organizational skills, manpower and cash), and the development of affordable and culturally appropriate delivery systems so that basic health care will become universally acceptable. Consequently, some governments and many non-government agencies are turning to communities for organization, participation and financial support for health services in developing countries. This may take many forms such as community labor, support for volunteer health workers and drug cooperatives.

Community financing for China's schistosomiasis control program

is unique compared with other endemic countries. First, the community participation is under strong local government leadership and political commitment. Second, the local government or law-making bodies passed local regulations or laws for the control activity in some of the endemic areas which require the local contribution and involvement in the control activities, especially for environmental modification projects. Third, the strong presence from the anti-schistosomiasis institutions in the snail control - integrated agricultural development projects enables them to be carried out in a technically feasible and acceptable way.

However, the economic reform process in the countryside in China is making community participation in the control activities more and more difficult. The lack of economic benefits of the projects will make it difficult to mobilize the people to take part. And during their spare time in agricultural seasons, the strong male farmers will go to economic prosperous cities seeking work opportunities. These factors will make the community participation to the program more difficult.

But, the cadres in anti-schistosomiasis institutions, together with the local communities in the endemic areas, are searching ways of integrating snail control into aquatic or agricultural development projects which could bring extra economic motivation. One of the outstanding examples is the introduction of snail control with low - dam high nets fish raising projects in the snail infested areas. The preliminary results showed that it is promising both in the economic return from the projects and the snail control effectiveness (Table 6.2)

**Table 6.2 The snail control effectiveness and economic return of a snail control-integrated low dam and high-nets fish raising project**

Place	Year	Snail infection rate(%)	Density of infected snails (no./0.11M <sup>2</sup> )	Economic Return (RMBY)
Pilot area	Investment			-1,600,000
	1989	1.05	0.0191	150,000
	1990	0	0	350,000
	1991	0	0	550,000
	1992	0	0	900,000
Control area	1989	0.46	0.0127	
	1990	0.66	0.0029	
	1991	0.09	0.0009	

Source: Cai *et al* (1993).

It was demonstrated by this study that the project is very effective in killing the snails in the project area. And the investment for the project is expected to yield a net return in 3-5 years depending on the capital costs of the materials. This is of significance in the control program when the government budget is limited and less input increase is expected for this kind of expensive project. In the meantime, the investors in the local community could have an economic return, which could encourage their participation in the program.

### 1. Resource adequacy

Theoretically speaking, the resource from the community in the form of labor or other in-kind contributions is always potentially abundant for the program, especially in the snail control projects for which a lot of labor work is needed. If the snail control projects could be combined with the activities of agricultural or aquatic-cultural development like the previous example, the resource from community participation will be one that should not be inadequate.

### 2. Sustainability of community participation

Sustainability of the resources from community participation is closely related to the managerial skills and the local political commitment to the program. It is very difficult to predict whether this political and managerial support from the governments will be continued or terminated in the long run. But currently the governments at different levels are giving very strong support to the program implementation. For example, the Hunan Provincial People's Congress drafted and passed "The regulations of schistosomiasis control in Hunan Province", which requires the township and village administrations to organize and manage the local schistosomiasis under the technical guidance of professional organizations. The regulations also ask the local residents to contribute a certain amount of labor for the control projects. As a consequence, these measures effectively guarantee the managerial and organizational structures required for mobilizing the community in participation.

### 6.3 External source of financing:

External financial assistance for the health sector in the form of grants or loans from bilateral or multilateral agencies is common in developing countries. However, due to historical reasons, the health sector in China, as well as the schistosomiasis control program had been neglected by the outside world before the 1980's. The World Bank Loan program is the first of its kind in China's schistosomiasis control history.

However, if we examine the current World Bank loan, we could still assign it as a form of government financing, because the central and local governments borrow and spend the funds in the present and are ten years repay them, mostly from the general tax revenue. The loan was given a program life of 5 years and only constitutes a short term

source of support. Although useful for relieving temporarily the financial constraints and helping to expand some institutional structures, it will, in the long run, be an excessive burden by virtue of the debt repayment problems for the future local governments. This deserves careful examination of the extent to which there should be a significant impact on the future financing to the program.

### **1. Resource adequacy of external financing**

For an endemic country with a large number of people at risk of infection, up to a million persons infected each year and with billions square meters of snail infested areas which is even increasing year by year, no external resources could be enough to cover the huge expenses of the control activities. However, the external resources in the form of managerial and control experience should be beneficial to the control activities. The limited foreign assistance could be used to solve some of the problems with priorities.

### **2. Sustainability of external resources**

The funding agencies allocate resources according to their policies and their own financial conditions and are influenced by a variety of factors which themselves could not be guaranteed. For a specific program, the funding organizations set up the precise level and time period. For the World Bank Loan program currently being implemented in the endemic provinces, the time frame is five years and it will be terminated by the end of 1996. During the implementation, the specific policies and strategies should be followed and no special funds allocated for the continuing of the program. Therefore, we should say that it will not be sustainable of the external financing sources for the Chinese schistosomiasis control program.