

# CHINA: THE ROLES OF USERS IN ENHANCING UTILITY OF EVALUATION

WITH SPECIAL REFERENCE TO THE INTERNATIONAL EVALUATION  
ON THE FUNDING AND MANAGEMENT PERFORMANCE OF THE  
NATIONAL NATURAL SCIENCE FOUNDATION OF CHINA

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## INTRODUCTION

At present, both evaluators and decision makers recognize the need to enhance the utility of evaluations. However, utilization rates are quite low. The authors of this paper often hear some users complain that evaluators are too concerned with evaluation methodology and that quite often, the evaluation does not offer enough support for ongoing management and decision-making; evaluation results are usable but not very useful.

The utilization of evaluation depends on both demand- and supply-side factors. This paper primarily discusses factors from the demand side. The two authors come from demand and supply side respectively. The facts and viewpoints presented in this paper are based on the authors' direct involvement in the latest evaluation practice in China, International Evaluation on the Funding and Management Performance of the National Natural Science Foundation of China (hereafter the NSFC Case). The NSFC Case is the most influential case up to now, and represents good practice from China. It is widely acknowledged in the science and technology community in China.

The paper first presents an overview of the national evaluation effort in China and a brief introduction of the NSFC Case. It then focuses on the discussion of the roles of the users and how they fill these roles. The lessons learned are obtained from the case analysis. The paper concludes with pending issues for discussion.

## OVERVIEW OF THE NATIONAL EVALUATION EFFORT IN CHINA

Establishing an evaluation system within the public administration system in China has become an urgent need in the Chinese government, and has been drawing growing public attention. Since 2005, the top leaders of China have called for government departments to be accountable for the results of public expenditure. Government departments are now required to establish a performance evaluation system in order to provide objective assessments of policies, programmes and projects.

China did not have a law or regulation for government performance evaluation prior to 2000. In 2000, the Ministry of Finance (MoF, the leading body of public-sector performance evaluation) released several regulations for performance evaluation that indicated that government's programmes and key projects should be regularly evaluated. The People's Congress of China revised the Law on science and technology advancement, which became effective in 2008. The law stipulates that the state will establish and improve the science and technology evaluation system. This is the first time in China that evaluation became a constitutional requirement in a law.

There were already some performance evaluation pilot activities, which were carried out by line ministries or local governments in China since the 1990s. For example, over the past 10 years, the Ministry of Science and Technology has carried out several national research and development programme evaluations. A few line ministries and local governments have also carried out evaluation activities, primarily at the project level. The evaluation methodology, framework and methods used in evaluations in China are similar to those used in other countries.

In China, the main users of the evaluations are usually commissioners who use the results to improve their job. Evaluations appear to have greater influence on improving the implementation of the projects or programmes, but have a lesser influence on high-level decision-making. The evaluations' influence depends mostly on the top leaders in government departments. Currently, few evaluation reports have been publicly published, though some report summaries have been published. There is no consistent dissemination strategy for evaluation reports. The utilization of evaluation reports lacks an institutional arrangement. A framework for feedback, dissemination and learning loops with policy makers and programme managers has yet to be established.

China has not yet established a national evaluation system. There is weakness in the institutional arrangement for evaluation: no annual work planning or regular budgeting for evaluation activities, and no implementation guidelines for different types of evaluation. At present, evaluations have not been integrated into management and decision-making processes and are not a mandated regular activity. By examining existing and ongoing evaluations, it can be seen that building a national evaluation system should start with pilot work for core national programmes and key projects.

Government officials and experts in China have drawn on lessons from the international experience. However, as evaluation is a tool produced from a 'Western' management tradition, it is a challenge to determine whether these lessons are applicable, or applicable to the same extent to the China context.

## THE NATIONAL NATURAL SCIENCE FOUNDATION OF CHINA CASE: INTERNATIONAL EVALUATION ON NATIONAL NATURAL SCIENCE FOUNDATION OF CHINA FUNDING AND MANAGEMENT PERFORMANCE

### Background

China has been rapidly increasing its public funding for research and development. As it has done so, the need for understanding funding performance has become increasingly necessary and urgent. The National Natural Science Foundation of China (NSFC), as a key player in basic research funding, has undergone remarkable development in the past 25 years. Recognizing the unique and influential role of NSFC, its funding and management performance has attracted substantial interest and attention among high-level decision makers and the broad science community.

Following extensive preparation work, NSFC decided to undertake an evaluation. This initiative was positively appreciated by the MoF, which also provided extensive evaluation support. Jointly commissioned by MoF and NSFC, the evaluation was formally launched at the beginning of 2010; it was completed in September, 2011.

### Dual objectives of the evaluation

The evaluation examined NSFC funding and management performance over the past 25 years and, from an international perspective, assessed its strengths, weaknesses and the challenges facing it.

The NSFC Case serves two primary uses:

- **Accountability:** To independently assess the overall performance of NSFC funding and management during the past 25 years; and
- **Lesson learning:** To improve NSFC funding and management performance; to develop a set of forward-looking guiding ideas based on a global perspective, and to support the redefining of the NSFC strategic role within the National Innovation System of China.

### The modality of the evaluation

As a comprehensive performance evaluation, which covers broad scientific research areas, it assessed NSFC performance from the perspective of funding and management over 25 years, rather than from the agency's internal perspective. Rather than focusing on individual NSFC-supported projects, the evaluation focused on overall NSFC contributions and added value to fostering basic research in China.

The evaluation adopted a modality of 'domestic preparation followed by international evaluation.' 'Domestic preparation' entails that the National Centre for Science and Technology Evaluation (NCSTE), a professional evaluation organization in China (with NSFC support), was responsible for evaluation design and for preparing evidence for the evaluation. 'International evaluation' means that an international evaluation committee (IEC) was responsible for evaluating the overall performance of NSFC funding and management based on NCSTE-prepared evidence, its own investigations and international comparisons.

**TABLE 1: TEN ISSUES UNDER FOUR DIMENSIONS OF THE EVALUATION**

<b>STRATEGIC POSITIONING</b>	Issue 1: NSFC strategic positioning in China's national innovation system Issue 2: Funding strategy
<b>FUNDING PERFORMANCE</b>	Issue 3: Contributions to original innovation Issue 4: Promoting the balanced, coordinated and sustainable development of scientific disciplines Issue 5: Fostering innovative talents Issue 6: Supporting national demands and Challenges
<b>MANAGEMENT PERFORMANCE</b>	Issue 7: Modality of funding management Issue 8: Funding instruments Issue 9: Peer review system
<b>IMPACT</b>	Issue 10: Impact of NSFC funding

### Scope and contents of the evaluation

The scope of the evaluation covered four dimensions: 1) NSFC strategic positioning, 2) funding performance, 3) management performance, and 4) impact on China's science and technology system. The terms of reference for the evaluation defined 10 issues to be explored under these four dimensions (see Table 1).

### Organization of the evaluation

The leading group of the evaluation is composed of leaders of NSFC and MoF; it was responsible for steering the evaluation. An evaluation office, a temporary unit established specifically for the evaluation, was responsible for coordinating and managing the evaluation. The IEC, a mixed Chinese/international panel, conducted the evaluation and provided the final evaluation report. The NCSTE was responsible for designing and implementing the evaluation, collecting information and preparing evidence for the IEC.

### Methodologies and implementation of the evaluation

An evidence-based approach was applied during the evaluation's domestic preparation. Adequate evidence was made available to the IEC for analysis and evaluation. NCSTE established a core team responsible for collecting and cross-checking evidence from various sources and for preparing the 'Synthesis Evidence Report', which was structured in order of the 10 key issues and evaluation questions defined in the terms of reference. The evaluation findings were given as a combination of the evidence prepared by NCSTE and IEC's own observations and international comparisons.

### Use of the evaluation

The primary deliverables of the evaluation consisted of 1) a 'Domestic Preparation Document I: Evidence Synthesis', prepared by NCSTE and a 'Domestic Preparation Document II: Case

**TABLE 2: USER GROUPS AND PRIORITIES IN UTILIZING THE EVALUATION**

USER GROUPS		EVALUATION COMMISSIONER	ACCOUNTABILITY	LEARNING
PRIMARY USERS	MoF	●	●	
	NSFC	●	●	●
SECONDARY USERS	NPC		●	
	Line ministries			●
	Local governments			●
POTENTIAL USERS	Universities, researchers			●

Collection’, prepared by the evaluation office; and 2) a ‘Report on the International Evaluation of NSFC’s Funding and Management Performance’, prepared by the IEC.

The use of the evaluation was considered to be a key issue to be addressed during evaluation design. During implementation, some management policies were changed based on the evaluation’s findings. For example, NSFC decided to prolong the funding term of some programmes from three years to four years and to increase the project funding scales. There will be a series of follow-up activities to ensure that evaluation is used appropriately.

## THE ROLES OF USERS IN ENHANCING UTILITY OF EVALUATION

### Users at different levels

The NSFC Case includes users at different levels: MoF and NSFC are the primary or intended users; line ministries and local governments are secondary or unintended users of the evaluation; beneficiaries of the NSFC (e.g. universities and researchers who get support from the fund), are potential users of the evaluation.

In discussing users’ roles in enhancing the utility of the evaluation, this paper focuses on the MoF and NSFC, which had dual positions in the evaluation—primary users and commissioners of the evaluation. Such instances of dual positions are relatively common in China. In most cases, the evaluation is commissioned by the primary users, or at least primary users are part of the commissioner group. Further, when the roles of the MoF and NSFC are described, this paper focuses on their efforts to enhance the evaluation’s utility, rather than comprehensively examining all activities and roles during the evaluation process.

Table 2 shows that for the evaluation, there were differences in user priorities. For example, the MoF placed accountability at the top of its priorities.

## The roles of primary users in the main stages of the evaluation

As the primary users and commissioners of the evaluation, MoF and NSFC played important roles in the evaluation.

### Planning and commission

Evaluation is not institutionalized in China. Whether an evaluation will be conducted is generally determined on an ad hoc basis. The initiative MoF appreciated the prospect of an evaluation, and provided extensive support. If it had not been for the joint launch and entrustment of this evaluation from MoF and NSFC, it would be almost impossible for the evaluation to have a series of planned and completed follow-up activities (as stated below), and it would be difficult for the evaluation to generate influence on decision-making in line ministries and local governments. If it had not been for the joint launch and entrustment of this evaluation from MoF and NSFC, there would not be such a case.

### Inception and design

Inception and design require strong professional evaluation expertise. However, this evaluation demonstrates the critical roles of users during these stages. It is generally believed that inception and design require strong professional evaluation expertise. This evaluation demonstrates that apart from professional evaluation expertise, the roles of users are also critical during these stages. The roles of MoF and NSFC were reflected in determining which questions the evaluation should answer, ensuring that the evaluation was targeted to the demands of users, and responding to concerns and debates. The institutions discussed various users' perspectives with the NCSTE team regarding the conception framework of the evaluation, and identified the 10 key issues and evaluation questions (see Box 1).

### Implementation

During the implementation stage, NSFC carefully kept the principle of evaluation independence (i.e. assurances that the NCSTE team had the flexibility to conduct their work

#### BOX 1. KEY ISSUES OF THE EVALUATION

In order to ensure that the evaluation was a policy-focused, strategic level work, the 10 key issues were closely linked to user demands and responsive to concerns and debates.

**Issue 1:** The MoF was concerned with "NSFC's strategic positioning in the national innovation system of China." Over the past 25 years, large changes have been taking place in China's science and technology policy, the institutional structure and the research environment. Consequently, key questions include: is NSFC's strategic positioning still adequate? and what adjustments need to take place in the future?

**Issue 8:** it is the common concern of decision makers and researchers as to how to further improve NSFC funding. NSFC uses 22 funding instruments to meet the needs of various specific target groups and immediate and long-term strategic objectives. In the face of the rapid increase in application pressure in NSFC funding activities, there is an urgent need for a systematic analysis and deepened understanding of the underlying driving forces of these developments and their potential impact on the efficiency and the quality of NSFC funding activities. Regarding funding instruments of NSFC, corresponding key questions include: Is the portfolio of funding instruments appropriate and suitable for the NSFC's funding strategies in different period of time? Does it reflect good international practice? How well are the NSFC's funding instruments managed and operated?

without interference, access to all relevant information and freedom to select target groups for interviews or focus group meetings, and the leeway to independently present recommendations, conclusions and findings). These assurances made, NSFC, as a user, did not passively wait for the evaluation report. Instead, it maintained contact with the IEC and NCSTE team, provided coordination and support requested by them, judged the credibility of messages in the evaluation report, and was responsible for providing management response during the report drafting stages. NSFC set up an evaluation office, which acted as the evaluation manager. The office was responsible for liaising between the leading group and the evaluation team. According to the requirements of the terms of reference, NSFC also prepared a volume of case-based evidence for the evaluation.

### Follow-up

The different organizations' roles and responsibilities for follow-up activities were clearly delineated at the start of the evaluation. When MoF and NSFC received the evaluation report, they were aware that IEC and NCSTE had completed a reasonably good job on the supply side, and now it is left for the demand side to ensure that the evaluation influences decision-making and management. The following is a series of planned and completed follow-up activities:

- Report the main results of the evaluation to the State Council;
- Conduct a one-week seminar to discuss the main results of the evaluation, identify possible actions in NSFC strategy and funding management and promote evaluation-based learning in NSFC;
- Distribute the evaluation report to line ministries, the National People's Congress and the Chinese People's Political Consultative Conference;
- Explore opportunities to use the evaluation in budgetary processes;
- Arrange events to disseminate the evaluation experience to line ministries and local governments; and
- Release the report to the public.

### Lesson learned

Though the evaluation has been completed, some follow-up activities will continue. At present, according to the feedback of the evaluation, it is agreed that this evaluation was a good practice in China. It may be too early to summarize the lesson learned from this evaluation. Below are select observations and understandings regarding how evaluation users can enhance its utility:

- Enhancing an evaluation's utility is determined by efforts from both the supply and demand side. Producing professional evaluation products is an important step, but it is not enough to ensure they are influential to the decision makers and management.
- Primary users should understand why they need an evaluation. When the evaluation was launched, the leadership of MoF and NSFC demonstrated a strong will to make the evaluation a policy tool to improve performance and to redefine NSFC's strategic

role within the NIS of China. They conveyed their support to the evaluation through the principle of “full-hearted support, but completely free from intervention,” as said by NSFC staff. This ensured the open access to required information and free choice of targeted groups in the evaluation process.

- According to the case, there is another success factor—the user and commissioner involved MoF, a powerful leading ministry in China.
- Evaluation use should be addressed at the initial stages and built into the evaluation work plan. Follow-up activities, such as publication and dissemination, should also be fully budgeted and planned for at the evaluation planning stage.

## PENDING ISSUES

**Should evaluation be used in a direct way or in a ‘soft’ way?** The use of an evaluation is first reflected in creating a relationship between performance evaluation and budgeting. In international practice, are there good examples of linkages between performance evaluation and changes in budget? If budgets are informed by evaluation—but without a simple relationship between evaluation and budgeting (i.e. evaluation results are used in a ‘soft’ way)—how should the utility of an evaluation be assessed?

**How should the user’s role and evaluation independence be balanced?** Users often face conflicts of interest. In some cases, it may be sensible to ensure that users support, but not disturb the evaluation process. In the NSFC case, a good mechanism can allow the users to play full roles and simultaneously ensure evaluation independence. This evaluation is not necessarily a special case; its model can provide experience and knowledge to be shared with others, though this issue needs further discussion.

**Whether the users should and are likely to further discover the potential value of the evaluation?** The evaluation generated a set of findings and recommendations and a large quantity of evidence and information. In addition to applying the evaluation’s findings and recommendations, will users discern added value from the evaluation by further studying the evidence and information based on their own experiences and observations?

## DOCUMENTS CONSULTED

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