Foreword

In 2012, the second year for the implementation of the 12th Five-Year Plan for the Development of the National Natural Science Fund of China (the 12th Five-Year Plan),the National Natural Science Foundation of China (hereinafter abbreviated as NSFC) fully implemented the National Program for Medium- and Long-Term Scientific and Technological Development (2006-2020) ， the 12th Five-Year Plan, and its strategy of supporting basic research, encouraging free exploration and playing a guiding role, and its working guideline of respecting science, enhancing democracy, expediting competition, encouraging cooperation, nurturing innovation and leading the future, as well as adhered to its evaluation principle of relying on experts, promoting democracy, funding excellent research, and advocating fairness and justness to nurture creative ideas and foster talents, and has made positive contributions to the maturity of the national innovation system and the construction of an innovation-oriented country.

NSFC's funding portfolio is consisted of 3 categories of programs with respective preferential focuses, i.e. Research Program, Talent-Training Program, and Research Environment Program, which constitute an integrated funding system of the National Natural Science Fund. The Research Program is aimed at achieving innovative results in basic research, fostering a balanced and coordinated development of disciplines with special emphasis on certain key areas, facilitating interdisciplinary research, and stimulating original innovation, with a view to improving the level of basic research. Through funding young researchers to conduct independent research and assisting researchers in regions of weak basic research, Talent-Training Program is targeted at nurturing top talents and innovative research teams, fostering a talent pool for basic research and ultimately enhancing China's S & T competitiveness in the future. Research Environment Program is mainly intended to improve research facilities, especially to increase support for the development of indigenous scientific instruments and boost the sharing of resources, to optimize favorable environments for basic research, and to promote the public understanding of basic research.

In 2013, based on the overall layout of the 12th Five-Year Plan, NSFC will adhere to its strategic orientation of "more emphasis on basic research, frontier research and talent training" and make greater efforts to optimize the

funding mechanism and improve the funding structure. Through the implementation of the strategies for original innovation, fostering of innovative talents, openness and cooperation, construction of an environment favorable for innovation, and management excellence, NSFC will strive to develop a more dynamic, more efficient and more open science funding system with Chinese characteristics, thereby facilitating a balanced, coordinated and sustainable development of scientific disciplines bringing China into the world's best in some mainstream scientific disciplines, nurturing high-caliber scientists and innovation teams with international reputation, enhancing excellence of basic research, amplifying the international visibility of basic research, and strengthening the capacity for indigenous innovation in a number of key areas for laying a sound S&T foundation for achieving a sustainable social and economic development and accelerating China into an innovation -oriented country.

In order to give expression to the principle of openness, fairness and justness and help scientists better understand NSFC's funding policies, the *Guide to Programs of the National Natural Science Fund:* 2012 (hereinafter abbreviated as the *Guide to Program*s) is published to all applicants for the selection of the proper categories of programs, research areas and orientations of investigation in applying for the National Natural Science Fund with research topics proposed on their own initiative.

Most of the applications for the National Natural Science Fund are accepted during the batch application period every year. A total of 170,877 research proposals were received during that period in 2012, of which 170,792 research proposals were accepted, which meant a year-on-year increase of 15.63% (23,089 applications) over that in 2011. The 85 proposals declined were due to various reasons such as applications submitted by non-registered institutions, late submission or without electronic form or printed copies of applications. The number of applications for the General Program increased by 13.13% from that in 2011.The number of applications for the Young Scientists Fund increased by 10.53% in comparison with that in 2011.The number of applications for the Fund for Less Developed Regions continued to grow by 32.07% and the number of applications under the Major International (Regional) Joint Research Program increased by 32.87%. The number of applications for Key Programs, Special Funds for Basic Research on Scientific Instruments, and the National Science Fund for Distinguished Young Scholars decreased a bit in 2012. Altogether, 3,587 applications for the newly established Excellent Young Scientists Fund and 314 applications for the National Special Fund for Major S & T Facility

Development, which was set up in 2011 and attracted wide attention, were received in 2012.

After preliminary evaluation, NSFC notified in public that 5,141 applications were declined, accounting for 3.0% of the total applications received. A total of 709 appeals for re-evaluation were received before the deadline for appeal, and 627 of them were accepted and the other 82 appeals were rejected for lack of required documents and other reasons. After serious checking and verification, the previous decisions of rejection, both well-founded and justified in nature, were maintained for 560 appeals, and the other 67 appeals were approved in that the previous decisions of rejection were wrongly made, accounting for 1.3% of all the appeals accepted. Therefore, a total of 165,718 applications for the National Natural Science Fund were accepted during the batch application period in 2012.

By the time this *Guide to Program* is published, after compulsory review procedures, 16,891 projects in General Program (including Young Scientists Fund Program extended for funding under the category of General Program), 538 projects in Key Program, 145 projects in Major Research Plan Program, 106 projects in Major International (Regional) Joint Research Program, 200 projects in National Science Fund for Distinguished Young Scholars, 400 projects in Excellent Young Scientists Fund, 14,022 projects in Young Scientists Fund, 2,472 projects in Fund for Less Developed Regions, 30 projects in Science Fund for Creative Research Groups, 137 projects in Joint Research Fund for Overseas Chinese Scholars and Scholars in Hong Kong and Macao, 91 projects in National Science Fund for Talent Training in Basic Research, 50 projects in Special Fund for Basic Research on Scientific Instruments, 27 projects in National Special Fund for Major S & T Facility Development, 11 pilot research projects in National Special Fund for Major S&T Facility Development, 288 projects for Joint Funds, 21 projects in Fund for Promoting Public Understanding of S & T, 33 projects in Key Academic Journal Program, 40 projects in Research Fund for International Young Scientists, and 25 projects in Special Fund for Teenage Participation in S&T Activities were funded. Besides, there are a number of applications yet to be approved. For more information about the statistics and analysis of the applications and final approvals, please refer to the respective relevant sections of this *Guide to Programs*.

This *Guide to Program*s introduces various types of programs, of which applications will be accepted during the batch application period in 2013. Notes on application and regulations on the limits of the total number of

applications for one applicant are introduced in detail. The overall funding facts and priority areas of the General Program, Key Program, the Young Scientists Fund, and the Fund for Less Developed Regions are introduced in the section of each scientific department. For the General Program, the overall funding principles and specified requirements as well as notes on applications are provided in addition to the introduction of the overall funding statistics of each scientific department. Apart from that, the trend of development, funding scopes and requirements in diverse disciplines are described by respective divisions of the scientific departments. Other types of programs are introduced in general terms. Special requirements for each of them are introduced in the main text of this *Guide to Programs*.

Applications for programs which are not listed in the *Guide to Programs* will not be accepted during the batch application period, and the call for proposal to these programs and related guiding information will be announced at the NSFC's website (http://www.nsfc.gov.cn) . Applicants are advised to pay due attention to the updating of related information.

In the consecutive procedures of application acceptance, evaluation and program management, NSFC will, in light of the Regulations on the National Natural Science Fund and relevant Guidelines for Program Management, strive to standardize management procedures, optimize the peer review mechanism, encourage indigenous innovation, emphasize on research merits, nurture a favorable environment for research, support disciplinary intercrossing and tolerance of different academic ideas, strictly observe pertinent regulations on conflict of interest and confidentiality, and sincerely cherish the supervision from the scientific community and the general public. All scientists are welcome to submit high-quality applications for the National Natural Science Fund.

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