Innovation Policies for Inclusiveness - Policy Cases

National Action Plan for Scientific Literacy

Country: People's Republic of China

1. Short Description

The *National Action Plan for Scientific Literacy* aims to improve national **scientific literacy** by investing in education across China (particularly in basic education in underdeveloped regions) and **popularising knowledge of science and technology**. The growth in overall general scientific literacy is expected to contribute to inclusive innovation. The long-term goal of the plan is to ensure basic scientific literacy among all adult citizens by 2050.

This policy profile is part of a <u>policy toolkit on innovation policies for inclusiveness</u>. It is relevant for social inclusiveness.

2. Policy Characteristics

| Basic Information | |
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| Country and implementing institution(s): | Timeline: |
| China | 2006-2020 |
| Ministry of Education (MOE) Ministry of Science and Technology (MOST) Association of Science and Technology | |
| Target group | Size and budget: |
| General public, with actions targeted at specific groups, such as teenagers, farmers, urban workers, leading officials, civil servants, etc., in order to respond to their specific characteristics and needs. | In 2012, total funding was CNY 12.288 billion (USD 3.5 billion, PPP) of which the government provided CNY 8.504 billion (USD 2.4 billion, PPP). In 2013, total funding was CNY 13.219 billion (USD 3.7 billion, PPP) of which the government provided CNY 9.225 billion (USD 2.6 billion, PPP). |
| Type of policy instrument(s) | Inclusiveness focus |
| Investment in public education infrastructure | Social inclusiveness |





Policy objectives

The National Action Plan for Scientific Literacy aims to improve national scientific literacy by developing education and popularising and spreading knowledge of science and technology. The objective for 2020 is to develop an infrastructure that allows wider dissemination of S&T. The long-term goal is to ensure basic scientific literacy among all Chinese adult citizens by 2050.

The plan underscores the importance of expanding science education and training, developing and sharing popular science resources, strengthening the science communication capabilities of the mass media and building basic popular science education facilities. It also highlights the need to constantly increase the public service capabilities of civil scientific literacy-related work, and to create opportunities and pathways for the general public to enhance its scientific literacy.

Rationale

In order to enhance inclusive innovation capability, it is necessary to improve the scientific literacy of the general public. In recent years, the Chinese government has intensified its efforts to strengthen the popularisation of S&T.

Policy target recipient and selection mechanism

Efforts focus mainly on promoting equitable access to education and promoting scientific knowledge among the public (especially disadvantaged populations from underdeveloped regions). This involves increasing investment in compulsory education and, in particular, developing basic education in underdeveloped regions.

Policy instrument(s)

- Investment in public education infrastructure is a priority, particularly in underdeveloped regions. This includes the construction of science and technology museums.
- Popular science activities are organised every year, including National Science and Technology Week and National Science Popularization Day. They focus on specific themes such as energy and resources, the environment, safety and health, and innovation and creativity.

Policy challenges

- Science popularisation and education mainly rely on government investment, while
 investments from the business sector and social organisations are rather low.
 Higher levels of investment from the private sector are needed to fully achieve the
 plan's targets.
- Large gaps remain in education levels between developed and underdeveloped areas. Attaining the objectives of the plan in lagging areas is particularly challenging.



Actions undertaken to address challenges

- Enterprises and social organisations are encouraged to participate in activities for science popularisation, for example, through government procurement and tax allowances.
- Funding from central government has increased to support underdeveloped areas.

Evaluation and outcomes of the scheme

Scientific literacy has increased significantly over recent years. The rate of public basic scientific literacy in China reached 6.20% in 2015, compared with 3.27% in 2012 and 1.60% in 2005.

Levels of enrolment in higher education have also increased significantly. In 2015, the national higher education gross enrolment rate reached 40%, thereby attaining the national strategic goal. The senior high school education gross enrolment rate was 87%.

According to available statistics, 129 science and technology museums were operational across China by the end of 2014, as well as 134 mobile science and technology museums and a fleet of 865 Science Wagons. They received a combined total of over 75 million visits. The number of popular science education bases at the provincial level or above has reached 3 885 with annual attendance recording approximately 280 million visits.

Sources

Wang, F., R. Wang, F. Sun, Z. Li, D. Liu, Y. Zhao, F. Liu, R. Guo, G. He, J. Hao, Y. Shi, Y. Li, N. Su, J. Fu, Z. Xu, X. Zhu, X. Lin, Y. Gao and Y. Zhu (2016), *Overview of Inclusive Innovation Policies in the People's Republic of China*, Chinese Academy of Science and Technology for Development (CASTED), Beijing, https://innovationpolicyplatform.org/system/files/imce/InclusiveInnovationPoliciesChina FINAL.pdf

Information provided to the OECD by the Chinese Academy of Science and Technology for Development.

Background

This document is part of a repository of examples of innovation policies that have for explicit aim to contribute to territorial, industrial and social inclusiveness. The repository is part of an innovation policy toolkit developed for the Innovation for Inclusive Growth project and gathers national innovation policy programmes that:

- **A.** Explicitly target **lagging and less innovative regions** (outside of regions that are highly innovative) or by design are more likely to support these lagging / less innovative regions.
- **B.** Explicitly aim to include in innovation activities **individuals and groups that are not usually participating** in those activities and in support of broadening the group of innovators.
- C. Explicitly aim to foster innovation activities in non-innovative firms, in particular by targeting non-innovative sectors and non-innovative Small and Medium-sized Enterprises (SMEs).

Policies are searchable by inclusiveness type, objective and implementation challenge on: https://innovationpolicyplatform.org/inclusivetoolkit